



RESEARCH LETTER

Movember moustache campaign and participation in Swedish organised prostate cancer testing

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The Movember movement started 25 years ago in Australia to promote men's health in the month of November (www.movember.com). Prostate cancer awareness and prostate-specific antigen (PSA) testing have been one of the main campaign themes, not least in Sweden where it first appeared in November 2004. Since 2015, the Swedish Movember Moustache Campaign is organised by the confederation of prostate cancer patient organisations. Although the campaign's main aim is to raise funding for prostate cancer research, PSA testing is promoted in Sweden throughout November in various media and public spaces. Large-size advertisements appear in national and local newspapers, promoting videos are shown on television and in cinemas, banners are set up in streets and sports arenas, etc. The campaign messages typically stress the potential benefits of testing and avoid mentioning the potential disadvantages, or just recommend testing in wordings like 'prostate cancer detected early is curable, so if you are over 50 years old you should have a PSA test'. We wanted to test the hypothesis that the Moustache Campaign increases participation in organised prostate cancer testing (OPT) during November, when the promotion of PSA testing is most intensive.

Since 2020, regional, population-based OPT programmes are being gradually introduced in Sweden as part of the tax-funded public healthcare. A detailed description of OPT was recently published [1]. Letters with a brief information about the potential advantages and disadvantages of PSA testing are sent to all men in defined birth cohorts in the regions. Invited men who opt for testing can have a free PSA test at any of the numerous testing facilities at public hospitals and in primary care.

We used the national OPT register SweOPT to analyse the monthly participation rates in all Swedish regions that had offered OPT to entire birth cohorts for at least 2 years, in years when invitations were sent out from the beginning of the year. The included regions and years were Västra Götaland

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The primary outcome measure was participation in OPT, defined as having a PSA test labelled OPT within 30 days from invitation, per calendar month of invitation. We defined the exposed group as all men invited in November and the unexposed group as all men invited from January through May or in September. Men invited in October and December were excluded as any effect of the Movember campaign would, in these months, likely be intermediate of that in November versus other months. Men invited in June, July or August were excluded as the summer holidays likely affected their participation rates.

The primary analysis was calculating the difference in participation between the exposed and unexposed groups with a 95% confidence interval (CI). As a secondary analysis, we calculated total participation rates (no time limit) for men invited all calendar months with 95% CIs.

A total of 26,758 men were invited in the month of November and 112,719 in January through May or in September. The participation rate within 30 days was 26.2% for men invited in November ($n = 9,493$) and 27.2% for those invited in any of the other six comparison months ($n = 42,336$), a difference of 1.0% (95% CI: 0.48 to 1.65%). The total participation rate (no time limit) was 35.5% for men invited in November and 37.6% for those invited in a comparison month ($n = 42,336$). The total average participation rate per month of invitation is shown in Figure 1.

Our analysis does not indicate that the Moustache Campaign's promotion of PSA testing throughout November increases the participation in OPT during the active campaign month. This does not exclude the possibility that the campaign increases OPT overall participation, equally across all calendar months, nor that it increases PSA testing outside OPT, in subgroups such as men with short education, or in men older than those included in our study, most of whom were aged 50 years and had received just one, first invitation.

The moderate overall participation rate in OPT is probably, at least partially, explained by the fact that PSA testing is not as common in this younger age group as in older men [2]. Not many men in their fifties have lower urinary tract symptoms, the absence of which is often erroneously interpreted as a reason not to have a PSA test [3]. Furthermore, few men in their fifties have friends or family members of their own age with prostate cancer, particularly not with advanced disease. One must also bear in mind that the invitation to OPT includes a neutral description of the potential advantages and disadvantages of PSA testing without any attempt to persuade men to get tested. Interviews with men invited to OPT, however, show that men typically do not weigh objective potential benefits and harms of PSA testing against each other but rather

make decisions based on personal advice, gut feeling, or practical issues [3, 4]. Sending reminders to non-participants has proved effective in breast cancer screening [5], but the absence of a recommendation for prostate cancer screening from the Swedish healthcare authorities makes it ethically problematic to send reminders to men who do not have a PSA test after being invited to OPT.

PubMed searches did not identify any study evaluating the association between the Moustache Campaign or any other similar campaign and PSA testing, and only four studies of awareness campaigns and the uptake of screening for other cancers [6–9]. Three studies analysed the impact of mass media campaigns in 2014, 2017, and 2019 on participation in the Australian bowel cancer screening programme and found an up to 10 percentage points' increase in participation [6–8]. In contrast, a Malaysian study reported no difference in breast cancer screening uptake the 3 months before versus the 3 months after a campaign in October 2018 [9].

We conclude that the Swedish Moustache Campaign's promotion of PSA testing throughout November does not immediately increase participation rates in the population-based, regional OPT programmes. The scarce knowledge about the effect of awareness campaigns on cancer screening uptake calls for more research.

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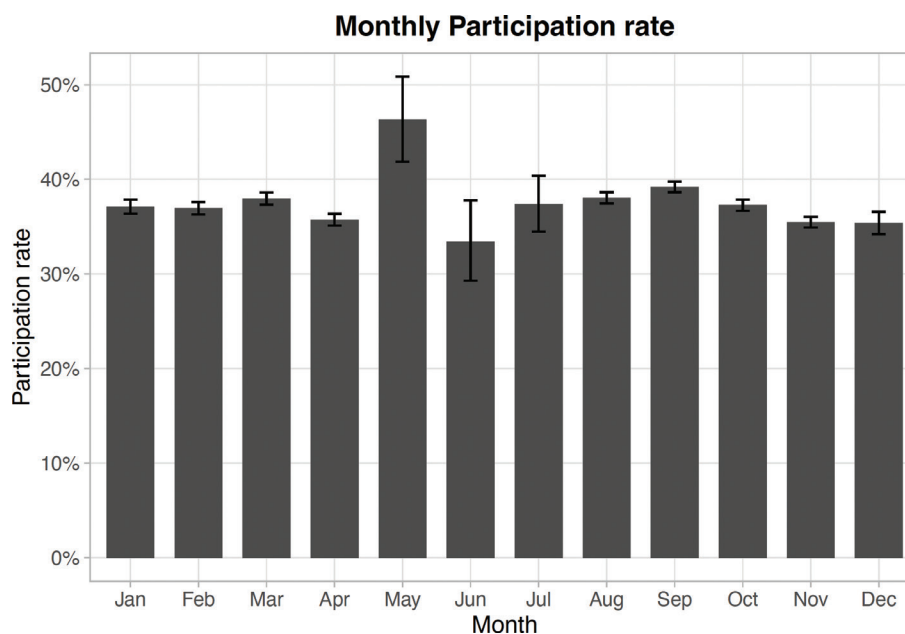


Figure 1. The total average participation rate per month of invitation in eight Swedish regional OPT programmes from 2021 to 2024.

Disclosure statement

RAG has received lecture fees and travel honoraria from Bayer and IPSEN. AL has received speaker honoraria from Janssen, IPSEN and Bayer. AB received consulting, advisory board or speaker's fee from Accord, Astellas, AstraZeneca, Bayer, IPSEN, J&J, Pfizer, Sandoz, and Telix. AB also reports research grants to his institution from Astellas, Astrazeneca, Bayer, J&J, Movember, Roche and Spectracure. AB is a co-founder and board member of Glactone Pharma AB, and a shareholder of Glactone Pharma AB, LIDDS AB, and WntResearch AB. None of the above directly relates to the submitted work. The other authors do not have any financial conflict of interest to disclose.

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