

Prostate cancer: Past, present and future Australian initiatives for improving men's health

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Background: Prostate cancer is the most common internal cancer in Australian men. Whilst recent trends demonstrate stabilising incidence and decreasing mortality rates, it remains a major health burden for Australian men and requires continued action. This report outlines the status of prostate cancer in Australia's health care system, both past and present, and analyses the effectiveness of healthcare campaigns used to generate awareness. The aim is to assess awareness, perception and public behaviour toward this disease, as well as to impart Australia's strategies on improving public knowledge in this area. **Methods:** A comprehensive search of English language literature was conducted. Articles were limited to those relating to prostate cancer in Australia. Additionally, websites of various prostate cancer awareness campaigns or organisations were evaluated, based on a comprehensive list provided by the National Men's Health Policy Submissions Document. [1] **Results:** One hundred and ninety-five relevant journal articles were found, which were subsequently evaluated independently by three authors. Of these, 56 fit the inclusion criteria. **Conclusion:** Development in knowledge, awareness and attitudes toward prostate cancer has been significant over the past few years. However, despite prostate cancer being a major health burden for Australian men, there are still misconceptions and a lack of awareness amongst the general population. The combination of prostate cancer specific organisations such as the Prostate Cancer Foundation of Australia, campaigns and events such as 'Movember' and 'Be a Man,' health promotion in schools, universities and workplaces, as well as the development of a national men's health policy can only further serve to advance prostate cancer awareness.



Table 1. Prostate cancer statistics in Australia. [2-4]

Prostate Cancer in Australia: Facts at a Glance	
•	1 man every 3 hours dies from this disease
•	1 in 9 men in Australia develops prostate cancer in their lifetime
•	3,300 men die of prostate cancer each year
•	20,000 new cases are diagnosed every year
•	32 men learn that they have prostate cancer each day
•	Prostate cancer is the second most common cancer in Australian men and is second most common cause of cancer deaths in men
•	Men in rural areas are at greater risk of prostate cancer

Men's Health & Prostate Cancer: Synopsis

'...to achieve the highest standard of health, health policies have to recognise that women and men, owing to their biological differences and their gender roles, have different needs, obstacles and opportunities...'

-World Health Organisation (WHO) Madrid Statement, 2002

One in nine Australian men will develop prostate cancer in their lifetime. It is the second most commonly diagnosed cancer in Australian men and is also the second-leading cause of cancer death in Australian men, with a mortality rate of 20.4 per 100,000 per year. [2,3] Given that Australia has an ageing population, the identification of increasing age as a risk factor for prostate cancer has proved significant, with 85% of new cases and 96% of prostate cancer-related deaths occurring in men aged over 60 years (Table 1). [4]

It is also estimated that there are over 61,000 Australian men currently living with a diagnosis of prostate cancer. [5] While recent trends of

stabilising incidence and decreasing mortality rates are encouraging, prostate cancer remains a major burden for Australian men. [6] As such, it has been included as part of the National Health Priority Areas (NHPAs) – to which the Australian Government is devoting significant resources, time and effort. [4]

Despite the high incidence and significant health burden, there remains a great imbalance in many areas when comparing prostate cancer to its most prevalent female counterpart, breast cancer. This includes a lack of media coverage and publicity, resulting in a lack of awareness of prostate cancer. On top of this, breast cancer attracts unparalleled research funding from individuals and governments, while prostate cancer struggles to gain a fraction of such support. [7]

On a positive note, government support for prostate cancer initiatives has steadily grown over the past few years. In 2008, the Federal Department of Health and Ageing announced the development of

a National Men's Health Policy, with prostate cancer a cornerstone component. [1] Following an extensive review and consultation process, the resulting policy was released in May 2010. Furthermore, in 2008 the Australian Government also committed \$15 million over five years to establish two dedicated prostate cancer research centres, [8] which aim to continue research into improved diagnostic and screening tools that are superior to the Prostate Specific Antigen (PSA) test, as well as new treatments for prostate cancer. Additionally, the Australian Government, through the National Health and Medical Research Council (NHMRC), has invested \$45.2 million for research involving prostate cancer since 2004, with 45 active grants in 2009 valued at \$10.8million. [8]

Awareness campaigns are also seen to be vital in providing accurate and up to date information. [9] In the past fifteen years, organisations such as the Prostate Cancer Foundation of Australia (PCFA), Andrology Australia and the Movember Foundation have been formed to address the lack of knowledge of prostate cancer amongst Australian men. Public health campaigns such as the establishment of September as 'Prostate Cancer Awareness Month' and 'Grow a Mo for Movember' have also refocused the male population's attention to the importance of their own health.

Only recently has men's health been in the spotlight for medical students in Australia. Although the Australian Medical Students' Association (AMSA) currently has no official working policy on men's health, they have a representative to Andrology Australia, the peak body on male reproductive health in Australia. [10] Furthermore, AMSA strongly supports the participation of Australian medical students in the 'Grow a Mo for Movember' event – often coupled with other grassroots events from various medical student societies promoting awareness.

In this report, the authors have outlined the status of prostate cancer in Australia's healthcare system and analysed the effectiveness of healthcare campaigns used to generate awareness. Through a community study, literature review and analysis of current practice, the aim is to impart Australia's strategies on improving public knowledge in prostate cancer and to promote future strategies and initiatives which can be employed to boost the confidence of men to proactively take charge of their own health.

Methods

The authors searched English language literature indexed in three databases: MEDLINE (1994 to present), EMBASE and the Cochrane Central Register of Controlled Trials. A limited manual search of journals was also performed. Articles were limited to those relating to prostate cancer in Australia.

Studies eligible included Randomised Controlled Trials (RCTs), journal reviews and cross-sectional studies. Economic evaluation studies were also permitted to assess effectiveness of prostate cancer screening. Authors selected those and extracted information from articles on prostate cancer policy, awareness, promotion, strategies and past trends.

Additionally, websites of various prostate cancer awareness campaigns or organisations were searched and evaluated, based on a comprehensive list provided by the National Men's Health Policy Submissions Document [1].

Results

One hundred and ninety-five relevant journal articles were found, which were subsequently evaluated and analysed independently by three authors. Of these, 56 were deemed to fit the inclusion criteria. The others were rejected primarily because they examined the pathophysiology or various treatment options for prostate cancer, rather than the stated objectives of this review. Those looking at statistics outside Australia were also excluded.

Discussion

Defining the Past – From Indifference to Curiosity

The overwhelming attitudes to men's health in the past were troubling. Pro-masculine concepts such as "men don't show their weakness" and "real men don't go to the doctor" were prevalent, and are unfortunately still somewhat present today. Prostate cancer and other 'male cancers' were not regarded as being as "fashionable-a-focus" compared to female cancers such as breast and cervical cancer. In 1994, the then Federal Minister for Health pointed out that while breast cancer research received AU\$1.5million dollars annually, prostate cancer research only received a comparatively paltry AU\$300,000, despite a similar mortality rate for both cancers (2,300 versus 2,600 deaths per year). [11] Social attitudes to prostate screening, particularly towards digital rectal examination (DRE), which until the late-1980's was the mainstay of prostate cancer screening, were inhibitory to community-wide screening in Australia. A drawback to the use of DRE as a screening method was a poor positive predictive value of 31%, indicating that a high proportion of those screened and thought to be at high risk of having prostate cancer were 'needlessly' or even 'wastefully' investigated. [12]

The introduction of PSA testing in 1988, a minimally invasive blood test, was a much more socially accepted way of screening. By 2008, it seemed that the widespread introduction of PSA and trans-rectal ultrasound (TRUS) in the early 1990's had contributed towards three trends: an almost 50% decrease in the rates of men with advanced stages of prostate cancer at diagnosis; a 2% per year decrease in deaths caused by prostate cancer; and a substantial increase in prostate cancer incidence. [13] These results raised the possibility that the PSA screening test resulted in a decreased advanced stage diagnosis and decrease in deaths.

It was around the time of the mid-nineties that attitudes and awareness of prostate cancer gradually began to change. Prostate cancer began to receive minimal but critical media and public attention, mainly due to independent initiatives. The PCFA was founded in 1996 to provide support and clarify treatment information for cancer sufferers. In January of that same year, a draft of the Australian Government-supported National Men's Health Policy was released. It identified several action areas, including the need for more research into men's health related behaviours and needs, public education strategies and the development of health benchmarks and policies for assessing men's health initiatives. Although the policy never eventuated, this was a watershed moment in the history of men's health in Australia.

Forging At Present: Screening, Promotion, Awareness, Policy Screening

Currently, one of the key issues regarding prostate cancer in Australia is the debate over mass population screening. The PSA test and DRE are the most popular and widely used screening options in medical practice. However, The Cancer Council of Australia (TCCA) and the Urological Society of Australia and New Zealand (USANZ) currently do not recommend the use of either PSA or DRE for population-based screening. Published studies thus far have been conflicting on the issue of population screening. Key issues from these studies that need to be addressed include the cost effectiveness of screening, over-detection and over-treatment. Research is still ongoing in this area.

In light of this information, a patient-centred approach for individual decisions about testing is currently recommended. [14] This involves an informed, shared, decision-making process between the doctor and patient, discussing the benefits, risks and uncertainties of PSA testing before it is commenced. Additionally, research has shown that since the introduction of the PSA test, the rates of men seeking PSA tests have more than doubled in the period 1996-2006, by an average of 6.2% per annum. [15]

Promotion

Paralleling the shifting view toward prostate cancer and the introduction of screening and treatments, media coverage of prostate cancer has grown over the last decade.

Studies have demonstrated the effect of celebrity cancer diagnosis on prostate cancer screening. [16] When well-known celebrities such as Sam Newman (sports personality) and Alan Jones (radio personality) were diagnosed with prostate cancer in 2008, there was a significant jump in the number of PSA tests after the wider community heard endorsement for screening campaigns (an estimated increase of 39,000 tests after seasonal adjustment). [17] Interestingly, this figure has since returned to a seasonally adjusted normal figure, perhaps indicating that such events encourage short-term screening rather than promoting long-term care.

Awareness

Personal Perceptions

There is generally a poor public awareness of prostate cancer and related issues in the Australian society, particularly amongst men. [18] According to a recently published survey, a disturbingly high number of men within the general population of Australia are unaware of prostate cancer issues (Table 2). [5] It has been suggested that this deficit in knowledge amongst men in the at-risk age group could delay diagnosis and treatment. [3]

Organisations & Campaigns

As information regarding prostate cancer became more readily available, there has been a recent push to increase awareness of the issues surrounding the condition in the wider community. Organisations such as the PCFA, Andrology Australia, Australian Prostate Cancer Collaboration (APCC) and the Movember Foundation were established with the aim of encouraging research and raising awareness in this area. The effects of these efforts have been significant. A total of \$10million has been raised for prostate cancer research from the Movember campaigns alone. Furthermore, 82% of participants in the campaign discussed men's health with friends, family or work colleagues, 13% sought medical advice and 38% encouraged someone else to seek medical advice for this condition. [19]

Table 2. Perceptions of prostate cancer amongst the Australian population. [5]

Worries
80% did not know the function of the prostate
35% had no knowledge of treatments for prostate cancer
53% had no knowledge of treatment side effects
Highlights
94% identified that prostate cancer was likely to cause difficulty with urination
70% would discuss with GP and specialist before making a decision on treatment.

However, community surveys have shown that current promotion strategies increase awareness but fail to encourage men not to rely on clinical symptoms as the primary motivator for accessing health services. [20] Thus, there needs to be greater integration of promotional campaigns with education to ensure best outcomes. This may be achieved through campaigns targeting women to act as surrogate providers of information, or by promoting quality information about prostate cancer through non-threatening means such as the internet.

Policy

The Australian Federal Government moved to reintroduce the National Health Policy on Men's Health in 2008 after a previous failed attempt in 1996. This was coupled with a Senate select committee to independently examine the state of men's health, as well as funding and support available from the government. The policy document was

completed and released in May 2010.

As part of the consultation process, Men's Health Ambassadors were appointed to promote the policy process and to feedback suggestions and ideas to government. Discussion forums, papers and community group consultations helped form the basis of the policy construction. The policy aimed to also take into account men's existing knowledge of health and health seeking behaviours, and to address not only behaviour change, but also to consider the social determinants of men's health.

The Senate Committee released three recommendations on prostate cancer for government consideration: [21]

1. Funding for the Australian Prostate BioResource – an initiative collecting prostate tissue from patients for bioresearch;
2. Funding for the Prostate Cancer Information pack – an information package for patients with newly diagnosed prostate cancer outlining treatment options, support groups and so on; and
3. Funding for specialist prostate cancer nurses, particularly in rural and regional areas (areas of higher prostate cancer mortality).

Refining the Future

Despite the gradual improvement and the above awareness initiatives, there still remains a lack of knowledge about prostate cancer in the general population. This shows that although prostate cancer has come full circle in the community, there are definitely still areas that need to be refined. These include:

1. Overcoming past stereotypes

In the past, gender stereotypes have greatly inhibited the success of prostate cancer treatment. It has been well documented that men have a significantly lower level of awareness of risks to their health and are less likely to seek help for medical problems compared to women. [22,23] Traditionally, men are the providers of the family and are stoic – expected to put on a strong, brave front and are generally derided if they are seen to be weak. Hence, to conform to this social norm, they are more likely to ignore their symptoms, until it is too late. With this being the case, prostate cancer in these men would have more time to spread and present at an advanced stage. [24] A continued effort is needed to ensure the stereotypes of the past are broken.

2. Health policy and services

The current government policy initiative addresses prostate cancer, amongst other men's health issues, which is a positive step. It is important that the social determinants of health in regards to prostate cancer are not be ignored. For example, in Australia there is a higher rate of prostate cancer mortality in rural compared to metropolitan areas. [25] In addition, the effects of socio-economic status, living standards, social gradient, stress, employment and social support on prostate cancer outcomes and mortality are all factors that need to be considered to ensure a broader focus in developing men's health policy. [26]

Given this, we suggest that AMSA develops a men's health policy document in conjunction with the release of the federal policy. This can aid in focusing medical students' attention to this important topic.

3. Role of medical professionals

It is imperative that as clinicians we are knowledgeable in the benefits and risks of screening, as there is still much debate surrounding its effectiveness. An informed decision-making process between the doctor and patient, discussing all areas of the PSA test should be conducted before any screening is attempted.

It is also important that medical professionals coordinate and provide adequate psychological support for those diagnosed with prostate cancer and their families. Research has shown that not only the diagnosis, but also the treatment method adversely affects the patients, their family and friends. In an analysis of patients and their

partners six months post-diagnosis, the rate of major depression and anxiety disorders was doubled compared to the general community. [27] In light of this, referral to prostate cancer support groups, which are organised by the PCFA, should be considered. Finally, it is also important that adequate teaching and clinical experience is provided to medical students during their training. Familiarisation with associated issues, including screening and treatment options, is paramount to prepare our future generation of medical professionals.

4. Community awareness

The community at large can also continue contributing towards raising awareness. The continued growth of events such as Movember, in terms of participants and popularity, needs to be ensured.

Medical students are not exempt! Along with continual representation at male health organisations, such as the current arrangement with Andrology Australia, the participation and support of Australian medical students in events such as the AMSA Movember Mo-Mentor competition, as well as locally organised Men's Health fundraisers should be considered and continued to increase awareness further.

5. Development of mass screening test

With the controversy surrounding the PSA test, the 'holy grail' in the fight against cancer is the development of an accurate mass population screening tool. Whilst this may be many years away, we are one step closer with the aforementioned announcement by the Australian Government to commit \$15 million over five years to establish two

dedicated prostate cancer research centres in Melbourne and Brisbane.

Conclusion

Development in knowledge, awareness and attitudes toward prostate cancer has been significant over the past years in Australia. However, despite prostate cancer being a major health burden for Australian men, there are still misconceptions and a lack of awareness amongst the general population.

The combination of prostate cancer specific organisations, campaigns and events, health promotion and the development of a national men's health policy can only further serve to advance prostate cancer awareness. Together with research and funding, there is undoubtedly hope for the future.

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Conflicts of Interest

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