ORIGINAL ARTICLE

Where do young men want to access STI screening?
A stratified random probability sample survey of young men in Great Britain

John M Saunders,1 Catherine H Mercer,2 Lorna J Sutcliffe,1 Graham J Hart,2 Jackie Cassell,3 Claudia S Estcourt1

ABSTRACT

Objectives Rates of sexually transmitted infections (STIs) in UK young people remain high in men and women. However, the National Chlamydia Screening Programme has had limited success in reaching men. The authors explored the acceptability of various medical, recreational and sports venues as settings to access self-collected testing kits for STIs and HIV among men in the general population and those who participate in sport.

Methods A stratified random probability survey of 411 (weighted n=632) men in Great Britain aged 18–35 years using computer-assisted personal and self-interviews.

Results Young men engaged well with healthcare with 93.5% registered with, and 75.3% having seen, a general practitioner in the last year. 28.7% and 19.8% had previously screened for STIs and HIV, respectively. Willingness to access self-collected tests for STIs (85.1%) and HIV (86.9%) was high. The most acceptable pick-up points for testing kits were general practice 79.9%, GUM 66.8% and pharmacy 65.4%. There was a low acceptability of sport venues as pick-up points in men as a whole (11.7%), but this was greater among those who participated in sport (53.9%).

Conclusions Healthcare settings were the most acceptable places for accessing STI and HIV self-testing kits. Although young men frequently access general practice, currently little STI screening occurs in this setting. There is considerable potential to screen large numbers of men and find high rates of infection through screening in general practice. While non-clinical settings are acceptable to a minority of men, more research is needed to understand how these venues could be used most effectively.

INTRODUCTION

Over the past decade, there has been a sustained rise in the rates of most sexually transmitted infections (STIs) in the UK.1 The burden of infection with Chlamydia trachomatis, the most prevalent STI, is shared equally by men and women.2,3 Over this time, highly sensitive and specific tests have been developed for the diagnosis of chlamydia and other infections such as Neisseria gonorrhoeae and HIV, which can be performed on non-invasive self-collected samples.4,5 As a result, testing for STIs and HIV can now be conducted in a variety of non-healthcare settings without the need for access to microscopy or interaction with healthcare professionals. These technological advances have underpinned development of the National Chlamydia Screening Programme (NCSP) in England and Wales. However, the NCSP has had difficulty screening the required numbers of people needed in order to have the predicted impact on health outcomes.6,7

The NCSP tests only half the number of men as women, and the places in which men are tested differ from women.8 Of the NCSP tests done in women, more than 50% are carried out in ‘core services’ (general practice, contraceptive and sexual health services and pharmacies).7 In contrast, around 25% of tests in men are in ‘core services’, with testing more commonly occurring in ‘outreach’ and non-healthcare settings.7 Positivity rates of men tested by the NCSP in non-healthcare settings are generally lower than those from men tested in core services.9 This highlights the limited impact that screening men in non-healthcare settings may have on public health, as it is the coverage of screening which is important and ensuring that populations with the highest prevalence of infection are tested.6 A greater and faster reduction in chlamydia prevalence may be achieved through including more men in screening; however, the cost-effectiveness of screening more men has been recently questioned.10,11 Despite this, it is generally accepted that efforts should be made to engage more men with STI screening, and the UK Department of Health has commissioned research to look specifically at this issue.12

STI screening in some sports settings has been undertaken in the UK and overseas, in a variety of ways and with varying degrees of success, in an attempt to encourage more men to test for STIs and to engage in general healthcare.13–15 In England, after swimming and cycling, more men aged 16 years and over play football (soccer) at least once a month than any other sport and do so in a club infrastructure which could provide support for screening initiatives.16,17 Although this suggests that football venues could provide feasible settings in which to provide large numbers of men access to STI and HIV testing, the acceptability of this approach is poorly understood.

Here, we report findings from a stratified random probability survey which explored the medical, social and sporting venues in which men aged 18–35 years and resident in Great Britain find it
The χ² statistic was used to detect statistically significant differences in proportions between men aged 18–24 years, men aged 25–29 years and men aged 30–35 years. Data were analysed using the statistical package STATA to account for the complex survey design of the Omnibus survey. Statistical significance is considered as p<0.05 for all analyses.

RESULTS
The three waves of the survey had an overall response rate of 53%. The median age of men was 28 years, with 130 men (38.9%) aged 18–24 years, 124 men (35.2%) aged 25–29 years and 157 men (52.9%) aged 30–35 years.

Healthcare use and previous STI/HIV testing
Almost all (98.5%) men were registered with a general practitioner and 75.3% had seen their general practitioner (GP) within the last year (table 1), with no difference by age group. Of men, 28.7% and 19.8% had previously tested for STIs and HIV, respectively. Among those who had tested for STIs, 68.2% (95% CI 52.2% to 80.7%) of men <25 years of age had done so in the last year compared with 30.4% (95% CI 17.1% to 48.1%) of men aged 25–29 years and 9.1% (95% CI 2.3% to 29.8%) of men aged 30–35 years (p<0.001). Of the men who had previously tested for HIV, those under 25 years were more likely to have tested in the last year than older men, 69.9% (95% CI 45.7% to 86.5%) and 20.0% (95% CI 10.4% to 35.0%), respectively (p=0.0004). The majority of STI and HIV tests had been performed in a clinical setting with over half reporting testing in sexual health (genitourinary medicine) clinics, while approximately one in six had tested in general practice. Relatively few men reported testing for STIs in non-clinical settings.

Behavioural factors
Of all men, 86.2% reported at least one sexual partner in the last year with 73.4% reporting at least one sexual partner over the last 3 months (table 2). Younger men reported greater numbers of sexual partners over the last year compared with over the last 3 months (p<0.001 and p=0.003, respectively). Condom use was greatest in men under 25 years with 34.7% reporting using condoms every time they had sex in the last 3 months in comparison to less than one-quarter of men aged 25 years and older (p<0.001). Among men who had had sex, 3.8% reported that the gender of their last sexual partner was male and this did not vary by age group.

Willingness to use self-collected testing kits for STIs (urine) and HIV (oral fluid) and acceptability of different settings
The majority of men were willing to provide a self-collected sample for STI/HIV testing (table 3). Specifically, 85.1% reported that they were willing to provide a urine sample for STI testing with no variation by age group, while 86.9% of all men reported their willingness to provide an oral fluid sample for HIV testing, although this did vary by age group from 79.7% of men aged 25–29 years to 95.0% of men aged 18–24 years (p=0.001). General practice surgeries (79.7%), sexual health clinics (66.8%) and pharmacies (65.4%) were the most acceptable test kit pick-up points with no variation by age. Further education settings were more popular than school settings as pick-up points (41.6% vs 28.1%), while the workplace was acceptable to 22.4% of all men. Gym and sports centres were considered acceptable pick-up points by 18.5% and 13.4%, respectively, of all men, with no variation by age.
Participation in sport

Of all men, 69.4% (95% CI 63.9% to 74.5%) had participated in a sporting activity at least once within the 4 weeks prior to interview with this proportion greatest among men aged over 30 years (78.3%; 95% CI 69.7% to 84.9%) than among those aged 18–29 years (65.9%; 95% CI 59.0% to 72.2%) (p = 0.0189) (data available as online supplement). Among all men aged 18–55 years, the five most popular activities to participate in were football (soccer) (52.9%; 95% CI 46.2% to 59.5%), jogging (45.4%; 95% CI 38.7% to 52.2%), gym (36.8%; 95% CI 30.3% to 43.8%), cycling (31.9%; 95% CI 26.0% to 38.6%) and swimming (29.6%; 95% CI 23.9% to 35.9%). Men under 30 years were more likely to have participated in football than those aged at least 30 years (57.5%; 95% CI 49.2% to 65.4%) versus 43.3% (95% CI 33.1% to 54.0%, p = 0.033), with 74.4% (95% CI 65.2% to 81.8%) of men who played football reporting to play at least once a week (no variation by age group).

As reported above, there was generally low acceptability of sports settings as pick-up points for STI and HIV testing kits but, among those who reported participation in a sporting activity within the last 4 weeks, 53.9% (95% CI 46.9% to 60.8%) and 51.6% (95% CI 44.8% to 58.4%) said they would be willing to pick-up STI and HIV testing kits from the place of activity, respectively, with no significant variation by age group. Among the 129 men who reported playing football in the last 4 weeks, these figures were 47.3% (95% CI 37.2% to 57.6%) and 43.5% (95% CI 34.1% to 53.8%), respectively. There was no difference in healthcare use between men who had and had not played football in the previous 4 weeks with equal proportions being willing to pick-up STI and HIV testing kits from the place of activity, respectively, with no significant variation by age group. Among the 129 men who reported playing football in the last 4 weeks, these figures were 47.3% (95% CI 37.2% to 57.6%) and 43.5% (95% CI 34.1% to 53.8%), respectively. There was no difference in healthcare use between men who had and had not played football in the previous 4 weeks with equal proportions being willing to pick-up STI and HIV testing kits from the place of activity, respectively, with no significant variation by age group.

DISCUSSION

Overall, men appeared well engaged with healthcare with almost all being registered with a GP and three-quarters having registered with a GP, having seen a GP in the last year and having registered with a GP surgery 93.5% (95% CI 90.0% to 97.3%) with 74.4% (95% CI 65.2% to 81.8%) of men who played football reporting to play at least once a week (no variation by age group).

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seen their GP in the last year. Awareness of sexual health appeared high as almost a third of men reported screening for STIs and a fifth reported testing for HIV. The most acceptable venues for young men to pick-up self-collected STI and HIV test kits were healthcare settings (general practice, sexual health clinics, pharmacies), whereas sport, social and recreational venues were acceptable to a smaller proportion of men. Football (soccer) was the most popular sport and around half of men who played football reported that they would find their football venue an acceptable place to access STI and HIV testing kits.

To our knowledge, this is the first stratified probability survey of young men in Britain to determine the acceptability of various settings for accessing self-collected STI and HIV test kits. It provides generalisable data which should benefit those involved in researching, developing and delivering STI services for men in healthcare and non-healthcare settings within Britain, particularly in the context of low uptake of testing in men reported by the NCSP. However, we do not know the reasons for refusal to take part in the survey or how those who declined differ from participants, although we did weight the sample in an attempt to adjust for a lower response among younger men. Differences in acceptability between ethnic groups and whether respondents live in urban or rural areas are unknown as our sample was not powered to look for these differences in acceptability.

<table>
<thead>
<tr>
<th>Denominator (unweighted, weighted)*</th>
<th>411 632</th>
<th>130 246</th>
<th>124 178</th>
<th>157 208</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Willing to provide mouth swab for HIV testing</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Willing to use self-collected testing kits for STI/HIV testing</td>
<td>86.9% (82.4% to 90.4%)</td>
<td>95.0% (89.7% to 97.6%)</td>
<td>79.7% (69.9% to 87.0%)</td>
<td>82.7% (74.2% to 88.9%)</td>
</tr>
<tr>
<td>Last sexual partner was male (if had sex)</td>
<td>3.3% (2.2% to 6.4%)</td>
<td>4.5% (1.9% to 10.5%)</td>
<td>4.9% (2.1% to 11.2%)</td>
<td>1.6% (0.5% to 5.4%)</td>
</tr>
</tbody>
</table>

*Percentages presented for weighted sample.

Table 3  Willingness to use self-collected sexually transmitted infection (STI) and HIV testing kits and acceptable pick-up points for tests among men aged 18–35 years

<table>
<thead>
<tr>
<th>Factors</th>
<th>All men (95% CI)</th>
<th>18–24 years (95% CI)</th>
<th>25–29 years (95% CI)</th>
<th>30–35 years (95% CI)</th>
<th>p Value for difference between age groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denominator (unweighted, weighted)*</td>
<td>411 632</td>
<td>130 246</td>
<td>124 178</td>
<td>157 208</td>
<td></td>
</tr>
<tr>
<td>Willing to provide urine sample for STI testing</td>
<td>85.1% (80.1% to 88.8%)</td>
<td>88.7% (81.0% to 93.5%)</td>
<td>82.1% (71.2% to 93.5%)</td>
<td>83.1% (75.2% to 88.9%)</td>
<td>0.3687</td>
</tr>
<tr>
<td>Willing to provide mouth swab for HIV testing</td>
<td>86.9% (82.4% to 90.4%)</td>
<td>95.0% (89.7% to 97.6%)</td>
<td>79.7% (69.9% to 87.0%)</td>
<td>82.7% (74.2% to 88.9%)</td>
<td>0.001</td>
</tr>
</tbody>
</table>

*Percentages presented for weighted sample.
associations. Although the questions we developed did not undergo formal psychometric testing, where possible we used questions that had been validated for use in the highly regarded Natsal surveys.20

While many studies have shown that using non-traditional and sport settings to screen for STIs is feasible,13 21 few have focused on the acceptability of different settings for men. Lorimer’s study of willingness to participate in a non-medical approach to chlamydia screening found that men in particular valued the possibility of screening in these settings.22 Furthermore, the uptake of screening varied by setting, supporting our finding that acceptability of sport settings was greater in those who had actually engaged in sporting activities over the last month.23 Anonymity appeared to be a key factor determining acceptability of screening in a qualitative study of young men’s experiences and perceptions of chlamydia screening commissioned by the NCSP.25 Men in that study rejected many of the proposed sport and social venues for fear of the stigma of being seen to take a test. Men also appeared to perceive a degree of incongruity between attending these locations for recreation and the health message of screening.25

Our finding that most men had seen their GP in the last year is in keeping with other studies and taken together with the high acceptability of general practice for accessing STI, and HIV testing kits highlights the importance of, and potential for, chlamydia and HIV screening in general practice, especially among younger men.9 24 However, current rates of STI and HIV screening in general practice are low, which could suggest reluctance on the part of the healthcare provider to offer testing.25 Many barriers exist to both opportunistic chlamydia screening and HIV testing in general practice.26–29 A move towards opt-out chlamydia testing in general practice could potentially lead to a significant rise in the numbers of tests performed as seen with opt-out HIV testing in general practice and other settings.30 31 However, the cost-effectiveness of this approach would need to be examined as prioritising chlamydia screening in general practice may require financial incentives through Quality and Outcomes Framework targets.32

A substantial proportion of men in our study reported previously testing for STIs (28.7%) and HIV (19.8%) mostly within specialist sexual health settings. Among 18–24-year-olds, over one-quarter reported that they had previously been tested for STIs; however, the NCSP data suggest a coverage of around 12% of 16–24-year-olds in England and Wales.8 This probably reflects testing in CUM services among participants in our survey. However, the reasons for seeking a previous test are not known and may reflect the fact that men had symptoms at that time. The use of self-collected urine testing kits would only be appropriate for asymptomatic men and would also miss infections at non-genital sites. This may be particularly important for men who have sex with men, although self-collected rectal and pharyngeal swabs perform as well as provider-taken swabs and seem to be acceptable, although their use in general practice has not been evaluated to our knowledge.33–35 Self-collected specimens for syphilis testing is feasible using dried blood from a finger prick and appears to be acceptable among men who have sex with men recruited from non-clinical settings in one study.36 37

Our data reveal a testing rate for HIV which is higher than equivalent data from Britain’s most recent Natsal, which found that 6.65% (95% CI 5.14% to 8.52%) of men aged 16–24 years and 14.8% (95% CI 13.0% to 16.7%) of men aged 25–34 years reported having had a blood test for HIV.26 Both our data and the Natsal data excluded blood donation as a reason for an HIV test, although the Natsal data are now a decade old.

Health services research

Key messages

- The burden of STI in the UK is similar in men and women but men are perceived as hard to reach for STI screening.
- Three-quarters of men have seen their GP in the last year but relatively little screening occurs in general practice.
- Young men are willing to test for STIs and primary care settings are the most acceptable locations.
- General practice has considerable potential to widen access to STI and HIV screening for young men.

It is important that venues in which STI screening and testing kits are offered are acceptable to target populations. While it is now possible to deliver testing in non-clinical settings, this research highlights that, among 18–35-year-olds in Britain at least, it is the traditional healthcare settings that are most acceptable as pick-up points for self-testing kits. Young men frequently access primary care, and we feel that there is considerable potential to engage more men in STI and HIV testing through general practice.36 The NCSP data shows that only 25% of tests in men are done in ‘core’ health settings.8 In contrast, our research shows that these are the preferred access points for as many as 80% of men. Based on our findings, there is clearly a mismatch between where services are currently provided and the settings in which men prefer to access STI and HIV screening. While non-traditional settings are acceptable to a minority of men and may be important in reaching men who would otherwise not seek STI screening, given the high levels of acceptability of traditional services, further research into outreach screening must include appropriate analysis of the cost-effectiveness and public health impact so that resources are used most appropriately. This is especially important when considering the potentially low rates of chlamydia detected among the men screened in non-healthcare settings.37 While sport and other non-healthcare settings are acceptable pick-up points for some men, more research is needed to understand how these venues could be used most effectively for public health.

Acknowledgements

The authors thank National Centre for Social Research (NatCen).

Contributors

JC had the original idea for the paper. CSE was the principal investigator of the study and obtained funding from the National Institute for Health Research. JMS and LJS developed the questions for the survey. JMS wrote the first draft of the paper and coordinated the writing of the paper, with all authors contributing to subsequent drafts. Plans for analysis were led by CHM who undertook all statistical analyses. CSE is the paper’s guarantor.

Funding

This article represents independent research commissioned by the National Institute for Health Research (NIHR) under its Programme Grants for Applied Research scheme (RP-PG-0707-10208). The views expressed in this article are those of the authors and not necessarily those of the NHS, NIHR or the Department of Health.

Competing interests

None.

Provenance and peer review

Not commissioned; externally peer reviewed.

REFERENCES


Sex Transm Infect 2012;88:427–432. doi:10.1136/stets-trans-2011-050406
Health services research


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Sex Transm Infect 2012 88: 427-432 originally published online April 17, 2012
doi: 10.1136/sextrans-2011-050406

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