BMJ Oncology

Consideration of initial steps to implementation of prostate cancer screening following the EU recommendation

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To cite: Fitzpatrick P. Consideration of initial steps to implementation of prostate cancer screening following the EU recommendation. *BMJ Oncology* 2024;**3**:e000579. doi:10.1136/bmjonc-2024-000579
Accepted 06 September 2024

Linked
► http://dx.doi.org/10.1136/bmjonc-2024-000400

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In 2022, the updated European Council recommendation on cancer screening was adopted.[1] The recommendation includes prostate cancer as a suitable target disease for organised cancer screening in European countries.

While overdiagnosis and overtreatment are known issues in prostate cancer screening, the use of an upper age limit, risk stratification after baseline Prostate Specific Antigen (PSA) testing and high-quality prostatic MRI scanning should significantly reduce overdiagnosis and improve the harm-to-benefit ratio.

In November 2022, the international Prostaforum conference[2] was organised to discuss the state of knowledge and further steps to harness the potential of organised prostate cancer screening in Europe; they set out a number of recommendations regarding the need for European guidelines, sharing of good practices and research. An EU4Health co-funded project to monitor and strengthen the implementation of innovative approaches for prostate cancer screening, called PRAISE-U is in progress.[3] The PRAISE-U project is seeking to encourage early detection of prostate cancer through customised and risk-based screening programmes. In Ireland, for example, the acceptability of a home PSA test followed by an MRI assessment is being evaluated. The PRAISE-U goal is to align protocols and guidelines across European member states and enable the collection and distribution of relevant data to reduce prostate cancer morbidity and mortality rates in Europe.

It is important to see how an organised prostate screening programme will be received by the public. The study by Jarbur *et al*[4] examined associations between socioeconomic factors and PSA testing in Sweden in 50-year-old men. Sweden has been rolling out regional, population-based organised prostate cancer testing programmes on a stepwise basis since 2020, prior to the European Commission recommendation, in recognition of the fact that widespread unorganised PSA testing was ineffective and resource-consuming.[3] The overall response rate in the organised testing programme was 37.2% but responses ranged from 20.5% in men with low disposable income and 43.5% in men with tertiary education. Overall, this study showed that, unsurprisingly, in Sweden low education, low income and being born in a non-Nordic country are associated with lower participation rates among 50-year-old men in an organised prostate cancer testing programme. There are similar socioeconomic-related results unfortunately in most cancer screening programmes.[5 6]

The response rate in the study by Jarbur *et al*[4] was disappointing overall. There are a number of things to consider, however, which may have contributed to this rate (some of which have been recognised by the authors) which might not be seen in all countries contemplating roll out of a national prostate screening programme.

1. Although there was a nationally standardised letter, the stepwise rollout may have precluded a full national media campaign. National awareness campaigns are necessary to introduce a screening programme to the public and to raise awareness of the importance of the disease being screened for; these campaigns need replication throughout the life of a screening programme to maintain awareness of new cohorts of eligible participants. A drop in previously high participation rates in the long-running breast screening programme in the UK has prompted a recent

call for a national breast cancer screening awareness campaign.[7]

2. The invitation letter made it clear that 'the Swedish healthcare authorities do not recommend a national screening programme for prostate cancer, as the advantages do not clearly outweigh the harms, but that they advise that men should be informed and make a personal decision whether to obtain testing'. Governments considering a prostate screening programme in the future will have to decide on the balance of evidence whether to recommend or not, as a national government recommendation is important for confidence in a screening programme. However, informed consent still requires advising men of the potential benefits and potential harms of a screening test and allowing individual choice.
3. Ease of access of screening is important in increasing uptake, and in this study the participants had to attend a testing facility to obtain a PSA test between 5 and 25 km from their home (although most were around 5 km).
4. This study was of 50-year-old men only. The influence of socioeconomic factors may be different in older men who may have experience of prostate cancer in family members or may be more aware of prostate disease through media directed at different age groups.
5. Immigrants to Sweden had lower participation; this is despite information materials in many languages. Reduced screening participation in migrant populations is commonly seen across Europe.[8]

Importantly, however, the uptake was much higher than in 50–52 year-old men in unorganised PSA testing prior to the organised testing programme where proportions ranged from 11.8% in low-income men to 15.1% in men not living in a single-person household.

Countries considering the introduction of a prostate screening programme may wish to wait for the PRAISE-U studies to complete to see which approach is recommended for maximum participation and benefits.

Contributors PF has written this paired editorial at the request of BMJ Oncology. The sole author, PF, is the guarantor.

Funding The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

Competing interests None declared.

Patient and public involvement Patients and/or the public were not involved in the design, or conduct, or reporting, or dissemination plans of this research.

Patient consent for publication Not applicable.

Ethics approval Not applicable.

Provenance and peer review Commissioned; internally peer reviewed.

Data availability statement Data sharing not applicable as no data sets generated and/or analysed for this study.

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