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Epidemiology and social impact of cancer

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Cancer in Australia

Details of this chapter were collated from Cancer in Australia: key facts, published by the Australian Institute of Health and Welfare.^{[1][2]}

Incidence

The estimated total number of new cancers diagnosed in 2012 was 120,710. Of these new cancers diagnosed, 67,260 were diagnosed in males, and 53,460 in females.

The estimated five most commonly diagnosed cancers in 2012 were prostate (18,560), bowel (15,840), breast (14,680), melanoma of the skin (12,510) and lung (11,280) as in Figure 1.

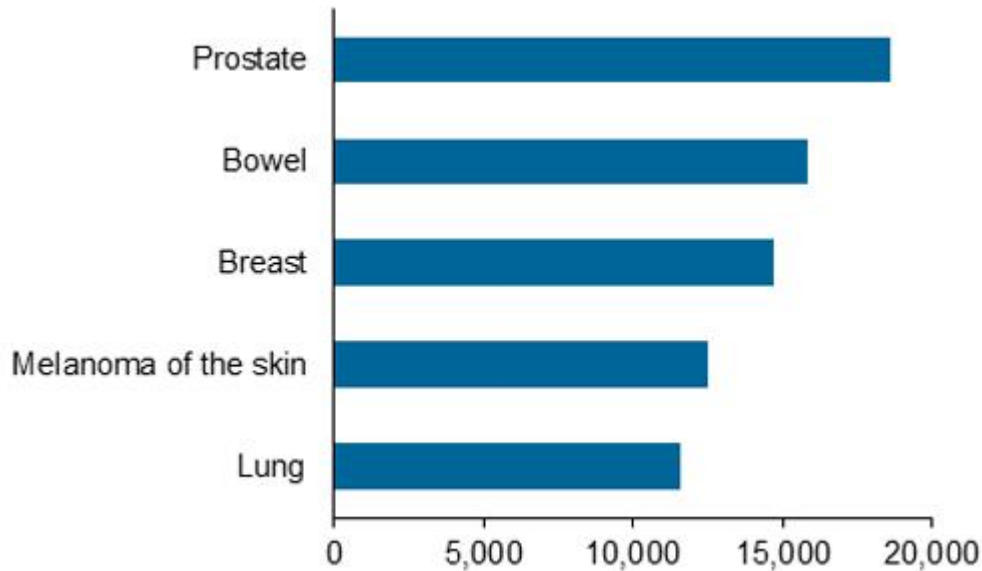


Figure 1: Commonest cancers in Australia in 2012

In 2009, the risk for Australian males of being diagnosed with cancer before their 85th birthday was 1 in 2. The most common diagnoses were prostate (1 in 5 males), bowel (1 in 10), lung (1 in 13), and skin (1 in 14) as in Figure 2.

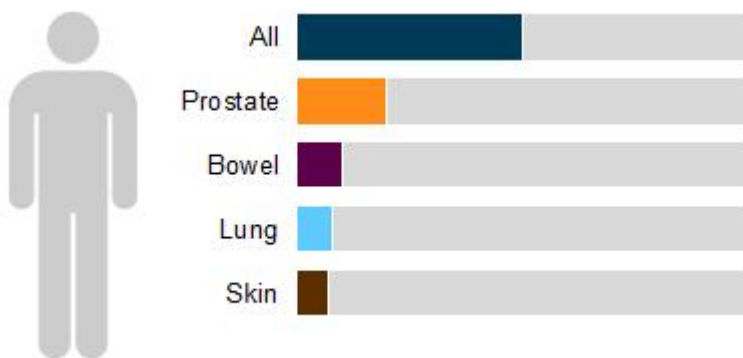


Figure 2: Cancers in men in 2012

In 2009, the risk for Australian females of being diagnosed with cancer before their 85th birthday was 1 in 3. The most common diagnoses were breast (1 in 8 females), bowel (1 in 15), lung (1 in 22), and skin (1 in 23) as in Figure 3.

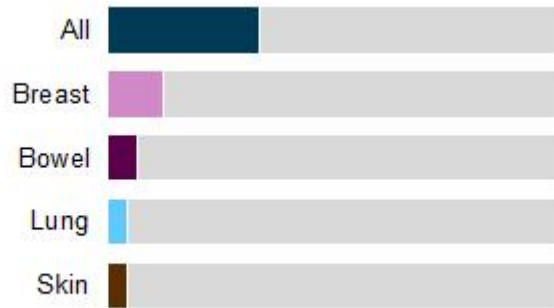


Figure 3: Cancers in women in 2012

Deaths

In 2010, cancer accounted for about 3 of every 10 deaths (30%) registered in Australia.

The 5 most common causes of death from cancer in 2010 were lung (8,099), bowel (3,982), prostate (3,235), breast (2,864) and pancreas (2,434).

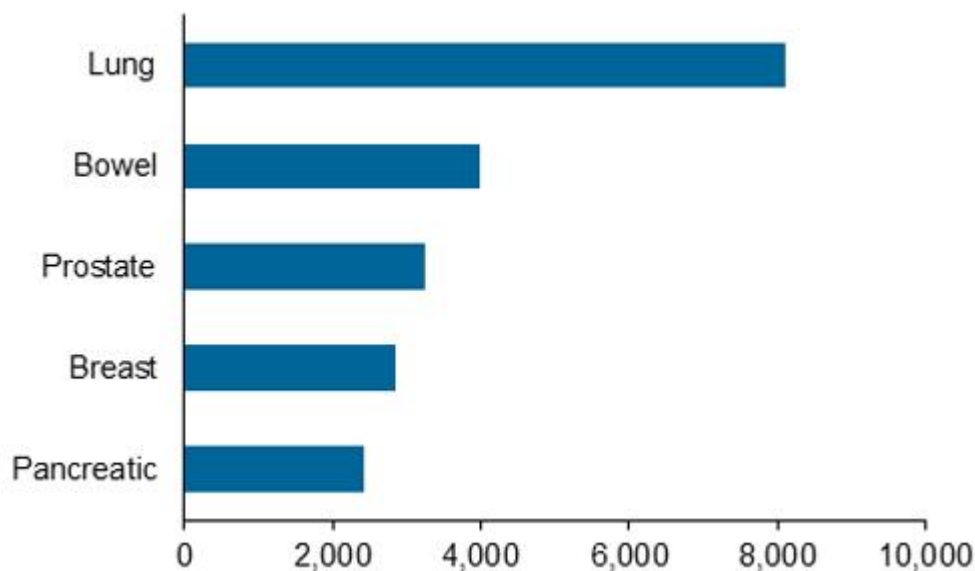


Figure 4: Commonest

causes of cancer death

Survival rates

In 2006-10, for people newly diagnosed with cancer, their chance of surviving 5 years was 65% for males and 67% for females. The improvement in survival and cure rates over time has been attributed to screening programs and advances in cancer therapies.

Prevalence

At the end of 2007, there were 774,674 people (381,164 males and 393,510 females) diagnosed with cancer in the previous 26 years who were still alive.

Disparity in cancer outcomes in regional and rural Australia and among Indigenous Australians

There are inequalities in cancer survival among people in rural, regional and remote areas of Australia.^[3] Studies from NSW showed that people living in the most remote parts of NSW were 35% more likely to die as a result of their cancer within five years of diagnosis in 1992-96, than people living in areas with the greatest access to services.^[4] This is illustrated in Figure 5, using Hazard ratios.

Table 2. Five-year relative excess risk* (95% CI) of death, for all cancers by ARIA category of remoteness# in NSW people from 1992 to 1996

ARIA category of remoteness	Without stage as a covariate	With stage as a covariate
Accessible	0.99 (0.96-1.02)	1.02 (0.99-1.04)
Moderately accessible	1.04 (0.98-1.11)	1.02 (0.96-1.09)
Remote and very remote	1.35 (1.20-1.51)	1.25 (1.11-1.41)
	P<0.0001	P<0003

Source Jong KE, Smith DP, Yu XQ, et al. Remoteness of residence and survival from cancer in New South Wales. *Med J Aust* 2004; 180: 618-622

* Reference is the highly accessible group where the relative excess risk =1. All models include age, sex, years since diagnosis and ARIA category.

Department of Health and Aged Care. Accessibility/Remoteness Index of Australia (ARIA). Canberra: The Department, March 1999. (Occasional Papers Series No. 6.)

Figure 5: Disparity in cancer survival based on remoteness.

Compared with other Australians, survival rates are worse for colorectal, breast, lung, cervix and non Hodgkin lymphoma in Indigenous Australians.^[5] Reasons could be disparities in cancer treatment; greater levels of socioeconomic disadvantage; higher proportion of Indigenous Australians in rural areas; limited access to primary care, specialist and preventive services; and more advanced stage at presentation.

For example, in a lung cancer study in North Queensland,^[6] time from onset of symptoms to first presentation to GP was longer for Indigenous patients compared with non-Indigenous patients (92 days vs 57 days; p=0.05). Time from GP to review by specialists was longer for rural and remote patients (rural and remote 31.5 days, urban 15 days, p=0.017).

References

1. ↑ Australian Institute of Health and Welfare. *Cancer*. [homepage on the internet] Australia: AIHW; 2013 [cited 2014 May 29; updated 2013]. Available from: <http://www.aihw.gov.au/cancer/>.
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6. ↑ Joshi A, Sabesan S, Beuttner P, Varma S, Otty Z. *Times to presentation and treatment: a prospective comparison of rural and urban lung cancer patients in North Queensland*. In: Journal of Thoracic Oncology. 15th World Conference on Lung Cancer. 2013 Oct 28; Sydney, Australia. Sydney: International Association for the Study of Lung Cancer; 2013 [cited 2014 Jun 5]. p. S723. Available from: <http://www.2013worldlungcancer.org/documents/WCLC2013-AbstractBook.pdf>.