Navigating prostate cancer screening in Canada for marginalized men through PSA screening and guidelines adherence: A call to action for policymakers

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ABSTRACT

Prostate cancer remains a notable public health concern. Prostate-specific antigen (PSA) testing plays a role in screening for prostate cancer. Black and Indigenous men are disproportionately impacted by prostate cancer. Moreover, men from these populations also face other challenges related to the social determinants of health. These challenges can make it difficult for these men to access screening services. Innovative approaches, such as free, universal screening, mobile screening, engaging communities may help improve prostate cancer screening for these populations.

KEY MESSAGES

- In 2022, prostate cancer diagnoses in Canada exceeded 20 000 cases, accounting for approximately 10% of male cancer-related deaths during the same period.
- Large randomized trials support population-based prostate cancer screening, emphasizing a shared-decision making approach.
- According to various guidelines, men 50–69 years of age are recommended to undergo prostate-specific antigen (PSA) screening
- Financial barriers, including the expense of PSA tests, presents challenges to widespread screening, potentially impacting marginalized populations such as individuals of African and Indigenous ancestry

INTRODUCTION

An estimated 24,600 men were newly diagnosed with prostate cancer (PCa) in Canada in 2022.[1] PCa still accounts for 10% of all male cancer deaths in 2022[1] and therefore remains a substantial public health concern. Large randomized trials investigating screening for PCa have shown improvements in cancer-specific survival,[2,3] providing level 1 evidence supporting population-based PCa screening with a shared decision-making approach.[4] The Canadian, European and American Urological Association guidelines [4,5,6] all suggest that men who have a life expectancy of greater than 10 years over the age of 50 should be offered prostate-specific antigen (PSA) screening. It is necessary for clinicians to discuss the benefits and harms associated with screening,[4] so that patients can make an informed decision. The benefits of screening include detection of cancer in localized disease stages which leads to improved outcomes. On the other hand, some of the risks associated with PSA screening include exposure to invasive procedures such as prostate biopsies and the related risk of complications, risk of overtreatment in clinically insignificant PCa, short or long term impacts on bladder, bowel and sexual function from treatment of PCa, and negative impacts on mental health.

PCa is most often asymptomatic when localized[7] and currently, in many Canadian provinces, such as British Columbia, PSA screening for asymptomatic men is an uninsured benefit.[8] Therefore, in British Columbia, most men are required to pay a fee of $35 for each PSA test.[8] The financial costs associated with each PSA measurement may represent a recurrent barrier for some men to engage in PSA screening, even if they otherwise accept the potential risks associated with PCa screening. Moreover, the financial implications associated with screening may be inequitably borne by marginalized populations who are already at a higher risk for Pca. These marginalized populations include people of African and also Indigenous ancestry.[9,10]

It is well known that Black men are disproportionately impacted by PCa. They are more likely to have Pca at a younger age and have more aggressive disease with greater Pca-specific mortality.[9] The current American and European guidelines suggest that men who are of African descent and over the age of 45 should be offered PSA testing.[5,6]

None of the guidelines currently address screening of Indigenous men in Canada or the United States. Limited studies suggest that Indigenous men are less likely to undergo PSA screening and are perhaps at an increased risk of developing more aggressive disease than non-Indigenous men.[10] Some of these differences, as with the African American population, are likely related to the social determinants of health and access to care.[11]

There is abundant evidence in the United States that the disproportionate impact of Pca on Black men is compounded by Black men having less access to Pca screening.[11] James et al.[11] reported in a systematic review that financial costs were a barrier to participation in screening for Black men living in the United States.

Access to healthcare resources for Black men in Canada remains understudied and we do not have any evidence on the engagement of Black men in Pca screening in Canada.[12] It is

necessary to take a context-specific analysis approach to understand the socioeconomic challenges that Black men living in Canada face compared to Black men living in the United States. Access to healthcare is vastly different in Canada compared to the United States, which may facilitate easier access to PSA screening for Black men in Canada. In Canada, healthcare is provided mostly through a publicly funded national health insurance model; on the other hand, in the United States, there is great dependence on private financing and delivery of care.[13] One of the key challenges of the US healthcare system is that the lack of a publicly funded model has led to accessibility challenges with cost being one of the main barriers to care.[13] Therefore, caution must be exercised when using data from the United States on prostate cancer screening for Black men in the Canadian context.

Nyame et al.[14] provide various targeted Pca screening models for men in the United States. One of their models predicted that an annual Pca screening program for Black men aged 45-69 would achieve a mortality reduction of 26-29% with an associated 51-61 overdiagnoses per 1,000 men. Overdiagnosis entails Pcas that would not have reduced life expectancy if not diagnosed or treated. Despite the overdiagnosis, the authors emphasized that the mortality reduction would be beneficial compared to historical cohorts, and limiting screening to men under 70 would help prevent overdiagnosis.

The potential benefits linked to PSA screening for at-risk marginalized populations can be further enhanced by reducing or eliminating other relevant PSA screening barriers, thus increasing participation. Jandorf et al.[15] observed that community-based free Pca screening programs were an effective approach to engage Black and Hispanic men, who may have otherwise not undergone testing. At the end of the program, nearly 90% of the participants opted to have a screening PSA.[15] Another study by Weinrich et al.[16] suggested that addressing knowledge gaps through education can also boost screening rates. They found that 61% of 1,211 African American men who took part in an educational program went on to enroll in a free Pca screening program.

Reducing the financial burden and raising awareness regarding Pca screening is vital, but there are additional challenges to address, especially for marginalized populations. In addition to financial barriers, Lee et al.[17] found that African Americans reported higher screening fears and Pca worries than their Caucasian counterparts. Fear of diagnosis, which stems from the lack of knowledge, and distrust of medical professionals, were also common reasons among Black men for choosing to opt out of PSA screening.[18] One can only speculate that similar factors may impact Indigenous men, and mistrust of medical establishments can pose a barrier for Indigenous men as well.[19] It is clear that mistrust exists for both of these marginalized populations of men, thus, innovative approaches involving stakeholders and healthcare providers from these communities are potential ways to mitigate barriers. Moreover, it is possible that these marginalized populations may have different ideals and value in regards to the ultimate value on screening.[20] Additionally, any approach to optimize screening of Black and Indigenous men in

Canada will require further investigation of the social determinants of health in these two populations with respect to PCa.

No-cost PSA screening of at-risk marginalized men would constitute only one small part of a robust PCa screening program. Integrated screening programs should aim to provide Black and Indigenous men with education on PCa in a way that aims to empower them, so that they understand the benefits of making an earlier diagnosis of PCa. Additionally, these men need to understand that localized PCa can be treated effectively. A PCa screening program that will engage Black and Indigenous men will need to overcome years of mistrust that these populations have in the healthcare system. In an effort to build trust with these groups, screening programs should actively collaborate with the target population and engage key stakeholders in the development of the program. For example, in British Columbia a key stakeholder could be the First Nations Health Authority (FNHA).[19] The FNHA has taken responsibility for health services for First Nations that were previously provided by Health Canada.[19] The public health impacts of FNHA have been positive, such as improving service time and extending telehealth coverage.[19]

Unique approaches such as offering screening at important community establishments may provide opportunities to offer valuable PCa screening. For example, in New York city, it was found that community-based diabetes testing was effective in identifying and engaging Black men with unidentified diabetes.[21] Men from these marginalized populations will need to be involved as leaders of effective screening programs. They will need to advocate for its implementation and provide direct guidance on the benefits/risks of screening to men from their respective population groups. Mobile screening operations can take up a variety of physical forms from trailers to unused shopping spaces in malls. An essential part of mobile screening is to raise awareness in marginalized communities.[22] Moreover, this becomes exceedingly important when patients may not fully understand the breadth of services available.[22] Mobile screening programs have the potential to raise awareness of PCa and support screening efforts.[22] Ideally healthcare professionals from these marginalized populations would be involved in providing the PSA screening to their respective communities. These are some examples that could be further developed within the contexts of specific communities. It is necessary to understand the importance of discussing with these communities before implementing any intervention, as this may otherwise perpetuate the cycle of marginalization. Figure 1 highlights key components of a screening program.

Additionally, as suggested by Cooperberg[23] there is considerable evidence that highlights the need to improve screening for members of marginalized populations. For the reasons outlined, we strongly advocate for the implementation of a free and universally available PSA screening program for Black and Indigenous men living in Canada. Furthermore, we recommend instituting a program to reduce the barriers to PCa screening for at-risk marginalized men and engaging with stakeholders from marginalized communities. While our main focus is on these groups, it must be recognized that screening improves PCa-specific survival for all men, and universal access should be considered for all in a publicly funded health system.

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FIGURES AND TABLES

Figure 1. Key components of a prostate cancer screening program for Black and Indigenous men.