Racism, Xenophobia, Discrimination, and Health 1

Racism, xenophobia, discrimination, and the determination of health

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This Series shows how racism, xenophobia, discrimination, and the structures that support them are detrimental to health. In this first Series paper, we describe the conceptual model used throughout the Series and the underlying principles and definitions. We explore concepts of epistemic injustice, biological experimentation, and misconceptions about race using a historical lens. We focus on the core structural factors of separation and hierarchical power that permeate society and result in the negative health consequences we see. We are at a crucial moment in history, as populist leaders pushing the politics of hate have become more powerful in several countries. These leaders exploit racism, xenophobia, and other forms of discrimination to divide and control populations, with immediate and long-term consequences for both individual and population health. The COVID-19 pandemic and transnational racial justice movements have brought renewed attention to persisting structural racial injustice.

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This is the first in a **Series** of four papers about race and health. All papers in the Series are available at www.thelancet.com/series/racism-xenophobia-discrimination-health

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Introduction

Racism, xenophobia, and discrimination exist in every society, causing avoidable disease and premature death among groups that are already disadvantaged.[1] Such discrimination underpins assaults on people seen as others, whether through institutionalised discriminatory policies, in communities where inequalities are entrenched, or through individuals playing a role in systemic oppressions and interpersonal aggressions. Although the types of discrimination take different forms across time and space, the root causes are situated in efforts to maintain historic power structures. Understanding and challenging discrimination and its underlying ideologies is central to public health and the promotion of social equity. Equally, by ignoring these realities, health professionals are complicit in the structural violence that leads to ill health.[2,3]

Racism, xenophobia, and discrimination can present in many forms, from microaggressions to interpersonal and state violence. As described in detail in the second paper of the Series, health outcomes are usually worse among minoritised groups, with strong evidence that racism plays a role.[4] For example, when managing a child with asthma, we know that it is important to consider the environment that they live in and their ability to access good-quality health care. However, the importance of structural racism as a determinant of health remains under-considered. The tragic death of Ella Kissi-Debrah in the UK, on whose death certificate air pollution was included, is a recent example of environmental racism, whereby minoritised communities are more likely than non-minoritised groups to be exposed to environmental hazards as a result of where they end up having to live.[5,6] A systematic review of the literature found that racism was associated with worse mental health (mean weighted effect size r –0·23, 95% CI –0·24 to –0·21) and physical health (–0·09, –0·12 to –0·06).[7] The situation worsened during the COVID-19 pandemic,[8] in which minoritised ethnic groups were more severely affected by the disease and the consequences of the responses. For example, in the second wave of the pandemic in the UK (Sept 12, 2020 and onwards), Bangladeshi women were 4·11 (hazard ratio adjusted for age, 95% CI 3·62 to 4·66) times more likely and Bangladeshi men 4·96 (4·49 to 5·48) times more likely to die from COVID-19 than the White British population. Higher mortality rates were also seen among Black African, Black Caribbean, Pakistani, and Indian ethnic

Key messages

- Racism, xenophobia, and discrimination are fundamental determinants of health and must be considered as such when considering approaches to public health
- The health consequences of racism, xenophobia, and discrimination occur in every context that has been studied and can be similar for the related categories of caste, ethnicity, Indigeneity, migratory status, race, religion, and skin colour
- History and current practice prove that discriminatory ideology has shaped science and research, and how they are interpreted
- The precursors to discrimination are the two core structural processes of separation, whereby individuals see themselves as different from others, and hierarchical power
- Ill health and health inequities are affected by racism, xenophobia, and discrimination through a host of structural factors and their historical and political roots; interpersonal discrimination cannot be tackled without addressing these complex processes
- Populist leaders and policies can exploit populations using racist, xenophobic, and discriminatory ideologies that minoritise people and lead to poor health

Search strategy and selection criteria

We conducted a scoping review using Embase, MEDLINE, and PsychINFO from inception to May 31, 2020, with no language restrictions, that combined four umbrella search terms: (1) health outcomes—subcategorised into (1a) mental health, (1b) non-communicable disease, (1c) maternal and perinatal health, (1d) infectious disease, and (1e) mortality; (2) quality of care—subcategorised into (2a) health-care centred and (2b) patient-centred; (3) mechanisms of action including socioeconomic determinants of health; and (4) interventions that tackle health inequities from discrimination, with search terms relating to discrimination based on caste, ethnicity, Indigeneity, migratory status, race, religion, and skin colour (see the appendix of the second paper [pp 53–55] for a full list of the search terms). We only looked at reviews for evidence related to racism and discrimination based on migration, due to the volume of literature on racism and also due to the 2018 *Lancet* Commission on migration, which included a literature review on this topic. For other forms of discrimination and for interventions, individual studies were included.

There were 27 combined searches with more than 11 000 results. Articles were selected to show discrimination based on the different forms of categorisation examined in this Series and across populations. Where possible, in the main text we tried to avoid replicating the concentration of relevant literature in areas such as the UK and the USA, which are a product of current power structures, epistemic injustice (see the Race and Health platform), and dominance of high-income countries in public health research.

In the second paper in this Series, we extracted data from 287 articles on health outcomes and coded them according to the outcome, basis of discrimination, global region, and life course stage. In the fourth paper in this Series, 411 publications on interventions were found, which was reduced to 89 following full-text screening. Our full search strategy and fully referenced summary results table can be found in the appendices of the second and fourth papers.

See Online for appendix for Series paper 2, Racism, xenophobia, and discrimination: mapping pathways to health outcomes by Sujitha Selvarajah and colleagues

See Online for appendix

See Online for appendix for Series paper 2, Racism, xenophobia, and discrimination: mapping pathways to health outcomes by Sujitha Selvarajah and colleagues and paper 4, Confronting the consequences of racism, xenophobia, and discrimination on health and health-care systems by Ibrahim Abubakar and colleagues

groups.[9] Global inequity in vaccine access along racial lines has highlighted persistent racism in global power dynamics, rooted in legacies of colonialism and exploitation.[10] Migrant groups and other groups, such as the scheduled castes in India, are often particularly disadvantaged by barriers to care imposed by governments.[11,12] Similarly, Indigenous populations across the world have had poorer health outcomes than non-Indigenous populations, including lower life expectancy, higher infant and maternal mortality, and malnutrition.[13] These health consequences do not only affect minoritised people—as with social inequality, a society with widespread discrimination threatens the health of everyone.[14,15]

Although the importance of social and political factors and their effects on health are widely accepted,[16,17] racism and xenophobia are underdeveloped and under-recognised concepts in medicine and health around the world (with the possible exception of the USA[7]). In this Series, we provide a global overview of the nature of racism, xenophobia, and other discriminatory ideologies and summarise potential interventions to tackle their effects on health and wellbeing. In doing so, we attempt to provide theories, data, and examples from across the world, and at times have chosen not to cite the most commonly known ones to avoid their over-representation. We cannot be comprehensive and cover all minoritised or persecuted groups. We do not wish to diminish the suffering or importance of groups not included, but we are limited in what we can include and believe that the concepts and health mechanisms are transferable.

This first paper introduces our conceptual framework that underpins the Series. We propose contemporary definitions that we use throughout the Series (panel 1), then describe the theoretical basis for our model, before examining the layers of the model and the underlying reasons why discrimination exists. Finally, we focus on what happens at a structural level and include discussions of power, populism, and racialised capitalism and how they contribute to health. Throughout, we look back to history, including the role of colonisation. The health of minoritised populations is affected by the history that has led to their experiences of discrimination and their status in the social hierarchies of the states in which they live. A historically rooted approach shows the durability of racist beliefs and structures, and shows the ways in which racial logics continue to undergird social organisations and, by extension, affect health. We confront the legacy of science that has preserved the power hierarchies among different groups, and we highlight the extent to which colonial history has relied on racist ideologies, whereby an other or separate group was seen as uncivilised or inferior. The consequences play out over generations (eg, through intergenerational drag),[38] requiring contemporary public health policies to confront the legacy of past policies that result in persisting disadvantage based on group identity.

Definitions

There are many different ways in which people are categorised. Each method responds to the population and history of a specific location, and none encompass all groups adequately.[25] The terms we use can never capture the complexity of an individual. We acknowledge the extensive discourse surrounding definitions relevant to the topics we cover and we acknowledge that consensus might never be reached, but for this Series, we identify our key definitions in panel 1, with more detailed and further definitions available in the appendix (p 1). When we say discrimination, we mean discrimination based on caste, ethnicity, Indigeneity, migratory status, race, religion, or skin colour, unless otherwise specified. Importantly, we recognise that categories assigned to people, which form the basis of discrimination, are socially constructed, with the purpose to separate and subjugate.

Conceptual model

The Series is structured according to our conceptual model, which uses the lens of racism, xenophobia, and discrimination to consider how health is determined (figure). The model is informed by the following six principles. First, health and health inequalities are determined by active processes, not static risk factors and behaviours.[40] As explored by Krieger's work on

Panel 1: Definitions

Caste
Caste systems, most commonly found in the Indian subcontinent, are categorisations whereby people are stratified according to hereditary groups linked to occupations. These hierarchies determine access to resources and opportunities, based on the 'innate superiority' of higher castes.[18]

Discrimination
Discrimination is differential treatments or outcomes that are unfavourable towards a group or an individual according to some aspect of their actual or perceived identity, such as race, religion, nationality, physical ability, gender, sexual orientation, class, or social status.

Epistemic injustice
In this Series paper, epistemic injustice refers to how knowledge and the production of knowledge are weighted, with credibility given to those at the top of an established racial or power hierarchy.[19]

Ethnicity
Ethnicity is a social construct based on characteristics like language spoken, values, cultural factors, behaviours, and ancestral geographical locations.[20] There is overlap between racial and ethnic categories, since groups of people who share social characteristics are also likely to share physical phenotypes.

Hierarchical power
A system where stratification of society occurs according to categories (eg, race), and people at the top are actively afforded privilege, capabilities, and capital.

Indigeneity
The UN Declaration of the Rights of Indigenous Peoples (article 33) provides that Indigenous people themselves define their own identities; however, the following is a working definition of Indigenous communities, peoples, and nations by Martinez Cobo:[21,22] "Indigenous communities, peoples and nations are those which, having a historical continuity with pre-invasion and pre-colonial societies that developed on their territories, consider themselves distinct from other sectors of the societies now prevailing on those territories, or parts of them. They form at present non-dominant sectors of society and are determined to preserve, develop and transmit to future generations their ancestral territories, and their ethnic identity, as the basis of their continued existence as peoples, in accordance with their own cultural patterns, social institutions and legal system."

Intergenerational drag
Intergenerational drag describes how current differences and disadvantages in the health and social status of a group can be based on historical events that accumulate and persist over generations.

Intersectionality
A term coined by Kimberlé Crenshaw,[23] intersectionality refers to the ways in which the categorisations of people, such as race, gender, class, and associated systems of oppression, such as white supremacy, patriarchy, and ableism, overlap and interact to create unique dynamics and effects.[24]

Minoritised
Minoritised is defined as individuals and populations, including numerical majorities, whose collective cultural, economic, political, and social power has been eroded through the targeting of identity.[25,26]

Racial capitalism
An exploitative process, where economic and social value is extracted from someone with a different racial identity.

Race
Race is a socially constructed classification that relies on someone's actual or perceived physical appearance and ancestry.[27] The meaning and categories of race can change over time, location, and context.[20,28] Race has been used as a mechanism for assigning superiority and inferiority, and determining access to resources and human rights,[29] despite racial hierarchies being biologically baseless.[30]

Racism
An organised system that affords power and privilege according to an established hierarchy[31,32] based on racial categories.[33–35] Racism operates to protect the rights, power, and livelihoods of those at the top of the hierarchy.[33] Based on the model of Nazroo and colleagues, we subcategorise racism into interpersonal, institutional, and structural.[36] Interpersonal racism occurs between individuals. Institutional racism occurs where institutional policies and practices result in discrimination based on race. Structural racism is at the core of other forms of racism,[37] describing the macro-level processes and systems that maintain and perpetuate racial inequity.[32,38,39]

Separation
The process by which some humans see themselves as being different from others (and from animals and nature).

Xenophobia
Xenophobia is the fear or hatred of, or discrimination against, those who are considered to be foreigners.

Further and more detailed definitions and explanations can be found in our appendix (p 1).

ecosocial theory,[41,42] these processes occur across complex ecosystems that exist within power structures; they affect different levels of societies and consequently affect biology across the life course. We represent these strata of society (from a structural to individual level) visually as layers of our planet in the figure. The interactions between the layers of society and complex processes involved in determining health are constantly evolving.

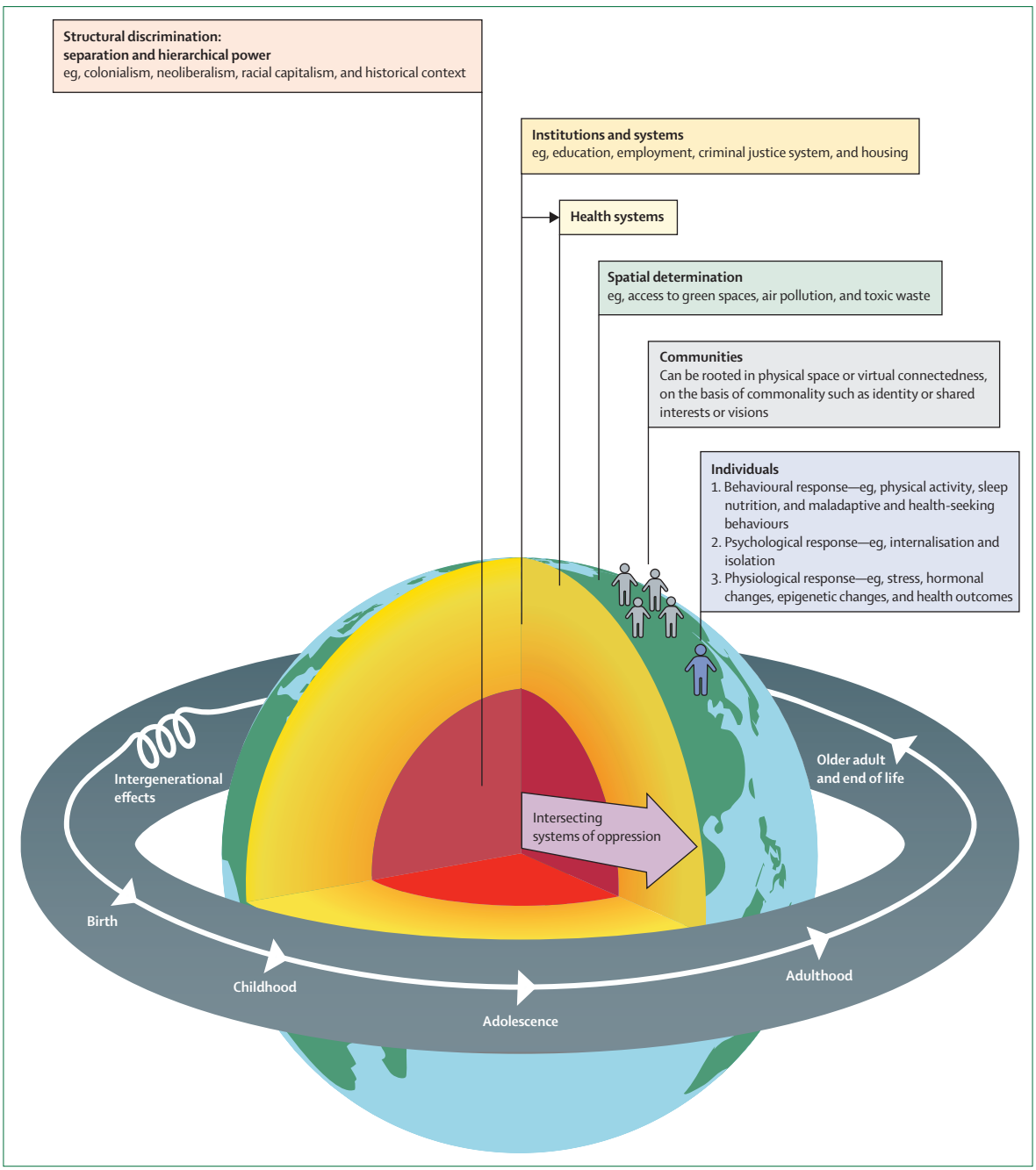

Figure: **Conceptual model describing how racism, xenophobia, and discrimination determine health**

Second, racism, xenophobia, and discrimination are ubiquitous. We draw upon critical race theory (CRT), which arose from Black scholars and activists who highlighted the inequities in US society and its structural causes. We believe CRT can also be helpful in understanding how discrimination based on caste, ethnicity, Indigeneity, migratory status, race, religion, and skin colour affects health. These forms of discrimination operate in similar ways, particularly in relation to how the structural processes of separation and hierarchical power unfold, leading to substantial overlap in their effect on health. CRT is described in more detail, including how it applies to our work, in the appendix (p 1).

Third, racism, xenophobia, and discrimination are structural issues;[43] individual beliefs or ideology represent only the tip of the iceberg.[44] This notion is supported by many schools of thought including anti-caste,

decolonial,[45,46] and CRT.[34,35] The structural processes determining racism, xenophobia, and discrimination are represented at the core of our visualisation, permeating strata of society, leading ultimately to minoritisation,[25,47] ill-health, and health inequalities. All other forms of discrimination stem from this structural level.

Fourth, at the core of racism, xenophobia, and discrimination are the concepts of separation and hierarchical power. Separation refers to humans seeing themselves as different entities from nature, animals, and other people, and is a prerequisite for human categorisation and is how othering occurs.[45] This concept of separation is informed by the work of the Musqueam community in Canada through the Gesturing Toward Decolonial Futures collective. Hierarchical power is a system whereby there is a stratification of society according to categories, in which those at the top are actively afforded privilege, capabilities, and capital across all domains of life, whereas others are actively disadvantaged. Hierarchical power structures are created and maintained with intention. Power structures invariably involve dominance and control and understanding how power is distributed is crucial for tackling health inequities. This combination of separation (and thus categorisation) and maintenance of power structures leads to and is caused by discrimination. At every level and type of discrimination, these two concepts of separation and hierarchical power remain the common denominator.

Fifth, we do not live single-issue lives—although this Series focuses on discrimination based on caste, ethnicity, Indigeneity, migratory status, race, religion, and skin colour, our identities and the numerous systems of oppression are vast.[48] Intersectionality, explored further in the third paper of this Series, is a framework that refers to the interplay between social categorisations often thought of in silos (eg, race, gender, or class), which overlap and deepen oppression and disadvantage.[23] Visually, intersectionality is represented in our model as an arrow cutting across various strata of society, representing how minoritisation and discrimination are the result of multiple systems of power operating within their own historical and structural contexts.[49,50]

Sixth, discrimination differentially affects a person depending on their stage of life, and circumstances of past generations affect the wellbeing of individuals today.[51] Sensitive periods, such as early childhood or adolescence, are especially important for health. Health outcomes might appear much later, after a long latent period, making attribution methodologically difficult.[52] Intergenerational consequences also emphasise the importance of historical context and historical trauma in shaping current health and health inequalities.[51] The cyclical and temporal aspects of the life course are represented visually as encircling the physical and spatial aspects of the societal layers of our framework.

The following sections are structured according to the layers in the figure. We explain our conceptualisation of how racism, xenophobia, and discrimination affect health by beginning at the most visible and superficial level (with the individual), working inwards to the core of structural determination of health.

Individuals

The level of the individual is where we can most easily comprehend effects of racism, xenophobia, and discrimination. Most people can think of a time they have experienced or witnessed racism, but to focus only on this level would mean overlooking the structural factors that have given rise to these individual manifestations. The murder of George Floyd, for example, cannot be explained by the actions of one 'bad' police officer, but was instead due to the structural racism and discrimination that produce and enable the actions of policing institutions and individuals. The second paper in this Series describes the health outcomes related to racism, xenophobia, and discrimination, and goes further to examine the ways that we internalise[47] and embody[53] our external environments in our physiology and health, and explores the pathways of discrimination. We describe how discrimination unfolds from the core structural level to affect individuals as behavioural (eg, physical activity, sleep, nutrition, and maladaptive or health-seeking behaviours); psychological (eg, mental health and internalisation); and physiological (eg, stress, hormonal changes, and epigenetic changes).

A person's experience of the world is affected by the complexity of their identities. This experience is changeable and can both be self-defined and defined by others. However, categorisations can shape identities in terms of how we see ourselves and how we accept racial hierarchies through a process of internalisation (appendix p 3), how others see us, and importantly, how we are treated within intersecting systems and structures.[47] Our identities can also be a base for resistance to racial subordination. As well as our experiences being affected by our perceived and self-defined identities, specific categories are used as proxy for discrimination. For example, following the rise of Islamophobia after the Al-Qaeda terrorist attacks of 2001 in the USA, people have been discriminated against for being "Muslim-looking", rather than for their actual religious beliefs.[54] Migration provides additional complexity—as a person moves from one classification system to another, they take identities with them, adopt new identities, and have other national and migration-related identities imposed on them (eg, economic migrant, asylum seeker, or undocumented migrant).

Communities

Communities come in various forms—physical or virtual, homogeneous or diverse—and are defined by common identities, traditions, knowledge, and worldviews.[55] A community's shared conditions and constraints shape

For more on the **Decolonial Futures collective** see https://decolonialfutures.net/4denials/

Panel 2: **Eugenics and the science of heredity**

The medical profession should consider its racialised past to understand its racialised present and how easily biological myths become attached to social groups.

This Series originated from the University College London, the historic seat of eugenics. The early 20th century field of eugenics developed in London and spread to the rest of the world, claiming that heredity could explain the social circumstances and health outcomes of particular populations. In its early days, the focus was on people with low incomes, reflecting British society's deep class divisions.[62] Eugenicists argued that outcomes were decided by qualities such as mental ability, moral tendency, and criminal inclination, which were decided on the day individuals were born. At University College London, racist pioneers of this school of thought, Francis Galton and Karl Pearson, documented human difference in search of particular types. It took little time for eugenic ideology to target racial groups. One area for research efforts was the relatively low-income Jewish immigrant communities of London's East End. By 1927 in the USA, a law was passed upholding the right of the state to forcibly sterilise people believed to be unfit to have children, resulting in tens of thousands of sterilisations, mainly of disabled people, people with low incomes, people with convictions, and people deemed "mentally feeble". However, sterilisation was also used as a vehicle to target racial minorities. Black and Native American women were particularly targeted by sterilisation programmes. The Mississippi Appendectomy was a euphemism given to the common practice of sterilising Black women or performing unwanted hysterectomies even into the second half of the 20th century.[63]

Eugenic thinking lives on in genetic determinism. When researchers turn to the UK Biobank when trying to understand the roots of social inequality,[64] they are—wittingly or not—falling into a trap that inequality is not the product of social, political, environmental, and historical factors, but that it stems from deep innate differences between entire groups of people.

collective access to power, both material and symbolic.[55] These conditions can be defined by natural barriers or be human made, such as segregation laws. Discrimination can contribute to the formation of communities based on the commonality of their experiences. This formation of communities can be related to identity, where people live, and how they experience the world. Communities can also buffer the effects of discrimination[56,57] by building resilience. Although communities might be united through their commonality of discrimination, there is still heterogeneity within that community.

Spatial determination

Spatial determination encompasses the environmental, ecological, and geographical factors affecting health. In the context of discrimination, spatial determination can place minoritised people in unhealthy environments. This process works in two main ways. First, discrimination situates minoritised populations closer to unhealthy and harmful environmental exposures than non-minoritised groups, including through residential and racial segregation, access to green spaces, air quality, and availability of fresh food, leading to health inequities. Second, the ways in which the upstream processes of discrimination interact with a range of systems—such as housing, policing, or legal frameworks—are influenced by location. Such systems can involve the use of national and regional borders and bureaucracy to assign rights to some categories of people and separate them from others who are deemed less worthy.

Institutions and systems

Racism and discrimination affect every institution and system that governs society, many upholding established power imbalances. These systems include but are not limited to health care, housing, education, and the criminal justice system. The concept of racism affecting health as an independent factor and through its effect on social determinants of health has been explored before,[1,4] but we expand upon it to apply the relationship between health and discrimination based on caste, ethnicity, Indigeneity, migratory status, race, religion, and skin colour. We have identified health care as a system within this layer, but also emphasise that much of health is determined before people interact with the health system. The second paper in this Series further explores how discrimination affects health-care systems globally. Within this section we explore how discrimination is woven into institutions responsible for knowledge creation, showing how it affects health.

Epistemic injustice

It is important to recognise that the systems in which this Series are situated—academia, science, and health care—are not free from racism and discrimination. Here we acknowledge a limitation being in a UK-based journal, written in English, with many authors from institutions associated with academic credibility. Epistemic injustice[19] refers to how knowledge and knowledge production are shaped by racism and discrimination—weight and credibility are afforded to those at the top of an established power hierarchy, and gaps in knowledge or resources mean that minoritised populations can struggle to articulate their existence and experiences. Racist and xenophobic ideologies can be used to control populations and disadvantage specific groups, thereby maintaining power hierarchies.[58] Recent political efforts to ban the teaching of CRT are testament to the role of political and educational systems in reinforcing epistemic injustice and upholding existing power hierarchies.[59]

The scientific fallacy

Historically, scientists have played a role in justifying the separation and categorisation of humans that have led to modern day social hierarchies.[60,61] Biological science has shown that we are one of the most homogeneous species on Earth, more genetically similar than any other primate. We cannot be divided into subspecies or breeds. It has become clearer over time that human genetic and physiological variation maps poorly onto the construct of racial categories.[28] History explains why these categories make so little sense—they were devised by naturalists and philosophers in Enlightenment Europe in a fairly arbitrary way, attempting to mimic classifications applied to flora

and fauna. Swedish botanist Carolus Linnaeus had so little understanding of how humans actually differed that in his human taxonomy he even included monster-like and feral humans, types of people documented in literature but—of course—not real.[61] Linnaeus went one step further to ascribe behaviours and even systems of societal order to phenotypic descriptions. "Europaenus" were "governed by laws", whereas 'Africanus' by 'caprice'. The crude colour-coded system of dividing the world into white, black, copper-red, yellow, and brown devised by Johann Friedrich Blumenbach survives to this day, and served a parallel belief in a racial hierarchy from people considered the most civilised to those considered the most primitive. Of course, European scientists placed themselves at the top of their human ladder of progress. Panel 2 describes how these ideas played a role in the eugenics movement and the science of heredity into the 20th century, and panel 3 shows the similar occurrence of Japanese exceptionalism.

By the 19th century, fallacious beliefs in the existence of a racial hierarchy were part of the fabric of European and North American science. In medical research, specific lives were seen to have less value than others, as evidenced by the Tuskegee syphilis experiments beginning in 1932 and ending only in 1972, which saw Black American men deliberately denied treatment for syphilis to understand disease progression in what was believed to be a biologically exceptional population (panel 4).[74,75] To this day, medical research carries the legacy of the outdated, politically-motivated myth that races are biologically distinct.[76]

Structural discrimination: separation and hierarchical power

Having introduced separation and hierarchical power as foundational principles of the conceptual model that are at the core level of structural discrimination, we explore how these two concepts play out in processes of structural discrimination from governance, colonialism, and racial capitalism to political dynamics and exclusionary populism.

Laws and structures of governance

The laws and structures that govern national and international interactions have historically included racist and xenophobic ideologies, used to separate, categorise, and embed hierarchical power. The embedding of socially created categories of humans into policy to confer rights is longstanding. An overt example of the social division of people are the caste systems that developed in the Indian subcontinent over 3000 years ago that historically governed the social, economic, and political life of people in India.[77] In the traditional scheme of the caste system, scheduled castes suffered the most due to the notion of untouchability. Similar examples exist in Europe. In 13th century France, being Jewish denoted different and limited legal status, which prevented employment in some professions and set requirements for Jews to wear badges or dress to connote their Jewish identity to prevent intermarriage.[78] Later, during the period of the black death and as a result of the persecution of lepers, Jewish people across Europe could be banished from cities and societies or killed.[78,79] Further, the expulsion of Jewish people from England in the 13th century and from other countries during the Spanish Inquisition shows an important emergent trait central to racism—the conferring of specific rights or exclusion from social protections based on membership of a particular group.

For more on the **Linnean Society** see https://www.linnean.org/learning/who-was-linnaeus/linnaeus-and-race

In the USA after the American Civil War and abolition of slavery, the Government used racial categories to determine citizenship rights, maintain segregation, and deny access to services, land purchase, and equal protection under the law. Racial policies deprived not only Black American people of life, economic, and political opportunities, but race also lay at the heart of discriminatory immigration policies, such the Chinese Exclusion Act of 1882.[80] Racial classifications, based on skin colour, hair texture, or heredity, have formed the basis for conferring differential rights and access to services across the world—eg, in South Africa under the Apartheid. In South Africa, laws divided access to education and land and limited employment and labour opportunities, while also suppressing non-White populations. This suppression began in the colonial period of the 18th and 19th centuries and expanded into the complex system of Apartheid with the rise of the National Party in 1948 (appendix p 6).

Even the modern system of international law was founded on doctrines that denied sovereignty to non-Europeans and justified their enslavement and colonial domination on racially discriminatory bases.[81] Present-day international legal frameworks continue to perpetuate racial discrimination within and across nations, as recent critiques of the global public health response to the COVID-19 pandemic have highlighted.[82] The leading UN international human rights body on racial discrimination warned in April, 2022 "that the pattern of unequal distribution of lifesaving vaccines and COVID-19 technologies between and within countries manifests as a global system privileging those former colonial powers to the detriment of formerly colonised states and descendants of enslaved groups".[83]

Colonisation and racial capitalism

The ideologies of racism have been central to the formation of nation states[84] and concepts of citizenship.[85] In North America and South America, for example, settler colonialism resulted in the genocide of Indigenous people and theft of their land. Fundamental to the process of colonisation is the concept of racial capitalism. Racial capitalism is an exploitative process, during which economic and social value is extracted on the basis of the racial identity of a person.[86,87] When a capitalist society was created, with winners and losers, it "pursued essentially racial directions, so too did social

Panel 3: Scientific racism and Japanese colonial rule over east Asia

During the Age of Imperialism, the western powers used science to create and hierarchise racial categories, and to justify the occupation of their colonies. The west used techniques such as craniometry to classify the human population according to physical attributes, which provided pseudoscientific yet powerful evidence about the racial superiority of White colonisers.

However, Japan needed a different approach for racial hierarchy when trying to colonise Asian countries, as there were physical similarities including skin colour between Japanese people and other Asian people. A considerable number of medical research projects were done to support the Japanese racial superiority ideology in east Asia.

One example was to use the biochemical race index, a ratio of people with A or AB blood type to people with B or AB blood type. Ludwik and Hanka Hirschfeld first devised the index by analysing over 8000 blood samples from 16 nations, the results of which were published in *The Lancet* in 1919.[65] The index implied a hierarchy among the races, in which the three racial types were categorised from the highest to the lowest score groups: "European," "Intermediate," and "Asio-African".[65]

Japanese scientists did a number of serological studies to assess biochemical race indices in east Asian countries.[66,67] Studies repeatedly reported that Japanese people had higher index scores compared with other Asian people in their colonies, suggesting the biological superiority of the Japanese race.[68] These findings played a role for justifying Japan's occupation of east Asian countries.

Panel 4: Racism and medical experimentation

The belief in the inferiority and biological difference based on race has often been used to justify medical experimentation upon minoritised people, with key aspects of scientific and medical knowledge having been gained at the expense of minoritised people, particularly Black people. Although the Tuskegee syphilis experiments and Nazi experiments in concentration camps in the mid-20th century might be the archetypal cases of racist experimentation, the history of experimentation is far more widespread.

James Marion Sims, often denoted as the father of gynaecology, developed his techniques for treating vesicovaginal fistula by experimenting on enslaved women, often without the use of anaesthesia, even when available.[69] Many of the same experimental practices were subsequently subjected upon recently immigrated and destitute Irish women in New York, who were also considered to be inferior to the American-born White population.[69] Much of the justification for the experimental use of enslaved Black women and Irish women lay in a belief that Black and Irish women had higher pain tolerances than more delicate races, and thus could be experimented on with impunity.

In the early 19th century, non-European people were regularly put on display in Europe and in Imperial Japan[70] for the morbid fascination of the public and observation of the scientific community. Although the practice of creating human zoos to showcase the innate differences of races around the world persisted into the 20th century,[71] the observation of bodies for the purpose of ascribing racial difference also led to experimentation, as was the case for Saartje Baartman. Baartman was a KhoiKhoi woman from the Eastern Cape in modern-day South Africa.[72] In 1810 she was brought to London to serve as a public spectacle and was forced to display herself nude to the public and at dinner parties and prestigious gatherings, when her physiology—especially her genitals—could be observed as a marker of racial difference and inferiority. After her death in 1815 her body was retained for autopsy and experimentation and was put on display.[73]

ideology".[86] When we look at the historical context of slavery and colonialism for example, the presence of racial capitalism is clear. The European colonisation of the Americas and the slave trade placed racism at the centre of the global economy. As Spanish conquerors decimated the Indigenous populations they encountered, they created a labour shortage. Spanish leaders enslaved African people to make up the labour shortfall wrought by colonial murder.[88] A key justification for the trafficking of African people was the widely held perception in the 16th century (but even more prominently in the 18th and early 19th centuries) that African people were more resistant to the diseases of the Americas and more tolerant of harsh labour.[89–91] African labour enabled the massive expansion of economic production and wealth accumulation from goods such as sugar throughout the late 18th and early 19th centuries, and African people were seen as the most valuable commodity in the American colonies. In European colonial sites in the 19th century, the perceived threat of disease emerging from colonised populations justified forms of racial quarantining, segregation, and control.[92–95] Slavery, colonialism, and genocide were also rationalised by a science of human difference built on conflicting political beliefs that particular groups were inferior, naturally subservient, but also more resistant to the diseases of the Americas. In 1852, Louisiana physician Samuel Cartwright documented his discovery of two new diseases in *The New Orleans Medical and Surgical Journal*: drapetomania to describe the condition of runaway slaves, and dysaethesia aethiopica to describe disobedience and refusal to work among slaves.[61,96]

The colonial era has been followed by neocolonialism, whereby people in low-income and middle-income countries continue to be exploited by the macroeconomic and international governance systems.[97] In many settings today, power still lies more with private entities

that have substantial economic influence.[98] Corporations have long exploited racial divisions. For example, the tobacco industry engaged in a campaign of "masterful manipulation" targeting menthol cigarettes to African American people.[99] By 2008, 85% of African American smokers smoked menthol cigarettes, compared with 27% of White smokers.[100] Research on environmental damage, such as chemical accidents, disproportionately affects African American and Hispanic communities in the USA.[101] Corporations might also show a lack of sensitivity to beliefs of minoritised groups, exemplified by the destruction of culturally important Aboriginal sites in Australia by mining companies.[102]

Political dynamics and exclusionary populism

When seeking to understand why ideas that seem dysfunctional and abhorrent persist, it is important to ask who benefits. Throughout history, individuals and groups have exploited ethnic and religious divisions within societies to achieve and retain power—eg, the rise of the Nazi party under Adolf Hitler. In a country that had suffered enormously through the loss of life in World War 1 and in the imposed reparations and the Great Depression, Hitler's racially defined narrative found a receptive audience[103] and appealed to a deeply ingrained antisemitism that had existed for centuries. Early models of state-based racial oppression, violence, and exclusion were seen as models for the Nazi vision of racial purity, European conquest, and the Holocaust.[104,105] At the same time, the Belgian authorities in Rwanda were exploiting societal divisions; in 1935, they issued identity cards differentiating the 15% of the population who were Tutsi and who had held privileged positions in society from the Hutu majority. Several decades later in 1994, these divisions led to genocide, with Rwandan political leaders from the Hutu community advancing an explicitly racist agenda against Tutsis.[106] Although these examples are some of the most extreme in recent history, there are many others during which political leaders have encouraged divisions for their own purposes.

Populism can take many forms but, in general, it takes the form of an ideology that creates separation between the people and those perceived as elite. Both forms can be defined in different ways but are often defined in terms of class or ethnicity. Defining so-called elite groups might draw on ethnonationalist arguments, whereby the people are portrayed as sharing particular racial, ethnic, or religious characteristics. Individuals promoting this particular ideology seek to "pit a virtuous and homogeneous people against a set of elites and dangerous 'others' who are together depriving the sovereign people of their rights, values, prosperity, identity, and voice".[107] This insider–outsider narrative secures the support of people who feel that they have been left behind, and can be used to create divisions and bestow power on a group and its leaders.[108,109] Populist leaders often exploit disaffection, developing a narrative in which their misfortunes are due to the actions of others.[110] In some cases, populist leaders seek to divide people with low incomes among themselves, thereby increasing opposition to universal policies such as health care. This method can involve presenting universal policies as a benefit only to the other, an argument that is facilitated when the others can be distinguished by their skin colour or how they dress. Exploiting disaffection might require a return to an imagined better past, which could take the form of resurrecting the symbols and relationships associated with empire (eg, the post-Brexit UK) or encouraging religious revival (eg, in Türkiye, where Recep Tayyip Erdoğan has moved away from the secularism on which Ataturk based the modern Turkish state). Populist policies are signalled by slogans from world leaders such as Donald Trump's incitement to violence against Black protestors, "when the looting starts, the shooting starts". Some politicians might exploit crises, as when Hindu nationalist politicians blamed Muslim people for spreading COVID-19. This rhetoric is amplified both by social media campaigns that marginalise specific groups and the algorithms that lie behind such campaigns, which amplify collective insecurities and fears. Views can readily be manipulated through the mass curation of echo chambers in which so-called alternative facts and fake news propagate and deepen our confirmation biases.[111] Platforms such as Facebook make it easy to direct messages to those with specific characteristics.[112] For example, the civil society group ProPublica showed it was possible to advertise an apartment in a way that excluded African American people, Hispanic people, and those who had searched for disability aids.[113,114] The media machinery can both be captured by political interests—as is the case with politically driven media censorship in countries such as Eritrea and North Korea—and be a crucial shaper of political discourse, such as the domination of Rupert Murdoch-owned press. As Hannah Arendt described, the ideal foundation for totalitarian rule is an environment in which people who can no longer tell the difference between fact and fiction.[115]

Conclusions

In this first paper of the Series, we describe some of the underlying features of racism, xenophobia, and discrimination, and the ideologies and histories that lead to health inequities. Categories such as race and caste are biologically arbitrary, but the discrimination that minoritised groups face is very real. Although health outcomes are not deterministic, some groups have the cards stacked in their favour and some do not. In this Series we explore many different forms of discrimination based on caste, ethnicity, race, Indigeneity, migratory status, religion, and skin colour. These distinct but overlapping entities often result in poorer health, and underlying them are similar systems of categorisation, minoritisation, and oppression. The history of many

societies serves as a reminder of the dangers that we have described throughout this Series paper. Leaders scapegoating others for political advantage is not a new occurrence, but the current climate presents many examples. By framing the role of racism, xenophobia, and discrimination within the context of overall determination of health, we lay the foundation to imagine a world which, at its core, centres antiracism, decoloniality, and equity instead of hierarchical power and separation. Hatred and intolerance have real and deadly consequences. Racism, xenophobia, and discrimination are important determinants of health, and public health has a responsibility to challenge and address these issues.

Contributors

DD and IA conceived the series. SS conceived, designed, and developed the conceptual framework underpinning the Series, with contributions from DD and GS. ETA, DD, S-SK, MM, AS, GS, NSS, SS, and AIRW wrote sections of the draft. The definitions and glossary were written by SS with input from ETA, DD, and AIRW. All authors edited and critically revised the draft.

Declaration of interests

DD and SS are co-founders of the Race & Health collective within UCL, an organisation committed to tackling the health effects of racism, xenophobia, and discrimination. SS is also a trainee representative of the Royal College of Obstetricians and Gynaecologists' Race Equality Taskforce, and regularly speaks at events and advises organisations on related topics. SS and DD are recipients of the Wellcome Trust grant on climate and racial justice (grant number 24687/Z/21/Z). All other authors declare no competing interests.

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