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Comprehensive clinical care for men who have sex with men: an integrated approach

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This is the second in a *Series* of six papers about HIV in men who have sex with men

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Men who have sex with men (MSM) have unique health-care needs, not only because of biological factors such as an increased susceptibility to infection with HIV and sexually transmitted infections associated with their sexual behaviour, but also because of internalisation of societal stigma related to homosexuality and gender non-conformity, resulting in depression, anxiety, substance use, and other adverse outcomes. Successful responses to the global HIV/AIDS epidemic will require the development of culturally sensitive clinical care programmes for MSM that address these health disparities and root causes of maladaptive behaviour (eg, societal homophobia). Health-care providers need to become familiar with local outreach agencies, hotlines, and media that can connect MSM with positive role models and social opportunities. Research is needed to understand how many MSM lead resilient and productive lives in the face of discrimination to develop assets-based interventions that build on community support. Optimum clinical care for sexual and gender minorities is a fundamental human right. MSM deserve to be treated with respect, and health-care providers need to interact with them in ways that promote disclosure of actionable health information.

Introduction

Although homosexual behaviour has been variably expressed in different cultures throughout recorded history, after the advent of the gay liberation movement clinicians became increasingly aware that men who have sex with men (MSM) have unique health needs.¹ The HIV/AIDS epidemic required health-care providers to become informed about same-sex behaviours to provide appropriate counselling and care. The urgent need to respond to the disproportionate burden of HIV/AIDS in MSM led to the development of internationally recognised models of community health services.² Effective antiretroviral therapy was developed by the mid-1990s, and programmes established to address health emergencies increasingly addressed co-prevalent, potentiating diseases and expanded services for other sexually transmitted infections (STIs) and mental health.³

Careful analyses of the life experiences of MSM and other sexual and gender minorities suggest that proximate causes of psychological distress and risk-taking behaviour for some stem from early childhood experiences, including physical and emotional abuse by

family or peers, resulting in debilitating sequelae.⁴ Similar health disparities—eg, increased risks for HIV and STIs, depression, and substance use—are increasingly recognised in MSM in developing countries.⁵ These findings suggest that successful responses to the worldwide HIV/AIDS epidemic will require culturally sensitive programmes that address common clinical concerns and root causes such as societal homophobia. Research is needed to understand how most MSM lead resilient and productive lives in the face of discrimination to develop assets-based interventions that build on community supports that MSM have created.

Growing up and coming out

Although attitudes towards homosexuality have become more supportive in many parts of the world, stigma associated with deviation from socially prescribed gender roles remains common, especially for young people.^{6,7} Young people in sexual and gender minorities live in social environments that expose them to rejection, isolation, discrimination, and abuse,⁸ which can result in internalised homophobia, low self-esteem, and emotional distress. Developmental studies suggest that sexual attraction begins at the onset of puberty.⁹ Development of sexual identity during early adolescence is particularly stressful for sexual minorities, because in addition to the sense of identity confusion common to all adolescents, minority groups experience stressors related to having a stigmatised identity.¹⁰ Such adolescents might feel shame, guilt, or denial.¹¹ The mean age for expression of feelings about sexual identity in men and boys has been reported as being 14 years,¹² but 2011 research¹³ showed that individual sexual behaviour milestones are being reached at progressively younger ages by those identifying as homosexual (1 year of age younger every 8–25 years, $p < 0.05$), and social milestones (eg, public

Search strategy and selection criteria

We reviewed medical work published in English between Jan 1, 1977, and Jan 1, 2012, related to men who have sex with men to assess health-care disparities in this population. We searched PubMed and Google Scholar with the key terms “men who have sex with men”, “homosexual men”, “gay men”, “HIV”, and “STDs”. We identified and reviewed more than 1000 articles, and selected 155 for inclusion—preferentially choosing systematic reviews, papers with definitive new data, or recently published work—in the report’s reference list and appendix.

See Online for appendix

expression of sexual identity by coming out) are moving even more rapidly in a similar direction (1 year of age younger every 2–5 years, $p < 0.001$), patterns which have also been noted in young people identifying as heterosexual.¹⁴

The advent of sexual awareness in sexual-minority male adolescents can result in denial and repression or an acceptance of sexual orientation and identity. Self-acceptance of sexual identity leads to early integration with their peers (both heterosexual and homosexual) and disclosure, followed by a period of identity consolidation. Select friends are more frequently informed than parents, although in some cases a trusted sibling is told.¹² Coming out can result in loss of friends and negative or ambivalent responses from parents. For some people, disclosure can lead to verbal abuse, religious condemnation, physical brutality, discrimination, or rejection.^{6,15} Because adolescence is a crucial period in identity formation, adverse experiences can impair further psychosocial development. Troiden¹⁶ described the process of adults acquiring a homosexual identity; coming out was followed by self-acceptance, with a resolve to develop intimate relationships. Adolescents might have difficulty reaching this stage of acceptance. Their future might seem very unsure, and they can lose self-esteem and spiritual worth. Although adolescents with positive previous relationships and strong family support tend to fare better than those with poor relationships who live in unstable families, many adolescents in sexual and gender minorities are at increased risk for impaired physical, social, and emotional health.⁷ Accumulating evidence¹⁷ suggests that such adolescents are more likely than their peers to have depressive symptoms and suicidal ideation, and to attempt suicide. Other potential difficulties associated with male adolescents in sexual minorities include truancy, sex work, substance misuse, and STIs.

The coming out experience is highly individualised and many factors such as gender, age, and ethnic origin can affect it. Findings from a longitudinal study¹⁸ of 145 American black and Latino young people from sexual minorities showed that they reported less involvement in gay-related social activities and less comfort with people knowing their sexual identity than did white people, possibly because of feelings of marginalisation by several communities. Several of one group of students who reported homophobic bullying skipped school because of their experience.⁷ Schools that openly acknowledge sexual-minority and gender-minority students and explicitly oppose homophobic bullying create an environment in which all students feel safe and able to learn.¹⁹ Many young people risk rejection or the loss of family support when they come out. Because young people are unlikely to have the resources to support themselves if they are cut off from family, rejection can lead to homelessness, mental health issues, and substance misuse. Local laws and general attitudes affect a young person's decision about whether they are able to

Key messages

- Studies of the life experiences of men who have sex with men (MSM) and other people in sexual and gender minorities suggest that proximate causes of psychological distress and risk-taking behaviour might result from early childhood experiences such as physical and emotional abuse by family or peers, resulting in debilitating sequelae.
- Health-care providers should question adolescents in sexual and gender minorities specifically about depression and mental resilience. In view of health-care providers' roles as trusted sources of important information, they might be able to encourage acceptance by family members and referral to appropriate services.
- Despite adverse external pressures such as institutionalised homophobia, most MSM lead healthy and productive lives.
- At the same time, several studies have shown that MSM are more likely to report substance use, depression, violent victimisation, and childhood sexual abuse than are their heterosexual peers. Health-care providers need to be able to elicit sensitive information to make appropriate referrals.
- Sexual health for MSM encompasses the absence of disease and the possibility of safe and pleasurable sexual experiences.
- Patterns of sexual behaviour vary greatly, so health-care providers need to establish a rapport to know whether their patients should be screened frequently for anogenital gonorrhoea or chlamydia, syphilis, viral hepatitis, or other communicable infections.
- MSM comprise diverse populations that have historically received inadequate, if not discriminatory, health care in developed countries, and often worse treatment in developing countries. Programmes to train health-care professionals to provide culturally competent care are urgently needed.

come out and express their identity and desires fully, especially in countries where sexual and gender minorities face discriminatory laws.²⁰

Male adolescents with same-sex attraction might find discussion of the options for disclosure of their sexuality beneficial, since they need advice about potential negative outcomes and positive support systems before coming out. Sexually active adolescents will need routine STI and HIV services. Clinicians should become familiar with local outreach agencies, hotlines, and media that can connect adolescents with positive role models and social opportunities. Male adolescents with same-sex attraction should be questioned specifically about depression and mental resilience. Health-care providers might be able to help with acceptance of sexual-minority adolescents by family members in view of their roles as trusted sources of important information.¹³ Young people who question their gender identity will benefit from the support of informed health-care professionals who can help them to make appropriate choices by providing empathic counselling and advising about use of hormonal treatment and surgery, if appropriate.¹³

Life development

Despite adverse external pressures such as institutionalised homophobia, many MSM lead healthy and productive lives. However, several studies have shown that MSM are more likely to report substance misuse,²¹ depression,²² violent victimisation,²³ and childhood sexual abuse²⁴ than are their peers. Investigators have noted that many of

For more on syndemics see
<http://www.cdc.gov/syndemics>

these experiences are correlated and synergistically associated with increased prevalence of HIV infection and risk behaviours.²⁵ These results have been corroborated by several studies^{4,21} that describe the many psychosocial epidemics that interact to increase the risk of infection with HIV in MSM. These findings fit the classic definition of a syndemic—ie, a cluster of epidemics that interact synergistically. The theory of syndemics assumes that homophobia and cultural marginalisation are a primary cause of poor health in MSM.²⁶ The effects of homophobic violence on male adolescents with same-sex attraction who do not have access to community support and cannot understand why they are being attacked can leave emotional scars that predispose to psychosocial morbidity as they reach adulthood.²⁷

Risk could increase when MSM come out and move to urban communities where they might meet other MSM who have had similar experiences, synergistically increasing the risk of infection with HIV and STIs. Despite these predisposing factors, most MSM are neither HIV positive nor depressed, suggesting that they are resilient in the face of societal rejection (figure 1) (Herrick A, University of Pittsburgh, personal communication). Further research to understand better why some MSM who have been exposed to negative developmental experiences continue to function well could be helpful to the development of assets-based prevention strategies for MSM that promote intrinsic strengths and successful adaptive strategies.

Sexual health

Sexual health refers to not only the absence of disease, but also the possibility of safe and pleasurable sexual experiences.²⁸ Population-based surveys²⁹ have shown that MSM have more sexual partners, higher rates of non-monogamy, and more liberal sexual attitudes than do demographically matched peers. Some of these behaviours put MSM at increased risk for STIs. The devastation of the early HIV epidemic led to the widespread introduction of condoms for anal intercourse,³⁰ which was accompanied by substantial reductions in the transmission of HIV and STIs.³¹ However, since HIV infection became a chronic manageable disease in the mid-1990s, STI-risk behaviours have become more common in MSM.³² Although individual behaviours affect the risk of adverse sexual health outcomes, the influence of society and culture on such behaviours cannot be ignored. For example, the globally dominant legislative framework that does not recognise gay marriage might discourage the long-term maintenance of stable homosexual relationships. Where homosexuality remains illegal and stigmatised, many reasons exist for MSM not to disclose their sexuality to health practitioners, resulting in missed opportunities for preventive screening and counselling and sustaining the high prevalence of asymptomatic STIs in some MSM.

The most common sexual practices in MSM are oral sex and digital–manual stimulation of the partner's penis and anus.³³ Most MSM report some lifetime experience with anal intercourse.³⁰ Because the rectum is lined with a single layer of columnar epithelium rather than the stratified squamous epithelium of the vagina, the risk of HIV transmission during anal sex is higher than that for vaginal sex.³⁴ Oral stimulation of the anus with the tongue (rimming) is a common behaviour reported by a substantial proportion of MSM,³⁰ and might lead to transmission of enteric pathogens.³⁵ Some MSM engage in fisting (ie, insertion of the hand into the rectum), which can lead to traumatic bowel injury.³⁶ Additionally, fisting can be associated with bleeding that can lead to the transmission of bloodborne pathogens such as hepatitis C.³⁷

The diversity of the sexual repertoire means that levels of risk vary widely for transmission of STIs. One act of unprotected receptive anal intercourse with an HIV-positive partner carries a per-contact transmission risk of roughly 1·5%. For insertive anal intercourse, the risk is 0·1% for circumcised men and 0·6% for uncircumcised men.³⁴ Saliva is sometimes used as a lubricant during anal intercourse, which can lead to transmission of salivary pathogens such as cytomegalovirus, hepatitis B virus, and human herpes virus 8.³⁸ Anal STIs can be acquired through unprotected receptive anal intercourse, but can also be contracted by anal contact with the sexual partner's fingers or tongue.³⁹ Urethral STIs can be acquired during unprotected insertive anal sex and orogenital sex.⁴⁰ Pharyngeal STIs are often transmitted through orogenital and oroanal sexual contact.⁴¹

Some MSM have chosen seroadaptive sexual behaviours in an attempt to reduce the risk of HIV transmission associated with unprotected anal intercourse. Negotiated safety describes the situation in which two HIV-negative men in a relationship agree to have unprotected anal intercourse with each other but not with outside partners, although similar agreements are noted in serodiscordant relationships.⁴¹ In strategic positioning, an HIV-negative partner agrees to engage in the lower risk insertive role in unprotected anal intercourse, while his HIV-positive partner restricts himself to being receptive.⁴² Serosorting is the practice of agreeing to have unprotected anal intercourse with only partners of the same HIV status.⁴³ Some HIV-positive MSM decrease the risk to their partners by withdrawing before ejaculation.⁴⁴ The HIV risk for MSM who practise negotiated safety within a committed relationship is similar to that of men who report no unprotected anal intercourse, although MSM who report serosorting and strategic positioning are at slightly increased risk for HIV infection.⁴⁵ Unprotected anal intercourse with withdrawal seems to be associated with a higher risk of HIV transmission than is protected anal intercourse.⁴⁵ For seroadaptive behaviours to be protective, MSM need

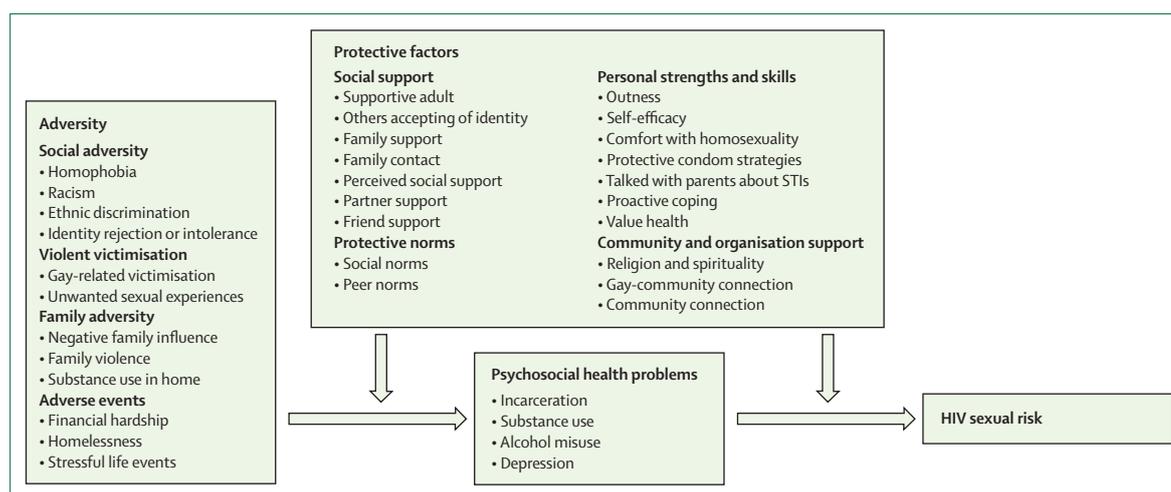


Figure 1: Factors associated with resilience and HIV risk in men who have sex with men
Together, these factors can contribute to a syndemic process. STIs=sexually transmitted infections.

to have accurate knowledge of their serostatus and thus need to undergo frequent HIV testing, which might not always be the case. Since seroadaptive practices do not protect against other STIs, these behaviours might have contributed to epidemics of STIs other than HIV/AIDS in MSM.⁴⁴

Infectious diseases

HIV

In developed and developing countries, the prevalence of HIV infection in MSM is up to 44 times that in the general population.^{5,46} Various factors could contribute to the spread of HIV in MSM: biological factors, such as the increased susceptibility of the rectal mucosa, the amplifying role of concomitant STIs, and efficient HIV transmission by acutely infected partners;⁴⁷ socio-behavioural factors, such as several concurrent partners; and epidemiological factors, such as choosing of partners from high-prevalence subpopulations.⁴⁸ Although clinicians recommend that sexually active MSM be screened for HIV at least once a year (or possibly more often dependent on their behaviour),³ MSM who perceive local clinical care settings as unsupportive might be reluctant to get tested, and risk-reduction counselling opportunities can be missed.⁴⁹

Syphilis

The prevalence of syphilis fell in the early days of the HIV epidemic, but is increasing in MSM in many countries.⁵⁰ The resurgence of syphilis is partly attributable to reliance on unprotected oral sex as an HIV risk-reduction strategy, serosorting in HIV-positive MSM,⁵¹ and meeting of several partners in high-risk venues (eg, bathhouses) or via social media.⁴⁷ Concerns have been raised that syphilis co-infection might accelerate HIV-associated immunosuppression, emphasising the need for routine screening.⁵²

Gonorrhoea and chlamydia

Gonorrhoea and chlamydia are usually asymptomatic in the rectal reservoir.⁵³ Nucleic amplification tests are major diagnostic advances^{39,54} and can detect low copy numbers of either pathogen. However, they are more expensive and technically complex than are traditional detection methods. Some investigators have raised concerns⁵⁵ about low positive predictive values with some of these new tests in non-genital sites, which have led to calls for further refinements of diagnostics not based on cultures. Quinolone resistance has increasingly been detected in gonococcal isolates from MSM, which has led to the recommendation that a third generation cephalosporin should always be used to treat gonorrhoea.⁵⁶ Because gonorrhoea and chlamydia infections commonly occur together, treatment for both pathogens is desirable when either is identified. In 2003–04, outbreaks of lymphogranuloma venereum proctitis were reported in MSM in Europe, the USA, and Australia, but the causative pathogen does not seem to have become widely disseminated.⁵⁷

Herpes simplex virus

Herpes simplex virus type 2 is more common in MSM than in the general population and eases transmission and acquisition of HIV.⁵⁸ Although aciclovir chemoprophylaxis does not seem to protect against HIV acquisition in MSM infected with herpes simplex virus type 2, this failure could be due to the persistence of chronic anogenital inflammation established by the herpes infection.⁵⁹ Thus, other approaches such as vaccines deserve further study. Clinicians might not treat mild symptoms of herpes simplex virus type 2 if they are not aware that reactivation of the virus can be associated with genital tract discomfort, proctitis, and rash without classic vesicles. In patients with mild symptoms, tests for viral antibodies and DNA can be helpful to establish whether the patient is infected.

Human papillomavirus

Human papillomavirus is a major cause of vaccine-preventable anal neoplasia and anogenital warts in MSM. A multivalent vaccine against human papillomavirus is available,⁶⁰ and health-care providers should consider vaccination of all male adolescents before they become sexually active (since adolescent sexuality can evolve, and people might identify as homosexual at a later age). However, such vaccination might not be feasible in resource-constrained settings, although the long-term benefits could be substantial. No consensus exists with regard to the cost-effectiveness of vaccination of all sexually active MSM independent of age,⁶¹ but results of modelling studies suggest that this practice could be beneficial in the long term.⁶² Routine vaccination of all male adolescents would obviate anal screening in adults. Some experts^{63,64} have advocated regular anal cytological screening of sexually active MSM because of increasing reports of anal neoplasia, especially in HIV-positive individuals. High-resolution anoscopy is the optimum follow-up test for MSM with abnormal anal cytological results, and ablation of identified high-grade dysplasia is the best treatment. Based on available data, repeated screening for anal human papillomavirus in HIV-negative men is not recommended (since repeated screening is not recommended in HIV-positive men).⁶⁵ Because of the increasing incidence of anal cancer in MSM, large high-quality studies of the natural history of anal infection with human papillomavirus in diverse samples of MSM are urgently needed to better inform screening guidelines for anal cancer.

Viral hepatitis

Hepatitis A is spread by the fecal–oral route, and exposure is increased in men who have anal sex with men. Although hepatitis B can be transmitted parenterally, sexual transmission has been noted in MSM, underscoring the importance of vaccination against hepatitis A and B for all MSM.⁶⁶ Several outbreaks and clusters of hepatitis C have been reported, mainly in HIV-positive MSM in Europe, Australia, and North America in association with traumatic sexual practices, such as manual–anal contact (fisting), group sex, and substance use—particularly when injection or inhalation paraphernalia is shared.² Thus, clinicians should ask MSM about specific sexual and drug-related practices and should screen for hepatitis C antibodies when appropriate.⁶⁷ Because hepatitis C is easier to treat in the acute stage than in chronic infection, astute clinicians caring for HIV-positive MSM who have unexplained slight increases in liver-function tests should test for hepatitis C RNA, since antibody seroconversion can take many months.⁶⁸

Enteric pathogens

MSM who engage in oral–anal contact (rimming) or anal intercourse without adequate personal hygiene might

acquire giardiasis, salmonellosis, or shigellosis.⁶¹ Clinicians should think of these possibilities when patients present with diarrhoea, flatulence, or other abdominal symptoms. Diagnosis is important because specific treatments are available that could decrease the likelihood of community dissemination of the pathogens.

Meticillin-resistant *Staphylococcus aureus*

Meticillin-resistant *Staphylococcus aureus* (MRSA) is increasingly prevalent in MSM, but is not necessarily transmitted through penetrative anal contact. The pathogen is often associated with environments where sweating or skin-on-skin contact are common—eg, saunas and gyms. MRSA can rapidly replicate in abraded skin resulting from sexual trauma or other intense physical activity and can occasionally cause septicaemia or serious tissue infections.⁶⁹ It is often resistant to β -lactam and quinolone antibiotics, but might be susceptible to co-trimoxazole. However, sometimes new, expensive antibiotics (eg, ceftriaxone and cefixime) are necessary.

Mental health

Over the past decade, increasing evidence shows that in many parts of the world mood and anxiety disorders are more common in MSM than in men in the general population.⁷⁰ About 40% of MSM will develop major depression in their lifetimes—twice the rate reported in other men.⁷¹ Predictors of major depression in MSM include the absence of a partner, experience of anti-gay threats or violence, and non-gay identification.²¹ Because alienation from the gay community has been associated with depression,⁷⁰ group therapy that strengthens social integration could increase the effectiveness of standard treatments.

Panic disorder (with and without agoraphobia), social phobia, and generalised anxiety disorder are more prevalent in MSM than in other men. More than 20% of MSM will develop a phobia, which is roughly twice the prevalence reported in other men.⁷¹ In view of the increased likelihood of substance use in MSM, anxiolytics should be given sparingly.

Internalisation of societal pressure to conform to cultural ideals, such as specific body types—eg, muscular or slender physiques—can lead young MSM to develop chronic anxiety about their bodies, which in turn could result in increased exercise and dieting, or obesity as a way to reject social expectations and cope with depression.⁷² Mental health services that affirm sexual identity and self-respect might increase the likelihood that MSM with body-image concerns engage in self-caring behaviours that result in improved health outcomes.

Because of familial and societal rejection, growing old in traditional family structures might not be an option for many MSM. Societal rejection of institutionalised primary relationships (eg, bans on same-sex unions) can result in MSM anticipating ageing alone, potentiating adverse

medical and mental health outcomes.⁷³ New norms for ageing in MSM are evolving in resource-rich environments, as shown by the development of creative projects aimed at lesbian, gay, bisexual, and transgender (LGBT) older people—eg, the SAGE programme in New York, USA.

Substance use

Substance use is prevalent in many MSM samples.^{21,74} Although some studies show that substance use is more common in MSM than in the general population, this finding is controversial—partly because of methodological differences.⁷⁵ Furthermore, most research about substance use in MSM has been done in high-income countries, restricting generalisability, although data from other countries have been reported.^{76,77} Several factors, including social norms, homophobia, and concomitant depression and anxiety, probably contribute to high rates of substance use.^{23,78} Although most investigators have focused on individual substances, many MSM use several drugs.^{79,80} A focus on specific substances might make sense from a health-risk standpoint, but the complexity of multiple substance use limits the usefulness of drug-specific interventions.⁸¹

The frequency of use of specific substances varies widely between samples. For example, between 27·3% and 65·9% of MSM smoke tobacco, which might be as much as twice the proportion noted in other men from similar backgrounds.^{82,83} Although drinking is common, heavy alcohol consumption is less frequent in MSM than in the general population.⁸⁴ In some regions, anabolic steroid use is prevalent.⁸⁵ For example, in the UK, 10–14% of MSM reported steroid use, but only a third of these men had discussed it with their health-care providers.⁸⁶ Episodic recreational substance use is common in MSM. Most of those who use recreational drugs report less than weekly use, although bingeing episodes can be common.⁸⁷ With the exception of marijuana, which is possibly used more often, roughly a quarter of illicit-substance users report at least weekly use.^{88,89} In many studies in diverse settings, substance use during sex seemed to be associated with HIV seroconversion. Metamfetamine, cocaine, and poppers are consistently and independently associated with unprotected sex and HIV seroconversion.⁹⁰ Factors contributing to this association include increased sexual drive, sensation seeking, a sense of invulnerability, and impaired negotiation skills.^{91,92} Social norms, peer pressure, and selection of partners within substance-using networks might also contribute.^{4,23} Substance use could increase the risk for HIV infection through effects on the immune system or alteration of pain thresholds, allowing for more sustained traumatic intercourse. Substance use might ease the spread of HIV in other ways. For HIV-positive MSM, substance use can cause decreased treatment adherence and virological suppression.⁹³ Reback and colleagues⁹⁴ reported that some MSM who use metamfetamine specifically plan

so-called highly active antiretroviral therapy holidays around their drug use.

Use of illicit substances has many health-related consequences, such as metamfetamine-induced psychosis, cocaine-induced cardiac infarction, and hallucinogen-associated rhabdomyolysis.⁹⁵ MSM who use steroids could have unprotected sex and be prone to suicidal ideation and depression.^{85,86} High rates of tobacco dependence and alcohol consumption contribute to a substantial burden of disease in the population.⁹⁶ HIV-positive MSM who smoke have increased risk for poor outcomes such as bad oral health, rapid HIV progression, abnormalities in brain morphology and cognition, and higher rates of mortality compared with non-smoking counterparts.⁹⁷ Negative consequences from alcohol-related disorders have also been reported in HIV-positive men. Heavy alcohol consumption in HIV-positive individuals can exacerbate viral hepatitis and neurocognitive and motor-function abnormalities, increase immunosuppression, raise the risk for opportunistic infections, and cause metabolic complications.⁹⁸ Whether injection drug use is more prevalent in MSM than in the general population is unknown; MSM who inject drugs are at very high risk for both HIV and hepatitis C infection.⁹⁹

Few interventions specific to MSM have reduced the frequency of substance use or related risks. Furthermore, most treatment programmes have not been adapted to the needs of MSM; an assessment¹⁰⁰ of publicly funded providers of substance-misuse treatment in the USA showed that only 7·4% of providers of treatment to LGBT clients offer services tailored for this population. Several studies of abstinence-based interventions for metamfetamine-dependent MSM showed reductions in both substance use and HIV-related risks, although sample sizes were small.¹⁰¹ In metamfetamine-using HIV-positive MSM, a harm reduction behavioural intervention lessened the frequency of unprotected sexual risk behaviours, even in the context of continuing drug use.¹⁰² A review⁸⁹ of behavioural interventions for metamfetamine-using MSM suggests that intensive interventions might be most effective to reduce use. Studies are in progress to assess drugs that affect dopaminergic and serotonergic neural pathways to decrease stimulant use in drug-dependent MSM, and data show that mirtazapine might be beneficial in some settings.¹⁰³ Few risk-reduction interventions have targeted general substance use or sexual risks taken under the influence of drugs. The largest trial¹⁰⁴ so far enrolled 1686 MSM who reported substance use during high-risk sex; participants who received the intervention of six group cognitive-behavioural sessions did not decrease sex risk or substance use compared with the control group.¹⁰⁴ Another risk-reduction behavioural intervention¹⁰⁵ tested in MSM who used club drugs (a term which describes various sedatives, hypnotics, hallucinogens, and psychedelics) did not reduce sexual risk, although self-reported use fell in some

For more on the SAGE programme see <http://www.sageusa.org>



Figure 2: A doctor examines a patient at Fenway Health, Boston, MA, USA

dependent users. Motivational interviewing, cognitive behavioural therapy, and couples' therapy have been empirically assessed as treatments for alcohol-misuse disorders in MSM.^{106,107} Because data suggest that many MSM presenting for alcohol treatment also have comorbid drug-misuse disorders, culturally tailored interventions specific to the needs of MSM are needed.¹⁰⁸ Similarly, few gay-specific interventions for tobacco cessation have been assessed for effectiveness. Evidence shows that MSM have a stronger preference for gay-specific smoking cessation programmes than for non-tailored approaches.¹⁰⁹ Social marketing campaigns aimed at raising concerns about tobacco-related harms in the LGBT community are increasingly prominent.¹¹⁰

MSM who use substances have unique, complex, and often unmet health needs. Providers of health care and treatment for substance misuse should be sensitive to issues such as discrimination, homophobia, and other social factors that affect health outcomes and access that are faced by MSM and other LGBT clients.¹¹¹ In view of the high prevalence of mental health concerns in MSM who use substances, integrated services and interventions could provide improved benefits. Substance-using MSM should be routinely screened for HIV and STIs. Culturally tailored interventions are needed outside high-income countries to address the full range of substance use and effects on the health of MSM. Effective and scalable pharmacological and behavioural interventions and structural and community approaches are urgently needed to reduce comorbidities associated with substance use in MSM. Finally, more research is needed into sources of resilience in substance-using MSM and how to use these strengths to ease recovery.

Provision of culturally competent care

MSM comprise diverse populations that have historically received inadequate, if not discriminatory, care in developed countries and often worse treatment in low-income countries.¹¹² Because MSM vary in socio-demographic and behavioural characteristics, they have a wide range of health needs. However, in most countries health-care providers do not get specific training about

issues facing MSM, resulting in an absence of friendly and comfortable health-care settings for such patients. Culturally competent care for MSM should be promoted on the basis of human rights principles and should focus on medical disorders for which MSM are at increased risk because of specific exposures (eg, unprotected anal intercourse), behavioural concerns that can be triggered by external or internalised homophobia (eg, substance use and depression), and unique concerns that need specific culturally competent understanding (eg, same-sex spousal counselling).¹¹³

Many MSM are alienated from traditional family structures, and thus interactions with health-care professionals and peer support might provide particularly important sources of information that can result in health-promoting behaviours.¹¹⁴ When trusting relationships are developed, health-care professionals could have important roles in helping MSM to find the resources to develop well integrated identities, which will help with evasion of self-destructive behaviours. For these reasons, health-care professionals need to understand alternative expressions of sexuality. Because same-sex male sexuality can be expressed diversely in different cultures, health-care providers need to understand the roles that so-called unmarried uncles might have in some societies and urbanised gay men might have in others. Health-care professionals do not need to endorse homosexual behaviour, but to be hostile, insensitive, or uninformed is counterproductive, since MSM might be willing to discuss their behavioural risks only if safe and engaging environments are created. Furthermore, only supportive settings for counselling, support, and referrals will enable MSM to adopt healthy lifestyles. Many published and online resources are available, such as the Gay and Lesbian Medical Association, the GMHC, and The Fenway Institute (figure 2). Most of these materials were created in high-income countries, but groups have begun to develop educational materials, such as Health 4 Men, that are appropriate for use in diverse cultures and resource-constrained settings.

Regions and countries are at different stages of addressing the health-care needs of MSM. Diversity should be maximised to achieve organisational cultural competence within the health-care leadership and workforce. This process can be accomplished through education of all health-care providers to become culturally competent; establishment of programmes for development of leadership in health care for MSM, and strengthening of existing programmes; hiring and promotion of gender and sexual minorities in the health-care workforce; and involvement of community representatives in the health-care organisation's planning and quality-improvement meetings. The desired result is a core of professionals who could assume important positions in academia, government, and private industry.

For more on the **Gay and Lesbian Medical Association** see <http://www.glma.org>

For more on the **GMHC** see <http://www.gmhc.org>

For more on the **Fenway Institute** see <http://www.thefenwayinstitute.org>

For more on **Health 4 Men** see <http://www.health4men.co.za>

The basic ideas that we have articulated should help to inform current best practices—ie, MSM deserve to be treated with respect, their health needs are related to the circumstances of their environments, and clinical providers need to interact with them in ways that promote the disclosure of actionable health information, since screening and care can be best guided by information about behaviour rather than by biased assumptions based on stereotypes. Optimum clinical care for sexual and gender minorities is a fundamental human right, and the support of health-care professionals is needed for its provision.

Contributors

All authors participated in the review of published work and conceptualisation and drafting of specific parts of the manuscript. KHM had overall responsibility for integrating each of the sections into a cohesive report. All authors reviewed and edited the final paper.

Conflicts of interest

KHM has received unrestricted research and educational grants from Gilead Sciences, Bristol-Myers Squibb, and Merck. AEG has received honoraria and conference travel support from Merck and research funding from CSL, the Australian distributor of Gardasil. All other authors declare that they have no conflicts of interest.

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