

Impact case study (REF3b)

Institution: University of Glasgow
Unit of Assessment: Unit 2, Public Health, Health Services and Primary Care
Title of case study: Policy formulation and public health campaigns to target gay men's sexual health
<p>1. Summary of the impact</p> <p>Men who have sex with men (MSM) are at highest risk of acquiring HIV in the UK and an estimated one-quarter of HIV-infected MSM have not been diagnosed. The Gay Men's Sexual Health (GMSH) Survey, conducted by University of Glasgow researchers, has provided robust evidence of sexual behaviours as well as prevention and testing activities of MSM in Scotland since 1996. These findings have shaped health policies in Scotland, the UK and Europe and have been used by health practitioners in the conduct of successful NHS sexual health campaigns in Scotland. The campaigns have been credited with increased testing rates and increased awareness of HIV risks demonstrating the effectiveness of direct promotion of sexual health awareness within the gay community.</p>
<p>2. Underpinning research</p> <p>The Gay Men's Sexual Health Survey has been conducted by the Glasgow-based Social and Public Health Sciences Unit (SPHSU), now part of the University of Glasgow (see below) every three years since 1996. This community-based questionnaire survey of gay, bisexual and other MSM is conducted in exclusively gay commercial venues (bars and saunas) in Glasgow and Edinburgh, Scotland's two largest cities and the main commercial centres of the Scottish gay scene. Around 1500 men are surveyed each year.</p> <p>The survey was originally designed to evaluate a peer-led, sexual health intervention set up by the Gay Men's Task Force (GMTF) and modelled on a US intervention. GMTF was a bar-based, peer-led intervention designed to increase sexual health service use and decrease sexual risk behaviours at the community level.¹ The initial findings of this survey called into question the transferability of sexual health interventions from one region to another, because the GMTF failed to replicate the successful results of the US intervention.¹ The survey, repeated every 3 years, presented the opportunity to measure community-level changes in sexual behaviour and sexual health service use across time. The most notable finding was an increase in sexual risk behaviour between 1996 and 2002.² In 1996, 10.7% of men surveyed (and 11.2% in 1999) reported unprotected anal intercourse (UAI) with casual partners. This increased markedly to 18.6% in 2002. UAI with more than one partner increased from 8.1% in 1996 to 13.7% in 2002. There was also a significant increase in men reporting that they 'knew' their casual partners' HIV status, despite no increase in HIV testing among men who reported UAI with casual partners.² The Glasgow research group argued that this finding could represent 'prevention failure' on the part of governments and health agencies.²</p> <p>Between 2005 and 2011, the Glasgow group collected oral fluid samples from the gay, bisexual and other MSM who took part in the survey for anonymous HIV testing to improve the estimate of HIV prevalence and undiagnosed infection in this population. These were the first data on HIV prevalence and undiagnosed infection among a community-based sample of gay men in Scotland; 4% of the men tested were HIV-positive, and of these, 42% were undiagnosed.³ In collaboration with University College London (UCL), data from surveys of gay men in London, Brighton, and Manchester in 2003 and 2004 were combined with the Scottish data from 2005 to examine factors associated with undiagnosed HIV infection. The results, published in 2008⁴, revealed that most men with undiagnosed HIV had previously tested HIV-negative, suggesting a need to promote frequent repeat testing among high-risk men to reduce the levels of undiagnosed HIV and ultimately the number of new infections in the UK.</p> <p>The Glasgow group demonstrated that changes to HIV testing policy to opt-out testing introduced in 2005, significantly increased recent testing from 33.2% to 48.3% among gay men in Scotland between 2005 and 2008 and potentially contributed to a substantial reduction in levels of undiagnosed HIV from the 42% seen in 2005 to 26% in 2008.⁵ However, analysis of the survey findings between 1996 and 2008 also show that HIV-related sexual risk behaviour is not diminishing, with the number of men reporting UAI with more than one partner in 2008 remaining at</p>

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the level previously reported in 2002 (13.1%).⁶

Key researchers: Dr Lisa McDaid (née Williamson; Research Assistant [2000] then Senior Investigator Scientist [to 2010] then Programme Leader Track [to 2012] then Programme Leader [to present]) and Professor Graham Hart (Programme Leader and Associate Director, 1994–2005) both McDaid and Hart are/were members of the Medical Research Council/Chief Scientist Office (MRC/CSO) SPHSU during the research period. On 1 June 2013, the SPHSU was transferred to the Institute of Health and Wellbeing at the University of Glasgow and SPHSU staff became employees of the University. Permission has been granted from HEFCE to submit this case study.

Key collaborators: Paul Flowers (Professor of Sexual Health Psychology, Glasgow Caledonian University); Danielle Mercey (Senior Clinical Lecturer, University College London); Anne Johnson (Professor of Infectious Disease Epidemiology, University College London).

3. References to the research

1. Flowers P *et al.* [Does bar-based, peer-led sexual health promotion have a community-level effect amongst gay men in Scotland?](#) *Int. J. STD AIDS* 2002; 13:102-108 doi: 10.1258/0956462021924721. PDF available on request.
2. Hart GJ & Williamson LM. [Increase in HIV sexual risk behaviour in homosexual men in Scotland, 1996-2002: Prevention Failure?](#) *Sex. Transm. Infect.* 2005; 81:367-372 doi:10.1136/sti.2004.013995.
3. Williamson LM & Hart GJ. [HIV prevalence and undiagnosed infection among a community sample of gay men in Scotland.](#) *J. Acquir. Immune Defic. Syndr.* 2007; 45:224-230 doi: 10.1097/QAI.0b013e318058a01e.
4. Williamson LM *et al.* [Sexual risk behaviour and knowledge of HIV status among community samples of gay men in the UK.](#) *AIDS* 2008; 22(9):1063-1070. doi: 10.1097/QAD.0b013e3282f8af9b.
5. McDaid LM & Hart GJ. [Increased HIV testing and reduced undiagnosed infection among gay men in Scotland, 2005-2008: support for the opt-out testing policy?](#) *Sex. Transm. Infect.* 2011; 87:221-224. doi: 10.1136/sti.2010.044560
6. Knussen C *et al.* [HIV-related sexual risk behaviour between 1996 and 2008, according to age, among men who have sex with men \(Scotland\).](#) *Sex. Transm. Infect.* 2011; 87:257-259. doi: 10.1136/sti.2010.045047.

4. Details of the impact

The Gay Men's Sexual Health (GMSH) Survey has provided robust evidence on the sexual behaviours and prevention and testing activities of MSM in Scotland since 1996. Since 2008, the findings have informed health guidelines in Scotland, the UK and Europe and have been used in successful NHS sexual health campaigns.

Health guidelines and practice

European level guidelines

The GMSH Survey findings – of rising infection levels and substantial proportions of HIV-positive men undiagnosed at the time of survey – were part of a wider body of similar findings from across the EU which formed the evidence base^a for guidance released in 2010 by the European Centre for Disease Prevention & Control (ECDC). The ECDC states in its *Guidance Report on HIV testing: increasing uptake and effectiveness in the European Union* that 'the issue is the extent to which people living with HIV who need treatment are unaware of their infection' and identifies 'low-risk perception' as an important barrier to being tested.

UK level guidelines

National guidelines on safer sex were issued in 2012 by the British Association for Sexual Health and HIV and the British HIV Association.^b These guidelines, provide guidance for practitioners in Level 3 Genitourinary medicine (GUM) services (Tier 5 in Scotland). The Glasgow research is cited in the evidence-base for recommendations on repeat testing for sexually transmitted infections (STIs, p12–13) which include 'HIV testing should be routinely recommended to all individuals attending GUM or sexual health services. Pre- and post-test discussions and counselling support should be available'.

Scottish guidelines

McDaid was invited to be part of the Scottish Government's HIV Action Plan Group^c which produced the *HIV Action Plan in Scotland: March 2009 to March 2014*.^d As part of the Scottish Government National Sexual Health & HIV Advisory Committee, McDaid was on the Project Groups tasked with the relevant actions in the HIV Action Plan aimed at 'Reducing levels of undiagnosed HIV and transmission in Scotland' (specifically Action 7 and Action 9 Project Groups for the periods May 2010–Dec 2011 and Mar 2011–Apr 2012 respectively). Action 7– '*Systems to monitor risk behaviours and new HIV infections among persons at highest risk of acquiring infection will be reviewed and, if appropriate, developed and implemented*' – arose directly out of the 2005 GMSH survey findings and the recognised need to learn whether the findings applied to broader geographical areas. Action 9 of the plan – '*Existing guidance on prevention of HIV transmission in MSM*' – led to the production of Health Protection Network Guidance^e tailored to national and/or local circumstances. The survey findings (ref 5 and 6 in section 3) contributed to the evidence base for the guidance and the survey is given as an example of the behavioural outcome measures to use in addressing research gaps and local needs assessments. The HIV Action Plan was subsumed into the National Sexual Health & Blood Borne Viruses (BBV) Framework^f published in 2011, which brought together the two areas for the first time. The BBV Framework informs practice across the Scottish NHS Boards and they are held accountable for the delivery of the outcomes in the Framework.

Health practitioners and voluntary organisations

The insights gained through the GMSH survey were shared with health practitioners and NGOs through informal channels, including local events with voluntary organisations such as Gay Men's Health and Terence Higgins Trust Scotland. Between 2008 and the present, McDaid has disseminated GMSH survey findings to more than 150 healthcare practitioners and managers, and voluntary sector workers. These events raised awareness on the current risks, delivered Continuing Professional Development (CPD) training and provided information to help inform the practice and delivery of services to MSM in clinical settings.^{g,h} McDaid was also twice invited to present GMSH survey findings at Gaycon (in 2008 and 2012)ⁱ, a biennial conference on gay and bisexual men's sexual health and wellbeing attended by ~150 healthcare and public health practitioners, NGO representatives and policy makers at local and national levels.

Public awareness and health campaigns in Scotland

Findings from the GMSH surveys have been covered extensively in the mainstream media (e.g. BBC) and specialist press (e.g. NAM/AidsMap article warning of the 'perfect storm' in HIV transmission, and a *Nursing Times* article emphasising that 'safer-sex' messages need to be reinforced among gay men living with an HIV-positive diagnosis' and citing University of Glasgow work⁴ in the article's first paragraph)^j. In the press coverage, attention was drawn to the high levels of undiagnosed HIV-positive men and levels of HIV-positive men who were still engaging in sexual risk behaviour. The GMSH survey findings have also driven targeted HIV awareness campaigns in the Edinburgh, Lothian and Glasgow areas, beginning in 2006 and continuing through 2009. Subsequent GMSH surveys (2008 and 2011) have found consistently higher awareness of HIV risk among respondents and a maintained increase of 23% more respondents having been tested for HIV. In the 2008 survey, almost half the men surveyed reported a recent HIV test; a substantial increase over 2005 findings. There had also been a decrease in undiagnosed HIV infection (42% of men testing HIV positive were undiagnosed in 2005 compared with 26% in 2008).

'HIV: the comeback tour' was developed by a multi-agency group in Lothian led by NHS Lothian. As a public information and social media campaign, it aimed to increase HIV testing and condom use among gay and bisexual men and was piloted in Edinburgh in 2007. The campaign materials and information were created with direct input from the GMSH researchers, who provided specific figures for the areas being targeted by the materials and whose findings informed the general focus of the campaign. Specifically, the GMSH finding that approximately 40% of HIV-positive men in Scotland were undiagnosed was cited in campaign materials including 8,000 posters and postcards, which were distributed in clubs and bars throughout Edinburgh's gay scene and more widely through primary care, community (libraries and leisure centres) and local transport networks

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(200 bus posters) in the city. External evaluation of the pilot phase reflected increased awareness among MSM and a 23% increase in HIV testing in Edinburgh. In 2008, in the lead-up to World Aids Day (1 December), NHS Lothian announced the second phase of the campaign. This included a roll-out to additional social venues, 126 GP surgeries, and 180 pharmacies as well as libraries throughout the Lothian area; massive mobile billboards carried on 20 regional buses in addition to the existing bus posters; regular peer education sessions using trained volunteers; internet outreach using specific websites such as Gaydar.com to promote campaign messages, and further publicity in the media. For example, 'ads' for the 'tour' featured in *The List*, and a series of 'tour dates' with 'merchandise stalls' giving away postcards and leaflets on sexual health, testing services etc.

The GMSH findings were instrumental in another high-profile campaign. Run by NHS Greater Glasgow & Clyde (NHSGG&C), NHS Lanarkshire and NHS Ayrshire & Arran health boards, the 'Make Your Position Clear' (MYPC) campaign¹ was aimed at the estimated 50,000 gay and bisexual men in the three health board regions.¹ This campaign resulted in greater awareness of the risks of HIV and the need for prevention and won a Silver Award in the 2010 Institute of Practitioners in Advertising Effectiveness Awards, which judge healthcare-related communications. In a presentation at Gaycon 2012, the NHSGG&C delivered its evaluation of MYPC (as part of a three-campaign social marketing programme which also included HIV: the Comeback Tour). NHSGG&C reports that in a survey on Gaydar.com, one of the channels used by the campaigns, 72% of people agreed that the campaign had made them think about the risks of HIV; 57% said it had made them consider getting tested; and 41% said they had gained new knowledge about HIV and testing. In the campaign evaluation, which surveyed 822 MSM in Glasgow, those with mid-to-high exposure to MYPC were more likely to have been tested for HIV (but not STIs) in the previous 6 months. These findings informed the use of social marketing interventions by NHSGG&C.^h

5. Sources to corroborate the impact

Impact on policy and official guidelines:

- a. [ECDC. HIV testing: increasing uptake and effectiveness in the European Union: Evidence synthesis for Guidance on HIV Testing](#) Stockholm: ECDC; 2010. ISBN 978-92-9193-224-5 / doi:10.2900/35250. [Williamson & Hart, 2007 is cited as ref 76 on pg8]
- b. Clutterbuck, D. *et al.*, The Clinical Effectiveness Group of the British Association for Sexual Health and HIV (BASHH) and the British HIV Association (BHIVA). [UK National Guidelines on Safer Sex Advice](#). London: BASHH/BHIVA, 2012. [McDaid and Hart, 2011 is ref 88, pg12]
- c. [Confirming membership of HIV Action Plan working group \[link\]](#)
- d. [HIV Action Plan in Scotland December 2009 - March 2014](#). Edinburgh: Scottish Government; 2009. [Includes ref to Williamson & Hart, 2007]
- e. Health Protection Network. [Good Practice Guidance on HIV Prevention in Men who have Sex with Men \(MSM\)](#). Scottish Guidance 8. Health Protection Scotland, Glasgow, 2012. [includes ref 5/pg49 Hart & Williamson, 2005; ref 4/pg49 Knussen *et al.*, 2011; ref 21/pg50 Flowers, Hart, Williamson, 2002]
- f. [The sexual health and blood borne virus framework: 2011-15](#). Edinburgh: Scottish Government, 2011. [Government policy agenda; includes findings on high level of sexual risk behaviour from 2008 survey as evidence in Table 4.1, page 29 – not in reference list]

Impact on public and practitioner awareness and public health campaigning:

- g. 'HIV: the Comeback Tour' -- Gay Men's Health; Testing and Support Manager
- h. NHS Greater Glasgow & Clyde; Principal Health Improvement Officer – Sexual Health
- i. Gaycon 2012 conference programme, Sessions 1 and 6 and Plenary 2 [\[link\]](#)
- j. Selected media coverage: [BBC News 20 June 2008: coverage of survey results](#) [Dr McDaid was also interviewed on BBC 5 Live and BBC News on 21 June 2008]; [Nursing Times](#) June 2008 [advising on the health messages required, based on survey results]; and [Nam: AidsMap news article: Over 40% of gay men with HIV in UK are undiagnosed, 60% believing they do not have HIV](#) [reporting on projected 'perfect storm' in HIV transmission after the survey findings about undiagnosed HIV among MSM]
- k. Flowers *et al.*, [Exposure and impact of a mass media campaign targeting sexual health amongst Scottish men who have sex with men: an outcome evaluation](#). *BMC Public Health* 2013;13:737 doi:10.1186/1471-2458-13-737