



Swedish National Institute  
of **Public Health**

# Health for all?

A critical analysis of public health  
policies in eight European countries

Editors: Christer Hogstedt, Henrik Moberg,  
Bernt Lundgren and Mona Backhans

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## Foreword

In April 2003 the Swedish Parliament adopted a new comprehensive public health policy that covered the most important health determinants ranging from societal conditions to lifestyles. The new policy brought up some questions: how do you implement such a broad policy that covers many policy areas in an effective way? Is the policy part of a wider movement in Europe, and if so, what can we learn from those who already have a similar policy in place?

There had been several comparative documents and reports published on health policies in Europe but none of these had critically reviewed the state of what could be called the public health policies. It would have been a huge task to try to do this for all European countries and it was not obvious what could and should be included in such an in-depth review. Therefore, we chose to ask scientific experts from eight different countries to write about the public health policies in their respective countries with a special emphasis on the equity aspect. The countries chosen represented different parts of Europe: from the northern (Denmark, Finland Norway and Sweden) via the western (England and the Netherlands) to the southern parts (Italy and Spain). A comprehensive template for the country chapters was presented to the authors which not only covered questions concerning whether their countries were taking measures on the classic public health problems – such as smoking, alcohol or physical activity – but also if the policies had considered the wider, social determinants of health and experiences of the potential implementation processes. References to scientific, administrative and statistical reports in the original language were encouraged in order to make such information known for the international audience.

The group of authors met twice, in November 2004 and in November 2005 and discussed drafts for the country chapters. Each chapter has been refereed by two authors of other chapters as well as the editors and thereafter revised. Professor Göran Dahlgren made the draft template and has also participated in parts of the process of production of this book. The text has been proofread and checked for consistency by Gary Watson and John Farrow.

We are very grateful to the authors, who have devoted great energy to writing the chapters and shared the information with us on this important subject. A possibility for one of the editors to work at Villa San Michele through the Axel Munthe Foundation facilitated the compilation of the two final, summarising chapters. Those chapters have been reviewed by the country chapter authors and expert edited by Professor David Wegman, University of Massachusetts at Lowell.

This publication presents the situation 2006 concerning equity-oriented public health policies in eight European countries using a template for comparisons. However, it also demonstrates the considerable lack of relevant data in many countries for such comparisons. We hope the book will stimulate continued efforts to harmonise relevant data col-

lections and improve collaborative analyses aiming at shaping an evidence base for policy decisions about the most effective ways to promote equity in health.

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COMPARATIVE STUDIES  
OF POLICIES ON  
HEALTH INEQUALITIES  
– A LITERATURE REVIEW

CHAPTER 1

# Comparative studies of policies on health inequalities – a literature review

HENRIK MOBERG

## *Introduction*

The fact that societal conditions influence people's health has been recognised for a long time. As has often been stated, the founding fathers of modern public health reflected on the relationship between people's social position and their health as early as the 19<sup>th</sup> century. William Farr used available statistical data to test social hypotheses and used these findings to press for social reforms, e.g. provision of safe water and better housing conditions (1), and his contemporary, the German pathologist Rudolf Virchow, saw a direct connection between social and economic conditions and health and urged for societal action based on this connection (2).

However, looking at modern times, the roots of contemporary efforts to address health inequalities between different social groups reaches back to the Canadian Lalonde Report and the Black Report in the United Kingdom (3). These reports, alongside with WHO's "Health for all" initiative, are often seen as the origins of the increased interest in the social, economic and political causes of poor health and health inequalities that gained ground in the 1980s and the 1990s. This also led to an increased interest in analyzing how different welfare states or political parties, and the policies they implement when in government, determines the level of inequalities in a society. One example of such analysis is Navarro and Shi's examination of 18 OECD countries which shows that countries with predominantly Social Democrat governments have smaller household income inequalities, lower poverty rates for the overall population and lower infant mortality rates than those with Christian Democrat or Conservative governments (4). Another example is Martikainen et al's comparison of socioeconomic differences in physical functioning and perceived health in Britain (representing a liberal welfare regime), Finland (representing a Nordic welfare regime) and Japan (representing a conservative welfare regime) which shows that these different welfare regimes produce broadly similar patterns of socioeconomic differences in health among men but this was not the case among women (5).

Despite this interest, the number of studies that specifically look at policies on health inequalities rather than welfare state arrangements or specific health policies (e.g. housing, healthcare or tobacco) are still few. In a literature search done in December 2005 twelve studies with this focus were identified and these studies will be described in more detail in this chapter.

## *Method*

The literature search was done in different stages. An initial search was done by using Google and other web-based search engines as well as detailed searches of homepages of research institutes, universities and governmental agencies. The reference list of the studies identified on the initial search was checked for other studies with the same approach. In addition, public health experts in the countries that participated in the this study were asked to contribute additional studies.

The following inclusion criteria were used:

- The studies must have a comparative approach and focus, entirely or partly, on equity-oriented national health policies (not regional/local policies or policies in specific areas, e.g. healthcare or tobacco).
- The studies must have been published between 1995 and 2005.

## *Material*

A total number of twelve studies were identified. Eight of them focus explicitly on policies on inequalities in health (6–13) while the remaining four include this perspective as one among others (14–17). As will be seen in the description below, those studies with an explicit focus on health inequalities are more widely cited since they have the most exhaustive information on this subject.

The identified studies include only OECD countries with a focus on Europe with the exception of USA, Canada, Australia and New Zealand.

The main part of the material for all studies comes from different written sources, mostly in the form of governmental policy documents on health inequalities that were collected from websites. Some studies also include documents that were collected via correspondence with ministers of health or experts in the field of public health. Other sources were personal contacts, seminar proceedings and questionnaires.

It is not always clearly specified which methods that were used in the different studies. However, where the procedure is stated it is apparent that the researchers did various forms of content analysis. This was, in some cases, done by extracting data on e.g. format and content of the policies, potential interventions to be implemented and targets used which were classified and grouped. The classification then made it possible for the researchers to identify similarities and differences between the studied countries.

There are some recurring limitations pointed out by the authors in the included studies. One of them is that they focus on policies and they only say something about the ideas and intentions of the politicians but nothing about what is actually done. It is also pointed out by some authors that the way documents are produced varies between countries as does their status and influence. A final limitation that has been brought up is that the examples included are, of necessity, selective. They only reflect what has been documented in

English. In all countries there may be many important efforts that are never recorded in a retrievable format and translated into English.

## *Results*

### **Policy development 1980–2004**

Most of the studies included in this review are cross-national comparisons of specific documents at shorter time periods. There are however some studies that focus on policy development over time (9, 10, 12, 16, 17). The findings from these will be described below. The time period is set to 1980–2004 since the included studies roughly cover these years (see Table 1).

#### RECOGNITION OF THE PROBLEM

In Mackenbach and Bakker's comparative study of policy developments in nine European countries the starting point for a political discussion on the subject is set as the publication of the Black Report in Great Britain in 1980 (10). They conclude that the publication of the report had a slow but steady impact on attitudes in many countries. Paradoxically it was taken seriously in a number of countries other than Great Britain, where it was first published. For example, national governments in the Netherlands (late 1980s) and Italy (early 1990s), became aware of the problem, partly generated by the Black Report, and this led to government-sponsored research programmes in this area. Whitehead also concludes in her study of Great Britain, The Netherlands, and Sweden that social inequalities in health were a non-issue before the publication of the Black Report (12). In other studies the equity target agreed by the member states of the World Health Organization in 1984 ("by the year 2000, the actual differences in health status /.../ should be reduced by at least 25 percent, by improving the level of health of disadvantaged /.../ groups") is also put forward as an important starting point. According to Ritsatakis et al. (17) and Allin et al. (14) this equity target helped to put inequalities on the policy agenda in many European countries, e.g. Finland and Sweden. Another factor cited as important for putting health inequalities on the political agenda in the 1980s were the national research programmes on health inequalities (10). For example, in Lithuania research data on health inequalities accumulated through WHO coordinated projects during the 1980s raised political awareness of the problem and were used extensively in health policy formulation and implementation (18).

Despite the fact that different emphasis is put on different documents in the different studies it seems that chronologically the political interest for health inequalities increased significantly at the beginning of the 1980s.

#### FORMULATION OF POLICY

The question of when the different countries first developed a policy on health inequalities differs among the different studies. For example, Mackenbach and Bakker assert that the first country in Europe where the Government formulated a policy document focusing

on health inequalities reduction was the Netherlands in 1995 (10). In that year the Ministry of Public Health, Welfare and Sport published a policy document where reduction of socioeconomic inequalities in health was mentioned as one of the policy goals. The Netherlands were followed by Italy (1998), England (1999) and Finland (2001). However, in their study of the process followed by WHO's "Health for all" initiative, with its clear focus on equity, Ritsataikis et al. (17) point out that the Swedish government endorsed the targets for health for all in 1984 in the government bill "Guidelines for the development of healthcare, etc." (19), and that Finland published a strategy based on the WHO initiative in 1987 (20). Chronologically, also Vallgård comes to the same conclusion concerning Sweden in her comparative study of Sweden and Denmark (16). Even though some countries were forerunners in this aspect there seems to be a consensus between the different studies that the political activity concerning health inequalities, irrespective of which policy documents referred to, seemed to increase during the end of the 1990s (10, 12, 16). This is shown by the number of government sanctioned advisory commissions on health inequalities that were initiated during this period in e.g. Spain, Sweden and England (21–23). However, as Mackenbach and Bakker point out, there are still some countries where there is no official policy to tackle health inequalities. For example, Greece, France and Spain have all had research programmes on socioeconomic inequalities in health but these have not generated any substantial political interest (9).

### **National frameworks to tackle inequalities in health**

To a certain extent, the included studies focus on different aspects of policies on health inequalities and therefore some studies are cited more frequently than others in the different sections in this chapter. Most of the information for this section comes from Crombie et al.'s study of 13 countries (6) and Judge et al.'s similar review of policies in 22 countries (7) since these have the most exhaustive information on the structure of policies on health inequalities in different countries.

#### **CAUSES OF INEQUALITIES IN HEALTH**

The way health inequalities are explained is closely related to the way they are dealt with, i.e. to what extent governments try to make people behave differently or attempt to change their living conditions. Crombie et al. (6) conclude that there are four groups of factors which the countries refer to in their policies, or background documents, as the main causes of inequalities:

1. general socioeconomic, cultural and environmental conditions (e.g. employment, income and social welfare programmes)
2. living and working conditions (e.g. individual's position in society, occupation, income and education)
3. social and community networks available to the individual (e.g. feelings of insecurity and social exclusion)
4. lifestyle choices (smoking, lack of physical activity and poor diet)

It is pointed out that even though it is possible to classify the perceived causes into different groups, inequalities in health are thought in most policies to result from a complex interaction of all the above mentioned factors (6). Because of this many policies include two or more of the above-mentioned groups. Examples of countries with policies which cover all groups are Sweden with 11 domains of objectives and the Northern Ireland strategy with areas for action which include e.g. tackling poverty and social exclusion, education and making healthier lifestyle choices. However, different countries emphasise different aspects more or less which Vallgård discusses in her study of Denmark and Sweden (16). She demonstrates that Danish politicians have seen different lifestyle factors, e.g. smoking and eating habits, as the main cause of health inequalities while the focus in Sweden has been on structural factors which place the responsibility on the welfare state and not on the individual.

## POLICY APPROACHES

### *Mainstreaming or separate part of policy*

The mainstream approach is adopted by some countries, such as Sweden, Poland and Northern Ireland (7). These countries emphasise their equity commitments in the context of broader public health strategies. Two examples are the Northern Ireland strategy, which is described above, and Sweden's national public health strategy. The Swedish strategy is intended to make improved public health a central goal for all relevant policy areas. It is anticipated that public authorities at different administrative levels will be guided by the objectives, e.g. in the social welfare, labour market, transport and environment sectors. The purpose of the such strategies is to reduce inequalities in health by influencing all areas of policy making and action. However, even though there are obvious positive benefits to a crosscutting approach, Judge et al. point to the fact that the problem of generating and sustaining action to mainstream health inequalities in national public policy is well known but rarely acknowledged (7). Across the European Union it is typically the Department (Ministry) of Health (or umbrella department in which Health is located) that is responsible for action to tackle the issue. In nearly all countries this responsibility is shared with other departments. There is a considerable variation in the extent to which there is a concerted effort to co-ordinate action on health inequalities between government departments and/or successful implementation of such action.

The opposite perspective, where equity is considered in a separate part of policy, is found in countries such as the United States (6). Their "Healthy People 2010" policy includes a section on disparities in health in all 28 of its focus areas (24). These sections give details on where the disparities lie within each topic area. The policy, however, does not provide a strategy on how inequalities in health should be tackled within the focus areas. Other countries such as Denmark, Ireland, and Norway also have sections on inequalities in health within their overall healthcare or public health policies. Some policy documents in these countries address inequalities in health for specific topics such as smoking and diet or for specific groups within society. Other documents review particular factors that contribute to inequalities in health such as e.g. unemployment.

### *Goals or targets for reduced inequalities in health*

The way the inequality perspective is addressed within the health policy varies as has been shown above. The same goes for whether or not quantified goals or targets are articulated in national policy documents. Both Judge et al. (7) and Crombie et al. (6) point out in their studies that tackling inequalities in health is usually the second of two main goals, the first being to increase health in the whole population, measured typically by life expectancy or health expectancy. For example, countries such as Finland and the Netherlands both have a health inequality goal specified in quantitative terms. In Finland the aim is to reduce mortality differences between the sexes, groups with different educational backgrounds, and different vocational groups by 20% by 2015 (25). In Ireland, and the four constituent countries of the UK, there are instead a number of more detailed quantitative targets. Ireland's two key targets are to reduce the gap in premature mortality between the lowest and highest socioeconomic groups by at least 10% for circulatory diseases, cancers and injuries and poisoning by 2007 and to reduce the gap in low birth weight rates between children from the lowest and highest socioeconomic groups by 10% from the 2001 level, by 2007 (26). England is noteworthy here since it is the only country with a comprehensive stand-alone policy on reducing inequalities in health. The strategy has been under development since 1997 when the Labour Government came into power. Work began with the commissioning of the *Acheson Report* in 1997 (23).

### *Topic-specific policies on health inequalities*

Crombie et al. point out that some countries such as New Zealand, Scotland and Wales address inequalities both in their overall policy and within topic-specific policies. Examples include Scotland's sexual health strategy and physical activity strategy, Ireland's children's strategy and New Zealand's smoking policy. These strategies highlight where the inequalities in health lie and identify areas for action. Another example is the 2004 nutrition strategy from Wales, *Food and Well Being* (27), which has the subtitle *Reducing inequalities through a nutrition strategy for Wales*. Although this strategy aims at improving nutrition throughout Wales, it is also intended to reduce inequalities in health by improving nutrition in the most vulnerable groups. Two levels of priority have therefore been set for the strategy. Level-one priority groups include those on low income; other vulnerable people such as ethnic minority groups, older people and children and young people. Level-two priority groups include women of childbearing age, particularly pregnant women, and middle-aged men.

### *Emphasising the poor or health gradients*

Judge et al. conclude that most countries with quantitative targets have set them in terms of reducing gaps between the poorest and the more affluent as seen above (7). Scotland and Wales appear to be unique in terms of emphasising the importance of improving the position of the poorest groups per se. It is also noted that none of the countries considered in their study have explicit goals or targets related to the gradient between socioeconomic position and health status across the whole population.

## IMPLEMENTATION

Concerning the implementation of policies on health inequalities Judge et al. divide the different countries in their study into three different groups (7).

### 1. *General commitment to cross government co-ordination*

In this group of countries (e.g. Estonia, Italy, the Netherlands and the Slovak Republic) there is a general commitment across government to equality issues but no formal mechanism for co-ordinating implementation of policy on health inequalities across government departments. However, it is pointed out that even where it is not obvious that co-ordinating mechanisms exist at the national level, it is possible to identify many examples of multisectoral action at the local level or regional level.

### 2. *Coordinated evident but not comprehensive*

In this group of countries co-ordinated national action on health inequalities, while evident, is less extensive or formalised than that found in other countries. For example, in Hungary there is an inter-Ministerial committee for the Roma population, in Spain the Ministry of Employment and Social Affairs is responsible for the national plan for social inclusion (where health inequalities policy is 'located'), in Poland there is collaboration between the ministries responsible for action on health inequalities (health policy directions are set in the Prime Minister's Economic Council) and in Germany occasional collaboration is reported between the units of various federal departments and there are Cabinet plans to enhance co-operation, leading to a more integrated prevention strategy.

### 3. *Advanced coordination mechanisms*

In this group of countries co-ordinated national action on health inequalities is clearly evident. For example, in Scotland the Directorate of Health Improvement within the Scottish Executive Health Department facilitates cross-cutting work in all departments. The Directorate is charged with establishing a crosscutting approach to health improvement, resulting in work across boundaries, linking the different agendas that impact on health. Another example is England where the group responsible for influencing and co-ordinating action on health inequalities is the Health Inequalities Unit (HIU) in the Department of Health. The HIU is a small team with a cross-government focus. Rather than taking the policy lead on all health inequalities issues, the HIU makes links and connections between a wide range of bodies and initiatives to ensure that a health inequalities perspective is incorporated into their work.

## FOLLOW-UP AND EVALUATION

Judge et al. note that while most governments might subscribe to the principles of pre-implementation appraisal, implementation, evaluation and post-implementation review, there is little evidence to suggest the widespread adoption of systematic evidence-based approaches to policy making across all areas of government (7). Even in a specific area, such as health improvement or the reduction of health inequalities, there are only a few relevant frameworks. Nevertheless, several European countries appear to have developed

some type of system or tool in order to measure progress towards achieving health inequalities targets (7). In one group of countries monitoring is limited or not fully comprehensive. One example of such a country is Finland where monitoring of the implementation of the Finnish public health programme and the attainment of targets, including that relating to health inequalities, is promised in a government resolution. A separate budget is earmarked for implementation of the public health programme, including monitoring and assessment. In another group of countries there are systematic frameworks for monitoring and evaluation. One example of such a country is Scotland where the NHS Performance Assessment Framework includes indicators for health improvement and health inequalities, based on existing targets, against which progress is measured each year. A self assessment instrument which helps Health Boards assess their development as public health organisations has been developed with partners.

## *Comments and conclusions*

The results compiled in this review of previously published comparative studies of policies on health inequalities point to two recurring, but not so surprising conclusions. The first is that inequalities in health are recognised to be a major problem in most countries and tackling them is an overarching aim of most public health policies. There are only a few exceptions to this, e.g. Spain, France and Greece where there has been some research on the subject but no official policy to tackle health inequalities. The second is that policies on inequalities in health are organised in many different ways. Several countries seek to improve the health of the most socioeconomically disadvantaged groups in society, most commonly through a social inclusion focus. Others are attempting to narrow the health gap between the most and least socioeconomically advantaged. However, as Judge et al. point out (7), no country has yet made a concerted effort to implement a policy which focuses on the reduction of the health gradient, whereby health is related to the position of social groups (and individuals within these groups) at every level within society. There are also differences concerning where the responsibility for action is placed within governments and how policies to reduce inequalities in health are supposed to be implemented.

There are some methodological concerns which must be addressed when comparing the results from the different studies. Firstly, there are almost no discussions of what is meant by policy, which is the main object of study in most of the included studies. The only study which includes a clear and coherent definition is Ritsatakis et al. (17). Because of this, different authors seem to put more emphasis than others on different documents. One example of such a situation has been described above concerning the question of when different countries first developed a policy on health inequalities. However, as pointed out by some authors it is difficult to make exact comparisons between different countries since the policy making process and the way documents are produced vary. Despite this, it would aid clarity to have a definition of what is meant by policy so the reader can evaluate the status of the documents included in the studies. Secondly, even though

the aims of the studies are similar (see Table 1) the material included varies significantly between the studies. Some authors have focused almost solely on governmental policy documents while others have chosen to include a wide range of documents where only some are formal policy documents. The reason for the latter approach, which is discussed by some authors, is that taken together all the different documents will provide a much fuller picture of the nature of inequalities in health and the strategies available to tackle them than would be obtained from policy documents alone. However, the problem is that this makes it difficult to compare the different studies since they are based on different material. For example, Vallgårdas's two studies (15, 16) include not only reports from commissions of inquires – which are not sanctioned by the government – but also governmental bills and Crombie et al's study includes both these sorts of documents along with public health reports, reports from governmental agencies and reports from expert groups (6). This makes it, in some cases, difficult to assess whether, for example.. a description of inequalities or a statement on what needs to be done comes from a commission of inquiry, an expert group or a governmental bill. In some cases this leads to a situation where the description of a situation in a country will be different in different studies.

There are also some aspects which are only touched upon briefly in the included studies which are of interest for further analysis. One of them concerns the impact that equity oriented health policies have on health inequalities. Is there any one policy which seems to be more effective than others? As pointed out in many studies, there have not yet been any evaluations on what really works policy-wise and the knowledge base needs to be broadened. Another aspect concerns whether a health equity perspective has permeated different policy areas. The studies included focus almost solely on public health policies. It would be of interest to know whether policies outside the public health field, concerning e.g. social security systems, working conditions or unemployment, have been developed with the aim of decreasing social inequalities in health.

Table 1. Overview of included studies (in chronological order)

Author(s)	Countries	Aim	Method, material and time period	Results
1. Crombie et al. 2005 (6)	Australia, Canada, Denmark, England, Finland, Ireland, New Zealand, Northern Ireland, Norway, Scotland, Sweden, the United States, Wales	To obtain policy documents with relevance to inequalities in health, identify perspectives on the nature and causes of the problem, describe ways in which inequalities in health are defined, outline strategic approaches which have been developed, describe goals, targets and indicators used to monitor progress and describe proposals for evaluation.	<p><i>Method:</i> Most documents were collected from government web sites. Some documents were also obtained after communication with officials at health departments.</p> <p><i>Material:</i> Government policy documents and other background documents that aim to tackle inequalities in health.</p> <p><i>Time period:</i> 1990–2004</p>	<ul style="list-style-type: none"> <li>• Countries differ in their definitions of inequalities in health and their assessment of the scale of the problem.</li> <li>• Inequalities in health are most commonly presented as the difference in health status between socioeconomic groups.</li> <li>• Some inequalities in health are also described by geographic location, employment status, gender and ethnic group.</li> </ul>
2. Judge et al. 2005 (7)	Czech Republic, Denmark, England, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, the Netherlands, Norway, Poland, Portugal, Scotland, Slovakia, Spain, Sweden, Switzerland, Wales	To review national-level policies and strategies that either have been or are in the process of being developed to tackle health inequalities (primarily focuses on socioeconomic inequalities)	<p><i>Method and material:</i> Information was obtained from a questionnaire to the participants in the project "Closing the Health Gap: Strategies for Action to tackle health inequalities in Europe".</p> <p><i>Time period:</i> Not clearly specified. Included policy documents in the reference list covers the period 1995–2004.</p>	<ul style="list-style-type: none"> <li>• Considerable variations concerning the goals and targets being set in different countries to reduce inequalities in health.</li> <li>• Also a considerable variation in the extent to which there is a concerted effort to coordinate action on health inequalities between government departments and/or successful implementation of such action.</li> </ul>

Author(s)	Countries	Aim	Method, material and time period	Results
3. Allin et al. 2004 (14)	Denmark, Finland, France, Germany, the Netherlands, Sweden, Australia, Canada	To identify the main entities contributing to public health policy; describe how decisions currently are made; identify national priority areas for public health; and examine goals and strategies to achieve them.	<p><i>Method:</i> Documents were collected from government web sites. In addition, public health experts were asked to contribute case studies describing relevant public health interventions and, where possible, evaluations of the interventions.</p> <p><i>Material:</i> Official reports, information on government web sites and literature on public health issues from the studied countries.</p> <p><i>Time period:</i> Not clearly specified. Included policy documents in the reference list cover the period 1991–2003.</p>	<ul style="list-style-type: none"> <li>• The political values that guide the choice of priorities and the strategies used, and the organisational structures within which decisions are made, vary greatly.</li> <li>• Countries differ in the relative emphasis they place on e.g. individual or collective actions.</li> </ul>
4. Palosu et al. 2004 (8)	England, Holland, Sweden	To gather experiences from the different countries and to assess whether lessons could be learnt from these experiences.	<p><i>Method and material:</i> A review of health policy documents, projects and studies on reducing inequalities in health. Key experts in the countries included were also interviewed.</p> <p><i>Time period:</i> Not clearly specified. Included policy documents in the study cover the period 1986–2004.</p>	<ul style="list-style-type: none"> <li>• The health policy documents in all three countries emphasise the need to tackle both general structural determinants that maintain inequity and specific determinants that cause socioeconomic differences in health (such as smoking).</li> <li>• Responsible actors have only been appointed in Sweden and England</li> </ul>

Author(s)	Countries	Aim	Method, material and time period	Results
5. Mackenbach & Bakker 2002 (10)	England, France, Greece, Italy, Lithuania, Netherlands, Spain, Sweden	To describe available evidence of interventions and policies which have been successful in the reduction of socioeconomic inequalities in health.	<p><i>Method:</i> A comparative country study. Experts from each country were asked to write a chapter with already decided outlines to make the chapters comparable.</p> <p><i>Material:</i> Not specified</p> <p><i>Time period:</i> 1990–2001.</p>	<ul style="list-style-type: none"> <li>• During the 1990s, a great amount of progress was made in development of policies and interventions.</li> <li>• For several innovative approaches there is at least some evidence of effectiveness.</li> <li>• Available evidence might not fulfil the highest scientific standards; better evidence is unlikely to become available unless these approaches are introduced on a wider scale, accompanied by continued evaluation efforts.</li> </ul>
6. Vallgård 2003 (16)	Denmark, Sweden	To describe which health issues that are defined as problems; to describe which governing techniques that are suggested to solve the problems; and to describe how the governing activities aimed at improving the health of the population are justified.	<p><i>Method:</i> A systematic search of Swedish and Danish journal indexes and book databases.</p> <p><i>Material:</i> Texts from governmental bodies and agencies, political programmes or commissions of inquiry</p> <p><i>Time period:</i> 1930–2003.</p>	<ul style="list-style-type: none"> <li>• The political discussion on health inequalities started earlier in Sweden (1980s) than in Denmark (1990s).</li> <li>• There were different perceptions of the problem. In Denmark the focus was on lifestyle while Sweden focused on living conditions.</li> </ul>
7. Mackenbach & Bakker 2002 (9)	England, France, Greece, Italy, Lithuania, Netherlands, Spain, Sweden	To describe available evidence of interventions and policies which have been successful in the reduction of socioeconomic inequalities in health.	<p><i>Method:</i> A comparative country study. Experts from each country were asked to write a chapter with already decided outlines to make the chapters comparable.</p> <p><i>Material:</i> Not specified</p> <p><i>Time period:</i> Not clearly specified. Included policy documents in the references lists in the country chapters cover the period 1980–2001.</p>	<ul style="list-style-type: none"> <li>• Different countries are in different phases of awareness of, and willingness to take action on socioeconomic inequalities in health.</li> <li>• This may be due to the fact that some countries have seen a strong degree of party-politicisation of the subject.</li> </ul>

Author(s)	Countries	Aim	Method, material and time period	Results
8. Vallgård 2001 (15)	England, Denmark, Norway, Sweden	Four specific aims are stated: how are the governing activities aimed at improving the health of the population justified; which issues are defined as problems; which causes of the problems are identified; and which governing techniques are suggested to solve the problems.	<i>Method:</i> A content analysis of selected public health strategies. <i>Material:</i> Eight public health strategies. <i>Time period:</i> 1998–2000.	<ul style="list-style-type: none"> <li>• The countries differ both in which health problems they define and in the emphasis given to social inequality.</li> <li>• The Swedish strategy focus more on the structural causes than other countries strategies.</li> </ul>
9. European Network of Health Promotion Agencies, 2001 (11)	Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxemburg, Netherlands, Norway, Portugal, Spain, Sweden, United Kingdom	To identify policies and health promotion interventions across Europe aimed at tackling health inequalities, and to identify monitoring systems that can support these policies and interventions.	<i>Method and material:</i> The information for the report came from experts in each country. These experts collected data and supplied information in the form of e.g. national reports or public health policies or strategies with an equity focus. <i>Time period:</i> Not clearly specified. Included policy documents in the references lists in the country chapters cover the period from the mid-eighties till the start of 2001.	<ul style="list-style-type: none"> <li>• A great number of conclusions are given in the report, e.g.:</li> <li>• National health inequality targets are considered as an effective way for governments to send out a clear signal about their commitment to tackling health inequalities</li> <li>• Inequality targets are seen as a useful starting point for integrating policy across different sectors</li> </ul>

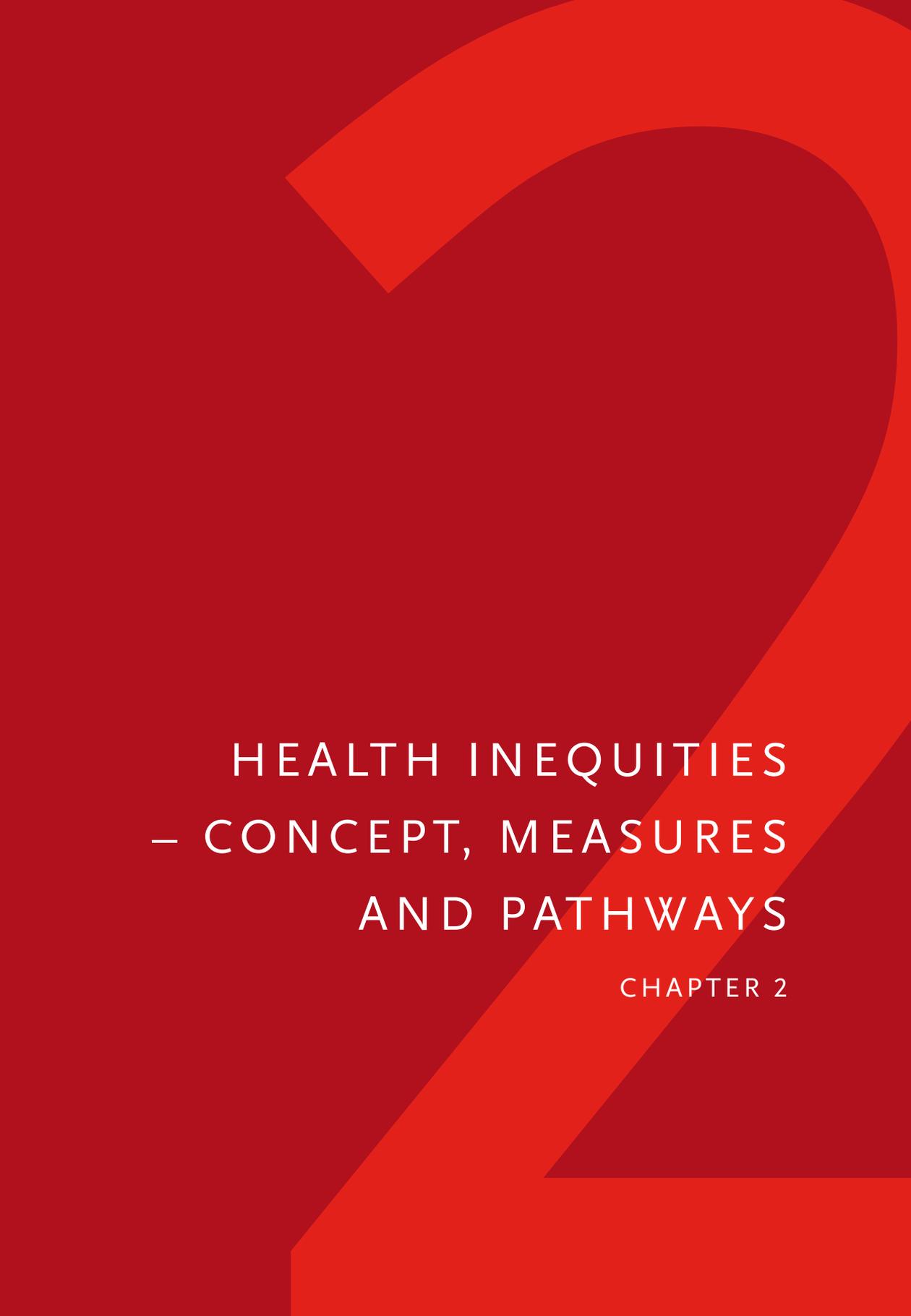
Author(s)	Countries	Aim	Method, material and time period	Results
10. Ritsa-takis et al. 2000 (17)	The WHO Euro-pean Regions 51 member states.	To contribute to the ongoing elaboration of the health for all approach to develop-ing health policy; to systematise the infor-mation available on the processes of health policy development; and to identify nation-ally specific features as well as common features between countries and possibly patterns or trends.	<p><i>Method and material:</i> A questionnaire was sent out to all Euro-pean WHO Member States requesting infor-mation on general and issue-specific health policy documents. Information was also gathered from other sources such as written documents and statisti-cal reports.</p> <p><i>Time period:</i> Not clearly specified. Included policy document in the references lists in the country chapters covers roughly the period 1980–2000.</p>	<ul style="list-style-type: none"> <li>• A great number of conclusions are given in the report, e.g.:</li> <li>• Equity in health is a highly political issue; sound research and reliable informa-tion are not seen as sufficient to ensure action.</li> <li>• Political support is a prerequisite for initiating the type of policies and pro-grammes necessary to promote equity in health.</li> </ul>
11. Macken-bach & Droomers 1998 (13)	Finland, Neth-erlands, New Zealand, Spain, Sweden, United Kingdom	To review nation-wide interventions and policies which aim at reducing, or may be expected to have an impact on, socioeco-nomic inequalities in health.	<p><i>Method:</i> The report is a proceeding from a workshop. Before the workshop, the participants were asked to review the situation in their countries con-cerning policies aimed at reducing socioeco-nomic inequalities in health.</p> <p><i>Material:</i> Country specific chapters.</p> <p><i>Time period:</i> Not clearly specified. Included policy documents in the references lists in the country chapters covers roughly the period 1980–1998.</p>	<ul style="list-style-type: none"> <li>• Most countries have an increasing interest in questions relating to the effectiveness of interventions and policies to reduce socioeconomic in-equalities in health.</li> <li>• Several countries have on-going national research programmes on the issue and some of these even include studies evaluating specific policies and interventions.</li> </ul>

Author(s)	Countries	Aim	Method, material and time period	Results
12. Whitehead 1998 (12)	Great Britain, The Netherlands, Sweden	To discuss how research evidence and ideas concerning social inequalities in health have diffused into national policy arenas leading to action or willingness to take action	<p><i>Method and material:</i> In the article it is stated that the evaluation of the evidence that diffusion has taken place will be based on indicators that reflect official commitment to action by national or international bodies, e.g. establishment of national research programmes or commissions of inquiry; parliamentary statements or bills etc.</p> <p><i>Time period:</i> Not clearly specified. Included policy documents in the references lists in the country chapters covers roughly the period 1980–1997.</p>	<ul style="list-style-type: none"> <li>• Individual countries have raised awareness on the issue through very different methods according to the dictates or prevailing circumstances and political climate.</li> <li>• In this process certain key reports and active public health lobbying campaigns have had a slow but steady impact on attitudes across Europe.</li> </ul>

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HEALTH INEQUITIES  
– CONCEPT, MEASURES  
AND PATHWAYS

CHAPTER 2

# Health inequities

## – concepts, measures and pathways

SVEN BREMBERG

### *Background and objective*

The World Health Organization (WHO) has stated as a target that health inequities between different socioeconomic groups within each respective member country shall decrease (1). Sweden, like other countries, has adopted a national aim for public health, which state that societal conditions shall be created for good health on equal terms for the entire population (2). Follow-up on targets of this kind requires methods for monitoring differences in health. The aim of this chapter is to present some concepts, measures and pathways that are used in this field.

### *Some concepts*

The methodology must be based on a definition of the phenomena to be measured. The following is the definition of equity in health used by the International Society for Equity in Health: The absence of systematic and potentially remediable differences in one or more aspects of health across populations or population groups defined socially, economically, demographically, or geographically (3).

This definition of equity requires that the absence of differences is systematic. This means that the differences have been established in repeated investigations carried out in various comparable groups of people. Equity in health can apply to different aspects of health: mortality rate, disease, self-reported health, injuries, determinants of health and the consequences of disease (e.g. disability and disability retirement).

The definition is based on the concept of “equity”. This concept has a clear moral meaning. If a relationship is “unfair” there is a call to action. In the literature in this field, morally more neutral concepts such as “inequality”, “difference” and “variation” are used. In this document these concepts are used interchangeably.

The definition uses the two positively valued concepts of “equity” and “health”. These positive concepts are however often difficult to measure. Measurements therefore are usually based on negations of these two concepts, i.e. on “inequity” and on “ill health”. In the text the positive concepts and their negations are used interchangeably. There are some other reasons for focusing the text on avoiding ill-health, instead of emphasising the promotion of health. One reason is that the scientific literature in the field is completely dominated by analyses of diseases and injuries. Another reason is based on perceptions of what roles the state and mu-

nicipality shall play in a modern welfare society. A common perception is that it is legitimate for the state and municipality to give the individual the *prerequisites* to carry out the choices the individual makes him or herself (4). Most individuals share the perception that disease and injury are things that are preferable to avoid, because they diminish the individual's possibilities of achieving personal goals. Perceptions of what "health" is vary, however. This contributes to the difficulties of allowing the analysis to be based on "health".

This text is primarily based on epidemiological methods for describing connections. The basic model is simple: an exposure influences the presence of an outcome. The underlying notion is that diseases appear as a result of different causal chains (5).

There is comprehensive literature in the field of economics on methods used to describe inequality in the distribution of income. These methods can also be used to describe inequality in health. The economic methods differ from the epidemiological. Epidemiological methods are based on division into a few groups, often only "exposed" and "not exposed" and "healthy" and "ill". They can also handle phenomena that are continuously distributed, e.g. blood pressure. However, the analyses usually presuppose a grouping into categories. Economic methods, on the other hand, are based on continuous distributions, both of exposures and of outcomes (morbidity). In a continuous distribution no special groups are discerned. This increases the precision of the estimates. Descriptions of these methods are found primarily in the scientific literature (6–8).

A strength of the economic methods is that they make collected and more precise mathematical descriptions of inequality possible. A disadvantage is that the meaning of the mathematical expressions often requires more explanation than those required to understand the epidemiological estimates. Additionally, comparisons between socioeconomic groups are made more difficult.

The same phenomena are described with different words in epidemiological and economic literature. This can sometimes cause confusion. In this text the terms used are primarily those used in epidemiology.

## *Measuring inequality in health*

There are various reasons for measuring inequality in health. One reason is to describe the distribution of ill-health as a phenomenon, without any connection to measures. A second reason can be to describe the distribution with the intent of understanding its causes. A third reason can be to measure the development of inequality in health over time to clarify if equity in health, seen as a political target, is on the way to being achieved or not. This description is based on the latter aim.

Inequality in health can be directly estimated. An alternative is to describe inequality in the distribution of determinants of health. From an action perspective, such a description is of great interest because remedies for inequality in health in practice mean measures for determinants (9). However, in this chapter only methods of describing inequality in health outcomes are described. The methods can also be applied to the analysis of determinants. An analysis of determinants of inequality must however also contain information on what

the important determinants are and the causal chains that lead to inequality in health. Such an account falls outside the scope of this report.

Measuring inequality in health requires several choices (10, 11), 1) choosing the approach to characterise different segments of the population, 2) choosing the health conditions to be described and 3) choosing the methods for the analysis.

## *Manner of approaches to characterise different segments of the population*

In descriptions of health differences, the population is usually divided into groups according to social status, gender, age, ethnicity or geographic area of residence. Such groupings are not independent of each other. Furthermore, the health effects of belonging to one type of category are affected by belonging to another type of category. For example, the health effect of low social status, in combination with residing in a socially disadvantaged area, can be larger than the effect of these aspects treated separately. The grouping into categories described in the following does not take these combinatory effects into consideration. The reason is that this text only aims to clarify how inequality in health can be followed over time. In studies of causal relationships, where these categories are used, it is however necessary to consider that the categories can overlap and that belonging to different categories can affect each other.

### *Socioeconomic status*

Modern societies are socially stratified where people are distributed in different social positions (12). There are five common methods to describe an individual's social status. 1) Profession may indicate social status. 2) The time an individual has participated in education is used. 3) The grouping is done according to income. 4) A method that is used particularly in the United Kingdom is to do the grouping according to access to material resources, e.g. home of a certain size and standard, car, holiday home etc. 5) Grouping is based on the social character of the area in which an individual resides. The residential area can be socially described by any of methods 1–4, e.g. as a share of the population in blue-collar professions.

There are different ideas on how social groups relate to each other. One idea is that there is a dominant social hierarchy that clearly describes people's living conditions and that the different measurements reflect this hierarchy (10). Thus one conceives that the position in different spheres of life are linked to each other; an individual that is in good financial standing also has considerable education and a good professional standing. There are a number of investigations that show this to be the case. The link between different spheres is, however, incomplete. This means that one gets different distributions if one tries to rank individuals by profession compared to using education or income as a basis for a planned ranking.

There are several ways of handling this. One way is to view different social groups as qualitatively distinct from each other, where it is not possible to place them in a single

hierarchical scheme and where every dimension, profession, education and income, is viewed independently of the others. The advantage of this approach is that one does not simplify a complex situation. Nor does this perspective preclude the comparison of different groups in pairs, for example unskilled labourers with upper-level salaried employees. The disadvantage of this perspective is however that it does not allow an integrated presentation of inequality in health according to socioeconomic status.

Another way is to describe the distribution of health by each of the most important social dimensions, profession, education, income, etc. with the dimensions understood as hierarchical. This description is simpler than if the first qualitative perspective were used. However, it is still relatively complex.

A third way is to describe the distribution of individuals in groups according to one single dominant hierarchy, despite the simplification that it involves. The choice of grouping can either be dictated by theoretical considerations or can be based in practical considerations. In the latter, the grouping that shows the greatest variations in health between different groups is used. In many contexts it is the level of education that provides the greatest variations. A theoretical grouping primarily refers to societal theories, which assume that there is no essential contrast between different groups in the society, theories that are espoused by Weber for example.

### *Grouping by professional categories*

The most common grouping after social status is to distinguish five different professional categories: unskilled labourers, skilled labourers, and low, mid and upper-level salaried employees (13). The category of upper-level salaried employees also includes self-employed individuals with a university education such as lawyers and dentists for example. Other self-employed individuals, students and farmers are treated as separate groups, outside the primary classification. Erikson and Goldthorpe, who developed this grouping, do not feel that the grouping shall be perceived as a hierarchy (13). However, the five groups' status on the labour market (14) as well as the occurrence of ill-health in the groups (15) appear gradually from the least favoured group (unskilled labourers) to the most favoured (upper-level salaried employees). This indicates that the perception of a hierarchy cannot entirely be disregarded.

The description of outcomes according to the grouping into professional categories is often used, but has several disadvantages. An initial problem is that over time new professional groups arise and others disappear. Coding of the professions must be adjusted to these changes within the labour market. This adjustment can however be problematic. Therefore there is a risk that estimates based on professional categories would report changes in social differences, solely because the categories are formed in different ways.

Another problem with this method is that the grouping presupposes a direct connection to the labour market. Classification of the groups that are not professionally active is therefore not self-evident. Such groups are students, pensioners and the unemployed. One can agree on how these groups shall be treated, but the grouping is not obvious. Also, after every classification groups that cannot be classified will remain, due, among other things,

to missing information. It is often these groups that have the highest sickliness. Another group, whose classification is problematic, is women working part-time in households with children. In such households it is common that the man has a profession higher up in the social hierarchy. The woman's living conditions are most likely partly characterised by these circumstances. The professional classification thereby underestimates the woman's actual living conditions.

Certain professional categories are markedly socially heterogeneous. This applies to self-employed individuals including farmers, for instance. There is a large difference between owning a company with a few employees and owning a company with thousands of employees. Certain groupings take this into account by subdividing the self-employed according to the size of the company. Problems arise where comparisons are to be made to the employee categories. If a business operator only has one employee, shall he or she be compared to an unskilled labourer, a professionally trained labourer or to one of the categories of salaried employees? The answer is not obvious.

Despite these problems, grouping by profession has been the most common method in Sweden and several other countries for describing the distribution of ill-health across different social groups. The method has meant a great deal to indicate inequality in health. It has however primarily been used to describe the distribution at a single point in time. The intent of this text is to provide suggestions of methods for regular measurements over a longer period of time.

## *Education*

The most common method is to classify people according to the time they took part in formal education, e.g. 9 years or less (only compulsory school or less), 11–12 years (+ upper-secondary school), 13–14 years (+ short university education), 14–15 years (+ medium length university education) and more than 15 years (+ long university education). One advantage of this measure of social status is that it often captures a significant portion of the variation between different groups (16). Another advantage is that the categories can be described and ranked in a more unambiguous manner than by profession. There are however problems here as well. Different forms of post-upper secondary education probably have varying significance to the individual's living conditions. For example, it is likely that one year's adult training after upper-secondary studies can have a different significance than one year at university in a programme with high entrance requirements. Furthermore, the average level of education has increased over the last 50 years and the age in at which an individual acquires education is shifting constantly upwards. This means that comparisons between different age groups can be misleading.

## *Income*

An advantage of this measure is that it is continuous, which means that analysis methods can be used that presuppose a continuous distribution while categories of income can also be created, e.g. in the form of deciles.

However, even this measure has limitations. One is that the measure captures socially related variation in ill-health to a lesser extent than e.g. education. This can be related to the financial transfer systems that exist in many countries, which seek to even out social differences in income. Another problem is that links between income and ill-health can have different meanings. It is possible that a high income, or circumstances that are tied to high incomes, lead to good health. However, the opposite is also possible, in other words good health makes it possible for an individual to acquire a good income. Therefore the interpretation of a connection becomes uncertain. This also applies to some extent to profession and education as measures of socioeconomic status, but the problem is less prominent for these measures.

A third problem with income as a measure is that the definitions can vary. It is common that estimates build on disposable income in relation to the burden of dependents. The estimates of the burden of dependents is however not unambiguous. A fourth problem is that all incomes are not reported to the tax authorities, which is usually the source used in estimates of disposable income.

### *Material assets*

In the United Kingdom, social living conditions have for a long time been described by access to material assets such as a car, home of a certain standard etc. An advantage of this measure is that it better reflects the individual's access to resources than measures like income and access to capital since one can have access to resources without owning them. A person can for example have access to their parents' car and holiday home without owning these resources.

The limitation of this measure is that it only captures a part of people's collective living conditions. The selection of resources included in the assessment can always be brought into question. Furthermore, the significance of individual assets changes over time. For example, owning a mobile phone at the end of the 1980s had a different significance than the same ownership had in 2008. Material conditions can also have different significance depending on context. For example, owning a home of 150 sq.m. in Stockholm's inner city has a different significance than an equally large home in the north of Sweden.

### *Classification of individuals by the social character of the residential area*

A person can socially be categorised by the character of the area in which he or she lives. The area can be socially described with the help of information on the inhabitants. The description is usually done according to the inhabitants' profession, education, income or material assets. For example, the area's social character is described according to the share of the professionally active population comprised of unskilled labourers, or the share with no more than nine years' formal education. A measure used particularly in the United Kingdom is Townsend's index, which includes the occurrence of overcrowded living conditions, car ownership, home ownership and unemployment (17).

An advantage of measures of this kind is that they are continuous, which allows several possibilities for making comparisons. As usual there are limitations however. The problems with creating categories according to profession, education etc., also apply to this method. The problems are however less than when the attributes apply to distinct individuals. The reason is that information from many individuals is included in the assessment. The random variation then becomes less.

One particular problem lies in the risk that the information shall be wrongly interpreted. This is a consequence of the measure of social conditions applying to *geographic areas* while health outcome applies to *distinct individuals*. For example, one would be able to show that mortality is higher in areas where many residents only have primary education. This would then be able to be perceived as such that one has shown a connection between *distinct individuals*' level of education and their mortality. However, this is not the case. What has been shown is the connection between different *areas*' character and the mortality in these areas. The *distinct individuals* that die prematurely can very well have extensive education.

## Gender

A large amount of information on health is available for men and women separately. There are no significant problems with making this classification.

## Age

A large amount of information on health is available for different age groups. Several measures of ill-health reach their minimum around 10 years of age to then increase. There is clearly a significant non-controllable biological component in the classification of ill-health across different age groups. The extent of this biological component is often unknown. This makes it difficult to hold a general discussion on inequality with the definition of inequity used here. Instead one usually presents information standardised by age.

## Ethnicity

Different ethnic groups can be distinguished in the population. In most countries the dominant group consists of individuals born in the country with the dominant language as their mother tongue. Often different minority groups are gradually assimilated into the majority group. This means that an individual in the group of immigrants is partly characterised by his or her country of origin and partly by how long he or she has spent in the immigration country. The group is thus very heterogeneous in many countries. One possibility is to put the groups together according to their continent or global region of origin, such as north-western Europe, southern Europe and eastern Europe. An alternative is to group the countries of origin by their level of income into low, medium and high-income countries.

## *Geographically or administratively defined areas*

It is common to compare the state of health between different geographically or administratively defined areas, e.g. countries, regions, county, municipality and municipal areas. These groupings are relatively unproblematic.

## *Information on health status*

A description of inequality in health requires measures of ill-health or health. Some examples are median age, mortality, mortality due to specific diseases, occurrence of specific diseases, self-reported health and occurrence of care for specific diseases.

### *Mortality*

Some measures are markedly certain in high-income countries. An example is mortality. However, this aspect is not entirely problem-free either. For example, certain immigrant groups have tended to move back to their countries of origin on retirement. Follow-up in the national population registers therefore becomes uncertain.

### *Occurrence of disease*

The occurrence of disease can be described as mortality, occurrence at a given point in time (prevalence) and as the portion falling ill during a given period of time (incidence). Information on mortality due to different diseases is available in cause of death registers, often with satisfying precision in European countries. Information on mortality due to different diseases is therefore an appropriate measure to describe the problem, assuming that the disease is often fatal and that the course of the disease is relatively short. Practice for subdivision into underlying and contributing causes of death can however change over time and between countries and regions. The coding systems continuously change.

Many important diseases are however not fatal. In this case other measures are needed, primarily prevalence at a given point in time and the fraction falling ill during a given period of time. Such estimates presuppose access to registers. Certain diseases are continuously registered in many countries, e.g. cancer. However, such information is often missing. One possibility is to use information on hospital care because a diagnosis is tied to every instance of care. If the disease often leads to hospital care, such information can provide a reliable picture of disease development. This applies for example to heart attacks, particularly to information on hospital care combined with death due to cardiac infarction, retrieved from the cause of death register. Many important diseases do not consistently lead to hospital care, however. This applies, for example, to several psychiatric disorders. This method then becomes unreliable. One possibility is to use local registers. The obvious disadvantage is that the occurrence of the disease can vary throughout the country. Information on outpatient care can also be used. The foremost limitation is that

information on diagnoses in outpatient care is seldom collected nationally. In the ongoing investigations of living conditions that exist in many countries, individuals are asked about the occurrence of certain common types of illness. The information has limited certainty, however, because individuals' perceptions of illness with certain given conditions can differ from illness confirmed by a doctor.

It is reasonable to include those diseases that stand for the largest share of all mortality, or alternatively the greatest level of disability, in the analysis. In Western Europe the five most important disease categories, ranked by the collective disease burden are cardiovascular disease, psychiatric illness, tumours, injuries and diseases of motor organs, then followed by diseases of the respiratory passages, digestive illness, infections, diseases of the sensory organs and neurological diseases (18).

### *Self-reported health*

An argument in favour of self-reported health as a measure is that accumulative estimates of one's own health status in certain studies can indicate strong links to later mortality and to other measures of physical and psychological health (19). However, what implication the concept has, has not been established. A current Canadian study indicates that the concept reflects the objectively estimated health in relation to the individual's perception of the health that the individual imagines he or she could achieve (20). This means that variations in self-reported health can be due both to differences in objectively estimated health and to differences in expectations. If an individual perceives it to be normal to live with rather large problems, then he or she can report a good health status, despite her or his health being problematic from an objective point of view. This can be an explanation for there being 15 times more American women who report poor health compared to women in Bihar, despite health being considerably worse in Bihar from an objective point of view (21). When estimates are to be done over a number of years, one cannot rule out that potential changes can be due to varying expectations of the meaning of "good health".

### *DALY/DALE/QALY*

There are also aggregating measures that aim to describe collective ill-health. One such a measure is DALY, i.e. Disability Adjusted Life Years lost (22). This measure builds on studies of the occurrence of different diseases and estimates of the extent of disability that the diseases entail.

In a report on the state of health in the world in 2000, the WHO used a closely related concept, DALE (Disability Adjusted Life Years Expected) (23). DALE indicates how many years of life in full health individuals in a population can expect. While DALE indicates what remains, when one has taken premature death and illness into account (23), DALY indicates those years that have been lost for the same reasons. The measures are therefore comparable. A third measure also exists, QALY (Quality Adjusted Life Years). This measure has a meaning similar to DALE. QALY has primarily been used to describe the health gains of individual treatment and preventative efforts, not to describe the collective state of health in a population.

The problems tied to determining disease occurrence also apply to these measures. In addition to this is the uncertainty tied to the assumptions of disability with different health problems on which the estimates of DALY/DALE/QALY build. The measures also require taking a position on whether loss of life and functional ability shall be ascribed differing weights over the lifecycle. Despite many problems in the determination of DALY/DALE/QALY, there are however no markedly better alternatives for describing the collective burden of disease and the distribution of this disease burden.

## *Analysis of differences*

When information on the division into groups, and the health of these groups, is available, the differences can be analysed in different ways. There are four groups of methods: 1) description with absolute measures, 2) description of relative differences between set categories, 3) description of health differences by graphical methods, and 4) description of relative differences without the use of set categories.

### *Absolute measures*

During 1986–1990 coronary heart disease mortality in the unskilled labourer group was 91.6 per 100,000 in Sweden and in the mid and upper-level salaried employee groups it was 59.1 per 100,000 (24). Thus the absolute difference was 32.5 per 100,000. The significance of this absolute measure on its own is difficult to interpret. An interpretation requires access to other information, such as mortality in the mid and upper-level salaried employee groups (59.1 per 100,000). This limits the usefulness of absolute measures for following the development of inequality in health over time. Relative measures offer an opportunity for a more concise description.

### *Relative differences – epidemiological methods*

In epidemiological literature differences are usually described as risk quotients, relative risk (RR) or odds quotient (OR) (25). Both quotients indicate how much more common a problem is in the group with a less favourable standing compared with a reference group with a more favourable standing. If the quotient is 1.3 it means that the problem is 30% more common in the group with the less favourable standing compared to the reference group. The calculations of RR thus give a concise, easily interpreted picture of inequality in health. There are however several limitations, particularly when development over time is to be described (26). The information on coronary heart disease mortality above may illustrate the problem. The relative risk among unskilled labourers compared to mid and upper-level salaried employees was 1.55 in 1986–1990 and increased to 1.74 in 1991–1995. The calculations above show however that the absolute differences have largely been unchanged. Hence, an accurate assessment also requires access to absolute

measures. The greatest advantage of relative risk as a measure, the simple description, thus becomes invalid when the development over time is to be described.

Determination of RR builds on comparisons between two groups. If the groups' relative size changes over time, the RR changes as well, even if the distribution of illness between different individuals is constant. If we use Sweden as an example, the share of unskilled labourers has decreased over the last few decades. This means that the differences in health between unskilled labourers and salaried employees can have increased solely due to this change. The reason is that the unskilled labourers group now more represents an extreme group. A description of the development of RR over time can therefore be misleading.

One way to handle some of these problems is to calculate summed aetiological fractions (25). The calculations are made according to the formula  $EF = f \cdot (RR - 1) / RR$  where EF = aetiological fraction, f = fraction of those belonging to the less favourable group with the health problem in question, and RR = relative risk. The aetiological fractions that different social levels contribute are then summed to provide a collected measure of the socially generated sickliness. In the addition one takes into account how large a proportion of the collective population that every individual social layer constitutes. An example is provided in Table 1.

*Table 1. Example of estimate of socially explained proportion. The example applies to risk of death due to injury among children and young adults by the parents' social category.*

Social position	Share of the total population (%)	OR	EF (%)
Not classifiable	20.2	1.4	5.9
5	22.0	1.3	6.1
4	16.4	1.1	1.3
3	11.0	1.1	0.2
2	17.1	1.0	0
1	13.3	1.0	0
<i>Total</i>	100	-	13.4

Source: Hjern et al. (27).

The summed aetiological fraction is not affected by changes in the size of the input groups. The measure can also be interpreted directly. Hence estimates of summed aetiological fractions have clear advantages for clarifying the collective significance of social conditions, compared to the presentation of RR. The precision in the calculations increases with the number of groups. Thus the precision becomes greater if the breakdown by profession is done in seven groups compared to two groups. This is because the variation found within each group is better used.

Another epidemiological method to describe differences between groups, which is not dependent on the groups' relative size, is to calculate a relative inequality index. The indi-

viduals in the population are ranked hierarchically according to a measure of social status, e.g. the individuals' education. The occurrence of health problems usually increases as social position goes down. This link between social status and ill-health can mathematically be described as a regression line. In the calculation one takes into consideration the numbers of individuals in each group. The so-called slope coefficient of the regression line constitutes the final measure used. The gradient can alternatively be described as a quotient calculated with the aid of the regression line (28).

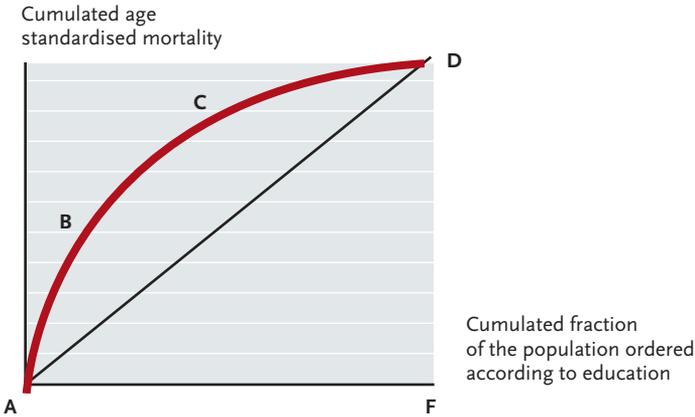
Relative inequality indices have similar implications as summed aetiological fractions. There are however differences beyond the mathematical expressions. Calculation of summed aetiological fractions assumes that the outcome is dichotomised ("ill – healthy"). Relative inequality indices do not have such a requirement. This means that relative inequality indices can treat continuous outcomes, e.g. estimates on a scale of self-perceived health. Such calculations can be carried out with great precision since every distinct individual can be treated as a unit. The calculations of summed aetiological fractions, on the other hand, presupposes grouping of the individuals.

### *Relative differences – methods in economic science*

In economic science, analyses of resource distribution have a prominent place. The distribution of income has been particularly studied. Many questions have dealt with the collective distribution of income, without particular focus on which separate groups have access to these resources. Here there is a clear contrast to the epidemiological tradition where the state of health in the different groups has been in focus. The questions in economic science have contributed to the development of several methods for describing the accumulative variation of access to resources. These methods have since been adapted to describing distributions according to different social dimensions. The most used economic method for such descriptions is the calculation of a concentration index (6–8). This measure has an implication similar to summed aetiological fractions and the relative inequality index, but the calculations are carried out in another manner.

When the concentration index is to be calculated, a so-called Lorenz curve is constructed, ABCD in Figure 1. First the individuals in the population are ordered along the x-axis by some measure of their socioeconomic situation, e.g. by education. The individual that has the lowest income is placed farthest to the left, the one with the next lowest is second to the left, and so on. The y-values indicate their accumulated sickliness. The risk of dying of a heart attack may serve as an example. The first individual's risk of dying constitutes the first y-value. The second y-value is the sum of the risk to the first and the second individuals. And so on. This is how the Lorenz curve is constructed. If all individuals were to have the same risk of illness, the Lorenz curve would coincide with the line AD in Figure 1. It is common, however, that the curve lies above line AD. The concentration index indicates the area above line AD in relation to the triangle ADE. It may also occur that the socially worse off have better health. The curve will then lie below line AD and the concentration index will then get a negative value. Algorithms for calculating concentration indices are available on the Internet (29).

Figure 1. Calculation of concentration index.



Concentration indices have considerable similarities to relative inequality indices. In both methods a line is constructed that describes the connection between the socioeconomic status and the health outcome. The difference is that a concentration index handles the individuals cumulated while this does not apply to the relative inequality index. Both methods can handle health outcomes that are continuously distributed. Thus they have an advantage over summed aetiological fractions. There are no clear advantages of the one method over the other. The choice is primarily linked to which tradition one wants to embrace. In the last few years, use of concentration indices appears to have clearly increased. This speaks for the use of concentration indices as the result can more easily be compared between different studies.

### *Descriptions of the total variation*

The lack of potentially impressionable differences is an important part of the definition of equity in health used in this text. Therefore a determinant needs to be defined, e.g. as a social position. The above description of absolute and relative differences is based on this requirement. It can however also be an advantage to, as a complement, describe the total variation in health within a population without taking a position on determinants because we cannot in advance be sure that all controllable variation is linked to profession, education, income, ethnicity and gender. It is for example not unlikely that the regional differences in ill-health might increase over the next decade. Variations of professions, education, etc., are likely to capture part of the regional differences but not all. Therefore, there is reason to also use methods that describe the total variation in health, without any assumptions on determinants.

There are a number of methods for describing the total variation in the population. All assume that the health outcome is continuously distributed. This means that the scale-values for self-rated health as well as number of life years at death can be used, but presence or absence of a certain disease, such as diabetes, cannot. In the latter case individuals must first be aggregated in groups where the occurrence of illness can be described by

continuous measures. Division into groups affects the result however. The total variation can thus not satisfactorily describe this kind of outcome.

A simple method for describing the accumulated variation is to use statistical standard deviation as a measure. A prerequisite is however that the outcome has a normal distribution, which is often not the case. This limits the use of the method. In economic science a number of methods have been developed that describe the accumulated variation, without requiring the outcome to be normally distributed.

The most used econometric measure is the Gini coefficient. It has successfully been used to describe the development of inequality in health over time in different countries (30). The method can also be used to clarify different illness groups' contribution to the collective inequality in health during different time periods. The Gini coefficient is calculated in a manner similar to the concentration index, but without the use of a measure of social status. If the outcome is self-experienced health, reported on a scale of 1–7, the individuals are ranked in Figure 1 on the x-axis according to this measure. The cumulated outcomes are given on the y-axis. The Gini coefficient for the self-rated ill-health is indicated by the quotient between the area ABCD and the triangle ADE. If the distribution is completely even, the coefficient is given the value of 0 and if it is completely uneven it is given the value of 1.

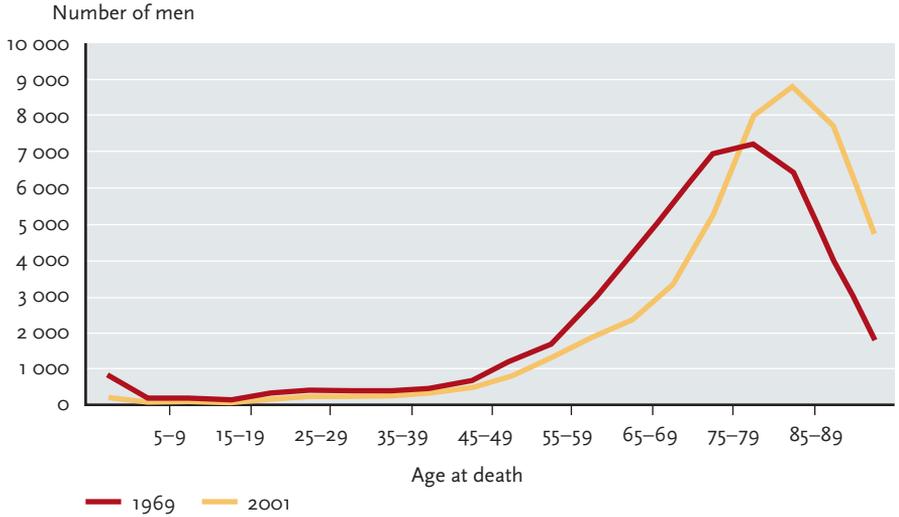
Another measure developed by economists is Pareto optimality. This measure indicates how large a part of an outcome that theoretically needs to be redistributed so that the redistribution leads to more individuals winning than losing in the redistribution. The theoretical redistribution thus does not end in everyone having the same income (31). A third measure is the index of dissimilarity, which indicates how much of an outcome must be redistributed so that all differences are eliminated (10).

During the last few years economists within WHO have developed methods that combine experiences from the epidemiological and economic traditions. The measure of inequality presented in the report on the state of health in the world in 2000 became particularly known (23). The mathematical expression for the calculations was relatively complicated because the expression built on a number of assumptions on values (32). This entailed that the values for inequality that were presented became difficult to interpret. This method, like other economic methods, requires that the outcome be continuously distributed. For WHO it was of interest to describe dichotomous outcomes, such as mortality at a certain age. This required the analysis of aggregated groups. This means that the measure could not claim to describe all variation because the outcome was dependent on this breakdown. In WHO's "World health report 2000" this measure was the only one used to describe inequality in health. Critics pointed out that the importance of socioeconomic differences was not presented (33, 34), and that the measure under certain circumstances can hide differences between groups (35). However, these objections are dropped if measures of distribution are only used as a complement to other descriptions.

Inequality in health clearly has several dimensions that can be difficult to compress to one single number. One way is to instead use graphical descriptions, e.g. the distribution of life expectancy in the population. Figure 2 shows the distribution of life expectancy for men in Sweden in 1969 and 2001. The graph does not only show that the average life

expectancy has increased, but also that the distribution in age at death has decreased, foremost in the ages 60–90, and equality in survival has thus increased. This change would also be able to be described as a change in a Gini coefficient for survival. The meaning of the graph is however considerably simpler to interpret than information on a Gini coefficient.

Figure 2. Age reached at death, men, Sweden in 1969 and 2001.



Source: Statistics Sweden (36)

## Explanatory models

The intent of this section is to provide an orientation on some ways used to explain links between social status and health. The explanations treated are: 1) ill-health is explained by poorer access to resources; 2) ill-health is explained by individuals more often being exposed to risks; 3) ill-health arises in the interaction between different determinants; 4) ill-health is conveyed by psychobiological mechanisms; 5) ill-health is explained by increased vulnerability; and 6) ill-health has a genetic explanation. The explanations do not preclude each other. This section also treats differences in health seen from a lifecycle perspective.

### Access to resources

For an individual to be able to be fully healthy, different needs must be met. One such need is sufficient intake of nutritive substances. If the intake is not met, the risk of various health problems increases. Other needs are access to protection against cold and heat,

clean water, etc. (37). There are additional needs that are more difficult to determine exactly, but still need to be met. Included in this are a safe environment, acknowledgement from other people, varied experiences, possibilities of influencing one's own situation, sex, sleep, etc. (38).

A human being meets his or her needs with the help of the resources to which he or she has access. What resources are important varies between different people because their individual needs vary. Yet, if a group of people together have greater access to resources, their possibilities to meet their needs are greater. This can be an explanation for socially less favoured groups having worse health.

In Nordic research on welfare, the following resources are usually described: Work environment, Residence, Finances, Free-time, Health, Material assets, Civic activities, Social relations, Occupation, Transport, Security and Education (39). Varying access to these kinds of resources can be expected to explain differences in health. The importance of several of these resources is treated in the following chapters.

Access to resources within different categories is connected to each other. This is due in part to the resources being exchangeable to a certain extent. For example, sound personal finances can make it possible to acquire a good home, good security and stimulating leisure time. Access to cultural resources increases the opportunities for good positions in the labour market and thereby sound finances (40). These relationships make it difficult to clarify what individual kinds of resources are most decisive for health.

### *Exposure to risk factors*

Socially less favoured groups are generally exposed to more risks, both those tied to the environment (41) and risks that are linked to life-style, such as smoking. Occurrence of these kinds of risk factors can explain a certain share of social variation in health (42).

Exposure to certain risks appears to be able to be directly explained by insufficient resources. For example, an individual with little education is often relegated to occupations with greater risks. A person with a low income can have difficulties in buying a safe car and therefore exposes themselves to greater risks in traffic, etc.

The explanations of variations in lifestyle, such as tobacco use, are more complex. It is often more difficult for individuals that have limited resources to influence their own situation. They run greater risks of becoming unemployed, entering a financial crisis, etc. If life is less predictable it is also less practical to "invest" financially and personally in future possibilities. Eating food that is nutritious, not smoking, etc. does not lead to any immediate positive effects. The positives instead come only in the long term. It can therefore be practical for an individual with little resources to take advantage of the immediate "benefits" different behaviours provide, instead of making long-term "investments".

Variations in exposure to risks and to health-related behaviours could thus explain a part of the social variation in health. It is however less likely that differences in health behaviours constitute the dominant explanation (42, 43).

### *Interaction between different determinants*

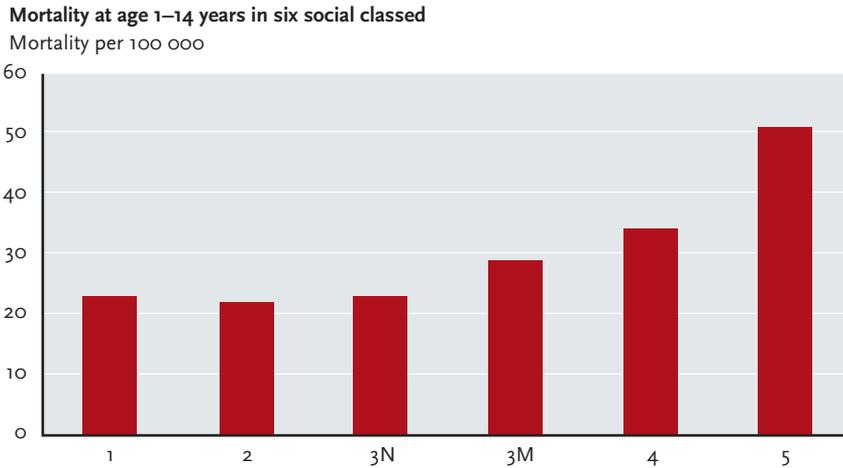
The link between a determinant and occurrence of illness is often dependent on what other exposures to which an individual is simultaneously subjected. This has a biological basis. The body's various mechanisms strive for balance. If the individual is subjected to an exposure, for example to the influenza virus, then the body first strives to eliminate the virus. If this does not succeed, the body tries to maintain as much balance as possible, despite a virus being in the body and the individual feeling ill. This new balance condition is not as stable as the norm.

This means that someone who is already sick with influenza becomes more sensitive to other exposures. The individual can for example normally handle tobacco smoke without beginning to cough. If the same individual has influenza, the same amount of smoke can trigger a violent fit of coughing. The opposite is also true. Exposure to tobacco smoke, that the individual can normally handle, can delay recovery from influenza. This means that the accumulative effect of different risk factors can often be greater than the sum of the individual factors' effects viewed separately.

An interaction between different determinants can be an explanation for the increased sickliness in socially less favoured groups. An example of this is the risk of mental problems among children born with moderate complications in childbirth. Among children that grew up in socially favoured families, such complications do not seem to entail any increased risk of mental problems. Among children in socially less favoured groups, on the other hand, the risk increases markedly (44).

The presence of interaction can also explain that sickliness in the most disadvantaged group is particularly high. Figure 3 shows child mortality in six different social classes in the United Kingdom. Mortality is approximately just as high in the three highest social classes and then increases somewhat for class 3M. However, the largest increase is shown between the second to the lowest class (4) and the lowest (5). The phenomenon cannot be explained by variations in size between different classes. The markedly greater increase between class 4 and 5 can be better explained by risk factors being accumulated in class 5 and that these factors interact with each other.

Figure 3. Mortality in ages 1–14 in six social classes in the United Kingdom 1979–83



Source: Spencer (17), p. 104

### *Psychobiological mechanisms*

There are two kinds of psychobiological mechanisms that can conceivably explain why socially disadvantaged groups have worse health. The first mechanism can be designated as indirect and the second as direct.

The understanding of an indirect mechanism is based on the effects of stress that has been shown in the form of an increased internal secretion of cortisone hormones and increased blood pressure (45). These effects are phases in the body's normal adjustment to a strain. The changes are often practical and increase our ability to handle different problems. However, if the stress becomes long-term, increased blood pressure and an increased internal secretion of cortisone hormones increase the risk of disease, such as heart attack. Long-term stress can also disrupt the regulation of cortisone hormones and blood pressure. Blood pressure and hormone levels normally drop when the stress has been removed. However, if the stress has been long-term, this normalisation can fail to take place. This psychobiological mechanism supplements the above description of insufficient access to resources as an explanation of worse health in socially less favoured groups.

The other direct mechanism builds on the observation that an individual's experience of low social status can influence the individual's feelings and that the feelings can have neurobiological effects that lead to disease. The feelings can be described as a special form of negative stress where the stressor is the specific negative experience of low social status. The model relies on both epidemiological research and animal testing. The animal tests are decisive to the model's trustworthiness because only experiments can unequivocally clarify if the neurobiological effects are a result of low status instead of the opposite.

Sapolsky et al have studied baboons living in the wild. They have shown that baboons with low social status secrete more cortisone hormone than those with high status (46) and that they are thus exposed to long-term stress. This has a number of negative biologi-

cal effects. The research group has also conducted tests where the baboons are exposed to short-term stress. They have shown that the effects on both cortisone hormones and blood pressure remain longer in baboons with low status.

Another research group has studied the development of atherosclerosis among monkeys (47). All monkeys received a diet that increased the risk of atherosclerosis. They spent time in small groups and some were moved from one group to another so that their social status in the groups changed. Arterial changes proved to be more common among all monkeys that changed groups. The risk increased 500% if a monkey moved from one group where it had a high status to a group where its status became low. In the reverse case the risk only increased by 44%. The test points to low social status entailing increased risk of arterial changes, but also to the connections being complex.

The studies thus point to the possibility of a direct negative biological effect of taking on a low social status. The significance of this mechanism among human beings is however unclear. Men, in contrast to monkeys, make complex interpretations of their relationships with other individuals. This means that results from studies of monkeys cannot simply be transferred to people.

### *Increased vulnerability*

Cassel suggested 30 years ago that increased vulnerability can be an explanation for the higher sickness in socially less favoured groups (48). This reasoning is attractive. Most diseases are more common in socially less favoured groups. These diseases have widely differing determinants. The discussion is therefore simplified by an assumption of an underlying general vulnerability.

The concept of “vulnerability” has probably contributed to the development of psychobiological models. It also illuminates the interaction between different determinants discussed above. The concept is useful in this way. However, the concept does not clarify if vulnerability can be influenced or not, nor what the mechanisms are. It thereby has limited use in this discussion where inequality in health is defined as potentially controllable differences.

### *Genetics*

An explanation of increased ill-health in socially less favoured groups could be varying hereditary dispositions. In socially less favoured groups, predisposition to illness could conceivably be accumulated across the generations. An important objection to this explanation is that there are no general hereditary characteristics for illness. The predispositions are instead tied to specific types of ill-health. Over the last hundred years the panorama of disease has changed radically. The problems that were common in the beginning of this century are uncommon today and vice versa. Certain modern diseases have only existed for a few generations. This is an all too short period for selection to be able to have influenced the distribution of hereditary disposition in the population to an appreciable extent and therefore cannot explain the socioeconomic differences that exist in different societies.

### *Reversed causal relation*

If a relation between insufficiently favourable social conditions and ill-health is shown, it is not obvious if the social conditions cause ill-health or if the opposite is true. An individual that has problems with health can have a more difficult time in achieving a good social position and make a good income. Hence it is central to clarify in which direction the causal relation exists. Ill-health *can* clearly lead to lower social status. The decisive question is if this is a primary explanation. The foremost method for clarifying this relation is longitudinal studies where individuals are followed over a long period of time. If low social status is measured on one occasion, and sickness on a later occasion, it points more to low social status leading to sickness, than to the opposite (49). This is also usually the case (50). This speaks for reverse causality not being a major primary explanation.

### *A lifecycle perspective of social differences*

A number of studies have shown that socially unfavourable conditions during childhood increase the risk of ill-health later in life (51–53). A person that grows up under poor conditions tends to have a socially less favoured position later in life. Increased ill-health at adult age could be explained solely by that connection. In the cited studies, however, the researchers have identified health effects of adverse childhood conditions, also after control for continuity of social positions over the life course.

Exposures to unfavourable social conditions have significance throughout the entire lifecycle even if the conditions during the first years probably have a particularly large significance. If the social conditions have been poor on multiple occasions, they are more significant than if the conditions have been poor on only one occasion (54, 55).

The causal chains, which convey health effects of social conditions, have their beginning in the family's social and material condition. The family's finances, the parents' professions and the parents' education are linked to each other. A Finnish (56) and a British (57) study indicate that the economic conditions during childhood can have an independent significance for health at an adult age, even after taking other circumstances into account. Furthermore, a British study indicates that residential circumstances during childhood can affect the risk of adult ill-health (58).

The social and material conditions can have direct biological effects, which influence the risk of illness. These conditions also have psychological effects that influence the children's development of different personality traits. The personality traits then have significance to the children's success in school, and later in professional life.

### *Direct biological effects during the lifecycle*

During the 1800s, malnutrition and deficient hygienic conditions were common in socially disadvantaged groups. These deficiencies provided direct biological explanations for a large part of the increased illness in these groups. Today, malnutrition and deficient

hygiene are generally eliminated problems in high-income countries. There are therefore no similarly clear biological explanations today for the increased sickliness in socially less favoured groups.

Several studies published in the last 15 years have taken their starting point in the connections that have been shown between low birth weight and cardiovascular disease (59–61). Low birth weight is more common in socially less favoured groups. A biological influence during the prenatal period could therefore be an explanation for excess sickliness at an adult age. An alternative explanation is that those born in socially less favoured families as adults also often continue to live under unfavourable social conditions. But even when this circumstance has been taken into account the connection remains.

Most authors suspect that deficient nutrition supply explains the connection (59). Studies of the children born in Holland in the middle of 1944–45 during a period of famine provides support for this hypothesis as these children were shown to have increased risk of coronary heart disease as adults (62).

In a number of analyses connections have been shown between socially less favoured conditions and limited height growth during childhood (63) and shorter final height at an adult age (64, 65). Connections have also been shown between limited body weight and illness at an adult age, even after taking different social conditions at an adult age into account (65, 66). The social conditions during growth thus have a direct, lasting effect in the form of shorter height which in turn marks an increased risk of illness, foremost of coronary heart disease (65, 66).

Certain forms of cancer are more common among individuals with good height growth during childhood and thus more common in socially favoured groups (66–68). It is likely that the effect is conveyed by a good nutrition supply (69), but doubtful if there are such large differences in nutritional intake during growth today that this could affect variations in the future sickliness.

### *Psychological agents during the lifecycle*

The connections that have been shown between occurrence of family conflicts and later illness speak for psychological mechanisms being able to convey the effects of a socially less favoured childhood and adolescence (70). This possibly also applies to the increase of illness among individuals that have grown up in a family with only one parent (71). Knowledge of the conveying factors is required for the formulation of preventative measures.

A Dutch investigation by Bosma and colleagues points to how development of different psychological characteristics can explain a part of the connection between childhood conditions and health later in life (72). A person who does not believe they can influence their own conditions, who has a narrow perception of their surroundings and who primarily reacts emotionally to different strains tends to have worse self-reported health as an adult. There is extensive psychological literature that shows that individuals who grow up under unfavourable social conditions more often develop several of these personality traits (73). Development of these personality traits could thus explain why health becomes worse in socially less favoured groups. In the investigation by Bosma et. al. the subjects

were however only asked afterwards about their health. There is therefore a risk that the connections shown are illusory.

Results from studies where individuals are followed over an entire lifecycle provide considerably more reliable results. The foremost investigation of this kind is a group of well-endowed North American children that were followed for 75 years from the age of 6–17. The study shows that three personality traits could to a high degree explain the individuals' survival, even after taking other conditions that could affect the result into account (74). The individuals who lived the longest were conscientious, were not markedly cheerful and were emotionally stable (the latter applied primarily to boys). The protective effect of being conscientious could not be explained by these individuals exposing themselves to minor risks of accidents or by other health-related behaviours (75). These personality traits appear to be more common among children that grow up under socially favourable conditions (73).

The study of the American children also shows that individuals with good cognitive ability live longer (76). Good cognitive development is more common among children that grew up under socially favourable conditions (77, 78). Cognitive ability can thus be another psychological characteristic that contributes to the better health of socially favoured groups.

There are other studies published where one has registered psychological characteristics during childhood and followed the development of the individuals' mental health. In an investigation from California, a group of teenagers were followed until they reached their 60s. Teenagers that had good planning abilities, were conscientious and reliable, had good social skills and good self-confidence had the best mental health during the lifecycle (79).

The protective mental characteristics that appear in these studies seem to partially coincide. A theme that recurs in several studies deals with the individual's confidence in their own ability to influence their own situation and thereby the ability to plan. It is likely that such a confidence is promoted by experiences of actually being able to carry out what the individual has decided to do (80). Succeeding in something is partially related to the extent of the resources the individual has at their disposal. Individuals with low social status have fewer resources at their disposal. It is therefore not difficult to understand that they develop less confidence in their own ability.

A majority of the psychological characteristics described above, such as the ability to plan and think long-term, favour success in school. Successes in school in turn influence the possibility of higher studies, the individual's social status as an adult and thereby health (81). Different development of health-related behaviours is a part of this mechanism since success in school entails decreased risk of a majority of risk behaviours, with smoking as an example (82). However occurrence of health-related behaviours explains only a part of the connection between success in school and health at an adult age.

Good social skills favour development of social networks. Social networks, developed during childhood, are significant to having influence, to position on the labour market and to the possibilities of generating resources at an adult age. The children that grow up in families of a high social status most often have broader social networks that include more important people compared with children in families of a low status (83).

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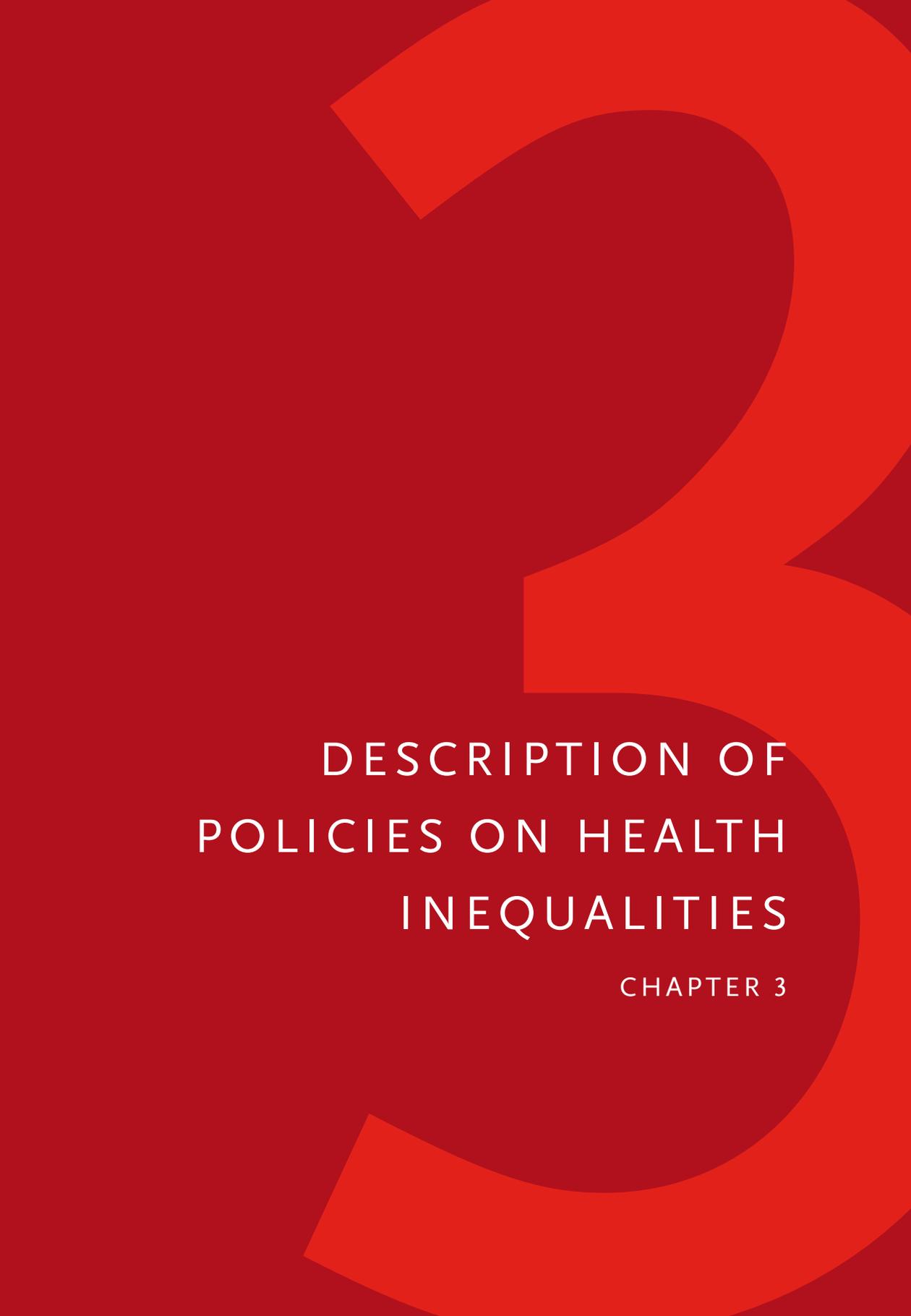
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DESCRIPTION OF  
POLICIES ON HEALTH  
INEQUALITIES

CHAPTER 3



# Denmark

FINN DIDERICHSEN

## *Economical and social development*

Denmark has a population of 5.4 million people. The life expectancy has for the last 25 years been below the EU15 average (77.5 in 2004) while the total fertility rate for many years has been considerably higher than the rest of Europe (1.78 in 2004). The ageing of the population has therefore been less pronounced with 14.9% in the age 65+ in 2004 compared to 17.0 in the EU15. Only 6.5% are born outside Denmark and another 2.1% are 2<sup>nd</sup>-generation immigrants.

Denmark has during the past century developed into a welfare state of the universal social democratic type. According to EUROSTAT indicators (1) social spending is among the highest in the EU: 30.9% of GDP in 2003, compared to 28.3% for the EU15 average. The proportion of means tested benefits is very small – only 3%, less than one third of many other European states. Unemployment benefits in terms of net wage replacement rates are high – 67% compared to 40% for the OECD as a whole and spending on social services including day care for children and nursing homes for the elderly is comparatively high.

Denmark is one of the few countries that during the last 40 years has been able to combine strong economic growth with high employment and low income-inequality. GDP has, in constant prices and in absolute terms been growing better than the EU15 average and in 2005 purchasing power standards were 8% higher than Sweden and 15% higher than the EU15 average (1). The employment rates have been constantly high since 1965 – between 72-80% for both men and women aged 15-64, and income inequality is lowest in the world.

## *Health development*

It is difficult to interpret the epidemiology of – and policy responses to – health inequality in Denmark without looking at the very problematic average level of population health. As these levels differ substantially from many other European countries we will in brief describe average health and then social inequalities in health.

What is unique for Denmark is that the very favourable macroeconomic and social conditions have not been translated into a correspondingly positive health development. This was not always so. In 1960 life expectancy in Denmark was 72.4 years, among the highest in OECD, and only 0.7 years shorter than Sweden. But 35 years later in 1995 Denmark had only increased its life expectancy by 2.5 years while the rest of Europe had increased on average by 6 years. Danish women had at that time the lowest life expectancy of all women in EU15. In the city of Copenhagen life expectancy was only slightly

better than Poland and in the different city districts, life expectancy varied between the same level as Rumania for the unhealthiest districts and that of the UK for the healthiest (2). After 1995 things have improved considerably, and life expectancy is now increasing at the same rate as in the rest of Europe – 0.25 years in life expectancy per year. In 2004 Danish women still have the shortest life expectancy in EU15.

Table 1 illustrates this relative ineffectiveness of Danish health policy by calculating the increase in life expectancy in relation to economic growth.

*Table 1. Economical development (in 1 000 GDP PPP USD per capita and health development (life expectancy) 1960–99.*

	1960–64	1995–99	1960–99 Increase in life expectancy per 10.000 PPP USD
<b>Denmark</b>			
GDP (1000 USD/capita)	10.8	23.9	2.6
Life expectancy	72.2	75.6	
<b>Sweden</b>			
GDP (1000 USD/capita)	10.9	20.5	5.8
Life expectancy	73.4	79.0	
<b>Italy</b>			
GDP (1000 USD/capita)	8.0	20.8	6.6
Life expectancy	69.8	78.3	
<b>United Kingdom</b>			
GDP (1000 USD/capita)	10.2	20.2	6.2
Life expectancy	70.8	77.0	

Source: World Health Chart (3).

From Table 1 it can be seen that Denmark and Italy shared a strong economic development in this period, while Sweden and the UK were kept back by economic crises in the 1980s and early 1990s. Denmark is however far behind the other three, in terms of translating wealth into health. Applying the terminology of modern epidemiology it can be concluded that the comparison with Italy and the UK shows that a universal high spending welfare state is not a sufficient cause for a strong health development. It does not even seem to be a *necessary* cause as there are countries with less advanced welfare states that perform better in terms of mortality decline. It is, however, no doubt a contributing cause. Health policy interacts however strongly with wealth to generate health.

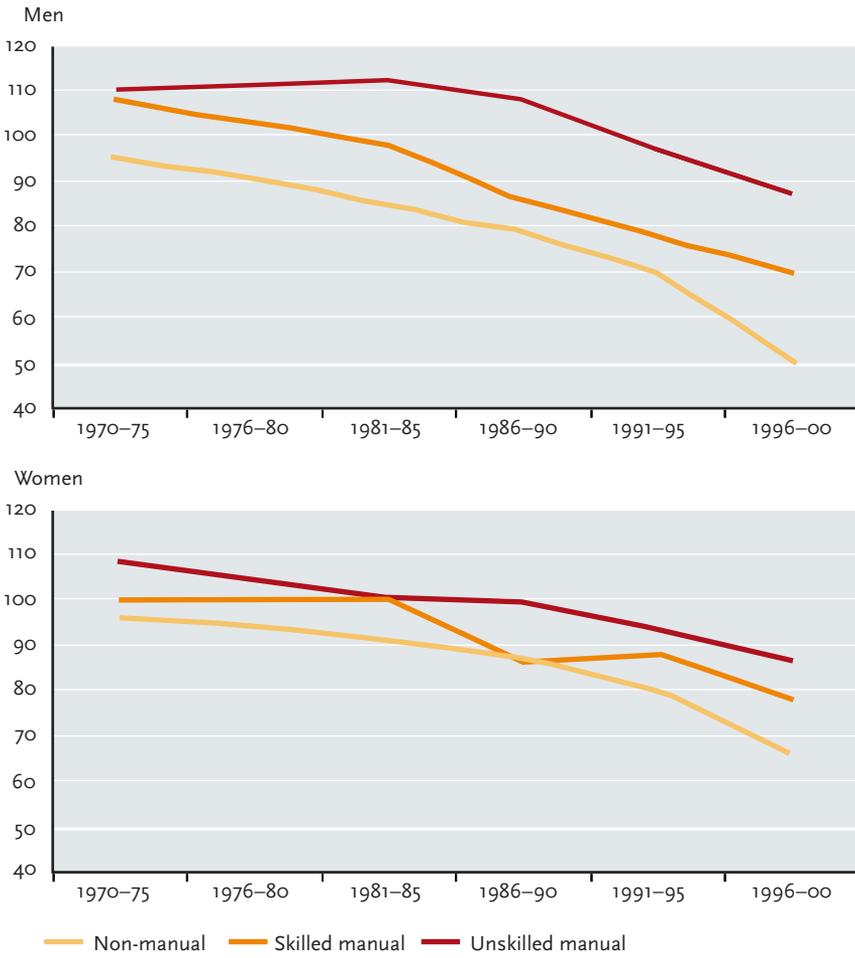
Self-rated good health and other measures of subjective wellbeing and happiness are on unusually high levels in Denmark: 75% compared to 61% in EU15 rate their health as good or very good, and those figures have improved since the 1980s (1). More medical measures of morbidity do not confirm the popular picture of Danes as a people “living a short but healthy life”. The national burden of disease estimates weighing together mortality and morbidity published recently by WHO (2005), on the contrary, indicate a very high burden of disease in the Danish population. In terms of years lost in early death and disability (DALY) Denmark has a burden of disease that, in spite of a younger population, is 27% higher than in Sweden and 10% higher than the UK. High incidence of and low survival rate from a broad range of disorders generates these differences, but diseases and injuries related to tobacco and alcohol dominate (4).

### *Social inequality in health*

Denmark has access to data on social position and health through regular national surveys on self-reported morbidity, and linkage of routinely collected data on mortality and hospital admissions to routinely collected data on education, occupation and income. In view of the problematic development of average mortality in the period 1970-95 the size and development of inequalities in health in Denmark is surprisingly similar to what is found in other European countries in both relative and absolute terms. The mortality rate for manual groups is however clearly higher than in the other two Scandinavian countries (5).

Figure 1 illustrates the changes over time according to occupational classes and Table 2 according to educational groups. It however makes a difference if inequality across educational groups is measured (8). Absolute differences among employed men were growing in the 1970s and again in the 1990s. For women it was more stable until the 1990s where a tendency to growing inequality is observed. The inequality according to education includes also the non-employed and is clearly widening 1981-95 (Table 2). Data from 1995-99 shows further increases in the absolute inequality across educational groups, through a faster decline among the well-educated (9). Excess mortality among those outside the labour force has been increasing the last 30 years (6,7). Denmark has one of the lowest employment rates among individuals with severe long-standing illness, while the employment rate among those without long-term illness is among the highest in Europe (10).

Figure 1 a-b. Occupational inequality in mortality in Denmark 1970-2000. Age standardised mortality rates where all employed men (a) or women (b) 1970-75=100.



Source: Denmark's statistics (6,7).

**Table 2. Mortality per 1000 in the age group 30-59 years. Denmark 1981-95.**

Level of education	1981-95	1991-95	Difference 1983-93
<b>Men</b>			
Long	3.5	2.8	- 0.7
Short	5.1	5.3	+0.1
<b>Women</b>			
Long	2.4	2.2	-0.2
Short	3.3	3.3	0.0

Source: Mackenbach et al. (8).

Even in terms of self-rated health Denmark has substantial inequalities. There seems to be a less favourable development among women in all educational levels, but a positive development among men, particularly those with basic education (Table 3).

**Table 3. Inequality in self-rated fair/poor health. Percentage.**

Level of education	1987	1994	Difference 1987-94
<b>Men</b>			
Tertiary	13.7	12.6	-1.1
Upper-secondary	18.2	16.4	-1.8
Basic	31.0	23.6	-7.4
<b>Women</b>			
Tertiary	11.7	16.3	+4.6
Upper-secondary	17.8	19.3	+1.5
Basic	30.4	35.9	+5.5

Source: Kunst et al. (11).

### *Development of policy focus on equity in health*

Social inequality in health was already an issue in Denmark 150 years ago (12). The more recent international wave of public health debate addressing social inequalities in health, initiated by the British Black Report 1980, did not influence the Danish debate before the late 1990s. For good reasons health policy in the 1990s – to the extent it actually dealt with population health – was focused on the “international” inequality with Denmark increasingly behind other wealthy nations in terms of life expectancy (13) But with the Government’s Health Policy Bill in 1999 (14), social inequalities in health were put at the top of the agenda and a number of targets for health determinants were set for the period 1999-2008. This plan laid the foundations for a comprehensive health policy and had a strong intersectoral focus. The overriding goal of health equity is stated as target no 2:

“Social inequality in health should be reduced to the extent possible above all by strengthening efforts to improve health for the most disadvantaged groups.

- There should be a considerable reduction of inequality in health as indicated by both morbidity and mortality.
- Priorities underlying the selection of initiatives and methods under the programme’s targets 3 to 17 (related to determinants, target groups and arenas) should secure that the most disadvantaged groups are secured a significantly more favourable development from a health point of view through concurrent initiatives addressing both basic differences in health behaviour and the considerable differences in living conditions.
- It should be made possible to monitor morbidity and mortality in various social groups during the programme period.”

The programme thus emphasised “the most disadvantaged groups” rather than the whole gradient, but is not very precise on exactly what risk factors should have priority in relation to the equity target. Smoking (target 3) and unhealthy working conditions (target 12) are however mentioned as particularly unequally distributed. Interventions with particular equity relevance are mentioned in terms of reaching out with preventive services to underprivileged groups, combining health promotion and work environment activities at the workplace, special concern for vulnerable groups such as children of parents with alcohol problems and drug-addicts, young people who are marginalised in the labour market, and particularly exposed occupations. The general importance for health equity of education, labour market and housing policies are noted. There were no quantitative targets related to health equity.

Only two years after this programme was launched the majority in Parliament shifted and a new Liberal Government was appointed. After only a few months in office they launched in 2002 a revised health policy programme “Healthy throughout life” (15). Health equity is kept as a priority, as the Government states:

“The Government believes that social equity in health is one of the fundamental values of a welfare society, including efforts to promote health”. The three main goals are formulated as follows: Life expectancy should be increased substantially, the number of years with high quality of life should be increased, and social inequality in health should be minimised.”

The plan describes the need to extend focus to the most vulnerable groups within the universal welfare systems, particularly within health services and schools. Examples of these vulnerable groups are mentioned: children of alcoholics, drug addicts and mentally ill parents. There is thus even more focus on the most deprived groups and less on the whole social gradient in health. And as a result there is a movement away from universal social and health policies as an instrument to deal with health inequalities. The programme does not consider in any detail the interventions and policies needed to minimise social inequalities in health, not even for the vulnerable groups.

The programme – inspired by the British “Saving Lives: our healthier nation” – talks less about government responsibilities and more about partnerships between individuals, communities (organisations, workplaces, schools) and the public sector (municipalities,

regional and national authorities). It focuses on eight determinants (tobacco, alcohol, diet, physical activity, obesity, accidents, working environment and environmental factors) and – as something new – eight diseases<sup>1</sup>. Tertiary prevention and rehabilitation for these disorders are brought into the programme. Focus is strongly on individual-level methods of health education and health promotion, voluntary initiatives at workplaces and communities, and very little on legislation and economic measures to influence health behaviour and environmental risks.

These two plans were born out of a, fairly recent but nevertheless strong, tradition, where Danish governments, compared to the other Nordic governments, were rather explicitly liberal in relation to tobacco, alcohol and illicit drugs, with a strong reluctance to impose more restrictive policies. Many Danish politicians – from left to right – described their policies – often explicitly contrasting with Sweden – as one of individual freedom, treating its citizens as adults who can take responsibility for their own health behaviour with a minimum of interference from the state. Only recently policies are gradually changing. This development has been combined with advanced work-environment legislation regulating not only physical and chemical exposures at the workplace but also ergonomic and psychosocial factors.

Comparative policy studies have emphasised that national and particularly local policy documents in Denmark tend, as already mentioned, within the equity framework, to focus more on vulnerable and marginalised groups rather than whole gradient compared to British, Norwegian and Swedish policy (16). The groups focused upon are the long-term unemployed, the homeless, the mentally disabled, the addicted and their children, etc., where social position is strongly determined by health, rather than the other way around.

## *Health determinants*

### *Economic growth, poverty and social security*

Due to a narrow wage distribution combined with the redistributing effects of income taxes and transfers, income inequalities are small. Measured with a Gini coefficient, income inequality is among the lowest in the world – 0.22 compared 0.38 for EU15 (1). Health development in Denmark is – as already mentioned – lagging behind economic development. Explanations put forward for this type of paradox of more wealth than health in some nations (e.g. United States and Russia), have in recent years often focused on income distribution as an important contextual condition modifying the effect of wealth on health (17). But Denmark is again an outlier with its very narrow income distribution. A tendency towards growing income disparities in recent years does not bring Denmark into levels where income distribution has measurable effects on population health (17).

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1. Non-insulin-dependent diabetes mellitus, preventable cancer, cardiovascular diseases, osteoporosis, musculoskeletal disorders, hypersensitivity disorders (asthma and allergy), mental disorders, and chronic obstructive pulmonary disease.

Studies comparing another Scandinavian welfare system (Sweden) with the UK indicate however that the health effect of individual income is weaker in Sweden where social policies are more universal and income inequalities much smaller than in the UK (18,19). This might be part of the explanation as to why Denmark has smaller absolute inequalities than what would be expected from the high overall mortality level.

Child poverty rates in Denmark, measured as the proportion of children living in households earning below 60% of the national median income, are very low – 7% compared to 20% for the EU15-average (1). It is worth noticing that poverty rates in Denmark are comparatively low even before taxes and cash benefits are included in the calculation. A major reason for this is low-wage inequality, but access to affordable childcare is crucial to combat child poverty. That is of particular importance for single mothers and their ability to work. Poverty in one-parent households is therefore low – 12% compared to 34% in the EU15 average (1). Poverty rates are 6% in the working ages 25-64, but more than 20% among young people 16-24, and among pensioners 65+.

#### POLICY

The wage policies, progressive taxation, universal social insurance and low proportion of means tested benefits as well as day care policies are thus four policies of key importance for the low poverty rate and low income inequality. They are all universal rather than targeted policies, and Denmark is therefore, along with the other Scandinavian countries, an example of the paradox that welfare states providing universal benefits for all income strata have lower inequalities than welfare states focusing on programmes targeted to the poor (20). These policies have all been in place long before health equity became an explicit policy target and their specific contribution to health equity has not been quantified.

#### CONCLUSION

The fact that Denmark, in spite of an overall very high burden of disease, has more “normal” levels of health inequality, indicates that universal welfare policies and small social and economic inequalities in society might have a favourable impact on health inequality.

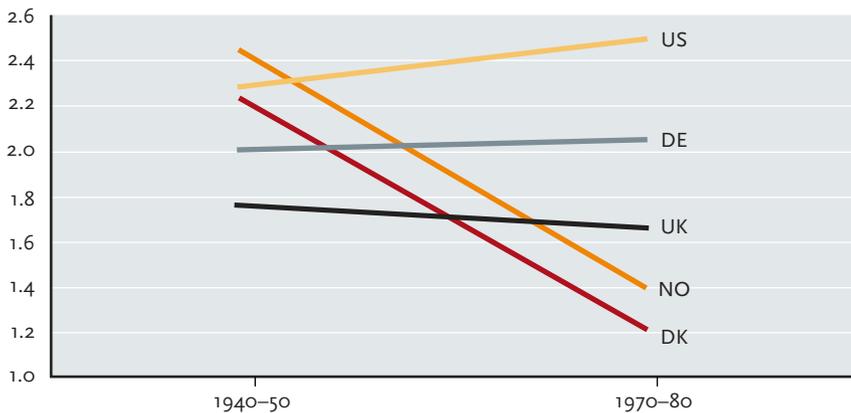
### *Education*

Denmark is lagging somewhat behind the other Nordic countries in terms of educational attainments. Measured as the proportion of people aged 20-24 who have attained at least upper secondary school level, Denmark has a level of 76%, slightly higher than the EU15 level, but clearly below the other Nordic countries with levels over 84% (1).

Educational level is a strong determinant of health behaviour and health in Denmark as well as in other countries, and determinants of educational attainment are therefore of major interest for health equity policies. Recent studies from Denmark indicate that while the parents’ economic conditions now have less influence on children’s educational attainment, the cultural inheritance linked to parents’ education and occupation is still in place (21). Data from the Canadian International Adult Literacy Survey collected in the late 1990s, seems however to indicate that when children born in the 1940s are compared to

cohorts of children born in the 1970s the effect of the father's education on the educational attainment of their offspring is weakened in countries like Denmark and Norway, but not in Germany, the US and the UK (22). See Figure 2. All five countries have launched educational reforms to enhance social mobility but only the Scandinavian welfare states have developed close to universal day-care and brought child poverty rates down for cohorts born in the 1970s. These policies might, have had a strong effect in terms of modifying the impact of fathers' education. The fact that young people not attaining at least secondary educational level will have serious problems in modern labour markets in the Europe and as a result low health prospects give these policies health equity relevance.

**Figure 2. Effect (odds ratios) of fathers' education on children attaining upper secondary educational level education in cohorts born in the 1940s and 1970s. Data from the IALS.**



Source: Kangas, Palme (22).

## POLICY CONCLUSIONS

The development in Denmark as in other countries shows that expanding the economic and institutional possibilities for a fast growing part of the population to attain higher education has reduced the proportion ending up with only basic education but the differences across educational groups in terms of health and particular in terms of health behaviour is growing. This is not changed by the fact that the determinants of low educational attainment can be changed by egalitarian policies.

## *Working conditions*

Denmark has through legislation and technological development reduced exposure to several chemical and physical risk factors that particularly affected manual workers in different sectors.

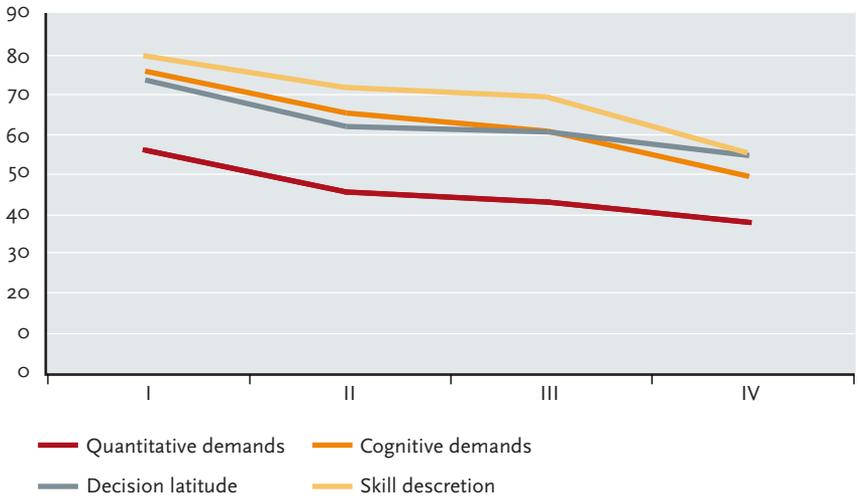
The results are very similar to what can be found in other industrialised countries, namely that risks related to physical and chemical exposures including injuries have been reduced dramatically, while the development of ergonomic and psychosocial exposure

shows a mixed picture of improvements (heavy lifting, decision authority and skill discretion), and the opposite (quantitative and psychological demands).

This development has undoubtedly contributed to an overall reduction of inequalities in health. According to interview data from 2000, 5.7% of the workforce have suffered an injury with subsequent absenteeism. This constitutes a rise from the 4.1% in 1990 (23). The risk is clearly higher among newly-hired young people, and agriculture, construction work and industry.

Several studies have shown psychosocial working environment to be an important mediating cause of health inequality. Data from the Danish National Work Environment Cohort from year 2000 have shown that some but not all psychosocial working conditions are unevenly distributed across occupational classes (24). See Figure 3.

**Figure 3. Social gradient across occupational classes (I-IV) of four dimensions of psychosocial work environment. Percent of employed exposed to high levels.**



Source: Kristensen et al. 2004

Quantitative and cognitive demands are more prevalent in higher socioeconomic groups and the same is true for high decision latitude and skill discretion. Social support and role insecurity is not related to social position (not shown). This means however that job strain (the combination of two risk factors: high quantitative demand and low decision latitude) is not related to social position and recent studies from Denmark has also shown that it does not explain any of the gradient in AMI (Acute Myocardial Infarction) incidence (25). The combination of two other risk factors: low cognitive demand and low skill discretion is on the other hand strongly linked to social position. Unskilled manual workers have very low cognitive demands and skill discretion while high-level employees are at the opposite end of that scale. Skill discretion and cognitive development is an important determinant of self-efficacy, which in turn plays an important role for health behaviour

in relation to tobacco, diet and physical activity. These two dimensions of work are also increasingly relevant in the modern information society.

#### POLICY

Danish work environment legislation, inspections and monitoring covers both physical and psychosocial working conditions but there might be a tendency that activities focusing on psychosocial problems and health promotion activities primarily are performed at workplaces where middle and higher socioeconomic groups dominate. It is however clearly the unskilled workers (group IV in Figure 3) who are facing the worst psychosocial conditions. Denmark might in this respect not be different from many other countries in the sense that a lot of information, advanced legislation and a lot of activity related to psychosocial working conditions might not have reduced their role in generating health inequalities.

#### CONCLUSION

Denmark is an example of a country with advanced traditions in terms of both research and legislation for protecting the workforce, but the psychosocial risk factors are, however, in some aspects growing and to a large extent still unregulated. Their role as upstream causes in the machinery generating inequalities in health is therefore still important.

### *Unemployment*

Unemployment rates have not always been low, but as in many countries they were on a low level in the 1960s, but later on in the twenty years from 1977 to 1997 there was a long period where unemployment rates were relatively high, varying from year to year between 6% and 11%. In recent years they have been rather low again and were in 2004 around 5%, compared to 6% in Sweden and 8% in the EU15 average. Unemployment experience over a five-year period is strongly related to educational attainment with levels above 30% for unskilled labour and below 10% for high-level employees (26).

#### POLICY

The Danish labour market model, sometime referred to as “flexsecurity”, enables employers to hire and fire employees rather easily without having to pay expensive social costs. Denmark has for the last ten years had a very high rate of labour market reforms and at present it is here much more similar to the Anglo-Saxon tradition in the UK, Canada and Australia with weak employment protection systems, compared to Sweden, Germany and France who have much stronger protection. This flexibility may not create new jobs, but it does lead to a greater mobility of employees, now the highest in the EU, and helps to maintain a high level of employment and to preserve that level within an increasingly qualified labour market.

## CONCLUSION

This labour market policy has not been implemented for its potential health effects, and it is also rather unclear what health impact might be linked to it. A low unemployment rate, particularly low levels of long term unemployment is beneficial, but the health effects of high mobility have not been studied in Denmark, and other studies have not been able to show any effects. The potentially most negative effect is on social exclusion from the labour market and one could expect that this policy would have serious side effects in terms of absenteeism, high disability pension rates and high rates of social exclusion.

Absenteeism rates are however rather low – approximately half of what are found in Sweden and Norway. This is partly due to differences in the legislation whereby employers often fire long-term sick-listed employees, and local authorities seldom allow absence periods to continue longer than 52 weeks. The prevalence of disability pension is on a high but similar level in all Nordic countries, but other types of early retirement for people 60+ are prevalent in Denmark. Employment rates in Denmark among people in the age group 55-64 are thus 60% – lower than Sweden, but much higher than in other European countries – (44%) (1). Denmark has also, as already mentioned, a strikingly low employment rate among people with disabilities. In spite of the very high employment rate among those without a disability, the employment rate among those 4.7% with severe disability (“severely hampered by illness in their daily activities”) is comparatively low in Denmark. The ratio of employment rates among the severely disabled compared to the non-disabled is thus 0.22 in Denmark while the EU average is 0.37 (10). The Danish labour market is dominated by small or medium-sized companies, whose ability to employ disabled persons might be less than among larger employers.

## *Environmental determinants (social and physical)*

Growing up in deprived neighbourhoods is a potential risk factor for children and a mechanism contributing to health inequalities in both cardiovascular and mental disorders. Danish cities are heavily segregated, which can be illustrated by the fact that life expectancy varies by 9 years between city districts in Copenhagen (2). Several efforts are being made to compensate the effects through resource allocation to schools and preschools and to restore the physical conditions of those often rather decayed housing areas. These efforts are however seldom motivated by concern for health equity, but more often by a concern about segregation and ghetto development.

As segregation increases there is also an increasing rate of marginalisation concentrated to some deprived areas. If marginalisation is defined as being both out of the workforce, not covered by any of the universal social insurance schemes and therefore being completely dependent on means tested benefits 10% of the population in Copenhagen is marginalised. Among those with non-Danish ethnicity the rate is 28% and more than 50% among people from Somalia, Lebanon and Syria. Among children from outside the EU or North America 25% have parents where both are marginalised (2). These figures include a significant number working on the “black market” and the figure are lower when only including those marginalised 3 years or more. This lack of integration in both the

labour market and housing market is thus at a considerable level and extremely high for some ethnic groups. Denmark has, as already mentioned, a low proportion of foreign-born inhabitants compared to many other countries, but their employment rate is still comparatively low. Segregation and discrimination are potential risk factors and closely linked to ethnic and educational background. There are no epidemiological estimates of their impact on health and health inequality.

Health risks in the physical environment are now primarily focused on air pollution from NO<sup>2</sup> and particulate matters from diesel engines and other sources. Several efforts have been made to reduce the emissions, but the growing amount of traffic has raised the levels. The PAF (population attributable fraction) of pollution has been estimated by WHO at only 0.6% of the burden of disease in Western Europe (4). As these exposures in the Danish context are not strongly related to social position their contribution to health inequality must be regarded as very small. Traffic injuries and injuries after falls are more common in Denmark than most other EU-countries and they occur as elsewhere with a clear social gradient. The high alcohol consumption and relatively weak and rather belated legislation against alcohol use among drivers are an important contribution to this. Injury prevention at the workplace has been very effective and has had a clear focus on manual occupations. There has also been a strong focus in Denmark on preventing traffic injuries among cyclists and pedestrians, which has probably contributed to a reduction in inequalities.

## *Healthcare*

Danish healthcare legislation ensures easy and equal access to healthcare of high quality. There has for many years been a strong political commitment to the principle of equity in access, and both outpatient and inpatient medical care in Denmark is therefore completely free of co-payment. Dental care, pharmaceutical drugs, psychotherapy and physiotherapy have however a high proportion of co-payment adding up to an overall proportion of private spending of 18% of total healthcare spending. Preventive services such as home visits for mothers and infants, childhood immunisation, childhood dental care and preventive home visits for the elderly are all free of charge. Only a few studies have analysed social inequalities in access and utilisation (27,28). These studies do not indicate any inequity in the use of GPs, but a pro-rich inequity in the use of outpatient medical specialists, and of services with co-payment such as physiotherapy, psychotherapy and dental care. Preventive services such as screening of cholesterol levels and for cervix cancer are also utilised to a much higher degree among well educated and higher socioeconomic groups. Hospital use as such has not shown any inequities but waiting times for more elective treatment are shorter, and use of the recently introduced possibility of free choice between hospitals for elective treatment are more frequently used by higher socioeconomic groups (27).

The social and geographical inequalities in terms of social consequences of disease (29,30) might also indicate inequities in rehabilitation, but the analysis of to what extent social inequalities in employment among persons suffering from illness and disability reflects different needs (e.g. that patients with a specific disorder have more difficulties in

returning to work when they have a manual occupation) or inequities in terms of access to an outcome of rehabilitation and sickness insurance has not been done.

#### POLICY

Existing inequities in healthcare thus might contribute to some of the existing inequalities in survival and social consequences, but it is still only a minor cause. This does not, however, preclude the fact that healthcare, has a significant potential for a larger contribution to a reduction – both through prevention and rehabilitation. Recent developments in cardiovascular epidemiology have illustrated that while Geoffrey Rose's notion that "a large number of people at small risk may give rise to more cases than a small number at high risk" might be right when focusing on only one risk factor, it is also true, when looking at the five major risk factors for cardiovascular diseases together, including previous attacks, that 80-90% of all cases have been exposed to at least two of these risk factors (31,32). Since both behavioural and biological risk factors increasingly tend to cluster in lower socioeconomic groups and since cardiovascular risk factors tend to interact multiplicatively with each other (33) and with socioeconomic position (34) there are growing benefits for population health and in health inequalities to be gained by individual level clinical strategies targeting people at high absolute risk (31).

This perspective provides the general practitioners with a key role as they have regular contact with a very large proportion of the Danish population (85% during a year). There are indications, but only a few in-depth studies, that many GPs refrain from interference in the lifestyles of their patients. The medical and economic incentives to intervene are obviously not seen as strong enough. Other programmes such as home visits to young families with newborn children are well known in terms of their assumed importance for health equity. Preventive home visits among the elderly (75+) are, since the legislation was introduced in 1998, practiced in most municipalities in Denmark. This programme has a strong potential for reducing health inequalities in that age group but only around 60% accept and receive an annual visit. Evaluations have shown that women benefit in terms of reduced disability but not men (35). Social differences in effects have so far not been studied.

#### CONCLUSION

In summary there are significant inequities in existing health services, that to a limited extent might be part of the problem, but this does not exclude the fact that healthcare with new effective treatment for cardiovascular and other risk factors might be potentially more important as part of the solution.

#### *Behavioural risk factors*

Denmark still has a huge problem in terms of traditional risk factors. Compared to other Nordic countries the burden related to tobacco and alcohol is three times bigger (see Table 4).

**Table 4. Burden of disease (DALY per 1000) attributable to 9 major risk factors in Denmark and Sweden 2002.**

	Denmark	Sweden
Tobacco	24.8	8.0
Alcohol	10.1	4.6
High BMI	8.8	7.5
High cholesterol	7.6	7.8
High blood pressure	7.0	11.5
Physical inactivity	3.8	3.5
Low fruit/vegetable intake	2.5	2.3
Illicit drugs	2.2	1.3
Unsafe sex	1.4	0.9

Source: WHO-Euro (4).

For most of these exposures a clear social gradient exists. Data from the Danish health survey in year 2000 illustrates this. The difference in prevalence varies between 0.4% and 25% (Table 5).

**Table 5. Prevalence of exposure among high-level employees and unskilled manual workers. Denmark 2000.**

	High-level employees	Unskilled manual workers
Daily smoking	21.0	46.1
High alcohol consumption	12.1	12.5
BMI >30	7.0	12.6
Physical active < 4 hour/week	67.5	77.4
No daily salad/vegetable	82.4	92.5

Source: NIPH SUSY2000.

It is of course an apparent paradox, that in spite of strong health effects (Table 4) of these risk factors and strong social gradients in their distribution (Table 5), they do not seem to explain much (<10%) of the Danish gradient in mortality (34) nor in self-rated health (36). An alternative could be differential susceptibility across socioeconomic groups (37) but that possibility has often been turned down by different statistical arguments (34). The problem with both these conclusions is that they are based on relative measures of effect. If inequality is measured in absolute terms and differential susceptibility is measured as departure from additivity the traditional risk factors do explain a large proportion of inequality (38), both in terms of differential exposure but also in terms of differential susceptibility (40). The reason for this is that if, as mentioned above, the relative effects of risk factors are equal across socioeconomic groups, the absolute effects necessarily will be larger among lower socioeconomic groups.

## CONCLUSION

The important conclusion from this is that risk factors which often cluster and interact with each other and with social position – with or without a social gradient in exposure levels – will contribute significantly to social inequalities in health.

## *Tobacco*

Tobacco consumption in Denmark reached a maximum in the early 1960s when 80% of men and 40% of women were smoking daily. The high burden attributed to tobacco (Table 4) is due to the long term effects of these very high consumption levels. Since the 1960s tobacco use has gone down for men and since the 1980s also for women. In 2003 28% were daily smokers, more than half of them smoking 15 cigarettes per day or more. The social gradient in smoking behaviour is gradually becoming more and more pronounced (39).

## POLICY

Later than other countries, the Danish Parliament in 2000 passed a law prohibiting smoking in primary and secondary schools and in 2002 tobacco advertisement was stopped. Prices are still high but lowered slightly in 2003. There are no restrictions on vending machines and only partial restrictions on smoking in other educational institutions and workplaces depending on local agreements. Since 2007 smoking is no longer permitted in all public places including workplaces and restaurants larger than 100m<sup>2</sup>. Private employers will still be free to choose their tobacco policy.

## CONCLUSION

Tobacco smoking is no doubt the strongest mediating cause of existing health inequality in Denmark. There are three reasons for this: 1: because it is such an important risk factor for the overall burden of disease in the country (Table 4), 2: because the social gradient in consumption is increasingly steep (Table 5), and 3: because the absolute health effects are higher among lower socioeconomic groups.

## *Alcohol*

During the first decades after the Second World War, alcohol consumption in Denmark was only slightly higher than in Sweden and Norway. Then, as living standards increased, prices were not raised, and in the period 1960-73 consumption doubled, and has since then remained around approximately 12 litres pure alcohol per adult.

## POLICY

There are many aspects of Danish alcohol policies that explain this. Denmark has in general been much less restrictive than other Scandinavian countries. An illustrative example is the fact that legislation to forbid driving with more than 50mg% was introduced in 1937 in Norway and 1997 in Denmark. Penalties are still less serious in Denmark

than in Norway and Sweden. Alcohol prices are on a much lower level – for beer they are approximately 50% lower than in Sweden and for strong liquor they were in 2003 even reduced, and are now 60% lower than in Sweden. There are no monopolies and no licensing for import, production or wholesale. Only retail sale needs a licence. Restaurants are not permitted to serve young people under 18 and shops are not allowed to sell to people below 16. There is however very little control on how these rules are followed. Restrictions on alcohol consumption at educational institutions and workplaces are voluntary. There are no restrictions on alcohol advertisements – Denmark has historically a very strong alcohol-industry (as well as tobacco industry). All the preventive policies mentioned above are expected to have effects broadly in the population and not skewed towards any part of the social spectrum. This, however, still impacts on inequalities as the following example illustrates.

Consumption of alcohol is rather evenly distributed across socioeconomic groups (see Table 5). Still its contribution to health inequalities is substantial. Denmark has, like many other countries, steep social gradients in several alcohol-related diseases and injuries. Again, as the relative risks of high alcohol consumption are high and equal in different socioeconomic groups (34) the fraction of these disorders attributable to alcohol is high and the fraction of the absolute inequality attributable to alcohol is equally high. Applying Danish consumption data from Table 5 into Table 6 illustrates this. It shows that both average morbidity and absolute inequality is reduced by 26% by eliminating this close to equally distributed risk factor. The relative inequality is however hardly affected.

*Table 6. Reducing equally distributed high-level alcohol consumption reduces both average morbidity and absolute inequality in alcohol-related disorders. Percentage with high alcohol consumption in two socioeconomic groups before and after a hypothetical intervention. Effect magnitude of alcohol is defined as RR=7 in both groups. Impact fraction calculated according to Morgenstern 1983.*

	Percentage exposed %		Morbidity rate	
	Before	After	Before	After
Group I	12.1	5.0	100	75
Group II	12.5	5.0	400	297
RR II / I			4.0	3.9
RD II – I			300	222

Source: author's calculations.

### *Diet, exercise and overweight*

These three factors are causally related to each other and together responsible for a considerable and rising proportion of the disease burden (see Table 4). The prevalence of obesity has increased three-fold in the last 30 years among children and young people. Fat consumption has decreased from 43% energy in 1985 to 33% in 2001 but has not im-

proved much since then (41). Consumption of vegetables also improved during the 1990s but since then has stagnated. Physical activity among both adults and children in terms of walking or bicycling to and from work has gone down 30% over the last 25 years. The empirical evidence for a relationship between the length of time children spend watching television and risks of overweight and the increasing rate of television watching in Denmark indicates this development as an important factor both for the trend and for the social gradient in overweight. The social patterning of these risk factors – particularly obesity – is also moving towards a much steeper social gradient with lower consumption of fruit and vegetables and higher consumption of fat in lower socioeconomic groups (2,41).

#### POLICY

In 2003 the national authorities (42) launched a programme to deal with this development. They suggest a focus on children and adolescents and for schools to play a key role in the programme. More physical activity in the curriculum, better access to cheap health food in the schools, a ban on vending machines with sugar-rich beverages etc. Advertisements aimed at children in TV for unhealthy foods should be forbidden. Physical planning to improve possibilities and safety for walking and cycling to and from work should be strengthened. So far the Government has not implemented these regulations but there has been considerable media coverage and campaigns with a strongly increased focus on physical activity as well as healthy foods in terms of more fruit and vegetables.

#### CONCLUSION

The Danish health policy debate has recently put strong focus on physical activity and improved diet. As these factors are increasingly unequally distributed, the impact of government policies will be crucial.

### *Disease-specific strategies*

It was, as already mentioned, part of the national health policy plan from 2002, to broaden the scope from dealing with health determinants to only deal with eight chronic diseases. As many potential interventions to reduce inequality are disease-specific it is of course relevant to analyze to what extent those disorders dominating the average burden of disease are the same, or different from those, generating the socioeconomic health divide. That issue has not been analyzed in Denmark, but a study from Sweden has shown that the ten most important disorders generating the absolute social inequality in disease burden are the same ten disorders in top of the average – however in a slightly different ranking order (43). There are no reasons to believe that this similarity in ranking is different in Denmark, even if the actual ranking is different – with smoking and alcohol-related disorders higher on the list.

## *Cancer*

The high incidence and low survival rate for several cancers in Denmark compared to other Nordic countries have raised severe concern and two detailed national plans for improving cancer prevention and treatment have been launched (44,45). Social inequality in incidence and survival is however not described and discussed in these documents and equity issues are only brought up briefly in relation to the growing social gradient for smoking. The potential inequality-reducing effect of increasing prices and the potential inequality-increasing effect of isolated campaigns with behavioural recommendations to the population are briefly discussed, but since then the Government has actually slightly lowered prices on cigarettes.

## *Cardiovascular disease*

Cardiovascular mortality has declined sharply in Denmark for 25 years to less than half the levels in 1980. Treatment and risk factor control among patients rather than primary prevention are playing an increasingly important role behind this development. Both medical and surgical interventions have improved survival dramatically and there have therefore been strong arguments for a very disease-specific approach to reduce mortality. With this fall in average mortality the absolute inequalities are also declining. There are however still social inequalities in survival (46). The very effective and in some cases very costly medication for ischemic heart disease might in combination with high co-payment levels imply inequities in treatment and survival.

## *Other diseases*

Other specific disorders have not been subject to so many coordinated policy efforts as cancer. Plans have been made for diabetes (47), and depression (48). In spite of the fact that both these disorders show clear social gradients, equity issues are hardly mentioned in these national plans.

## *Group-specific strategies*

As already mentioned there have so far been very limited efforts to formulate detailed health promotion policies specifically for the vulnerable groups highlighted in the policy documents. Many local social programmes for the chronically mentally disabled, addicts, homeless people and prostitutes have been launched including efforts to improve their access to and fair treatment by the healthcare system (50). Three population groups have recently been singled out for in a national initiative to support municipalities in their efforts to strengthen health promotion for them – disability pensioners, people on means-tested welfare benefits and unemployed manual workers.

From a population perspective many decades of programmes specifically targeting young families and their children have been of major importance for health equity. They have traditionally been universal to avoid stigmatisation. This tradition of universal free preventive services have for decades focused on mothers and children and have been combined with social policies preventing child poverty and improving housing and nutrition among children. Programmes financed by local communities with health visitors visiting newborn babies and their mothers have existed since the 1930s. The fact that they cover more than 90% of the target group make them potentially very important for the existing small inequalities in child health, but actually no recent Danish studies have explicitly addressed the issue. Traditionally there have been free yearly check-ups of schoolchildren but municipalities have gradually reduced this to medical examinations at school start and on leaving compulsory school after 8-9 years.

Denmark has a number of preventive health services available free of charge. They include guidance on methods of contraception from general practitioners, and preventive examinations for pregnant women and newborn children by GPs and midwives: Mothers are advised concerning work, diet and smoking. These professionals help to prepare the birth and give advice regarding the care of the new-born child. If necessary the examinations will be performed by home visits. All pre-school children are entitled to 7 free preventive health examinations by the GP. Through the health visitors, the local authorities, as part of their healthcare programme, are responsible for giving free advice, assistance and health examinations to check functional deficiencies of school children until the end of their compulsory education. All Danish children can be vaccinated free of charge against whooping cough, diphtheria, tetanus, polio, measles, German measles and mumps. 93% of infants receive preventive examinations and approximately 80% among older pre-school children are reached. Local communities have rather varying number of visits by home visitor per child and a recent study has shown a relationship between average income and number of visits. As the variation in need would predict the opposite association, this might indicate a certain inequity in the service (49). Municipalities are expected to have rules for how they handle families who refuse to receive home visits, but half of them don't have such systems. There is, in other words, no doubt that these preventive services have a very broad outreach, preventing some social inequalities in child health, but there might still be inequities in the service and some vulnerable groups who are not reached at all.

## *Arena approaches*

Health policy approaches focusing on certain arenas exist in Denmark as well. Copenhagen and Horsens are designated phase IV Healthy Cities. In particular the Healthy Cities initiatives in Denmark have certain equity focus linking activities to urban renewal but this has seldom been supported by a strong intersectoral local health policy with clear equity priorities. Copenhagen City is presently planning a major equity-oriented multi-sectoral intervention in some underprivileged areas (51).

The Health Promoting Schools movement, have also had several Danish participants across the country. Several projects have been started as part of the Health Promoting Workplaces initiative, primarily offering individual information and support in relation to smoking, alcohol, diet and physical activity. In spite of the fact that Danish researchers have found strong support for a relationship between psychosocial working conditions and health behaviour, interventions dealing with both in a coordinated manner are not very common.

The Health Promoting Hospital network was started in 1999 and has 51 members in Denmark. They focus on risk factor reduction among patients with the eight chronic disorders and are less involved in primary prevention.

## *Implementation*

The Government and the Ministry of Health and the Interior are responsible for overall health policy planning, the aims of which have been expressed in the policy document "Healthy Throughout Life". The national authorities are assisting the Government by implementing policies and guidelines in health and healthcare policy. The National Board of Health is responsible for developing clinical guidelines and quality control of healthcare. The National Institute of Public Health ([www.niph.dk](http://www.niph.dk)) is responsible for epidemiological monitoring of a set of indicators and published in 2007 the first Danish Public Health Report. They produce a large volume of policy-related R&D work in public health and healthcare research. There is no national authority with a clear responsibility for intersectoral health policy.

From 2007 Denmark has changed the structure of local government: 14 counties will replace 5 regions and 275 municipalities will be reduced to 98. The regions will, like the counties before them, be responsible for primary and secondary medical care including hospital care. The responsibility for health promotion will be with the municipalities. Municipalities will have a more clearly stated responsibility for prevention, health promotion, care of alcohol- and drug addicts, the mentally disabled, vocational training, rehabilitation and care of the elderly and disabled in the new health law. Quantitatively, tasks related to care and rehabilitation will dominate and that might strengthen the tendency to look at health inequalities not so much as a health gradient across socioeconomic groups but rather as a comparison between smaller groups of marginalised individuals where health and social conditions are strongly interwoven in two-way relationships. This might actually tend to strengthen the Danish tradition of seeing health inequality more as a dichotomy than as a gradient.

Municipalities are responsible for a broad range of local policies with a potentially strong health impact, such as the environment, traffic, housing, school, ethnic integration, cash benefits for poor, unemployed, sick and disabled as well as care of the elderly and disabled. But this multisectoral potential after the reform, will not be realised without strong public health skills and competence, which might be difficult to establish in the many smaller municipalities with 20-50.000 inhabitants. Several tasks related to health monitoring would

need such competence including inequality measurement, prioritising, target-setting, health impact assessment and resource allocation to local health policy activities.

## *Monitoring*

The Danish Government has not set up clear health policy targets but they have published a very comprehensive set of indicators including, however, only three indicators on health inequality:

1. inequality across socioeconomic groups of all-cause mortality (registers with record linkage).
2. socioeconomic inequality of health-related quality of life (national health survey).
3. socioeconomic inequality of severely limiting chronic illness (national health survey).

In addition the social inequality of one exposure – smoking – will be monitored in surveys. Four particular “vulnerable and distressed groups of adults” will be monitored: alcohol addicts, drug addicts, people with mental disorders and people of non-Danish ethnic origin. There will no doubt be a need for a much stronger indicator programme linked to the new responsibilities for the municipalities – both in terms of population exposures to a broad range of causes of disease needed for the planning of prevention, and in terms of quality of life, participation and living conditions for disabled for the planning of rehabilitation and care.

## *Concluding remarks*

There are at least three lessons to be learned from the Danish case:

**Firstly;** Denmark illustrates that unusually favourable economic and social conditions, both in terms of average and in terms of small income inequalities and low poverty rates, are not sufficient preconditions for a favourable health development and small socioeconomic health inequalities. If a number of specific health policies are not in place – in this case particularly alcohol and tobacco policies – the potential for a rather equally distributed wealth will not be translated into health and health equity.

**Secondly;** a strong sense of social solidarity within a so far relatively homogenous population has been extended to the health sphere in terms of strong commitment to equity in care, including care of a disease burden so dominated by behavioural risk factors. The solidarity also extends to a strong environmental commitment with clear health implications. The solidarity has however not been extended to those, who for genetic or social reasons are more susceptible to the effects of addiction to tobacco, alcohol and drugs. Restrictive policies to protect them from marketing and easy access, was for many years

regarded as an unacceptable violation of individual freedom. A clear, coordinated policy for health equity is needed.

**Thirdly;** Denmark is an illustrative example of two important lessons for prevention from epidemiology – both based on the distinction between relative and absolute effects. Often policies and interventions have differential effectiveness across socioeconomic groups, but when they have equal effects on exposure in different social groups (such as some universal social policies and restrictions on access to health-damaging products) they will both improve average and reduce absolute inequality, but they will not reduce relative inequality. This conclusion is based on the fact that mediating exposures regularly interact with social position. This is an argument for universal policies as a part of equity oriented policy. In populations where risk factors cluster among lower socioeconomic groups there are however also strong arguments for targeted interventions. A large proportion of illness will occur among those exposed to more than one risk factor, since they often interact with each other and with social position. There are strong preventive potentials in clinically targeting groups with many risk factors including both social, behavioural and biological causes.

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# England

MARGARET WHITEHEAD AND PHILIPPA BIRD

## *Development of society and the present political environment*

### **Economic and health development**

England has a population of just over 50 million people and comprises 83.7% of the total population of the four countries that make up the UK (1). The life expectancy at birth in England was 76.55 years for males and 80.91 years for females in 2002-2004. The country also has an ageing population, with 18.6% over retirement age (65 or over for men; 60 or over for women). The total fertility rate (TFR) in the UK is relatively high in comparison with other European countries at 1.78 children per woman in 2004. In the 2001 census, 8.3% UK population were born overseas (1).

The UK economy has grown steadily over the last 30 years. Household incomes have risen over this time, but increases have been greatest in the richest sections of the population. Income inequalities increased rapidly during the 1980s and have since levelled off. In 2004, 79% of working age men and 71% of working age women in Britain were in employment. Unemployment was at a sustained low of 4.6% throughout 2004 and 2005, the lowest since 1975 (2). Since the late 1990s, government spending has risen faster than economic growth, particularly spending on healthcare and education. The government spending to GDP ratio was 44% in 2004 (3).

The United Kingdom is a parliamentary democracy and a constitutional monarchy. The UK Parliament, made up of two houses: the House of Lords and the elected House of Commons, holds the greatest authority. It has responsibility for passing laws, determining government policy and its administration, and the level of government expenditure. The four countries of the UK, however, have degrees of autonomy, with devolved parliaments in Scotland and Wales, and separation of the education and health systems for administrative purposes. England is divided into 355 administrative local government authorities, each of which has an elected council, which is responsible for running education, transport, social services, planning, amongst other duties, but not health. The National Health Service (NHS) is governed and administered separately through the Department of Health for England and local NHS agencies.

### **Development of policy focus on equity in health**

Social inequalities in health have been documented systematically in England for over 160 years, since the beginning of national registration of births and deaths in 1839 (4). As a policy concern over the past 30 years, however, it has risen slowly up the political agenda, sometimes faltering. Throughout the 1980s and early 1990s was what has been called the “confrontation” phase of the process, in which the two main political parties took opposing stances on health inequalities for much of the period (5). There was some

thawing out of attitudes to health inequalities towards the end of the Conservative administration, and rapid developments since the election of the Labour Government in 1997, as detailed in Box 1.

One of the first actions of the new government in 1997 was to set up the *Independent Inquiry into Inequalities in Health* under the chairmanship of Sir Donald Acheson. Reporting in 1998, the Inquiry called for action on the social determinants of the observed health inequalities, including measures concerned with social protection, employment, housing, transport and agriculture, as well as a special role for the National Health Service (NHS) (6). That was followed in 1999 by the issuing of a Government White Paper, *Saving Lives*, detailing a new public health strategy for England, and the first Government response to the Acheson Report, setting out a national agenda for action to reduce health inequalities (7). Both of these policy documents were noteworthy in adopting a broad view of the wider determinants of health, beyond health services and individual lifestyles, and in promising equally broad multisectoral action. The agenda for reducing health inequalities, for example, gave a commitment to action on living standards and tackling poverty, particularly child poverty; preschool education; employment as a way out of poverty; transport; urban regeneration, crime reduction and housing improvement for disadvantaged areas; as well as preventive activities through a strengthened public health workforce.

The *Saving Lives* White Paper, and the 10-year NHS Plan issued in 2000 (8), were groundbreaking in setting a new statutory objective for the NHS – to allocate NHS resources to contribute to a reduction in inequalities in health status. Since the mid-1970s, the NHS had been charged with equitable allocation of resources matched to need for health services. The new objective, however, went beyond equity in healthcare, to addressing differentials in health status. It legitimised action on health inequalities – indeed required it – at all levels of the NHS from local and regional to national.

In 2001, two national targets for reducing social inequalities in health were set, one relating to social class differentials in infant mortality and one related to differences in life expectancy by deprivation of residential area. Following this target-setting, a landmark policy review took place in 2002: a cross-government spending review led by the Treasury (Ministry of Finance). This was set up to identify how Government spending in different sectors of the economy could be applied to greatest effect on health inequalities. Its findings formed the backbone for the Government's *Tackling Health Inequalities – A Programme for Action*, published in 2003 (9). The programme set out a plan to achieve two goals: the national health inequalities targets by 2010, and the wider challenge of tackling the underlying causes of health inequalities in the years beyond. Box 2 sets out the four themes on which the programme is built and gives examples of the types of action planned to address each one. Area-based initiatives figure very strongly in this and other major social interventions. That is, they are concentrated heavily on areas of the country identified as suffering material and social deprivation. Two more detailed objectives were specified in the programme for action (9):

From 1997–99 baseline:

- *By 2010 to reduce by at least 10% the gap in infant mortality between routine and manual groups and the population as a whole.*
- *Reformulated life expectancy target: to reduce by at least 10% the gap between the areas with the worst health and deprivation indicators (the spearhead group) and the population as a whole.*

In 2004, this specific programme was supplemented with more general public health policy: the White Paper *Choosing health – making healthier choices easier* (10). This covered the promotion of health in general across the population, but incorporated some action on inequalities in health. As the title of the White Paper suggests, it has a stronger focus than previously on lifestyle factors and tends to downplay structural factors.

**Box 1. Rapid developments since the election of the Labour Government in 1997.**

1998	Report of the Independent Inquiry into Inequalities in Health (Acheson).
1999	National Public Health Strategy “ <i>Saving Lives</i> ”, drawing on Acheson; MRC given extra resources to fund “Health of the Public” research, with Health inequalities as a priority; Government strategy in response to Acheson Report published “ <i>Reducing Health Inequalities: An Agenda for Action.</i> ”
2000	<i>NHS Plan</i> published – 10-year vision and process, including reducing health inequalities as a statutory responsibility of the National Health Service.
2000	National health inequalities targets announced (specified in 2002/2003) Parliamentary Select Committee on Public Health.
2002	Treasury Spending Review on health inequalities; Treasury-commissioned First Wanless Report on “Securing our future.”
2003	“ <i>Tackling Health Inequalities</i> ” Government’s cross-departmental strategy for tackling health inequalities in England, with specified programmes and resources.
2004	Treasury-commissioned Second Wanless Report on “Public Health”; “ <i>Choosing Health</i> ” Government White Paper on public health for England issued.
2005	First monitoring report on “ <i>Tackling Health Inequalities</i> ” issued, August; EU Summit on Tackling Health Inequalities in September, hosted by UK Government as part of their EU Presidency priority.

**Box 2. Tackling Health Inequalities: A Programme for Action for England (2003).****KEY THEMES AND SUPPORTING ACTIONS****Theme 1: Supporting families, mothers and children:**

- *Sure Start* programmes to support child development in disadvantaged areas.
- Intensified support for pregnant women and mothers to stop smoking and increase breastfeeding.
- Programmes to prevent teenage pregnancy and support teenage parents.
- Children's Fund programme for 5–13 year-old children and their families to promote educational achievement in disadvantaged areas and prevent criminal behaviour.
- Improving housing conditions, especially for children in disadvantaged areas.

**Theme 2: Strengthening disadvantaged communities through:**

- Setting up a *Neighbourhood Renewal Fund* to assist mainstream services to tackle neighbourhood disadvantage.
- Testing new approaches to neighbourhood renewal through a 10-year programme of *New Deal for Communities* in 39 of the most disadvantaged communities.
- Setting up *Positive Futures* projects for young people with drug problems.

**Theme 3: Preventing illness and providing effective treatment and care:**

- Developing more smoking prevention and cessation services for low-income groups.
- Improving nutrition in disadvantaged areas through National School Fruit Scheme.
- Reduce accidental injury and death through provision of safety equipment (e.g. smoke detectors) to vulnerable groups etc.
- Upgrade local primary care facilities in disadvantaged areas and *Healthy Living Centres*.

**Theme 4: Addressing the underlying determinants of health including:**

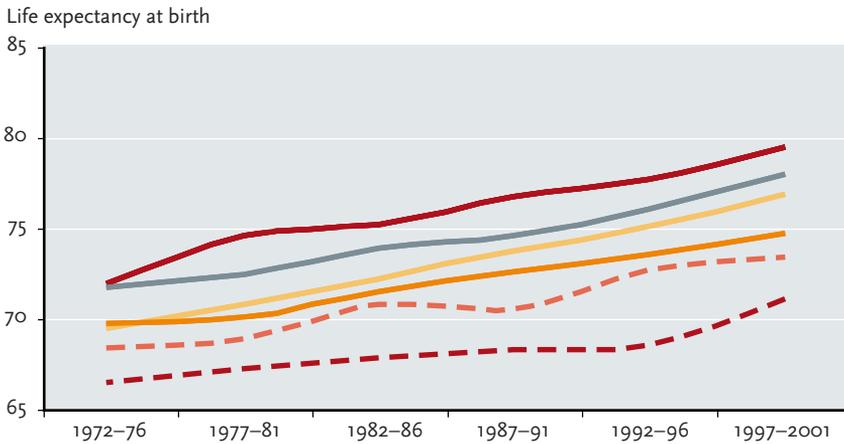
- Reducing child poverty by raising incomes of families with children through tax and benefit system.
- Special schemes to help parents into work.
- Improving housing and safety of local environment through local authority building and regeneration programmes.
- Improving transport in deprived areas to facilitate access to work, schools and health services.
- Improving access to jobs and income through New Deal programme, National Minimum Wage.

## Magnitude, trends and analysis on social inequalities in health

### Mortality

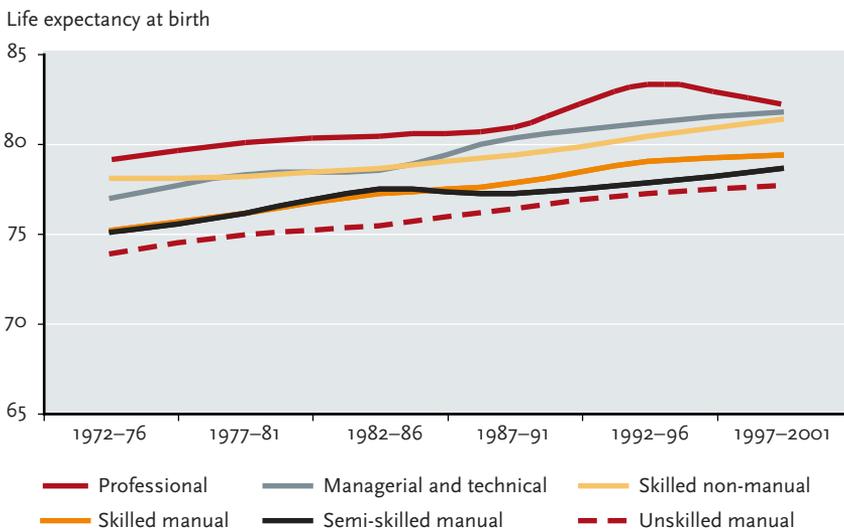
Although overall life expectancy in England and Wales has risen over the last 30 years, the magnitude of the difference between life expectancy at birth for the highest and lowest social classes has grown for men (Figure 1a). In 1972-76 a man in an unskilled manual occupation could expect to live for 5.5 years less than a man in a professional occupation, but by 1997-2001 this gap had grown to 8.4 years. For women this gap has narrowed slightly (Figure 1b).

Figure 1 a. Male life expectancy at birth by social class, England and Wales, 1972-2001.



Source: ONS Longitudinal Study.

Figure 1 b. Female life expectancy at birth by social class, England and Wales, 1972-2001.



Source: ONS Longitudinal Study.

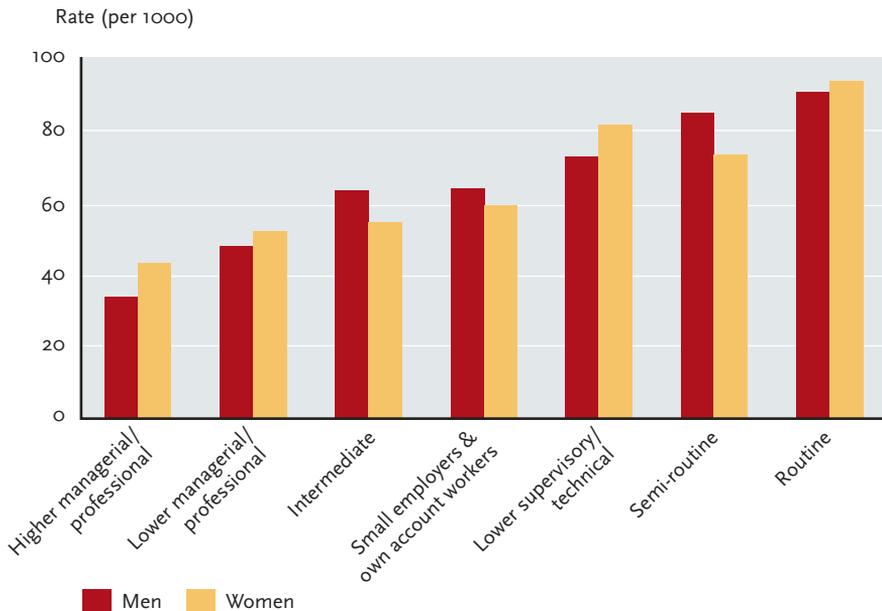
The country’s continuing inequalities in infant and child mortality have been of great concern over the decades, and have led to the setting of a specific inequality target, as detailed above.

### Self-rated health

The 2001 census included for the first time a question on self-rated general health, and this has been analysed by the new Office for National Statistics (ONS) social classification (SeC). Figure 2 shows a step-wise gradient in age-standardised rates of “not good” health for people in different social positions, increasing with worsening employment conditions. The rate for people in group 7 (routine occupations) was more than double that of people in group 1 (higher managerial and professional occupations) – 95 per 1 000 and 37 per 1 000 respectively. Health inequalities were slightly larger for men than for women when measured by the SeC, though the differences across the social scale for women were still substantial. The ratio of the rate in group 7 to that in group 1 was 2.7 for men and 2.2 for women. There were notable gender differences in general self-rated health within each socioeconomic category.

Regionally, a North-West/South-East divide in social class inequalities is evident in Great Britain, with each of the 7 social classes having higher rates of poor health in Wales, the North East and North West regions of England than elsewhere. The widest health gap between social classes, however, was found in Scotland and London (11). There is also some recent evidence that the effect of unemployment on health is modified by the local socioeconomic context, with the health of the long-term unemployed being better in high unemployment regions, and conversely, worse where the local labour market has been traditionally stronger (12).

**Figure 2. Age standardised rate\* (per 1000) of self reported health “not good”, by sex and NS-SeC class, ages 25–64, England 2001. \* Standardised to the European population.**

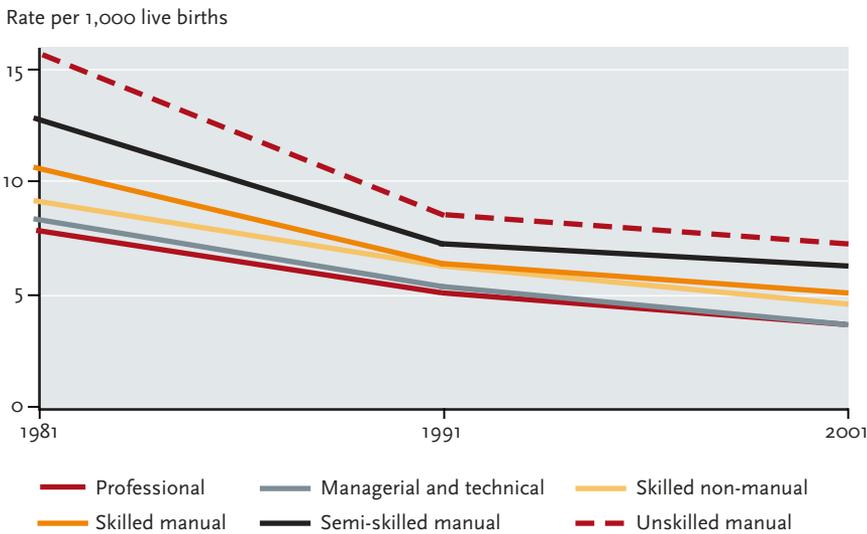


Source: Adapted from Doran et al. (11).

### Progress towards national targets

The first monitoring report on the Action Plan and its targets, issued in August 2005, concluded that inequalities between the most and least disadvantaged had widened in relative terms between baseline and 2001-03, but had narrowed in some instances in absolute terms. e.g.: despite overall improvements in infant mortality rates, the relative gap between the rate for 'routine occupations' and the general population has widened (Figure 3).

**Figure 3. Infant mortality\* by social class\*\*, United Kingdom, 1981, 1991 and 2001. \* Deaths within 1 year of birth. \*\* Based on father's occupation at death registration.**



Source: Social Trends 30 (Yrs 1981 and 1991) and Social Trends 33 (2001), ONS.

What became very clear from the monitoring report was the importance of specifying relative or absolute change in relation to targets. Generally, as detailed in the specific sections in part 2, there was a tendency for the relative inequalities to widen, but the absolute inequalities to stay the same or reduce. When the monitoring report was published in August 2005, the media quickly picked up on the negative message from the relative measures, with the Government struggling to get across the more positive findings about absolute change.

### Research on health inequalities

There is a mountain of research on health inequalities in the UK. It has been growing in importance as a serious field of enquiry since the 1970s, and even when it was difficult to get government funding for the subject, there was a relatively high level of activity. This activity was facilitated by the existence of the historical death registers, the establishment of a series national birth cohorts from 1946 onwards, the census Longitudinal Study (LS) from 1971 onwards, and the Whitehall Study from 1969 to the present day. These datasets have enabled the elucidation of pathways and mechanisms generating and maintaining

inequalities in health. Several influential charitable foundations have also played an active role in supporting research, particularly around the wider determinants of health and the experiences of people living in hardship. These have included most notably the Joseph Rowntree Foundation and the King's Fund, but also the professional bodies of the health-care professions, such as the Royal College of Physicians, the Royal College of Nursing, and the Faculty of Public Health Medicine.

Since the mid-1990s, the government-funded research councils and the Department of Health have become more and more active in funding this research area. The Economic and Social Research Council (ESRC) was one of the first to set up a major programme: the Health Variations Programme from 1995-2001, which funded 26 projects in academic institutions around the UK. The ESRC has since gone on to fund a series of relevant programmes, including one on "Human capability and resilience". The Department of Health has had a policy research programme on health inequalities since the mid-1990s, which has concentrated on policy and operational research. In 2005, it funded a UK Public Health Research Consortium for 5 years, with health inequalities as one of three major themes. It also funds a great deal of applied research, such as refining resource allocation formulae to meet the new inequality objective for the NHS. In 1998, the Medical Research Council (MRC) was allocated an additional £90 million for "Health of the Public" research (with priority given to health inequalities) and post-genome research.

Increasingly, the focus is turning to research on "what works and why?". Multi-million pound evaluations of the major social interventions introduced by the Government are currently underway for the preschool programme Sure Start, for the New Deal for Communities, and the various welfare to work initiatives to name a few.

## *Strategies focusing on specific health determinants*

As Box 2 details, England currently has a Government programme for action on health inequalities that attempts to integrate strategies across several health determinants (such as poverty, employment, education, physical environment, tobacco and alcohol misuse) and for a number of diseases (most notably cancer, cardiovascular disease and sexual health). Theoretically, therefore, the workings of the integrated programme should be assessed overall. The first of an intended series of monitoring reports was issued in 2005 to do exactly that (13), and we will draw on that report in this chapter. In practice, however, it is more manageable to discuss each of the main determinants and diseases separately, before making an integrated assessment.

### **Economic growth and poverty alleviation**

#### **FACTS/DATA**

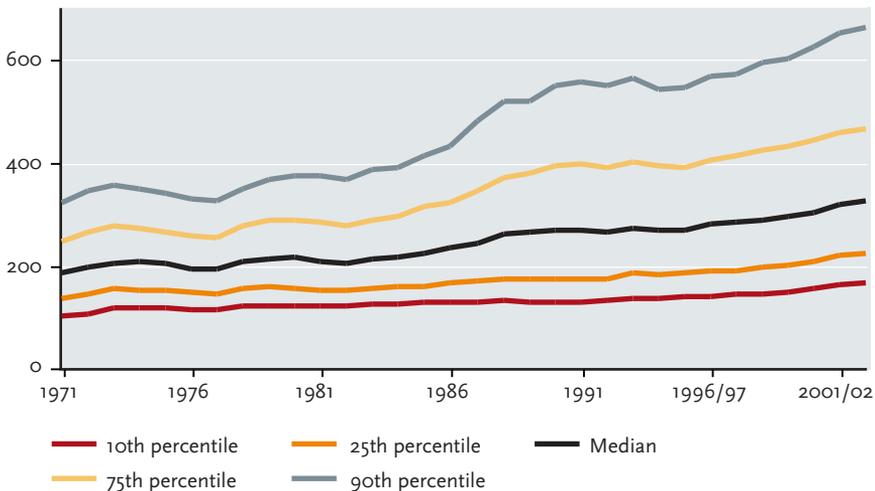
Economic growth has risen steadily over the last 30 years. However increases in income have not benefited all sections of the population equally. Overall, the income gap between the richest and poorest sections of the population has greatly increased over the last 30

years, as illustrated in Figure 4. Inequalities in income grew sharply in the 1980s, and have stabilised, but not reversed, since the late 1990s.

The proportion of people living in poverty (below 60% of the median income) rose sharply during the 1980s and peaked at 21% in 1992. It has since fallen to 17% in 2002-3, but the proportion of people living in poverty remains above the levels experienced before 1980. Child poverty has been decreasing since 1998/99, following a rise during the 1980s and 1990s, although children continue to be disproportionately present in low income households (14).

Income taxes in Britain are progressive, averaging 11% of earnings paid as income tax and 8% as social contributions, although indirect taxes, such as VAT (Value Added Tax) and customs duties, tend to be regressive. Resources are redistributed in the form of tax credits, social security benefits (for example for lone parents) and free public services. Before redistribution the highest income quintile earn 15 times that of the lowest income quintile. After distribution of government cash benefits this ratio is reduced to 6 to 1, and after direct and local taxes the ratio falls further to 5 to 1. Finally, after adjustment for indirect taxes and use of certain free government services such as health and education, the highest income quintile has a final income 4 times higher than the lowest income quintile (14).

**Figure 4. Distribution of household income\*, United Kingdom, 1971-2002. Adapted from: Summerfield and Gill, 2005. \* Real disposable household income adjusted to 2002/3 prices.**



Source: Summerfield, Gill (14)

#### POLICIES/STRATEGIES AND RESULTS/LESSONS LEARNED

Deprivation in childhood and families with young children have been selected as priorities from a health perspective as well as from an overarching social development viewpoint. This has been reflected in the setting of a national child poverty target in 1999, announced by the Prime Minister himself:

- *To reduce child poverty by a half in 10 years and abolish it by the year 2020.*

A more specific target aimed to reduce the number of children in Great Britain in relative low income by a quarter between 1998/99 and 2004/2005. Real progress has been made towards this. The proportion of children in England living in poor households (less than 60% median income for Great Britain in the year in question) has fallen from 24% to 20% between 1998/99 and 2003/04. With an absolute measure (taking a fixed threshold of below 60% of GB median income in the baseline years of 1998/99), the proportion of children living in poor households has fallen from 22% to 11%. In other words, the proportion of children in England living in absolute poverty has halved in the 5 year period (13).

Policies contributing to this improvement include concerted tax and benefit changes by the treasury to raise the income of families with children, and improvement in the employment situation of parents, so that there are fewer children in workless households. National initiatives, such as the New Deal for Lone Parents, have helped some lone parents from “welfare to work”, though the numbers may be too low to make a big impact on the overall figures.

Policies to tackle health inequalities in England have had a very strong focus on poverty reduction, particularly compared with those of the Nordic countries. There are good reasons for this, not least the much higher prevalence of poverty in England and the child poverty rates, which have been among the highest in Europe. The continued focus on poverty is justifiable, but needs to be supplemented with action on other aspects of the social gradient.

## Education

### TRENDS

School attendance is compulsory in England from ages 5 to 16, and is provided free in all public institutions. There has been concern for many years, however, about the tendency for lower quality of facilities and learning environment in disadvantaged urban schools, and there have been many initiatives to attract teachers and upgrade buildings, with varying success. Post-16 study in schools is also free, but only 60% of young people remained in education or training until age 18 in 2002, with a steep social gradient in staying-on rates (15).

The social gradient continues into higher education, with approximately 35% of the relevant age-group going to university or college, ranging from 50% of young people with parents from a non-manual social class to 19% with parents from manual occupations (15). Tuition fees for university education were introduced in 1998 (£1175 per year in 2005, rising to £3000 per year in 2006), with exemptions and grants for students from the poorest backgrounds. Even so, the costs involved in going to university remain a big deterrent for working class families. The proportion of pupils going to private, fee-paying schools has stabilised at about 7%, which adds to the relatively divided nature of the education system in England. One result of this type of system is that educational attainment is still very closely associated with parental attainment in England (15).

Access to preschool education and childcare for the under-fives has been limited for the past few decades and was judged to be the most costly in Europe, leading to economic and geographic inequalities in access at this critical development stage (15). It is, however, an area where there has been a great deal of activity undertaken in the name of reducing health inequalities, as detailed below.

#### POLICIES/STRATEGIES AND RESULTS/LESSONS LEARNED

There is an overall target set for the education system to improve educational attainment, but also a commitment to narrowing the gap in attainment between the most and least disadvantaged children. There has been an increased emphasis on having a national curriculum (introduced in England in 1992) and on national testing at key stages at ages 7, 11, 14 and 16 to monitor attainment. In relation to the associated target, there has been a significant improvement in the proportion of those aged 16 who get good grades in the national examinations, including for the most disadvantaged groups. In addition there are some signs of a narrowing of the gap in attainment between pupils from poor backgrounds (eligible for free school meals) and all pupils (13).

As far as tackling health inequalities is concerned, however, the real policy push has been on two main fronts: Sure Start services for the under-fours and their families, and the Healthy Schools programme. Sure Start offers childcare and preschool education, and social/educational support services to their parents. Starting in 2003, it had the goal of reaching 400,000 children under four living in disadvantaged areas, including a third of children under four living in poverty by 2006. To achieve this, there was a Government target of 500 local programmes to be set up by March 2004, and this target has now been exceeded, with 524 programmes up and running. A target of 45,000 new day-care places through the “Neighbourhood Nursery Initiative” in the most disadvantaged areas of the country was set to be achieved by 2006. This target was exceeded by September 2004 (13).

For school-age children, the aim has been to improve the social and health context of school life by targeting the Healthy Schools programme on the most deprived communities. These communities are identified by the proportion of pupils eligible for free-school-meals (a means-tested benefit). Approximately 7,500 schools with more than 20% of pupils eligible for free school meals have been identified. To date over 3,500 of these schools have achieved “healthy school status, level three”, and the aim is for the remainder of the schools in this category to reach that status by 2006 (13).

### Working conditions

#### TRENDS

Two million people in England suffer an illness they believe has been caused by, or made worse by, their work. In addition, 40 million working days are lost each year to occupational ill-health and injury, 33 million of which are classified as due to occupational ill-health (10). This includes both physical and mental ill-health, and exhibits a steep social gradient. The Whitehall II Study of London civil servants, for example, found that job strain, involving high demand and low control, increases with decreasing employ-

ment grade, and is associated with an increased risk of coronary heart diseases (16). Stress-related conditions and musculoskeletal disorders are now the commonest causes of work-related sickness absence and a cause for political concern (10). The total cost to the economy of work-related ill-health and injury has been estimated to be between £10.8 and £17.8 billion per year (17). There is no dedicated work environment survey in the UK, which means that there is a lack of data on some important questions.

#### POLICIES/STRATEGIES

The 2004 Public Health White Paper, “Choosing Health”, singled out work and health as a priority policy area (10). It followed the recommendations of the Acheson Inquiry (6) in conceptualising work as both health enhancing in terms of its potential to improve social inclusion and income, and health-damaging in certain circumstances. A three-pronged strategy was therefore put forward to address work and health issues:

- “Reducing barriers to work to improve health and reduce inequalities through employment;
- improving working conditions to reduce the causes of work-related ill-health;
- promoting the work environment as a source of better health” (p.153).

The first prong of the strategy, concerned with initiatives to get people into work, is covered in section unemployment. For the second prong, aimed at improving health-damaging working conditions, the Health and Safety Executive (HSE) is seen as the major player. As its name suggests, the HSE is responsible for recording and monitoring occupational ill-health and injuries sustained at work, inspecting workplaces and identifying breaches of the health and safety regulations. It also has an advisory role, and it is on this that the Public Health White Paper, *Choosing Health*, focuses, describing the HSE’s new strategy of making advice and support more accessible and getting workers more involved in taking decisions that affect their health and safety. Part of this new strategy is putting in place a programme of actions to help companies implement best practice in health and safety. In 2004, the HSE also launched a “best practice” approach to help employers manage long-term sickness absence proactively. In relation to stress-related disorders, the HSE issued new management standards for stress in the workplace in November 2004 (18). The standards do recognise that preventing stress at work goes beyond helping employees cope better with their stress, and therefore the HSE advice promotes company action on the causes of stress in their work environment. It is still at the advisory, rather than regulatory, stage, though. From a health inequalities perspective, it would be useful if the HSE monitored where and how their advice was being implemented, and made extra efforts if there was an imbalance. Otherwise, a situation could be envisaged where take-up of good practice was fastest in white-collar workplaces, while blue-collar workplaces lagged behind or were neglected.

One area in which regulation may have some inequalities “bite” is the EU Working Time Directive, as increasing numbers of British workers (currently 4 million) work more than the 48-hour limit. There has been stronger Government action to implement this

Directive in recent years, as a way of improving the work-life balance and thus reducing stress. Enforcement of the Directive may have the potential to influence inequalities in the work-related ill-health, if there is a social class differential in excess hours worked and this is tackled vigorously. What that situation may reflect, however, is low-pay in less skilled jobs, necessitating the working of longer hours to earn a living wage. If that is the case, then the Working Time Directive may not have the predicted health improvements, at least in some population groups.

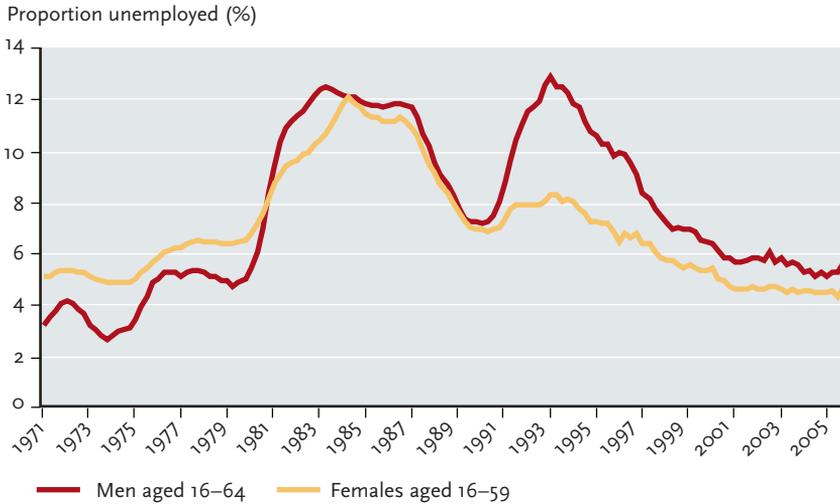
The third prong – using the workplace as a health promotion setting or arena – involves the more traditional tactics of piloting behaviour-change programmes during working time, coupled with environmental changes to “make the healthier choices the easier choices”, in line with the Ottawa Charter (19). These include an emphasis on encouraging physical activity at work and healthier food options in staff canteens and vending machines. Another notable aspect of the Public Health White Paper is its commitment to making the NHS a model employer in supporting and promoting the health of its 1.3 million staff. This includes making all public sector workplaces smoke-free by 2006, providing personalised support for nurses wanting to quit smoking, and a new framework for vocational rehabilitation after long-term sickness.

## Unemployment

### TRENDS

In 2005, unemployment in England was the lowest since the 1970s, following peaks in the mid 1980s and mid 1990s (Figure 5). Even at this low level, however, it still means that nearly one million men and women of working age are unemployed. Unskilled manual workers have been the hardest hit, following the drop in demand for unskilled labour that has been experienced throughout OECD countries. Other socioeconomic groups are also affected, though, with the chances of being unemployed increasing with declining socioeconomic group (20, 21). Northern and Western parts of the country have had persistently higher unemployment rates than the South and the East, and young men from minority ethnic groups are at particularly high risk.

Other forms of non-employment are on the increase and causing concern. The number of people with a chronic illness or disability who are unable to work and receiving state welfare benefits has increased significantly over the past two decades. About 2.6 million people with a disability or a chronic illness are on state benefits, such as Incapacity Benefit. These make up the largest group of benefit claimants, and account for 25% of social security benefit expenditure, representing 1.5% of GDP (22). Moving people from welfare to work has become a major policy priority over the last 10 years.

**Figure 5. Unemployment rates among working-aged men and women, United Kingdom 1971-2005.**

Source: Labour Force Survey, ONS.

### POLICIES/STRATEGIES

As mentioned earlier, the Public Health White Paper, *Choosing Health*, emphasised that strategies to reduce barriers to work had a contribution to make to improving health and reducing inequalities (10), again in line with the Acheson Inquiry recommendations. Under this heading, it advocated the continued use of *New Deal* initiatives targeted at groups in the population who were at high risk of unemployment, such as unskilled young people who had not yet entered the labour market, lone mothers, people who had been unemployed for over two years (particularly older unskilled workers who were hardest hit), and people with disability or limiting health condition. A broad *New Deal* programme for all categories of social security claimant was launched by the Labour Government shortly after coming to power in 1997. This programme had two distinct elements: the *Innovative Schemes* (training and work placement) and the *Personal Adviser Service* (one-to-one support and guidance on locating, obtaining and remaining in employment).

### RESULTS/LESSONS LEARNED

Evaluations of these schemes is still on-going, but what the evaluations of previous interventions show is that the schemes were generally effective in terms of helping people into work who were previously on welfare benefits. For disabled people, for example, the proportion of participants gaining employment after involvement in one or other of the 1990s schemes ranged from 11% to 50% (23). The small scale of the schemes and other barriers, however, meant that only a small proportion of the total participated in any one of the schemes, and therefore the impact at a national level has been modest.

There are now intensified efforts to find effective ways to help people back to work in England. The Department of Work and Pensions, for example, issued a Green Paper, *A New Deal for Welfare* (24), in January 2006, which sets out a raft of strategies on welfare

to work. In addition, the Prime Minister's Strategy Unit has recently assessed the extent to which disabled people are experiencing adverse economic and social outcomes in the UK; identified why this is happening and issued recommendations on what can be done about the situation (25). This has informed the policy development for the Green Paper.

In terms of the potential impact on inequalities in health, being without a job is an important factor in the English context, particularly for women. In one Anglo-Swedish comparison in the 1990s, joblessness explains 23% of the excess risk of ill-health observed among British women in lower non-manual and manual groups, and 10% of the excess risk among men from those groups (26). The main pathway from joblessness to poor health is seen as through poverty and social exclusion.

## Healthcare policies/actions

### FACTS/DATA

Since 1948, England has had a National Health Service (NHS), funded through general taxation and provided to all on the basis of clinical need, not ability to pay. Most services are free at the point of use and the vast majority of the population actually use the service: over 95% of the population are registered with a general practitioner for NHS care. It is also the country's biggest employer – with 800,000 employees in England alone, over 1.3 million in the whole of the UK (10).

In 2000 UK health expenditure made up 6.8% of GDP, far below the EU average of 8% of GDP, as a result of long-term underinvestment in the NHS. Historically, NHS spending has increased by on average 3% each year. However, health expenditure has risen more in real terms since 1997, when the current Labour Government was elected, than ever before, and since 2000/01, average annual growth has been over 7% (27). Total spending on health (including private and public) was predicted to reach 9.4% of GDP in 2008, if this rate of increase is sustained (28).

The system is centrally directed from the Department of Health, but administered by local and regional tiers of NHS agencies. While access to essential services has improved across the population and for more disadvantaged groups in particular, there still remain inequalities in access that are extremely difficult to turn around. Primary care now seems to be less of a problem in this respect. While early evidence from the 1970s indicated a "pro-rich" bias in GP services (29, 30), the pattern transformed through the 1980s and the mid-1990s into a "pro-poor" bias in consultations with GPs (31, 32). It is the transition to secondary care, however, that is more problematic. People living in disadvantaged areas or working in manual occupations are less likely to be referred by their GPs for secondary care in England (33-36). Once they enter hospital, people from disadvantaged areas are less likely to gain access to diagnostic tests such as angiography and revascularisation procedures (37, 38).

## POLICIES/ACTIONS

Core equity principles of the NHS are still recognised as very important for cohesiveness in society. When the 10-year plan for the NHS was drawn up in the year 2000, these underpinning values were strongly re-affirmed:

*“Healthcare is a basic human right. Unlike private systems the NHS will not exclude people because of their health status or ability to pay. Access to the NHS will continue to depend upon clinical need, not ability to pay” (8), p.3.*

Policies to reduce inequalities in access to services, plus a new focus on inequalities in health status, have been focused on three main fronts:

- Matching services to increased need (tackling the inverse care law).
- Improving equity of resource allocation.
- A new objective for the NHS of contributing to reducing inequalities in health status.

A whole raft of policies have been introduced since 1997 to address these three fronts, detailed in the two public health White Papers of 1999 and 2004, in the 10-year NHS Plan of 2000, and in a series of re-organisations of the whole system over the decade. In addition, the Secretary of State for Health announced a special group of “Spearhead” Primary Care Trusts (PCTs) to tackle health inequalities in July 2004. This initial tranche of 88 PCTs (out of about 300 in total), were chosen because they represented the most deprived and unhealthiest areas in England. They were charged with making extra efforts to make more rapid progress in the health inequalities targets than the rest of the country. For this task, these PCTs received a higher level of funding than other areas.

## RESULTS/LESSONS LEARNED

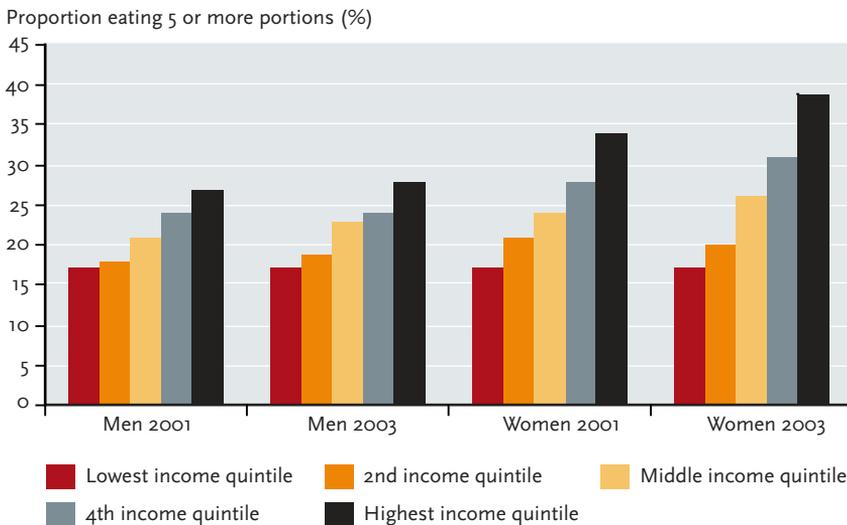
The Public Health Directorates within NHS agencies at all levels have been involved in taking these three themes forward, both within the organisation, and outside – by forming partnerships with agencies in other relevant sectors. It is a real strength of the English system that there are specialists in public health to lead on inequalities action throughout the organisation and in every part of the country. Every medical school also has clinical academics who hold honorary NHS contracts, so there is a strong link between the NHS and the universities. A big obstacle for the public health workforce in the NHS, however, has been the disruption from almost constant reorganisation of the NHS over the decade. Each re-structuring has affected public health personnel and has absorbed a tremendous amount of time and effort, which in turn has slowed implementation of the public health strategies.

## Healthy diets and physical activity

### TRENDS

Improvements in nutrition, particularly for more disadvantaged groups with poorer diets, has become a government priority, triggered most recently by evidence of the dramatic rise in obesity and in diabetes. As Figure 6 illustrates, between 2001 and 2003, inequalities between different income groups in consumption of five or more portions of fruit and vegetables per day did not change significantly in absolute or relative terms (13). Of course, a three-year period is too short a time to expect noticeable change in eating patterns, and future government monitoring reports will be more informative as they are released. There is also a socioeconomic gradient in the amount of physical activity. Low educational attainment is associated with low physical activity in men and women (39).

*Figure 6. Percentage of adults (aged 16 and over) consuming five or more portions of fruit and vegetables per day, by household income quintile, England, 2003.*



Source: Department of Health (13).

### POLICIES/ACTIONS

One of the policy responses to such inequalities has been to put more intensive efforts into “5 A DAY” initiatives and school-focused physical activity initiatives in deprived areas. The “5 A DAY” initiative, as the name suggests, encourages people to consume 5 portions of a variety of fruit and vegetables each day. The scheme is widely marketed through the mass media and a logo is used on some food packaging, indicating the number of portions of fruit or vegetable in a serving of the product. Under the “5 A DAY” scheme all children aged 4 to 6 in publicly funded schools are provided with a free piece of a fruit or vegetable each school day. The scheme was piloted from 2000 and rolled out to cover all of England in 2004. Evaluation has shown mixed results (40). Although children’s knowledge

of healthy eating appears to have increased, and children taking part in the scheme were eating more fruit at school, the increased consumption of fruit at school has been combined with a decreased consumption in the home. A new Food in Schools programme has also been developed, providing guidance and resources to schools to encourage a range of nutrition-related activities and projects, however the programme is not targeted at schools in deprived areas so may do little to tackle inequalities.

Following the commitment to encourage physical activity in *Choosing Health*, a follow-up report, *Choosing Activity*, detailed these plans and acknowledged the socio-economic and gender differences in physical activity, and the opportunity to engage in physical activity (41). There was also a commitment to increase the percentage of school children who spend a minimum of two hours each week on high-quality physical education and school sport to 75% by 2006 and to 85% by 2008. A School Sport Partnership has been set up to help achieve this target, though it will not cover all schools in England until 2006. At the baseline in 2003/04, the most disadvantaged quintile of schools involved in the Partnership initiative, had a participation rate of 57%, compared with 63% in the least disadvantaged quintile, so they all had a long way to go to reach the 2006 target.

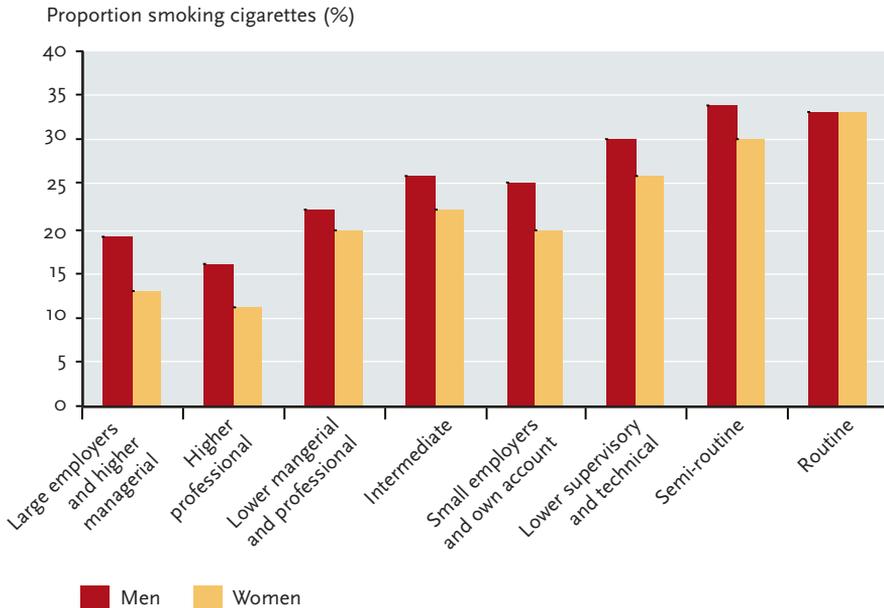
## Tobacco

### TRENDS

Smoking prevalence exhibits a steep social gradient in England (Figure 7). The General Household Survey 2004 showed that around 25% of the adult population in England were regular smokers (42). Among managerial and professional groups 18% of adults were smokers, whereas among routine and manual groups this figure was 32%. Among those who smoked, people in routine and manual groups also tended to start smoking at an earlier age and smoked more cigarettes per day on average than those in intermediate and managerial and professional groups. Smoking during pregnancy also has a steep socio-economic gradient, reinforcing health inequalities even before birth. Smoking prevalence is three times as high among pregnant women with routine and manual occupations as among pregnant women with managerial and professional occupations (43).

Smoking prevalence peaked in the 1950s and 1960s, then fell significantly during the 1970s, but has since levelled out. The decline in smoking was faster among professional and managerial groups than among unskilled and manual groups during the 1970s and 1980s, resulting in greater differentials by socioeconomic status (44).

Figure 7. Prevalence of smoking by sex and socioeconomic status of the household reference person, England, 2004.



Source: Goddard, Green (42).

### POLICIES/STRATEGIES

The NHS cancer plan, published in 2000, acknowledged variation in smoking prevalence as a major cause of health inequalities and committed to the reduction of smoking, particularly among manual groups (45). A target to reduce inequalities in smoking rates was set in the NHS cancer plan, and reiterated in the 2004 Public Spending Review (46):

- *To reduce adult smoking rates to 21% or less by 2010, with a reduction in prevalence among routine and manual groups to 26% or less.*

The Government White Paper on tobacco ‘Smoking Kills’, published in 1998, set aside funds for specialist NHS smoking cessation services, including funding of nicotine replacement therapy on prescription (47). Cigarette advertising on television was banned in Britain in 1965 and all cigarette packets have been required to carry a health warning since 1971. All tobacco advertising was finally banned and tobacco sponsorship phased out in 2002. Taxation on cigarettes is high in Britain, making up around 80% of the price (47). The age limit for purchase of tobacco products is 16 years, and the Government has recently committed to smoking ban in public areas in England, to be enforced from summer 2007.

NHS smoking cessation services are funded through general taxation and free at the point of service. They received central government funding for the first four years, and are now locally funded and commissioned by local Primary Care Trusts. In 2005 services

received almost £50 million of funding. Services provided include one-to-one or group counselling and nicotine replacement therapy. An overall smoking reduction target was set, and services were designed to focus their efforts on disadvantaged smokers, young people and pregnant women. To attract disadvantaged smokers to the service, a range of approaches was employed, including locating services in deprived areas (the first 26 services were located in Health Action Zones, then rolled out to the rest of England), advertising services in deprived areas and training local people from deprived areas to be smoking cessation advisers. Results of an independent evaluation have been published, demonstrating considerable success and cost-effectiveness (48). Although data were not collected on individual's social status, a study using area level data suggests that the services have been successful at attracting smokers from deprived areas (49), in support of previous findings (50). The evaluation highlighted a number of lessons that have been learnt, including: the importance of careful goal and target setting due to problems experienced of conflict between dual goals – to meet a cessation target and to attract people from the target groups, who were also harder to reach; the need to have sufficient training capacity before launching the services; standardisation of pharmaceutical treatments available and that at least 5 years of central funding is required (48).

## Alcohol

### TRENDS

Weekly alcohol consumption has increased slightly among men and markedly among women since 1978. In a comparison of 10 EU countries in the mid-1990s, 19.4% of British men aged 20-74 and 7.6% of British women were classed as excessive drinkers (defined as 4 or more units/day for men and 3 or more for women) (51). This study found no significant differences in excessive drinking between high and low educational groups in Britain, neither for men nor women.

Binge drinking (defined as drinking more than, 8 units on a single occasion for men, 6 unit for women) appears to be particularly harmful to health. There is some evidence of a decline in binge drinking among British men, but a rise among women since 1998. There is little difference in binge drinking by socioeconomic status (44). There is a marked social gradient in alcohol-related deaths, suggesting that even if the levels of alcohol consumption are similar across the social scale, the health impact is greater for lower socioeconomic groups (52).

### POLICIES/STRATEGIES

Pricing policy has been used for many years to keep the cost of alcohol high. As it has not kept pace with inflation, however, there has been a real decrease in the price over time. The legal age limit for purchase of alcohol is 18 years, or 16 years when purchased with food in a restaurant. The trend towards supermarkets and other food outlets stocking alcohol over the past 15 years has led to a large increase in the number of outlets where alcohol can be purchased.

The Government's *Alcohol Harm Reduction Strategy for England* was published in 2004, and laid out plans for improved education, better identification and treatment of alcohol misuse, combating alcohol-related crime and disorder and working with the alcohol industry to encourage responsible drinking (53). This is in response to widespread public concern about the social as well as the health problems caused by alcohol misuse in the country. Part of the Government strategy has been to allow longer opening hours for pubs and clubs, so that alcohol is available for longer. The rationale behind this policy shift is that it would help prevent rapid consumption of alcohol over short periods of time, which used to occur when pubs closed earlier. This point is currently hotly debated. The impact on inequalities in alcohol-related mortality is difficult to predict.

## Disease-specific strategies

Several of the disease-specific strategies have an inequalities component, in recognition of the substantial socioeconomic mortality and morbidity gradients. Cancer, cardiovascular disease, and most recently diabetes and obesity come into this category, as major contributors to current or future burdens of disease in the country. In addition, sexual health, and more specifically teenage conceptions, has become a focus for tackling inequalities in health, because of the social distribution of early pregnancy and its long-term effects on life chances.

### Cancer

Cancer mortality exhibits a steep gradient by social class. In 2001-2003 cancer mortality in the least deprived fifth of areas was 108 per 100,000 and was 30% higher, at 159 per 100,000 population in the most deprived fifth of areas (13). The 2004 Public Spending Review made a national commitment (46):

- *To substantially reduce mortality rates by 2010 from cancer by at least 20% in people under 75, with a reduction in the inequalities gap of a least 6% between the fifth of areas with the worst health and deprivation indicators and the population as a whole.*

Cancer mortality has fallen in all social groups between 1995-97 and 2001-03 and the absolute gap has narrowed. However there has been no narrowing of the relative difference in cancer mortality between the most and least deprived areas (Table 1) (13).

**Table 1. Age-standardised death rates per 100,000 population for cancer, ages under 75, by area (deprivation), England, 2001–2003.**

	Area (deprivation)				
	Least deprived fifth of Local Authority Districts	4 <sup>th</sup> most deprived fifth of Local Authority Districts	3 <sup>rd</sup> most deprived fifth of Local Authority Districts	2 <sup>nd</sup> most deprived fifth of Local Authority Districts	Most deprived fifth of Local Authority Districts
Deaths per 100,000	108	112	119	126	141

Source: Department of Health (13).

Several reasons for the wide inequalities in cancer mortality in Britain are evident. Firstly, people from deprived backgrounds are more likely to get cancer. People from lower socioeconomic groups often receive a diagnosis at a more advanced stage of the cancer, due to a number of reasons including poorer quality screening programmes and other preventive health programmes in deprived areas. Regional inequalities in the quality of care provided also exist, often termed the ‘postcode lottery’ for cancer care, due to a lack of specialist staff, variations in facilities, care and prescribing practices.

Cancer survival statistics (i.e. the proportion of people diagnosed with cancer who are alive 5 years after their diagnosis of cancer) demonstrate inequalities in diagnosis and treatment. Coleman and colleagues analysed cancer survival statistics, adjusting for differences in overall mortality. Although cancer survival had been improving for most of the cancers analysed since 1990, the greatest improvements had been in affluent areas, and inequalities in survival between the rich and the poor have been increasing, with the exception of breast cancer and melanoma for women and testicular cancer for men (54).

In 1995 an expert advisory group on cancer produced a report on the commissioning of services which highlighted the regional disparities in cancer survival (the Calman-Hine report) (55). The NHS cancer plan, published in 2000, acknowledged these inequalities throughout the care system and set out a plan of investment and reform. The plan set new standards for cancer screening and treatment to ensure national consistency of the quality of care provided, but did not lay out specific policies to reduce inequalities.

### **Cardiovascular diseases**

The death rate from coronary heart disease, stroke and related diseases has fallen significantly over the past 30 years, yet these diseases remain the biggest cause of death in England (14).

Inequalities in circulatory disease mortality are stark: in 2001-3 circulatory disease mortality was two thirds higher in the most deprived areas (129 per 100,000 population) than in the least deprived areas (77 per 100,000 population) (13). Circulatory disease is also more common in certain ethnic minority populations, including South Asians. In addition to cancer, the 2004 Public Spending Review set an equity target for cardiovascular disease (46):

- *To substantially reduce mortality rates by 2010 from heart disease, stroke and related diseases by at least 40% in people under 75, with at least a 40% reduction in the inequalities gap between the fifth of areas with the worst health and deprivation indicators and the population as a whole.*

We are well on the way to meeting this target, with a narrowing of the absolute gap by 20% between 1995-97 and 2001-03, however there was no narrowing of the relative gap in this period (Table 2) (13).

**Table 2: Age-standardised death rates per 100,000 population for circulatory diseases, ages under 75, by area (deprivation), England, 1995-97 and 2001-03.**

Area (deprivation)	Deaths per 100,000		Increase/decrease in inequality?
	1995-97	2001-03	
Least deprived fifth of Local Authority Districts	109	77	
4 <sup>th</sup> most deprived fifth of Local Authority Districts	117	83	
3 <sup>rd</sup> most deprived fifth of Local Authority Districts	133	96	
2 <sup>nd</sup> most deprived fifth of Local Authority Districts	145	107	
Most deprived fifth of Local Authority Districts	173	129	
England Average	141	103	
<b>Absolute gap</b> (Difference between rate in most deprived fifth and England Average)	32/100,00	26/100,00	<b>DECREASE</b>
<b>Relative gap</b> (Ratio of rate in most deprived fifth: England average rate)	1.22 (1.21, 1.23)	1.25 (1.24, 1.27)	<b>INCREASE</b>

Source: Department of Health (13).

The National Service Framework (NSF) for coronary heart disease, published in 2000, laid out twelve standards to prevent and improve services for coronary heart disease (56). The NSF acknowledged the wide inequalities in cardiovascular disease mortality, and that death rates have been declining quicker among the more affluent than those who are less affluent over the last 20 years. Variations in cardiovascular disease rates and in service quality and access were noted. The coronary heart disease NSF made a number of recommendations to reduce inequalities in coronary heart disease risk and treatment. It recommended improved data collection and reporting on inequalities in coronary risk and the development, implementation and monitoring of policies to reduce the prevalence of coronary risk factors in the population, and reduce inequalities in risk factors for developing heart disease. The coronary heart disease NSF put an emphasis on reducing the key risk factors for coronary heart disease, including smoking, diet and nutrition and physical activity, discussed elsewhere in this chapter.

### Sexual health – teenage conceptions

Sexual health has attracted major concern from the Government and the media in recent years. The UK has the highest rates of teenage pregnancy in Western Europe, with a very distinct social class gradient (57). See Table 3. The incidence of many sexually transmitted diseases is rising rapidly, in particular among young women (58).

The Government's Teenage Pregnancy Strategy, published in 1999 set an ambitious target for a 50% decrease in teenage conceptions by 2010 (57). It also aimed to reduce the long-term risk of social exclusion for teenage parents by increasing the proportion of teenage mothers in education and work. The 2004 Public Spending Review also restated

targets to tackle teenage pregnancy, although they do not differentiate by socioeconomic group or deprivation of the area, so are not targets to specifically reduce inequalities as such (46):

- *Reduce the under-18 conception rate by 50% by 2010 as part of a broader strategy to improve sexual health.*

There is conflicting evidence of the success of the teenage pregnancy strategy at reducing inequalities. The Department of Health noted in 2005 that there is evidence that teenage conceptions are falling, but little evidence that inequalities are decreasing (13). However, a recent independent progress report noted that teenage pregnancy rates have been falling fastest in areas with the highest levels of social deprivation (59).

**Table 3: Rate of under-18 conceptions per 1,000 female population aged 15-17 by area (deprivation), England, 2003.**

	Area (deprivation)				
	Least deprived fifth of Local Authority Districts	4 <sup>th</sup> most deprived fifth of Local Authority Districts	3 <sup>rd</sup> most deprived fifth of Local Authority Districts	2 <sup>nd</sup> most deprived fifth of Local Authority Districts	Most deprived fifth of Local Authority Districts
Conceptions per 1,000 female population	24.3	30.1	37.0	45.4	56.4

Source: Department of Health (13).

## *Group-specific strategies*

### **Young children and their mothers**

The Independent Inquiry into Inequalities in Health made a strong recommendation for a high priority to be given to improving health and reducing health inequalities in women of childbearing age, expectant mothers and young children (Acheson report, recommendation 2) (6). The range of strategies put forward to implement this recommendation included:

- Reducing poverty in families by removing barriers to work for parents, increasing access to day care, improving the level of social security benefits for parents who wish to devote full-time to parenting;
- Improving nutrition of families with young children by increasing benefits in cash or kind for low-income families to obtain nutritious food; promotion of breastfeeding; improving nutrition at school through Healthy Schools policies, provision of free school meals and introduction of free school fruit, restrictions on less healthy food; health inequalities impact assessment of the EU Common Agricultural Policy;

- Reducing the prevalence of smoking in pregnancy through supportive (non-judgemental) programmes for pregnant women focused on the less well off and the difficulties they face in their daily life;
- Providing greater social and emotional support to parents;
- Promoting the health of children who are looked after by the local authority and who are at a particular risk of both early life and later disadvantage.

The Government has taken up several, if not all, of these recommendations, with a strong emphasis on low-income families in disadvantaged areas. Sure Start, day-care in disadvantaged communities, free school fruit pilot schemes, improvement in social security benefits for families containing children, more family friendly employment policies and health promotion programmes on smoking in pregnancy and breastfeeding have all figured prominently.

Some commentators have discerned a shift in funding and policy emphasis since 2003, away from young children and towards teenagers. This can in part be seen as a response to the rising concern among the general public, fanned by the mass media, about anti-social behaviour by young people, public drunkenness and the threatening environments that these create. The atmosphere is changing to one of increased distrust and fear, away from the more positive, preventive work with young children. Accordingly, the practical resources are shifting to these new priorities too, and it remains unclear at the time of writing whether support for earlier priorities will continue at the same level.

## *Arena approaches*

### **Healthy settings**

The Arena approach, or the “Settings Approach” as it is known in England, is very well developed in the health promotion field. We have *Healthy Cities*, *Healthy Schools*, *Healthy Universities*, *Healthy Workplaces*, *Healthy Hospitals*, even *Healthy Prisons*. The focus has been largely on creating the environments conducive to individual behavioural choices, and the initial efforts, with the exception of *Healthy Cities*, tended to be in those settings which were already more advantaged and therefore in an easier position to make changes. More recently, the *Healthy Schools* initiative has been deliberately targeted at more disadvantaged areas. The *Healthy Cities* initiative, which in the UK started in the mid-1980s in Liverpool (where it was particularly strong), has always had a focus on equity and was located in the poorest urban centres in England. It is, however, fading out in the light of all the new area-based initiatives discussed below.

### **Targeting disadvantaged neighbourhoods**

The most distinctive feature of English developments on inequalities over the past decade is the area-based targeting of policies and strategies. Disadvantaged areas have been treated, in effect, as distinct “settings” or “arenas”. The *Health Action Zones*, *Sure Start*, and *New Deal for Communities* initiatives are all based on geographically defined places

with resident populations living in disadvantaged circumstances, and can all be seen in this light.

*Health Action Zones* were the first, and perhaps the most well known, example of this targeting approach. They were devised in 1997, as an early initiative when the Labour Government came to power, expressly to tackle inequalities in health through partnerships between local statutory agencies serving an area and the resident community. A range of initiatives was envisaged, including improving access to healthcare in innovative ways, combined with training and support to improve local employment opportunities, improvement in housing and places for residents to meet socially, and the promotion of educational attainment in the area. By 1998/99, a total of 26 areas, covering 13 million people had been awarded HAZ funding following a bidding process (60). They were given a modest increase in funding to carry out the work. Original intentions were for 7 years of funding of these areas, but after 3 years, funding was phased out or transferred into other schemes. Some of the HAZs were indeed highly innovative and achieved improvement in services and better co-ordination of services for their disadvantaged populations. They were, however, brought to an end prematurely, before it could be assessed fully.

The *Sure Start* programme came next. It was created in 1998 as part of the UK Government's campaign to enhance the life chances, including reducing associated health inequalities, of young children and their parents. The local programmes aimed to offer good quality childcare and learning experiences for children aged under four, access to an enhanced range of primary and community healthcare promoting child health and development, outreach and home visiting to support their parents (61). They were strategically situated in areas identified as having high levels of deprivation, though the designers of the programme made a point of making the extra services available to *all* children within a prescribed area, in an attempt to be non-stigmatising (62, 63). By 2003, there were over 500 local programmes in operation, covering 400,000 children, including a third of children living in poverty. The budget for these projects stood at £1.5 billion in 2005. They are, however, being merged into children's centres, more closely controlled by local statutory agencies, by 2008.

The third initiative is the *New Deal for Communities* scheme, a 10-year project started in 1999, covering 39 of the most deprived areas of England. The communities themselves are quite small – between 1,000 and 4,000 households – but have a budget of £1.9 billion between all of them over 10 year period. That works out at about £50 million per community for very intensive work under five main headings: worklessness, community safety, crime, health and education.

All three of the major area-based initiatives described above have multifaceted national evaluation programmes attached to them. It is too early for the potential long-term effects to be evident, but some short-term gains have been noted for the communities that the initiatives serve (62-65). The question that has yet to be answered is what contribution they will make to the overall reduction of inequalities in health.

## *Implementation: methods, resources and main actors*

### **Main actors**

The Government takes responsibility nationally for linking health and non-health policy on the determinants of health and monitoring progress. The current programme of action on health inequalities, for example, lists 12 departments of state across government that will be responsible for delivering each workstream in the plan, including the Treasury, the Home Office, Department of Work and Pensions, Department for Environment, Office of the Deputy Prime Minister, and the Department of Health. They each have targets to reach and indicators for monitoring. The Department of Health has a specialist Health Inequalities Unit within it to lead on the issue.

The national public health strategy, *Choosing Health*, is also cross-departmental, with the Secretary of State for Health being responsible for co-ordinating action through a new Cabinet Sub-Committee. This committee has been set up to oversee the development and implementation of the Government's policies to improve health and reduce health inequalities (10).

The Health Development Agency for England, which used to serve a similar function to that of the Swedish National Institute of Public Health, was dissolved in 2005. Part of its former responsibilities, concerned with reviewing and disseminating the evidence on effectiveness of public health interventions, has been incorporated into the work of the National Institute for Health and Clinical Excellence (NIHCE).

At regional and district level, Local Strategic Partnerships (LSP) have been formed, composed of local NHS bodies, local government authorities, businesses, voluntary and community sectors. These partnerships are intended to provide a forum for senior staff from different sectors to develop a local agenda for action to improve health. Directors of Public Health and their teams, located in each of the 300 Primary Care Trusts, each Strategic Health Authority and each Regional Government Office, are expected to take a lead on building partnerships that will help deliver the national public health strategy.

### **Methods**

In the 2004 *Choosing Health* White Paper, it was recognised that there might be occasions when interventions devised by one particular government department inadvertently contributed to widening health inequalities. To avoid this eventuality, the White Paper committed all relevant government departments to ensuring that their initiatives and programmes would be "*health inequality proofed*". This meant that the departments would consider whether any policy changes or remedial actions were necessary to prevent any negative effects on health inequalities. Consideration of the impact of non-health interventions on population health was also expected to become routine (10).

At the same time, the Government made a commitment to build health into all future legislation, by including health as a component of regulatory impact assessment (10). At the local level, NHS bodies are required to carry out "equity audits" of their services, and to take action on instances of the inverse care law if uncovered.

This raises the issue of appropriate methods to carry out the required health impact assessments. Several academic centres, including the Universities of Liverpool and Birmingham, and the London Public Health Observatory, are developing methods of health impact assessment (66), health inequality impact assessment (67), and equity audit (68) to feed into these statutory assessments. The Department of Health has also funded selected universities to develop training for NHS professionals in HIA, and the EU has funded development work on methods to carry out HIA on European-wide policies. Some of the local government and local NHS agencies are very active in supporting the development of HIA methods and commissioning HIA studies of their own work.

## *Monitoring and evaluation*

A detailed delivery plan for the national public health strategy, *Choosing Health*, has been published, including specified commitments, targets and timelines for delivery. It specifies when and against which criteria performance will be assessed for each of the named organisations (69). The Department of Health is committed to publishing a six-monthly progress report on key indicators for the targets.

In relation to the *Tackling Health Inequalities: A Programme for Action*, a regular status report has been promised to monitor progress. The first such report was published by the Department of Health in July 2005 (13). A Scientific Reference Group on Health Inequalities, chaired by Sir Michael Marmot, oversaw the development of the monitoring report and guided its conclusions. It was this report that caused considerable media controversy when it was released, due to the relative widening of inequalities that it revealed.

All the major area-based initiatives, such as HAZs, Sure Start, New Deal for Communities, have national evaluations attached to them, carried out by consortia of universities around the country. Reports on short-term results are published at regular intervals, but the effects, especially the health effects, can only be expected in the long term.

## *Concluding remarks*

Clearly, the past 10 years in England have been remarkable for the amount of feverish activity on health inequalities at all levels and the serious political commitment that this demonstrates. Although there has been a proud tradition of public health advocacy on inequalities, stretching back nearly two hundred years, the wholehearted national response has only emerged over this last decade. England now has a semblance of a co-ordinated strategy to tackle inequalities in health, which may not be perfect, but which is a vast improvement on previous efforts.

What are the important lessons to be learnt from English experience over the past decade or so? First, the developments demonstrate what can be achieved with political will. It is remarkable how seriously health inequalities are now taken and how the cross-government responsibility for action has been accepted. How much of it is rhetoric remains to be

seen, but even the broad supportive statements at national level add legitimacy to efforts both at sub-national level and internationally.

Second, the experience has shown that when political will does swing in favour of action, public health scientists have to be ready to contribute to the solutions. Policy-makers want answers to their questions about what can be done about the problem. The scarcity of the existing evidence base on effectiveness of policies and interventions is then revealed. This adds urgency to the need to carry out evaluative studies on complex public health interventions. It also points to the necessity of developing new ways of synthesising the existing evidence, which will help answer the policy questions that are being posed within a reasonable timescale.

Third, the English experience provides an example of what happens when trying to implement wide-ranging strategies. A distinct narrowing of the horizons of the strategy can be seen over an 8-year period. The wide, social determinants approach advocated in the Acheson Report in 1998 was clearly reflected both in ministers' statements and in the first public health strategy, *Saving Lives*, published in 1999. By the time of the Treasury Review in 2002 and the resulting inequalities strategy in 2003, a tendency to focus on specific projects, designed for particular disadvantaged groups could be discerned. This was partly due to the nature of the evidence available to the Review. Evaluations of relatively small-scale, person-based interventions are easier to come by than appraisals of wider social policies. By the publication of the second public health strategy, *Choosing Health*, in 2004, the emphasis had narrowed still further, featuring lifestyle factors much more prominently. Again, it may be easier to envisage action on tobacco or physical activity, than on more upstream determinants. It would be unfair, however, to dismiss these later strategies. They have all progressed much further towards a social determinants approach than in previous decades.

Fourth, the focus on deprivation (rather than the social gradient), coupled with the area-based targeting of initiatives, has been noticeable. There is a particular problem of poverty in England that deserves concentrated effort. In addition, poverty has become highly concentrated geographically into small areas, which justifies extra resources and effort being targeted to these identified areas to "level-up". There is a danger, however, in relying too heavily on this targeted strategy. One problem is that there are more poor people living outside than inside the targeted areas, and these would be missed by the strategy. There is also the desirability of tackling social inequalities across society, which would not be achieved, were a focus solely on the worst off.

Fifth, the quantification of mortality-based targets has proved problematic. It is not clear how the quantified targets on infant mortality and life expectancy were devised, but the decision was taken to choose relative indicators. The monitoring of these over time, however, has highlighted problems of interpretation. In relative terms, inequalities on some indicators have widened, at the same time as absolute differences have narrowed. This has caused much deliberation about conceptual, not just technical issues of measurement, which should benefit future efforts.

Last, but not least, are the counter-forces working against efforts to reduce health inequalities. Some of these have been concerned with conflict over resources. When the curative side of the NHS runs into financial difficulties, for example, available funds tend to be channelled towards more immediate needs. Surgical waiting list targets, for instance, take

priority over longer-term, “softer” targets concerned with population health. Counter-trends have also developed in other sectors, such as employment, trade and agriculture, which work against the desired changes in determinants of health. Continued vigilance will be needed to ensure that the strategy for health inequalities stays on course.

## *Research suggestions*

Despite a rich descriptive literature on the nature of social inequalities in health in England, much less effort has been focused on working out how best to address the problem. A set of focused workshops with national policy advisers and senior researchers concerned to tackle the issue came up with a “shopping list” of evidence that was needed to help inform future policy-making in the UK (70, 71). Key requirements included:

- Evaluations of whether public health interventions have differential impacts for different social groups. All too often, past evaluations have looked at overall impact, controlling for socioeconomic status, rather than stratifying by it. This is the case even for relatively well-researched fields such as tobacco control. With only a little extra effort, evaluations that are already funded could incorporate such differential impact analyses.
- Methodological research to develop ways of assessing clusters of interventions or “policy systems”. Tackling health inequalities is likely to require a combination of interventions, rather than an isolated initiative, but which ones work best together, and for which social groups?
- Research that makes more use of “natural policy experiments” to help assess the impact of wider public policy on health and inequalities in health. This was part of a plea for more work on how best to address the social determinants of health, where evidence was felt to be particularly sparse. This is an area ripe for cross-country comparative analysis to aid international policy learning.

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# Finland

HANNELE PALOSUO, SEPPO KOSKINEN AND MARITA SIHTO

## *Development of society and the present policy environment*

Finland is one of the largest countries in the European Union with a total land area of 338 145 sq.km. The population is relatively small with 5.26 million inhabitants in 2006, and the country is sparsely populated (15.5 inhabitants per sq.km on average (www.stat.fi). However, 40% of the population live in the Southern province, which covers only 10% of the land area (population density 70 inhabitants/sq.km). Moreover, the capital, Helsinki, together with its three neighbouring cities represents only 0.2% of the total area of Finland but nearly 19% of its population lives there. In contrast, less than 4% of the Finns live in the northernmost third of the country, with an average of 2 inhabitants per sq km.

Life expectancy has increased rapidly in Finland since World War Two. In 2004 it was 75.3 years for men, just over the EU-25 average, and 82.3 years for women, exceeding the EU-25 average by more than one year. The population in Finland is ageing faster than in most other European countries (1). The proportion who are 65- and older was 15.9% in 2004, but it is projected to rise to 23% by 2020 (www.stat.fi). The total fertility rate has been steady at 1.7–1.8 children per woman for a few decades, considerably higher than the EU-25 average which is currently below 1.5.

The population in Finland is exceptionally homogenous according to several ethnic and cultural criteria: 91.6% of the population speak Finnish as their mother tongue and 5.5% Swedish (in 2005). These are the two official languages in the country. The dominant religious affiliation is the Lutheran church for 83.1% of the population, while 14.7% have no religious affiliation, 1% is orthodox and 1% have other religious affiliation (in 2005). Only 2% of the inhabitants were foreign citizens in 2005 (www.stat.fi).

The employment rate of persons aged 15–64 was 68% in 2005, which is high in the European context (2). The rate for women is higher (68.8% in 2004) than that for men (65.5%) (3). Unemployment was on a low level at the beginning of the 1990s (3.2% in 1990), but it rocketed up to 18% by 1994 (according to the Ministry of Labour statistics; by the Eurostat definition the figure is 16%). This was connected with the economic downturn of the early 1990s, which was more severe than any other recession in the 20th century in Finland (4) and also more severe than in most West European countries at the time. After the crisis Finland experienced rapid economic growth. Unemployment started to decrease slowly, but it has stayed on a much higher level than before the recession. The present unemployment rate of women exceeds that of men only by a few tenths of a percent. The unemployment level is no longer dramatically different from the other European countries: in 2005 it was 8.4%, which is close to the EU-15 average (8.1% in 2004).

Like the other Nordic welfare states Finland has developed a social welfare system based on strong universalistic principles. These are clearly expressed in the present constitution, which states that the public authorities shall guarantee adequate social, health and medical services for everyone and promote health of the population (Section 19 of the

Constitution, 1999). Basic education, free of charge, is also a constitutional right, and the public authorities shall guarantee equal opportunity for everyone to have access to educational services beyond basic education (Section 16 of the Constitution, 1999). Some of the welfare services are almost wholly produced by the public sector, such as education on all levels from pre-school to university, while others, such as healthcare, are produced in a mixed system where the public sector predominates but is complemented by the private and third sectors. The share of the private sector in producing services has grown since and during the 1990s (e.g. (5)).

The public sector's total share (general government expenditure) of GDP in Finland was 51% in 2003, which is higher than the EU average (5). High public expenditure usually requires high tax rates: the total tax revenue was 44.8% in 2003 (3, 5). The total of social expenditure was 26.9% of the GDP in 2003 ([www.stat.fi](http://www.stat.fi)), which is lower than the EU average. The development of public spending and social spending has been different in Finland from other EU countries, and the real growth of social expenditure has been the slowest among the EU-15 countries since the mid-1990s (5). Total spending on health was 7.4% of GDP in 2003 (6), which was also among the lowest in the EU.

The development of the welfare system in the past 15 years has been strongly influenced by the dramatic recession in 1991–1993. A general conclusion from the economic crisis has been that the Finnish welfare system was able to retain its basic structures throughout the recession (7). After the recession the economy and public finances developed favourably and thus safeguarded the basic conditions for welfare. However, the distribution of welfare has been less successful. For example income inequality has grown and poverty has increased, notably among families with underage children and families with one earner (2, 5, 8, 9).

Finland is a parliamentary democracy, and since 1995 has been a member state of the European Union. The parliament is unicameral and based on universal suffrage since 1906, when Finnish women, as the first in the world, received full political rights, i.e. they could vote and also stand for Parliament. The 200 members of the Parliament are elected every fourth year.

At the regional level, Finland is divided into six provinces (since 1997, when the earlier 12 provinces were combined into larger areas). The State Provincial Offices function as the regional authority of the State and carry out administrative functions within the sectors of different ministries. Their basic areas include social and health services, educational and cultural affairs, police functions, rescue functions, transport administration, competition and consumer issues and juridical administration. In addition the Provincial Offices are responsible for evaluating services and organising basic functions in exceptional circumstances. They also handle citizens' complaints. One exception is the Province of Åland, which enjoys provincial autonomy and has a regionally elected parliament (*lagtinget*) with legislative power within its autonomous position ([www.suomi.fi](http://www.suomi.fi)).

On the local level Finland is divided into 431 municipalities, which have a high level of self-government. The municipalities are responsible for the provision of basic services to their citizens, including healthcare. They collect municipal taxes and are run by democratically elected councils. Local elections are carried out every fourth year. Currently a

process of municipal and service sector reform is underway, with the aim of developing economically feasible and sustainable municipal service structures in such a way that services can be provided to the population, either with a smaller number of municipalities or increased cooperation.

### **Public health policy**

Reducing inequality in health has been a central goal of Finnish health policy since the 1960s (see (8)). The principal reasons for health differences in the 1960s and 1970s were seen to be poor access to health services, high costs for the patient, and regional and socioeconomic differences in the use of services. In accordance, the main measure to achieve equality in health was considered to be improving healthcare (9, 10).

Major reforms were carried out to equalise access to healthcare. These included the introduction of national mandatory health insurance in 1964 and the Public Health Act of 1972, which shifted the emphasis of health policy from hospital and specialised care to primary healthcare. A uniform and comprehensive municipal healthcare system was established all over the country (e.g. (11)). These and other reforms of the 1970s can be considered successful in that regional and socioeconomic differences in the use of ambulatory services markedly decreased by the late 1980s (12). However, differences in the content of care remained: for example, the better-off use more specialist services and are more often treated surgically than the less well-off (9, 13). Socioeconomic differences in the use of dental services have remained relatively large (14, 15).

It has been understood at least since the 1970s that health policy is connected to different sectors of social and economic policy. The report of the Economic Council (1972) defined the equal distribution of health as the general objective of health policy and considered general social and economic policies to have a significant role in determining the population's health. Broad views on health policy were emphasised in the WHO programme "Health for all by the year 2000", and Finland was one of the first countries to adapt the programme to the country level in 1986. However, the Finnish strategy for reducing inequity dealt mainly with ensuring equitable access to healthcare and reducing the problems connected with health-related habits in the most vulnerable groups. No special effort was taken to identify the means to implement the HFA programme and there was no action plan to guide or enforce its implementation (8, 9).

The HFA programme was revised in 1993, partly in response to a critical evaluation of the Finnish HFA programme by the WHO. The revised programme laid more emphasis on inequality in its 12 action lines. It stressed cooperation between different actors and tried to appoint different organisations with the responsibility for the implementation of each policy objective (see (8)). Yet, the national health promotion programmes of the 1990s rarely succeeded in raising socioeconomic inequalities to the forefront in Finland (16).

The present Government Resolution on the Health 2015 public health programme (17) defines reducing health differences between population groups as a central goal. There are eight main objectives in the programme. Five of them address people's life course stages from infancy to old age, and three general objectives apply to all population groups. The final, eighth objective states that all objectives of the programme should be implemented

in such a way that inequalities are reduced and the welfare and relative status of those population groups in the weakest position will improve. For the first time a quantitative target for reducing health inequalities was defined: mortality differences between the genders, groups with different educational backgrounds, and different vocational groupings should decrease by a fifth by the year 2015.

The eight objectives of the programme are refined and elaborated into 36 'lines of action'. Only a few of these lines refer specifically to reducing health differences. The most obvious of them concerns health services and states that "healthcare must be developed in a way that will guarantee everyone equal, sufficient and high-quality services, so that regional and socioeconomic status does not limit access to the necessary services". Some others pinpoint ensuring information and possibility to participate in decision-making concerning one's own health, as well as preventing social exclusion and ensuring health services and health promotion to unemployed people and those working in atypical jobs and workplaces. According to the programme, it is a precondition that all sectors and levels of government and the private sector make the population's health a key principle, guiding action.

So far there has been no action plan to translate the objectives and targets of the public health programme into practical measures. The Government Resolution on the programme can be considered more of a recommendation than an actual action plan, and finding ways to implement it is left primarily to the municipalities, and also other actors (such as healthcare, business and industry and non-governmental organisations). This may, in part, be connected with the present government steering model, introduced in 1993, which allows the municipalities considerable autonomy, while the central government seems to have only limited power to make demands on actual performance on the local level. Thus, municipalities are relatively free to decide on the local application of national policy, within the boundaries of law. The central government may promote action by 'information guidance', whereas the possibilities for guidance by earmarked resources or sanctioned legislative regulation on action has been limited (see e.g. (18-20)). However, it seems that even information guidance has been rarely explicitly used to advance equity in health, and the role and responsibilities of the central government have not been elaborated in the programme.

Reducing inequalities in health between population groups is also defined as one of the tasks of the present Government (21). Until recently, it seemed that only small-scale researcher-driven projects had taken on the challenge directly. It seems that the objectives of the Health 2015 Programme have rarely been even discussed in the municipal councils. According to a survey on welfare and health promotion in Finnish municipalities only 30% of the municipal managers (of those 32% who responded to the survey) replied that reducing inequalities in health was included in their municipal objectives and action plans (22).

Finnish research on health inequalities has mainly focussed on describing the current level and development of inequalities, as well as on the contribution of various behavioural and environmental factors to health inequalities, whereas very little research has been carried out concerning ways to reduce inequalities in health (23). Research on the possibilities to reduce health inequalities by means of public policy and specific inter-

ventions was started at the end of the 1990s in a research group consisting of academics from the University of Helsinki and government research institutes under the Ministry of Social Affairs and Health (7, 23-27). The Public Health Committee also initiated activities in this area (28), but no action plan or a comprehensive assessment of different measures was prepared.

In 2003 the Finnish National Public Health Institute (KTL) was commissioned by the Ministry of Social Affairs and Health to strengthen its work on the development of methods which could help to reduce inequalities in health. As one response to this assignment, KTL increased its support to the work carried out by the previously mentioned group of researchers (currently TEROKA project; [www.teroka.fi](http://www.teroka.fi)), which operates within the government research institutes (KTL, National Research and Development Centre for Welfare and Health STAKES and the Institute of Occupational Health FIOH) and the University of Helsinki. The project group has made a proposal to the Ministry of Social Affairs and Health to start formulating a Strategy and Action Plan to reduce socioeconomic inequalities in health. This work began in the autumn of 2006 in the standing intersectoral Public Health Committee (advisory board for public health) within the Ministry of Social Affairs and Health.

## *Magnitude, trends and analysis as regards social inequality in health*

### **Mortality**

Overall mortality, and especially mortality from cardiovascular diseases, decreased rapidly in Finland in the 1970s. Socioeconomic differences in mortality were discovered in studies conducted in the late 1970s and early 1980s. These differences appeared to be rather stable in the 1970s, but since the beginning of the 1980s they have grown both among men and women (29). The differences in life expectancy have widened equally with regard to occupational groups and educational groups (30). For example, in 1980–81 a male 30-year-old upper white-collar employee could expect to live 4.7 years longer than his worker peer, but this difference increased to 6.0 years by 2000. Among women the corresponding difference increased from 2.2 to 3.2 years. The level of income also appears to have a linear relation to mortality. According to a prospective study of Finns over 30 years of age, mortality increased systematically from one income decile to the next and the ratio between the highest and lowest household income deciles in age-standardised all-cause mortality was 2.37 among men and 1.73 among women (31).

During the 1990s, life expectancy increased a whole 2.4 years among Finnish men. This increase was mainly due to decreasing mortality from ischemic heart disease. Both upper white-collar employees and workers benefited from it. However, mortality from cerebrovascular diseases decreased more rapidly among upper white-collar employees than among workers, and alcohol-related mortality increased more among blue-collar workers than among white-collar employees, which together contributed to the widening of the discrepancy in life expectancy. Among women, life expectancy increased by 1.7

years from 1989–1991 to 1998–2000. The decrease in IHD mortality was larger among upper white-collar women than among blue-collar women, and likewise among men, alcohol mortality increased more among blue-collar workers than among white-collar workers. All in all, the increase in the socioeconomic differential in life expectancy was larger during the 1980s than in the 1990s (30).

According to a review by Valkonen and his colleagues (30), the latest available study on socioeconomic differences in infant mortality showed a 25% excess in mortality among workers' infants compared to those of the upper white-collar employees in 1983–89. No systematic socioeconomic differences in mortality of children aged 5–14 were found in a study covering the years 1987–95 (see (30)). Among young men aged 15–34, mortality of workers was twice as high compared to white-collar employees in 1986–90. Among women, death at this age is rare, and the differences were similar but smaller than those among men (30).

### **Self-rated health and self-reported morbidity**

A single-item question on self-rated health has been included in the annual population surveys conducted by the KTL (National Public Health Institute) since 1979. Assessing one's health as good has become more common since the 1980s among the middle-aged (45–64 years) and older (65–84 years) population but no systematic time trend can be observed in the 15–44 age group (13). There was a temporary decrease in the proportion reporting moderate or poor health in the recession years. Clear differences between educational groups in reporting moderate or poor health between both sexes have persisted since 1979.

The prevalence of chronic morbidity varies by socioeconomic status as well. In the 1990s, twice as many working-age men in the lowest socioeconomic groups reported at least one limiting long-standing illness compared to the highest group, among women nearly twice as many (32). In the large Health 2000 Study, 60% of the 30–64-year-old women with no more than basic education had at least one long-term illness compared to 49% of women with tertiary education; in men the corresponding proportions were 55% and 41% (13). A comparison between the Nordic countries in 1994/95 showed that among men the prevalence of limiting, long-standing illness was highest in Finland (compared to Sweden, Norway and Denmark), whereas among women the highest prevalence was found in Finland and Norway. The differences in the prevalence of limiting, long-standing illness by the level of education were approximately the same in Finland, Norway and Sweden (7).

Many diseases, such as cardiovascular diseases, respiratory diseases and ailments of the musculo-skeletal system, as well as severe mental health problems and dental problems, have been found to be more common in the group with the lowest education (33, 34). Also functional capacity is lowest in the lowest educated group (35).

### **Research on health inequalities**

The institutes responsible for collecting national data on public health are the government research institutes under the Ministry of Social Affairs and Health (National Public Health Institute, National Research and Development Centre for Welfare and Health and

the Finnish Institute of Occupational Health) and Statistics Finland. In addition, research on public health and health inequalities is carried out at the Departments of Public Health and Sociology (especially in Helsinki) of the universities, the Social Insurance Institution and the Rehabilitation Foundation, among others.

A Working Group assessing the reform needs of the information system in social welfare and health in Finland evaluated the national health monitoring system as relatively good and many-sided and even as one of the most progressive in an international context (36, 37). Gaps prevail in information concerning children's health monitoring and regional and municipal level information, for example. One strength of the Finnish system is that information from different registers can be linked with each other and also with population studies on an individual basis. A problem in the system is that a large part of the monitoring research is carried out in projects without a permanent structure for continuity.

Socioeconomic differences in health have been studied in one way or another since as early as in the 19<sup>th</sup> century in the framework of social medicine in Finland. A relatively recent bibliography of research relevant for reducing socioeconomic health differences identified 351 studies conducted between 1966–1998, of which over 70% were published in the 1990s (23). Almost a half (47%) were classified as studies explaining health inequalities, 43% addressed inequality in determinants of health, 2% were reports of population interventions including the aspect of socioeconomic health inequalities, 6% were about interventions targeting specific groups and 2% evaluated the impacts of social and policy actions. A more detailed review of 208 original empirical studies from 1970–1998 concluded that research has mainly been concerned with building the knowledge base of health inequalities, whereas interventions have been rare and have mostly not targeted inequalities as their main focus (24). The researchers in charge of these reviews also compiled a book of 22 articles on the state of affairs in reducing inequalities in health in Finland (25) and produced a report comprising about 20 articles analysing time trends in inequalities in health and health determinants as well use of health services during the past two decades. One of the aims of the latter report is to start a systematic follow-up of trends in health inequalities in Finland.

The Academy of Finland funded a Research Programme “Health and Other Welfare Differences between Population Groups” in 1998–2000, which included 22 separate research projects in eight universities and two government research institutes (National Public Health Institute and Finnish Institute of Occupational Health). The National Public Health Institute had its own three-year research programme in 2003–2005 with four projects addressing socioeconomic differences (on mental health, functional capacity, health behaviour and biological risk factors, and the relationship of invasive pneumococcal infections and mortality). ([http://www.ktl.fi/portal/english/osiot/research,\\_people\\_\\_\\_programs/collaboration\\_projects/research\\_programme\\_on\\_socioeconomic\\_inequalities\\_in\\_health/](http://www.ktl.fi/portal/english/osiot/research,_people___programs/collaboration_projects/research_programme_on_socioeconomic_inequalities_in_health/)).

The doctoral programme “Population, Health and Living Conditions” run by the Departments of Sociology and Social Policy at the University of Helsinki has, since the mid 1990s, contributed significantly to training researchers in the area of socioeconomic inequalities in health (<http://www.valt.helsinki.fi/staff/nmaki/vte/>)

## *Strategies focusing on health determinants*

### **Economic growth and poverty alleviation**

After the exceptionally severe recession of 1991–1993, the GDP in Finland has grown at an average annual rate of 3.6% between 1994 and 2004. This has been faster than the EU-15 average growth rate, 2.2% (6). The Gross Domestic Product per capita, using purchasing power parities, was 30 600 USD in 2004, when the corresponding EU-15 average was 28 700 USD (6). At the same time, income differences and poverty have increased.

Comparable information on income distribution can be traced back to 1966 in Finland (38). Income differences (measured by the Gini coefficient calculated for household disposable income) decreased markedly from 1966 (from over 30%) to the mid-1970s (about 20%). In the recession years of the 1990s income differences started to grow first slowly, and then, during the economic boom, more rapidly, to level off by 2001. In 2003 the Gini coefficient was 25.8%, which is still low by international standards (38).

There is no official poverty-line definition in Finland. The percentage of low-income earners by the EUROSTAT definition (60% of the equivalent household median income) has grown in the 1990s. In 1966 over 18% of the population were living in low-income households, but the low-income rate decreased quite steadily until the early 1990s. The proportion was lowest in the worst year of the depression in 1993 (about 8%), and increased to over 11% by 2003. This is still among the lowest in the EU (38). However, the purchasing power of those on this poverty-line is lower in Finland than in most old EU countries (39).

The nature of the risk of belonging to the low-income group has changed. While in the 1960s half of the low-income receivers were farmers, in the 1990s the risk of low income was strongly linked to unemployment. In 2003, 63% of the households of the unemployed had low income. The proportion of low-income households was also large among pensioners and students (38).

Families with children have also been impoverished in relative terms in the 1990s: their share in the lowest income decile in the beginning of the 1990s was 5.4%, by the end of the decade almost twice as high, and in 2003, 9.4% (40). However, the largest increase in relative poverty took place among men below 55 years of age and living alone: 22% were in the lowest income decile before the recession, but 30% by the turn of the millennium (40).

At the same time, the real income of Finns has increased steadily in all income quintiles since the 1960s, except during 1992–1994. In those years income increased slightly in the highest quintile and decreased in all others. After that the highest income groups have gained much more in terms of income than the lowest income groups (38). Not only have income differences grown, but also the concentration of property has increased in the 1990s (41). The widening of income inequalities has mostly been due to the increase in capital income.

### **POLICIES AND STRATEGIES**

The Health 2015 Programme recognises threats connected with differences in material conditions, marginalisation and exclusion (17). According to this Programme, these in-

clude the risks that the present type of economic growth imposes on the population in terms of keener competition in the labour market and in education, and the widening of income differences. The Programme calls for decisions concerning the technological and economic future in broad partnership. These general notions have, however, not, in this context of health policy, been elaborated into actual suggestions to tackle, for example, income distribution and poverty.

The policies of the 1990s have been partly contradictory. During and after the recession, cuts were made in social welfare benefits, such as unemployment benefits, child benefits and tax deductions. The taxation rate of social benefits was increased (e.g. (42)). At the same time individual tax rates were lowered and taxation of capital income was separated from salary income and given a lower fixed rate. Deductions in tax rates have usually not been applied to taxing social welfare benefits. These policies together have led to a brisk increase of income at the highest end of income distribution as a contrast to the virtual standstill observed in the real income in the lowest income decile (5, 43).

In the first decade of the 21<sup>st</sup> century measures have been taken to return some of the benefits that were cut in the 1990s. The general purpose has been to promote employment of the long-term unemployed and, to attract people to stay in work longer (including several working life programmes and a change in the law on pensions). Also means to support families with children have been increased (44).

On the policy programme level, two consecutive national plans of action to combat poverty and social exclusion (following the conclusions of the European Council in Nice and later EU agreements) have been operative in Finland in 2001-2001 (45) and 2003-2005 (46). The plans have addressed income security and other factors that increase the risk of marginalisation. There is also a National Development Project on social services in 2003-2007, with over 20 development projects, one of which targets income security in families with children. The National Development Project includes the preparation of a separate Welfare 2015 Programme, which started in 2005. Welfare 2015 will concentrate on securing services in the changing environments and problems of subsistence are also at issue. Strengthening the attractions of working life and reducing poverty and exclusion are also included in the four principal areas of action in the long-term strategy of the Ministry of Social Affairs and Health, along with promotion of health and functional capacity and ensuring adequate services and reasonable income security (47, 48).

#### CONCLUDING REMARKS

In the 1990s income differences widened in Finland, and the risk of poverty increased. Yet, from an international perspective, the proportion of low-income households remained relatively low.

According to a comparison in 1995–1996 (based on the European Community Household Panel survey), the difference in reporting long-term illness between poor adults and non-poor adults was smaller in Finland, Sweden and Denmark compared to that in liberal regime welfare states (such as the UK), or Continental European states (such as Portugal, Germany and Austria), when the poverty line was defined as the equivalised income below 60% of the national median (39). In fact in Sweden poverty was found to be rarer

among the long-term ill than the rest of the population. Also the differences of poverty rate comparing the unemployed and employed were smaller in these three Nordic countries than in the 12 other EU countries. Among the unemployed poverty was least prevalent in Denmark (39). It seems that at least in the mid-1990s Finland was able to prevent economic hardships from impacting significantly on the same persons, in a similar manner to the other Nordic countries.

Nevertheless, some concern has been expressed about the prospect of increasing income inequality, which may move Finland out of the Nordic group, where the risk of poverty has been internationally low (5).

## Education

Finland has a nine-year comprehensive compulsory school starting at the age of seven. All basic education materials are free of charge. Services for the children include a free hot meal every day and free transport for those who live too far from the school to walk or use public transport. Most six-year-olds go to preparatory pre-school (96% in 2004, one of the highest figures in the OECD (49)). Teaching is available in Finnish and Swedish, and to some extent in other languages in major cities. Approximately 50% of each age group attends upper secondary schools, which are municipally provided and also free of charge, including a hot meal every school day. A matriculation examination from upper secondary school is normally required to be eligible for entry to institutions of higher education. Almost all those who do not go on to upper secondary school attend vocational training. Six percent do not complete any further education after the compulsory basic school (50).

Higher education is free of charge. Educational institutions are mostly owned by the local or central government. There is no commercial training and education market in basic education and very little at other levels. Teachers are required to have a university degree at all school levels (50).

The comprehensive basic education has turned out to be relatively successful in international comparisons from an equality perspective. Finnish 15-year-olds received the best scores in the international PISA assessment in 2004 in reading literacy, mathematics and science, and second best (after Korea) in problem solving skills (50). This is due to the relatively even distribution of test results: the performance of the weakest quarter in PISA tests was better in Finland than in the other participating countries, whereas the best quarter was best only in reading literacy. ([www.opf.fi](http://www.opf.fi)). The inter-school variation for example in mathematical skills was in Finland the second lowest after Iceland. Variation in mathematics performance according to the socioeconomic background of the pupils was clearly smaller than the OECD average. However, in the 2000 PISA data inequities were found in reading literacy between schools, mostly due to socioeconomic status and parents' education.

The level of education has generally improved. At the end of 2004, 63% of the population aged 15 years and older had completed secondary or higher level training or education. 38% had completed either vocational training or the matriculation examination, 25% had either a polytechnic or university degree. In comparison the proportion of those with tertiary education was 10% in 1975 (49). Among those born before the 1940s, well over

half received no more than basic education, whereas among those born in the 1960s and later the corresponding proportion with only basic education is less than 20% (43). The social background of students in higher education is skewed towards higher education, and students from higher educational family backgrounds are more frequently enrolled at the universities than students from families with lower education, though in some subjects less so than elsewhere in Europe (51).

#### POLICIES

The Health 2015 Programme acknowledges the significance of education as an important determinant of health. Educational marginalisation and ill-health are understood to combine to form a vicious circle that needs to be broken. The 5<sup>th</sup> line of action (in the list of 36 lines of action) in the Health 2015 Programme emphasises collaboration between schools and other educational institutions, social and health services, municipal sport and youth departments and the media in reducing educational marginalisation and poor health.

The Government Report on education policy (49) has equity and school welfare among its top objectives in the coming years. Promoting school welfare includes e.g. early intervention on problems, increasing participation and preventing pupils from dropping out from school. The Report on Social Affairs and Health, which was submitted to the Parliament in the spring of 2006 (as an Appendix of the Government's Annual Report published every fourth year), includes a review of policies and measures relevant to health in each policy sector. Among the important initiatives of the Ministry of Education the Report lists the introduction of health education as a new subject and establishing morning and after-school activities for the youngest pupils (52).

#### CHALLENGES

The results from the relatively equitable Finnish school have been recognised in international comparisons. While Finnish teenagers rank high in performance, there are indications of problems in their well-being and satisfaction with school. Social and health problems among families with children have increased (40, 53). School-children have gained weight and they report more neck and back symptoms than before and increased use of medicines (54). Cuts have been made in the provision of pupil healthcare at schools and the recommended levels of school healthcare personnel are not met. There are also shortcomings in the healthcare of students in vocational training (55). A Working Group of The Ministry of Social Affairs and Health has prepared guidelines for student healthcare and recommends an increase in the number of public health nurses, if considerable numbers of students appear to be at risk of exclusion.

In conclusion, there are socioeconomic differences in the life chances available for children and young people despite the equitable basic education. University entrance is dependent on the socioeconomic status of the parents and thus inequitable, though less so than in many other EU countries. It is a concern that the deficiencies of the school system may jeopardise equity goals.

## Working conditions

Since the Second World War Finland has experienced a rapid change to the industrial and occupational structures with two periods of intense activity: in the 1960s and 1970s and in the 1990s. In 1960 Finland was still an exceptionally agrarian country with 33% earning their livelihood from agriculture and forestry, which can be compared to the 14% in Sweden at this time. By 1980 the corresponding figure was down to 12% and by 2004 to about 5%. In the 1990s, jobs decreased in many sectors of industry, including construction, banking, and some areas of business, production of food and production of clothes. These job losses were connected with the recession, economic crisis, collapse of an important trade partner (the Soviet Union), and joining the EU. Some sectors expanded in terms of jobs, such as healthcare and social welfare services, education, production of various media equipment and data-processing services (56).

In the long run, the changes in the occupational structure have contributed to the improved health of the population (56). Physical workload decreased in the 1990s, but at the same time mental workload, stress, time pressure and threats caused by increasing demands, organisational changes and unemployment have increased (57).

The incidence of occupational accidents has decreased by 75–80% since the 1970s. Occupational accidents decreased clearly during the recession, but thereafter they have increased (58). The risk of occupational accidents and fatal accidents in Finland is on the average European level, but higher than in Sweden and Denmark (59). The risk of accidents varies significantly between different occupations and industries and is about ten-fold in manufacturing industry as well as building and construction compared to administrative work or technical, scientific or artistic work (59). Occupational accidents have occurred much more frequently among men than women. However, women aged under 45 are affected by occupational accidents and violence or the threat of violence almost equally often as men of the same age. Violence and the threat of violence occur most often in social and healthcare jobs where 10% of workers report to have experienced violence or the threat of it during the past year (59).

## POLICIES

The Health 2015 Programme addresses working and functional capacity among people of working age, and workplace conditions, in its 4<sup>th</sup> main target. The target of raising retirement age has been set to the level of “about three years later than in 2000”. Occupational health services are pinpointed as having a crucial role in ensuring that the unemployed and persons in atypical jobs have the same opportunities for health services and health promotion as others (action line 9). The health-promoting role of business and industry is being emphasised (action line 20).

The Government Programme of the present cabinet also addresses the development of working conditions on themes such as staying in work, prolonging years in working life, mental well-being in work, good leadership, violence at work, working hours and resources. The objective of the Government is to raise the employment rate and to promote a combination of working and family life (52). Promoting welfare at work is also one of the focus areas of the long-term strategy of the Ministry of Social Affairs and Health (47,

48). A new occupational healthcare law was issued in 2002 and a new work protection law in 2003, among other legislative acts.

## CONCLUSION

There is an internationally growing interest in the health and work ability of the work force, especially because the populations are ageing and the dependency structure is changing. An early exit from the labour market, due to poor health for example, threatens to “burden” pension systems and lead to substantial increases in public expenditure (e.g. (60)). So far the perspective of health inequality has not been emphasised in occupational health in Finland, although work in the field is relevant to health inequalities.

## Unemployment

During the economic crisis of the early 1990s Finland was hit by an unprecedented mass unemployment. The rate, over 18% (or 16% by the EUROSTAT definition, adopted later), was among the highest in Europe. At present the unemployment rate in Finland is at the average EU level. The youth unemployment rate has been higher in Finland (11% for 15–24-year-olds in 1999) than the EU average (8.5%) (61). The proportion of long-term unemployment (lasting for over 12 consecutive months) of the total unemployment has decreased from nearly 40% in the late 1990s to 24% in 2004 (52). For example in 2000 it was 29% in Finland, which was well below the EU level, 47% (61). Yet the absolute number of long-term unemployed remains high.

There is a strong connection between unemployment and poor health. The negative effects of unemployment on mental health and stress have been shown in Finland as elsewhere (61). In the Health 2000 Study, unemployment was systematically connected with a lowered self-assessed work ability, and the connection was stronger, if unemployment was prolonged (62). In the same data, almost all most common diseases were more prevalent among the 30–64-year-old unemployed, compared to those who were employed (63). Unemployment was also connected with high mortality among men and women in all causes of death in 1996–2000 (64). Mortality of unemployed men was three times higher than that of employed men and among women twice as high. The excess mortality was mainly due to alcohol-related causes, accidents, diseases of the respiratory organs and the group of unclassified diseases.

## POLICIES

The main aims of the Government’s employment policy are to increase the number of the employed by 100 000 persons by 2007, reduce the level of unemployment and increase supply within the workforce (65). The aim of full employment has been considerably modified from what it used to be and has given way to the aims of price stability and budget stability instead (66). In the face of the increase and persistence of high unemployment, the emphasis of social policy has shifted from gainful employment to activation of the unemployed (61). This shift appeared in the political discourse in the mid-1990s in Finland, somewhat later than in many other EU member states (61). The new activation policy has meant stricter eligibility criteria for unemployment benefits and social assist-

ance. At the same time employment services have been developed. One of the policy responses has been the Act on Rehabilitative Work Experience (from the year 2001), which targets young people and those long-term unemployed who receive only a means-tested minimum income benefit (61). The implementation of the law is left to the local authorities and individuals themselves. Initial experiences have pointed to a slow start and considerable local variation in the implementation of the law (61).

### **Environmental safety and health**

Fear of crime has been assessed in Finland in interview studies since 1988 at approximately five year intervals. In 2003 concern about falling victim to a crime of violence had decreased from the previous decade. For example, in that year 36% of the respondents aged 15 or over were at least to some extent worried about falling victim to violence when walking outside in the evening (compared with 45% in 1997). Fear of violence is more common among women and in cities, especially in the capital region. However, preparedness for encountering violence has increased. Almost a half of the interviewees reported at least some preparedness. Fear of crime increased between 1988 and 1997, although the crime rate decreased in the same period. After that the crime rate has not changed significantly (52).

Family violence is difficult to assess reliably. In 2004 there were 10% more acts of family violence (assaults, homicide, sexual abuse, rape) registered by the police than in the previous year. In 2004 there were 70% more cases of restraining orders (for example due to fear of violence or harassment) than in 1999. Investigations of child molesting have increased. Women fall victim more often than men to homicide in family violence, but the incidence has decreased. The services for victims and actors in family violence are deficient and often organised by the third sector (52).

Another group suffering from fears regarding their safety is the elderly living alone. There are also safety issues among children. These are connected with bigger groups in child day-care and schools and at the same time weaker services. The need for custody has increased. The causes of these can be traced to economic problems that municipalities in charge of providing basic services try to solve by creating larger care units or cutbacks among social and healthcare personnel (52).

Safety issues have been addressed in the Social and Health Report of the Ministry of Social Affairs and Health as an inter-sectoral challenge, which is primarily the responsibility of the Ministry of Interior (52). Questions of socioeconomic inequality have not been raised in this context.

### **Healthcare policies and programmes**

Municipalities are responsible for organising healthcare in Finland. They do it either independently or together with neighbouring municipalities in joint health centres. According to the figures given by the Ministry of Social Affairs and Health, there were 278 health centres in 2003. Of these, 70 were run jointly and 208 by individual municipalities (67). Municipalities can buy healthcare services from other municipalities, the private sector or non-govern-

mental organisations. Municipalities are also responsible for organising specialised hospital care. There are 21 hospital districts and each municipality belongs to one of these.

Health services are mainly funded from tax revenue. In 2003, 43% was funded from local tax revenue, 17% from central government grants financed by national taxes, 16% from health insurance revenue, 20% from households and 4% from other private bodies (such as insurance companies). The sum of the grant that municipalities receive from the central government for social welfare and health depends on a number of factors such as the population age structure and unemployment rate (67). Public healthcare is supplemented by private healthcare. The national system of health insurance reimburses the user for part of the charges for private healthcare. At present, the private sector accounts for 20% of social welfare and healthcare, but the figure varies greatly depending on the kind of service provided (68).

Preventive healthcare and services related to maternity and child health clinics are free of charge. Occupational health services are also free of charge for the user. Under 18-year-olds receive health centre services free, including dental care. Health centres may charge either an annual payment (no more than EUR 22 per year in 2005) or three appointments per year (maximum of EUR 33 per year). The entitlement to receive publicly supported dental care in municipal health centres was extended to the whole population in the beginning of 2002. Dental services for adults are, however, charged at the municipal health centres (basic fee maximally EUR 7 per visit and possible charges for treatment). Also subsidies for private dental care were expanded to cover all age groups (69). Hospitals charge for outpatient department visits (maximum of EUR 22 per visit) as well as days at hospital (EUR 26 in a hospital, EUR 12 in psychiatric hospital per day). There is an annual ceiling for public healthcare fees (EUR 590), after which outpatient services are free of charge. The share that households pay for healthcare is exceptionally high in Finland. It was 13% at the beginning of the 1990s, but rose to nearly 21% during the recession years 1991–1993 (9).

The overall efficiency of the Finnish healthcare system is high, judged by the total spending on health, which was only 7.5% of the GDP in 2004. Finland was the only OECD country to have a lower percentage spent on health in 2004 than in 1990 (3). Nevertheless, Finns are more satisfied with their healthcare than is the case in most other OECD countries (3).

Although the healthcare system covers the whole population, there are problems in equity. Some of the reasons for this are connected with the segmentation of services into municipal health centres, occupational healthcare and private care and differences in their use (15). Information on the socioeconomic differences in the use of health services in Finland is available mainly from individual studies and there is no systematic follow-up of the socioeconomic differences in the use so far (70).

The proportion of all visits to a doctor in health centres has decreased from 45% to 40% in the beginning of the 21st century (70, 71). At the same time, the proportion of occupational healthcare doctor visits, free of charge for the patients, has increased. Over 80% of the employed workforce and over 90% of wage earners are covered by occupational healthcare (72). The use of private medical services has been about 15–20% of all doc-

tor's visits (70). The use of health centre medical services has been primarily among low-income patients, whereas the use of occupational health services and private healthcare tends to be more common in the higher-income groups (70). Inequity in dental care has diminished slightly, but there is a similar division between public health centre dental care favouring lower-income patients and private care favouring higher-income patients (70).

There are differences in hospital care that do not seem to be need-based. For example, the rate of coronary revascularisations is higher in the higher-income groups, although the prevalence of coronary heart disease shows an opposite gradient. The socioeconomic differences in coronary procedures have however decreased, as the number of the procedures has increased (70). Also some other surgical procedures are more commonly undertaken for higher income patients (70).

As regards mental healthcare, the picture is complex and not well studied. It is likely that mental health problems that start at a relatively young age contribute to downward social mobility or prevent the patients from acquiring the socioeconomic position that would otherwise be possible. The number of psychiatric hospital beds was radically reduced in the 1980s and 1990s, with the aim of shifting mental care to the ambulatory services. This was, however, hampered by the recession of the 1990s. There is also a deficit of psychiatrists, and psychiatric services tend to concentrate into big cities. Preventive mental healthcare is considered to be a weakly developed area (72). There are regional differences in the provision of publicly supported psychotherapy. As for hospital care, treatments for psychiatric diagnoses are more common among the lower-educated than among the higher-educated. Looking at diagnoses excluding alcohol-related diagnoses, the treatment periods have become shorter in the lowest-educated group since the second half of the 1990s, whereas the periods have been stable or become longer among the higher-educated patients (70).

## POLICIES

The general lines of healthcare and its principles and organisation are expressed in the Constitution (1999), Public Health Act (1972, renewed in 2006), special laws on the organisation of specialised healthcare, mental healthcare and communicable diseases, and the law on patient rights (1992).

The principle of equity is pronounced in the Constitution. The renewed Public Health Act requires the municipalities to follow the health status of the population and different health determinants in subgroups of the population. Also intersectoral action in health promotion on the local level is required by the Act.

The most significant specific programmes are the National Health 2015 programme (17) and the National Health Care Project (funded for 2002–2007). The aim of the National Health Care Project is to ensure equitable healthcare services irrespective of people's place of residence and wealth (52, 73). Some of the most visible parts of the project have been the shortening of queues for care with a special governmental grant in 2002–2003, and the "treatment guarantee", which came into force in March 2005. The treatment guarantee aims to secure access to treatment for the patient within three days of contacting the service, access to outpatient assessment by a specialist within three weeks of referral, and

access to medically justified treatment in no more than six months (or the time specified in nation-wide treatment recommendations) (73).

Occupational health and safety legislation was modernised in 2002 and 2003. There is a national programme ('Veto'; the Finnish word has meanings such as 'drive', 'shape', 'pull', 'bet') in 2003–2007 to increase the attraction of work.

### **Healthy diets and physical activity**

The diets of the Finnish working-age population have been studied every fifth year since 1982 in connection with the FINRISK-study. A sub-sample of the study has participated in a survey measuring quantitative food consumption and nutrient intake. Information on the use of dietary fats and vegetables is available from the Adult Health Behaviour Survey (conducted annually since 1978). In general, Finns consume too much fat, especially saturated hardened fat, and too little carbohydrate. There are only minor differences in the intake of saturated fats between different educational groups. The sources of fat have changed during the past decades. The main sources used to be milk, butter and meat dishes, whereas now they are cheese, meat dishes and dietary fats. Use of butter as a bread spread used to be more common among the lower-educated in the 1980s, but butter has lost its popularity in all groups, and among women its use has virtually disappeared. Cheese belongs more often to the diet of the higher-educated rather than less educated groups. Daily use of vegetables has increased since 1979 and has all the time been more common among the higher-educated group.

Altogether, the highest education group has the healthiest diet judged against dietary guidelines. The trends indicate that those with the highest education adopt healthier eating habits first and the other groups follow (74).

In spite of the generally favourable changes in food consumption patterns, increasing obesity is considered a major public health threat in Finland (52). One fifth of the working-age population are obese (body mass index over 30 kg/m<sup>2</sup>) and over 40% are considered overweight (52). Obesity varies clearly according to socioeconomic status and is almost twice as common in people with a primary level education compared to those with tertiary education (75).

Abdominal obesity measured by waist circumference (WC) is even more strongly associated with mortality than BMI and is increasing rapidly especially among women. Abdominal obesity is inversely related to education among women. Unemployment is also reported to be associated with larger WC among women (76).

Finnish men and women engage in health activity relatively often in the European comparative context (77, 78). Sufficient exercise (at least four times a week half an hour at a time until at least mildly out of breath) is relatively common even at old age (77). Yet, it is estimated that less than half of adults engage in sufficient exercise. According to the Health 2000 data, variation in the level of exercise by education is small and insignificant among adults aged 30 years or over (79). The same holds for young men aged 18–29, whereas among women of that age sufficient exercise was more common in the group having basic education than in the group with higher education (32). Only one third of children are considered to engage in sufficient physical activity for their healthy growth (52, 78)

## POLICIES

Promoting exercise is considered essential for the prevention of several major public health problems, such as diseases of the musculoskeletal system, type II diabetes and mental health problems. The Social and Health Report 2006 cites examples of specific projects that have assessed the role of exercise for mental health rehabilitation and suggests that they are spread out to other groups with long-term illness, to physically invalid persons and to socially excluded groups (52).

The Ministry of Social Affairs and Health established a committee for developing health-promoting exercise in 2001. The work led to a resolution of the State Council and an advisory board for health-promoting exercise under the Ministry of Social Affairs and Health. Extra money was allotted to promoting healthy exercise in 2003. The programme "In good shape at every age" has been operative ever since 1994.

New national guidelines for nutrition were published in 2005. They are similar to the Nordic guidelines published one year earlier. For the first time the guidelines also include recommendations for exercise (52).

## Tobacco, alcohol and drugs

The prevalence of daily smoking among working-age men has decreased since 1978, which is the baseline year of annual surveys on health behaviour. Among women smoking increased until the mid-1980s and has then remained rather stable. About 27% of men and 20% of women in the 25–64-year-old population are daily smokers (80). Smoking is more common among the lower-educated groups and differences in smoking habits according to education have widened in both sexes. Men in the highest educated tertile have decreased daily smoking, whereas the lowest tertile has kept the level high and stable. Among women the prevalence of daily smoking has in the lowest-educated tertile increased from 18% to 29% between 1978 and 2003, whereas the highest and middle tertiles have kept a stable level (80, 81).

Teenagers of 15 and 16 years of age have decreased their daily smoking and other use of tobacco products in the past years. The prevalence of daily smoking or use of other tobacco products was 23% among 14–18-year-old boys in 2003 and 26% among girls of the same age (80, 82).

Smoking among secondary school pupils tends to be slightly more common among those whose parents have primary level education. Almost every second young person continuing training in vocational school after compulsory school is a smoker, but about one in five of those who go to upper-secondary school (gymnasium) (80). Particularly wide differences have been found in the age-group of 18–24-year-old men in the Health 2000 Study: of those with compulsory education, 49% were daily smokers, whereas the highest education group had 12% daily smoking men. Among women the corresponding figures were 48% and 10% (83).

The consumption of alcohol per capita has nearly doubled in Finland between the early 1970s and 2003. In 2004 there were substantial changes in alcohol policy. The restrictions on imports of alcoholic beverages were abolished and the taxes on alcohol were lowered by 33% on average. Alcohol consumption rose by 10% to 10.3 litres per capita and sev-

eral alcohol-related hazards increased immediately (52, 84). The consumption of alcohol remains as concentrated as it was 30 years ago and 10% of men and women drink nearly half of all alcohol consumed (52).

The use of alcohol has increased in all educational groups since the early 1980s. After the tax reductions in 2004, it was the lowest educated men that increased their consumption most, according to the Adult Health Behaviour Survey. There were no longer differences between the educational groups reporting the consumption of at least 8 portions of alcohol per week (84). According to a specific survey on the use of alcohol (Drinking Habits Survey 2000), there were clear educational differences in high consumption of alcohol (defined as the highest consuming 5% group), and also differences in heavy drinking frequency and weekly high consumption. All these were more common in the lowest educated group (84).

Alcohol is the predominant intoxicant in Finland and the use of drugs has been on a relatively low level by international comparisons. Ten percent of the 15–16-year-olds had experimented or used cannabis in 1999, while the corresponding figure at that time was 35% in Great Britain. In 2002 the proportion of Finnish adults experimenting with or using cannabis was at the same level as among the youngsters, 10%. Juvenile experimenting with drugs has either decreased or remained stable and drug-induced deaths have decreased. The use of drugs tends to go together with the use of alcohol in Finland, and there is some concern about increasing consumption of alcohol also from this perspective (52). In the Drinking Habit Survey 1992, there were no clear differences by education in reporting use of cannabis, or other drugs during the previous 12 months (85). On the other hand, at the end of 1990s the drug users who took contact with substance abuse services (15% of all clients of the services) were younger than average, but also socially more marginalised in terms of unemployment (every second drug user) and homelessness (every fifth drug user, compared to every tenth client overall) (85).

## POLICIES

Finland passed a specific Tobacco Act in 1976 (effective from 1977 on) and was the first country in the world to do so. The Act can be considered as very progressive in terms of its content for that time: it banned advertising and restricted smoking in public premises, transport and educational facilities, it prohibited selling tobacco to persons less than 16 years of age and introduced mandatory warnings on packaging. The revised Tobacco Act, effective since 1995, tightened the ban on all indirect advertising and increased the age limit to 18 years. In addition, it widened the area of prohibition to all joint and public workplaces, excluding restaurants. It has been concluded that the smoke-free workplace legislation has to some extent had the potential to narrow educational differences in health (86), even if this is not reflected in the population survey results so far. In 1999 restaurants were obliged to reserve at least 50% of their seats to non-smokers (e.g. (86)). In 2006 the legislation has been changed to ban all smoking in restaurants by June 2007. The new Act still allows restaurants to have a separate smoking room with a separate ventilation system.

Smoking starts mostly at a young age (on average at 14 years in Finland, see (83)). The Health 2015 programme includes a target to reduce juvenile smoking by 50%. Not much attention has formerly been paid to cessation of smoking among young smokers (52). There is a national smoking cessation telephone line, which serves also young people, and every fourth person calling is under 18 years of age. There are web pages to help cessation and some cessation experimentation has been carried out in schools with promising results.

A radical shift in alcohol policy and alcohol conditions took place when the taxes on alcohol were reduced and the restrictions on imports were abandoned in the spring of 2004. The prices of clear spirits fell by 36% and those of other liqueurs by 28%. The price of wine fell only 3% and beer turned into a “special offer” product. It could be foreseen that the policy changes would increase alcohol consumption and also socioeconomic differences in health (e.g. (85, 87)). In 2004 alcohol-related deaths increased by 19% (52).

A Government Resolution on alcohol policy from 2003 set the goal to curb the increase of alcohol consumption, to decrease the harm caused by alcohol use to families and children and to decrease the hazards caused by heavy use of alcohol (52). The monopoly for the retail sale of wine and spirits was retained in the tax reform and the Government emphasised the use of control in prevention of harm. An alcohol programme based on partnerships and intersectoral cooperation was launched for 2004–2007. One of the numerous projects under the programme is a national mini-intervention programme (VAMP, 2004–2006), which aims to establish risk evaluation and mini-intervention as routine procedures in primary healthcare. The Institute of Occupational Health had a similar mini-intervention project (2004–2007) for the total occupational healthcare system, which covers 1.5 million people.

There is a Drug Policy Action Programme for 2004–2007 (set by Government Resolution), which aims to reduce both demand and supply of drugs, to coordinate drug policy and engage in international cooperation as well as to promote research and follow-up. The number of drug users accessing services has increased and the incidence of communicable diseases among the users has decreased, probably partly due to the free exchange of clean syringes provided by the service system (52).

## *Disease-specific strategies to reduce social inequalities in health*

The national Health 2015 Programme addresses population groups from a life course perspective. The main targets are formulated to cover phases of life from infancy to old age. The programme is not disease-specific in its orientation. There are some large disease-specific programmes organised by voluntary organisations and research institutes, and research institutes monitor risk factors. In the late 1990s, the Public Health Committee arranged a rather comprehensive assessment of the recent national disease- and risk factor-specific public health programmes. In some of the programmes socioeconomic differences were mentioned but none of the programmes included measures aiming explicitly at the reduction of socioeconomic disparities (16).

The Diabetes Association coordinates a ten-year development programme on prevention and treatment of diabetes (DEHKO 2000–2010). The Finnish Heart Association has initiated an action programme for promoting heart and circulatory health in 2005–2010. The National Public Health Institute follows the development of morbidity and mortality from heart diseases and their risk factors.

The Finnish Heart Association has paid attention in its strategy document to the socio-economic differences in heart diseases. Diabetes has recently been shown also to vary according to the socioeconomic position of the persons suffering from the disease. The TEROKA-project group has contacted the programme functionaries to promote the incorporation of a socioeconomic viewpoint to developing measures for prevention and treatment.

### *Group-specific strategies for reducing social inequalities in health*

The emphasis in the national Health 2015 Programme is set on population groups from a life course perspective. There are many policy areas relevant to the five tasks set in the programme for different age groups. The possibilities of these policy areas, including health policy, should be identified and analysed separately from the point of view of health inequalities, which has not yet been done systematically. The implementation of the Health 2015 Programme has been left basically with the actors in different fields, particularly with municipalities. The Ministry of Social Affairs and Health follows the development on each of the eight main targets by a set of indicators (88), and by collecting the actors to assess the development in joint seminars. The first overall follow-up seminar was held in June 2004, and one addressing children (2005) and one addressing young men (2006) have taken place.

### *Arena approaches for reducing social inequalities in health*

The Health 2015 Programme mentions working conditions in the target for improving the health of the working-age population. There are several projects addressing working life, for example VETO-project (<https://rtstm.teamware.com/Resource.phx/veto/index.htm>). The general aim in this is to raise the statutory pension age. There is a general understanding that the retirement age is not wholly determined by the health, work ability, or for example specific computer skills, of the ageing persons, but also by work conditions. As long as there has been a surplus on the labour market, the motivation to adapt working conditions to the ageing work force has not been high. However, it is expected that there will be demand for work force when the big post-war baby boom generations have retired within the next 5–7 years.

A basic goal of the Finnish health policy since the 1960s was to reduce regional differences in health. The regional approach was used in establishing the health centre system as well as in building a comprehensive school system all over the country. In both cases the systems were first built in the North-East and the poorest rural areas and then step by step in the more affluent western and southern parts of the country. Many of the regional differences in health and health-related lifestyles were either eliminated or reduced (89). There are, however, indications of a return of regional welfare differences in Finland (90).

The “Finnish Healthy Cities Network”, inspired by the example of the WHO “Healthy Cities Network”, has existed since 1996. It was founded to provide support and assistance to the local implementation of the Health for All 2000 policy. It continues to follow the outlines of the present Health 2015 Programme. One of the priority areas for the activities for the period 2005–2008 is reducing inequalities in health. The network has a coordinator at STAKES. Municipalities apply for membership, and currently the network includes 29 urban and rural municipalities (<http://info.stakes/tervekunta/EN/index.htm>).

### *Implementation: methods, resources and main actors*

Social and health services as well as education are guaranteed to all by the Constitution (1999). Other laws oblige the municipalities to provide specific services for the local population. The government and the parliament are responsible for the legislation, guidance, and part of the financing, based on taxation. The provinces and their administration are the state’s instruments for regional administration.

The municipalities (at present 431) are run by elected councils and finance their activities partly by municipal taxes. The autonomous status of the municipalities was strengthened in the reform of the state subsidy system in 1993. The central administrative boards (such as the National Agency for Medicines and the Board of Social Affairs), which had been in charge of the execution of governmental orders and delivering practical guidance, were discontinued. The state subsidies to municipalities were no longer earmarked to the same extent as before and the municipalities received more responsibility for organising basic services. At the same time, the share of state funding was radically reduced. This left the central administration with tools such as general legislative norms, information guidance and ‘ideological’ steering (19). At the beginning of the 21st century, the role of guiding by different programmes in healthcare has been attempted, as well as influencing through developmental project funding (19). There has been considerable dissatisfaction with the coordination and cooperation of the central and local administrations. The suggestions for correcting the system have included raising the share of state subsidies, strengthening the basis for the citizens’ rights to obtain services, and setting minimum quality standards for services.

Reducing health inequalities, which has been one of the central goals in all main health policy documents in Finland since the 1980s, has not been transferred into action plans concerning the major public health problems. A general assumption seems to have been that the universalistic policy approach – ensuring similar access to services and benefits for all citizens irrespective of their social and geographic background – is the main, if

not only, way to reduce inequalities. Not very much attention has been paid to analysing whether and how the principle of universalism actually works: do the services, benefit systems, preventive efforts reach all population groups similarly, and do they provide equally effective results for all sections of the population? There are many indications of inequality in the results of these activities and structures, and in recent years more emphasis has been put on finding ways to improve the situation. The crucial questions are, whether the Finnish universalistic public policy is able to provide universal results in all parts of the population, and whether specific measures tailored for those population groups where the health problems tend to accumulate are needed.

The Government research and development institutes working in the sector of the Ministry of Social Affairs and Health, together with different partners, have been active in areas relevant to the reduction of health inequalities. KTL (the National Public Health Institute) monitors the population's health and its determinants and also develops measures to prevent diseases and promote the health and functional capacity of the population. STAKES (the National Research and Development Centre for Welfare and Health) carries out research and development work on health and social services. The Institute of Occupational Health (FIOH) is a research and specialist organisation in occupational health and safety. As a response to a plea from the Ministry of Social Affairs and Health, the role of the joint TEROKA project of these institutes, working together with other partners, was strengthened in 2004, in order to improve the knowledge basis and implementation of the target for reducing inequalities in health in Finland. The project continues and expands the collaborative work dating back to the late 1990s (7, 23-27). The project group will assist in the work on a national strategy and action plan, which has been taken on the agenda at the Ministry of Social Affairs and Health and assigned to the multi-sectoral Public Health Committee (standing advisory board for public health).

The Ministry of Social Affairs and Health has raised the issue of health in all policies on the agenda, with the aim of enhancing the understanding of the significance of health in all sectors of social life. The Social and Health Report 2006 includes the first review assessing the role of other administrative sectors in questions of health, but it does not address specific health disparities. Health in all policies (HiAP) was also one of the main themes during the Finnish EU-presidency in the second half of 2006 (91). Inequalities in health are seen to pose a major challenge to enhancing the viewpoint of health in all policies (92). One of the prospective tools of interest in this process is health impact assessment (HIA). The TEROKA project includes a sub-project, which aims to assess with pilot studies the feasibility of health impact assessment in the policies and activities that could reduce health inequalities in Finland.

The Ministry of Social Affairs and Health organised a series of regional health promotion seminars in the 19 regions in Finland in January-March of 2006 in order provide support for regional and local activities in advancing population health. In the seminars health inequalities were illustrated by presentations on socioeconomic inequalities in mortality, health and health lifestyles on the regional level ([www.terveys2015.fi](http://www.terveys2015.fi)). The provinces have also been involved in the implementation of the Health 2015 Programme earlier, for example by distributing information and running mainly small scale develop-

ment projects. However, the role of the central government, provinces, regions, municipalities, third sector, business and industries and other local and also international actors in reducing inequalities in health has not been assessed and analysed systematically.

## *Monitoring and evaluation*

Finnish population registers are considered reliable and to have good coverage. A considerable part of the information on health inequalities in Finland is based on separate studies conducted on the basis of these registers (e.g. studies on mortality, hospital discharges and pensions). There are several regular large population studies on health, health risks and health-related habits, which permit analysis according to socioeconomic group. These include studies on adults and in some cases families (Health 2000 by the National Public Health Institute, to be repeated around 2012; FINRISKI by the National Public Health Institute every five years; TERVA by the Social Insurance Institution in 1964, 1968, 1976, 1987, 1995–96 and a possible new round in 2008; Adult Health Behaviour Survey by the National Public Health Institute annually since 1978; Welfare and Services Survey (STAKES-Survey) 2004; Work and Health interview by the Institute of Occupational Health every three years since 1997), young people (Youth Health Habit Study by the University of Tampere biannually since 1977; School Health Survey by STAKES annually since 1996; WHO School Surveys by the University of Jyväskylä since 1984; entrance check-ups of all conscripts by the Finnish army) and survey on pensioners (Pensioners' Health Behaviour Survey by the National Public Health Institute biannually since 1993). Drinking habits have been studied by the Institute of Alcohol Policy since 1968 at an interval of eight years; nowadays the institute has been merged with STAKES, which conducts the study and has incorporated illicit drugs into the survey. There is no similar follow-up system for children's health and health risks as there are for adults, but plans are currently being made to fill this information gap.

The Ministry of Social Affairs and Health compiles a social and health report every fourth year and submits it to Parliament. The first report was published in 1996. The report covers the development of public health and social welfare, as well as public health policy and social policy. The reports have based their overviews on the health development on extensive health reviews compiled by the National Institute of Public Health and STAKES ("Health in Finland 1996" in Finnish, updated English version in 1999, "Health in Finland" 2005 in Finnish, updated English version in 2006). These health reports have tackled health inequalities in a few chapters. Reports of the population surveys variably report about health inequalities. So far there has been no systematic follow-up of health inequalities, although researchers have extensively published on inequity and inequalities in health. The TEROKA group has compiled a collection of articles on trends in health inequalities in Finland with the hope to establish this as a baseline report for eventual follow-up reports. There is less research and follow-up of health policy and other relevant policies connected with health inequalities.

## *Concluding remarks*

The present public health programme launched in 2001 has for the first time set a quantitative target for reducing mortality differentials between social groups by a fifth. However, the programme is rather general and the 36 lines of action can be considered recommendations rather than actual guidelines for action. In December 2005 the intersectoral Public Health Committee (advisory board for public health) under the Ministry of Social Affairs and Health decided to take on their agenda the preparation of a national strategy and an action plan to advance the work to narrow inequalities in health. The work began in the autumn of 2006.

In the overall political, social and international context, there are tendencies and threats that may weaken the basis of the universalistic welfare state and interfere with the attainment of equity in health. In Nordic comparisons Finland has often been interpreted as lagging behind other Nordic states in the level of providing welfare services. This continued until the 1980s, when Finland finally caught up with the other Nordic countries for instance in social expenditure and provision of social security and social services (93). The economic crisis of the 1990s led to cuts in welfare benefits, and the deep recession cast a long shadow on the development of social welfare. When the economy recovered quite rapidly, almost all layers in the society benefited from it, if only in quite unequal proportions. All in all, the welfare state did not collapse, although by several parameters Finland seems now to be closer to the average levels of the EU countries rather than belonging with the group of other Nordic countries, which have retained a higher level of social welfare expenditure.

Opinion surveys have shown repeatedly that people give high support to the maintenance of the welfare state and social and health services in Finland. The majority are not in favour of tax reductions and do not support cuts in social welfare and health services (94, 95). Many policy decisions in these areas in Finland have obviously not been in harmony with popular opinion. Thus, it seems that the political elite favours and conducts policy that weakens the welfare state against the wishes of popular opinion. Some researchers interpret the discrepancy between the opinions of the elite and those of the majority of the population to be the principal value crisis in the present welfare society (96).

As a rough generalisation concerning the 1990s, one could say that health inequalities did not arise as a political problem in Finland. There was no political window open for developing policies to reduce inequalities in health, in spite of the fact that inequalities were known to exist and in spite of the earlier policy formulations addressing the inequalities (such as the national Health for All Programme 1986). The Health 2015 Programme of 2001 expressed the first explicit quantitative targets for reducing inequalities in health in Finland. In 2003 the coalition government of Prime Minister Matti Vanhanen included tackling health disparities in the Government Programme and further steps to strengthen policies to tackle health inequalities have been taken. The most important of them is perhaps the decision to start formulating a national strategy and action plan to reduce inequalities in health.

## *Proposals for further research*

The data basis on population health, including the possibility to analyse health inequalities, is exceptionally abundant in Finland. However, there are gaps in the system that may hamper the full utilisation of the materials that are collected on a regular basis. In Finland research on health inequalities has mostly been based on the particular interests of individual researchers and research groups and is carried out in short term projects. Some institutionalised arrangement would be needed to guarantee continuity of information, which is the necessary basis for a rational development of health policy.

There are some gaps in the knowledge basis. Research on children's health is scanty, even if information on children's health is routinely collected in maternity and child healthcare clinics. However, it is not aggregated to national follow-up information yet. There is research on hospital care from an equity perspective, but the primary healthcare is poorly covered from this point of view. In order to develop means to reduce inequalities in health, focussed research with sensitive methods would be needed, especially concerning socioeconomic groups and minority groups that are difficult to reach in population surveys, such as immigrants and many marginalised groups. Research on poverty and marginalisation and public health research would probably benefit from interaction and cooperation, which is now mostly missing. Inequalities connected with mental health problems are not well studied. There is plenty of research in the area of occupational health, but the angle of health inequalities has not been emphasised in these studies.

Social developmental work and developing new practices is nowadays often carried out within numerous projects. A well-known problem of short-term projects is that only rarely can one expect rapid changes to appear in the level of population health, and this holds especially in the area of health inequalities. Health inequalities have until recently usually not been consciously tackled in most Finnish health projects. The TEROKA project has collected examples from Finland for the projects and is involved also in other European network studies, as well as in developmental work in the Northern region Kainuu. The Finnish Centre for Health Promotion (Tekry) plans to analyse health promotion projects that have been carried out in Finland, in order to assess the potential they may have for reducing inequalities in health.

Evaluation of policies and programmes from the point of view of narrowing health disparities between population groups has not received due attention yet. However, the Ministry of Social Affairs and Health has directed more of its health promotion funds to inequality issues in recent years. One of these projects attempts to examine the usefulness of health impact assessment (specifically from the viewpoint of health inequalities) in a few pilot areas within the next few years. A general follow-up and evaluation of the progress made in the Health 2015 Programme is carried out in large seminars by the Ministry of Social Affairs and Health on each of the eight main targets of the Programme. There is also a set of specific health outcome indicators, which will be followed (88). However, systematic research on the determinants of health inequalities and the role of health policy and other policy areas in tackling health inequalities as well as evaluation of the policies should be strengthened.

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# Italy

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## *Preamble*

In most Latin countries, social inequalities in health have received little attention in research, and even less in public health policy (1). In Italy, this low priority could be explained by the fact that, in the past, cross-regional differences in male mortality (favouring the South) were weakly related to health expenditure and income (favouring the North). Only infant mortality, an indicator that is more sensitive to social vulnerability, was related to the geographic distribution of poverty (2). When social health inequalities at the individual level were directly addressed, as in European comparative studies, smaller occupational and educational differences in mortality were observed in Southern compared to Nordic countries (3), and circulatory diseases were less affected than digestive-tract diseases. Two main explanations have been suggested. Firstly, the crossover of social differences in the diseases-of-affluence epidemic and their main determinants, such as smoking, is still going on in Latin populations; accordingly, in the future one would expect a widening of inequalities in health in Southern Europe. The second explanation is related to the limited social variation in protective factors such as the Mediterranean diet in Southern Europe. In Italy, moreover, epidemiology and social medicine have a brief tradition and low status within the health sciences, and health information systems do not provide systematic data for monitoring inequalities in health. A number of studies are under way to fill this gap, but comprehensive policies for tackling health inequalities are still lacking.

## *Development of society and the present political environment*

Italy is a densely populated country (190.9 inhabitants per km<sup>2</sup>) with a population of 57.6 million in 2003. The annual population growth rate over the last 10 years (0.1%) is low compared to the rest of Europe. The huge dependency ratio (50%) is related to both the low birth rate (9.4 per 1 000), and the high percentage of the population aged 60 or over (24.7%). Life expectancy at birth has reached one of the highest recorded levels in the world, 82.9 for females and 76.9 for males; infant mortality is 4.0 per 1 000.

Economic and living conditions have improved in recent decades. General economic recovery stabilised during the 1990s, in spite of the burden of public debt. The educational profile has risen, with nearly total coverage (96.3%) for compulsory schooling in 2001. In recent years, workforce conditions have been improving, although in 2003 the total activity rate (56.1%; EU-25 mean 62.9%) and the female activity rate (45.1%; EU-25 mean 55.0%) were still among the lowest in Europe (4). The unemployment rate stood at 8.0% in 2004. The percentage of households living below the poverty line is basically stable at around 12.0% (5). Italian society is facing new challenges: the need for more female occupations, and more care for children and elderly people; the high net ageing rate; immigration from poor countries; and the new knowledge economy that is challenging middle-aged workers, the unemployed, and younger workers seeking education.

The welfare system started as a classic conservative-paternalistic, state-centred, social insurance model, and has moved towards a social democratic, universalistic system that has never been fully developed, because of external economic pressures and rising deficits. Today, welfare is decentralised and some aspects have also been privatised, to cope with the financial demands of economic integration. Two thirds of social insurance is financed by employer-employee contributions, with the remaining one third financed through taxation mostly from national revenue; it covers sickness and parental benefits, retirement and disability pensions, and workers compensation.

There are four democratically elected levels of government in Italy: the National Parliament, 20 regional councils, 103 provincial and 8 100 municipal councils. The National Parliament and regional councils approve legislation, and decide on revenue and expenditure. Regional authorities manage health services through Local Health Units (LHUs) that mostly correspond to provincial borders. Provincial councils have specific duties regarding the environment, territorial infrastructures, poverty and labour. Municipal councils have a high degree of autonomy and administer local matters such as preschools, school buildings, care of elderly people, roads, water, waste and energy. Given the huge geographical variation in this respect and the strong political commitment towards devolution, regional differences should be addressed.

The gross domestic product (GDP) per occupied person, income and the equality of its distribution, and accessibility to work, especially for women, decrease from North to South, notwithstanding the stronger balancing role of the informal economy in the South (6). In general, the South receives the same share of revenue from the state despite its structural lack of material resources. The only exceptions are higher public expenditure

for education and lower for healthcare, owing to the younger age distribution in the South. Some indicators, such as the migration of patients from Southern to Northern hospitals and the low provision of infant daycare in the South, suggest that the quality of welfare in the South may not be adequate. This cannot be rectified by private services as Southern residents, in general, have not the means to afford private care.

### **Public health policy**

The 1978 Italian health reform (7), which transformed healthcare from an insurance-based model to a National Health Service (NHS), was based on the principle of promoting equity in health and healthcare, although this largely meant a homogeneous geographical distribution in the supply of healthcare services. Revisions to the reform (8) define essential and uniform levels of healthcare that should be provided in every region to ensure equity in access (Box 1). In the 1990s, following the first Italian evidence and recommendations on social inequalities in health, some political actions were taken, mainly in the health sector (9). However, there has been no policy explicitly addressing the issue of tackling health inequalities.

The 1998–2000 National Health Plan, undertaken by the left-wing government, marked the first time that a national health strategy was established, including specific targets for public health, such as promoting healthy lifestyles, improving the environment, and enhancing monitoring systems (10). Reducing social health inequalities was one of nine fundamental points in this strategy, together with encouraging appropriate use of services, empowering patients, and integrating social and healthcare processes. However, these objectives have not been put into practice, nor have any specific targets for reducing health inequalities been identified.

In the 2003–2005 National Health Plan, undertaken by the right-wing government, the role of social disadvantage on health was acknowledged, but tackling health inequalities was no longer a major point in any health strategy. The aim of reducing inequalities was limited to marginalised groups: people living below the poverty line or who are not self-sufficient, mentally ill people, drug addicts and certain immigrant groups (11).

Public health policies are managed in each LHU, where the Department of Prevention deals with traditional activities, such as environmental protection, workplace conditions, vaccination and food safety, and with the new activities of epidemiology and health promotion. The former are very well developed and have a long-standing history, whereas the role of the latter has yet to be fully established and accepted in the health sector. The most recent innovation in public health, introduced by the National Department of Health (NDH) and regional authorities, was an agreement for implementing a National Plan for Active Prevention (12) with the support of the new National Centre for Disease Prevention and Control (CCM) (13), which is committed to promoting actions that tackle inequalities in access to preventive interventions (see section 2.1).

## *Magnitude, trends and analysis regarding social inequalities in health*

### **Mortality**

Italian data on the social distribution of mortality date back to the 1980s. Results from the six-month mortality follow-up after the 1981 Census highlighted regular inequalities by education (14), indicating that one quarter of the deaths among people aged 18–74 could be attributed to low education (15). On an aggregate basis, 1991–97 mortality was positively correlated with the score on a composite deprivation index computed at the municipality level for both sexes; the gradient was steeper among adults than among elderly people.

The gap in male life expectancy, which in the past was in favour of Southern regions, is now closing and even reversing; whereas, female life expectancy remains the lowest in the South (2). Regional variation in 1995–2000 life expectancy was strongly correlated with mean per capita income ( $r=0.54$ ,  $p<0.001$ ), and with regional inequalities in income (Gini coefficient) ( $r=-0.79$ ,  $p<0.001$ ) (16). Similar results were obtained in aggregate studies at the provincial level (17).

The only recent data on mortality by socioeconomic characteristics come from local longitudinal studies and, in particular, from the Turin Longitudinal Study (TLS), which has been included in quite a few European comparative studies sponsored by the EU as the only representative sample for Italy (18). Figure 1 illustrates time trends in mortality relative rates by education in the adult population of Turin.

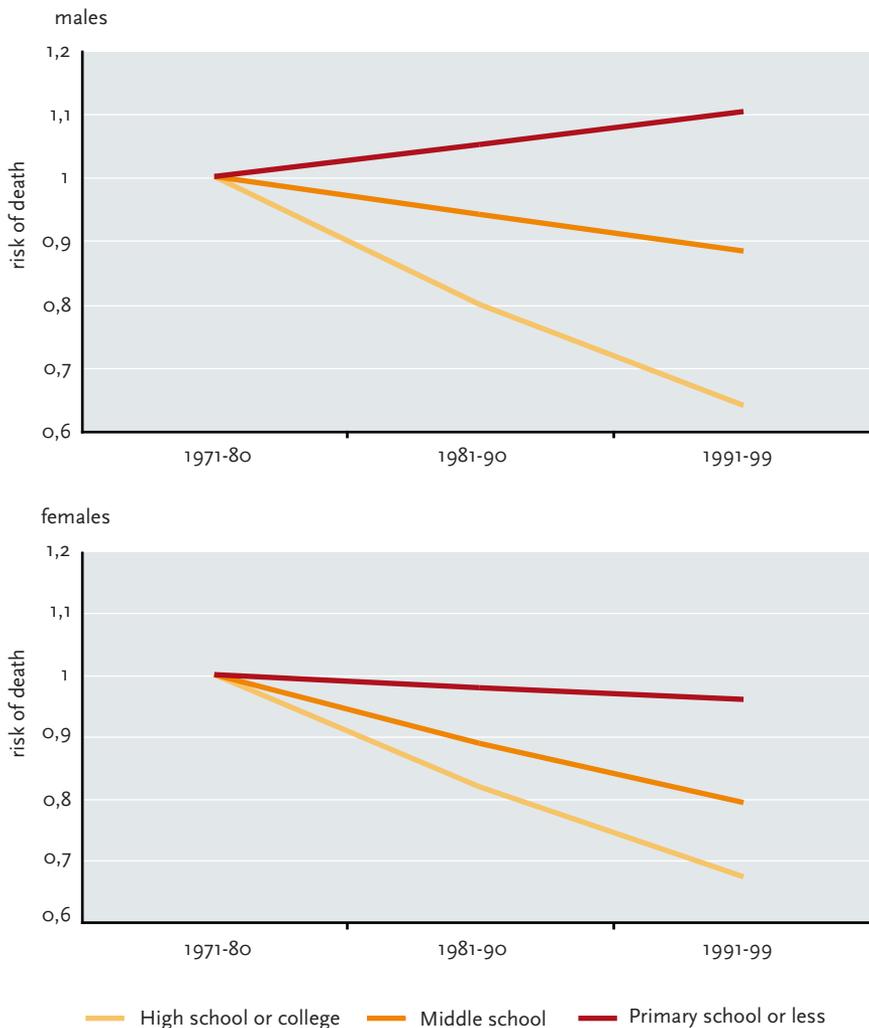
Over the last thirty years, mortality decreased substantially among higher educated people, but it increased (males) or remained unchanged (females) among those less educated (4). The relative social inequalities in mortality appear to be widening. Similar suggestions come from an analysis of trends in mortality by a small area deprivation index in Rome (19). In general, this may be owing to more rapid improvements in life expectancy in the well-off segment of society, who are less exposed to environmental, occupational and psychosocial risk factors, and are more capable of adopting a healthy lifestyle and using health services. In older cohorts, smoking, a sedentary lifestyle and a diet high in fat and low in vegetables and fibre were more common among the upper classes; conversely, the well-off in younger cohorts began to quit smoking, take exercise and change diet before the lower classes, as a result of health promotion. This is the paradox of general health promotion programmes, most of which favour the upper social classes.

### **Self-rated health**

Italy has one of the highest prevalences of self-rated “fair or poor” health in Western Europe, especially among women; the odds of self-rated “fair or poor” health for people with the lowest educational level compared to those with the highest increased significantly over time, from 2.05/1.86 in the 1980s to 2.94/2.55 in the 1990s for men and women respectively (20). According to the 1999–2000 Italian Health Interview Survey (HIS), the geographical distribution of self-rated health showed a clear North-South gradient with better conditions in Northern regions. Substantial differences were found in the mean

SF12 physical health index scores (2.6 points for males and 3.7 for females), and the odds of reporting one or more severe chronic conditions diagnosed by a doctor for male and female residents in the South were 1.7 and 1.8 times the odds for Northern residents. Regional variation in self-rated health among males is closely related to area composition in terms of individual socioeconomic status, primarily education (Table 1).

**Figure 1. Time trend in risk of death by education. Turin residents aged 15–64**  
(Adjusted for age, area of birth, housing conditions and neighbourhood deprivation)



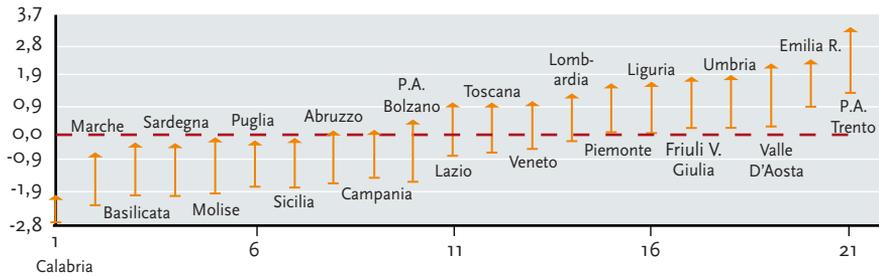
**Table 1. SF12 physical component summary, Male Italian population in 2000.****Age-adjusted regression coefficients from multilevel models**

		Regression coefficients (95%C.I.)
<b>Education</b> (ref. Degree)	senior high school	-0.93 (-1.20, -0.66)
	junior high school	-1.68 (-1.95, -1.41)
	primary	-4.56 (-5.12, -4.00)
<b>municipality deprivation</b> (ref. not deprived)	Deprived municipality	-0.08 (-0.33, 0.17)
<b>family type</b> (ref. couples with/without children)	single parent families	-0.08 (-0.36, 0.20)
	single person households	0.31 (0.06, 0.55)
<b>demographical size and altitude</b> (ref. municipalities with 10,001-50,000 inhabitants)	<=2,000 inhabitants, lowland	-0.42 (-0.80, -0.04)
	<=2,000 inhabitants, mountain	-0.22 (-0.54, 0.10)
	2,001-10,000 inhabitants, lowland	-0.12 (-0.44, 0.21)
	2,001-10,000 inhabitants, mountain	-0.01 (-0.32, 0.31)
	>50,000 inhabitants metropolitan areas	0.29 (-0.09, 0.66) 0.27 (-0.11, 0.65)
<b>geographical area</b> (ref. North)	Centre	-0.15 (-0.57, 0.27)
	South	-0.37 (-0.75, 0.00)
	Isles	-0.45 (-0.99, 0.08)
<b>Significant regional random variation</b>		<b>Around intercept</b> <b>Around primary education coefficient</b>

Source: Costa G, Marinacci C, Caiazzo A, Spadea (21).

Moreover, the geographical inequalities in health disadvantaging Southern Italy are strongly determined by inequalities in the distribution of individual social disadvantages, such as education, and only slightly influenced by contextual characteristics (Figure 2) (21). Greater equality in income distribution and better quality of welfare in Northern regions may buffer the negative impact of poverty on health.

**Figure 2. SF12 physical component summary, Male Italian population in 2000**  
**Regional residuals from primary education (vs. university degree) coefficient**



Source: Costa G, Marinacci C, Caiazzo A, Spadea T. (21).

## *Strategies focusing on specific health determinants*

### **Economic growth, poverty alleviation and social security system**

#### **FACTS/DATA**

The per capita GDP, which had always been 2.3% below the EU average, increased by 3.0% per year from 1993 to 1995, with a subsequent drop from 1996 to 2001 of 0.5% per year (22). During the period 2001–2004, the GDP was virtually stagnant (23). The percentage of public social expenditure in 2004 as a share of GDP was 25.8%, consisting of healthcare (6.1%), pensions (17.7%), and the remaining for social assistance benefits (24).

The Gini index (25, 26) between 1977 and 1998 shows that income inequality was consistently highest in the South, mainly owing to the low employment rate in Southern Italy (Table 2).

*Table 2. Macro-regional Gini Index distribution 1977–1998*

	Income	1977	1987	1998
<b>North</b>	individual	0.546	0.484	0.429
	per capita	0.320	0.311	0.304
	equivalent	0.306	0.305	0.297
<b>Centre</b>	individual	0.570	0.518	0.464
	per capita	0.307	0.304	0.316
	equivalent	0.290	0.291	0.292
<b>South</b>	individual	0.606	0.554	0.553
	per capita	0.360	0.353	0.376
	equivalent	0.338	0.338	0.360

In 2004, 10% of lower income families received 2.6% of total income, whereas 10% of higher income families received 26.7%. Furthermore, 10% of the richest families had 43% of the wealth (27). The percentage of families living in conditions of “relative poverty” in 2004 (28–32), defined as monthly consumption for a family of two below the national per capita average of 920 EUR, was about 11.7% nation-wide (25% in the South, 4.7% in the North, 7.3% in the Centre). This corresponds to about 2.67 million families, for a total of about 7.6 million people or 13.2% of the entire population.

Social assistance programmes are characterised by a number of categorical schemes based on need, one of which is provided on a discretionary basis, and are highly selective and marginal compared to those in other developed countries (33). An important feature of the Italian social security system is the large number of volunteer and cooperative social services. Catholic associations play a prominent role with more than 200, 000 volunteers engaged in 11, 000 social services, representing 40% of personnel in homes for elderly people; 70% in therapeutic communities for youth, drug addicts, mentally ill and disabled people; 80% in emergency and first aid for homeless and immigrants; and 90% in home care (34).

#### POLICIES/STRATEGIES

The largest financial investment for tackling the economic determinants of geographical and social inequalities is provided by the “EU support framework”. Mid-term evaluation of the 2000–2006 Programme, which was aimed at economic development in the six Southern regions, showed encouraging achievements.

Italy’s pension system underwent changes in the 1990s to reduce variation in public expenditure and benefits; social inequalities in life expectancy were taken into account in the regulation of retirement age. In 2000, a left-wing policy (35) introduced guidelines for a multi-level system of social assistance interventions and services, involving both universal and sector approaches to improve quality of life; to promote gender eq-

uity and civil rights; to reduce individual and familial social hardships and poverty; and to help people with physical and psychological disabilities. This law initiated extensive development of local plans that have not thus far been fully evaluated. Subsequently, the right-wing “White Book on Welfare” (36) redirected national planning toward economic development, efficiency of social services, and support for specific disadvantaged social conditions. The White Book, jointly with labour market reforms and the National Action Plan for Social Inclusion (2003–2005) provided guidelines and targets for policies in various fields: taxation, monetary transfers (37), infant services, flexible work options (38), housing, and parental support (39).

A national strategy on immigration was approved in 1998 (40) by the left-wing government. It focused on equity in access to services, appreciation of individual differences, and inclusion of immigrants in policies for professional education, housing and health-care. Culturally sensitive support services, including assistance to pregnant women and access to credit, have also been provided to aid social integration.

#### RESULTS/LESSONS LEARNED

Given that the poverty rate has remained unchanged over the past ten years, it may be argued that these reforms have, at best, only prevented the widening of inequalities but have not had any effect on reducing them. With few exceptions, the above policies were not devised and implemented taking into account the impact of inequalities in the economy, labour market and welfare on health. Some authors (41) have emphasised the need for a recalibration of the welfare system according to the new risks of social vulnerability and, above all, for working mothers and children living in poverty.

#### Education

##### FACTS/DATA

The public education system has been changing rapidly since the late 1990s. The structure under the old system is described in Table 3, as the present system has not yet been fully implemented.

**Table 3. School structure**

Level	Compulsory	Age	Public Authority	Private
Infant Care	NO	0–2	Municipal	31% (2000)
Pre-school	NO	3–5	Municipal	47% (1996–97)
Primary	YES	6–10	State	6% (2001–02)
Lower Secondary	YES (after 1962)	11–13 (special sessions open to adults)	State ("150 hrs" national contracts)	3% (2001–02)
Upper Secondary	NO	14–18 (classical/scientific/technical)  14–15, 16–18 (vocational) (open to adults)	State-Region ("150 hrs" national contracts)	8% (2001–02)
University	NO	19– (open to adults)	State ("150 hrs" national contracts)	

Although there are no formal differences at the regional level, many differences exist in the quantity and quality of service delivery. The principal deficiency is the inadequate provision of preschools, some of which are privately funded, and the geographical inequality in their distribution, with four times as many in the North-Centre than in the South (42). Public expenditure on education has increased by 15% over the last eight years, which is more than the growth in GDP (12%). Families pay for application fees and books, which in 2002 (43) averaged 1 009 EUR for every member enrolled in a scholastic programme; to educate a child through to a bachelor degree cost 21 800 EUR, excluding the cost of infant care and preschool.

At the 2001 Census (44), 96% of individuals aged 6–14 were enrolled in compulsory studies. Since the 1991 Census, children attending preschool rose from 41% to 56%, individuals with more than the compulsory level of education increased from 24% to 35%, and university graduates from 4% to 7%. In 2001, the male-to-female ratio among university graduates was 1.04 compared to 1.38 ten years earlier. A North-South gradient remained in the percentage of the population without any academic qualification 3.5% – 6% in the North-Centre, compared to 11% in the South. The percentage of students who had dropped out of secondary schools and universities was quite high; however, the percentage gainfully employed during the years immediately after leaving school was nearly as high among dropouts as among graduates (45). Among graduates aged 25–29, unemployment was highest for university graduates at 12.9%, but it dropped below that of other graduates to 4.3% in the next age class 30–35 (46).

The strong influence of the capital of education is still evident: the probability of graduating from university is 65% if the father was a university graduate and 22% if the father had no more than compulsory education (47). Literacy performance indicators ranked primary school students above the OECD average, but secondary school students fell

below average. In both cases, the poorest results were among students in Southern Italy (48). After a long period of imbalance between economic development and education, a good standard has been achieved in the workforce cohort aged 25-65, with 44% of workers having at least an upper secondary diploma, although this is also below the OECD average of 65%. The same is true for lifelong learning, with participation by adults aged 25-64 at 4.7% compared to the EU-25 average of 9%.

#### POLICIES/STRATEGIES

A recent law from the right-wing government guarantees equal opportunities in education, including the right to twelve years of schooling before the age of 19 (49). The reform of the educational system involved all levels, making it more similar to that found in most of Europe. The main controversies concerning equity are: the impact of the potential devolution of responsibility for education from the State to the Regions, given the geographical inequalities in access and outcomes; and the early age at which students must choose their programme of study at the secondary level with little opportunity to change, which may perpetuate educational inequalities.

To deal with the social inequalities in education, the National Plan for Education (50) provides measures for reducing regional differences, tackling social exclusion, improving employment opportunities, fighting scholastic dispersion; improving technological and continuing education; and enabling participation by specific groups such as disabled people. New standards and methods are necessary to put these actions into practice, few of which are extensively available in the South where the need is greatest. Some important initiatives in this regard include: the “Framework Agreement” between the Ministry of Education and Local authorities (51), testing new models to reduce drop out; the “Office for Foreign Pupils” (52), promoting integration of immigrants; and the “Permanent Observatory for Scholastic Integration”, assisting students with disabilities (53). The increased investment in worker training has been made largely through private resources, whereas public funding has remained relatively constant (54). In this context, the substantial contribution made by the European Social Fund, involving thousands of initiatives on the development of human capital, has achieved good results in terms of education and employment.

#### RESULTS/LESSONS LEARNED

We are not aware of any systematic evaluation of the effect of these strategies on equity in access to education and participation in the labour market. Since education is the social indicator that has made the largest independent contribution to health inequalities in Italy, it should be a priority to better understand the mechanisms underlying its effect, as well as the impact of the policies and transitions that are changing the educational profile of the population.

## Working conditions

### FACTS/DATA

Work-related injuries in the industry and service sectors decreased steadily between 1980 and 2002, from about 45 to 25 injuries per million hours worked. (55). The rate of temporary disability was 33 per 1 000 workers in 2000-2002, with the highest rates in mining, wood manufacturing, construction, metallurgy, metal mechanics, the food industry, and transportation. In these economic sectors, there were also more severe injuries: rates of permanent disability and fatal injury were 1.4 per 1 000 and 6 per 100 000 workers respectively. Nine out of ten injuries occurred among men.

About 25 000 cases of occupational diseases were reported annually between 2000 and 2004 to the National Institute for Insurance Injuries at Work (INAIL), of which three quarters came from industry and one quarter from the service sector: deafness (32%), musculoskeletal disorders (8.7%), respiratory diseases (5.9%), and neoplasm (4.1%). The most frequently represented economic sectors were metal mechanics, construction, transportation and communication, mineral extraction and processing, public services, healthcare, and the food and textile industries. In a 1999 workforce survey (56), 5.4% of males and 2.7% of females reported at least one work-related injury in the past year; the risk of work-related injury in the working class was three times higher for men and twice as high for women compared to the upper classes (Table 4).

*Table 4. Proportion of subjects reporting at least one work injury in the past year, and Relative Risk of injury by social class)*

Social class	MALES			FEMALES		
	N° inter-viewed	N° injured (%)	Odds ratio (95% CI)	N° inter-viewed	N° injured (%)	Odds ratio (95% CI)
Bourgeoisie	6,500	174 (2.7)	1	2,511	53 (2.1)	1
Middle class	10,553	351 (3.3)	1.31 (1.07, 1.60)	10,850	227 (2.1)	1.08 (0.78, 1.50)
Petit bourgeoisie	10,052	626 (6.2)	2.41 (2.00, 2.91)	4,530	130 (2.9)	1.36 (0.95, 1.94)
Working class	16,875	1227 (7.3)	2.99 (2.51, 3.58)	7,745	299 (3.9)	2.03 (1.47, 2.80)
Total	43,980	2378 (5.4)		25,636	709 (2.7)	

Source: National Institute of Statistics (56)

Information on workplace conditions is scarce in Italy. To our knowledge, there is only one survey, conducted by the CGIL trade union in the Turin area, on a non-representative sample of 4 500 workers from various economic sectors. As shown in Table 5, blue-collar workers were exposed to substantially higher percentages of physical hazards or psychosocial risk factors (57, 58) compared to white-collar workers.

**Table 5. Prevalence of exposure to physical and psychosocial hazards by occupational class and gender in a sample of 4,507 workers in Turin area**

Professional position	High strain		Effort/reward imbalance		Lift or move heavy weight		Work in uncomfortable postures	
	males	females	males	females	males	females	males	females
White-collar Technical	5.5%	13.6%	18.6%	33.7%	8.4%	12.8%	19.8%	22.4%
White-collar Administrative	15.5%	19.4%	30.5%	31.5%	5.5%	3.6%	26.2%	33.9%
Blue-collar	31.2%	57.6%	34.6%	51.8%	47.8%	46.8%	54.9%	61.4%

### POLICIES/STRATEGIES

A new phase in the prevention of workplace hazards began with the Italian transposition of European directives (59). Four main principles appeared for the first time in Italian legislation: 1) exposure to all potential workplace hazards must be assessed and measured by the employer or its technical consultants; 2) risk to workers must be reduced to the minimum level obtainable with available technology; 3) human carcinogens must be eliminated from the work environment; and 4) workers must be informed of the hazards to which they are exposed. Italian law still does not require risk assessments on the new emerging hazards, such as psychosocial risk factors and physical risk factors for musculoskeletal disorders of the upper limbs. These diseases have only recently been included in the list of professional diseases insured by INAIL (60).

To verify compliance to these new regulations, inspections of almost 9 000 companies employing at least six workers were conducted in 13 regions in 2001-2002 by the Occupational Safety and Health (OSH) local authorities (61). They revealed that the regulations had often been applied without the integrated management of production and safety. In small companies employing less than ten workers, only 5% reached a satisfactory overall level of compliance, whereas almost 60% of companies with more than 200 workers had achieved an adequate level. Rarely was a uniform level of compliance attained in all areas; surveillance of workers' health had the highest, and training in Health and Safety (H&S) the lowest, albeit with better performances when employee representatives had been involved in H&S planning.

### RESULTS/LESSONS LEARNED

OSH activities are expected to make a considerable contribution to reducing health inequalities, given the highly skewed distribution of physical and psychosocial occupational risk factors in the working class. Although OSH inspections could increase compliance for chemical and physical exposures and worker safety, to conduct them systematically is often not feasible because of an insufficient number of inspectors in many areas. Consequently, most workplaces are inspected only once every 5 or 10 years, especially small production units. Inspections alone, however, are unlikely to change working conditions without also introducing campaigns and incentives aimed at sensitising interested parties

and the public to the social costs of work-related diseases, and the possible solutions to reducing exposure to the risk factors.

There is evidence of under-notification of work-related diseases by physicians who perform medical surveillance in the private sector (62). Hence, use of this notification system may be unsuitable for epidemiological surveillance of many occupational diseases, especially for the emerging pathologies such as allergies or musculoskeletal disorders, which suggests the need for another system to monitor their burden in the workplace.

## Unemployment

### FACTS/DATA

Italy used to have one the highest unemployment rates in Europe. As industrial employment decreased, unemployment began to steadily increase with the expansion of the service industry from 7.6% in 1980 to 12.3% in 1998. Thereafter, the unemployment rate declined from 10.1% in 2000 to 8.4% in 2003, which is comparable to the European average. In general, workforce development is limited by numerous imbalances:

- generational: high youth unemployment rates (25% in 2004), low occupation rates among the oldest workforce cohort
- geographical: the South has higher youth unemployment (41.2% in 15-24 age group in 2004), lower female occupation rate, and an underground economy
- gender: female unemployment rate was 10.4% vs. 6.8% for males in 2004
- human capital: extreme differences in education levels and inefficient job entry

The State provides unemployment benefits that are substantially lower than in the rest of Europe. These benefits vary depending on the individual's age and employer. For example, a person with at least two years seniority would receive 40% of the last three months' wages for six months, or for nine months if over age 50. In the case of very large companies, workers are entitled to an unemployment subsidy for a maximum of 24 months or in some circumstances until retirement.

In the 1990s, the unemployed had an excess risk of mortality (Table 6) and low levels of self-rated health (63), which were more severe among the long-term unemployed.

**Table 6. Long-term unemployment and mortality in Turin, 1991-98**  
**Relative Risk (95% CI) for all causes mortality (adjusted by age and area of birth)**

MEN			
Employment Status	age 15-64	age 15-24	age 25-64
Employed	1	1	1
Unemployed in 1991	2.1 (1.87, 2.35)	1.4 (1.03, 1.85)	2.1 (1.85, 2.39)
Unemployed in 1986 and 1991	2.8 (2.55, 3.14)	2.7 (1.93, 3.69)	2.7 (2.45, 3.06)

WOMEN			
Employment Status	age 15-64	age 15-24	age 25-64
Employed	1	1	1
Unemployed in 1991	1.8 (1.47, 2.23)	3.0 (1.72, 5.23)	1.6 (1.21, 2.02)
Unemployed in 1986 and 1991	2.0 (1.61, 2.45)	2.3 (1.14, 4.80)	1.9 (1.59, 2.47)

The excess risk was mainly related to unhealthy behaviours, poor safety, psychosocial factors, and barriers to healthcare (15). A significant proportion of exits from the workforce appear to be attributable to ill-health (64). The excesses of mortality observed among the Italian unemployed are higher than in Northern Europe. This may be partly because the Italian operational definition of unemployment includes exits from the workforce related to ill-health. It may also be related to the lower social and economic protection provided by unemployment policies, above all, against long-term unemployment (4.2% in 2003).

#### POLICIES/STRATEGIES

The principal plan for reducing unemployment in Italy is the “White Book on the Labour Market” (65). It combines contextual interventions on economic development and productivity, labour market flexibility, and the emerging underground economy. It also aims at facilitating the balance between demand and provision of work, stimulating competition between public and private sectors, and reforming the worker protection and negotiating systems. As a result of these strategies, labour market policies include both general and targeted measures, some of which are specifically aimed at stimulating growth of new activities for young entrepreneurs and self-employed individuals (63). Others measures are directed at disabled people, immigrants, and the long-term unemployed. “Norms for the Right to Work for the Disabled” (66) aims at facilitating access to work for disabled people by integrating the efforts of numerous agencies: social and healthcare, employment, schools, professional training, and various other public, private and non-profit organisations; in addition, there are job reservoirs, employer fiscal incentives and a regional fund for the employment of disabled people.

## RESULT/LESSONS LEARNED

We are not aware of any quality evaluations of the effectiveness of the above actions on reducing unemployment, and their effect on poverty and social exclusion. The improvement in employment indicators suggests that labour market reforms have had a positive effect, even after accounting for the impact on denominators of the legalisation of immigrants in 2003 and the increase in the number of people not actively seeking employment. The increase in limited-term and entry-level contracts, which reduce labour costs, have had an effect on reducing youth unemployment. However, little is known about the impact of uncertainty in employment on health. Since most new jobs are limited-term with little protection or guarantees, particularly in regard to retirement and unemployment, uncertainty in employment should be put at the top of the priority list for tackling health inequalities.

## Environmental determinants of health

### FACTS/DATA

Socially disadvantaged people are often the main victims of environmental problems, including atmospheric and acoustic pollution caused by traffic, lack of recreational or outdoor spaces, and unhealthy home environments. This association is largely explained by the concentration of people with a low social standing and, in particular, blue-collar workers in areas of higher population density, characterised by less green space, proximity to industrial areas or heavy traffic, and lower-cost housing. In a 2002 cross-sectional survey (67) of 36 191 children and adolescents in 13 Italian areas, 20% of respondents reported frequent or continuous heavy vehicle traffic in their street of residence, and high frequency of heavy vehicle traffic was a significant predictor of chronic cough or phlegm and sinusitis symptoms (68); the frequency of children exposed to frequent heavy traffic increased significantly as parental educational level decreased (Table 7).

*Table 7. Percentage of children and adolescents exposed to frequent or continuous transit of trucks in their street of residence, by parental education. Sidria2, Italy.*

	University degree	Upper secondary school	Lower secondary school	Primary school or less
n. interviewed	1,191	3,001	2,264	342
%	18	19	22	27
(95% CI)	(16, 20)	(17, 21)	(20, 24)	(23, 30)

Other authors investigating the phenomenon in a metropolitan area (69) found higher traffic emissions in the centre of the city with a high concentration of more affluent individuals. Notwithstanding, a stronger effect of particulate air pollution was found among people in lower social positions, most likely explained by a differential burden of chronic health conditions conferring a greater susceptibility to more disadvantaged people.

A European comparative study showed that the relative contribution of external causes to occupational differences in mortality was more than 6% in men aged 45-59 in the 1980s (70). In some subgroups of the population, social inequalities in injury mortality may be used to indirectly describe the social distribution of unsafe working, home and neighbourhood environments. A recent study evaluated the effect of socioeconomic conditions at the individual (education and family relations) and environmental level (neighbourhood socioeconomic deprivation) on mortality caused by traffic injuries, falls and suicides over the last three decades among residents of Turin (71). An increased risk of traffic injuries was found among female children and male youth coming from less educated or single parent families. The relative risks for falls and traffic injuries were highest among adults with low education and low family support, mostly due to the contribution of occupational risks.

#### POLICIES/STRATEGIES

Municipal, provincial and regional administrations have been developing an increasing number of concrete actions on environmental sustainability involving local communities in territorial improvements, environmental protection and social solidarity as recommended by Agenda 21. At the national level, initiatives for environmental quality have been introduced within the actions financed through EU Structural Funds (72); these funds were mainly directed at Southern regions to promote structural improvements and to reduce the North-South gap. A larger number of proposals for national co-funding of local projects under Agenda 21 (2000 and 2002) were submitted by administrations in Southern regions, increasingly oriented towards sustainable development.

The massive migration of people from the countryside into metropolitan areas during the last century was not accompanied by any initiatives to provide adequate health and social services to protect the health of residents in areas with more industrial pollution, violence and crime. Only recently have the most critical neighbourhoods been subject to comprehensive community involvement policies, involving enhancements to employment, social and healthcare services. The national government has launched some measures of urban revitalisation, both for the reclamation of public housing and the regeneration of disused and degraded areas (73). The most important experiences have been those that were realised under the European projects Urban I and Urban II in some municipalities, mainly in Southern Italy.

#### RESULTS/LESSONS LEARNED

The above strategies to improve the quality of neighbourhood services and the physical environment have not yet been evaluated for their impact on health inequalities. The extensive legislation on the prevention of traffic injuries is mainly focused on passenger safety, and less on pedestrians and neighbourhoods through strict enforcement of speeding limits, improvements to pedestrian areas, and traffic restrictions in urban areas. These interventions have been implemented primarily on a local scale with strong geographical heterogeneity; moreover, their effectiveness relies mostly on the compliance of drivers.

## Healthcare policies/programmes/actions

### FACTS/DATA

Healthcare services can have a great impact on socioeconomic inequalities, by means of several mechanisms acting throughout the various phases that constitute the relationship between a patient and the healthcare system. Socioeconomic inequalities can be generated by differential access to primary care, delayed diagnosis, differential access to treatment, differences in outcomes of medical interventions, or differential opportunities for integrated care after discharge.

Data on health services use in Italy, on the whole, show a geographical and social gradient that may be largely explained by differences in the prevalence of risk factors and morbidity, with higher rates of healthcare use among less affluent groups and in the South, the poorest area of the country (74). Social differentials in admissions to hospital with more severe symptoms suggest that there are problems with the recognition and management of symptoms, and in access to primary care (75). Inequalities in the risk of inappropriate hospital admission (e.g. avoidable invasive procedures, such as hysterectomy or appendectomy) (76), and in access to new drugs and technologies (e.g. renal transplantation, AIDS treatment, coronary artery by-pass graft surgery) show that social discrimination in access may be occurring. This may correspond to inequalities in health outcomes of some specific care processes such as cancer survival (77) (Table 8). It is well-known that health promotion programmes, if not specifically aimed at socially disadvantaged groups, mainly benefit the rich; this is also reflected in the social and geographical distribution of most preventive services, such as infant immunisation (78) and cancer screening (79).

*Table 8. Colon cancer in the Turin male population, 1985-98: Incidence and fatality risks by level of education*

Incidence	Level of education		
	High	Medium RR (95% CI)	Low RR (95% CI)
1985-91	1	0.92 (0.74, 1.13)	0.75 (0.62, 0.91)
1992-98	1	1.19 (0.98, 1.45)	0.98 (0.81, 1.18)
Fatality		HR (95% CI)	HR (95% CI)
At 1 year	1	1.19 (0.95, 1.48)	1.35 (1.11, 1.64)
At 5 years	1	1.15 (0.98, 1.35)	1.25 (1.08, 1.45)

### POLICIES/STRATEGIES

The National Health Service (NHS) is a Beveridge-like model financed through general taxation, which is accessible to the entire population, providing free healthcare to all registered individuals. Only in the last decade did it become necessary to introduce wealth- and age-based charges for services such as tests and medicine. In the mid-1990s, minor

revisions were made to the NHS in accordance with OECD recommendations: distinction between financing and production, payment based on output, internal competition, empowerment of the patient, focus on quality and outcomes, coordination with social work, managerial role of the LHM. At the same time, the devolution in healthcare is giving the 20 regions greater autonomy and power to organise their own regional health service, financed by health funds that are negotiated each year with the NDH. Total expenditure for healthcare was 8.5% of GDP in 2002, with private expenditure accounting for 24% of the total expenditure.

The NHS is organised at three levels: national, regional and local. The NDH defines the legislative framework of the NHS and the National Health Plan; allocates health funds among the regions; and regulates professions, training and research. Regional Health Plans define objectives, priorities, and the main directives for providing health services; and set budgets for the network of LHUs and accredited public and private hospitals. Hospitals are reimbursed mainly on a fee-for-service basis. Criteria for financing LHUs are based on capitation mechanisms that are weighted only by the population age distribution; some regions are currently studying new mechanisms that account for the socioeconomic characteristics of residents.

#### RESULTS/LESSONS LEARNED

The NHS appears to have reached a good overall level of equity in access to healthcare. In some cases, this is not enough and a pro-active approach is required to involve those individuals more in need, in prevention and early diagnosis programmes, and follow-up care. Moreover, in certain pathways of care, severe barriers to access to effective, appropriate, and safe diagnosis, treatment and long-term care may play a role in generating inequalities in health outcomes; these barriers could be eliminated with an equity audit and consequent corrective actions. A revealing example is the case of dental care, which does not fall under the NHS, although socioeconomically disadvantaged people are particularly affected by dental problems.

### Healthy diets and exercise

#### FACTS/DATA

The social distribution of eating habits in Italy has not been extensively studied. In the 1980s, higher educated people were less likely to be overweight, and consumed more protein and lipids; whereas less educated people consumed more alcohol, and less calcium and vitamin C (80). This is consistent with the moderate social inequalities observed in mortality caused by circulatory diseases, and the high social inequalities in digestive-tract diseases (3). The European Prospective Investigation into Cancer and Nutrition (EPIC) in the 1990s revealed that less educated people were slightly less likely than their more educated counterparts to follow the Mediterranean diet; in particular, they tended to eat less fruit and vegetables, fish, shellfish, vegetable and legume soups, and olive oil (81). According to the last General Household Survey, both professionals and the working class have increased their consumption of processed foods and reduced consumption of

fruit over the past ten years; whereas the consumption of vegetables has been increasing among professionals and decreasing among the working class (82).

Less than one third of the adult population engage in regular physical activity (83). Physical inactivity is highest in Southern Italy, particularly among women and less educated people: 32% and 40% of males and females respectively with compulsory school education, compared to 17% and 19% of male and female upper secondary school graduates. Among adolescents, regular physical activity was negatively associated with economic conditions, parental education and social class, and above all with single parent households (84).

#### POLICIES/STRATEGIES

In recent years, several interventions have been introduced at both the national and local level to promote physical activity and healthy eating habits, although without systematic attention to the problem of social inequalities in health. The revised guidelines for a healthy diet (85) include recommendations for adequate physical activity and identify specific interventions for groups at risk, such as elderly people. The Heart Project of the National Health Institute (86) gave priority to obesity and smoking among the lower social classes, but did not suggest any explicit action to reduce social inequalities. The National Plan for Active Prevention (2005-2007) has among its main goals the fight against cardiovascular diseases, using interventions aimed at specific risk groups, and others promoting healthy lifestyles and physical activity. Italian regions, in their turn, have elaborated Regional Plans for Active Prevention.

#### RESULTS/LESSONS LEARNED

A comprehensive national strategy to coordinate the efforts of the different actors involved in promoting physical activity and healthy eating habits is still missing. Moreover, the issue of inequalities has seldom been explicitly acknowledged. Interventions based on counselling by GPs and using risk cards are available only in some regions. These interventions are expected to be powerful in revealing social inequalities as the frequency of visits to the GP is inversely related to socioeconomic position. However, a systematic assessment of their impact on social health inequalities has yet to be performed. The top priorities are: the increasing proportion of overweight adults and children; unhealthy diet and lack of exercise among children, especially in lower socioeconomic groups (87); and obesity, particularly among females in the South.

### **Tobacco, alcohol and drugs**

#### FACTS/DATA

Despite the fact that the prevalence of smoking has been decreasing since the 1950s, social inequalities in smoking have widened (88), largely owing to the growing inequalities in initiation for both males and females, and in cessation among females (89) (Table 9).

**Table 9. Life-table based estimates of educational inequalities in smoking initiation, cessation and prevalence among three successive Italian birth cohorts\***

	Birth cohort	Cumulative probability of starting before age 40			Cumulative probability of quitting before age 40			Years of smoking before age 40		
		Diff.	Education Low vs. High		Diff.	Education Low vs. High		Diff.	Education Low vs. High	
<b>Men</b>	1940-1949	1.0	(51.9 vs. 50.9)	-4.3	(16.3 vs. 20.6)	0.8	(14.7 vs. 13.9)			
	1950-1959	2.6	(52.9 vs. 50.3)	-8.0	(24.5 vs. 32.5)	1.7	(14.7 vs. 13.0)			
	1960-1969	15.4	(52.6 vs. 37.2)	-6.5	(29.6 vs. 36.0)	5.1	(14.2 vs. 9.1)			
<b>Women</b>	1940-1949	-6.9	(28.3 vs. 35.2)	-5.2	(14.2 vs. 19.4)	-3.7	(4.4 vs. 8.2)			
	1950-1959	-8.0	(29.7 vs. 37.8)	-9.8	(22.6 vs. 32.3)	-1.9	(7.0 vs. 9.0)			
	1960-1969	3.4	(34.0 vs. 30.6)	-10.5	(31.7 vs. 42.2)	1.4	(8.4 vs. 6.9)			

\* These measures are based on the age-specific probabilities previously calculated.

Source: Federico B, Costa G, Kunst AE (89).

Inversion of the social gradient in smoking initiation emerged in Italy a few decades after it began in Northern Europe. Southern Italy lags behind the North-Centre in tackling the issue of smoking (90). Children from poor families are less protected against passive smoking: women in the South quit smoking less frequently during pregnancy (91), and exposure to passive smoking is highest among children of less educated parents (83, 92).

Alcohol consumption has been progressively decreasing over the last 30 years: per capita consumption has decreased from more than 15 litres to 7.4 per year in the absence of specific preventive policies, which were undertaken only in recent years (93). However, alcohol consumption outside of meals is increasing, especially among females and younger cohorts. Estimates of alcohol-related mortality are still high, ranging from 15 000 to 22 000 deaths per year in 2003. Southern Italy is characterised by more moderate alcohol consumption compared to the North (71, 94, 95). Little is known about the social distribution of alcohol consumption in Italy. In the 1994-95 General Household Survey in the region of Piedmont, consumption of alcohol and education were directly related among males and indirectly related among females (96).

Drug abuse is more frequent among less educated people, particularly in conjunction with low income, but it may differ by sex (97) and by type of substance (98). In longitudinal studies, the risk of overdose mortality was higher for socioeconomically disadvantaged people (99, 100).

#### POLICIES/STRATEGIES

All forms of smoking advertising have been banned in Italy since 1962. Other important national strategies against tobacco use include: i) setting a maximum allowable level of tar in cigarettes; ii) printing the message that smoking is detrimental to health on cigarette packages; and iii) raising the price of cigarettes (101). Smoking has been prohibited in

public administration buildings since 1975. The ban on smoking in indoor public places, with the exception of private spaces and dedicated smoking areas, was introduced at the beginning of 2005. Among non-legislative interventions, the 2003-2004 campaign promoting healthy lifestyles, which had smoking dissuasion as one of its main goals, was the most important in terms of coverage (102). A number of interventions for quitting smoking are offered through LHUs, mainly in the North (103).

The 2001 law on alcohol-related problems (104) concerns not only prevention and care, but also regulations on the sale and advertisement of alcoholic beverages, as well as workplace and road safety. In the healthcare sector, a proactive alcohol policy began in 1993 when regional authorities were invited to organise preventive and rehabilitative interventions within each LHU; interdisciplinary teams with medical, psychological and social expertise have been established in many regions, but with large geographical differences. A reduction of 20% in the number of people drinking more than 40/20 gr. of alcohol daily respectively for men and women, and a 30% reduction in those drinking alcohol between meals were targets of the 1998–2000 National Health Plan.

Italy has adopted the priorities identified by the EU Action Plan against illicit drugs (2000–2004). Preventive actions are dedicated to schools, communities, groups and families at high risk (105); special programmes apply in penitentiaries and the Army. Specialised treatment services organise prevention in outreach units, with interventions involving education, condom distribution, vaccination (hepatitis B), syringe exchange and drug-related death prevention. Social reintegration programmes match therapeutic and rehabilitative interventions with actions aimed at preventing social exclusion, by addressing housing needs and re-entry into the workforce.

#### RESULTS/LESSONS LEARNED

Health education and smoking prevention campaigns have not focused on social inequalities, and thus may have been the most effective among higher educated people. Differences in smoking initiation rates between educational groups became particularly large starting with the cohort born in the 1960s (89). The increasing inequalities among younger generations must be given top priority to effectively tackle social inequalities in tobacco use. The only interventions addressing health inequalities at present are those aimed at the prevention of alcohol and, above all, illicit drug use in specific high-risk socially disadvantaged groups.

## *Disease-specific strategies to reduce social inequalities in health*

The National Plan for Active Prevention (2005-2007) has among its priorities: the fight against cardiovascular diseases, prevention of unfavourable outcomes in diabetes, cancer screening, prevention of home, work, and road accidents, immunisation and seasonal emergencies. The National Centre for Disease Prevention and Control (CCM), which was created to support prevention activities at the national and regional level, is a network of experts and organisations: Regional Health Authorities, National Health Institute, National Institute for Prevention and Safety in the Workplace, Institute of Zooprophyllactic Research, Universities, and other institutions involved in healthcare and research. Its main responsibilities include the coordination, promotion and evaluation of prevention programmes, and the analysis of health risks. In particular, CCM is committed to tackling social inequalities in access to prevention programmes, by actions directed at hard-to-reach populations and socially disadvantaged groups. This aim was recently translated into the constitution of the CCM's Centre for Equity in Prevention located in the Regional Epidemiology Unit of Piedmont. The purpose of this Centre is to assist in the planning, monitoring and evaluating of prevention programmes, taking into account equity in their implementation, with specific attention to:

Infectious diseases: monitoring emerging infections in specific disadvantaged groups

- Health promotion and lifestyle: equity in access to programmes on cardiovascular risk, nutrition, smoking, physical activity, prevention of complications in diabetes
- Cancer screening: socioeconomic inequalities in coverage and access to programmes
- Environment and climate: vulnerability of elderly people to extreme temperatures
- Vaccinations: coverage of "hard-to-reach" groups
- Accidents: psychosocial factors in determining occupational differences in risks

The Centre provides assistance on how to measure and tackle social inequalities, and on how to do research on new interventions, ensuring proper evaluation of the impact of programmes on equitable access.

## *Group-specific strategies for reducing social inequalities in health*

Many national and local policies focus on preventing social marginalisation and on buffering the social and health-related impact of marginalisation in high-risk groups. Interventions that provide continuing home care for elderly people who are not self-sufficient, and support to their families, are proportional to the level of disability and the economic resources of the individual and family. Interventions for children and adolescents (106) aim at: reducing personal and familial social deficiencies that prevent the construction of an integrated personality, identity and autonomy; increasing social participation; and

improving health and wellbeing, with particular attention to immigrant children, drug addiction, youth crime, sexual violence, ill-treatment and abuse, and work-related exploitation. Following the 1998 national strategy on immigration, a new regulation concerning access to the NHS was approved (107). Immigrants without proper documents are entitled to emergency care in the case of accidents, disease and maternity, with the opportunity of long-term care. However, fear of disclosure of their illegal status, even when identification is not required, often discourages immigrants from seeking care. Moreover, cultural resistance among healthcare staff, and the frequent changes to their legal position continue to introduce barriers to healthcare treatment. These group specific strategies may have had a meaningful impact on health inequalities, but their impact has not been evaluated.

### *Local approaches for reducing social inequalities in health*

The most comprehensive local health plans are those in the region of Emilia-Romagna. A planning process, involving hundreds of municipalities and several groups of stakeholders, resulted in health profiles from which priorities were set; detailed plans have been elaborated within each of the 13 LHUs, covering several domains of risks, such as traffic accidents, lifestyles, air pollution, social cohesion, and specific age groups. The issue of relative health inequalities is one of the recommended priorities in only three local plans, but it is a criterion for identifying more vulnerable groups in the remaining. Preliminary evaluations indicate that among the positive aspects of this process are the novelty and strength of the message, the empowerment of the community, the alliances between stakeholders, and the fundamental contribution of the Regional Public Health Observatory to the programme; among the difficulties are the complexity of the relationships between the actors, the duration of the process, and the incomplete involvement of some LHUs in the coordinating role.

The Italian Healthy City Network (108) – WHO was established in 1995 and became an Association in 2001. Currently, this national network includes 128 cities, six of which are entering Phase IV of the project. We are not aware of any evaluation of the impact of these activities on health or health inequalities.

The national coordinating association for local Agenda 21 processes maintains information on 109 initiatives on environmental sustainability, of which 34 have an approved plan and 19 have already moved into the monitoring phase; there is strong geographical heterogeneity in favour of the North-East and Centre (109). These projects concern environmental issues, such as commuter traffic, waste, biodiversity, water and air pollution, as well as social issues such as urban planning and social cohesion. They have been successful in disseminating information and promoting participation in decision-making, but were deemed ineffective in mobilising adequate resources from participating agencies on a timely basis. In any event, health and inequalities in health have seldom been considered when setting priorities or evaluating the impact of these projects.

The so-called “Patti territoriali” initiative was intended to stimulate and facilitate local economic and employment development in sub-regional areas, by creating coalitions of public institutions, enterprises and unions, and by financing their start-up. In 2002, 230 local plans were identified, of which 141 have been financed (110). The monitoring of these projects has provided evidence of good performance in the planning processes, but little is known about their effectiveness. Health and health inequalities are not usually on the agenda.

## *Implementation: main actors, methods and resources*

### **National level**

There is no institution or agency explicitly committed to linking health goals to non-health policies. In the few cases where health, and not equity in health, has been considered a criterion in policies other than for healthcare, some form of cooperation was established with the NDH; for example, in environmental risk assessment, the National Departments of Health, Environment, and Emergency Protection have initiated some form of cooperation.

The CCM may create new opportunities in this regard, in the field of prevention. In fact, the system of governance for the National Plan for Active Prevention consists of three committees, one each for political decision-making, scientific expertise, and technical implementation. During its first year, the CCM made an important contribution to the efforts of Regional Health Departments to elaborate their prevention plans on screening, immunisation, lifestyle-related blood pressure and diabetes, road and workplace safety, and the health consequences of seasonal emergencies. These plans function as control instruments for financing and monitoring prevention activities in the 17 non-autonomous Italian regions. However, other public sector organisations have not yet become directly involved. Health and healthcare are usually absent at the negotiating tables where National and Regional Departments are developing strategies and selecting targets for the use of European Structural Funds 2007-2013.

### **Regional and municipality level**

Apart from declarations on the importance of equity in health in some Regional Health Plans, most are strictly concerned with the organisation and management of health services. The need to link public health policies to other general and sector-related policies within each region is not a priority, with the exception of social assistance and environmental policies; even in these cases, the level of cooperation and integration is minimal. Municipalities are responsible for conditions and events of everyday life that pertain to health, and are the institutions that should facilitate the link between health goals and non-health policies.

Only in three regions, Emilia-Romagna, Tuscany and Piedmont, has the Regional Health Plan provided an explicit mandate to the LHUs to assist and coordinate local health planning, in cooperation with municipalities and other relevant stakeholders. In some regions, a similar initiative has been undertaken by one or more LHUs in agreement

with the Province or some larger cities, as was done within the framework of the Healthy Cities Network. In both situations, the Regional Epidemiology/Public Health Observatory plays an important role, which is of a scientific and technical nature, providing professional expertise and data sources necessary to measure risks and needs, assess evidence, and assist with planning.

### **Other social actors**

Enterprises and Trade Unions are potentially involved with policies and interventions intended to moderate health inequalities. The most critical negotiations are those concerning regulations over temporary employment, pension schemes and occupational risks; however, the impact on health inequalities is not being explicitly addressed. Only in the case of pension reform (111) was data on Italian occupational inequalities in life expectancy brought to the attention of the trade unions; the disadvantages to blue-collar workers led to a one-year decrease in retirement age for manual workers, and to a list of jobs classified as ‘particularly wearing’ that would benefit from a further reduction. Voluntary organisations, the majority of which are affiliated with the Catholic Church (112, 113), play an important role in caring for and advocating the needs of more disadvantaged groups; they are generally more sensitive to interventions against absolute poverty in high-risk groups as opposed to those for relative poverty.

### **Methods**

Regional Epidemiology Observatories, in a few regions, together with the National Centre of Epidemiology Surveillance and Health Promotion of the National Institute of Health, have more than 30 years of experience in health surveillance, needs and risk analysis, and assessment of effectiveness and quality of interventions. They are the main technical resource for Health Impact Assessment (HIA) and evaluation exercises that should precede and follow every health-oriented policy. Unfortunately, the existence of an Observatory is not enough; this valuable resource must be mobilised by an appropriate commitment, which is often lacking. For this reason, Italian experiences in HIA have been limited to environmental issues, where good quality indicators, data sources and data warehouses have been developed and are being disseminated in most regions.

### **Professional support**

Before the launch of the CCM, there was no single organisation committed to coordinating the efforts of professionals to link health goals to health inequalities. As a result, the issue of health inequalities was raised by the concerted effort of a network of researchers and professionals, mainly from the field of epidemiology. They have succeeded in collecting descriptive evidence on inequalities in health and healthcare, and in initiating research on their determinants; however, they encountered many obstacles in disseminating their results to the public, health professionals and institutions, because of the lack of political commitment and the scarcity of available resources.

This network recently launched an “Equity in Health Manifesto” based on the second National Report on Health Inequalities (9), which summarises evidence on profound,

avoidable, and unfair inequalities in health and healthcare in Italy, and recommends a few general principles and objectives for the NHS and other public institutions in order to reduce them. This Manifesto is being adopted by the main public health scientific and professional associations, and will be proposed as a platform for creating new initiatives, starting with and giving particular attention to the programmes of the CCM and relying on the technical and scientific support of its Centre for Equity in Prevention.

## *Monitoring and evaluation*

Although an early interest in socioeconomic determinants of health can be found in some work in the 1970s (114), research on health inequalities in Italy has been developing only in recent years. Following the record-linkage model of the British Longitudinal Study (115), the Turin Longitudinal Study (TLS) was implemented as a metropolitan longitudinal surveillance system of health outcomes by census characteristics in the early 1990s (116). Meanwhile, the National Institute of Statistics (ISTAT) ran two pilot studies to evaluate the feasibility of a national longitudinal study, based on a six-month mortality follow-up after the 1981 and 1991 Censuses (14, 117). These pilot studies had an unsatisfactory level of completeness, whereas the TLS evolved into a national programme, with the development of a model that has been reproduced in other municipalities (118, 119).

A network of researchers and organisations made a joint effort to modify relevant information systems for monitoring inequalities; as a result, the first national report on health inequalities was published in 1994 (9). Several new programmes have been financed by the NDH in recent years, and a second report on health inequalities in Italy was published in 2004, which also included recommendations on indicators and models for monitoring and explaining inequalities (120). Other programmes have been evaluating the role of healthcare and the health system organisation in generating inequality, and have produced a number of publications (121-125). Nevertheless, this issue is still not as influential as others on the public research agenda: 127 projects were financed by the national health research fund in 2004 for a total of 23.5 million EUR, but only four projects, receiving about 2% of the funding pertained explicitly to health inequalities or disadvantaged groups. The 1999-2000 and 2004-2005 Italian Health Interview Surveys (HIS), carried out by ISTAT, were enriched in sample size (60 000 households), enabling an evaluation of social differentials at the regional level; and in questionnaire size, allowing more detailed dimensions on inequalities such as temporary work to be measured. The 1999-2000 HIS is being followed up with respect to mortality and hospital admissions, to obtain the first-ever reliable national figures on inequalities in mortality. The CCM is currently developing a national surveillance system, based on an ongoing survey, known as PASSI (126), of data on a sample of residents in each LHM, intended for monitoring the main process indicators of the National and Regional Plans for Active Prevention.

The National Health Report is an annual instrument for monitoring health policy; the 1999, 2000 and 2003 editions (10) each contained a section on health inequalities, but the evidence was not presented as a general criterion for the evaluation of health policies

and interventions. Before health inequalities can be effectively targeted and monitored in Italy, the instruments to measure them require further development. Information systems should be revised to enable the reporting of inequalities at both the individual and aggregate levels. A health information system based on record-linkage between individual census and health data, as in the TLS, is only available in a few municipalities that are strongly committed to monitoring health variation; at the national level, a census-based record-linkage approach was more difficult to apply.

Regions manage information systems of great epidemiological interest, such as hospital admission databases, but they do not include reliable social indicators. Therefore, a procedure was developed for attributing the code for an individual's census tract of residence to each health event recorded in regional information systems. This allowed a socioeconomic indicator, based on census or income data at the aggregate level, to be assigned to each record. During the 2001 Census, each municipality updated its population register with information on census tract of residence, which may be linked to health information systems by the Regional Epidemiology Observatory. These new data, recommended by a national working group on health indicators (127), will provide sound and reliable background information for monitoring and assessing the results of interventions and policies against health inequalities.

## *Concluding remarks*

Variations in health are now fairly well measured in Italy. There is evidence of social inequalities both in the health of more disadvantaged groups and in the health gradient, which correspond to the social stratification of society. In recent years, the geography of health also corresponds to the geography of poverty and social inequalities, with southern regions in the most unfavourable position. Health inequalities appear to be increasing in relative terms and decreasing in absolute terms. Their magnitude is still smaller than those observed in Northern Europe, but the expected social transitions in some risk factors, such as in the smoking epidemic, may predict a worsening of health inequalities in Italy. The contribution of each determinant in generating health inequalities is known, both for structural and proximal causes including healthcare. Nevertheless, the issue is not yet high on the public agenda.

What can be learned from this account in terms of public health? In the UK, it took more than 25 years to move from the identification of health inequalities in the Black Report and their disguise as variation in health during the Thatcher era, to policies for tackling them in the last two Labour governments. Italy has moved quite rapidly from not measuring health differentials up until the late 1980s, to making the first commitment to tackle health inequalities in the 1998-2000 National Health Plan, and implementing preliminary national programmes on surveillance and research.

Health inequalities, however, have aroused little comment in public opinion. The attempts that were made by researchers to communicate to the public and decision-makers, starting with the dissemination of the first national report on health inequalities in 1994,

have been ineffective. Transforming anti-news such as ‘the health of the poor is worse than that of the rich’ into a communicable message proved to be very difficult. In some cases, the message on health inequalities was perceived as a left-wing partisan issue, thus hindering its acceptance as a public health priority. On the other hand, politicians and technocrats under the left-wing government refused to give precedence to this issue at the end of the 1990s, because they were afraid that any evidence on health inequalities would have been used to criticise the effectiveness of the NHS.

Communication initiatives on health inequalities should be directed at the medical and scientific community in health policy analysis, because their role in advocating this issue may be crucial to its inclusion on the public agenda. In fact, there have already been some changes influenced by the scientists that wrote the first national report on health inequalities: equity was among the principles in the 1998-2000 National Health Plan, and occupational inequalities in life expectancy were considered in the reform of the retirement age (128).

The responsibility for promoting equity in health lies within the domain of health-care. Most health professionals and managers are aware that the NHS is, in principle, the most effective model to assure equity in access to healthcare. However, they are less aware that social discrimination in access and use of healthcare services may occur as a result of their responsibility over selection: in rationing essential care (waiting lists, co-payments, etc.), in providing appropriate and timely care in each phase of the natural course of diseases, or in providing adequate proactive care for hard-to-reach individuals. This could be remedied by an equity audit of the processes of care. The healthcare system should also play the role of advocate by providing evidence on health inequalities, their causes and effective solutions, starting with national and regional policies, such as in the negotiations where European Structural Funds 2007-2013 are being assigned for reducing the main structural imbalances in economic, social and environmental development in Italy. Furthermore, local communities must be informed and urged to initiate programmes for healthier and more equitable cities. National and Regional Plans for Active Prevention could contribute by the re-allocation of resources to highly effective, targeted programmes on health promotion and prevention, and to the reinforcement of intersectoral policies; however, they must move away from an approach based on a disease strategy, to one based on the determinants and social distribution of inequalities in health.

## *Research suggestions*

Quality research on health inequalities is being conducted in countries where common methods and data sources have been created in the medical, social and economic sciences. The lack of collaboration between different fields of research should be taken into consideration, when addressing the allocation of research funding and the shortage of common information sources and, in particular, by promoting longitudinal studies that make joint research initiatives easier.

With regard to research priorities in Italy, the geographical and time variations in the crossover of social differences in the main epidemiologic transitions, and the protective effect of factors such as the Mediterranean diet on inequalities in cardiovascular disease provide interesting opportunities for etiologic research that have not yet been adequately investigated. Similarly, the distinctive strength of family and social networks may explain some of the peculiarities in health inequalities in Italy, which have not been explored. The new regional and local prevention plans will provide opportunities to evaluate the effectiveness of both health and non-health policies in reducing or eliminating unequal exposure to health hazards; in this way, our understanding of the mechanisms underlying the effect of aggregate deprivation and other contextual characteristics may be substantially improved.

**Box 1. Popular and union claims and the health reform age**

Until 1978, more than 300 public and private worker sickness funds provided healthcare through hospitals and physicians, whereas local authorities were responsible for prevention, with large geographical inequalities in access to and in outcomes of public health. Since the mid-1960s, the right to equity in healthcare has been one of the fundamental claims of popular and union movements. Their struggles against occupational risk factors in the workplace have raised awareness of new principles: health is a collective issue and not merely a private and individual concern; determinants of health are at the root of society and can be dealt with only by adequate prevention in working and living conditions, under the direct control of workers; universal healthcare; and public health for all, directly managed by representatives of local institutions. In accordance with these principles, the Italian NHS was born in 1978 and organised into hundreds of Local Health Units (LHUs), where the term “unit” signifies the unification of prevention, primary and hospital care, and rehabilitation. The preventive model, tested in the workplace, inspired new experiences of popular participation in healthcare and health promotion. Firstly, the struggles of the feminist movement brought self-managed family counselling to each LHU and legislation on abortion (129). Secondly, the anti-psychiatry movement, consisting of physicians, nurses, social workers, students and intellectuals, initiated a new era of de-institutionalisation of patients from psychiatric hospitals (130); the same trend then spread to hospices for disabled and elderly people, and to prisons. In all these experiences, decision-makers, professionals and the public largely shared a strong belief in the right to equal opportunities in health. However, it was mostly based on ideological premises, rather than on pragmatic inspection of how equity in health could be provided and maintained. This is probably why health inequalities, in the more than 30 years since the health reform began, have never been a tangible and specific issue in health or non-health policies.

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# The Netherlands

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## *Development of society and the present political environment*

Before 1980, socioeconomic inequalities in health were a non-issue in public health in the Netherlands. This changed in the early 1980s as a result of the publication of the Black Report in the United Kingdom and a report on inequalities in health between neighbourhoods in Amsterdam. This resulted in a general intention to tackle socioeconomic health differences during the 1980s.

Policies on socioeconomic differences in health in the Netherlands have developed from a broad concern about socially and economically marginalised groups in the 1980s to specific concern about socioeconomic differences in the 1990s. During this period, the Dutch Government pursued a research-based approach to tackle socioeconomic inequalities in health. This resulted in concrete government instructions to specifically target lower socioeconomic and deprived groups in research and in health interventions. Furthermore, the Government urged that the reach and quality of intended interventions were improved in lower socioeconomic or deprived groups.

During the last couple of years there has been a social trend towards stimulating individuals to take responsibility for themselves and their own life. Also government policy promotes individual responsibility for citizens. This tendency occurs not only in relation to health and lifestyle, but also in social welfare, employment, child care, etc. This is in line with the current tendency towards deregulation, which can be seen in many policy fields. This chapter on the Dutch experience with policy and interventions that affect socioeconomic health inequalities will first describe the developments in the political climate. Then, it will more specifically describe recent policy developments that might affect social inequities in health, such as unemployment policy and educational policy. The new healthcare insurance scheme will be discussed, followed by some examples of intersectoral health policy that include other policy fields in addition to the public health field. These include tobacco policy, urban policy and the policy regarding disability benefits. Employment policy also recently experienced important developments that might affect social inequity in health and will therefore be discussed as well. The chapter will end with some conclusions on the current state of affairs in the Netherlands.

## *First National Research Programme on Socioeconomic Health Differences*

Before 1980, socioeconomic inequalities in health were a non-issue in public health research in the Netherlands. This has changed since the publication in 1980 of a study on inequalities in health between neighbourhoods in Amsterdam. Until the 1990s, this neighbourhood study was one of the few describing socioeconomic health differences. This has changed radically since the introduction of a 5-year national research programme in 1989, sponsored by the Government (1).

The aim of this first research programme was to generate more knowledge about the size and nature of socioeconomic inequalities in health and their determinants. It included 40 studies, most of which were small-scale secondary analyses of the available data, and a large follow-up study (the so-called GLOBE study), aimed at unravelling the causes of socioeconomic inequalities in health. The programme also aimed to improve the conditions for future research, for instance by developing a standardised operationalisation of socioeconomic status, and improving conditions for the application of this measurement in registration systems. Efforts were made to involve a large number of researchers in the programme, not only from the field of epidemiology, but also from (medical) sociology, psychology and so on. An independent committee, consisting of established researchers, a representative from the Ministry, and several people familiar with (but not representing) other policy areas, developed and implanted the research programme (2).

The results of the programme show socioeconomic differences in health for almost all indicators studied. As in many other countries, the causation mechanism, that is the effect of socioeconomic position on health status, appeared to be more important than the selection mechanism, that is the effect of health status on socioeconomic position. Within the causation mechanism, structural factors, such as working and living conditions, seem to be as important as behavioural factors, such as smoking or physical exercise (3, 4).

## *Second National Research Programme on Socioeconomic Health Differences*

The second research programme pursued a systematic, research-based approach to develop a strategy for reducing socioeconomic inequalities in health. Following the recommendations of the first Programme Committee, this second programme was launched in 1995. The main focus of this second programme was on the development and evaluation of interventions and policies to reduce socioeconomic inequalities in health. In addition, the earlier longitudinal study on the explanation of socioeconomic differences in health was continued during the second programme.

Twelve interventions studies were commissioned after two calls for proposals and assessment by peer review of the submissions. Most of the intervention studies had a quasi-experimental design and compared health outcomes or process measures in an experimental and a control group. Positive results were reported for seven interventions. When

the results of the intervention studies became available, scientific experts and policy makers in six different areas (income, education, health promotion, working conditions, housing conditions, and healthcare) met to discuss possible recommendations for new policies and interventions. Subsequently, the programme committee overseeing the research programme recommended a combination of implementation of promising interventions with continued evaluation efforts.

A government advisory committee developed a comprehensive and integrated strategy that intends to reduce socioeconomic inequalities in healthy life expectancy by 25% by 2020, adopted from the WHO and redefined for the Dutch situation. The committee decided to base its strategy on a number of quantitative targets, because these can help in plotting a clear policy and function as milestones for the monitoring of the strategy (5, 6).

The targets were chosen to represent four different entry points for reducing socioeconomic inequalities and were limited to intermediate health outcomes for which quantitative data from the Netherlands were available at that moment. The recommendations spanned the entire range between 'upstream' measures targeting socioeconomic disadvantage and 'downstream' measures targeting accessibility and quality of healthcare services. Where current policies (education policies, income policies, work disability benefit schemes, healthcare financing schemes) were expected to contribute to reducing health inequalities the committee explicitly recommended continuation. This was by no means an insignificant decision, because none of these achievements of the past can be considered safe for the future as will be illustrated later in this chapter (5-7).

## *Government reaction to recommendations of second research programme*

The official government reaction to the recommendations presented to Parliament in November 2001 was positive. The Cabinet approved of the quantitative target set by the committee, but wished to rephrase it into the policy goal to increase the healthy life expectancy of the lowest socioeconomic group in 2020 by at least 25% of the socioeconomic differences in healthy life expectancy at that time, i.e. 3 years. This would mean an increase of the 53 year healthy life expectancy of the lowest socioeconomic groups early 21<sup>st</sup> century to 56 years by 2020. The Cabinet's stand refers to the extensive research and evaluation efforts that have been undertaken in the Netherlands during the two research programmes and claims that now it is time for policy and action.

Furthermore, the Government adopted most of the recommendations of the committee in their policy agenda that aimed to partly continue or intensify existing policy and partly to start new initiatives in the four fields distinguished by the committee:

- interventions and policies targeting socioeconomic disadvantage;
- interventions and policies targeting health-related selection;
- interventions and policies targeting factors mediating the effect of socioeconomic disadvantage on health;

- interventions and policies targeting accessibility and quality of healthcare services.

The Government stressed that an integrated and comprehensive approach seems necessary to tackle such a complex and intertwined problem as socioeconomic health differences, especially on the local level. They acknowledged the existence of a diverse and wide range of policies and interventions that contribute to the reduction of socioeconomic inequalities and need to be continued. The focus was particularly on policies and interventions in the field of integration, education, poverty, urban restructuring, youth policies, social policy, public health and the urban policy. The stand furthermore acknowledged the need for monitoring the development of health inequalities to enable the evaluation of policies and interventions (8).

The inclusion of health as a goal in the urban policy was seen as a means to diminish health arrears. At this local level, lots of practical experience had been obtained applying an integrated approach towards complex problems. An important role will be played by the local government, who will be responsible for the implementation of interventions to diminish socioeconomic inequalities, financially supported by the national government. Networks, collaborations and exchange programmes already in place between local governments can easily be extended to also support the intensified action towards reducing socioeconomic health differences (8).

Further elaboration of the recommendations with all involved departments, as well as decision-making was deferred to the next cabinet. A new cabinet was formed after turbulent elections in spring 2002, but fell within 3 months and did not make decisions on a strategy to reduce socioeconomic inequalities in health. The next cabinet was formed in spring 2003.

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**The Dutch political climate regarding socioeconomic health inequalities**

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<b>1985</b>	The Dutch Government adopted the WHO Health for All policy targets.
<b>1986</b>	Publication of the Health 2000 Report by the Ministry of Welfare, Health and Cultural Affairs, including a paragraph on socioeconomic inequalities in health.
<b>1987</b>	National conference on socioeconomic inequalities in health, organised under the aegis of the Scientific Council for Government Policy, resulting in a proposal for a national research programme (1989-1993) funded by the Ministry of Welfare, Health and Cultural Affairs.
<b>1989</b>	Start of the first Programme Committee on socioeconomic health inequalities to generate more knowledge about the size and nature of socioeconomic differences in health and their determinants.
<b>1991</b>	National conferences, again organised under aegis of the Scientific Council for Government Policy, resulting in an agreement among several parties involved to implement activities to reduce inequalities in health.
<b>1994</b>	Results of the first national research programme were reported to the Minister of Public Health.

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<b>1995</b>	<p>Publication of an important policy document (Health and Wellbeing) by the Ministry of Public Health, Welfare and Sports in which reduction of socioeconomic inequalities in health was mentioned as one of the policy goals.</p> <p>Initiation of second national research programme (1995-2000).</p>
<b>1996</b>	<p>Publication of the second document on Public Health Forecasts by the National Institute of Public Health and the Environment (RIVM). Socioeconomic inequalities in health were stressed as a major public health problem.</p>
<b>2000</b>	<p>Report of the Lemstra committee on the enforcement of public health. The reduction of socioeconomic inequalities was mentioned as a major public health aim.</p> <p>Growing demand by the Ministry of Health, Welfare and Sport and parliament for information on effective interventions to reduce inequalities in health.</p>
<b>2001</b>	<p>Results of the second national research programme and recommendations were reported to the Minister of Health.</p> <p>The Government declared that the healthy life expectancy of the lowest socioeconomic group needs to be raised by 2020 by at least 25% of the current difference in healthy life expectancy i.e. 3 years in reaction to these conclusions and recommendations and the report 'Health in the cities' of the National Institute of Public Health and the Environment (RIVM).</p>
<b>2003</b>	<p>The Netherlands Court of Audit report 'Preventive Health Care' concludes that the Government failed to establish policy instruments to implement the above mentioned policy goal. The Auditor further reports that interventions and programmes to improve the lifestyle of people are not specifically targeting lower socioeconomic groups and that effectiveness of these interventions on the lowest socioeconomic end of society is not known or investigated.</p>
<b>2004</b>	<p>The Public Health document 'Living longer in good health' moves the responsibility for interventions to tackle health arrears to the municipalities as part of the Urban Policy Framework.</p>
<b>2005</b>	<p>The Ministry of Health, Welfare and Sport signed a formal agreement with 31 urban municipalities to reduce overweight among youngsters with the intention to reduce health arrears of vulnerable groups.</p>
<b>2006</b>	<p>The Netherlands Court of Audit once again summoned the Ministry of Health to state more clearly in the coming budget what actions will be taken to increase in life expectancy of the lowest socioeconomic groups</p>

## *Auditor's criticisms of government action to tackle socioeconomic inequalities*

The Netherlands Court of Auditors concluded in its report on 'Preventive Health Care' from 2003 that the Government had failed to come up with the promised plan to tackle socioeconomic inequalities. Accordingly, no policy instruments have been established to achieve the policy goal adopted in 2001 and no planning of the implementation of such instruments has been determined. This contrasts sharply with the conviction of the Minister of Health, Welfare and Sport that immediate action is warranted to attain the 3-year increase in the healthy life expectancy of the lowest socioeconomic group that the Government had aimed at in 2001. The Auditor concludes that such a plan is a prerequisite for systematic and structural action to tackle socioeconomic inequalities (9).

The Auditor further reports that indeed several modest, local initiatives to target socioeconomic health differences have been developed. However, interventions and programmes that address the main health problems of the lowest socioeconomic strata of the Dutch society, such as the promotion of healthy lifestyles, do not specifically target lower socioeconomic groups. Additionally, there is hardly any evidence for the effect of these interventions on the people who need them most. The Auditor concludes that there is insufficient coherence between the existing (prevention) policies and the Government's wish to tackle socioeconomic health differences by improving the health of people with a lower socioeconomic status (9).

In reaction to the Auditor's criticism, the Minister of Health, Welfare and Sport promised to include tangible measures and interventions to tackle socioeconomic health differences in the next memorandum on prevention. Furthermore, the Minister stressed the fact that the reduction of health differences among people with low education or income has been adopted as the main aim of the urban policy (9).

### *'Living longer in good health'*

The Dutch Green Paper 'Living longer in good health' expressed the Minister's worries about the unequal distribution of poor health, illness and premature death between population groups. The memorandum, published in June 2004, called for particular attention to be paid to health arrears of people with limited education and low incomes, including many immigrants. The memorandum adheres to the earlier formulated quantitative target that the healthy life expectancy of the lowest socioeconomic group needs to be raised by 2020 with at least 25% of the current difference in healthy life expectancy i.e. 3 years. Strengthening the position of vulnerable groups is one of the three aims of the new subsidy policy for research and transfer of knowledge to bolster local practice. The basis for this policy document was the concern that the health of the Dutch population was falling behind internationally. The Public Health Forecasts had reported earlier that the unhealthy lifestyle of the Dutch had pushed the Netherlands towards the middle bracket in Europe (10).

Prevention is deemed better than cure in the memorandum. For that reason the Government, health insurers, social organisations, social partners and businesses increasingly invest in prevention. The memorandum, however, strongly emphasises the individual's responsibility for their own behaviour and health. It states, for example, that 'Prevention policy will only achieve success if we hold citizens directly accountable for their own behaviour' (10).

The cabinet wants the public to be more closely involved in prevention policy and therefore decided on an approach that will effectively reach people in practice – at home, at school, at work, at places where people spend their leisure time, in local neighbourhoods and in the doctor's consultation room. It is only in this way, for example, that one can trace and deal with local health arrears or reach specific target groups, such as young people or immigrants. Municipalities will be responsible for the implementation of prevention in practice. To support them the cabinet aims at funding research that immediately

bolsters local practices, which at the same time increases the effectiveness of the knowledge infrastructure (10).

The reduction of health arrears was also delegated to the local level and integrated in the urban policy for the period 2005 till 2009 with the aim to enable cities to tackle health arrears integrally by addressing all possible determinants in coherence, such as lifestyles, living environments or access to healthcare. The urban policy will be further elaborated upon later in this chapter (10).

## *Current stand of the Government regarding health inequalities*

The Director of Public Health of the Dutch Ministry of Health, Welfare and Sport has acknowledged that clear and strong policy efforts are necessary to fulfil the ambition to increase the life expectancy of the lower socioeconomic classes by 3 years by the year 2020. At the EU summit on 'Tackling Health Inequalities' in October 2005, the Dutch contribution emphasised the importance of a strong and systematic policy cycle, starting with bringing together the necessary knowledge, which is shared, analysed and used for the development and constant fine-tuning of health policy.

From the perspective of the Ministry of Health, tackling health inequalities involves continued work on improvement of the lifestyle of particularly the people most at risk, i.e. people with a lower socioeconomic status, and the guaranteeing of accessible healthcare. Additionally, the responsibility for conditions for good health was partly delegated to municipalities, private companies, manufacturers, schools, healthcare services and health insurers, because the preservation and promotion of good health depends on good, accessible education, safe working conditions, proper housing and a healthy and safe environment. The Ministry of Health opts for coalitions and shared responsibility between health authorities at the national and local level and all other relevant stakeholders to secure that the health aspects are fully taken into account in the development of other policies that potentially impact on health.

Overweight has been chosen as the spearhead of the urban policy to reduce health arrears. The Ministry of Health, Welfare and Sport and the 31 urban municipalities have signed a formal agreement in April 2005 to actively address the problem of obesity among youngsters up to the age of 19 years. Local and regional youth healthcare organisations will coordinate preventive interventions and programmes that proved to be effective to reduce obesity. It is the ambition of the Ministry to ensure maximum use of the wide range of possibilities to positively influence human behaviour through the use of an inventory of effective interventions. The Health Minister has created the Obesity Monitor to detect and monitor obesity.

The Director of Public Health of the Ministry of Health stressed the personal responsibility of all individuals; obesity or the balance between eating and exercising is primarily a question of healthy lifestyle. However, it is acknowledged that the context also makes a

difference for individual behaviour, 'perhaps more than we realise' and that the Government can and must help the people in making the right choice.

To make the healthy choice the easy choice, the Ministry of Health has implemented a broad array of anti-smoking policies. These will be further elaborated upon later in this chapter. The Ministry of Health has further signed the Overweight Covenant with the Ministry of Education, Culture and Science, the food industry, the hotel and catering industry, supermarkets, healthcare insurers, employers and sport associations in January 2005. The Ministry of Health is monitoring and facilitating the process and will ensure that the Covenant is visible and will remain on the agenda for all actors.

### *Public health judged by the National Health Inspectorate*

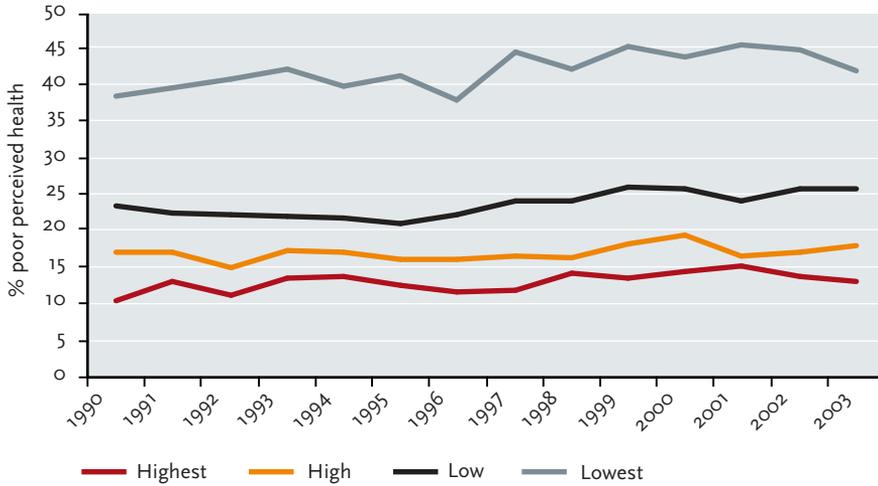
Further improvement of health in the Netherlands depends on active involvement in a comprehensive mixture of interventions and policies, according to the National Health Inspectorate. In their report on public healthcare, published in 2005, they concluded that this can only be achieved by intersectoral policy that goes beyond the field of public health. National and local governments need to include health considerations into other policy fields such as traffic and transportation or environmental planning and recreation. An intersectoral approach towards unhealthy lifestyles is deemed necessary, but has been insufficiently deployed until now (11).

In 2006, the Netherlands Court of Audit once again summoned the Ministry of Health to state more clearly in the coming budget what actions will be taken to increase the life expectancy of the lowest socioeconomic groups from 53 till 56 years, i.e. a quarter of the current gap, by the year 2020, including the expected results and the estimated costs (12).

### *Magnitude and trends of social inequities in health*

Socioeconomic health inequalities have by no means declined between 1990 and 2003 (13). Socioeconomic inequalities in perceived health even showed a fairly consistent increase between 1980 and the end of the 20th century. This increase was most pronounced for health differences between income groups as compared with education (Fig 1 and 2). This might be related to the changes in labour market policies that were implemented in the early 1990s (14).

Figure 1. Trends in educational differences in poor perceived health between 1990 and 2003.



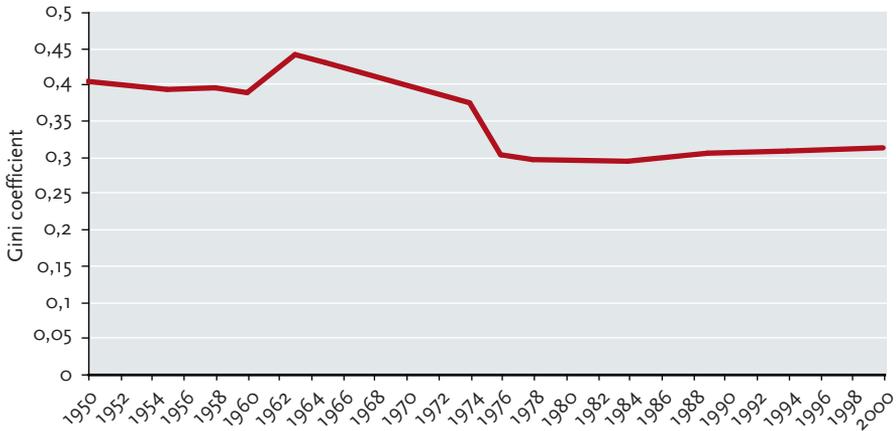
Lowest = primary school only, lower = intermediate secondary schooling or lower vocational schooling, higher = intermediate vocational schooling or higher secondary schooling, highest = higher vocational schooling and university

Source: RIUM (13)

Ethnic inequalities in mortality mainly exist among men in the Netherlands. Compared with native Dutch men, mortality was higher among Turkish (RR=1,21), Surinamese (RR=1,24), and Antillean/Aruban (RR=1,25) males and lower among Moroccan males (RR=0,85) in the period 1995-2000 (15). Among females, ethnic inequalities in mortality were small. Only Surinamese women had a statistically significantly higher risk of dying (RR=1,10) compared to native Dutch women (15). The elevated mortality risks of ethnic minorities were related generally to their lower socioeconomic status and the fact that they are often single, which includes being a lone parent, both statuses being related to an increased mortality (15).

Income inequality in the Netherlands has been rather stable at the level of a Gini coefficient of around 0,3 since the mid-1970s ((16); Figure 2). The OECD recently reported that income inequalities in the Netherlands had increased slightly (2-7%) from the mid-1970s to the mid-1980s, followed by a more rapid increase (7-12%) from the mid-1980s to the mid-1990s (17). From the mid-1990s, income inequality in the Netherlands was reported to be stable (<2% change) (17). In the year 2000, The Netherlands was amongst the countries with the lowest income inequality among 27 countries studied by the OECD around the world (17).

Figure 2. Trends in income inequality in the Netherlands between 1950 and 2000.



Source: Central Bureau of statistics (16)

## Strategies focussing on specific health determinants

### Poverty

In the years 1995–2003 the GDP per capita has shown a steady increase (Table 1). During the same years, the percentage of households with low income, i.e. around or below the minimum social benefit level, decreased. However there is still a substantial group whose income level is very low.

**Table 1. GDP per capita in the Netherlands, development 1995-2003**

GDP in euro per capita	
1995	19,550
1996	20,290
1997	21,380
1998	22,560
1999	23,660
2000	25,270
2001	26,760
2002	27,570
2003	28,000

Source: Central Bureau of Statistics (16)

**Table 2. Percentage of households with a low income, i.e. around or below social benefit levels, development 1995-2000**

% households with low income	
1995	15,5
1996	15,6
1997	15,1
1998	13,4
1999	12,9
2000	11,9

Source: Central Bureau of Statistics (16)

### Policy on poverty

Poverty alleviation takes place through social assistance benefits. Paid benefits consist partly of fixed amounts related to the number of people in a household, and partly of individual additions based on regulations such as rent assistance, debt remittance, governmental contribution to the costs of health insurance, and incidental payments for sudden high costs. Most of this national poverty alleviation policy is implemented on municipal level. In addition, municipalities sometimes design specific poverty alleviation projects. An example is a covenant in the city of Roermond to prevent debt-related homelessness (18).

The place of poverty alleviation in policy has changed over the past few years. In the late 1990s, poverty alleviation was firmly placed on the national political agenda. Work participation was seen as an important means of helping people to escape from poverty. An example of this was subsidised jobs, especially created for the long-term unemployed. Currently the topic is not a high ranking policy priority, apart from the wish to reduce the 'poverty trap', i.e. the situation where people depending on social assistance face reduced income when they accept work. Moreover in many fields, measures were taken that may have financial disadvantages for people with low incomes, such as changes in the disability benefits and the reform of the health insurance system described below.

### **Policy on disability benefits**

The number of people receiving a disability benefit in the Netherlands was for some time among the highest of the European Union. Furthermore, there were serious doubts about the sustainability of the disability benefits system. The spectre of the number of persons depending on disability benefits exceeding one million, was especially powerful in framing the policy development. Reform of the disability system has therefore been on the political agenda during the past years.

Disability benefits are granted to anyone who is on sick leave for more than a year, be it with physical or mental health problems, both work-related or non-work-related. The degree of disability does not reflect the severity of a person's disease or limitation, but the reduction of a person's possibility to earn the income she or he earned before they got ill or handicapped.

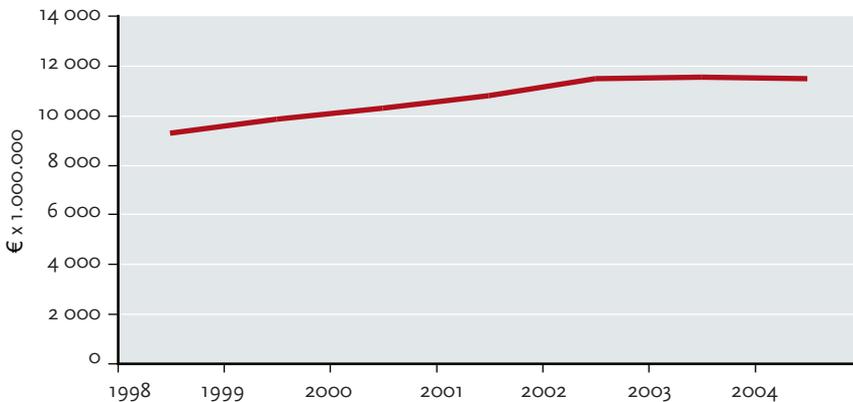
In the past five years policies were developed to reduce the number of people on disability benefits. The policy aims at prevention as well as a reduction of the number of people that already receive disability benefits. Prevention was given flesh and blood by the Gatekeeper Reinforcement Law, which came into force in 2002. Sick employees and their employers are now responsible for the reintegration of the employee into work. According to this law, each application for disability benefits should be accompanied by a document describing the actions taken to reintegrate the employee. If insufficient efforts to reintegrate were made by the employee, the amount of benefit will be reduced. If the efforts of the employer were insufficient, he or she will have to pay part of the benefits. Reduction of the number of people already on disability benefits or reduction of the degree to which they are unfit for work has been effectuated by designing stricter rules for the calculation of the degree of disability. All people on disability benefits were re-examined to assess the degree of their disability according to these new rules. Moreover, it was decided that such a re-examination should be repeated every 5 years.

**Table 3. Total number of disability pensions**

	Total	Men	Women	Partly (<80%)	Full (>+ 80%)
1998	906840	547760	359060	240970	665310
1999	925900	547300	378580	245410	678730
2000	956980	551210	405770	258540	698000
2001	981210	552440	428750	275140	705640
2002	992800	549500	443260	284350	708020
2003	981750	540210	441490	283660	697660
2004	960570	526560	433910	279630	680400

Source: Central Bureau of Statistics (16)

The above mentioned policy led to a reduction in the number of people entitled to receive disability benefits since 2002. In particular, the number of people who had a 100% disability decreased (Table 3). The amount spent on disability benefits which had been increasing for a number of years has not increased further since 2002 (Figure 3).

**Figure 3. Millions of Euros spent on disability pensions per year**

In 2006, the Law on Work and Income in relation to the Ability to Work (*wet Werk en Inkomen naar Arbeidsvermogen*) was established. Its motto is 'work over income'. This means that it aims to make work more attractive for those that depend on disability benefits. The so-called 'poverty trap' will be removed. The poverty trap is the phenomenon that those who receive social welfare will not gain much from paid employment, due to the loss of financial advantages such as rent support.

This new law will include a regulation for those who are fully disabled; they will receive benefits based on 70% of their last-earned income. Those who are partly able to work will receive more benefit, when they work more (according to their ability). The

benefit for partially disabled persons will complement their income from employment. During an initial period their income will be complemented until 70% of their salary (of the percentage they are considered disabled). The length of this period depends on the time they have been working. After that, the amount received will depend on whether one works or not. If a partially disabled person does not work, the benefit will not be based on their salary, but will be a percentage of the minimum wage. If this means that the household income will be less than the 'social minimum' this will be compensated for. If one is less than 35% disabled, one is considered 100% fit for work and will not receive any benefits from this scheme. This is a higher threshold than before.

Due to stricter rules, more people will be considered only partly disabled to work and therefore have to find a job. However, Dutch managers expect high financial risk related to the employment of disabled people and are not aware of existing regulations that reduce this risk, according to a study by the National Committee 'the Working Perspective'. The Committee concluded that the expectations of the productivity and absenteeism of people with a handicap, chronic disease or mental health problem reduce the accessibility of the labour market for these groups. People with a health problem that limits their options to find work will risk a very low income for a considerable time span. The higher threshold for the disability scheme furthermore means that more people will end up having to rely on social welfare. Low SES groups have a larger risk of becoming unfit for work. The new measures may therefore hit low socioeconomic groups harder than others, further increasing social inequities in health.

## Education

In the Netherlands a number of special policies regarding educational deprivation are in place. Firstly, the Ministry of Education, Culture, and Science provides additional budget resources to schools attended by a relatively large amount of deprived children, to be spent on teaching staff. Deprivation is determined by the educational level of the parents and their country of origin (19). Table 4 shows an overview of children that were labelled to be educationally deprived between 1995 and 2006.

In 2006 the weighting system was revised. From 2006, the educational level of parents, complemented by language test results of the children is the basis for weighting. Ethnicity, which used to be one of the determinants of the label 'educationally deprived', was abolished. This fits in with the wish of the Ministry to focus more strongly on deprived native Dutch children and less strongly on children from ethnic minorities.

This individual-based approach to educational deprivation is strongly linked to the search for 'hidden talents' in children. It, however, runs the risk of overlooking the importance of group-based disadvantages which need to be addressed on group level. This may be strengthened by the autonomy that schools have in spending the extra money provided. Having many disadvantaged pupils is an advantage for the schools since it provides extra budget resources. Therefore the Ministry has decided to maximise the benefits (20).

**Table 4. Educationally deprived children in primary schools**

	Total number	Children with lower educated parents	Bargees children	Children of travellers	Migrant children
1995/'96	581 520	395 790	1 500	3 870	180 360
1996/'97	555 150	365 760	1 480	3 640	184 270
1997/'98	483 210	289 800	1 340	3 630	188 440
1998/'99	465 210	266 630	1 300	3 510	193 770
1999/'00	449 650	246 950	1 200	3 430	198 070
2000/'01	433 350	228 160	1 130	3 340	200 710
2001/'02	420 600	213 700	1 080	3 350	202 460
2002/'03	402 550	198 090	1 110	3 410	199 950
2003/'04	384 470	184 120	1 340	3 220	195 790
2004/'05	367 530	171 260	1 310	3 130	191 840
2005/'06	350 240	158 920	1 340	3 090	186 890

Source: Central Bureau of Statistics, June 2006 (16)

Secondly, municipalities are expected to include educational deprivation policy in their programmes and activities regarding local youth. Municipalities are obliged to develop a plan to tackle educational deprivation. An important part of these plans are activities to ensure participation of young children who are behind in language development in special preschool educational programmes. Child health centres, day-care centres, preschools and schools cooperate in identifying these children. The national policy framework for educational deprivation states that at least 50% of the target group children participate in these educational programmes. Furthermore, municipalities and schools develop plans to increase the number of children participating in a higher level of education. Also the reduction of school drop-out rates is part of the plans in cooperation with youth care, police and welfare work.

The results of these policies are not yet clear. Monitoring of educational deprivation indicators is not common practice in all municipalities. For example, we do not know whether the increase in school dropout rates between 1996 (5.7% of all children leaving school) and 2001 (6.8%) has stopped. It was reported that although most municipalities are developing educational deprivation policy plans, larger municipalities tend to stick more strongly to the national policy framework than smaller ones (21).

## Working conditions

### OCCURRENCE OF WORKING CONDITIONS

In the Dutch workforce of approximately 6 million workers the most prevalent adverse working conditions are physical load, psychosocial load, and noise at work. With regard to

physical load the core determinants are strenuous physical exertion and exposure to vibration. Psychosocial load is dominated by regularly working under time pressure (22).

Physical exertion is primarily caused by manually lifting loads, awkward work postures, and strenuous work movements. According to the annual Labour Force Survey about 22% of the workforce is regularly confronted with physical exertion, especially in agriculture, construction, and healthcare. The proportion of exposed workers has decreased slowly over the past 10 years due to mechanisation and introduction of ergonomic work practices, for example reduction in weight of bricks and introduction of lifting aids in healthcare organisations. About 13% of all workers are frequently exposed to whole-body vibration or, to a lesser extent, hand-arm vibration. The most common sources of this type of exposure are cars, vans, forklift trucks, lorries, tractors, buses, and loaders. In the transport industry every truck and bus driver is exposed to whole-body vibration, often for eight hours per workday to levels that may exceed the recent European Guideline to distinguish between possible hazardous and harmless work situations. Exposure to hand-arm vibration will occur when working with powered hand tools, such as grinders, cutters, and pneumatic hammers, most notably in agriculture, construction, the metal industry, and the manufacturing of cars, trucks, and buses. The proportion of workers with exposure to vibration has decreased slowly in the past 10 years, primarily due to the introduction of seat suspension.

It is estimated that 600 000 workers are regularly exposed to harmful noise at their workplace and this number has remained remarkably stable over the past few years. The prevalence of harmful noise is especially high in the metal industry (90%), construction industry (88%), and wood- and construction materials industry (87%).

Working under pressure is the most frequently experienced psychosocial factor at work, reported by almost 33% of the workforce. From the early 1980s the proportion of exposed workers has increased annually by about 1-1.5%, but in the past decade this proportion has reached a stable level and there are indications of a slight decrease in recent years (23). Sectors with the highest prevalence of working under pressure are education (40%), commercial services (37%), transport and communication (35%), healthcare (34%), and the hotel and catering industry (34%).

Hazardous working conditions are not distributed equally across SES groups. Physical load is more often present in blue-collar jobs that attract groups with lower SES, but repetitive movements as risk factor for shoulder, arm and wrist disorders among heavy computer users is mainly prevalent among higher educated workers. Psychosocial load at work due to working under pressure is often concentrated in higher SES groups, but increasingly prevalent in manual labour groups as well. A specific risk group are workers from ethnic minorities. The first generation of these minorities were predominantly low-educated and hold jobs with exposure to physical load and noise. However, in recent surveys the second generation of ethnic minorities reported similar patterns of hazardous working conditions more often than their Dutch-born colleagues.

## OCCUPATIONAL HEALTH POLICY

There is a broad array of laws and legal guidelines in occupational health. One of the cornerstones of the occupational health policy in The Netherlands is that in principle every worker has access to occupational healthcare. Even workers in small and medium-sized enterprises (SMEs) are included due to specific programmes of occupational health services that cater for these SMEs. A number of developments in the past 15 years have changed the area of occupational health.

A key development was the introduction of a new law on management of sickness absence in 2002. This law stipulates that most employers are legally bound to pay full wages in the first year and up to 70% in the second year of sick leave. After 6 weeks of sick leave a formal evaluation must take place and agreement must be reached on a structured plan for work rehabilitation. The introduction has halted the increase in long-term sickness absence and contributed substantially to the steady decrease in overall sickness absence in the past few years.

The improvement in working conditions is stimulated by the FARBO scheme, a collaboration between the Health and Safety Inspectorate (HSI) and the Inland Revenue Service. This scheme encourages companies to invest in control measures through tax deduction whereby companies can depreciate health and safety investments at their own discretion. Within the scope of the FARBO scheme experts identify control measures and the HSI annually publishes an overview of primary interventions.

In the past 10 years a new initiative has been launched to improve working conditions and to reduce absenteeism and long-term disability pension. The so-called Occupational Health and Safety Covenants are concluded between employers, employees, and the authorities and define plans at sector level to achieve a reduction in exposure to a number of work-related risks. These risks pertain to lifting, work pressure, repetitive movements, harmful noise, and a number of hazardous materials such as solvents, allergens, and quartz. Covenants have been drawn up for a large variety of business sectors and include specific targets, for example a reduction in heavy materials lifting by 30% and a reduction in the population-at-risk from harmful noise by 50%. Working conditions and targets are regularly monitored to present insight into the initial situation and the commencement of the progress in the programmes laid down in the covenants. In the past 3 years the proportion of companies that have undertaken preventive interventions has increased for work-related stress, manual material handling, and hazardous chemical agents. During the period 1999–2004 sickness absence in sectors of businesses with a covenant dropped from 7.1% to 5.5%, which is a better performance than the average decrease in sickness absence at national level (23).

In 2005 new legislation was enforced with more stringent criteria on eligibility for a disability pension. In this new legislation workers who are partially disabled, i.e. a reduction in work capacity of 35% or less, are no longer eligible for a partial disability pension. As a consequence, when a worker becomes unemployed he will only receive unemployment or social security benefits whereas in the past he would also receive a (small) disability pension. It is expected that this will affect workers in lower SES groups more often than workers in high SES groups.

## Unemployment

### UNEMPLOYMENT POLICY

Unemployment rates have been relatively low over the past years, but are currently increasing in the Netherlands. The unemployment rates are higher among people with a lower educational level, immigrants and women. Also youth unemployment is higher than unemployment in the general population.

A couple of years ago, the so-called 'preventive approach' was introduced (24). The approach aims to prevent long-term unemployment. First, by offering all persons that lose their job either a new job, a training scheme or another type of reintegration assistance within one year. For unemployed young people this should be dealt with within half a year. Secondly, by offering everybody who receives social welfare and does not find employment within 12 months, reintegration assistance.

The degree of comprehensiveness, i.e. the rate of persons either receiving reintegration assistance or finding a job by themselves within 12 months, has slowly increased and was 85% for unemployed persons in 2004. For those on social welfare this was 57% (Table 5). The difference between these two groups may be caused by the fact that the long-term unemployed and other persons on social welfare have fewer opportunities to access the labour market. Furthermore, some of the programmes or activities offered to the long-term unemployed are not directly aimed at finding a job. Finally, one third of the long-term unemployed are placed in a subsidised job and are therefore not counted as reintegrated (25).

**Table 5. Newly unemployed people in 2004 who were or were not offered a re-employment programme within 12 months after unemployment and who got a new job or did not.**

	Unemployment benefit		Social welfare		No benefit	
	persons	%	persons	%	persons	%
Newly unemployed in 2004	177 381		32 390		115 725	
Program, new job	11 206	6	1 596	5	1 972	4
Program, no job	21 940	12	8 487	26	2 682	2
No program, new job	119 239	67	8 459	26	94 637	82
No program, no job	24 996	14	13 848	43	16 434	14

The success of the 'preventive approach' for the unemployed contributes to the reduction of social inequity. The different success rates between the newly unemployed and the long-term unemployed, however, may increase the gap between those with better prospects on the labour market and those that lag behind.

### YOUTH UNEMPLOYMENT POLICY

The degree of comprehensiveness for unemployed youth in 2004 was 79% after 6 months and 90% after 12 months. The Government emphasises the need to fight youth unemploy-

ment by integrating it into urban policy. Moreover, a Task Force on Youth Unemployment was initiated by the Ministry of Social Affairs and Employment and the Ministry of Education, Culture and Science in 2003. This task force aims to promote the implementation of a national action plan that helps to create combined work and training programmes, to inform young people and parents, and to decrease the number of youth without ‘start qualifications’ for the labour market (i.e. a school diploma) (26).

The results of the work of the task force have not yet been evaluated. The prevention of youth unemployment is however essential when attempting to reduce social inequity. Not only now but also in future, because youth unemployment increases the risk of becoming unemployed again later in life (27, 28). Unfortunately, youth unemployment has increased since 2001 (Table 6) and reached 18.9% in 2004. The rates are even higher among young people from ethnic minorities.

*Table 6. Percentage unemployed of the work force aged 15-19 years*

year	Total	Men	Women
1999	13.2	11.9	14.8
2000	11.4	9.3	13.9
2001	12.0	10.6	13.7
2002	14.3	14.7	13.9
2003	15.7	14.0	17.8
2004	18.9	16.2	22.4

#### DECENTRALISATION OF THE IMPLEMENTATION OF UNEMPLOYMENT POLICY

The implementation of reintegration policies for the long-term unemployed and others dependent on social welfare has been decentralised. As specified in the Act on Employment and Social Welfare, municipalities receive an amount of earmarked money to cover the costs of reintegration of long-term unemployed and other persons on social assistance benefits. This means that each municipality can develop its own specific local policies and interventions in the field of social welfare. This increases the risk that differences will develop between regions or municipalities.

Municipalities are obliged to work out approaches to help the long-term unemployed to re-enter the labour market. The Government has set standards as to the number of people who should be reintegrated on an annual basis. This could lead to municipalities investing more in those groups that can easily be helped, thus increasing the gap between these groups and those that already lag behind. A small-scale study performed in eight municipalities indeed showed that a large group of long-term unemployed people did not receive any reintegration programme and that the majority of these are people who have little opportunity on the labour market (29).

### **Environmental determinants of health**

In 2002, the Ministries of Public Health, Welfare and Sports and Housing, Spatial Planning and the Environment jointly started the action programme 'Health and the Environment 2002–2006', inspired by the conclusions of the fourth National Environmental Policy Plan that the Netherlands will in the future probably be confronted with health problems induced by current environmental developments (30).

The action programme 'Health and the Environment 2002-2006' aims to decrease environmental health effects and to alleviate causes of worries about environmental health risks, focusing on four topics. In the meantime, 36 action plans have been developed to realise these four goals:

- healthy indoor living environments in buildings;
- healthy neighbourhood environments;
- communication with the general public/local inhabitants about environmental risks;
- improve policies with regard to the simultaneous consideration of health and the environment by improving the detection and evaluation of environmental health risks (30).

In reaction to international developments, i.e. the European Action Plan Environment and Health 2004-2010 and the advice of the Dutch Health Council, the action programme shifts the focus from research and the provision of preconditions for local healthy environmental policies to action and interventions to really reduce environmental health problems. In 2005 and 2006 the national action programme focused on:

- information: publish available local, regional and (inter)national information that satisfies the need for information of citizens as well;
- knowledge: improve environmental health facilities at municipal and provincial level;
- participation: facilitate cooperation between citizens and local government;
- strengthening local and regional policy through a network to share experiences and create cooperation;
- improve the indoor environment in houses, schools and other buildings by working together with building stores and technicians and by communication on ventilation;
- children: in reaction to the Children's Environment and Health Action Plan for Europe (CEHAPE), which was signed by the Dutch Government, the Dutch action plan for children's environment will be formulated focusing on urban planning, (green) facilities for sports and play, reduction of traffic and industry emissions, and the monitoring of children's exposure to environmental risks (30).

The programme does not address socioeconomic health inequalities. It does however link up with the urban policy, where such inequalities are in the forefront, but no clear commitments have been made to date.

## Healthcare policy

The most debated issue in healthcare policy during the last years was the development of a new healthcare insurance system. This system has come into force in January 2006. Before, the Dutch healthcare insurance scheme divided the population into one group which was privately insured and the rest who were insured via the sickness fund. The division was based on income: below a certain income level, insurance via a sickness fund was mandatory. People with an income that exceeds the level for sickness fund insurance were supposed to arrange their own private healthcare insurance. Private insurance fees included a mandatory balancing charge to level out the relatively high costs of sickness funds, because these funds cater for relatively older people and people with low socio-economic status, i.e. people with poor health. Approximately two-thirds of the population were insured through a mandatory sickness fund insurance (Table 7).

*Table 7. Number of persons with and without healthcare insurance (x1000)*

	Insured		Uninsured
	Private	Sickness Fund	
2001	5 614	10 294	169
2002	5 825	10 176	175
2003	5 878	10 152	214
2004	5 898	10 165	223

Source: Central Bureau of Statistics (16)

The main outlines of the new healthcare insurance system were laid out in the policy paper 'A question of demand' (31). The new system will evolve around a regulated free market in healthcare and change our former mixed public and private insurance system into a private insurance scheme. The principles behind this change were twofold. Firstly, the current political conviction that citizens should assume their own responsibilities, instead of the state having to take care of everybody and everything. This is in line with the current tendency towards deregulation, which can be seen in many policy fields. Secondly, cost containment is essential and obtained supposedly through competition and market forces. The new system is intended to stimulate competition between healthcare insurers and providers, create more choice for patients, and diminish government regulation, although the final responsibility for a well functioning system rests with the Government.

The main features of the new healthcare insurance system are:

- All persons of 18 years and older are obliged to insure themselves against healthcare costs. This will cost approximately EUR 1 100 per person per year. Children under 18 are insured free of charge with their parents. Those who do not insure themselves will have to pay healthcare costs out of their own pocket when they need care, plus a fine;
- The EUR 1 100 will be the cost of one basic benefits package for everyone, which is comparable to the current sickness fund package;

- Healthcare insurance companies will differ in price for the basic benefits package as well as in the freedom of choice in healthcare providers. Some policies include care ‘in kind’ from contracted healthcare providers, others are ‘restitution policies’ that reimburse bills from any provider;
- Anyone may choose the health insurance company or policy that he or she wishes. People may also switch from one insurance company to another each year;
- Insurance companies have an obligation to accept all clients, but only for the basic package;
- Insurance companies can offer additional packages to complement the basic package, with variable fees and variable excesses;
- It is prohibited to charge different premiums for the same policy according to age, health condition, income or other risk factors. The Government will arrange for funding to equalise ‘high risk’ imbalance.
- Persons below a certain income level will receive a compensation fee. This will be paid in advance by the tax department;
- There will be a ‘no claim’ bonus amounting EUR 225 per year which will be reimbursed to the patient on an annual basis if he or she did not use healthcare. This does not include GP visits and standard antenatal care;
- Insurers are allowed to give up to 10% discount on collective policies (32, 33).

In this new healthcare insurance scheme everybody will have the same basic package of healthcare provisions and is free to choose any insurance company and policy. The prohibition of premium differentiation will furthermore ensure that people with a poor health status or high risk profile will get equal access to health services for a comparative price to others. However, some issues arise when looking at the new system from an equity perspective (34).

The first issue is the question as to whether a new divide will appear between those that can afford an additional insurance package and those that cannot? Basically, people with more money can afford more care. For example, the number of physiotherapeutic treatments included in the basic package is maximised. People with additional insurance for physiotherapy may receive more care than people who are not insured additionally. As long as all necessary and effective care is included in the basic package this may not lead to socioeconomic health differences, but there are no guarantees for the future (32, 33).

A second issue is the effect of advance payment of the compensation fee to people with low incomes. People with low income who have very little room for building up financial reserves, may use the money to make ends meet, such as paying existing debts instead of paying the healthcare insurance fee. Table 8 shows that there already is an increasing trend in the number of households that have trouble paying bills. A further complication is that everyone has to apply for the compensation fee. People who are unfit to do so in time, will not be compensated, which will most likely further marginalise people at the lower end of the social scale.

**Table 8. Households with problems to pay the bills during the last 12 months (%)**

	Low income households	Other households
2000	7	2
2001	5	2
2002	9	2
2003	16	4
2004	14	4

Source: Central Bureau of Statistics (16)

A third issue is the effect of income on the choice of excess. Will people with low incomes choose a less expensive policy with a high excess payment? This could lead to postponement of seeking medical assistance and financial problems when healthcare is needed.

A fourth issue refers to the effect of income on freedom of choice. Because 'in kind' policies allow the insurance company to work with a preferred provider system they are likely to be less expensive and more often contracted by lower socioeconomic groups. Moreover, restitution policies may be problematic for low-income groups, because the patient will have to pay the bills first. In this regard, lower socioeconomic groups have little freedom of choice compared with groups with higher socioeconomic status.

The fifth issue is the effect of the new health insurance scheme on the number of uninsured persons. The number of uninsured persons is currently very low (Table 7), but the National Health Inspectorate expects the number of uninsured to increase due to the new insurance system (11). Even though the insurance is mandatory, this does not mean that all citizens will be willing or able to insure themselves against healthcare costs. Correction will only take place in retrospect by fining those that make use of the healthcare system without being insured.

Sixth, the collective policies, which will mainly be offered to employed people, are likely to necessitate higher premiums for the other policies, i.e. for people who have no work or pensioners. Will this create a gap in costs between the working and the non-working population?

**Table 9. Money spent on health insurance per year. All costs in EUR**

Household type	Current costs	Predicted future costs
Student (privately insured)	700.60	680.00
Working single (30 years)	1 279.07	1 645.79
Working single (55 years)	1 830.32	1 645.79
Single working mother with 1 child younger than 18 years	1 301.66	1 320.79
Working couple older than 30 years without children	2 609.41	3 291.57
Working couple older than 55 years without children	3 660.21	3 291.57
Family with 1 child younger than 18 years	2 973.89	2 911.51
Family with 3 children younger than 18 years	4 396.24	2 911.51
Single older than 65 years (old age pension, sickness fund)	1 367.51	1 440.54
Single older than 65 years (old age pension + retirement pay, privately insured)	2 057.68	2 396.04
Couple older than 65 years (old age pension + small retirement pay)	4 115.36	3 027.70
Couple older than 65 years (old age pension + large retirement pay)	4 115.36	3 584.49

Source: Dutch Consume Association (35)

Finally, the new healthcare insurance will have direct income effects (Table 9). Most households will have to pay somewhat less for health insurance than currently, but some groups will have to pay more. These are young single working people, including single mothers, working couples without children, and single pensioners (35). Especially for single mothers and single pensioners with a low income this may result in financial problems. However, the Ministry of Health, Welfare and Sport presents calculations that include subsidies and taxes, in which no group will suffer much loss of income. People with low incomes, such as those who receive social welfare, will experience a small positive income effect (36). It may be concluded that how the income effects will develop –either positively or negatively- is as yet to be seen.

## Healthy diets and exercise

### DIET AND OBESITY

In the Netherlands, overweight and obesity are more common among the lower socioeconomic groups (37). Socioeconomic differences in energy and nutrient intake are rather small (37). People with a higher socioeconomic status reported a higher protein intake, a lower fat intake (total and unsaturated fatty acids), a higher intake of most minerals and vitamins, and a higher alcohol intake. Men in the lower socioeconomic groups had a slightly higher energy intake. These socioeconomic differences in diet did not change much between 1987 and 1998 (37).

In general, dietary intake among higher socioeconomic groups tends to be closer to the recommendations of the Netherlands Food and Nutrition Council (38). This phenomenon was quite stable over the period 1987-1998 (37). Over the same 10-year period, the consumption of vegetables, fruit, sugar, and sweets decreased significantly in all socioeconomic groups, whereas the consumption of ready-to-eat meals increased (37).

### OVERWEIGHT POLICY

On 27 January 2005, the Covenant on Overweight and Obesity was signed in partnership by the Ministry of Public Health, Welfare and Sports, Ministry of Education, Culture and Science, the Dutch Food Industry Federation, the Royal Association of Businesses in the Hospitality and Related Sectors, the Food Retail Board, the Association of Dutch Care Insurers, the Confederation of Netherlands Industry & Employers, the Royal Association of MKB-Nederland, the Netherlands Olympic Committee, Netherlands Sport Confederation and the association of Dutch Catering Organisations to fight the overweight epidemic in the Netherlands (39). The goal of the Covenant is to stabilise the number of adults with overweight and to reduce the number of children with overweight by 2010. These partners together set out to make joint agreements on portion sizes, advertisement, marketing, product composition, labelling, promotion of physical exercise, etc. They believe that cooperation will be of added value.

The action plan 'Energy in Balance' chooses a positive approach and emphasises chances and possibilities in daily life to combat overweight, instead of stigmatising people with weight problems. They want to make the healthy choice the easy choice. Prerequisites are knowledge of healthy food choices, creating a stimulating environment and clear responsibilities, in which the public themselves must take a role. The partners are furthermore investing in knowledge on overweight and effective interventions (39).

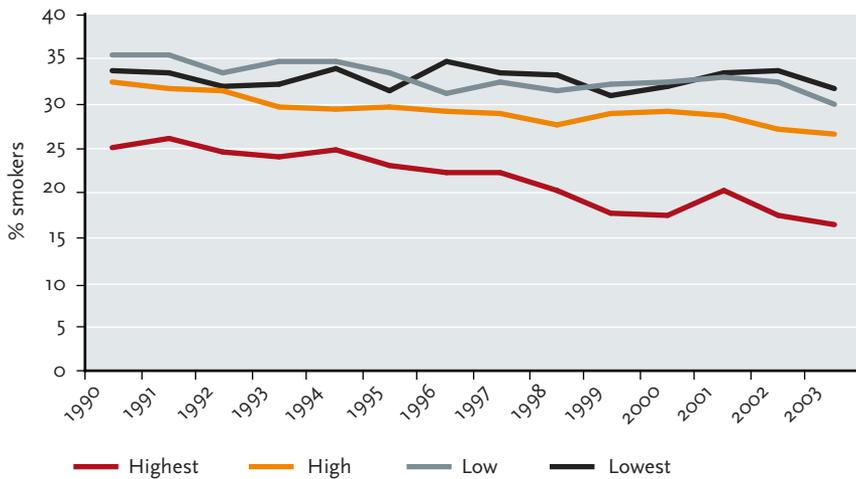
The action plan links up to daily life situations (home, school, work and recreation) and life phases (prenatal, 0-4 years, 4-12 years, 12-18 years, and adults). Interventions focus on making environmental changes and informing people. Specific attention is paid to young people and lower socioeconomic groups. The latter will be addressed in cooperation with local municipalities and other local partners.

## Tobacco, alcohol and drugs

### SMOKING

Smoking is still more common in lower socioeconomic groups. Educational differences in smoking have even increased between 1990 and 2003 because of the greater reduction of smoking prevalence among higher educated persons (Figure 4; (40)). Accordingly, the Netherlands Court of Audit concluded recently that very few activities and programmes are aimed at low socioeconomic groups. Moreover, there is too little information on the effectiveness of the prevention programmes on low socioeconomic groups (9).

Figure 4. Trend in educational differences in smoking between 1990 and 2003



Lowest = primary school only, lower = intermediate secondary schooling or lower vocational schooling, higher = intermediate vocational schooling or higher secondary schooling, highest = higher vocational schooling and university

Source: [www.nationaalkompas.nl](http://www.nationaalkompas.nl)

### TOBACCO POLICY

Smoking discouragement has been rather effective in the Netherlands. The number of smokers has reduced dramatically over the last decade. In 1990 one third (32.2%) of the Dutch population smoked, compared with one quarter (25.7%) in 2003. The Dutch tobacco policy includes multiple interventions and policy measures:

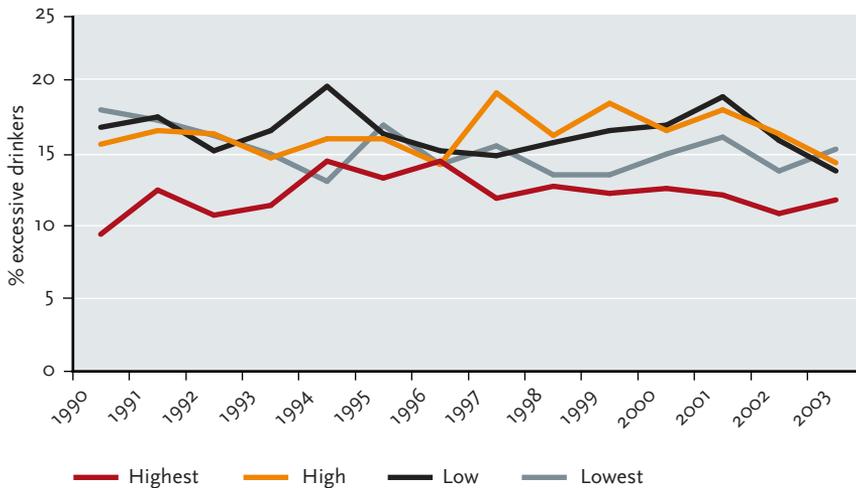
- Mass media campaigns
- Personalised interventions (such as GP advice to smokers who wish to quit)
- Group interventions (such as health programmes in schools)
- Financial measures (taxation on tobacco products)
- Smoking prohibitions

This required the Ministry of Health, Welfare and Sport to cooperate with other Ministries. For example, during recent years higher tax rates have been applied to tobacco products and the sale of tobacco products was limited, including age limits. Since 2004, smoking prohibitions have been enforced at work places (except outdoors and in special rooms), on public transport and railway stations, in schools and other educational institutes, in healthcare organisations, in cultural institutes, in sport canteens, and in institutes for social and social-cultural work.

### ALCOHOL CONSUMPTION

Lower educated Dutch citizens drink excessively more often than the higher educated (Figure 5). This mainly reflects the educational distribution of the drinking habits of men, since among women the percentage of excessive drinkers is rather equally distributed between the different educational groups. Educational differences in excessive drinking vary between 1990 and 2003, but no clear trend is detectable.

Figure 5. Trend in educational differences in excessive alcohol consumption between 1990 and 2003



Lowest = primary school, lower = intermediate secondary schooling or lower vocational schooling, higher = intermediate vocational schooling or higher secondary schooling, highest = higher vocational schooling and university

Source: [www.nationaalkompas.nl](http://www.nationaalkompas.nl)

### ALCOHOL POLICY

Alcohol prevention in the Netherlands is a good example of intersectoral policy, i.e. twelve different ministries are involved, coordinated by the Ministry of Health, Welfare and Sport. Health information campaigns and projects promoting healthy schools are complemented by a range of other measures. It is, for example, prohibited to sell alcoholic drinks to persons under 16 and to sell strong liquor to those under 18. The number of sales outlets for alcoholic beverages is limited and alcoholic drinks must be placed clearly

separated from non-alcoholic ones. Advertisements for alcoholic beverages are limited. The Government is taking measures regarding places of entertainment (closing hours, safety) and measures regarding alcohol and motorised transport (41). However, these measures are aimed at the total population, although it is acknowledged that problematic alcohol use is more prevalent in lower socioeconomic groups. It is unknown whether the measures are specifically effective or not for such groups.

#### DRUG CONSUMPTION

The use of illicit drugs among young people decreased or stabilised between 1996 and 2003, but increased among adults between 1997 and 2001 (Table 10). Young people that use cannabis suffer more often from behavioural problems, such as aggression, truancy or criminal behaviour. The number of people that seek professional help for their cannabis use is still increasing. Opiate users are aging, since not many young people tend to start to use opiates (42).

There are no educational, or ethnic differences in cannabis use among youth, with the exception of Moroccan girls who use cannabis less often. The use of cocaine tends to be lower among youth with higher educational levels, compared with their less educated peers, however differences are not statistically significant. Although not many youngsters use opiates, users are more often following special education or participating in truancy projects (42).

*Table 10. Trends in drugs use between 1997-2001 (adults) and 1996-2003 (youth).*

	Adults	Youth (12–18 year olds)
Cannabis	Increased	Stable (girls), decreased (boys)
Cocaine	Increased	Stable
Opiates (heroin, methadon)	Stable	Stable
Ecstasy	Increased	Decreased
Amphetamines	Increased	Decreased

Source: Trimbos Institute (42)

## *Disease-specific strategies to reduce social inequities in health*

The memorandum on prevention adopted at the end of 2006 prioritises a number of health issues: overweight, alcohol abuse, diabetes and depression. Since these are more common among lower socioeconomic groups this addresses health arrears of lower socioeconomic groups implicitly.

## *Group specific approaches for reducing social inequities in health*

The Dutch Green Paper 'Living longer in good health' called for particular attention to be paid to health arrears among people with limited education and low incomes, including many immigrants. Strengthening the position of vulnerable groups is one of the three aims of this subsidy policy for research and transfer of knowledge to bolster local practice. The basis for this policy document was the concern that the health of the Dutch was falling behind internationally (10).

## *Arena specific strategies for reducing social inequities in health*

The urban policy is an example of Dutch intersectoral policy that specifically aims to reduce health arrears. The Ministries of the Interior and Kingdom Relations, Justice, of Health, Welfare and Sport, Transport, Public Works and Water Management, Agriculture, Nature and Food Quality, Housing, Spatial Planning and the Environment, Social Affairs and Employment, Economic Affairs, Education, Culture and Science, and Finance are all involved.

The objective of the urban policy is to create 'the comprehensive city': an economically vibrant city, with full employment and safe and viable neighbourhoods. The policy is structured along three 'pillars':

- Employment and economy: concerning revitalisation of the urban economy;
- Physical environment: improving the living and working environment;
- Social environment: enhancing the quality of the social environment, care and safety.

The 31 cities design long-term development plans around these three pillars. The Government provides budgets for the activities and programmes.

Although these pillars are certainly relevant to health, the topic was initially not mentioned in the urban policy. The Government decided to include health and the reduction of health arrears as an integral part of the urban policy in reaction to the final report of the second Programme Committee (2001) and a report by the RIVM on health in the cities (43). This was presented in the memorandum 'Living longer in good health' by the Ministry of Health, Welfare and Sports (10). According to the memorandum, the cities will:

- Develop a health benchmark with a focus on health inequity;
- Develop specific facilities for health and employment of the (long-term) unemployed;
- Develop activities for problem youth in schools with the objective of both improving health and decreasing the school drop-out rate;
- Develop a community based approach to promote healthy living in disadvantaged neighbourhoods;

- Improve the accessibility of primary healthcare facilities in disadvantaged neighbourhoods.

Until now, all cities have committed to the reduction of overweight among those younger than 19 years old. The formulation of other specific objectives was left to the cities (44). Small scale projects are launched, aiming at underprivileged neighbourhoods. However, there is no clear overview of all activities and programmes carried out.

Linking up to the urban policy, 56 deprived neighbourhoods have been selected in the 31 major cities in which intensive regeneration programmes are financed and carried out. These neighbourhoods are also the major centres of low socioeconomic status and poor health. The programme includes a physical and a social component, though it seems to focus particularly on renovation and building projects, while limited information on the social or health-related projects in this programme is available.

The Netherlands Court of Audit commented that it was unclear to what extent the objectives had been attained and what the contribution of the Urban Policy has been to the different effects, despite the collection of much data. They also warned that long lists of goals and objectives would lead to paper policy and to a ‘tick-box’ attitude in the cities (45).

Very recently, the Ministries of Housing, Spatial planning and the Environment and the Ministry of the Interior have decided to ‘adopt’ eight pilot neighbourhoods which will receive extensive coaching by the ministries. Each neighbourhood will focus on a specific topic. Although all of these topics are health-related, for example employment, social safety, or physical quality of the living environment, no one neighbourhood will focus on an explicit health topic (30).

### *Implementation: methods, resources and main actors*

The Dutch Government views reduction of socioeconomic health inequalities as a problem that needs to be solved for a large part on local level – in municipalities. Also in other policy fields than health, municipalities are granted more responsibility than before, e.g. in the field of long-term unemployed.

The national policy memorandum on prevention of the Ministry of Health, Welfare and Sports formulates priorities, but municipalities are not obliged to follow these and may set their own local health priorities. The memorandum contains social inequalities as a specific priority.

The Law on Collective Prevention and Public Health describes the responsibilities of municipalities, such as collective prevention, infectious diseases management, and youth healthcare. Municipalities are further obliged to write a local health plan every four years. The latest overview of the topics addressed in these local plans shows that although socioeconomic health inequalities are certainly not absent from the plans, there are also many municipalities that address the topic in a minimal fashion, if at all (46). Specific methods or tools to facilitate equity oriented health strategies for municipalities are not in place, although there are guidelines for health impact assessment and other policy support tools

in which the attention for health inequalities is an integrated aspect. The application of such tools, however, lags behind, as does intersectoral policy making on local level (47).

Resources, tools, and support to assist the municipalities to tackle socioeconomic health inequalities are provided at national level, such as regulations and budgets as well as local budgets from taxes. The Law on Social Assistance, which transfers the responsibility for social assistance to municipalities and will be implemented as from 2007, provides additional financial resources, but also responsibilities. Social assistance is aimed at social participation for all citizens and includes a broad range of activities varying from household support for people with disabilities to public mental health. This may provide an impulse to the activities of municipalities regarding socioeconomic health inequalities (48).

## *Monitoring and evaluation*

The Dutch Government started to monitor socioeconomic health differences in 2006. The need for monitoring the development of health inequalities was expressed at the same time that the Government adopted the target to increase the healthy life expectancy of the lowest socioeconomic group in 2020 by at least 25% of the socioeconomic differences in healthy life expectancy at that time, i.e. 3 years. This would mean an increase in the 53 year healthy life expectancy of the lowest socioeconomic groups in the early 21st century to 56 years by 2020 (8).

The Monitor of Health Arrears reports periodically on health inequalities at the national level in the Netherlands. Health determinants, such as health-related behaviour, environmental factors and healthcare utilisation are also monitored. The Monitor makes use of existing data sources with nation-wide coverage to generate a representative and valid picture of the development of socioeconomic health differences in the Netherlands. The Monitor is to report on socioeconomic differences in health and its determinants every four years and is accessible through the internet as part of the 'National Compass of Public Health' ([www.nationaalkompas.nl](http://www.nationaalkompas.nl)).

## *Concluding remarks*

Different countries are in widely different phases of awareness of, and willingness to take action on, socioeconomic inequalities in health. Four common milestones in policy development have been distinguished: high-profile independent reports recommending research or policy on health inequalities; national research programmes on health inequalities; government advisory committees recommending policies to reduce health inequalities; and coordinated government action to reduce health inequalities (49).

As this chapter shows, the Netherlands seems to be stuck at the third milestone. In the Netherlands, heightened awareness of health inequalities, partly generated by the Black report, led to government-sponsored research programmes from the late 1980s onwards, culminating in government advisory committees recommending policies to reduce health

inequalities 1994 and 2001. Unfortunately, these reports have not led to coordinated government action to reduce health inequalities, and on the policy front the Netherlands has fallen back from a leading position in Europe to a more average position.

The Dutch situation can also be characterised using the schematic ‘action spectrum’ developed by Whitehead to characterise the stage of diffusion of ideas on socioeconomic inequalities in health (50). Starting with a primordial stage in which socioeconomic inequalities in health are not even measured, the spectrum covers the stages of ‘measurement’, ‘recognition’, ‘awareness’, ‘denial/indifference’, ‘concern’, ‘will to take action’, ‘isolated initiatives’, ‘more structured developments’ and ‘comprehensive coordinated policy’. The Netherlands seems to be stuck in a ‘more structured developments stage’, but risks falling back in a stage of ‘isolated initiatives’, for lack of a clear national policy to reduce socioeconomic inequalities in health.

This clearly illustrates the importance of political support for such national policies: after the 2002 elections, the political climate has changed rather strongly, particularly at the national level. Fortunately, there are other policy arenas where the support for reducing health inequalities has not notably diminished, such as the level of the municipal governments. Policy-making at this level has been influenced strongly by the results of the national research programmes.

While many countries, including the UK, Sweden and Finland have had national research efforts in the field of socioeconomic inequalities in health during the second half of the 1990’s, the Dutch programme is unique for its emphasis on evaluation of interventions. More generally, the main distinguishing feature of the Dutch approach is its focus on commissioning evaluations of interventions. The results of these evaluation studies have proved useful for policy-makers in various arenas and at various levels. Remarkable progress has been made, not only in terms of knowledge production but also in terms of increased confidence among policy-makers and practitioners to take action to reduce inequalities in health. Many health agencies in the Netherlands are working to reduce socioeconomic inequalities in health. This is illustrated by many examples in this chapter, and shows that the issue of reducing socioeconomic inequalities in health is broadly anchored in Dutch society now.

Whether this will be sufficient to substantially reduce health inequalities is another matter. We think that more structured action, particularly at the national level, will be necessary to achieve that, but that now only seems feasible after a change in political climate.

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# Norway

ELISABETH FOSSE

## *Development of society and the present political environment*

Norway has a population of approximately 4.6 million people. After World War II there has been an increased tendency towards urbanisation. The country is quite large, more than 304.000 km<sup>2</sup>, but has a rather low population density of 15 persons per km<sup>2</sup>. This varies significantly among the counties (1). Life expectancy has gradually improved. In 2004 a newly born girl could expect to reach an age of 83, while boys could expect to live to 78. The average fertility rate is 1, 8 children, which is among the highest in Europe. A large share of the population is employed, compared to other countries. The reason for this is first and foremost that so many women are employed. Almost 7 out of 10 women are currently gainfully employed.

Norway is a highly developed welfare state with comprehensive welfare provision. It is part of what is often referred to as the Scandinavian Welfare State Model. This implies that the public sector has the dominance in the production of social and health services. Still, throughout the 1990s private insurance and private healthcare have been growing. There has also been a certain privatisation of care for the elderly. The welfare state is financed mainly by taxation, duties and fees. The services are in principle universal, i.e. they are not tied to peoples' position in the labour market. In principle all people have the right to the same services and standard of services.

Norway is a very affluent country; the reason for this is mainly the vast incomes based on the oil economy. In 2003, GDP was 31.500 Euros per capita, which was the highest in the Nordic countries (1). General government expenditure was 45.6% of GDP in 2002. The public expenditures for health-and social services, care and social security had a net growth of 5.5% in 1999, and was 0.9% of the total GDP.<sup>2</sup> The total expenditure for health, care, social benefits and social security was 26.1% of GDP in 1999 (2).

Norway is a monarchy. It has three democratically elected levels of government, all with their own jurisdictions and responsibilities. The Storting (Norwegian Parliament) at the national level, 19 county councils at the regional level and 434 municipalities at the local level. The Storting passes legislation and decides on state revenue (taxes) and expenditure. The county councils are e.g. responsible for upper secondary school and public transport. Municipalities have a significant degree of autonomy and are administratively responsible for services such as lower secondary education, pre-school, primary health-care, care of the elderly, roads, water, waste disposal and energy.

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2. The numbers are not comparable with OECD statistics, since private expenses are not included.

## Public health policy

Reducing inequalities in health was established as a goal with the adoption of the WHO strategy “Health for all 2000” in 1984. In Norway a Government White Paper was published as a follow up to the strategies (3). In the White Paper, reducing social inequalities in health was a central aim:

*“With the adoption of the WHO targets for Health for all in 2000, Norway has made a commitment to reduce social differences by improving health conditions for the most vulnerable”*

Suggested public-health-related lines of action were to increase focus on health in policy making in all public sectors. A second action was to increase activities within disease prevention and health promotion. A third was to stimulate reorganisation of health services in a direction that would give special attention to inequalities in terms of social background and geographic factors and promote equality in the distribution of health services. In this White Paper, the political strategies in particular were highlighted. However, no specific targets or goals were set.

Dahl (2002) has studied how income inequalities in health have been defined in national policy documents in the period 1991-2001 (4). In these documents, inequality is mainly perceived of in terms of disadvantaged, vulnerable, or marginalised groups and individuals. “The Equitable Redistribution White Paper” (5) identified nine target groups for public intervention: households with long-term low income, disadvantaged immigrants, disadvantaged families with small children, people with psychiatric illness, people with long term illness, the long term unemployed and occupationally impaired, disadvantaged pensioners, the disabled, drug addicts, and homeless people. Inequalities in terms of social stratification or social class is hardly mentioned, and if so, it is defined as unimportant. In most countries, there is a clear statistical correlation between people’s socioeconomic position – measured, for example, by education or income – and their health. Norway is no exception. The higher our education and income, the longer and healthier we live. The richest are healthier than the ‘second’ richest, who are in turn healthier than the ‘third’ richest, and so on. These social inequalities in health form a gradient throughout the socioeconomic groups of the population. Consequently, they constitute a problem that concerns all of us.

A Government White Paper on Public Health was published in January 2003 (6). The title was “Prescriptions for a healthier Norway” and the paper outlined Norway’s public health policy for the next decade. In this White Paper the balance between individual responsibility for health and the responsibility of the society is underlined. There is a strong focus on lifestyle factors that may cause disease and the situation for vulnerable and marginalised groups is the main focus of attention. In this paper the concept of social inequalities in health is used. The development of increasing social inequalities is considered a problem, but is again formulated as a problem for some population groups:

*“Risk factors are often particularly concentrated in vulnerable parts of the population. There is a need to shed more light on the special health problems of the immigrant popu-*

*lation. In general, there is a need for improved adjustment of interventions to the needs of groups at risk for developing health problems.”*

The government’s goals are outlined in the paper (p.51):

- Interventions to influence lifestyles will be assessed in terms of their consequences for social inequalities in health.
- New actions aimed at vulnerable groups or geographic areas will be assessed in terms of the target of reducing social inequalities in health.
- Social inequalities in health will be introduced as an element in health impact assessment (HIA)
- Competence in this policy area will be built up.
- A plan of action will be developed to combat social inequalities in health.

As a follow up to the White Paper on Public Health an action plan was developed (7). The work with the action plan was delegated from the Ministry of Health and Care Services to the Directorate for Health and Social Affairs, which is an institution that reports to the Ministry. The action plan was published in January 2005, and the title was “The Challenge of the Gradient”. The action plan indicates a shift of focus, compared to former policy documents. One sign of this is that social inequalities in health now are defined in terms of the social gradient. In the plan, it is argued against a perspective where focus is only on the poorest groups (p.9):

*“Working to reduce social inequalities in health means making efforts to ensure that all social groups can achieve the same life expectancy and be equally healthy. Differences in health not only affect specific occupational groups or the poorest people or those with least education. On the contrary, research indicates that we will not address the relation between socioeconomic position and health if we base our activities on strategies that focus on «the poor» as an isolated target group.”*

A Government White paper on Social Inequalities in Health was published in February 2007 (8). The White paper is titled “National Strategy to reduce social differences in health”. It has a ten year perspective for developing policies and strategies to reduce health inequities.

One main point of the White paper is that “Equity is good public health policy.” This implies a view on public health policies that aims at a more equal distribution of positive factors that influence health. The overall strategy covers four areas:

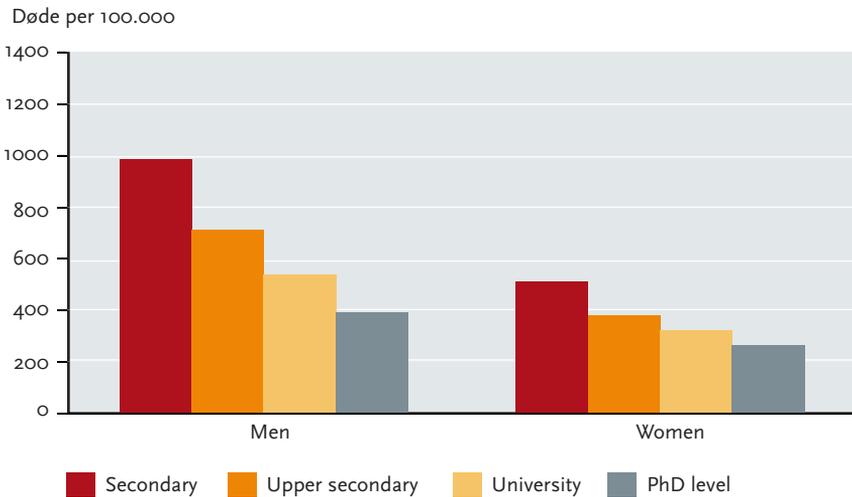
- Reduce social inequalities that contribute to health differences
- Reduce social inequalities in health behaviour and use of health services
- Targeted efforts for social inclusion
- Develop increased knowledge and tools for cross-sectoral collaboration and planning.

## Magnitude, trends and analysis as regards social inequities in health<sup>3</sup>

### Mortality

Borgan and Kristofersen (9) estimated lost years of life in different occupational groups, based on national data from the 1970s. They found that mortality was higher among manual workers than other groups, especially for men. A report from the Norwegian Institute for Public Health shows the status for social differences in total mortality rates for persons 45–59 years (10). The results show that mortality decreases with increasing educational level for both men and women. Figure 1 clearly shows what may be called the socioeconomic gradient. Social inequalities in health are not restricted to vulnerable and marginalised groups, the gradient cuts across the whole population (4,11). We can also see that inequalities in mortality in these age groups are larger for men than for women.

Figure 1. Age-adjusted mortality by education for men and women 45-59 years. 1990-97

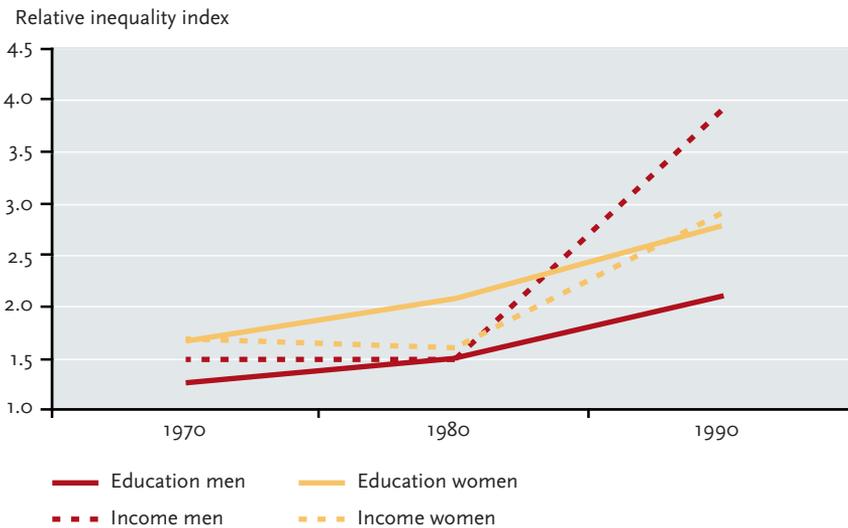


Source: Zahl et al. 2003

3. The paragraphs on mortality and subjective health are mainly based on a literature review by Sund and Krokstad (12). The review is a report to the Directorate of Health and Social Affairs.

Figure 2 shows the development in relative mortality rates for men and women in the period 1970–90 by education and income. The measure of mortality differences is shown as a relative index of inequality. The figure clearly shows that the relative socioeconomic differences have increased. Income differences, for both men and women show the largest relative increase, particularly in the period from the 1980s to the 1990s.

**Figure 2. Changes in relative mortality differences by education and income for men and women 45-59 years. 1990-97**

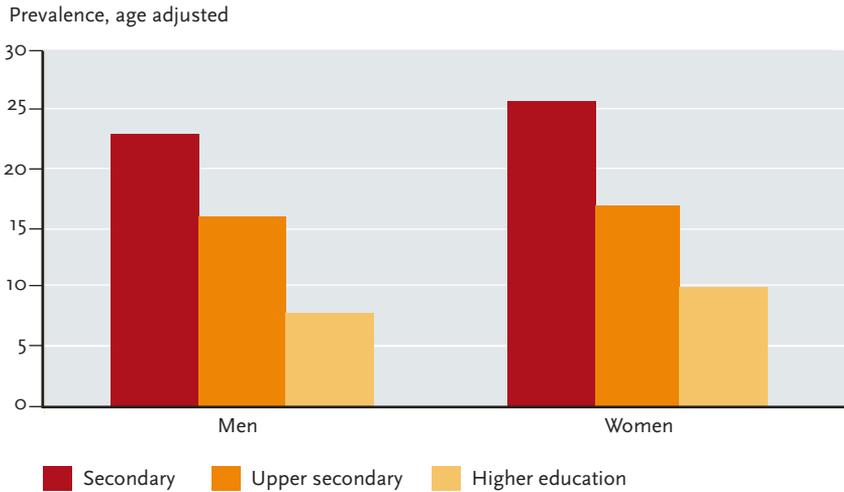


Source: Zahl et al. 2003a

### Subjective health

Subjective health is distributed along the following dimensions: education, occupation and affiliation to working life. In Norway these associations have been studied in the national surveys on health and living conditions in 1985 and 1995 (13) Those with the lowest socioeconomic status report poor health more often than the other groups. In the following figure the characteristic gradient is present, for both men and women, measured by educational level.

**Figure 3. Part of the population with poor subjective health by educational level, for men and women 25-64 years. 1995**



### Research on health inequities

The Norwegian Research Council (NFR) is mainly funded by public means, and the Ministries are important in defining objectives and targets for research. Research institutions and individual researchers may apply for funding of projects. NFR does not have a separate programme on social inequalities in health. In terms of research, there has been little activity in Norway so far (14). In 2005 a new research programme in public health was launched ([www.forskningradet.no](http://www.forskningradet.no)). In this programme social inequality in health is included, but it is not an overarching strategy. The National Institute for Public Health is currently developing a monitoring project; the aim of which is to gain more knowledge about the state of affairs and recent developments.

In the database for National Research Information research projects are listed which have a clear focus on social inequalities in health. In 2006 there were two ongoing projects listed in this database:

- Social inequalities in health: Project support to Norwegian Social Research Institute (2004-2007).
- Social inequalities in women's health The Nord-Trøndelag Health Study (HUNT) (2004-2007).

Apart from these two, 11 projects have been finished over the last five years. In addition, a number of other projects and publications exist; they are reviewed in a report published by the Directorate of Health and Social Welfare (12).

## Strategies focusing on specific determinants of health

### Economic growth, poverty alleviation and social security systems

In the 2001 edition of the Human Development Report Norway appeared for the first time at the top of the International Human Development Index (HDI). This index is based on life expectancy, literacy, proportion of the population in education and level of income. Norway is, however, not at the top in any of the single indicators in the index and the country is behind leading nations in terms of life expectancy. The next table shows the share of the population living below the poverty line (<60% of national median household disposable income). The numbers include income from work, capital income and transfers from the state after tax (15).

*Table 1. Share of population with household income after tax of less than 60% of median income. In percent.*

	Whole population	Exl. students <sup>*</sup>	Excl students & capital income <sup>**</sup>
1986	8.9	8.5	6.5
1996	10.9	9.8	6.7
2000	8.9	10.0	5.8

\* Excluding persons in student households. \*\* Excluding persons in student households and people living off fortunes larger than 50.000 NOK Year 2000.

Source: Statistics Norway 2003 (Samfunnspeilet 200302/08)

As we can see, the proportion of people living below this defined poverty line has been quite stable during the period, if we look at the whole population. If we exclude students (who easily fall below the poverty line due to low income from paid work), the numbers have increased slightly.

The Gini coefficient has increased over time, indicating that the income distribution is increasingly askew (15).

1986: 0.210

1996: 0.244

2000: 0.275

However, Norway is among the 10 countries in the world with the lowest Gini coefficient (16).

The Norwegian situation can be viewed from two different angles, one explaining the low Gini coefficient, the second focussing on the reasons for the increase. As described earlier, the Norwegian welfare state is comprehensive and was developed on the basis of a social democratic ideology of redistribution. The tax system is progressive and those

with the highest incomes pay the highest taxes. Culturally, the ideal of equality still holds a strong position in the country.

However, in 1992 some changes were made in the tax system in favour of high income groups. This has contributed to the increased income differences reflected in the Gini coefficient (17).

**Education**

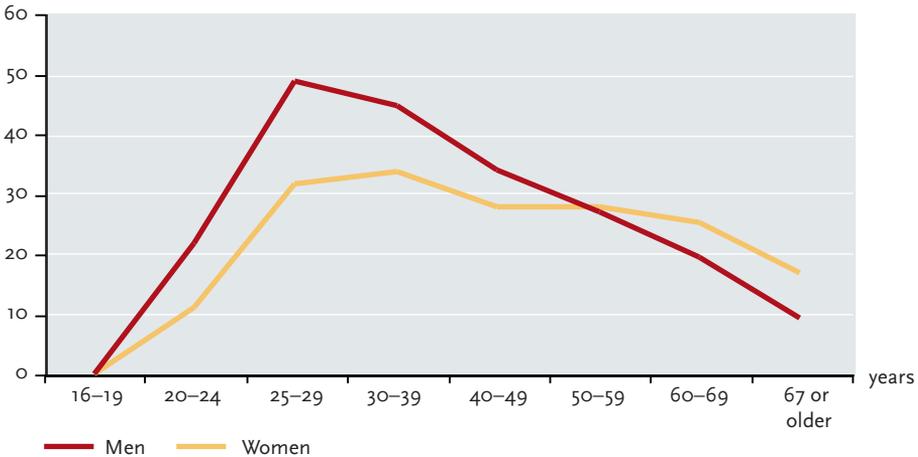
School attendance is compulsory in Norway from the age of 6–16. Those who have completed compulsory education, have a legal right to upper secondary education which can lead on to higher education at university and university college levels. Higher education in Norway is free of charge, i.e. students pay no academic fees.

In general the situation is the following in terms of education:

- One in four Norwegians has completed a higher education course. 60% of these are women.
- 30 000 completed higher education in Norway in 2002.
- There are 670.000 participants in courses arranged by study associations. 40. 000 of these are entitled to take a public exam.

The following figure shows the share of the population who have completed higher education, by age and gender.

*Figure 4. Share of the population with higher education, by age and gender 2006.*



Source: [www.ssb.no](http://www.ssb.no)

As we can see there is an age gradient, showing that more of the younger population have completed higher education than previous generations. The general level of education is increasing, and in 2004, 24% of the population above 15 years of age had studied at university or university college. This is almost twice as much as it was 20 years ago.

## POLICY

The Norwegian State Educational Loan Fund (NSELF) was established in 1947. The objective of the educational support from the NSELF is to remove inequality and to promote equal opportunities so that the pursuit of education is possible regardless of geographical conditions, age, sex and economical and social positions. Most students in higher education are entitled to support from the NSELF. The support includes loans and grants.

In 1976 a bill was passed, in which education was based on the idea of lifelong learning ([www.odin.dep.no](http://www.odin.dep.no)). Another objective was that education should provide competence for working life. The areas for adult training in Norway are mainly compulsory education (10 years), upper secondary education, Norwegian language courses and Social Studies for foreign students, higher education, labour market training, training arranged by study associations, folk high schools, and distance learning. Some target groups are prioritised. These are the disabled, those who have not completed lower secondary education, non-Norwegian speakers, and persons with special care needs. Approximately 25% of the adult population take part in some form of educational course every year.

## CONCLUSION

In principle, the structure of the education system promotes social equality. It is free of charge and open to everyone who fills the criteria for admission. However, social inequalities are still to be observed. In spite of structures promoting increased inequality, young people with parents with high socioeconomic status are the most inclined to enter higher education (5).

The education reform for upper secondary school in 1994 introduced greater flexibility in terms of which programmes provide admission to higher education. Nevertheless, the social differences persist. Young people with academic fathers more often choose a programme that gives access to higher education than those without. This is independent of the grades the young people achieve. In 1998 half of the pupils in these courses had graduate parents. In courses aimed at vocational training one fourth of the parents had some form of higher education ([www.ssb.no](http://www.ssb.no)).

School drop-out rates follow the same pattern. Among those who started upper secondary school in 1999, 84% of pupils in the general courses finished their exams, while 55% of those in vocational training did. If we look at drop-out rates for vocational courses in particular, 50% of the boys had parents with only compulsory education, while only 12% of those who had parents with higher education dropped out. The numbers for the girls were respectively 39% and 6% ([www.ssb.no](http://www.ssb.no)).

Parents' education also influences what further studies are chosen. Differences in the social background of students at university and university college level have increased ([www.ssb.no](http://www.ssb.no)). Universities generally offer classic academic courses, while the university colleges offer more practical, vocationally-oriented courses, for nurses, technicians etc. Among those who started studying in 1997, 75% of those who had parents with higher education chose to start university studies, while 25% entered university colleges. Among

students with parents with only compulsory school, 27% started to study at a university while 73% started studies at a university college (5).

### **Working conditions**

In 2003 there were 49 deaths registered caused by work-related accidents. This was an increase compared to the two previous years: there were 39 deaths in 2002 and 37 in 2001. However, in spite of the increase, more people died from work-related accidents in the 1990s, when the average death rate was 58. These numbers have decreased by approximately 40% during the last few years ([www.arbeidstilsynet.no](http://www.arbeidstilsynet.no)) If we look at deaths in the different sectors, the agricultural sector is the worst off, with 14 deaths in 2003. In the construction business 11 people died in 2003, while the industry sector had five deaths. All these sectors have traditionally been exposed to health hazards.

The Survey on Living Conditions from 2000 ([www.ssb.no](http://www.ssb.no)) indicates that the number of injuries is decreasing. The Norwegian Labour Inspection Authority receives more than 30.000 reports on work-related injuries each year. Research also indicates that many injuries and accidents are not reported. There is a great difference in risk between various occupational groups. Industry and construction have a high risk of injuries; other groups at risk are craftsmen, drivers, security guards and police officers ([www.arbeidstilsynet.no](http://www.arbeidstilsynet.no)). In general, there are more injuries among men than among women.

In 2003, 3414 work-related diseases were reported. In 2002, the number was 3521. There seems to be a decrease in work-related disease, however, only a very small portion are reported ([www.arbeidstilsynet.no](http://www.arbeidstilsynet.no)).

There has been a development towards increased inequalities in working conditions for different occupations over the last years ([www.arbeidstilsynet.no](http://www.arbeidstilsynet.no)). Some sectors have problems related to traditional physical and chemical factors that to a great extent demand technical solutions. In other sectors, there is demand for organisational adjustments to prevent mental diseases and muscular-skeletal diseases. On a general level, the factors mentioned above may have contributed to negative stress and may be one explanation for sick leave and disability pensions. Reorganisations and redundancies may break down good relations and create insecurity. This will hit some groups of workers harder than others.

### **POLICY**

The Work Environment Act passed in 1977 sets demands on many aspects of the working environment. It has been considered a radical act, in that it vigorously protects workers' rights. The Act has been heavily debated over the years, especially the sick leave rules that secure the workers full pay during sick leaves. Recently, the rules for protecting workers from losing their jobs have been debated.

The Norwegian Labour Inspection Authority is a government agency under the Ministry of Labour and Social Inclusion. The authority is responsible for administration, supervision and information about the Working Environment Act. The Norwegian Labour Inspection Authority collects information on work-related accidents and injuries. Research has shown that approximately 220,000 people report permanent health prob-

lems caused by their work environment ([www.arbeidstilsynet.no](http://www.arbeidstilsynet.no)). However, the number of work-related injuries and diseases that are recognised in the social security system and registered under the insurance for work-related injury does not show a true picture of how many actually get ill and injured as a consequence of their work. Only a small sample of diagnoses is accepted. For instance, muscular-skeletal diseases and mental diseases are not accepted as work-related diseases. These diseases are the most frequent reasons for sick leave (6).

In Norway, an increase in preventive work has been observed over the last years. From 1992 it has been compulsory to work systematically with health, environment and safety (HMS in Norwegian). This is part of a system for quality assurance and internal control. A majority of enterprises now work with issues of HMS ([www.arbeidstilsynet.no](http://www.arbeidstilsynet.no)).

There is no explicit focus on controlling the structure of the labour market, even though the HMS work and the Work Environment Act both may have implicit effects in terms of providing job safety and improving working conditions. Neither is there an explicit focus on reducing social inequalities in health in the labour market setting. In the latest Government White Paper on public health (6), the problems of the work place setting are mostly defined in terms of sick leave and disability pension. The policies and actions suggested do not explicitly take the social inequality perspective into account.

However, some of the suggested policies are aimed at improving the situation of the most vulnerable occupational groups, i.e. those who are in danger of being excluded from the labour market. In 2001 an agreement was reached between the government, the employers' organisations and the workers' unions, called Inclusive Work Life (IA). The government supports and encourages enterprises to employ or reemploy workers who have been on sick leave or disability pension. The enterprises commit themselves to finding suitable jobs, while the workers will be closely followed up by Social Security and Labour Market authorities. This agreement may have an effect on the situation for the most vulnerable. However, there will be limited effects for the work life as a whole, or for the social gradient in work life.

In the recent Government White Paper on social inequalities in health (8), work life is one arena that is receiving attention. Together with a parallel White Paper called "Work, Welfare and Inclusion" (18), the focus is on social inequalities and in work life and exclusion of vulnerable groups. Even though few concrete measures are outlined, these issues have been placed on the political agenda. The government states that both general and targeted measures will be used.

## CONCLUSION

The evaluation of IA indicates that it is the most vulnerable groups in all age groups who are excluded from the labour market (19). Even though restructuring of working life can be positive for many groups, it will also place an additional burden on those with few resources.

## Unemployment

In Norway unemployment has gradually decreased over the last years. By 1 July 2005 unemployment was 4.5%. After that it has decreased even more ([www.nav.no](http://www.nav.no)). From the early 1970s to the crisis in 1983–84, unemployment was stable at approximately 2% of the population. During the 1980s it increased and reached a peak in 1993 with an unemployment rate of 6%. ([www.ssb.no](http://www.ssb.no)).

According to the labour force survey (AKU) there has been a decrease in the general level of unemployment for the population as a whole during the last couple of years. There has also been a decrease in the number of long-term unemployed during recent years.

**Table 2. AKU numbers of unemployment in 2004 and estimated numbers in 2005 and 2006.**

	2004	2005	2006
Unemployed, numbers	91 563	85 000	77 000
Unemployed, AKU	4,5%	4,3%	4,0%

Source: Statistics Norway

The following table shows the situation according to education and age.

**Table 3. Unemployment by education and age May 2005. In percent (N=78320)**

	Below 30 years	Above 30 years	All
All education groups	4.3%	3.0%	3.3%
Education unknown	7.9%	13.9%	10.8%
Secondary school	8.9%	3.4%	4.4%
Upper secondary 1–2 years	6.6%	3.6%	4.3%
Upper secondary 3 years	3.1%	2.7%	2.8%
Higher education 1–4 years	1.6%	1.9%	1.8%
Higher education more than 4 years	1.4%	1.5%	1.5%

Source: Aetat, 2005<sup>4</sup>

The young and low-educated have the highest unemployment rates, well above the average for the population. On the other hand, those with high education are well below the average unemployment rates. The level of unemployment has developed slightly differently for men and women. The Norwegian labour market is highly segregated by gender. Women mostly work in the public sector, particularly in the fields of health, care and teaching. Men more often work in the private sector, which is more vulnerable to eco-

4. There are two methods of measuring unemployment in Norway. The first is based on the registrations of Aetat, which is the national labour market authority. The second is a population survey by Statistics Norway (AKU). The Aetat numbers are lower, because they only include those who are registered as unemployed in Aetat registers.

conomic stagnation and fluctuations. In the period from 1999 to April 2005, unemployment was higher for men than for women. ([www.aetat.no](http://www.aetat.no)).

The objectives of labour market programmes are to:

- Strengthen the participants' competencies and abilities to work
- Increase the participants' chances in the labour market
- Prevent and moderate negative effects of unemployment
- Prevent people from being excluded from the labour market.

The programmes include different measures, targeted at different groups among the unemployed. Work practice means that a person gets a job, where the aim is to facilitate and target competencies in order to get a permanent job later on. This is the measure that is most commonly used, and it is the dominant policy aimed at young people. 92% of those who attended labour market courses in the under-20 age group were in work practice. The number in the 20–24 age group was nearly 50% ([ww.aetat.no](http://ww.aetat.no), numbers from 2005).

Another prioritised group is those with disabilities. While only a few percent of those with a background in teaching and science become disabled, more than 25% of industrial workers do. The numbers are relatively high even for those working in service-related occupations and among health and care professionals ([www.aetat.no](http://www.aetat.no), 2005). A comparison between ordinary unemployed people and the disabled shows that 70% of the former, but only 45% of the latter re-enter the ordinary labour market after a period of unemployment. The proportion of the disabled entering the labour market has decreased in the period from 2000–2004. While the proportion of the non-disabled that enters the labour market has increased, the proportion of disabled has decreased. This illustrates that vulnerable groups are more easily pushed out of the labour market than people without disabilities.

Recently, issues of social inclusion in work life have been placed higher on the political agenda. The Government White Paper from 2007, "Work, Welfare and Inclusion" (18) has an explicit focus on social inclusion and social inequalities. The main objective is to develop measures for inclusion of groups which have been excluded from the ordinary labour market. Among the relevant target groups are immigrants and disabled.

### **Environmental determinants of health**

In the Government White Paper on Public Health from 2003 (6) two types of environmental determinants are outlined: physical determinants and social determinants. Regarding the physical factors, three categories are listed: physical, chemical and biological factors; prevention of accidents and injuries and social factors and sustainable development.

The social determinants are not being elaborated upon. It is pointed out that social factors have achieved too little attention, mainly due to lack of knowledge and competence. However, several areas are pointed out as important, among these: living conditions, distribution of welfare, social networks, alcohol and substance abuse, violence, and criminality. As yet, there is no comprehensive knowledge base, where the different aspects of the social environment are included.

The Action Plan on Environment and Health was published in Norway in 2002. The plan was developed in cooperation between the Ministry of Health and the Ministry of

Environment. The plan was a follow-up of an action plan published in 2000 by the same two ministries. The health-oriented areas in the plan relates to the Government White Paper on Public Health from 2003 (6). Priority areas are physical activity, cross-sector collaboration and social environment. Social environment also has an impact on health and will be prioritised in the plan. Mental problems are among the prioritised issues, as are work-related stress, and bullying in school (20).

The reduction of injuries and accidents has for a long time been a prioritised area in Norway. From 1980-2000, accidents and injuries were reduced by more than 25%, which was the WHO objective for the period (20). Falls are the most frequent reason for sudden deaths, which is a category that includes accidents, killings and suicide. Most of the people who died from falls were elderly and over 75.

Accidents and injuries are viewed as a major public health problem. The potential for prevention is significant and the Directorate for Health and Social Affairs has developed an action plan for the period 2005-2007. The action plan has its focus on cross-sectorial actions and is developed in cooperation with several Ministries and other institutions.

Three areas will be prioritised:

- Cross-sector cooperation
- The development of comprehensive statistics to map injuries and accidents
- Local injury prevention and further development of the Safe Community concept

None of the policy documents referred to have an equity perspective on health and social environment. It is fair to say that an inequality perspective has been absent, regarding these issues.

### **Healthcare policies/programmes/actions**

In Norway the healthcare system has two levels: the national level (the state) has the responsibility for hospitals, while the municipalities are responsible for primary healthcare, including health promotion, disease prevention and care services.

In general, there seem to be few social inequalities in the use of primary healthcare (21, 22). Treatment and care don't seem to vary significantly between socioeconomic groups. However, there are social differences between various diagnoses and diseases. The health services have more to offer people with acute diseases than those with chronic diseases and disabilities. This is particularly the case with people with severe psychiatric diagnoses, where treatment and care is particularly scarce (8).

### **CONCLUSION**

So far there has been limited research on the use of health services focusing on social inequalities (23). At present there is a discussion whether or not there is a social gradient in the use of health services (12,22). A study from Oslo indicates that the use of primary healthcare varies along a social gradient, showing that women from poor areas saw their GP more often than women from the affluent parts of the city (23). The interpretation of

these findings was that people in affluent areas are more healthy than those living in the poorer areas.

Findings from a Nordic study focusing on how parents in different education groups consult health services indicated that there are social differences in the use of GPs versus specialists in all countries (22). Children of parents with high education are more often referred to specialists than children with parents with low education, while children with low-educated parents are more often hospitalised. The authors' interpretation is that well-educated parents are more capable of arguing for a reference to a specialist. However, the research findings reported in the literature review from Krokstad and Sund (12) are not consistent and it is difficult to conclude whether there is a social gradient in the use of health services. A recent study indicates that both population density and socioeconomic status has significance for the use of specialist services (24). There are more private specialists in the urban areas. The authors find that both accessibility and socioeconomic variables play a considerable role in deciding whether to visit a specialist.

The research findings are not consistent either as to whether there is a social gradient in the use of dental health services. A study from Oslo shows that there is a social gradient in the use of dental services, measured by education (25). A recent study, covering the whole of Norway, does not find a social gradient in the use of dental services, measured by household income (26). One explanation of the differences may be that social inequalities are particularly clear in Oslo, and in a study covering the whole country the inequalities may appear less distinct.

Changes during recent years may contribute to increased social differences in the use of healthcare. Fees for medical treatment and medicine have increased over the last decade. There is also an increase in private primary care and health clinics and private health insurance arrangements. This development may increase the social differences both in the quality and the use of health services (27).

In the entire post-war period there has been a political consensus that people should have equal access to health services, independent of domicile, gender, ethnicity and socioeconomic status (7).

One policy that may have indirect effects in reducing social inequalities in health is the national action plan to improve mental health. The main objective of the plan is to prevent mental disease and to improve living conditions for people who suffer from mental illness. One main focus is on children and adolescents. Community healthcare and school healthcare are services to be strengthened. Both these are universal services that reach almost all of their target groups, which are families with small children and children in compulsory school (6). Dental services are free of charge in Norway up to the age of 18. After this, the full costs have to be paid by the patient.

### **Healthy diets and exercise**

Social inequalities in health are related to social differences in lifestyles. There are social differences in diets, physical activity, tobacco use and alcohol use (21). In Norway, as in many other industrialised countries, people from lower socioeconomic groups have a less healthy diet than people from higher socioeconomic groups. It has also been discovered

that in certain immigrant groups there is more obesity and diabetes, more teeth problems, and lack of certain vitamins.

Over the last 30 years there have been improvements in the diet for the population as a whole. Consumption of fruit and vegetables has increased while consumption of fat has been reduced (6). In Norway, there is no free school meal; children bring lunch, usually sandwiches, from home. This implies that family background may influence children's diet more than in countries where children are served a (healthy) school meal.

In line with the general situation for healthy diets, obesity both among children and adults shows the same social gradient. In physical activity, the same patterns can also be seen. In a report from Statistics Norway more than 26% of those with only compulsory school state that they never exercise (28). Among those with higher academic education only 7% stated that they never exercise. Even for children, the same pattern can be seen. Children of parents with high education are more physically active than children of parents with low education.

The policies suggested to improve diets and increase physical activity are mostly based on health education. An objective in the new public health policy is that health education should be better targeted at population groups that have the unhealthiest diets and exercise the least. One intervention that has been implemented in some schools is to offer fruit and vegetables to the pupils. So far, the parents have had to pay for the school fruit. In a social inequality perspective, this may increase the social differences even more. It is probable that parents with high socioeconomic status are more likely to pay for school fruit and thus contribute to increasing the differences even more.

In the Government White Paper on social inequalities in health (8), additional measures are discussed. Among them are measures to influence prices on food products. Free provision of fruit to school children is also discussed. However, no concrete actions are suggested in terms of implementation of these types of measures.

### **Tobacco, alcohol and drugs**

In 2005, 25% of the population were daily smokers. This is a reduction from 2001, at which time 30% of the population were daily smokers ([www.ssb.no](http://www.ssb.no)). The number of men was 26% and the number of women 24%. Education is a strong predictor for smoking. Regardless of age and gender, there are more daily smokers among people with low education than those with high education. Among people between the ages of 25-74 with compulsory school, more than 40% smoke, compared to those with education at university level, where less than 15% smoke ([www.ssb.no](http://www.ssb.no)). The portion of the population who smoke has decreased in highly educated groups but is stable in lower educated groups. This indicates that in the long run, tobacco-related disease will hit people with low education especially hard.

Norway has recently passed a strict anti-tobacco legislation. There is a smoking ban in all restaurants, bars etc. Tobacco products are very expensive, and the age limit for purchase is 18 years. It is also prohibited to advertise tobacco products. Other policies to reduce smoking are school-based programmes and mass media campaigns.

The alcohol consumption in Norway statistically is among the lowest in Europe. However, alcohol consumption generally increases with increased education. The drinking pattern seems to be different between socioeconomic groups. Men with lower education binge drink more, while men with higher education drink less but more frequently (6). This seems to be connected with a transition in drinking patterns. While the traditional drinking pattern tended to be heavy drinking during weekends, a more “continental” drinking pattern has emerged, meaning that people spread their drinking throughout the week. The composition has also changed, with increased sale of wine and beer and a reduction in the sale of strong spirits.

The debate on alcohol damage in Norway is mainly based on alcohol-related injuries and violence ([www.shdir.no](http://www.shdir.no)). Binge drinking and violence are connected, and in almost 80% of detected incidences of violence, the molester and/or the victim are drunk. This is especially the case for men. There is no systematic registration of social status in these incidences. However, if we look at the statistics on drinking patterns, there is reason to believe that a significant share of those involved in the violent incidences will belong to the lower socioeconomic groups. If this is the case, it may seem that not only the amount of alcohol consumed but also the drinking pattern will be of significance in terms of alcohol-related injuries. In other words; binge drinking seems to be more dangerous than so-called continental drinking in this respect.

There has been an increase in the abuse of illegal substances among young people, and there is a large group of young people who both have a drug problem and mental problems. Injuries and social problems due to substance abuse are frequent: in 2001 338 persons died of overdoses, in addition there are injuries and social problems (7).

The Norwegian policies against alcohol and substance use are partly focussed on structural actions and partly on the potential consumers. All trade and use of drugs is prohibited in Norway. Alcohol sale is restricted, wine and strong spirits can only be purchased in the state monopoly liquor stores which have limited opening hours. Beer may be purchased in food stores and supermarkets, but only within limited hours. Alcohol tax is very high; the price of alcohol is among the most expensive in Europe. There is an advertising ban on alcohol. In addition to these measures there are actions aimed at the consumers, in terms of campaigns where both adults and adolescents are the target groups.

There is little discussion on how problems connected to alcohol and drugs reflect a socioeconomic dimension. The term “social problems” may also conceal problems of poverty and marginalisation, but policies reflect this dimension only to a limited extent.

## *Disease-specific strategies to reduce social inequities in health*

There are currently no disease-specific policies or strategies to reduce social inequalities in health. Focus in public health policies is still mainly on preventive and health promotion actions and interventions on a general basis, such as reducing smoking, increasing consumption of fruit and vegetables etc.

Problems concerning disease-specific strategies are raised in the Government White Paper on social inequalities in health. Several diseases follow a social gradient. People with low education and income more often suffer from mental and chronic diseases. These are diseases that have a low priority in the health services. However, no specific measures are suggested to reduce such problems of inequality.

## *Group-specific and area-specific strategies for reducing social inequities in health*

Even if there are no specific equity objectives in the overall policies, there are policies particularly aimed at marginalised groups and groups at risk, as described earlier in this chapter. In the Public Health White Paper from 2003 there is a follow up on some of these areas. It is stated that lifestyle interventions should always be assessed in terms of their effect on social equalities in health. A second general objective is to assess the consequences of new policies for social inequalities, for geographical areas or particular target groups.

Social inequalities in health are largest in the cities, especially Oslo. People living in the poorer parts of the city have a life expectancy about five years below the national average, while the richer areas have a life expectancy five year above this average. In parts of the inner city, living conditions are unsatisfactory in many respects. There is a high proportion of immigrants in these areas. A major programme is now being implemented to improve living conditions, health and social inclusion (6). This programme is called "The Inner East Oslo programme." It was started in 1997 for a period of 10 years. 100 million NOK, i.e. 12.5 million Euros is allocated each year to the programme. The main objectives of the programme are to (29):

- Improve the situation for children and adolescents.
- Improve living conditions.
- Reduce risk factors for disease. Strengthen services for citizens with mental problems and addictions.
- Strengthen services for people with particular housing problems.
- Upgrade the physical environment and make it safer. Support environmentally friendly transportation and local activity.

There is a strong political commitment to this program, both from the national authorities and the municipality of Oslo. There is a multi-level, cross-sector approach that seems to stimulate a holistic approach to improving the living conditions for people in this part of Oslo (29).

### *Implementation: methods, resources and main actors*

As described in an earlier section of this chapter, reducing social inequalities in health was explicitly presented as a public health strategy in the Government White Paper “Prescriptions for a healthier Norway” in 2003 (6). One of the objectives of the Paper was to develop an Action Plan to reduce social inequalities in health.

The Directorate for Health and Social Affairs was assigned the task of establishing a centre of competence on social inequalities in health. The White Paper on Public Health points out that important responsibilities of this Competence Centre will be to:

- Facilitate cooperation between and coordinate the work of Norwegian experts and institutions working in this field
- Systematically collect experiences from international organisations and other countries.
- Establish a knowledge base
- Develop expertise that can provide a basis for advice to central and local authorities

The Plan of Action is intended to provide a foundation for the Directorate for Health and Social Affairs’ work on social inequalities in health.

The expert group appointed by the Directorate of Health and Social Affairs developed a set of “Action principles to tackle social inequalities in health” in 2005. ([www.shdir.no](http://www.shdir.no)) According to the expert group, six general action principles should be followed in the efforts to reduce social inequalities in health. These are:

- Use explicit objectives
- Build on existing knowledge
- Emphasise universally oriented population strategies
- Combine structural measures with individually-oriented health measures
- Should be comprehensive and coordinated
- Reduce unfortunate social consequences of disease and ill-health.

The Government White Paper on Social Inequalities in Health outlines strategies for action in the following areas:

- Reduce inequalities in income,
- Secure equal opportunities for development for all children, regardless of their socio-economic situation
- Develop an inclusive work life

- Reduce social differences in health behaviour and use of health services
- Improve living conditions for vulnerable groups

The main objective for the implementation of the White paper is to develop strategies that run across all sectors of society. In the implementation of the strategies, the following tools are suggested:

- Health impact assessments
- Develop relevant tools to include socio economic status in regional and local planning
- Develop partnerships for health between regions, local governments and NGOs.

Even though the Government White Paper indicates a policy shift and a move away from a focus on the poorest towards increased focus on the gradient, there are still some unclear points. No targets are yet set, in terms of concrete measures to reduce social inequalities in health. At this stage it has not yet been discussed at the political level. So far, permanent funds have not been allocated at the national level. Since the implementation phase has not yet been reached, there is still uncertainty if policies and programmes will receive extra funding.

## *Concluding remarks*

This chapter indicates a dual situation in terms of Norwegian policies to reduce social inequities in health. Norway is an extensive welfare state with comprehensive policies in most of the areas outlined. Redistribution along geographical areas, ethnic groups, gender and social groups is at the core of the welfare state ideology. In other words, many policies reflect implicit objectives to reduce inequalities. This chapter illustrates that this is the case in many areas of Norwegian policies, i.e. education, work life and health services.

At the end of the day the key question is: Have the comprehensive welfare state arrangements reduced social inequalities in health? In a historic perspective the answer must be yes. The post-war social democratic welfare state arrangements improved health and living conditions in the population in general and among people in lower socioeconomic groups. Even today, in absolute terms, most Norwegian population groups can expect to reach old age, they have good health and life quality and a high standard of living.

In relative terms, however, the situation is slightly different. Dahl (4) has analysed Norwegian public health policies in the period from 1991-2001 with the objective of reviewing Norwegian policies explicitly aimed at reducing social inequalities in health. As a point of departure and a theoretical framework he has used Margaret Whitehead's Action Spectrum (30). The Action Spectrum outlines actions that reflect various degrees of commitment to reduce social inequalities in health. The most committed of these are comprehensive, coordinated strategies. In the middle of the action spectrum, we find the categories "more structured developments" and "isolated initiatives". According to Dahl,

Norway has been located at the lower end of the action spectrum – under the categories “measurement”, “awareness raising” and indifference.

In 2007, five years after this study was published, there seems to be a movement up the action spectrum, towards the middle section. The development of the action plan and the action principles are definitely more comprehensive than earlier strategies. The action principles will be a basis of the implementation. On this basis, it seems fair to conclude that Norway has been moving up the action spectrum over the last couple of years, towards what Whitehead calls comprehensive, coordinated strategies.

## *Research suggestions<sup>5</sup>*

The Norwegian research community has been a driving force for putting issues of social inequality and inequity on the research and political agenda. A few researchers have been working in this field for a number of years. Also researchers at the Norwegian Public Health Institute have been using national surveys to analyze issues of social inequalities. This chapter has indicated that it is necessary to increase the knowledge base concerning social inequalities in health. A main finding is that the social gradient is missing as an indicator in public documents and statistics. One of the main objectives for future policy, as outlined in the recent action plan to reduce social inequalities in health, is to strengthen the knowledge base for research on social inequalities in health. Through the Action Plan, the Directorate for Health and Social Affairs wishes to strengthen the foundation of data on which research on social inequalities in health is based. Two courses of action are described below as examples of the way in which this objective may be achieved:

A working group comprising representatives from the Directorate for Health and Social Affairs, Statistics Norway and the National Institute of Public Health has been appointed to prepare a proposal for a national strategy to collect data for health monitoring. The working group is to suggest the type of data (living habits, clinical measurements, biological tests) that should be collected through health surveys to meet the needs of the health authorities. In order to monitor trends in and research on social inequalities in health, it is very important that the data collected include such background factors as gender, ethnicity, housing, education, occupation and income.

The surveys of health and living conditions conducted by Statistics Norway have been and remain an important source of data on the population's state of health. The 2005 Survey of Living Conditions focused on the topics of “Health, Care and Social Contact” and offers the opportunity to increase the knowledge base relating to social inequalities in health.

A second focus is on the need to conduct further research on the social determinants. For instance, there is a great need to learn more about the significance of childhood living conditions for social inequalities in health, and our knowledge of the potential role of psy-

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5. The part on research is partly based on the strategies outlined in the Action Plan to reduce social inequalities in health, “The Challenge of the Gradient” (7)

chosocial factors is far from sufficient. We will also need to gain a better understanding of how various factors interact and the impact that they have on one another. Research funding is publicised and distributed through the Research Council of Norway for research in the fields of physical activity, diet and social inequalities in health. There is still an unrealised potential as regards increasing our knowledge of the causes of social inequalities in health. It will be important to follow up this field of research with additional projects.

As described above, the knowledge base – as regards which measures are effective in reducing social inequalities in health – is deficient, and much of the research that is being conducted in this field focuses on causes. Relatively little research is being done on effects (intervention research). This can be explained by the fact that it is manageable to conduct epidemiologically designed studies to study casual relations, simply because this type of data is often available and can be analysed. Organising experiments to judge the usefulness of measures to reduce social inequalities in health is more difficult. Increased use of other research designs is therefore necessary in order to acquire knowledge of the effect of measures. In the public health administration, the National Health Services Research Centre will be able to play an important role in developing this type of knowledge base.

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# Spain

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## *Development of society and the present political environment*

Spain is a rather large country in a European context with over 40.3 million inhabitants (data for July, 2005). The age structure is the following: 14.4% of the population are under 14, 68.0% are aged from 15 to 64, and 17.6% are 65 or over. Life expectancy at birth is 79.5 years (76.2 for males, 83.1 for females). The fertility rate is now 1.28 children/woman, which is one of the lowest in Europe. The net migration rate is 0.99 migrant(s)/1000 population, although immigrants are predominantly concentrated in the largest cities.

Spain is a parliamentary monarchy. The King, as the Head of State and Chief of the Armed Forces, performs only representative and symbolic functions and has no executive power. Spain is a territorially diverse country, with 17 different Autonomous Communities, 2 Autonomous Cities (Ceuta and Melilla) and more than 8000 municipalities. There are three levels of government: the municipality, the regional (the Autonomous Communities) and the state government. Spain has undergone a long and intense process of decentralisation of powers from the state to the Autonomous Communities since the Constitution was approved in 1978 and today Spain is close to being a federal political system in terms of institutional capacities and public policy attributions of the regions.

Spain is a relatively new democracy that was established with the first democratic elections in 1977 after a long period of dictatorship (1939-1977). When Franco died in 1975, state expenditure on social protection<sup>6</sup> represented 14% of GNP, as compared to 22% for the future EU-15 countries (1). This undemocratic regime was insensitive towards social issues, as exemplified by the amount of state transfers to Social Security, representing 0.43% of GNP in 1975, the OECD average being 12.1%. In 1965 total health expenditure as a percentage of GDP in Spain was 2.7% and 5.1% in 1975, clearly lower than OECD average (4.8% and 7.2% respectively). Thus, the Welfare State was very limited when democracy was finally achieved and the new Spanish Constitution adopted in 1978.

The coming of democracy brought the opportunity to establish a real welfare system for the Spanish people and give voice to the demands of various social and political forces. The task was mainly initiated by the Socialist government, in office from 1983 after four years of a centre-right government by the Unión del Centro Democrático (UCD). The welfare state was created and expanded, and public expenditure on social protection reached its peak in 1993, amounting to 24% of GDP. This was, however, still below European standards (28.7%). Since the arrival to office of the Conservative Party (Partido Popular), the subsequent period 1994-2001 was characterised by a tendency towards a

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6. Expenditure on social protection includes the following areas: sickness/healthcare, invalidity/old age, survivors, family/children, unemployment, housing and social exclusion.

steady reduction that has resulted in a greater distance between Spanish social expenditure and the European average. The political rationale of the new party in government was to meet the Maastrich criteria (public deficit not higher than 3% of GDP and public debt not higher than 60% of GDP) by lowering social welfare expenditure. These tendencies have remained quite stable during the last four years (2, 3).

Navarro and Quiroga (2004) analysed the situation in Spain concerning those public policies with a significant effect on reducing social inequities, such as health, family-friendliness, invalidity, old age and widowhood policies. In 2002, public expenditure on healthcare/GDP was 5.8% (EU average: 6.4%). Only 8% of Spanish children under 3 are given a place in a public pre-school and in-house services for dependent elderly are clearly underdeveloped. This is an important source for social but also for gender inequities, because women are traditionally made responsible for taking care of children and old dependents. Moreover, various studies have reported the damaging effects that this situation has on women's health (4).

## *Magnitude, trends and analysis as regards social inequities in health*

### **Mortality**

According to the Atlas of Mortality conducted by Benach et al. (5) the three first causes of death in Spain in the period studied (1987-1995) were: i) Cerebrovascular diseases, which represented 16.2% of total deaths among women and 11.4% among men, ii) other heart diseases (14.8% women-9% men) and iii) Ischemic heart disease (9.3% women-10.1% men).

Geographically, it is feasible to draw a line that crosses Spain from north-west (Galicia) to south-east (Valencia Autonomous Community) that results in a half-moon shape. Higher mortality occurs mainly in the south side of this moon-shape, namely Extremadura, Andalusia (mainly Huelva, Cadiz and Seville), southern Castilla (provinces of Ciudad Real and Albacete), the Canary Islands, Murcia and Valencia. This evidence suggests a positive statistical association between economic development and mortality. Those regions with less economic development measured in GDP, higher unemployment, less educational attainment and greater problems of housing display higher rates of mortality than the richer regions (Catalonia, Madrid, Basque Country, Navarre, Aragón and the Balearic Islands)

### **Self-rated health**

By gender, according to the National Health Survey in 2003, 76.3% of men and 67.7% of women aged above 16 years responded that their health was very good or good; 18.1% of men and 24.6% of women reported fair health and 5.6% of men and 7.7% of women reported bad or very bad health.

By social class, the percentages of manual workers reporting bad or very bad health are higher than non-manual workers. Thus, 27.1% of male and 36.2 female manual workers

reported bad health, whereas 20.4% of male and 28.5% of female non-manual workers reported bad health.

### Public health policy

Health policy in Spain is decided by a consensus between the national Ministry of Health and the health departments of the Autonomous Communities. A special institution is in charge of mediating in the process, the Inter-Territorial Council (Consejo Interterritorial) which in turn has its own advisory committees, such as the Public Health Commission. The ultimate function of these institutions is to achieve sufficient coordination and the harmonisation of policies between the Ministry of Health and the Autonomous Communities. Nevertheless, the majority of Autonomous Communities have their own health plans. The Autonomous Communities' health plans either do not mention inequalities or talk about equity only in a general way in their stated objectives (6). Borrell et. al. examined sensitivity to socioeconomic inequalities in the policies formulated in the health plans of the Autonomous Communities, arriving at the conclusion that, with the exception of the Basque Country, no attention is paid to socioeconomic inequalities (7).

### Research on health inequities

The existence of health inequalities in Spain has been reported consistently during the last decade. Here is an outline of the evolution of research in Spain:

Year	Research and policies
1970–1980	No research is performed on economic inequalities in health Health inequalities are invisible
1981–1987	Some progress in research is made First Health Survey in Barcelona (1983) Publication of the Health Care Act (1986) Quasi-universalisation of most health services First specific intervention to reduce health inequalities (Barcelona, 1987)
1988–1996	The Ministry of Health under the PSOE Government appoints a commission for the study of socioeconomic inequalities in health following the example of the Black Report Publication of the Black Report on health inequalities in Spain (1996) Important progress made on the study of health inequalities in Spain and Barcelona, with specific publications for various researchers
1997–2005	The findings of the Black Report are not taken into account by the new conservative government (PP) and the conclusions and recommendations of the report are rejected. No administration promotes research, with the exception of the Public Health Agency of Barcelona (Agència de Salut Pública de Barcelona). Existing knowledge on health inequalities does not enter political debates Health inequalities are not present in the Spanish political agenda

Source: Benach J; Borrell C: Las desigualtats en la salut a Catalunya .

## Structural and behavioural determinants of health – facts and policies

### Economic growth, poverty alleviation and social security systems

#### FACTS/DATA

Data from the European Community Household Panel indicates that households in poverty represented 18.5% of the whole Spanish household population in 2001, above the European average (15%). Household poverty among active households, which are those households containing at least one member economically active, is also high (11.6%), above 10.5% in the UK, 6.8% in Germany and 5.7% in Denmark (Table 1).

**Table 1: Different measures of poverty and inequality**

	Poor households	Gini Coefficient
Denmark	5,7	.26
Germany	6,8	.27
UK	10,5	.35
Spain	11,6	.38

An abundance of single-earner households and the spread of low-wage jobs are key variables in explaining the high rate of household poverty in Spain (Table 2 and 3).

**Table 2: Percentages of single earner households, dual-earners households and multi-earners households**

	Single Earner Household	Dual/Multi Earners Household
Denmark	18,43	81,57
UK	25,27	74,73
Germany	27,84	72,16
Spain	38,71	61,29

**Table 3: Different types of economic households**

	% of Low-wage workers living in poor households	% of households containing low-wage workers	% of household in which all workers are low wage	% of households in which all earners are low-wage workers because they are single person households
Denmark	6.28	17,61	8,22	57,66
Germany	10.35	24,41	6,20	34,21
UK	17.98	20,73	8,64	15,04
Spain	21.15	23,44	6,12	13,14

Additionally the majority of poor households are “two adults with children” (45,7%). This suggests a more persistent poverty in Spain because earners in such households tend to be mature workers already established in the labour market, less likely to improve their labour skills and, by extension, less likely to be able to escape from poverty (Table 4).

**Table 4: Household population by type of household; “working” poor households by type of household. Degree of over-under-representation.**

	1 person without dependents	2 adults without dependents	Single parents	2 adults with children
<b>A- Spain</b>				
(Total Household Population)	3.67	49.02	1.12	46.19
<b>B- Spain</b>				
(Total Poor Household Population)	8.33	42.65	3.36	45.67
C- Level of over/under- representation	2,27	0,87	2,9	0,98
<b>A- UK</b>				
(Total Household Population)	10.59	47.62	4.03	37.75
<b>B- UK</b>				
(Total Poor Household Population)	28.86	26.42	13.62	31.10
C- Level of over/under- representation	2,72	0,55	3,37	0,82
<b>A- Germany</b>				
(Total Household Population)	7,28	47,1	1,84	43,8
<b>B- Germany</b>				
(Total Poor Household Population)	25,75	32,16	6,41	35,69
C- Level of over/under- representation	3,54	0,68	3,48	0,81
<b>A- Denmark</b>				
(Total Household Population)	17.35	42.39	2.76	37.50
<b>B- Denmark</b>				
(Total Poor Household Population)	76.98	13.49	1.98	7.54
C- Level of over/under- representation	4,43	0,31	0,71	0,20

The degree of inequality is rather high in Spain (Gini coefficient .38), similar to that showed by the UK, and higher than in Germany (.27) and Denmark (0.26)

## POLICY

Anti-poverty policies in Spain rely on a social assistance system that is founded on two fundamental, and increasingly differentiated, pillars – i.e. contributory and non-contributory benefits. The fight against poverty is the key element of the non-contributory schemes. At the national level, the “Law of Non-Contributory Pensions of the Social Security” introduced means-tested benefits for elderly and disabled citizens outside the

social security system, and grants for low-income households with children or disabled members in 1990.

The most innovative anti-poverty development has occurred at the autonomic level, however, between the late 1980s and mid 1990s with the introduction of the minimum wage (*Rentas Mínimas de Inserción – RMI*) to fight against poverty and social exclusion. These schemes consist of means-tested benefits, complementary to the wider system of social protection, for individuals who are potentially active in the labour market but nevertheless facing a temporary situation of income deprivation. Neither the requirements it imposes on its recipients, nor the conditions for extending the period of coverage, nor the amount of the transfers, are homogeneous throughout all the Autonomous Communities, but most follow relatively soft workfare-like schemes (e.g. conditional on participating in training, inclusionary or rehabilitation programmes) and restrictions to inter-regional mobility (8).

The introduction of the minimum income guarantee has established a minimum social wage, independent of labour market activity. However, these transfers are insufficient to lift up households above the poverty line (9), so that even when individuals can combine these benefits with other sources of welfare, their chances of making ends meet are scarce and their prospects rather unpromising. Thus, neither decent living standards, nor the universality of protection, are actually ensured leading to a greater risk of social polarisation.

## Education

### FACTS/DATA

Although the spread and quality of education have positively evolved in Spain since the period of transition to democracy and thereafter, Spanish education still shows important limitations in terms of equity, public investment and post-compulsory education (15 to 16 years old). The number of adults with primary or basic levels of education dropped from 72% in 1994 to 60% in 2001 (the EU-15 average is 40%). Adult illiteracy represents 2.10% of the total adult population. By gender, illiteracy affects women more intensively (2.9% of adult women are illiterate) than men (1.9%).

Inequality in education adopts a remarkable social class dimension in Spain. There is an important correlation between household income and access to post-compulsory education, secondary and especially university studies. The highest income quintile has a 2.2 higher possibility to access university studies than the lowest income quintile (non-qualified blue collar workers). Moreover, differentiation between public and private educational centres is growing. Spanish private centres obtain better results than those of other OECD countries whereas public ones are under the OECD average.

Access to high-schools and universities constitutes a bottleneck given that only 68% of Spanish students follow their studies further than compulsory education, as compared to 81% of students in the OECD countries. There are two main reasons for this: the sustained economic growth of the Spanish economy, which generates incentives to enter the labour market and secondly and most importantly, the above-mentioned lack of financial support by public authorities for pursuing studies after compulsory education.

## POLICY

To a certain extent, the difference between public and private centres is the result of insufficient public expenditure on education. Spain devotes 4.5% of its GDP to education; whereas the EU-15 and the OECD countries devote 5.5% and 5.3% respectively (average). Far from narrowing, this gap has widened in recent years. In 2003 the percentages of students in private schools in pre-tertiary education was significantly higher in Spain (30.9%) than the European average (10) (21.7%). This is partially due to the explicit economic support that the Spanish state offers to private schools (“colegios concertados”) in exchange for accepting some groups of students suffering from poverty and exclusion. Yet, evidence indicates that the majority of students living in low-income households are in public schools. The same applies for a majority of immigrants (88%) (11).

## Working conditions

### FACTS/DATA

Although information is rather scarce and tends to show important limitations<sup>7</sup>, evidence would seem to suggest comparatively poorer general working conditions in Spain than its European counter parts. Work-related dissatisfaction in Spain is higher than the European average, especially among temporary workers as opposed to the permanent workforce (12). The First National Survey on Working Conditions reveals an increase in the percentage of workers who report being quite or very concerned about their working conditions. The percentages of workers reporting good working conditions have decreased from 63% in 1999 to 59% in 2004. Although the group of workers reporting bad working conditions remain almost equal (6.6% in 1999- 6.9% in 2004), the percentages of those bothered by psychosocial issues and mental stress have increased from 10.9% in 1999 to 15.4% in 2004.

The incidence of occupational accident injuries in Spain is one of the highest in the European Union. The risk of exposure to carcinogens among Spanish workers is also high, around 25% to 52% depending on sectors. The most common self-perceived working risk factors are related to the need to sustain a high level of vigilance (more than ¼ of the working day), maintaining a hectic pace, long periods in awkward or static postures, repetitive hand or arm movements, repetitive tasks of short duration and monotonous work.

Regarding psychosocial factors, the First National Survey on Working Conditions (2005) shows that high workloads and an increased work pace are increasing difficulties in communicating with colleagues during working time. The degree of autonomy remains low, so that 20% of workers can never modify their working methods and 26% cannot choose when and for how long to take their breaks at work. According to the survey, 2.8% of the workers questioned have experienced social isolation, threats, or personal or professional harm to their reputation. 4.5% of them suffered from these experiences at least once a month.

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7. As Benach, Amable and Muntaner show, doctors have insufficient knowledge to diagnose work-related diseases, the register system is very inefficient and there is an absence of epidemiological studies, this resulting in very poor sources of evidence and information. As an example, work related diseases are thought to be 700 times higher than current figures.

## POLICY

Nevertheless, there have recently been some interesting actions and interventions from trade unions directed to improve the work environment of workers, some of which may have improved the conditions of the most vulnerable groups (13). Workers' participation in occupational health prevention has increased through the action of trade union representatives and delegates, who were given participatory powers by the Prevention of Occupational Hazards Act in 1995 and the implementation of Occupational Health Prevention plans. Trade unions have also consistently criticised the government for not providing sufficient resources for inspection and enforcement of the law, given that occupational accidents and hazardous working conditions have a high incidence in Spain. However, the lack of enforcement of normative rules is not the primary cause behind this rate of accidents. As trade unions have often pointed out, it is the very nature of the Spanish labour market, with a high percentage of temporary and sub-standard work, and the importance of sub-contracting and the resulting instability, which is the real cause of injuries caused by occupational accidents. Trade unions have also applied pressure for the creation of "regional safety delegates" (prevention delegates).

One possible source for optimism may be that some recent efforts have been made to promote occupational health and environmental protection for all workers by the Trade Union Institute of Work, Environment and Health (ISTAS), an independent foundation created by the Workers' Commissions (CC.OO), which is one of the two main national trade unions. ISTAS also has a regular publication aimed at informing trade union preventive delegates about occupational health work in Spanish firms, referred to as regional safety delegates" (<http://www.porexperiencia.com>).

## Unemployment

### FACTS/DATA

According to Eurostat (2004), employment rates in Spain (59.7%) are below the European average (62.9%), whereas the percentage of the active population in unemployment (11.3%) is above the European average (9.1%). In spite of these differences, the trends in unemployment statistics in the last few years have been remarkably positive. Unemployment peaked at 22.3% of the active population in 1992, the highest level in recent Spanish economic history. Eleven years later the unemployment rate stood at 11.3%. Furthermore inter-annual employment growth is among the highest in the EU (around 4%). At the end of 2005, the unemployment rate dropped to 8.5%, the lowest rate in the last 30 years.

The unemployment rate for under-25 year-olds is double (22%) the general rate. Young people also have the highest levels of temporary jobs (60%) and low-wage employment (48%). The difference between the sexes is also notable. The female unemployment rate is 15%, nearly twice the rate of male unemployment (8.2%). Additionally female activity rates (49%) are significantly lower than those of men (69%), although recent tendencies indicate that employment rates for women have increased twice as much (5.9%) as men's (2.6%).

## POLICY

Policies of employment creation have been based upon fostering External Flexibility<sup>8</sup>, which consists in facilitating hiring or firing conditions, limiting the scope of unemployment benefits and promoting active labour market policies. The strategy of facilitating hiring or firing conditions has resulted in the continuous growth of “atypical employment”, principally temporary, at the expense of permanent full-time jobs. This encapsulates the distinctiveness of the Spanish labour market: the enhancement of flexibility, principally of the external type, has resulted in a segmented labour market made up of a decreasing core of workers with job security and an enlarged periphery of people without job security who must make do principally with temporary work and to a lesser extent with self-employment.

Spanish unemployment benefits are characterised by a continuous increase in the number of recipients and a progressive reduction in the substitution rates (the sums of money provided as unemployment benefit). Although benefits were originally launched as a distributive policy to alleviate the economic situation of the involuntary unemployed, it was thought that they might inhibit workers from taking up jobs and prolong periods of unemployment (14). Therefore contributory and non-contributory unemployment benefits, as well as the rates of coverage and substitution, significantly decreased after 1993 (15). The fact that those unemployed people without previous work experience – who tend to be young and women- are not entitled to unemployment benefits reinforces the segmented character of the labour market and reflects the discriminatory bias of unemployment benefit in Spain.

Active policies for the unemployed have evolved in line with the evolution of unemployment benefits. During the 1980s, passive measures were identified with redistribution and active policies left in a secondary position. Nevertheless, the above-mentioned concerns regarding the perverse effects of unemployment benefits brought active policies to the forefront of policy debates and active measures have gained acceptance as a tool for combating unemployment -although passive measures continue to absorb most of the budget of the INEM (National Institute of Employment).

## Environmental determinants of health – social and physical aspects

### PHYSICAL ASPECTS

Air pollution does not seem to be a major concern in Spain. Traditionally Spain has not suffered from high levels of carbon dioxide from fossil fuels. During 1990-91 only a few surveillance stations detected levels of suspended particulates and sulphur dioxide

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8. The general strategies to make the labour market more flexible are: *Numerical Flexibility*. This type of flexibility seeks to facilitate the adjustment of employees to the needs of production by facilitating hiring or firing workers, in order to respond to cyclical or structural variations in demand and/or technological changes. *Functional Flexibility*. Job assignments are modified according to the needs of production. When production requirements change, workers can switch tasks, while the total number of workers and working hours remain unchanged. *Wage Flexibility*. This type of flexibility seeks to adapt wages to cyclical fluctuations and external and internal changes in production. (Atkinson 1987; Bruhnes 1989)

above European permitted limit values. The situation has changed during the last decade, together with an increase in economic development, and the major cities in the country, especially Madrid, are starting to very often show pollution levels above the established European thresholds (more than half of the days of every year). However, public awareness does not seem to be growing as a consequence and, except for some symbolic acts, no political action seems to have been undertaken to reduce pollution levels. No analysis has been found that examines the consequences of this for different social classes.

Information on housing conditions in Spain is collected periodically by the National Institute of Statistics (INE). During the 1990s, a high percentage of households reported problems with their housing situation. About 20% of households mentioned problems such as delinquency or vandalism, pollution, noise, humidity, insufficient natural light and lack of space. Important differences exist according to socioeconomic level (16). There is a clear relationship between socioeconomic level and having problems such as humidity or condensation. Poor households suffer these problems much more than upper class households. These statistics do not include information on the habitat of many marginalised groups, such as the homeless. Housing problems are normally tackled by the local administration, and interventions are mainly addressed to groups living in very bad conditions or to problematic districts.

#### SOCIAL ASPECTS

The same applies for interventions focusing on specific communities. A good example of this type of interventions is the Plan de Inversiones en Puente y Villa de Vallecas (Investment Plan for Puente and Villa de Vallecas) (6). It started in 2000 out of negotiations between the government of the Autonomous Community of Madrid and neighbourhood associations. The government gave money to the municipality to be invested in different areas (e.g., health, economy, education, social service) with the objective of reducing inequalities of resources that this deprived district had compared to other areas in the Autonomous Community. Its impact on health has not been evaluated so far.

Interventions are made in deprived areas to improve housing conditions or promote equality of opportunities within the neighbourhoods but their impact on reducing health inequalities is not evaluated, because these policies do not have an equity-in-health focus. It is expected that these interventions, however, improve the socioeconomic determinants of health for the targeted population, but we lack empirical assessments of this.

#### CONCLUDING REMARKS

Although little information is found regarding the environmental determinants of health inequities, some very interesting studies are being carried out on the differences between geographical areas. Results show that there is a cluster of areas in the southern region of Spain with high mortality, especially in the provinces of Huelva, Seville, and Cadiz. The causes must continue to be researched and discussed, but some evidence exists that in some areas there is a high level of damaging environmental factors, such as heavy metals transported by river and urban air pollutants which, together with other occupational and social factors, may increase the risk of death (17).

## Healthcare policies/programmes/actions

### FACTS/DATA

Universality, de-centralisation and public financing- along with an increasing importance for the private sector- stand out as the most salient attributes of the Spanish National Public Health System (SNHS) nowadays. Its structure and functioning is similar to the Scandinavian and British models in some aspects, although certain externalities place it closer to the Italian system.

Although the 1978 Constitution established the right to health protection for all citizens, it was not until 1989 that the right became a universal guarantee protected by law -although some 15% of the population contract out to private insurance companies and there are still certain groups with their own health system (i.e., journalists, lawyers, employees of certain private enterprises etc).

### POLICY

The first democratic government (Union de Centro Democratico) which was in office during the period 1976-1982 sought to solve the limitations of the Health Service, but the lack of a clear alternative health model, the effect of the oil crisis on the Spanish economy and the climate of confrontation and increasing political pressure on the part of democratic parties, principally the left-wing opposition, impeded any significant change<sup>9</sup>. During the period 1982-1996, with the Socialist party (PSOE) in office, important reforms were implemented, mainly the General Health Care Act which became law in 1986, and sought to finance the health service through general taxation and to achieve complete universality, modernisation and decentralisation. The coming of the Conservative Government (PP) in 1996 meant the spread of privatisation. Until 1996 private companies played a relatively minor role within the health system, but several reforms have favoured the spread of private insurance companies, mainly through tax reduction. Healthcare for illness and accidents at the work place have been progressively contracted out to private companies, with the aim of promoting the private sector. Today, according to the Ministry of Health, private insurance companies provide cover for about 15% of the population. During the late 1980s and 1990s central and local healthcare centres and decision-making powers were increasingly transferred to the Autonomous Communities under the terms of the 1986 General Health Care Act. The process of decentralisation from the central government began with Catalonia in 1981, followed by Andalusia (1984), Valencia and Basque Country (1988) Navarra and Galicia (1990) and Canary Islands in 1992. In 2002 the process of decentralisation was completed, so that the seventeen Autonomous Com-

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9. However some reforms were introduced: 1-) the creation of a new Ministry of Health and Social Security in 1977 with the aim of integrating most health-related programmes and centres 2-) the creation of four new organisations to develop the health service in 1978: namely the INSS (to manage the social security system), the INSALUD (to manage health services, principally administration) and the INSERSO (for policies for the old population) and the INEM (employment policies), 3-) the introduction of co-payment for pharmaceuticals (20% in 1978, 30% in 1979 and 40% in 1980...), 4-) the implementation of a first branch of measures of health decentralisation from central government to Autonomous Communities

munities now enjoy considerable legislative autonomy to manage and finance their own health systems.

### CONCLUDING REMARKS

Can the process of health decentralisation be positively evaluated in term of efficiency and effectiveness in cost and equality? According to Losada (18), decentralisation has made regional competition for resources easier, has favoured the massive extension of advanced health services and has increased the amount of useful information coming from different experiences and solutions implemented in different regions, which has contributed to the general improvement of Spanish health services.

Nevertheless, important failures have been also pointed out. As part of the system of public administration, health services demand a high degree of bureaucratisation that hinders control and responsibility (governance) at present and prevents future reforms in organisation, finance, and provision of new services. Lack of autonomy, a high degree of politicisation, management instability and inappropriate labour frameworks that make governance difficult have been stressed as the most importance failures, challenging the efficiency of the Spanish health service nowadays (19).

It is not easy to assess the effects that the current scheme of regional and healthcare financing will have on social inequities in health. It is uncertain how the different regions will manage their resources and the amount of resources that will be allocated to healthcare facilities depending on the region. Indeed, this could be a source of inter-territorial inequalities in healthcare supply and access to public services. The Health Care Cohesion Fund, which was designed to guarantee equality of access to the National Health Service, is not a sufficiently powerful instrument given that inter-regional equity needs more comprehensive policies. Moreover, a change in the composition of healthcare financing sources, with an increasing participation of indirect taxes, could imply some losses of vertical equity or progressiveness. Last but not least, the present allocation of public health funds, excessively biased to specialised healthcare, may have a negative impact on equality in the use of healthcare services.

## Healthy diets and exercise

### FACTS/DATA

In Spain, 69% eat fruit daily, 40.7% eat fresh fish three or more times per week and 40.5% eat vegetables or green vegetables daily. Regarding daily routines, 33.6% of the surveyed population aged 18 and over remained seated the majority of the working day. Obesity affects 13.6% of the adult population and 11% of children suffer from caries. The survey also showed that 42% of the total population sleep less than 7 hours per day (20).

Regarding differences in physical activity, a longitudinal study on physical exercise and children found an increase in the number of schoolchildren who did physical exercise (initial 18.0% in the period 1989-90 and final 44.3% in the period 1995-1996). It was also found that males and individuals with a higher socioeconomic status do more exercise than females and those with a lower socioeconomic status (21). These results are consist-

ent with other studies that have also found differences regarding geographical areas. The lowest prevalence of physical inactivity is found in provinces with the highest per capita income. In women, the association between per capita income and physical inactivity was higher in the population group with lower personal income (22).

Similar differences regarding health-related behaviours have been found in diets. In a study among the elderly population in a city in Spain, lower educational level (LE) elderly were reported to consume fewer vegetables and less meat products and more carbohydrates. LE women had a lower contribution of proteins and lipids to their total energy intake as well as lower vitamin A intake (23). According to the authors, the educational level of the Spanish elderly has a strong influence on their quality of life, nutrient intake and food consumption. Some other studies have also reported important differences in the prevalence of obesity in Spain, confirming a close relation between the risk of obesity and the level of education (24).

#### POLICY

The Ministry of Health has produced a document entitled "Education for Health", which aims to serve as a guide for promoting education for health in Spanish public schools. The document is the result of an agreement between three ministries: the Ministry of Health, the Ministry of Education and Culture and the Ministry of Internal Affairs in 1996 for the promotion of healthy eating habits among Spanish children. Special emphasis is put on the prevention of anorexia and bulimia, because of increasing public concern over these problems (25).

Some activities are conducted by the Autonomous Communities. For example, La Rioja has developed a campaign for healthy eating directed at the population in general. The Autonomous Community of Andalusia has developed a plan for the promotion of physical exercise and a balanced nutrition. The plan aims at promoting healthy behaviour and combating sedentarism and overweight/obesity. In general, no specific mention of socioeconomic inequalities is made. Browsing through the Ministry of Health database on Health Promotion activities (Sistema de Información de Promoción y Educación para la Salud: SIPES) one finds few examples of initiatives promoting healthy diets and exercise, other than the two already mentioned.

#### **Tobacco, alcohol and drugs**

People smoking daily represent 28.1% of the total population aged 16 years and over. However, the youngest strata of the population are above the average (33% of the age group 16-24 smoke daily, 36.5% of the age group 25-34 and 40.2% of the group 35-44). According to the National Drugs Report (Plan Nacional sobre Drogas) the main pattern of consumption among youngsters is still experimental, occasional use, related to leisure at weekends. Alcohol and tobacco, followed by cannabis, are the most consumed substances. An important percentage of youngsters consume multiple drugs, the strongest association being between the use of alcohol, tobacco and cannabis.

Cannabis consumption keeps growing. Between 2000 and 2002, regular consumers have increased from 19.4% to 22%. As far as psycho stimulants and hallucinogenic agents

are concerned, there are variations depending on the substance: there is an important drop in regular consumption of ecstasy (from 2.5% to 1.7%), but regular use of cocaine has increased from 2.2% to 3.1%.

If one examines patterns of consumption from a socio-demographic viewpoint, important differences arise. Being male, young, separated or divorced, and unemployed were the main determinants of alcohol and drug use according to a studied nation-wide representative sample (26). A study conducted in Barcelona showed how health-damaging behaviours are differentially distributed among social classes. Women in the upper social classes were more likely to smoke, while the opposite was true for men. Smoking cessation was more likely among men in the higher classes (27). Policies related to drug consumption in Spain, especially for drugs such as tobacco and alcohol, do not have an equity-in-health focus. An example of this is the new law for measures against tobacco. In the exposition of motives of the law, children and adolescents are mentioned several times as priority targets. Gender differences are also mentioned concerning consumption, addiction patterns, etc. However, no socioeconomic differences in smoking behaviour are mentioned in this law.

## *Disease-specific approaches for reducing social inequities in health*

The public health approach of the Ministry of Health (<http://www.msc.es>) concerning disease-specific orientations differentiates between transmissible and non-transmissible diseases. Transmissible diseases includes STDs generally, HIV/AIDS, Acute Severe Respiratory Syndrome, Flu, Creutzfeldt-Jacob disease and others. Non-transmissible diseases include cancer, diabetes, cardiovascular diseases and allergies. In general, no specific plan or strategy is mentioned.

### **Transmissible diseases**

The one exception is the existence of a Multi-sectorial Plan 2001-05 against HIV/AIDS (<http://www.msc.es/ciudadanos/enfLesiones/enfTransmisibles/sida/planesEstrat/plan-Multisectorial.htm>). Its general objectives concerning prevention are the maintenance and improvement of the level of information available to the general public, the promotion of healthy sexual behaviour, specially the use of condoms, and the promotion of the public acceptance of the programmes directed towards prevention of the infection, especially for the most vulnerable groups. Specific objectives are mentioned for groups at particular risk such as drug addicts and prostitutes. There is an explicit comment on the generally unfavourable socioeconomic situation of drug users, such as poverty, deprivation, marginalisation, etc. However, because these conditions do not only affect this group, the report does not recommend the earmarking of specific funds or interventions but the adoption of a general strategy in cooperation with primary healthcare centres directed to socially excluded groups in general.

The situation concerning the AIDS epidemic reflects the latest improvements in its control, especially in the availability of antiretroviral treatments. Thus, in recent years there has been a decrease in its rate of prevalence, as well as its lethality and an increase in survival. The incidence rate of AIDS has been estimated to be 9.2 new cases for every 100,000 inhabitants (28) and an increase in heterosexual transmission has been observed in the last years. The Autonomous Communities with the highest rates of AIDS are Madrid, the Balearic Islands and the Basque Country.

It is uncommon to study the relation between AIDS and socioeconomic inequalities in Spain, due to the lack of information on any indicator of the individual social position in the registers held by public administrations. However, Arias and Borrell (29) studied inequalities in mortality in Barcelona, taking education as the indicator for socioeconomic position. According to them, age-adjusted mortality rates due to AIDS were 72.4 deaths/100,000 inhabitants for males and 24.4/100,000 for women with no education, whereas they were much less for people with university studies (24.7 and 1.31/100,000 respectively). Moreover, some authors have found evidence of a high correlation between AIDS incidence in drug-addicts and some indicators of deprivation, such as unemployment, extreme poverty or low education (30).

Although an equity-in-health approach is not commonly used by Spanish public administrations and public health does not include an equity focus generally, we find some significant interventions that should be mentioned as relevant examples of an equity focus in health policy within programmes that have been evaluated. Concerning disease-specific interventions, one of these programmes is being implemented in the Autonomous Community of Galicia. The programme is called "Proyecto Olimpia" and is directed at women involved in prostitution. The aim of the project is to improve the prevention of HIV/AIDS and other STDs by facilitating the use of the socio-sanitary services by prostitutes. It started in 1997 with the collaboration of various institutions within the regional government as well as an NGO. In 2002, 677 women had used the service, resulting in 1431 visits.

Another programme that has been implemented and evaluated is The Tuberculosis Prevention and Control Programme of Barcelona (31). This programme combined an approach focusing on specific diseases with an approach targeting specific deprived groups given that it was oriented to homeless tuberculosis patients. The programme was designed by the Municipal Health Institute and implemented in the poverty-stricken District of Ciutat Vella, as part of a strategy to reduce the district's marginalisation. According to Díez et al., the data suggest that the programme had a positive effect on the evolution of tuberculosis among homeless patients, specially the residential facility that replaced the programme in 1992, funded by the Health and Social Services Departments of the Generalitat de Catalunya (i.e. the regional government of Catalonia).

### **Non-transmissible diseases**

Concerning public health policy for cancer, there is a report available made by the Instituto de Salud Carlos III (Carlos III Institute of Health) under the mandate of the Ministry of Health (32) which is intended to serve as the starting point for the Cancer Strategy of the

National Health System. This report analyses the situation of cancer in Spain according to gender and geographical variables. No analysis can be found based on socioeconomic characteristics of the individual and no mention of health inequalities in cancer is made. There is, however, the explicit objective of widening the coverage of the programme for breast cancer screening. It is interesting to report a specific intervention with an equity focus that was implemented in the city of Barcelona: “El programa de cribatge de cancer de mama a Barcelona” (The programme for breast cancer screening in Barcelona). It started in Barcelona in 1995 in the two city districts with the worst socioeconomic indicators and the targets were all women from 50 to 64. The Health Surveys made in the city from 1992 to 2000 showed an increase in mammography use in women from 50 to 64 and a decrease of inequalities by social class (33).

### *Group-specific approaches for reducing social inequities in health*

Most health interventions with an equity focus in Spain are directed to the excluded population: homeless, drug-addicts and the excluded population in general. Large NGOs, sometimes with public funding, work with excluded populations through outreach programmes (34). For example, Médicos del Mundo (Doctors of the World) works with the illegal immigrant population, prostitutes, drug addicts and poor gipsy population. They provide sanitary attention and social care to immigrants who find themselves outside of the health system. Cáritas is one of the most active organisations fighting poverty in Spain. It is responsible for 42% of the 315 centres offering meals and other services such as residential premises for 20000 people (35). It has traditionally focused in people in extreme emergency situations, although it is increasingly offering its services to other homeless groups, such as immigrants. It periodically publishes reports on poverty and specific proposals for inclusion plans.

### *Arena approaches for reducing social inequities in health*

The Healthy Cities Programme was developed in Spain at the end of the 1980s. The Ministry of Health published a report evaluating the implementation of the programme in 1993 (34). Artazcoz, Moncada and Manzanera evaluated its implementation in 1995 (35). The increase in participant cities has been unequal in the different networks established (regional networks). Looking at the activities developed oriented at sharing experiences, giving technical support to the project and raising funds, Andalucía and Castilla-La Mancha have been the most active of the Autonomous Communities. The healthy cities networks of the regions of Valencia and the Basque Country have disappeared, the one in Navarra has changed to Sustainable Cities and others have been energetically reborn (Madrid and Catalonia). The national network still exists but is not very active (36).

## *Implementation: methods, resources and main actors*

The decentralisation of functions to the Autonomous Communities has been very important. Concerning public health, we face a quasi-federal structure. This process has meant that state services have had to be re-defined. Currently, their main functions are: to compile data from the Autonomous Communities; facilitate the implementation of health policies by the regional governments; promote health actions by the private non-profit organisations through subsidies; and link EU and regional health policies through normative development at the state level that then has to be enlarged and complemented by regional legislation (37). In this general structure, municipalities have also been given responsibilities concerning public health by the Spanish Constitution. They are responsible for (38):

1. The protection of the environment.
2. Protecting the interests of users and consumers.
3. The protection of public health.
4. Sanitary control of buildings and public facilities.
5. Sanitary control of distribution and transportation of food.
6. Participation in primary healthcare management.

Regarding the role these institutions play in the implementation of policies, we have mentioned already that the Autonomous Communities' Health Plans are not generally designed, with some exceptions, from a health inequities perspective.

Health equity has not been a top priority in the agenda of NGO's either. However, there is an important sector of NGO activity working with the excluded population, which obviously involves some action for reducing social inequalities. These policies are thus directed to very specific groups of the population, and lack the willingness to reduce inequalities throughout the whole health gradient spectrum. NGOs work independently or receive resources from the public administration to work with marginalised groups. Their target is people that do not make much use of the available public services, because they have specific needs that are not met through standard public sector interventions. Their work is curative rather than preventive, and they are major forces working for inclusion of the excluded. The NGOs' work is predominantly urban (39). For example, 72% of the centres for the homeless are in cities with more than 20.000 inhabitants. Only 9% are in towns with less than 5000 inhabitants. Only 21% of the centres are public, and only 14% are publicly managed. NGOs that work with public resources must often renew their contracts every year, which makes their work very insecure and long-term planning almost impossible. Religious congregations also do work with the excluded population. For example, they run most of the dining halls for homeless people.

Spanish trade unions have not traditionally been concerned with health issues. Thus, top priorities in their agenda, since the instauration of democracy, have been wage demands, earnings and employment issues. Working conditions have been incorporated recently, perhaps under the assumption that workers' welfare cannot be sustained through

wage policies alone. We mentioned earlier on in this chapter some interesting experiments that are currently taking place in the field of occupational health equity and working conditions, with trade unions as the main social forces behind the creation of the position of “safety delegates” in companies. A sustained publicity and lobbying effort in the broad field of health equity is, however, lacking from trade unions.

## *Monitoring and evaluation*

Public administrations do not publish detailed studies on geographical inequalities in the Autonomous Communities or other smaller geographical units. As a consequence, it would be difficult to obtain an overview of the evolution of health inequalities and relate this to implemented policies even if there was the political commitment to do so. Another problem, obviously related to the lack of political will, is the minimal resources available to start programmes aimed at establishing a continuous research effort. As a result of this, for example, we lack longitudinal studies, which are a very valuable tool that has been used in some countries, such as the U.K. As a result, it was only recently that the first working group for the study of health inequalities was created within the Health Inequalities Strategy, set up by the Epidemiology and Public Health Network (Red de Centros de Epidemiología y Salud Pública).

Moreover, there is no effective surveillance system to follow health developments in Spain. Data sources should be organised, used and explored, especially those that are stable and routine. As we have already mentioned, mortality registers lack information about occupation, education or other socioeconomic indicators, which makes it difficult to study the evolution of mortality or life expectancy in different social classes. Although the creation of health surveys has been a positive development, the way they are currently designed does not allow for the study of inequalities.

Thus, due to the lack of political and institutional awareness on health inequities in Spain, the activities of evaluating interventions do not take place, because:

- interventions are scarce and when they exist they do not have an equity-in- health focus, neither to reduce gaps nor the health gradient in the population at large. Targets are very specific and directed to excluded groups
- reliable evaluations need to be done after a prior effort has been made to diagnose the situation concerning both the determinants of health, such as employment conditions, gender, social class, education, etc and how they affect health outcomes and the state of health inequities. Comparable data are necessary in order to evaluate effectiveness.

## Concluding remarks

It should be clear now that Spain has not yet started to act upon health inequities, even though these have been reported on by academics who have provided consistent data in what has become now an acceptable quantity of studies, which has not stopped growing during the last decade or so. When policies are designed with the intention of affecting key social dimensions, such as the labour market or social protection, these are not understood as social determinants of health. Therefore, no equity-in-health objective is to be found in the explicit goals of policies. Effective public policies can only be adopted within a process of evaluation of prior efforts and continuous monitoring of interventions. In the case of Spain these activities will only take place after health inequities have been added to the relevant actors' political agendas and information systems are re-thought and given sufficient resources.

In spite of the increase in studies on health inequalities, the number of interventions is limited and even scarcer is the number of studies that make evaluations. We can conclude that the current situation in Spain reveals the negation of or an indifference towards health inequalities (40). The two most likely explanations for this are the following: a lack of visibility among social agents and society at large, due to a lack of tradition in the health field and the labelling of health inequalities as a non-medical-related issue; and the fact that it is a question with a clear social and political component that places it in the middle of important interests and conflicts (41). After a period of increased awareness because of the publication of the what is referred to as the Spanish Black Report (42) in 1996, the new party in government lost interest in this issue and left it off the political agenda. It is interesting to note that in Barcelona, which has been governed by coalitions led by the Socialist party for many years, socioeconomic inequalities in health have been a priority for the Municipal Public Health Institute (today known as the Public Health Agency of Barcelona) since the 1980s<sup>10</sup>.

Reducing social inequities in health should be a priority for social agents and political actors. There is sufficient evidence now to reveal that inequities not only affect the most deprived groups of the population but also to show that a health gradient exists so that inequalities are to be found across all social classes. Health outcomes are the result of a specific social structure (the labour market, the education system, the welfare state), that influences individuals' social status, which in turn results in intermediary factors (such as living or working conditions) that affect individual and group well-being. In this scenario, it is crucial that attention is directed to the social determinants of health.

Whereas social determinants can be identified in an international context, it is important to note that particular country contexts impose some priorities, i.e., determinants that should be studied and addressed first and activities that are *sine qua non* conditions for progress. One of these priority activities, in the Spanish context, is to develop relevant

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10. Barcelona was the first place in Spain to conduct a Health Survey based on interviews (1983). Since 1984, a report is elaborated and made public every year on the state of health of its citizens differentiating the different boroughs in the city.

health indicators. Measures must be defined and evidence must be drawn on a regular basis, periodically, on the impact on social classes, gender or the most affected social groups. Information systems should be created which allow for the elaboration and evaluation of social, economic and health policies that tackle existing unacceptable inequities. One positive development would be to start interfacing mortality registers with indicators of the individuals' social position. Residential areas should also be included. Last but not least, health surveys must be adapted to serve as effective health surveillance mechanisms.

Priorities could be classified into five main health-related domains (43):

- (1) inequalities in health according to the individuals' social position in a given social structure
- (2) the labour market, specially unemployment and lack of job security. We have shown how employment conditions have worsened in Spain in the last years and how an important part of the Spanish population finds itself in a situation of insecurity that may have important negative effects on health and health inequities
- (3) geographical inequalities. We have also mentioned that there is a clear relationship in Spain between socioeconomic level and geographical area and health
- (4) gender inequalities. We know that gender is a transversal factor that crosses all health determinants. However, gender is a determinant of health in itself. In Spain, it is specially connected to labour market conditions and an under-developed welfare state. Because the family acts as the most important safety net for individuals in the absence of a comprehensive welfare system and labour market, this has a hindering effect on women's health. This is because women usually take care of children and old dependents, and this is an obstacle not only for career opportunities and self-development, but also for well-being.

Any attempt to influence social determinants of health and reduce health inequities in Spain should study and follow up different experiences and policies that have been undertaken in other pioneer countries. Examples of best practice are to be found in countries such as Sweden, where a comprehensive public health strategy was launched in the late 1990s based on a social determinants model or the UK, where health awareness and understanding of the social determinants of health has a relatively long tradition.

## *Research suggestions*

Future research should focus both on macro and micro variables. The spectrum is broad and it cannot be narrowed if the general picture is to be representative. This is to say that structural determinants must be given particular attention but also micro variables, such as neighbourhood conditions must be examined. Moreover, research should be action-oriented. One of the priority dimensions that demands to be immediately considered is employment and working conditions. One justification for this is that the labour market

is, probably, the arena that influences most people's daily lives and this goes on through almost all of the life cycle. Almost everyone interacts with employment at some point in life. Occupational level is a major variable for understanding social class and the individual's position in the social structure. Another major reason is that in Spain the labour market has undergone constant changes during the last twenty years, changes that have resulted in a higher degree of job and economic insecurity for workers. This has opened up an opportunity window for researchers to analyse and try to understand the specific causal mechanisms that link employment conditions and health. For policy-makers, the expected negative influence that worsened employment conditions might have on workers' health should represent a good opportunity to act on existing social inequalities. However, much research has yet to be done in order to understand employment conditions as a determinant of health.

Another area that should be promoted is the study of gender inequalities related to health. In Spain, this has been done by some researchers who have reported the damaging effects that unfair gender relations have on women's health (44). These researches have also emphasised that the association between gender and health cannot be understood if a mediating variable is not included in the scheme; this variable is social class. Therefore, an effort must be made to link gender with social class in order to better understand existing gender relations from an equity-in-health perspective.

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# Sweden

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## *Development of society and the present political environment*

Sweden has one of the highest life expectancies in the world (77.9 for men and 82.4 years for women in 2003). The Swedish birth rate fluctuates considerably with the economic cycle and was 1.71 per woman aged 15-44 years in 2003 ([www.scb.se](http://www.scb.se)). Sweden is a large country (4/5 the size of Spain) with a small population density, and just over 9 million inhabitants in 2007 ([www.scb.se](http://www.scb.se)). Twelve percent of the population is foreign-born. In 2004, 75% of men and 72% of women aged 16-64 years were in employment while 14% (men) and 19% (women) were studying (source: Labour Force Surveys, Statistics Sweden).

Welfare policy in Sweden is characterised by its universality and relative lack of means-testing, and generous benefit levels with a high degree of income replacement. Welfare services are almost solely produced within the public sector, with a small number of private actors (1). The goal of welfare policy is primarily redistribution, but there are also efficiency aspects (e.g. education and healthcare have positive external effects) and stability, e.g. countering negative effects of the economic cycle.

General government expenditure as a percentage of GDP (gross domestic product) is one way of measuring the size of the public sector. According to this measurement, the public sector's total share of GDP was 52.7% in 2006. Transfers to households, mainly through social insurance, make up 30% of the public sector's expenses. Half of the expenses go to public consumption of goods and services, mainly welfare services such as social assistance (child care and care of the elderly), education and healthcare. The basic parts of social insurance cover sickness and parental insurance, old-age pension, disability pension and work injury insurance (2). Social insurance is divided into a residency-based insurance providing guaranteed amounts and benefits and a work-related insurance against loss of income. Both apply equally to everyone who is habitually resident or works in Sweden. The large public sector is dependent on taxes as a means of income and the total tax ratio as a share of GDP has been around 50% of GDP since the early 1980s.

Sweden has three democratically elected levels of government, all with their own powers and responsibilities: the Riksdag (Swedish Parliament) at national level, 21 county councils at regional level and 290 municipalities at local level ([www.sweden.se](http://www.sweden.se)). The Riksdag passes legislation and decides on state revenue (taxes) and expenditure. County councils and municipalities have their own decision-making and tax-levying powers. Municipalities have a significant degree of autonomy and administrate local matters such as compulsory and upper secondary education, preschool, elderly care, roads and water, waste and energy. The chief purpose of the county councils is to manage healthcare. County councils are also responsible for the planning of dental care.

## Public health policy

Reducing inequality in health was established as a political goal with the adoption of the WHO strategy “Health for All 2000” in 1984. The Health for All targets were however not given much attention on the national level, while county councils often included them in regional public health plans (3). In 1987 the first public health report was published. It sharpened the focus on social inequalities in health and pointed out that certain groups were lagging behind despite a generally positive development. This prompted the Government to place a greater emphasis on equity and preventive issues. In 1991 Government proposed a Bill which referred to the importance of economic and social development, creating good material conditions to ensure that the majority of the population lead long and healthy lives. (4). It also specified reduced inequity as the overriding objective of public health policy.

In 1994, the then Social-Democratic Government submitted a communication to the Riksdag entitled *Invest in health – Prioritise for health* (5), that included the appointment of a committee with the task of formulating national health development objectives. In 1997, the parliamentary National Public Health Committee was formed, with the aim of proposing national objectives with a “health for all” perspective, and suggesting strategies for how these should be achieved. The ensuing Public Health Objective Bill (6) presented the Government’s proposals for an overarching national public health aim, “to create social conditions to ensure good health, on equal terms, for the entire population”. In addition, “public health should improve the most for groups that have the worst health status”. These two sentences imply a combination of a universal and targeted approach. The bill was passed by the Riksdag in April 2003. It is an example of a comprehensive coordinated policy (7), with “domains of objectives” ranging from upstream to downstream approaches. Rather than focusing on health per se, the objectives deal with health determinants on different levels. The first six domains concern structural causes of social inequalities and the last five are directed at health-related behaviours. Decisive measures to improve public health are planned in policy areas such as social policy, healthcare policy, labour market and working life policy, housing policy, education policy and environmental policy.

The overarching aim of Swedish public health policy is to create social conditions that ensure good health, on equal terms, for the entire population. The following 11 domains and health determinants within those domains have been established:

Objective domain	Health determinants – principal indicators
1. Participation and influence in society	Democratic participation, Gender equality
2. Economic and social security	Economic conditions, Labour market status,
3. Secure and favourable conditions during childhood and adolescence	Domestic environment, Preschool environment, School environment, Children's and young people's skills
4. Healthier working life	Work environment factors
5. Healthy and safe environments and products	Air pollution, Persistent organic substances, Noise
6. A more health-promoting health service	
7. Effective protection against communicable diseases	Prevalence of infectious matter, Prevalence of immunity, Prevalence of drug-resistant infectious matter
8. Safe sexuality and good reproductive health	Unprotected sex
9. Increased physical activity	Physical activity
10. Good eating habits and safe food	Good eating habits, Energy balance, Breastfeeding frequency, Food safety
11. Reduced use of tobacco and alcohol, a society free from illicit drugs and doping, and a reduction in the harmful effects of excessive gambling.	Tobacco use, Harmful alcohol consumption, Illicit drug use, Excessive gambling (gambling addiction)

Both the overarching aim and the specific objective domains lack quantifiable goals. Instead the proposed goals point to a desirable direction and progress is measured with the principal indicators. Within objective domains the equity focus is more often implicit than explicit. This reflects Swedish public health policy's traditional population-based focus, which is seen as the most effective strategy (3). Universalism is also the distinguishing characteristic of social welfare provision at large. The challenge in an equity perspective is to make sure that vulnerable groups are reached with a universal strategy.

## *Magnitude, trends and analysis as regards social inequities in health*

### **Mortality**

Previous mortality studies show that for middle-aged men there were insignificant or even small reversed class differences in the 1960s followed by an increase up until 1980 due to a negative development for manual workers. Since 1980, all groups have had a favourable development (Table 1). For women, there is less data but we can note that differences seem to have remained stable over a long time. Whereas female manual workers experienced reduced mortality rates almost on a par with other groups between the 1960s and early 1980s, unskilled workers have clearly been lagging behind since the late 1980s. This has resulted in a gradual increase of mortality differentials. .

The overall trend has thus for a long time been stable or increased inequities hand in hand with mortality declining in all groups (except female unclassifiable which is probably a compositional effect). What is more worrying is that absolute differences also increased in some groups, especially for women.

*Table 1. Age-standardised total mortality (deaths/100 000 person years) relative rates and absolute differences in different socioeconomic groups, men and women aged 20-64 years*

		Men			Women		
		Mortality	RR	Absolute difference	Mortality	RR	Absolute difference
<b>Unskilled manual</b>	1986-90	338.7	1.56	120.9	157.8	1.20	26.8
	1991-95	309.4	1.63	119.1	155.5	1.25	30.8
<b>Skilled manual</b>	1986-90	295.1	1.35	77.3	156.1	1.19	25.1
	1991-95	261.8	1.38	71.5	139.3	1.12	14.6
<b>Lower non-manual</b>	1986-90	274.0	1.26	56.2	151.9	1.16	20.9
	1991-95	252.6	1.33	62.3	148.3	1.19	23.6
<b>Higher and Intermediate non-manual</b>	1986-90	217.8	1	-	131.0	1	-
	1991-95	190.3	1	-	124.7	1	-
<b>Unclassifiable</b>	1986-90	849.9	3.90	632.1	353.6	2.70	222.6
	1991-95	679.8	3.57	489.5	354.9	2.85	230.2

Source: Calculations made by the Epidemiological Centre, census data

Due to the Riksdag's decision to stop censuses, that used to be carried out every fifth year up until 1990, it is no longer possible to link information on socioeconomic groups to mortality for the whole population, only for smaller survey samples. Through register data, linkage can be performed with education indicating social position. Also differences based on education show a slightly widening gap between 1986 and 2002 (8)

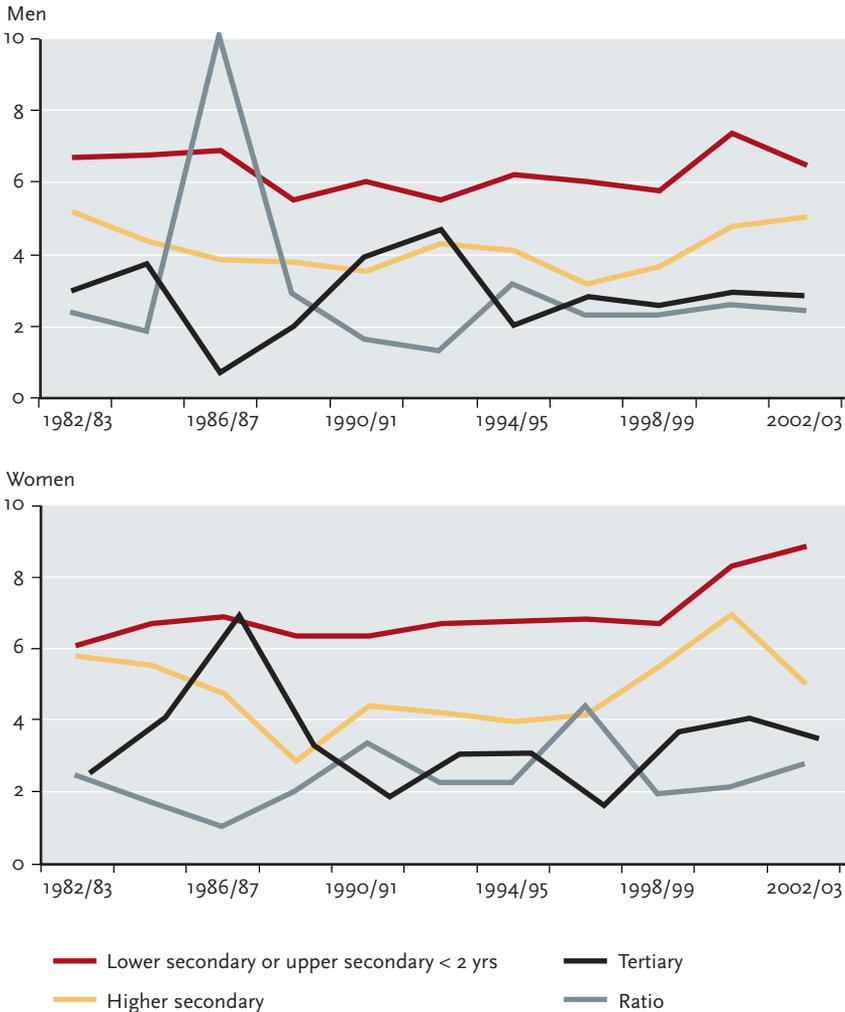
### Self-rated health

Between 1968 and 1981, studies show stable class differences in health (9). Lundberg et al studied changes in levels of health (self-rated health and limiting long-standing illness) and health inequalities between 1986-87 and 1994-95 (10). The conclusion was that overall prevalence rates were almost identical across the two periods, and that there were few if any changes in health inequalities, irrespective of social class or education. That no change has occurred despite the economic crisis in the 1990s would suggest that the welfare state has had a buffering effect through unemployment benefits, social assistance and expansion of the educational system.

Analyses of the development in educational groups between 1982/83 and 2002/2003 confirm the picture of stable inequities in self-rated health (Figure 1). For both men and women, the proportion reporting less than good health was rather stable until the mid

1990s when levels increased, especially for women. This trend was broken in recent years except for women with low education. Losers in both an absolute and relative sense thus seem to be women with low education in lower manual or non-manual occupations, which is clearly not a satisfying development.

**Figure 1. Percentage of people with less than fair self-rated health and limiting long-standing illness, by education, women and men 16-74 years, 2005. Age-standardised**



Source: Level of living survey, Statistics Sweden

There are also large regional variations in public health, with life expectancy varying between municipalities from 72.7 to 79.7 years for men, and 79.2 to 83.6 for women (average for 1991-2000) (11). There is a clear north-south gradient, with lower life expectancy

in the sparsely populated north, but also in major cities. Suburbs of major cities have the highest life expectancy (12). They are also the wealthiest and have the lowest level of unemployment.

### **Research on health inequities**

Public health research is basically funded by two research councils: the Research Council for Working Life and Social Sciences (FAS) and the Swedish Research Council. A search in both research councils' project databases yielded a total of six ongoing research projects/programmes with a clear focus on mechanisms behind health inequity. There are examples of longitudinal multi-generational studies, multilevel research, research on income inequality and risk of injury among children as well as research focusing on development of theory and methods. Most research with this focus is carried out at CHESS, Karolinska Institute and the universities of Uppsala, Lund and Umeå.

An inventory of Swedish public health research which was recently published concluded that the whole research field received a total of EUR 25 million in 2001, which is 9% of the total funding for medical research (13). Just over 600 researchers and as many doctoral students work at least part time within the field. The largest amount of funds goes to research into aetiology/incidence (79%). The National Public Health Committee made active use of available knowledge and research, by engaging experts from the research community, labour market and organisations representing different interest groups (4). The county councils also provide increased knowledge through the regional public health surveys which most of them perform regularly and publish in public health reports moulded on the national public health report.

## *Strategies focusing on specific health determinants*

### **Economic growth and poverty alleviation**

#### **FACTS/DATA**

After the 1990s recession, economic growth picked up and GDP increased by 3% a year before declining again. In 2003, Sweden's GDP/capita was about EUR 27 500 based on the current exchange rate, and about EUR 27 300 based on current purchasing power (source: OECD April 2005). Relative to most other countries, Sweden has a very small income dispersal (14). The Gini coefficient, which takes into account the total income dispersal in the population, has however increased steadily between the early 1980s and 2000 (14). After a small decrease, it rose again between 2004 and 2005. Studies have shown that increasing differences are due to changes in the upper part of the income structure (15). In 2007 the Gini coefficient is estimated at 0.27 including and 0.24 excluding capital gains (Prop 2006/07:100 appendix 3).

Data from the Income Distribution Survey (HEK) on median disposable income per family unit<sup>11</sup> shows that for men, there has been an increase in inequalities over time, which is especially influenced by changes among higher non-manual employees. Trends are roughly equal for men and women, and only men are shown here.

*Table 2. Total disposable income per family unit in different socioeconomic groups by study period, men aged 20-64 years. Thousand SEK standardised to price level year 2000 (SEK 1 000 = EUR 110).*

Disposable income/family unit	Unskilled manual	Skilled manual	Lower non-manual	Intermediate non-manual	Higher non-manual
1980	95	96	102	111	120
1990	105	110	114	122	141
Difference (%)	+10.5	+14.6	+11.8	+9.9	+17.5
1990*	108	115	118	126	146
2000	112	117	129	135	164
Difference (%)	+3.7	+1.7	+9.3	+7.1	+12.3

\* after the tax reform.

Source: Income Distribution Survey (HEK)

In 2005, 9% lived in households with a low median income defined as <50% of the national median household disposable income (14). This proportion is especially high in single households in the age group 20-29 years (31%) and among single mothers (22%). Those who have immigrated from non-EU countries are also at risk (25%).

## POLICIES/STRATEGIES

Although redistribution policies have not been developed with health equity in mind – apart from welfare services – the National Public Health Committee and the Government Bill made it clear that economic and social security are fundamental for good public health while economic stress leads to greater health inequalities (16). Within social security, three areas are especially targeted: financial policy for families with children, financial policy for the elderly, and financial security for the sick and disabled.

Measures to increase the economic standard for families with children include social insurance such as extensive paid parental leave, means-tested assistance like housing benefits and general assistance to all families in the form of children's allowance and heavily subsidised child care. A special housing allowance for old-age pensioners on low incomes has been introduced to reduce the number having to rely on benefits. The Government has proposed specific goals to reduce the number living on social benefits by half (17) and to reduce the number of households with less than 60% of the median income (18).

11. Includes income from capital, taxes and transfers as well as the income of other household members.

### CONCLUDING REMARKS

The overall trend shows that despite a universal and generous welfare state health inequities remain and also increase. It is of course possible that they would have been even bigger without these social policies. Studies of ten EU countries show that the Nordic countries have had relatively more favourable trends in inequalities in self-rated health during the 1990s (19). A study of child health in Sweden during the economic recession also showed that although the proportion of low income families increased, absolute mortality decreased and relative inequality was somewhat lower during that period than earlier (20). One interpretation could be that investment in social institutions could dampen the effect of reduced individual incomes on health.

### Education

#### FACTS/DATA

The Swedish educational system has undergone a continuing series of transformations since the 1950s. Today, there is a nine-year comprehensive compulsory school and a three-year upper secondary school which accommodates both academic and vocational study programmes. A public preschool system, 15 hours per week free of charge, for all four- and five-year olds was introduced in 2003 (21). About 98% of compulsory school-leavers go on to upper secondary school (22). The number of students in higher education has increased substantially over the last decade. Almost 50% of young people in Sweden go on to tertiary education within five years of completing their upper secondary education (23-25). The long-term trend means that the general level of education has changed markedly (Figure 2).

Figure 2a. Level of education 1990-2004, women aged 25-64 years

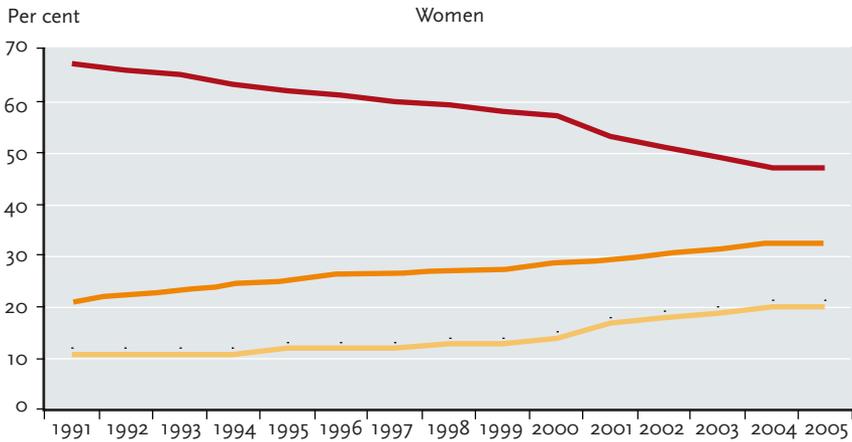
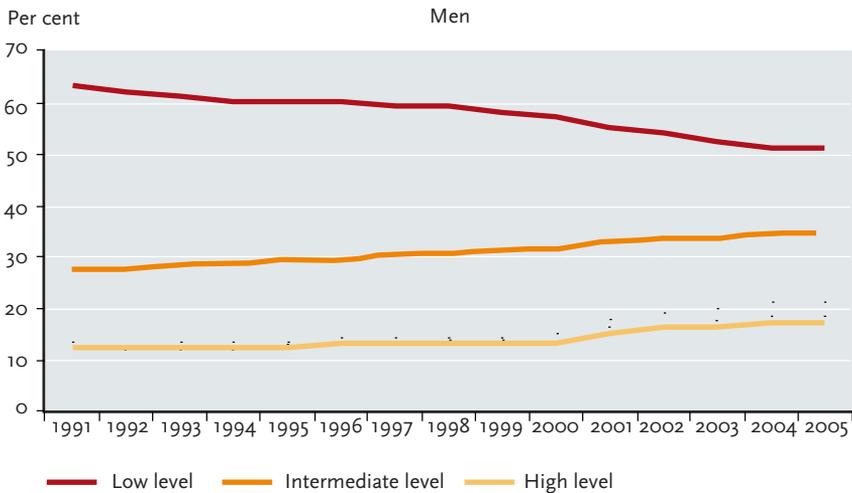


Figure 2b. Level of education 1990-2004, men aged 25-64 years



Source: Statistics Sweden, Statistical Database, 2005. Note: Low level of education = pre upper secondary or max 2 years of upper secondary. Intermediate level of education = more than 2 years upper secondary or less than 3 years post upper secondary education. High level of education = 3 or more years of post upper secondary education

## POLICIES/STRATEGIES

In the Public Health Bill, education is seen primarily as having a bearing on health trends in the whole population. The goal of education policy is for Sweden to be a leading knowledge-based nation characterised by high-quality education and lifelong learning for growth and social justice (16). The preschool, nine-year compulsory school and subsequent upper secondary school are comprehensive and co-educational. Municipal adult

education (Komvux) has existed since 1968 (23). It includes basic adult education, upper secondary adult education and post-secondary education. The Government has recently decided to cut special state grants to the municipalities for organising adult education, making it up to the individual municipality to allocate funds. This has already led to a decrease in the number of places offered in some municipalities.

A fundamental change in the early 1990s was the decentralisation of responsibility from the national to the local level. The national government is now only responsible for setting the goals and framework for the educational system (22). Prior to 1994, there were three-year programmes in upper secondary school qualifying for entrance to higher education and a number of 2-year vocational programmes. In the new system all programmes are three years in length and qualify for further education, including the vocational ones. All education is wholly or partially financed by the public budget and tuition is free of charge in all public institutions (24). School meals and school transport are provided free of charge for compulsory school students. In most municipalities, meals and teaching materials are also free of charge to upper secondary students. For students in higher education, study assistance consists of a grant plus a loan to be repaid with interest (25).

#### CONCLUDING REMARKS

Analyses show that the relationship between social background and choice of education decreased during the 20th century, though mainly during the period 1930-1970 (26). Studies point to two aspects that helped increase equity in choice of education in Sweden during this time: firstly, the significance of postponing important choices until later on in one's education, and secondly the actual costs (monetary and non-monetary) of studying at a higher level, as well as the absence of inaccessible elitist institutions.

It is worrying that almost a quarter of upper secondary school students do not gain final grades after four years, and only 64% are eligible for further studies (having passed 90% of all courses) (22). These figures are generally lower for vocational programmes (source: National Agency for Education). The disparity in higher education entrants is still considerable (27). Figures from 2004 show that at the age of 25, 23% of children of blue-collar workers and 68% of children of high-level white-collar workers have entered higher education.

The goal of lifelong learning should in the long term help to reduce inequality in educational opportunity, as well as increase the individual's scope for improving his/her social standing in adulthood, but it is unclear how social inequalities in health on the group level are affected by higher social mobility and greater equality in educational opportunity. First, education is also a stratifying variable, so people who achieve higher education change their social position. Increased social mobility could also lead to an increase in social inequalities in health if social mobility is linked with e.g. health behaviour. Swedish studies have found that inter-generational social mobility associated with health-related factors make a major contribution to explaining differences in alcoholism as well as mortality between manual and non-manual workers (28, 29).

## Working conditions

### FACTS/DATA

The official statistics show that the incidence of occupational accidents fell from 40 cases per 1 000 employees annually to 9 cases per 1 000 for men between 1980 and 2005. For women, the incidence peaked at below 15 in the late 1980s and is now around 6 cases/1,000 per year. Fatal accidents have also decreased, and dropped by half between the late 1980s and today. If we look at the sheer number of accidents, the most dangerous occupations for men are truck drivers and carpenter/joiners, and for women assistant nurses/nurses' assistants, care assistants/personal assistants and hotel and office cleaners (30).

Occupational diseases are more common among women. Notified occupational diseases declined in the early 1990s, reached their lowest level around 1996/97, and then rose again. However, the number of reported occupational diseases depends to a large extent on compensation rules, which have changed drastically over the last twenty years or so.

During the 1990s exposure to ergonomically strenuous jobs and physical/chemical hazards increased for the most exposed group, skilled manual workers, both for men and women (31). For men there were no changes in general exposure levels while there was an overall increase in strenuous working conditions for women. Among the most physically exposed occupations in 2005 are, for women, teachers at primary school, assistant nurses and care/personal assistants and, for men, fitters in industry, construction workers and workers in agriculture.

The general picture concerning psychosocial factors is that exposure to adverse conditions increased during the 1980s and 1990s, while overall class differences have been stable, although the highest non-manual class tends to be least affected by changes during the 1990s (31, 32). There has been a tendency towards increased polarisation between men and women and between the private and public sector in psychosocial working conditions (33). There has been a general improvement in the psychosocial work environment between 1999 and 2005 (34). In 2005, the occupations most exposed to low control tend to be lower-level service jobs as well as teachers and care personnel (Table 3).

*Table 3. Proportion reporting that they have no control over their work pace, most exposed occupations for men and women*

Women		Men	
Teachers, compulsory school	81.5	Service, care and security work	60.5
Nurses	77.9	Teachers, compulsory to college	59.0
Assistant nurses, personal assistants	74.9	Drivers, truck operators	56.9
Custom service	70.9	Machine operators and assembly workers	51.3
Teachers, primary school	69.4	Custom service, retail	48.1
Child minders	68.1		

### POLICIES/STRATEGIES

The Public Health Bill states that a good working life with viable working conditions both reduces work-related ill-health and helps in general to improve public health while also reducing social discrepancies in ill-health. The Work Environment Act, which was first passed in 1977, states that its purpose is to prevent ill-health and accidents at work and to achieve a good working environment (35). The Act also says that working conditions should be adapted to the individual's different physical and mental aptitudes, and that the employee should be given the opportunity to participate in the design of his/her own working situation. Further, the employer shall document the working environment and set up action plans for measures to improve it (systematic work environment management) and is responsible for training employees to avoid risks at work. Inspections at worksites are central to the enforcement of the policy, and employers who do not rectify deficiencies within a set time might be prohibited from using certain equipment or carrying on a certain activity. An employer who intentionally or negligently fails to comply with an injunction or prohibition issued, may be fined or sentenced to imprisonment for not more than one year. Some breaches of the Act are also directly penalised by a fine.

Health-promotion initiatives within the work-place was previously studied and developed by the National Institute for Working Life, which was also the Swedish coordinator for the European Network for Workplace Health Promotion (ENWHP). Projects include drug prevention at the workplace, interventions at public employers and employer-cooperation to facilitate job change for people with ill-health or functional limitations. One of the first initiatives of the new Government, which came to power in the autumn of 2006, was however to dismantle the Institute completely. The future of Swedish participation in ENWHP is unclear. A national network is under development as a joint effort between a number of national authorities, unions and employer organisations. There are also a number of regional networks for health-promoting workplaces, often involving the regional insurance board, municipalities and employers.

### CONCLUDING REMARKS

There is evidence that workplace inspections can increase compliance and also workplace safety (36). Examples of single measures that most likely have had an effect include regulations concerning use of certain chemicals (TLVs) in cement, inspections resulting in a written notice regarding ergonomic conditions, and inspections to increase safety against violence and threats in retail (37). What might be concluded so far is that actions to prevent accidents have been more successful than preventing ill-health or achieving a good working environment.

An evaluation of a large health-promotion project at workplaces in industry showed positive effects of an individually adapted method focusing on neck and back problems, CVD, respiratory illness and risky alcohol consumption (38). Another example of a successful intervention concerned workplaces in municipalities and county councils and implied an active rehabilitation of people on sick leave (39).

## Unemployment

### FACTS/DATA

Unemployment decreased considerably at the end of the 1990s but has risen since 2002, as has the total share of registered job-seekers (including those in labour market programmes). In 2006, unemployment was 5.5% among men and 5.2% among women while the total number of registered job-seekers is around 8% (source: Statistics Sweden LFS). There has also been a slight rise in long-term unemployment since 2002. Unemployment tends to hit those with a low education harder, but differences are not large. In 2003 differences based on education were around 2 percentage points between those with a university degree and those who have only 9 years of education (Figure 3). This difference is however enhanced if we also look at those in active labour market programmes.

Figure 3a. Openly unemployed and unemployed including those in active measures, by education, women 18–64 years 2003.

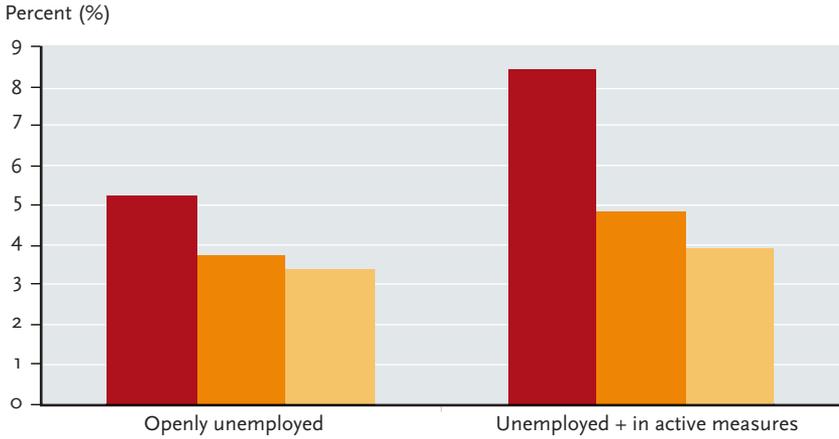
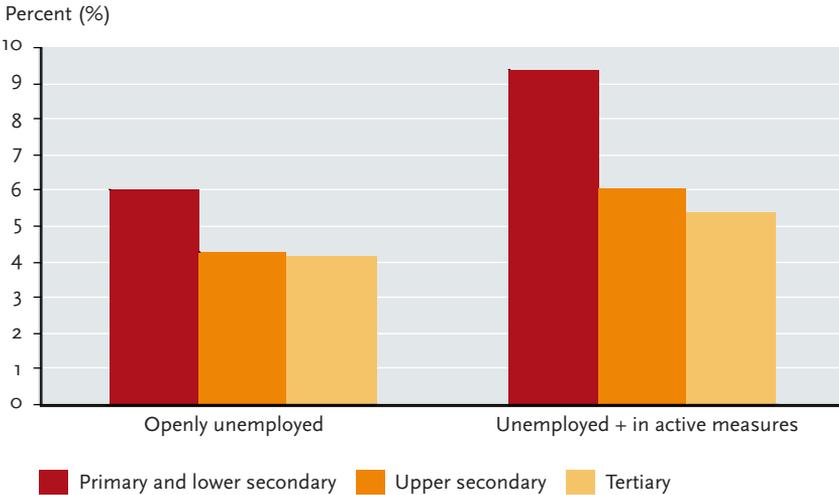


Figure 3b. Openly unemployed and unemployed including those in active measures, by education, men 18–64 years 2003.



Source: National Labour Market Board

**POLICIES/STRATEGIES**

In Sweden, labour market policy has been part of the general economic policy with the main goals to promote growth and full employment while restricting inflation (40). Active labour market policies have been a particularly salient part of the Swedish policy, and consist of policies which increase labour mobility between markets and regions (through retraining programmes, job placement and mobility grants) and stimulate growth in weak

markets and regions, as well as helping those who have particular difficulties in finding employment, especially those with functional disabilities. The new Government places greater emphasise on matching employers and job-seekers and less on active measures (41). However, there have been few substantial changes so far.

Active labour market policy can be divided into general and targeted measures, and prioritised groups are disabled people, newly arrived immigrants, young people, and the long-term unemployed. Apart from active labour market policies, Swedish unemployment insurance contributes to a relatively low level of economic stress among the unemployed. Unemployment insurance consists of two parts: a basic allowance and optional income-related benefit (2). The basic allowance covers persons over 20 years of age who are not voluntarily insured. The optional income-related benefit is voluntary but members of different trade unions collectively join the insurance. Both parts are mainly financed by contributions from the employer. Earnings-related benefits have been quite high at 80% of previous earnings up to a certain ceiling. However, the new Government has introduced a cut-off point at 200 days, after which the benefit is reduced to 70%, and after 300 days it is reduced to 65%. Also, the part of the insurance that is covered by employees has increased. Basic allowance is a flat-rate benefit at a much lower level.

#### CONCLUDING REMARKS

The likelihood of finding a job after having completed a programme or initiative mainly depends on the prevailing economic climate. There are no studies that have investigated whether the programmes/initiatives are better for one group of job-seekers (e.g. prioritised groups) than for another. An evaluation of recruitment incentives (salary subsidies), targeting the long-term unemployed, shows that they helped on average to shorten unemployment by just under 8 months, but that there is a risk of constraining effects on ordinary employment (42).

Studies have shown that unemployment and joblessness as an explanation for health differences between socioeconomic groups is much less important in Sweden than in Britain (43). This was explained mostly by the fact that the risk of unemployment was more evenly distributed in Sweden. Also, a larger part of the excess risk associated with unemployment was accounted for by poverty in the British data which points to the effect of very different levels of financial remuneration in unemployment insurance. Thus there is some evidence that Swedish unemployment policy might have helped to reduce health inequities. Although it seems that poverty is less important as a risk factor for the unemployed, unemployment in Sweden is still highly associated with poor health (44-46)

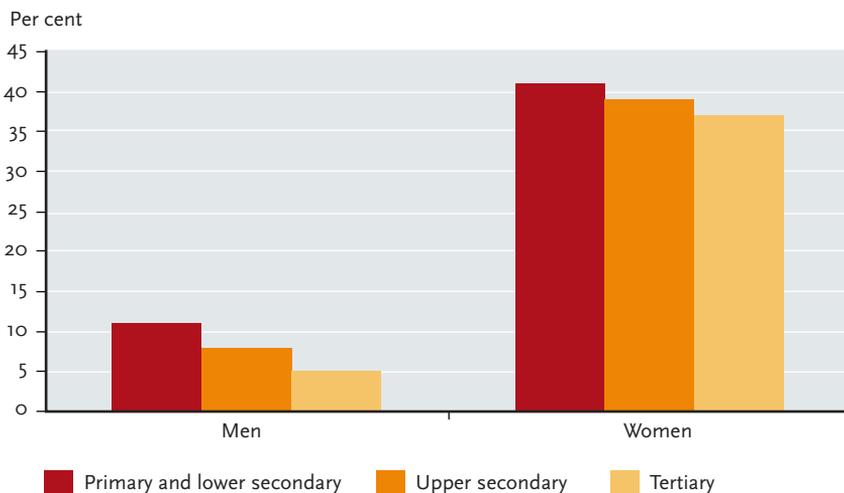
### **Social environmental determinants of health**

#### FACTS/DATA

Fear of crime is a factor which is associated with ill-health and is potentially important for social inequities in health (47, 48). There are research findings indicating that people who live in favourable social conditions feel less afraid than those who live in more insecure conditions. While women are much more likely to refrain from going out due to fears of

being assaulted, there are also differences related to education group (Figure 4). Fear may be one reason why people living in apartment blocks use communal green areas less than house-dwellers, thus contributing to inequities in physical activity (16).

**Figure 4. Percentage of people who have refrained from going out by themselves from fear of being assaulted, by education, men and women 18-84 years, 2006. Age-standardised**



Source: National public health survey, SNIPH

Segregation implies physical separation of people, according to e.g. demography, socio-economic status or ethnicity (49). In the Swedish debate, segregation has become synonymous with ethnic segregation and is associated with certain suburban areas near major cities. What characterises these areas is not only a large share of foreign-born, but also high unemployment rates and a high proportion on social welfare, i.e. ethnic and socio-economic segregation is intimately linked. Segregation in these terms increased during the 1990s due to large immigration of refugees, a low level of building and internal migration combined with increased costs for newly-built housing (49, 50). This meant that groups with small economic resources were largely confined to a few areas that are considered less attractive.

#### POLICIES/STRATEGIES

As part of the national crime prevention policy, local crime prevention is being supported financially by the government as one of the most effective ways to reduce crime rates. There are crime prevention boards in 270 out of 290 municipalities, where actors such as the police, school, social services and local business are represented. Examples of measures employed are reviews of city planning as regards parks, high bushes, etc., from a gender perspective; lighting plans for increased security and neighbourhood watch schemes.

The aim of projects to enhance democracy and participation in housing areas is also to improve social solidarity, reduce material damage and increase security.

Since 1998, the Government has pursued a national metropolitan policy (51). The overall goals of the policy are to increase the prospects of the metropolitan regions for long-term sustainable growth, and to stop social, ethnic and discriminatory segregation. One of the instruments created to stop segregation in these city neighbourhoods is the local development agreement. Seven municipalities with altogether 24 housing areas were covered by the agreements. Within this framework, hundreds of projects have been carried out in the housing areas considered to be the socioeconomically and ethnically most segregated.

#### CONCLUDING REMARKS

An increasing number of municipalities are taking a holistic view and placing greater emphasis on safety issues (52). Many local boards however experience problems with a low level of commitment and lack of resources (53). Half of existing local crime prevention boards have been operating since before 2000 and a third have adopted a programme or action plan. 60% of boards who have implemented concrete activities have conducted evaluations or follow-up of their work, that tend to focus on drug and alcohol prevention and measures against car theft. About half of boards feel that they are partly successful. Public health is one of the least evaluated areas of the local development agreements and when public health is discussed, it has been analysed to a very limited degree (51). Evaluations show that differences between these areas and others in the same municipalities regarding level of employment and the proportion eligible for secondary education did not change during the period 1997-2000, while there have been improvements in the proportion on welfare benefits and the crime rate (54). It is worth mentioning that  $\frac{3}{4}$  of the cities' low income households live outside the areas covered by the agreement (55). As the bulk of measures have been directed at the individual and not at for example making the area more attractive to live in it is believed that while programmes may have been positive for some households, they do not tackle the structures that create segregation (50).

### Physical environmental determinants

#### FACTS/DATA

Injuries can ensue from accidents or occur as the result of deliberate acts such as violence or attempted suicide (16). According to the national injury registration system, about 640,000 injuries occur every year as the result of accidents. About 80% occur in the home and recreation category. Older people (65+) account for the majority of deaths in almost every type of accident. The risk of personal injury also varies depending on sex, socio-economic, ethnic and cultural background. For instance the risk of traffic accidents is about 50% higher among children of manual workers or parents with low education, and the risk of injury from violence or self-inflicted injuries is more than twice as large as in the least socially deprived group (56).

Air pollution has been estimated to cause more than 7 000 deaths annually, and is linked to CVD, cancer and respiratory symptoms. Children and those who are already in bad health are especially vulnerable. While the levels of sulphur dioxide (SO<sub>2</sub>) and nitrogen dioxide (NO<sub>2</sub>) have decreased steadily since 1990, levels of particles and ground level ozone have increased, while new research has shown that this pollution has more serious health consequences than previously known. Environmental noise is a common public health problem that causes sleeping problems, stress, hearing impairment and tinnitus. The consequences are dependent on the volume, frequency and variation of noise, but also on the situation in which it occurs. Vulnerable environments are the home, preschools and schools, hospitals and nursing homes.

### POLICIES/STRATEGIES

An important strategy in the national injury prevention programme for efforts on the local level is the WHO “Safe Community” model. A number of municipalities in Sweden have already been designated Safe Communities. One of the central criteria for a Safe Community is that programmes should be aimed at both high-risk environments and particularly vulnerable groups. Under the Protection Against Accidents Act, municipalities must have action programmes for their preventive efforts. These action programmes must be founded on empirically based problem descriptions, in which e.g. affected groups are to be analysed.

A good built environment is one of Sweden’s environmental quality objectives and focuses on physical aspects that affect health, such as radon levels in housing and noise, rather than on social aspects of the environment. The goal is that by 2020, buildings and their properties should no longer have a negative impact on health. The municipalities are responsible for physical planning in their jurisdiction, including housing, roads and protection against environmental noise. Preventive work against air pollution largely takes part within the framework of international negotiations, e.g. within the EU.

### CONCLUDING REMARKS

In 1984, Sweden adopted the WHO target of reducing the number of deaths caused by accidents by 25% by the year 2000 and this target was actually achieved. A follow-up of safety promotion work in 13 of 14 Safe Communities showed that both municipal residents and managers for various municipal offices were relatively unaware of the injury prevention work in progress (57). With the exception of some municipalities there was a lack of population-focused systematic work based on previous assessments. All municipalities had activities aimed at children and the elderly in general, but not at high-risk groups within these groups. The most successful municipalities were those that had continuity in their programmes, based their work on a well-defined risk-assessment and had personnel with the specific task of coordinating the work.

A combination of legal and economic controls and information activities have proved effective in preventing air pollution. However, research has pointed to social inequities in the level of exposure to air pollution among children in Malmö in southern Sweden – a pattern that is likely to be similar for other areas (58). Effective measures directed at envi-

ronmental noise include noise barriers, new façades, changing road surfaces and lowering speed limits. Although the physical environment clearly differs between socioeconomic groups, the equity perspective has been less explicit in this area than in many others. We are not aware of any evaluations of measures from a health equity perspective.

## Healthcare policies/programmes/actions

### FACTS/DATA

The health service is an important public health determinant. The health status of the population is affected both by the effectiveness and efficiency of the health service and its capacity to create equity regarding e.g. access to care. The health service's share of GDP was 8.3% in 2005 (Source: Statistics Sweden, Swedish National Accounts).

There were large redistributions during the 1990s from inpatient to outpatient care and to primary care. The number of visits to GPs increased from 39 to 48% of all doctor's appointments. There were also cut backs in the form of a reduction of the number of beds, staff reductions and shorter treatment times (59). While care is usually of high quality for those who get it, waiting times for treatment can be unreasonably long.

### POLICIES/STRATEGIES

The responsibilities of the health service are regulated in the Health Services Act of 1982 (1982:763) (16). This Act was heavily influenced by the Canadian Lalonde Report and introduced a focus on health-promoting and preventive activities (3). The overall goal of the health service is to safeguard the good health of the entire population and ensure access to care on equal terms. Within the policy area of healthcare, the goal is to improve the quality and accessibility of the healthcare system.

Most Swedish healthcare is financed via taxes, either direct tax, i.e. county council tax which the authority has at its immediate disposal, or indirect tax in the form of government subsidies. A minor part of the care is financed via patient fees or other charges. The maximum costs for outpatient care is EUR 100 per year, while inpatient care has a maximum of EUR 9 per day (59). Medicine is free over a cost of EUR 200 per year but for technical aids such as wheelchairs, hearing aids etc. there is no national limit. For dental care, a large part is financed through patient fees – in 2000 more than 60% (59). The price of dental care has risen dramatically, by about 40% between 1998 and 2002 (60). However, dental care, as well as healthcare in most county councils, is free for those under 20.

The purpose of fees has been primarily to direct people to the right level of care. However, while an individual's economic circumstances should not influence availability of care, the development of fees runs counter to the goal of care on equal terms. There are quite low limits for the costs of fees and medication but the combined costs of fees, medication, transportation and technical aid can still add up to large amounts for some individuals.

### CONCLUDING REMARKS

There is international support for the significance of primary care when it comes to achieving greater equity in health among the population. The potential of primary care lies in the fact that it reaches a large proportion of the population whilst retaining proximity, accessibility and continuity.

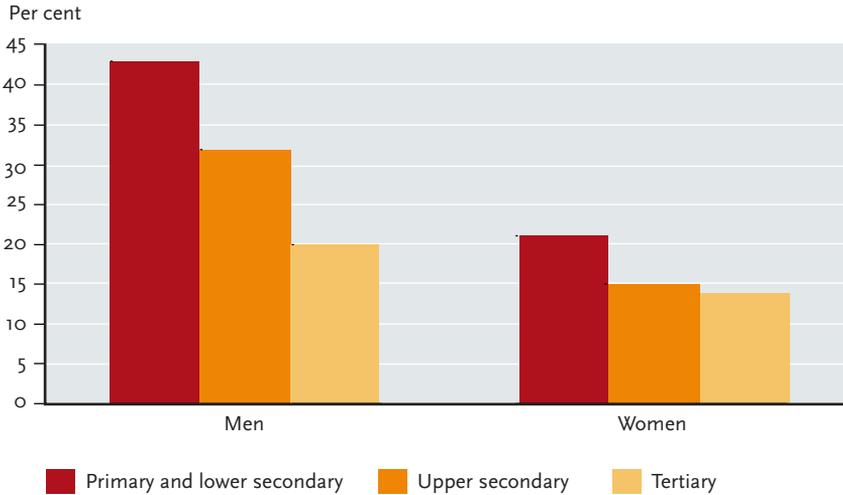
Most previous studies since the 1970s have found that there are minor social differences in access to outpatient care (59). However, it seems that lower income groups have a higher threshold before seeking care (61). One study suggests that during the 1990s there has been increased inequity in the proportion needing but not seeking care between income groups (62). Total fees can add up to quite high amounts and there is a clear risk that people with substantial need will refrain from seeking care due to costs. All studies since the 1960s have shown that dental care is not available on equal terms (59). In 2004, 19% of the population with perceived need said they had refrained from seeing a dentist, almost 70% due to the costs (source: National Public Health Survey). Those with economic difficulties had a high risk both of experiencing poor dental status (RR 6.1 for both men and women) and of refraining from seeking care (RR 6.2 for women and 5.7 for men) compared to people without economic problems (63).

### Healthy diets and physical activity

#### FACTS/DATA

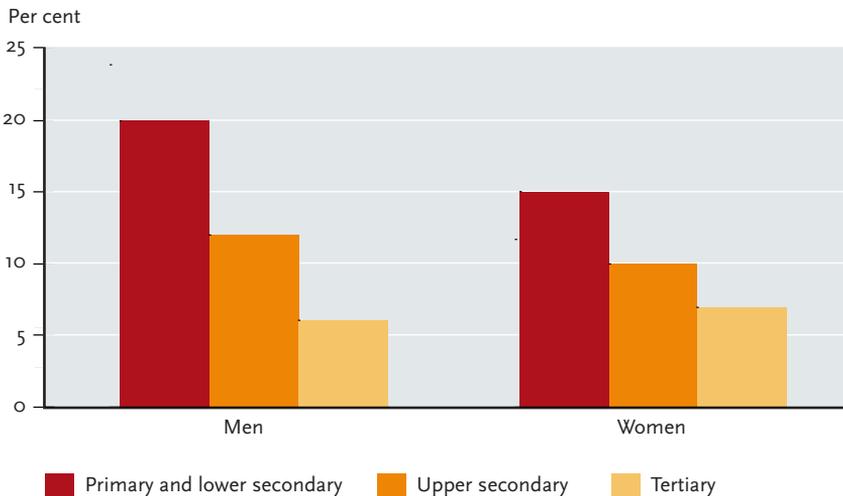
Eating habits vary between people with different cultural and social backgrounds, between the sexes, between the young and old, and between people in different parts of Sweden. Only 5% of men and 14% of women aged 18-84 years reported that they ate the equivalent of 500 grams of fruit/vegetables per day in 2006. There is a clear educational gradient for low intake of fruit/vegetables (Figure 5). Around 1/3 of all adults exercise less than the recommended amount of 30 minutes per day and 14% of the population report being sedentary in their spare time. A sedentary lifestyle is more common for those who have not attained an upper secondary education (Figure 6).

**Figure 5. Percentage of people aged 18–84 who eat fruit and vegetables 1–3 times a day or less, by education, 2006. Age-standardised**



Source: National public health survey, SNIPH.

**Figure 6. Percentage of people who do not exercise in their spare time by education, men and women 16–74 years 2006. Age-standardised**



Source: National public health survey, SNIPH.

## POLICIES/STRATEGIES

To equalise inequalities in health, the Public Health Bill states the importance of increasing physical activity both at work and during leisure time, especially for people whose jobs involve high or monotonous muscular strain or are very sedentary (16). Food market-

ing, particularly of energy-dense and nutrient-poor products, has increased in scope and sophistication (e.g. by exploiting lifestyle, peer group affinity and emotions), contributing to increased consumption. In order to resist the constant temptation to eat and drink, today's consumer has to be very active and very knowledgeable. Apart from better information to and greater awareness among consumers, action is needed on the part of society to reduce the availability of and demand for soft drinks, sweets, ice cream, crisps, cakes and biscuits and to increase availability of and demand for healthy foods.

The previous targets and strategies for nutrition 1999-2004 included decreasing the social inequities in nutrition-related diseases as their main goal, but measures were primarily aimed at increasing research and monitoring (64). In their joint proposal for a new action plan to promote healthy dietary habits and increased physical activity, the SNIPH and the National Food Administration suggest that the foremost objective should be for society to be organised in such a way as to make it easy for all groups in the population, especially the low educated and low income groups, to have healthy dietary habits, and to provide the conditions for increased physical activity (65). Regarding healthy dietary habits, the proposed measures concern agricultural policy, marketing, food labelling, food inspection and enforcement and public enquiries on excise duties and meal subsidies. Measures that promote the creation of supportive environments for healthy dietary habits and increased physical activity for children and young people will be given priority in the first phase, along with research into these issues.

#### CONCLUDING REMARKS

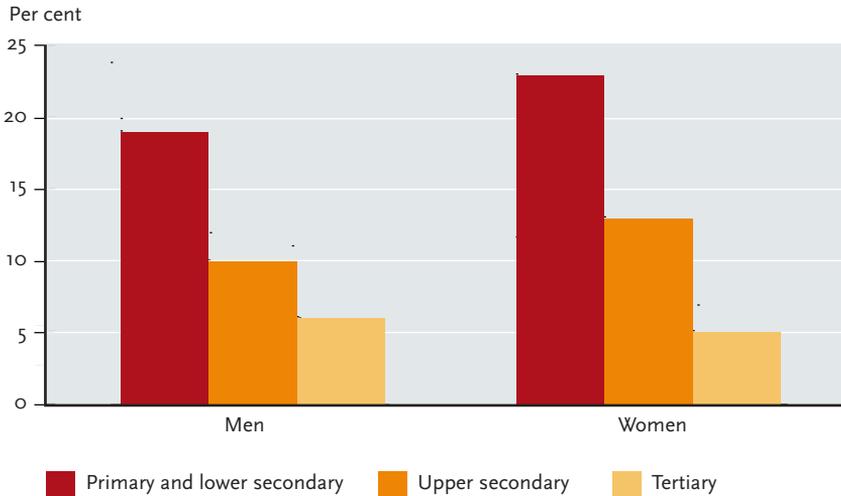
Although national strategies have also had an equity perspective previously, this has not been the focus of concrete measures, nor of evaluations (64). A review of health promotion activities at the municipal level in Sweden showed that 26 out of a total of 290 municipalities had an action plan for physical activity and only 13 had one for healthy dietary habits (65). By putting emphasis on supportive environments in addition to health education in the new national strategy, it is hoped that effects can be achieved even in groups with the greatest health problems. Proposed measures have been chosen so that healthier choices are not only dependent on the individual's own knowledge. The surrounding environment can induce individuals into healthier lifestyles by way of e.g. health-promoting workplaces, health zones in schools, safe traffic environments that prioritise children, etc. New legislation, such as a ban on marketing aimed at children, is also proposed.

### Tobacco, alcohol and drugs

#### FACTS/DATA

Long-term tobacco-prevention work in Sweden has been successful and the tendency to smoke is falling slowly in all population groups. In 2006, the proportion of daily smokers was 13% among men and 15% among women in the 16-84 age group. Daily smoking is more common among those with a low level of education for both men and women (Figure 7). An important reason behind the current difference is the fact that those groups who started smoking first, i.e. the well-educated, were also the first to quit smoking.

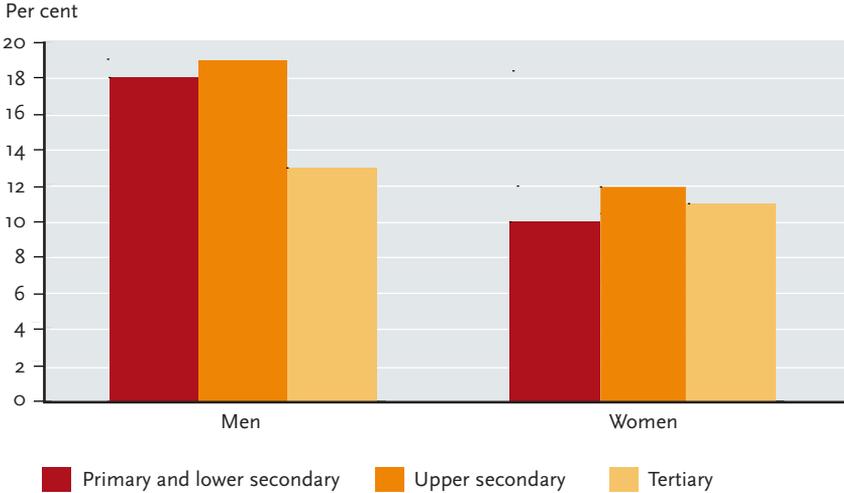
Figure 7. Percentage of people who smoke daily, by education, men and women 16-84, 2006. Age-standardised



Source: National Public Health Survey, SNIPH

Total alcohol consumption slowly decreased between the mid 1970s to the mid 1990s, but it has risen markedly and is now estimated at 10.5 litres of 100% alcohol per inhabitant aged 15 years or older. The number of high consumers has also increased in recent years as has binge drinking. Data from the National Public Health Questionnaire has been analysed based on *high-risk consumption* (using a modified short-form of the AUDIT-questionnaire) in different groups. High-risk consumption is slightly less common for those with a low level of education (Figure 8), and it was higher among male lower non-manual workers than other groups.

**Figure 8. Percentage of people with a high-risk consumption, by education, men and women 16-74 years, 2006. Age-standardised**



Source: National Public Health Survey, SNIPH.

In the population as a whole, self-reported illicit drug use has not undergone any noticeable changes since it was established during the late 1960s. National public health surveys shows that the lifetime prevalence of illicit drug use among adults is around 14% for men and 7% for women. Drug habits among young people have been much more variable than among adults. From levels of about 15% among ninth grade school pupils in 1971/72, the proportion who had used drugs at some time or another fell gradually to its lowest level of 3% in 1989. The level increased gradually during the 1990s but has decreased since 2001 and was down to 6% in 2006 (source: [www.can.se/sa/node.asp?node=1669](http://www.can.se/sa/node.asp?node=1669)). Only a minor proportion of those who have tried drugs develop a problem that comes to the attention of the authorities. The number of drug-related deaths is around 400 per year, which is twice as many as in 1990.

**POLICIES/STRATEGIES**

The Public Health Bill states that it is often the same people who make up the risk groups for the abuse of different addictive substances (16). Therefore, the preventive work and health promotion activities in this area must be considered in the same context. Both tobacco and alcohol consumption as well as drug abuse are influenced by measures implemented in other policy areas. Effective child and youth policies that give children and young people the chance to grow up in favourable and safe conditions reduce the risk of them abusing alcohol, illicit drugs or tobacco in the future. The ability of social policy to improve the situation of socially deprived persons also influences their consumption and abuse of tobacco, alcohol and illicit drugs.

There has been a ban against the sale of tobacco products to people under 18 years old since 1997 and all advertising is in principle prohibited. Advertisements that use trade-

marks for tobacco commodities when marketing other products are also forbidden (66). Since 1 June 2005, Sweden has joined the small number of countries that have smoking bans in restaurants and cafés (67). The sale of alcohol is also regulated (68, 69). For example Sweden has a state-owned monopoly on the retail sale of alcohol. Access to alcohol is also restricted by means of age limits and an active price policy, whereby the tax on alcohol, and hence the price, is so high as to create a certain amount of buyers' resistance. Marketing is also restricted in that it may not be directed at nor depict children and young people. European integration and EU membership have however restricted the scope for pursuing a restrictive alcohol policy in Sweden. Access has for example increased dramatically as the result of new import rules. Between 1990 and 2005 the share of unrecorded alcohol has doubled from 18 to 36% of total consumption. Other changes in recent years include the opening times of Systembolaget's (the national alcohol retail monopoly) retail outlets being extended, the price of alcohol going down in general and the number of licensed premises increasing (70).

The national action plan for drug prevention establishes that the aim of Swedish drug policy continues to be a drug-free society. The aim is to reduce the number of new recruits to drug abuse, persuade more addicts to kick the habit and restrict access to illicit drugs. Measures identified as important to implement by the national coordinator for drug policy are: a national treatment guarantee, measures to combat drug abuse in correctional facilities, and measures directed at drug trafficking. Both alcohol and drug prevention policies mention certain groups as especially vulnerable: children growing up in families with social problems, who might be exposed to violence and neglect; and alcohol and drug abusers with multidimensional problems such as homelessness, mental illness and prostitution to finance drug habits (68, 69, 71). Tobacco policy, although it has as a goal to decrease by half the number of smokers in groups that smoke the most, does not, however, mention targeted efforts.

#### CONCLUDING REMARKS

Kunst et al (72) have reviewed interventions for reducing smoking among groups with a low socioeconomic standing. The review points to the following five measures being effective: a ban on tobacco advertising, higher tobacco taxes, ban on smoking at the workplace, access to nicotine substitutes and telephone counselling. Sweden only came in sixth place in a study from 2004 of how extensive tobacco measures were in the various EU member states. Sweden's efforts were adjudged to be strong when it came to legislation but much weaker regarding the price/tax level on cigarettes and access to smoking cessation.

A first follow-up of the National Action Plan to Combat the Harmful Effects of Alcohol shows that nearly 80% of all Swedish municipalities had adopted an alcohol and/or drug policy programme by the end of 2003 (70). Schools and after-school clubs are the most commonly reported arenas receiving attention in the programmes and there is a strong focus on youth across the board whilst prevention measures among adults are rare. Programmes aimed at children in socially vulnerable environments or at socially excluded children are only reported by a small number of municipalities (11 and 16% respectively).

The evaluation concluded that preventive efforts need to be directed at the adult population as well. There is still no sound evaluation of the effects of either the National Action Plan to Combat the Harmful Effects of Alcohol or the Anti-Drug Action Plan. Overall, the equity focus in these areas tends to be clearly underdeveloped.

### *Disease-specific strategies to reduce social inequalities in health*

The national public health policy does not have a disease focus, except for one area – infectious diseases. The prevention of infection is one domain within the 11 national objectives. Specific diseases targeted here are sexually transmitted infections (STIs), while vaccination of children and prevention of multi-resistant bacteria are the other main determinants within the domain. Within HIV/STI prevention, targeted strategies for risk-groups such as new immigrants, tourists abroad, and men who have sex with men (MSM), are under development. Socioeconomic groups with fewer resources are generally not considered a risk-group.

The national vaccination programme of children (measles, mumps and German measles) since 1982 has probably been important in protecting in particular children in socially vulnerable groups against serious infections. The vaccination rate has been over 90% during more than two decades, with a temporary dip in 1999 due to fears of a connection between autism and vaccination. Many elderly are susceptible to influenza and since 1997 the Board of Health and Social Affairs recommend annual vaccination for those over 65 years of age. However, only 50% in this group are vaccinated each year. SNIPH have proposed that vaccination be made free of charge for all over 65 and their closest family. In this area, equity concerns are generally lacking.

### *Group-specific strategies for reducing social inequalities in health*

Groups given a special mention in the Bill include vulnerable age groups – children, young people and older people – differences between the sexes and between socioeconomic groups, immigrants and people with disabilities as well as people of different sexual orientation. Specific measures are not however described for these groups apart from for people with disabilities and homo- and bisexuals, where the lack of knowledge is stressed. Instead, the strategy is to integrate for example a gender or socioeconomic perspective into the work being done to promote better public health, or to systematically integrate health-promoting and disease-preventing measures into policies for the elderly.

#### **Children and adolescents**

Secure and favourable conditions during childhood and adolescence have been given their own domain of objectives (16). One of the reasons for this is because conditions during

childhood have a major impact on health throughout life. Available research shows that measures to improve conditions during childhood and adolescence have an equalising effect on social disparities in health. The most important child health determinants are circumstances in the family, at school and during leisure time. Children in need of special attention are, for instance, socially deprived children, those with substance-abusing or mentally ill parents and those with single parents as well as refugee children and children who arrive in Sweden alone. Important policy areas within this objective are e.g. financial family policy, education, housing and urban development policy.

As with most other objective domains there are no equity targets set. There are however determinants and indicators for follow-up. The determinants include the environment in the home, preschool and school and children's skills, which in turn affect their health when growing up and later on in life. Good child-parent relations increase the chances of good health throughout life. Data does not indicate any social differences in how well children and young people aged 10-18 feel they get on with their parents. Neither do social differences seem significant when it comes to relations between a child and a parent's new partner. The quality of education for personnel in preschool is a factor that has proven to be important for children's mental health. However, the total percentage of the workforce with tertiary education has decreased from 55 to 51% between 1997 and 2003. Current policy is more directed at increasing the workforce than increasing education within it. Differences between municipalities are great, with the ten top having 76% with tertiary education, and the lowest ten less than 1/3 educated preschool teachers.

Current research indicates that having a poor relationship with school increases the risk of all types of psychosocial problems for children and young people. Out of all pupils in 2003, 17% of the girls and 12% of the boys often felt they were unfairly treated by adults at school (73). Children whose mothers have only a compulsory school education are more vulnerable (18%) than those whose mothers have a post-secondary education qualification (12%). The number who felt they were bullied or threatened by other pupils was also greater among children whose mothers only had a compulsory school education (5%) than those whose mothers had a post-secondary education qualification (2%).

The skills that children and young people develop during their school years determine their health both during their childhood and adolescence and later on in life. Compulsory and upper-secondary school grades can be used as a measure of children's skills. Here, there are major social differences (also see 1.3.2 education). The percentage of those who had received at least a Pass grade in all subjects between 1998 and 2002 was 59.9% for pupils whose mothers had only compulsory school education and 74.4% for those whose mothers had a post-secondary education. The mean value for the pupils whose mothers had post-secondary school education was 87.6%.

The government report on the direction of education policy discusses influence and pupil harassment (bullying). Gender equality between the sexes and integration are also discussed. Social equality is however not approached despite the fact that differences in vulnerability among various social groups are as a rule greater than the differences in origin. There is currently extensive international research that indicates the importance of

the above-mentioned determinants, and it is now important to disseminate this knowledge and implement it in concrete activities.

## *Arena approaches for reducing social inequalities in health*

Swedish public health policy does not have an explicit arena perspective. However, arena approaches are an important part of several objective domains. In objective domain 3 (secure and favourable conditions during childhood and adolescence) there is a focus on the home and school environment for children's healthy and equal development (see 2.2). Domain 4 (healthier working life) is of course concerned with measures within the workplace, which have definitely benefited manual workers although much remains to be done (see 1.3.3). Domain 6 (A more health-promoting health service) is set in the healthcare sector and has a focus on access to care – as well as preventive measures – on equitable terms given need (see 1.3.6). Domain 5 (healthy and safe environments and products) looks at all environments that may harm health (see 1.3.5). Within this domain the equity focus has been less explicit.

## *Implementation: main actors, methods and resources*

### **National level**

The Government and Riksdag are the main actors for establishing laws and action plans within general economic policy, taxes and transfers and the extent and financing of social services, as well as determining, for example, alcohol and tobacco policy.

The National Public Health Committee's most significant strategic move was to link policy goals to determinants of public health (74). This meant that work to improve public health could be decoupled from healthcare policy and coupled to general social policy on both the national and local level. Within many of these policy areas, there are governmental agencies that have a more or less explicit sector responsibility and these were given the added responsibility of integrating aspects of public health into their work.

The Swedish National Institute of Public Health (SNIPH) plays a central role in the coordination of public health work at the national level (75). The Institute has three principal functions: to monitor the implementation of national public health policy; to be a national centre of knowledge on public health to the Government and its agencies, as well as to regional authorities and municipalities; and to exercise supervision in the fields of alcohol, tobacco and illicit drugs.

### **The municipalities**

By far the greatest policy responsibility rests with Sweden's 290 municipalities. They take a number of decisions that have a direct effect on people's daily lives (74). In a questionnaire to the municipalities, conducted in 2004, 139 (59%) of them said they had allocated

special priority to one or more of the domains of objectives specified in the national public health policy (76). The domains prioritised were mainly lifestyles (alcohol, tobacco, eating habits and physical activity) and conditions during childhood and adolescence. Forty-two percent said they were putting particular effort into the overarching public health aim focusing on greater equity in health.

### **The county councils**

The 21 regions and their county councils are responsible for healthcare services including prevention work (see 1.3.6). Most county councils are actively working to disseminate knowledge about the national public health policy in their region. All county councils have adopted an overarching action plan for public health work in the region. Eighteen of the county council action plans are linked to the national public health policy and the eleven domains of objectives.

### **The county administrative boards**

Sweden is divided into 21 administrative counties, each of which has an administrative board. In contrast to the county councils, these boards are controlled by central government. The administrative board coordinates central and local activities in the county. The administrative board has a number of tasks linked to the public health objectives. Activities especially important from an equity point of view are e.g. inspection and enforcement activities of social services performed by the municipalities. The boards are also responsible for giving permits for on-site alcohol licenses. Road improvements, improving public transport facilities for persons with disabilities and measures to improve road safety are also included in the board's remit.

### **Methods**

The implementation of public health policy demands good methods for predicting and following up the health consequences and consequences for health determinants of implemented decisions. SNIPH has an important task to perform in developing methods for health impact assessments (HIA). Important method development work on the national level has been initiated as a result of the commission given to a number of agencies as part of their annual instructions from the Government. This commission involves developing methods in partnership with the SNIPH to assess the health impact of measures performed within their respective areas of activity. HIA is one way of tackling social inequities as assessments are made not only for the whole population, but also for prioritised groups. Developing HIA requires both time and the relevant skills. Several county councils are of the opinion that the existing methods are best suited to municipal decision-making. A lack of methodology in the use of HIA is probably one of the reasons why the number of municipalities and county councils actually performing HIA has remained at a low level.

### **Professional support**

While concrete measures are primarily undertaken at the local and regional level, the government supports a number of interventions and method-development projects at the

local level, noticeably in alcohol and drug prevention. However, these tend not to have an equity perspective. The SNIPH provide civil servants and politicians with additional knowledge by arranging conferences/seminars, participating in local and regional conferences/theme days, visiting municipal administrations, supporting and participating in various strategic groups and producing reviews and reports. Furthermore, the Institute collaborates with the local/regional level within the various domains of objectives.

The county councils normally have some kind of supportive function for public health work within the county, primarily for epidemiological monitoring, public health reporting and knowledge support. Public health departments are responsible for providing this support function. The quality and extent of the support varies.

### **Resources and obstacles**

The new public health policy is founded on a strong connection between developments in many societal areas and public health (74). The advantage of this approach is that public health becomes accessible to political decisions and measures. It is by no means self-evident, however, that government agencies and other societal bodies responsible for the policy area in question will include public health effects when taking their decisions. The future of Swedish public health policy appears to be dependent on whether public health and health equity will be established as a main objective of central welfare policy, where issues concerning economic growth and labour market/business sector development have hitherto been the centre of attention.

NGOs have long been playing a key role in many areas of importance for public health and its distribution. A review from 1994, for example, showed that about 100 organisations, working in areas such as culture and adult education, politics, temperance and anti-drugs, education, sport and recreation, cooperation, disability, religion and philosophy of life, etc., pursue injury-prevention work in some form or another. NGOs in the central, regional and local level also have a central role in the field of HIV/STI prevention. These organisations often have unique opportunities to reach their target groups with their message. An important strategy for reaching for example immigrants and refugees is to involve their own NGOs. NGOs and professional networks are also an important component in the efforts made in the fields of encouraging good eating habits, and reducing tobacco and harmful alcohol consumption. Long-term economic support and encouragement to NGOs are needed to stimulate coordinated and far-reaching initiatives.

For public health policy to have an impact, it must first and foremost have broad and powerful political support (74). This has been made easier to achieve as a result of the broad consensus on the public health objectives reached by the National Public Health Committee. On the other hand, there is still political opposition to the policy. The fiercest antagonism surrounds the degree to which society should try to influence the individual's health. This opposition reflects an important dividing line in politics concerning how actively the state should influence people's living conditions and to what extent this should be left to the individual, various autonomous organisations or market forces. Opinions also differ regarding whether we should consider public health policy as one entity, in which structural determinants exert substantial influence on both living conditions and

health outcomes, or whether we should attack each determinant separately. In practical policy, it is usual for one or two issues to be the centre of attention. As is true of other policy areas, the elements of public health policy can be greatly influenced by the outcome of elections and other changes in the political force field.

It is important to note that the Public Health Policy is to be implemented without any allocated financial resources to support the new focus, nor does it entail any new commitments for municipalities or county councils. As things currently stand, SNIPH has little scope for providing financial support to public health projects. A similar trend is evident in many county councils that have previously provided project funding to support method development and local public health initiatives. According to the SNIPH, we need to analyse the different kinds of development funding available both nationally and internationally and to develop criteria for how this funding can be used in both an effective and sustainable way.

## *Monitoring and evaluation*

Current national follow-up in the field of public health in Sweden is linked to health trends. The National Public Health Report has been published every fourth year since 1987. The objective of public health reporting is to explain and understand how ill-health occurs and highlight different aspects of health development in a population perspective (16). It should also elucidate how various health determinants are linked to health development and how they interact and synergise, as well as identify existing and potential health problems. Furthermore, it should call attention to conditions that may be perceived as undesirable.

Until now, there has not been any national follow-up or evaluation of public health measures and their effects on the factors that influence or determine health. There is therefore a lack of overall knowledge about how different measures influence health trends or health inequity. The National Institute of Public Health has been given the task of coordinating the follow-up of national public health policy (74). The institute reported how the objectives have been achieved and what measures have been taken to influence various health determinants in the first Public Health Policy Report in 2005. The aim of the report is to present a limited number of indicators relevant for the overarching public health aim and its accompanying domains of objectives, to analyse development and the measures being taken to achieve public health goals and recommend further measures, as far as possible, at the local and regional levels as well as the national level. The report presented data on socioeconomic inequalities in as many objective domains as possible. While indicators have been chosen that are available at the local and regional levels, the highly decentralised nature of Swedish governing, with a multitude of actors on national, regional and local level is a problem for evaluation and follow-up.

## Concluding remarks

Health inequity obviously reflects other inequalities in the society: different levels of power and influence, economic differences, inequalities in education and housing. Interventions that influence health inequity are hence very difficult to distinguish from general social welfare policy. Kunst et al (19) point out that a general welfare policy tends to reduce the risk of increased differences in health during periods of economic recession. Navarro et al (77) also ascertain that countries with a general welfare policy tend to have lower infant mortality than countries with a more selective welfare policy. One example of how a general model can effectively reach vulnerable groups is the ‘Norsjö Project’ in northern Sweden. This cardio-vascular disease prevention programme combined population-oriented measures, e.g. health information and educational activities, with systematic primary care measures, e.g. health examinations and individual counselling. Evaluations show that it was particularly successful when it came to reducing health inequalities between people with different levels of education (78).

The following conclusions can be drawn based on the studies presented in this chapter:

1. The Swedish welfare model seems to do better than targeted social policy employing a large amount of means testing. A universal system avoids stigmatisation and tends to be seen as more legitimate, which ensures sustainability. Welfare spending on public goods is also likely to be most enjoyed by those with meagre individual resources.
2. There is some evidence that measures to combat a poor work environment have had an impact. Actions to prevent accidents have so far been more successful than preventing ill-health or achieving a good work environment.
3. There are indications of increased inequity in the number of people refraining from seeking care, and this is especially the case for dental care. This points to the importance of improving economic accessibility if the health service is to realise its equity-promoting potential.
4. Sweden has been highly successful in its anti-tobacco measures, but some groups are clearly lagging behind. Action could be taken both regarding price/tax level on cigarettes and access to smoking cessation.
5. So far, equity targets within the different domains are rare. The overall strategy has been to integrate a group-perspective in general public health policy, but the question is how well this has been done. It is also uncommon to have an equity perspective when assessing the effect of various strategies and action plans.

In the conclusions drawn by the Swedish National Institute of Public Health from its first follow-up of health determinants and measures within the various domains of objectives, a number of proposed measures have been drawn up (73). These include:

- To allocate priority to measures with a broad population perspective in the efforts to reduce inequalities in health.

- To regulate requirements for health impact assessments (HIA) in the same way as environmental impact assessments (EIA) and that HIA should – where possible – highlight how the risks and health effects are distributed among socioeconomic groups, between the sexes and among people of varying ethnicity.
- To design dental care insurance so that all age and income groups have access to basic dental care.
- To make efforts to ensure the coordinated stepwise increase of the price of tobacco both in Sweden and within the framework of EU cooperation and to ensure that tobacco cessation is adapted to different target groups and organised so that it is accessible for all those in need of support.
- In order to improve public health work on the regional level, SNIPH furthermore believes that both the county administrative boards and county council public health departments should be strengthened.

## *Proposals for further research*

An international evaluation of Swedish public health research concluded that research on inequalities in health is a dominant focus among many epidemiologists and in public health departments (79). Research in Sweden has benefited from using the comprehensive, high-quality register data available. Furthermore, the evaluation team saw the establishment of the Centre for Health Equity Studies (CHESS) in 2000 as a strong institutional base for further work on the social, psychological and biological mechanisms that generate inequalities in health. Such institutionalisation may be necessary to provide the critical mass to promote and drive research further on a permanent basis. The new annual Public Health Survey, which monitors living conditions, behaviours, and health in a large representative sample, will also give new possibilities for research.

The prevalence of lasting social differences in health is an important reminder when assessing the public health work done up to now and proposing measures. Knowledge of the social aetiology of ill-health has increased over the last twenty years or so but is still incomplete, and the determinants of health inequity should be analysed further using Swedish data. At the same time, we can conclude that intervention research in Sweden has been clearly neglected, and that there is a lack of evaluations that highlight the health effects of policy changes (in public health as well as other arenas with health consequences) and action plans from an equity perspective.

There is hence a need for a review of the current state of knowledge in Sweden and other comparable countries regarding the impact of strategies/measures implemented to reduce differences in relation to socioeconomic standing. Based on this, new studies within the various objective domains can be initiated when the public health policy is being monitored and evaluated, and where there is a lack of knowledge, additional aetiology-focused studies are needed. Based on this knowledge and in cooperation with the relevant agencies, organisations and research institutes, it is possible to draw up the basis of a more concrete long-term strategy to reduce social inequities in health.

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# SUMMARY CHAPTER

CHAPTER 4

## Summary chapter

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The aim of this study was to compare the evolution of national public health policies in eight European countries – Sweden, Norway, Denmark, Finland, England, The Netherlands, Italy and Spain – with attention to a) their character and contents concerning social and lifestyle determinants, b) the involvement of non-health sectors, and c) experiences with different strategies. Ultimately the goal has been to identify common experiences, notable differences and lessons derived from these. In this chapter we summarise the major findings according to the items in the common chapter outline.

National public health policies, as such, were not always explicit. For convenience we have called the most representative governmental document the “national public health policy”. The main interest has concerned public health policies for the last 10-15 years.

### *Social and political background*

The countries included in this book differ in many ways (historically, politically, administratively etc) although all are high-income welfare countries in Europe. According to Esping-Andersen’s much discussed typology, welfare arrangements in different countries tend to cluster in three distinct regime-types: the ‘corporatist’ regime, the ‘liberal’ regime and the ‘social-democratic’ regime (1). Those regimes could be applied as a rough and general framework to summarise the socio-political background for the studied countries.<sup>12</sup>

*Corporatist regimes* (an ordered system of self-governing interest associations that fulfil quasi-public roles is called corporatist) are characterised by social insurance funds (old age pension, health, unemployment, accident insurance) that reward work performance and in which benefits are stratified by status. Such public insurance funds were established and operated either by the government or, as in Germany and Austria, run by labour associations which descended from the medieval guild system and 19th century mutual aid societies. These associations, formally independent from the government, are based on contributions of workers matched by employers, but often augmented by government transfers from the budget.

The Netherlands, Italy and Spain in this book would fit in this category.

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12. It must be noted here that these regimes represents ideal types that are not “pure” and there has been an ongoing discussion about how to classify countries, see for example: Ferrera M. The southern model of welfare in social Europe. *Jou Eur Soc Pol* 1996;6(1):17-37, Bonoli G. Classifying welfare states: a two-dimensional approach. *Jou Soc Pol* 1997;26(3):351-372 and Arts W, Gelissen J. Welfare States, Solidarity and Justice Principles; Does the Type Really Matter? *Acta Sociologica* 2001;44 (4):283-299,

*The liberal welfare regime* is characterised by means tested programmes and modest universal benefits which are based on public services or insurance schemes. The state generally encourages the market to act as a co-provider of benefits, partly by providing a low level of public services. Private insurance and savings schemes are frequently supported by complementary state policies (e.g. tax credits and tax shelters).

England would belong to this category among the countries in this book.

*The social democratic regime* have been shaped as the name suggests, by the social democracy that has been the dominant political force in developing the universalistic welfare state that pervades all aspects of people's lives. The enjoyment of benefits and services is less dependent on a person's performance in the market and more commensurate to need. This regime type is also characterised by its extensive service orientation (day care, elder care, etc.) and high tax rates. Entitlements are generally the same across the board but the system is, nevertheless, tailored to differentiated expectations (e.g. benefits are graduated to income). In addition, social democratic regime tends to reduce class and income differences by progressive taxation, free education including university level, subsidies for rent, high level of revenue during unemployment and sick absence. Sweden, Norway, Denmark and Finland in this book would fit in this category.

## *Health equity development*

All eight countries report continued increase in life expectancy for women and men during the last 15 years and the figures are approaching each other for all the countries. However, increased relative inequalities in life expectancy between the upper and lower social position are also reported from most of the countries. In some countries the absolute inequalities also increased, e.g. England and Finland. When self-rated health has been monitored, bigger relative inequalities are usually shown but were more stable over time, except for women in the lower classes who reported more complaints.

Large differences between the "best" and the "worst" municipalities or parts of municipalities are reported in several countries, e.g. 7-8.4 years for men in Sweden and England respectively, and 4-5 years for women. In Oslo, Norway, there is a 10 year difference in life-expectancy between the richest and poorest parts of the city and similar differences can be found between areas in other major cities, e.g. Copenhagen and Stockholm.

## *Approaches to equity in health in national public health policies*

Five of the eight countries have separate public health policy documents from the government, while public health aspects are integrated in general national health policies for Denmark and Italy. Spain seems to have neither a separate public health policy nor a policy that is integrated into the national health policy.

The policies differ in political “weight”. Some policies are adopted by the parliament while others are adopted by the government alone (the majority of the policies). For example: in England the health policy is published as a White Paper (i.e. an authoritative government report outlining a policy) which is presented to parliament in the form of a Bill which is then passed by parliament and becomes an Act. In Finland it is presented as a resolution (which means that the measures suggested by the government do not become laws) and in the Netherlands as a memorandum (a written form of communication which states what the government wants to do).

The countries also differ when it comes to framing the question of health inequalities in their policies. Graham (2) has suggested a typology, which distinguishes between policies directed to a) the poor health of socioeconomically disadvantaged people, b) health gaps between different groups and c) social gradients across whole populations. Below we have tried to classify the countries with outset in this typology by using the information given in the chapters and according to the most recent policies.

In the first group (*the poor health of socioeconomically disadvantaged people*) are Denmark, Italy, the Netherlands, and, if we look at the policy work until the last few years also Norway.

In the most recent Danish health policy the government states that the society must take responsibility for the most disadvantaged and vulnerable population groups. The government therefore emphasises the need for special attention and efforts in relation to several high-risk groups in the policy.

In the Italian health plan for 2003-2005 the role of social disadvantage regarding health was acknowledged, but tackling health inequalities was not a major objective in any health strategy. The aim of reducing inequalities was limited to marginalised groups: people living below the poverty line or who are not self-sufficient, mentally ill people, drug addicts and certain immigrant groups.

In the Netherlands the public health memorandum published in June 2004 called for particular attention to be paid to the health disadvantage of people with limited education and low income, including many immigrants. The memorandum adheres to the earlier formulated quantitative target that the healthy life expectancy of the lowest socioeconomic group needs to be raised by 2020 by at least 25% of the current difference in healthy life expectancy i.e. 3 years.

In the second group (*health gaps between different groups*) we find England, Sweden and Finland. England is widely known for being one of the few countries, which actually has targets to reduce health inequalities. In the health inequalities strategy of 2003, these targets focused on the health gaps. By 2010:

- to reduce by at least 10% the gap in infant mortality between routine and manual groups and the population as a whole
- to reduce by at least 10% the gap between the areas with the worst health and deprivation indicators (the spearhead group) and the population as a whole.

One of the conclusions given by the authors of the English chapter in this book noted the government's dominant focus on deprivation (rather than the social gradient), coupled with the area-based targeting of initiatives. Although poverty has become highly concentrated geographically into small areas, which justifies extra resources and effort being targeted to these identified areas to "level-up", there is a danger of missing the majority of the poor, who live outside targeted areas.

In the Swedish Public Health Objective Bill from 2003 the government points out that it aims at a broad welfare perspective on public health policy in order to reduce the inequalities in health between different social groups by creating social conditions for health equity. Achieving this not only requires a social environment and social structure that promote good health for all, but there is also a need for special support to certain individuals and social groups.

In Finland there are eight main objectives in the public health programme from 2001. Five of them address people's life course stages from infancy to old age, and three general objectives apply to all population groups. The final, eighth objective states that all objectives of the programme should be implemented in such a way that inequalities are reduced and the welfare and relative status of those population groups in the weakest position will improve. For the first time a quantitative target for reducing health inequalities was defined: mortality differences between the genders, groups with different educational backgrounds, and different vocational groupings should decrease by a fifth by the year 2015.

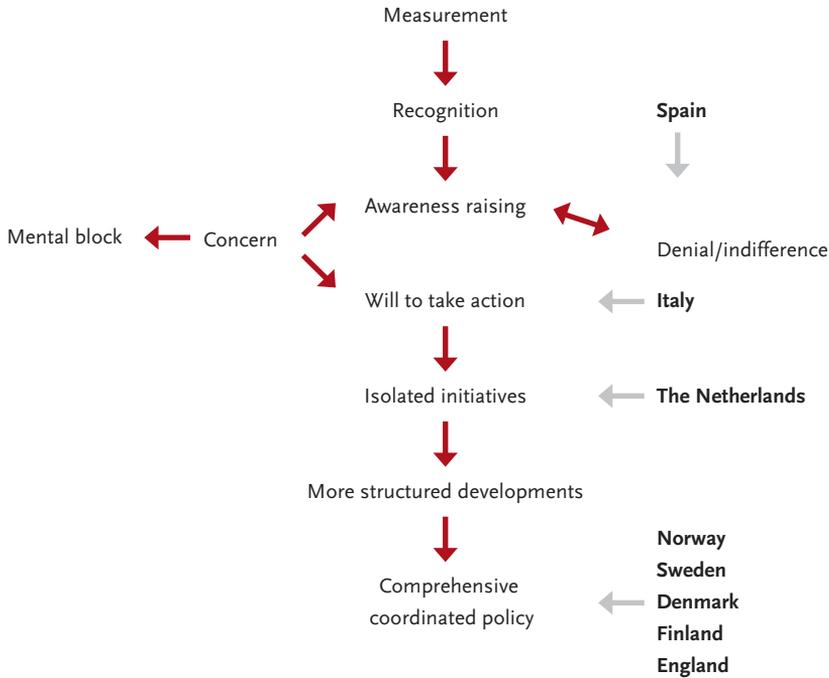
During the time of the finalisation of this book there was no clear example of a national public health policy, which would fit into the third group (*tackling social gradients across the whole population*). However, in February 2007 a White Paper was released by the Norwegian government with a view that "aims at a more equal distribution of positive factors that influence health" and was based on suggestions in an action plan from 2005 titled "The challenge of the Gradient". This action plan indicated a shift of focus, compared to former policy documents in Norway. One sign of this was that social inequalities in health were defined in terms of the social gradient. In the plan, it is argued against a perspective where focus is only on the poorest groups:

*"Working to reduce social inequalities in health means making efforts to ensure that all social groups can achieve the same life expectancy and be equally healthy. Differences in health not only affect specific occupational groups or the poorest people or those with least education. On the contrary, research indicates that we will not address the relation between socioeconomic position and health if we base our activities on strategies that focus on «the poor» as an isolated target group."*

### **Whitehead's action spectrum**

When writing their chapters we asked the authors to classify their countries within the Whitehead action spectrum (3) – see Figure 1, which has been used in other studies (see for example reference 4). Below are the results from this exercise.

Figure 1. Action spectrum on inequalities in health



Source: Whitehead (3)

## Health and equity considerations in other sector policy areas

Practically all national public health policies mention the importance of other sectors for the health status of the population but with differing emphasis. The reverse, i.e. non-health sector programmes arguing for health benefits, seems to be rare. However, at least in Finland and Sweden there is evidence that the reduction of health inequalities are important elements of the agendas of non-health sector programmes.

### Education

In general, education policies are very much concerned with the differences in recruitment to higher education that continue to exist although the differences have become reduced over decades. The health inequalities between low and high education groups are also noted in all countries and, although not always stated, there appears to be a general understanding that improved educational levels for the underprivileged sectors of the population and their children will reduce health inequalities as well as reduce relative poverty. Special efforts to support educationally deprived areas and schools are reported from England, Finland, Italy, Netherlands, and Sweden.

## **Labour market and work environment**

As occupation is a major part of the most common socioeconomic grouping it is somewhat surprising to find that the labour market and work environment sectors have been consciously pinpointed for reducing health inequities only to a limited extent.

In most countries represented in this book average open unemployment varies between 5-10% but the figures are unreliable, especially for older women who often are not included in the work force. Short- and long-term unemployment is much more common in the lower social groups. This low employment is generally assumed to contribute to inequity in health both through a low economic standard and through the stress of uncertainty for the future and reduction in social connections. Some countries have special tripartite agreements to support return to work for those with long-term sickness absence or unemployment, e.g. England, Netherlands, and Norway, and with positive results.

Some countries, e.g. Finland and Sweden, are concerned about the high degree of early retirement and have policies to stimulate continued work to and even after 65, which has been the common pension age.

Fatal occupational injuries have been reduced in all countries, partly due to the transformation from heavy, physically demanding and dangerous jobs to office and service work. Traditionally most laws and activities to improve the work environment have contributed to some reduction in health inequity between occupational groups. However, lately anti-stress programmes have become popular, e.g. in England, and if those are directed mainly to the professional groups a risk of increased differences might be at hand.

## **Environment**

Strong social differences in the incidence of fatal injuries are reported from several countries. Most countries have major programmes to reduce traffic accidents but these are usually concentrated on the drivers and passengers except in Denmark where there is special concern for the pedestrians and the bikers.

There are several programmes directed at supporting deprived areas where a number of determinants are tackled, e.g. the school system, transport, housing, playgrounds, social welfare, employment, and safety. Activities from the WHO-based network for Healthy Cities provide several examples. However, overall evaluations of the cost-effectiveness of such programmes are rare. Health equity aspects of urbanisation and environmental determinants are hardly reported at all.

## **Healthcare**

Preventive healthcare has a proud history of free mother and child care, effective immunisation programmes and societal involvement in the sanitary reforms in several of the countries that contributed substantially to overall health improvements and also to reduce health inequities. Very little is reported regarding the role of primary healthcare in health-promoting activities related to determinants of chronic disease.

There is overall a trend of increased visits to primary healthcare compared with visits to hospitals and the number of hospital beds has been reduced in most countries, especially beds for inpatient mental healthcare. The access to hospital care is usually

reported as fairly equal for all groups although faster and more elaborate treatment of the more privileged groups is noted in some countries, e.g. Denmark and England. Less access to primary healthcare for the lower social groups is feared in many countries due to increased fees and more privatisation of the healthcare. Finland reports a relatively strong focus on preventable actions with an equity perspective in the primary healthcare and compulsory occupational health service free of charge which covers the majority of all employees (about 80% of the workforce at work). Access to dental care appears very inequitable in most countries.

### *Do the public health policies focus on determinants or health outcomes?*

The countries differ concerning the focus of the policies. Three different types of approaches can be identified: those with a focus on social as well as lifestyle health determinants, those with a focus primarily on lifestyle-related determinants and those with a focus on a mix of determinants and health outcomes. The most common way to structure the policy is to approach a mix of determinants (mostly “classic” determinants such as smoking, eating habits, alcohol etc.) and health outcomes. Italy and Spain are not reported to have a distinct national health policy with equity aspects, partly due to the federal character of these states.

#### **Focus on social as well as lifestyle-related health determinants**

##### SWEDEN

Rather than focusing on health per se, the objectives – in the public health policy – deal with health determinants on different levels. The first six “domains of objectives” concern structural causes of social inequalities and the last five are directed at health-related behaviours. Decisive measures to improve public health are planned in policy areas such as healthcare, labour market and working life, housing, education and environmental policies.

##### ENGLAND

The most recent public health programme focuses on four themes. It gives examples of the types of action planned to address each one. Area-based initiatives figure very strongly in this and other major social interventions. That is, they are concentrated heavily on areas of the country identified as suffering material and social deprivation. There are also measures aimed at lifestyle-related determinants such as smoking and nutrition.

## Focus mainly on lifestyle-related determinants

### THE NETHERLANDS

In the Government's health memorandum "Living longer in good health" prevention is deemed better than cure. For that reason the Government, health insurers, social organisations, social partners and businesses are encouraged to invest in prevention. The memorandum strongly emphasises individual responsibility for behaviour and health. It states, for example, that "Prevention policy will only achieve success if we hold citizens directly accountable for their own behaviour". The government urges different actors to join forces around three spearheads areas: smoking, obesity and diabetes. The equity target in the Netherlands however, is phrased in health outcomes, i.e. reduction of the socioeconomic differences in healthy life expectancy with 25%.

## A mix of determinants and health outcomes

### FINLAND

Finland's most recent health policy focuses both on determinants and health outcomes, but also the general preconditions. Some examples are given below:

Target 2: Smoking by young people will decrease, to less than 15% of those aged 16-18.

Target 4: Working and functional capacity as well as workplace conditions will improve; retirement age will be three years later than in 2000 (by 2015).

Target 6: In 2015 the Finns can expect to remain healthy for an average of two years longer than in 2000.

The preconditions include raising the value of the population's health to be a key principle guiding choices in all sectors and levels of the government, the private sector and civil action and covering all main areas of everyday life.

### DENMARK

The latest government programme – "Healthy throughout life" – focuses on eight determinants (tobacco, alcohol, diet, physical activity, obesity, accidents, working environment and environmental factors) and – as something new – eight diseases: Non-insulin-dependent diabetes mellitus, preventable cancer, cardiovascular diseases, osteoporosis, musculoskeletal disorders, hypersensitivity disorders (asthma and allergy), mental disorders, and chronic obstructive pulmonary disease. Tertiary prevention and rehabilitation for these disorders are brought into the programme. Focus is strongly on individual-level methods of health education and health promotion as well as voluntary initiatives at workplaces and communities, and very little on legislation and economic measures to influence health behaviour and environmental risks.

England could also be classified into this group since the overall targets on health inequalities focus on health outcomes. However the main focus of the actual policy is still on measures that focus on social determinants.

## *Lifestyles – prevalence and actions*

National prevalence figures of lifestyle factors in different social groups and their health effects have been reported to a much larger extent and for more countries in other reports. Our focus is more on policy issues. However, short summaries of the reported facts are presented.

### **Tobacco**

The tobacco smoking prevalence has been reduced to around 25% or less in almost all countries that participated in this study. However, the relative differences have increased between the high and the low socioeconomic groups as the reduction in the upper social strata have been more pronounced than in the lower strata (with the only exception of women in Italy). Some countries report 50% smokers in the lower social groups. Smoking still makes up a significant proportion of the burden of disease, exemplified by Denmark.

Many actions are reported, usually with an emphasis on school children and young persons to never start smoking. Some countries have strong support for “quit smoking campaigns” with a special emphasis on disadvantaged populations, e.g. England, whereas Sweden has devoted very little resources for such activities.

### **Alcohol**

The average levels of alcohol consumption seem to become more and more similar for all the reported countries while changing rather dramatically in the individual countries, e.g. up from a low level in Sweden and down from a high level in Italy. The lowered prices of alcohol due to EU rules seem to explain the increases in total alcohol consumption in Finland and Sweden. There is usually no clear correlation between social position and the amount of estimated average alcohol consumption. However, it has been reported from Denmark, England and Sweden that the same amount of reported alcohol consumption seems to cause more alcohol-related diseases in the lower categories, due to interaction with other factors or different drinking habits (binge drinking).

Activities to reduce harmful alcohol consumption usually include taxation, age restrictions for buying or ordering alcohol and in Finland, Norway and Sweden “monopolies” for selling alcohol. England, Finland, Italy, Netherlands and Sweden have extensive harm reduction programmes with, among other measures, screening of indications of excessive alcohol consumption at the workplace or in primary healthcare for rehabilitation for alcohol abuse.

### **Diet and physical activity to reduce obesity**

Overweight problems among children and adults are reported from all the countries with higher prevalence in some countries. The higher social groups report better dietary habits in surveys from several countries as well as more physical activity.

The national plans that are in place in the countries in this book aim to increase physical activity, provide dietary education and they focus on certain risk groups, e.g. obese children and persons with diabetes. Very few structural measures are being discussed, e.g. taxation of unnecessary sugar products (candy, soft drinks), but these measures are discussed at the EU and WHO levels.

## *Strategies and the administrative level of action and the implementation*

Most national policies put the emphasis or place responsibility for the actual public health work at the local or regional level. Municipalities are the main actors in many countries and the national policies focus on their power and possibilities to implement the policy. However, it is interesting to note that many countries emphasise the involvement of the private economic sector in their policy as well as that of NGOs. For example in England, Denmark and the Netherlands there is an explicit reliance on the private sector and in Italy NGOs, including the trade unions, employers' and religious organisations are given important roles.

There is a long tradition of discussing three different strategies for health promotion and public health interventions: the disease-specific strategy, group-specific strategy and the arena approach.

All countries have disease-specific programmes but rarely with equity focus except for England. In some countries, like Finland and Sweden, the national public health policy does not emphasise the disease-specific strategy but there are strong NGOs that carry out programmes for primary, secondary and tertiary prevention.

All countries focus on vulnerable and marginalised groups. In addition, Finland and Sweden have a life course perspective with special actions for children, young people and the elderly.

All countries emphasise different arena approaches for public health activities. Networks of Health Cities, health-promoting workplaces, schools, hospitals, etc., are mentioned from many countries. The most focused arena approach is the New Deal for Communities in England with a budget of £1.9 billion over 10 years for 39 small communities (£50 million/community) with 1000 – 4000 households, i.e. the most deprived areas. The work is carried out under five main headings: worklessness, community safety, crime, health and education. It is too early for evaluation of long-term effects but short-term gains have been noted. A similar programme has been carried out in Sweden in 24 deprived areas in the three major cities but with budget support from the government of about one fifth of the English budget per community and only running for five years. However, the communities were supposed to match this amount. The health evaluation is

not clear but the programme is intended to continue expanding to more communities. A similar programme has started in the inner city of Oslo, Norway.

### **National level**

In all countries the government and the parliament are responsible for the legislation and the distribution of finances for policies concerned with reducing health inequalities. The national role in the implementation process is not so much “hands on” but rather to give legitimacy to these questions and guide actors at lower levels via legislation, health goals and financial incentives to varying degree. However, in some countries, like England, the Government takes national responsibility for linking health and non-health policy for the determinants of health and for monitoring progress. The current programme of action on health inequalities, for example, lists 12 national agencies across the government that will be responsible for delivering each work stream in the plan, including the Treasury, the Home Office, Department of Work and Pensions, Department for Environment, Office of the Deputy Prime Minister, and the Department of Health. They each have targets to reach and indicators for monitoring success. The Department of Health has a specialist Health Inequalities Unit within it to lead on the issue.

Another example is the Netherlands. In the Netherlands the Government views reduction of socioeconomic health inequalities as a problem that needs to be solved, for the large part, at the local level – in municipalities. Also in policy fields other than health, municipalities are granted more responsibility than before, e.g. in the field of long-term unemployment. The national policy memorandum on prevention from the Ministry of Health, Welfare and Sports formulates priorities, but municipalities are not obligated to follow these and may set their own local health priorities.

In Italy there is no institution or agency explicitly committed to regularly linking health goals to non-health policies at the national level.

Overall, at the national level there are often one or several governmental agencies (a National Institute for Public Health or related organisation) that have the responsibility to support the actors at the local level. This support is mostly done through collection of data on health inequalities, through collection and dissemination of best practice in this field and in some cases also financial support to different projects.

### **Regional and local level**

As noted most of the actual work is done at the local or regional level which, in many countries, has great independence in the relation with the national government. The chapters in this book also show that there is a plethora of activity going on at these levels to reduce inequalities. For example at the regional and district levels in England, Local Strategic Partnerships have been formed, composed of local NHS bodies, local government authorities, and representatives from the business, voluntary and community sectors. These partnerships are intended to provide a forum for senior staff from different sectors to develop a local agenda for action to improve health. Directors of Public Health and their teams, located in each of the approximately 120 Primary Care Trusts, each Strategic

Health Authority and each Regional Government Office, are expected to take a lead on building partnerships that will help deliver the national public health strategy.

In Denmark the responsibility for health promotion was transferred to the municipalities in 2007. Municipalities will have a more clearly stated responsibility in the new health law for: prevention, health promotion, care of alcohol and drug addicts, the mentally disabled, vocational training, rehabilitation and care of the elderly and disabled. Quantitatively, tasks related to care and rehabilitation will dominate and that might strengthen the potential to look at health inequalities in terms of marginalised groups where health and social conditions are strongly interwoven. This might actually result in furthering the Danish tradition of seeing health inequality more as a dichotomy than as a gradient. In Denmark municipalities are also responsible for a broad range of local policies with a potentially strong health impact, such as the environment, traffic, housing, school, ethnic integration, cash benefits for poor, unemployed, sick and disabled as well as care of the elderly and disabled. But after the reform this potential, will not be realised without strong public health skills and competence, which might be difficult to establish in the many smaller municipalities with 20-50.000 inhabitants. Several tasks related to health monitoring would need competence in e.g. inequality measurement, prioritising, target-setting, health impact assessment and resource allocation to local health policy activities.

Sweden has many similarities to Denmark. By far the greatest policy and practice responsibility rests with Sweden's 290 municipalities. They make a number of decisions that have a direct effect on people's daily lives. In a questionnaire to the municipalities, conducted by the Swedish National Institute of Public Health in 2004, the majority said they had allocated special priority to one or more of the domains of objectives specified in the national public health policy. The domains prioritised were mainly lifestyles (alcohol, tobacco, eating habits and physical activity) and conditions during childhood and adolescence. However, many also said they were putting particular effort into the overarching public health aim focusing on greater equity in health.

An interesting case of how the municipalities are assigned responsibilities in the field of public health is the Netherlands. There the Law on Collective Prevention and Public Health sets out the responsibilities of municipalities, such as collective prevention, infectious diseases management, and youth healthcare. Municipalities are further obligated to write a local health plan every four years. An overview of the topics addressed in these local plans shows that, although socioeconomic health inequalities are certainly not absent from the plans, there are also many municipalities that address the topic in a very limited fashion, if at all. Despite the presence of guidelines for health impact assessment and other policy support tools in which the attention for health inequalities is an integrated aspect, specific methods or tools to facilitate equity oriented health strategies for municipalities are not in place. The application of such tools lags behind, as does intersectional policy making on the local level. A similar type of law was suggested in Sweden by the National Public Health Committee but later rejected by the government (5).

Another example is Spain where the decentralisation of functions to the Autonomous Communities has been very important. Concerning public health, Spain has adopted a quasi-federal structure. This process has meant that state services have had to be rede-

fined. Currently, the main functions of these services are: to compile data from the Autonomous Communities; facilitate the implementation of health policies by the regional governments; promote health actions by the private non-profit organisations through subsidies; and link EU and regional health policies through development of norms at the state level that then have to be enlarged and complemented by regional legislation. In this general structure, municipalities have also been given responsibilities by the Spanish Constitution concerning public health.

## *Indicators of process and follow up of achievement of targets*

The traditional way of monitoring the health development in a country has been to study overall mortality and disease-specific mortality. In some countries this has been complemented by morbidity incidence, usually based on national registries of hospital discharge diagnoses, and self-estimated health from surveys.

Tobacco, alcohol and drug consumption have been studied in some repeated national surveys and there are examples of surveys on food and exercise habits. It might seem relatively easy to standardise such variables of health and lifestyle factors to facilitate time trend studies by consecutive reporting and international comparisons. There have been on-going efforts within the EU, especially Eurostat, for many years but difficulties persist, even within many countries, concerning agreement on the best way of phrasing the questions and which categories to survey. Problems with establishing relevant, accessible indicators of social determinants for equity in health are far more difficult, particularly concerning the validity issues.

Most countries use indicators of some sort to monitor either the health situation or the situation concerning certain determinants, and sometimes both. For example, in the recent Danish health policy an indicator programme was presented. It includes all the priority areas for risk factors (tobacco smoking, alcohol consumption, diet, physical activity, obesity, accidents, working environment and environmental factors), target groups (pregnant women, children, young people, vulnerable and distressed adults, elderly people and chronically ill people), settings for health promotion (schools and child-care centres, workplaces and the healthcare services) as well as key indicators for health promotion by the public sector. Trends in these indicators will regularly be compiled in an annual publication over the time period that the policy covers.

In the first Public Health Policy Report from 2005, the Swedish National Institute of Public Health suggested a number of indicators connected to the most recent policy. A total of 42 health determinants were proposed including 36 principal indicators and 47 sub-indicators (6). Health indicators are also presented in the Public Health Report done by the National Board of Health and Welfare (7).

There are a number of methodological issues involved in estimating the effects of public health policies on health inequalities by using different indicators. A phenomenon reported from several countries concerns absolute versus relative measurements. Eng-

land, which is noted to have a well-developed health equity strategy, has very specific indicators connected to the public health policy. However, there are numerous difficulties and technicalities that have to be considered as discussed by Dahlgren and Whitehead in the WHO-report “Levelling-up” (8). They show that depending on which measurement you use the results could show that the health differences have diminished or widened. For example, using the absolute measure, inequities in mortality show a decrease, while using the relative measure they show an increase.

## Monitoring

As noted above most countries have a number of indicators that are supposed to be monitored regularly. Most policies also have some discussion on when the policy is supposed to be reassessed, usually within a three or four-year period after the policy has been decided upon. However, the process of follow-up is often described as something that will be developed during the implementation process of the policy and not included in the policy as such. One can assume that the outcome of the follow-up results will influence revisions of the policy even though this is not clearly stated.

Many countries, such as Sweden, the Netherlands and Finland, have national public health reports, which are published every fourth or fifth year by a national agency. For example, in the Netherlands, The Monitor of Health Arrears reports periodically on health inequalities at the national level. Health determinants, such as health-related behaviour, environmental factors and healthcare utilisation are also monitored. The Monitor makes use of existing data sources with nation-wide coverage to generate a representative and valid picture of the development of socioeconomic health differences in the Netherlands. The Monitor is to report on socioeconomic differences in health and its determinants every four years and is accessible through the Internet as part of the ‘National Compass of Public Health’.

In England there are instead monitoring reports published by the governmental ministries. The first monitoring report on the *Tackling Health Inequalities Action Plan* and its targets, issued in August 2005, concluded that inequalities between the most and least disadvantaged had widened in relative terms between baseline and 2001-03, but had narrowed in some instances in absolute terms. e.g.: despite overall improvements in infant mortality rates, the relative gap between the rate for ‘routine occupations’ and the general population has widened. When the monitoring report was published in August 2005, the media quickly picked up on the negative message from the relative measures, with the Government struggling to get across the more positive findings about absolute change.

There are also examples of how changes at the political level have made the follow-up process difficult. In some cases there is a change in government which results in a change of policy direction which in turn makes it impossible to do a follow-up because the previous policy is not allowed to run through the whole period. One such example is Denmark.

According to the information given in the chapters in this book we cannot find any evaluations of whether the more recent public health policies have had any definite effects, i.e. diminished the health inequalities. The implementation of the policy could still have had effects that have not yet become obvious, where policies have been developed and implemented recently (within a three to five year period) and have not yet come into effect. Even the data on how the recent policies may have affected people's life situation or altered their behaviours when it comes to smoking, drinking and food habits is limited. Historically, basic public health actions such as improving the sanitary and housing conditions, forbidding hazardous child labour, reducing workplace accident mortality, better access to healthcare etc have had substantial effects on the improved health status of the population and also reduced previous inequalities in health between the higher and lower classes. However, this study is concerned with the effects of more recent public health policies or the lack of such.

### *Knowledge gaps and sustainable research organisation to ensure the evidence base for policies and strategies*

In this section we summarise the knowledge gaps cited in the country chapters and the suggestions for relevant national knowledge and research organisation. Recommendations are given in the concluding chapter.

- Researchers have focused much more on causes of health inequalities than on effects of interventions to reduce inequalities. Data suitable for etiological, epidemiologic studies have become available and could relatively easy be analysed. Organising conclusive experiments to evaluate the usefulness of measures to reduce social inequalities in health or evaluating "natural experiments" is obviously much more difficult and resource consuming.
- Public health interventions may have differential impacts for different social groups which should be taken into consideration in the analyses. Past evaluations have often looked at overall impact, controlling for socioeconomic status, rather than stratifying by it.
- More research is needed on access to healthcare at times of increased marketisation of health services, as well as the potential for the healthcare system, especially the primary healthcare sector, to be an important actor for equity in health status in the communities.
- Data on marginalised group, immigrants from different countries, etc., have usually not been sufficiently studied in population surveys due to insufficient sample size.
- There is lack of information in most countries about the significance of childhood living conditions for subsequent social inequalities in adult health, as well as of the role of psychosocial factors.
- There is a shortage of studies that take into account gender inequalities related to health with full concern for mediating factors, including socioeconomic conditions.

- Occupational level is a major variable for classification of social class but the labour market relationships and the work environment have been poorly studied in relation to equity in health in contrast to consideration of the importance of education.
- The role of other important sectors such as transport, food production, environment and urbanisation for influencing the determinants of inequalities in health need to be further analysed.
- Research on health inequalities has, in some countries, been based on the particular interests of individual researchers and research groups and has often been carried out in short-term projects. Institutionalised arrangements to guarantee continuity of scientific information is regarded as necessary for the basis of a rational public health policy. A tool often mentioned is Health Equity Impact Assessments of proposed actions, stimulated by the increased importance of Environmental Impact Assessments. However, very few examples are given. National analyses can be predicted to be very complex and will require large, stable funding, probably ordered by a governmental body.
- Follow-up of interventions is risky for a research team due to frequent, unexpected changes in the conditions for the research, e.g. changes in politics and ownership, economic recession. Such studies usually have to run over long time periods, especially if health outcomes are analyzed, and, therefore, also tend to become expensive.

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# CONCLUDING REMARKS

CHAPTER 5

## Concluding remarks and recommendations

CHRISTER HOGSTEDT, HENRIK MOBERG

All the authors of the country chapters have based their conclusions on the available data from and analyzes for their respective country concerning the content and status of equity in the national (public) health policy, the trends for health outcomes, social determinants and lifestyle factors, the actors, the monitoring of public health trends and the knowledge gaps. Here we summarise the authors' concluding remarks noting commonalities and important differences. Some of the conclusions are quite firm but may only be relevant for the described countries and not generalizable.

It is sometimes difficult to characterise a prevailing policy as it often has *changed recently* with a change in the government, c.f. Denmark, the Netherlands, Norway. Health equity policies have a better chance of surviving shifts in parliament and government if they have been adopted by broad consensus across the political party lines, c.f. Finland and Sweden, preferably by a large majority in parliament.

During recent decades, there has been a general trend of reduced mortality and prolonged life expectancy for men and women in all the included countries. Several countries report *reduced absolute differences but increased relative differences* in life expectancy between the higher socioeconomic groups compared to the lower due to faster improvements among the more privileged groups. The overall reduced mortality for all groups is basically a positive development but the remaining differences demonstrate that much more can be gained for major sections of the population from improved strategies. No country has yet formulated a comprehensive health policy that takes the social gradient fully into account.

Contrary to the trend for population health status to follow the overall economic development of a country, life expectancy in Denmark has not improved as much as in other European countries in recent decades, despite a higher *GNP*. Similarly, the better off, northern part of Italy had lower life expectancy for men and women compared with the poorer southern part. The same is well-known globally where some countries perform far better, e.g. Cuba and Costa Rica, or worse, e.g. USA, than expected from their *GNPs*. Although *GNP* and average household income level are very important determinants of population health there are many other determinants that modify health status, e.g. degree of income inequality, healthcare systems, social capital aspects, life styles etc. This underlines the importance of analyzing the interaction between so called proximal and distal determinants of equity in health and acting upon the relevant factors.

There is no opposition to the ideal of equity in health, which at least for children usually is regarded as a human right. Still, a common feature in almost all the countries is that there has been a *considerable lag time* of 10-20 years between the first research results on inequity in health and the inclusion of those aspects in the public health policy. This

might be a normal time lag for other research results to become accepted and introduced into policies depending upon political climate, economic conditions and “windows of opportunities”. However, it is reasonable to suggest that this time lag could be shortened and there are several examples of fruitful cooperation between researchers and policy makers in summarising and presenting the evidence base for the public health policies, e.g. Norway, Finland, and Sweden.

At present, most national public health policies *concentrate on lifestyle factors* but there is good evidence for an increase in attention to the underlining of *distal, social determinants* in recent public health policies. Public health aspects are usually included in the general health policy but the importance of attention to other sectors for health and equity in health has in recent times become more prominent in these health policies.

Social, gender and economic equity aspects are frequently introduced into social welfare, educational and labour market policies, but health equity does not usually appear in the *national policies for non-health sectors* with some exceptions (England, Finland and Sweden). These examples would suggest that direct assignments from parliament or the government are necessary to have such aspects included and acted upon.

Programmes to increase educational achievements and promote a larger proportion among the lower social groups attending higher *education* as well as *employment* schemes for the long-term unemployed have their own motivations and aim at diminishing social inequity. It is usually, and for good reason, taken for granted that improvements will benefit equity in health as well. However, this should be carefully monitored and analyzed .

*Access to healthcare* has been fairly equal for all groups of society in the studied countries but there are worrying tendencies due to increased fees for primary healthcare and medicines and there are risks of more inequity due to increased privatisation. Inequalities in existing health services may be only a limited cause of the problem of inequalities in health status, but new, effective treatments and health promotion agendas might potentially be an important part of the solution.

The interventions on *tobacco smoking* have been successful in all countries in general but the lower social groups continue to smoke much more than the higher groups and smoking still causes a substantial part of the burden of disease. There is evidence for a strong link between general living conditions and the proportion of smokers: as living conditions decline, smoking prevalence increases. Smoking reduction programmes must take this into concern and such programmes must have continued support.

The amounts of *alcohol* consumed seem to be similar for different social groups and the national average consumption also seems to have become more and more uniform in Europe. The demand from the EU to lower the taxes on alcohol in Finland and Sweden has, as expected, substantially increased the consumption.

*Overweight and obesity* are increasing problems with a strong social gradient. It is likely that measures like a sugar tax, responsible initiatives from the food industry and stimulating physical activity could have positive effects on the prevalence of obesity in general, but it is doubtful if such measures will have a differential effect on different social groups, in the desired direction.

Most of the countries assessed, such as Sweden, the Netherlands and Finland, have *public health reports* which are published typically every fourth year by a national agency and give detailed reviews on gender specific mortality and morbidity, healthcare, social and lifestyle factors, socioeconomic, educational and geographical health differences etc.

No country appears to have a satisfactory set of established *indicators to follow* the developments of social determinants in relation to equity in health although some health indicators and lifestyle factors are described. These few examples of indicators usually concern all-cause and infant mortality and tobacco smoking. In some of the countries it is possible also to measure other health outcomes in relation to socioeconomic groups, particularly disease-specific mortality and self-measured health from national sample surveys. Long lists of indicators of social determinants have been suggested but so far no follow-up system of those have been proposed or established. There are obvious difficulties in finding single social indicators with strong validity for equity in health and this should become a major field of research method development in contributing to multivariate models that can take the interaction of several indicators at different levels into account.

As noted above, most countries have a number of indicators that are supposed to be followed-up regularly. Most policies also have some discussion on when the policy should be followed-up – this is mostly done within a three or four-year period after the policy is agreed upon. However there is scarce information in the policy documents on exactly how the follow-ups are supposed to be done. The wordings are sometimes vague and the process of follow-up is often described as something that will be developed during the implementation process of the policy. There is also a lack of discussion on how the results from the follow-up will be fed back into the policy.

The importance and responsibility of the *local (municipal) and regional actors* to handle most of the public health interventions is typical for all countries with some exceptions, e.g. the NHS in Great Britain. This local responsibility is appropriate for many areas such as hygiene and living conditions, collaboration with local NGOs, healthcare and social welfare, primary and secondary education etc but many distal determinants are of national or even international character, e.g. taxation, employment and labour market policy, pension systems, research funding, national statistics, surveillance and compilation of scientific knowledge. All countries seem to have collaborative bodies to negotiate responsibility between the different administrative levels that deal with health issues but the equity aspects do not always seem to be present.

In some countries, e.g. Italy and Spain there has been more public and political interest in the health inequality between geographical areas, ethnic groups and occupations than between socioeconomic groups. This is partly due to the availability of data and because it is considered a more focused approach to address limited geographical areas or ethnic groups than e.g. the social gradient. However, there is a risk that the socioeconomic importance of such ethnic and geographical differences is underestimated and therefore these interventions might not be well targeted.

Large, intensive intervention programmes on small numbers of deprived areas with substantial budgets tackling social, health, school and safety issues are ongoing in Eng-

land, Sweden and in Oslo, Norway. Many important lessons could be made if the evaluations were as comprehensive as the interventions and had a health equity focus. Some limitations on a national scale can be foreseen as most deprived persons in those countries live outside the deprived areas and those who quickly raise their standard might leave the area, especially in the beginning of the intervention period.

Besides targeting communities, other arenas for health interventions are schools, workplaces and healthcare centres. Those have certainly been used to varying degrees today and there seems to be large potential for equity oriented interventions further on.

Disease-specific strategies have rarely been equity-oriented although they have some potential. Group-specific strategies have mostly been applied to children and their mothers or marginalised and vulnerable groups. Recently, a life course perspective has been applied in some countries. Such strategies could have an impact on health inequalities but it is important to analyze why those marginalised groups have become marginalised – educational, employment, cultural and health factors – in order to direct preventive measures for the next generation. This will lead to a focus on structural, distal determinants that often, to a large extent, explain differences in harmful lifestyle patterns.

The complex nature of a policy that can “guarantee” to promote equity in health between socioeconomic groups requires taking the specifics in every country into account. This makes it difficult both *to study comparability* and to *transfer knowledge* from one country to another. There are currently major efforts to standardise statistical and survey indicators within the EU that should make comparisons easier in the future. A definite need for better conditions and resources for comparative research has emerged from this project.

As summarised in the previous chapter, the different country authors have suggested many *knowledge gaps and research needs*. The following remarks have come from more than one author.

- Establishment of one or several governmental agencies (e.g. a National Institute for Public Health or related organisation), if it does not exist, with responsibility to collect data on health inequalities, collect and disseminate examples of best practice in this field and support the actors at the local and regional levels. Such institutes have proven very useful in combination with substantial funding for long-term, multidisciplinary research initiatives.
- Commissioning experiments or evaluations of “natural experiments”, e.g. new taxation systems, educational and social welfare reforms. It is difficult to study the effects on social inequalities in health in a conclusive way with only “conventional” epidemiologic methods. Intervention projects cannot be expected to give conclusive results concerning equity in health due to unforeseen changes in the study area, e.g. changes in political leadership or ownership, economic recession etc. Increased use of additional research designs, therefore, seems necessary and funding for such research is essential.
- There is need to develop ways of assessing clusters of interventions or “policy systems”. Tackling health inequalities is likely to require a combination of interventions,

rather than an isolated initiative, but it is not clear which ones work best together, and for which social groups.

- More research is needed concerning the potential and best practices for the primary healthcare sector to support individual and group measures for reducing unhealthy lifestyle habits and practice from an equity perspective but also for fruitful collaboration between health and non-health actors
- Account should be taken of the fact that underprivileged and smaller ethnic groups are difficult to “catch” in population surveys unless big or additional sampling is performed.
- Further research is needed on the social determinants of health inequalities. For instance, there is a great need to learn more about the significance of childhood living conditions for social inequalities in health, and our knowledge of the potential role of psychosocial factors is far from sufficient. We will also need to gain a better understanding of how various factors interact and impact one another.
- More research is needed on gender inequalities related to health that takes into account mediating factors, particularly socioeconomic conditions, as well as aspects of social capital and discrimination.
- Continued comparisons and analyses of successes and problems with the implementation and monitoring of health equity policies are warranted and should include more countries.

In recent years, a considerable number of countries have developed and implemented strategies aiming at reducing inequalities in health. However, knowledge of effective policies or strategies to reduce socioeconomic inequalities in health is still very fragmented. The aim of this book is to describe and compare different European health equity strategies and their potential successes.

The main part of the material comes from a comparative study of national public health strategies for equity in health with the following participating countries: Denmark, Finland, England, Italy, Netherlands, Norway, Spain and Sweden. National experts wrote the country chapters which not only cover questions concerning whether their countries were taking measures on the individual public health problems – such as smoking, alcohol or physical activity – but also if the policies had considered the wider, social determinants of health and experiences of the potential implementation processes.

This publication presents an up-to-date picture concerning equity-oriented public health policies in Europe. However, there is considerable lack of relevant data to enable comprehensive comparisons and analyses of successes and problems with the implementation and monitoring of health equity policies. We hope the book will stimulate continued efforts to harmonise relevant data collections and improve collaborative analyses aiming at shaping an evidence base for policy decisions about the most effective ways to promote equity in health.



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