

## Ending the HIV Epidemic Among Gay Men in the United States

AIDS continues to pose a threat of unprecedented magnitude to gay men<sup>1</sup> in the United States. Though representing approximately 2% of the population aged >13 years,<sup>2</sup> men who have sex with men (MSM), including those who inject drugs, comprise a majority of new HIV infections (64% in 2010) and represent nearly half of all persons living with HIV. The rate of new HIV diagnoses among MSM is more than 44 times that of other men and more than 40 times that of women.<sup>3</sup> Since the epidemic began, almost 300,000 MSM in the U.S. have died from AIDS, including an estimated 6,863 in 2009.<sup>4</sup>

Gay men of color are at particular risk. Among MSM, there are sharp differences in HIV incidence by race: In 2006, the risk for HIV infection was 4.97 times higher for black MSM (1,710:100,000) and 2.08 times higher for Hispanic



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### KEY POINTS

- AIDS continues to pose a grave threat for gay men in the U.S., who constitute the largest proportion of new HIV infections. Young MSM are the only risk group for which HIV incidence appears to be increasing.
- For gay men of color, the crisis is especially dire. In spite of similar risk behaviors, black gay men are at greater risk than any other risk group, in part because of background community HIV prevalence.
- There are reasons to be optimistic: Health care reform promises to increase access to care for many at risk for or living with HIV, while potentially improving the quality of services available to gay men.
- Recent studies have shown that HIV-positive individuals with full viral suppression are far less likely to transmit HIV infection, while modeling studies have demonstrated the potential of “treatment as prevention” initiatives in combination with other approaches to dramatically slow the HIV epidemic.
- CDC estimates that 18.1% of all HIV-positive people are unaware of their HIV infection, while 49% of all new infections are transmitted by individuals who are undiagnosed. More frequent HIV testing and linkage to appropriate care is needed to bring down incidence, a shift that will require community leadership to promote the value of HIV testing and treatment.
- Systemic changes are needed to mitigate barriers to testing and treatment for gay men, including provider education and training, insurance coverage, and new testing technologies.
- Rising HIV incidence among gay men has the potential to reverse decades of progress in fighting AIDS and should be a cause for alarm. While scaling up HIV testing and expanding treatment access will be complicated and will raise legitimate concerns, they offer the potential to make significant progress against the epidemic among gay men in America.

MSM (716:100,000) than for white MSM (344:100,000) (see Figure 1).<sup>5</sup> But while historically MSM in the United States have always constituted the largest proportion of AIDS cases, they are the only group for which risk appears to be increasing.

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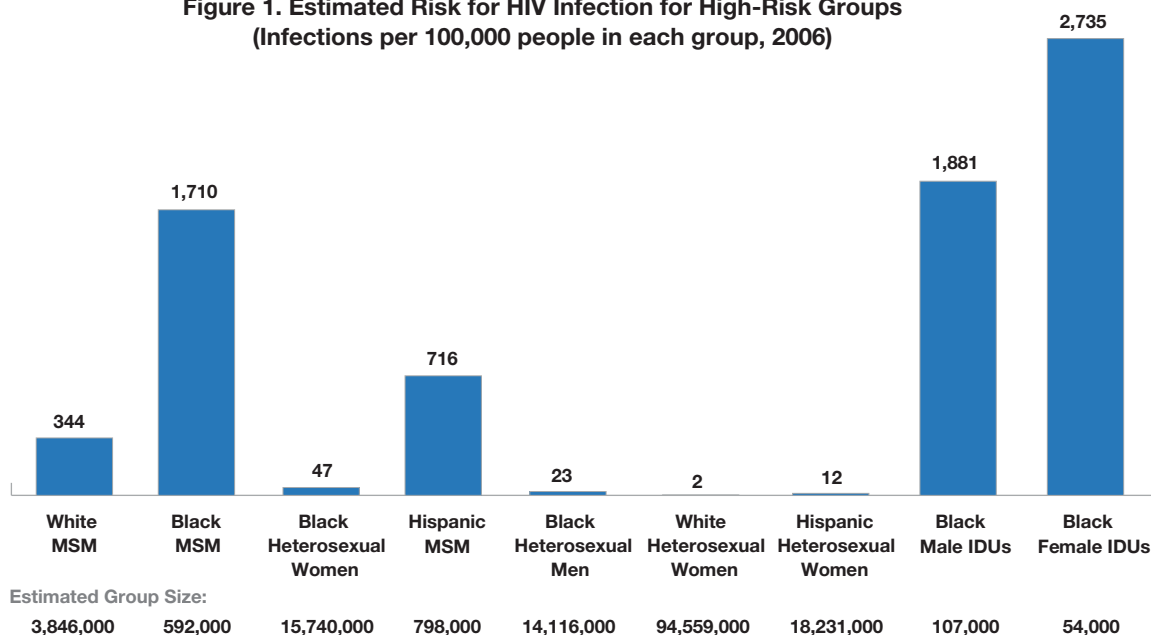
Among black gay men, the crisis is especially dire. Both incidence and prevalence are disproportionately higher among black MSM than any other risk group. Particularly among young black MSM, increasing HIV incidence signals an urgent need for new measures to confront the epidemic. Between 2006 and 2009, while remaining stable or declining among all other racial and risk groups, HIV incidence increased by 21% among young people (ages 13–29), driven by a large increase (34%) among young MSM, which in turn was driven almost exclusively by a 48% increase among young African-American MSM (see Figure 2).<sup>6</sup>

## REDEFINING PREVENTION PRIORITIES

Motivated by the continuing HIV crisis for gay men in the United States, amfAR, The Foundation for AIDS Research and Trust for America's Health (TFAH) undertook a formal process to consider recent scientific and political developments to chart a new path forward for HIV prevention. Recognizing that no "magic bullet" exists to prevent HIV infections, the organizations invited a diverse array of experts (see p.14) to consider potential "game changers"—interventions with the potential to significantly reduce HIV infections among gay men. The committee was challenged to redefine HIV prevention priorities among gay men by identifying interventions that were evidence-based, could be implemented in the near term, and that took full advantage of recent legislative and scientific advances. Support for these meetings was provided by the M·A·C AIDS Fund.

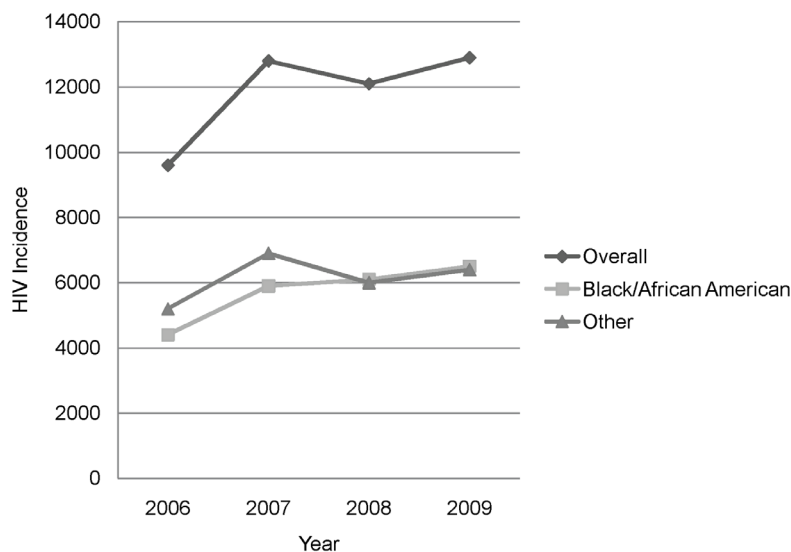
Four working groups undertook the bulk of the group's work, meeting several times via conference call: 1) Clinical/ biomedical interventions; 2) Behavioral interventions; 3) Community interventions; and 4) Structural interventions. The groups later met together to prioritize recommendations and discuss policy implications. While this report reflects those conversations, the views expressed are solely those of amfAR and Trust for America's Health.

**Figure 1. Estimated Risk for HIV Infection for High-Risk Groups (Infections per 100,000 people in each group, 2006)**



Source: National HIV/AIDS Strategy for the United States. July 2010. Holtgrave, D., Johns Hopkins Bloomberg School of Public Health based on analysis of HIV incidence in the 50 states from MMWR, October 3, 2008, with the inclusion of HIV incidence for Puerto Rico, where all Puerto Rico cases were classified as Hispanic and taken from CDC's MMWR, June 5, 2009. Population sizes for 2006 are rounded estimates derived from analysis of the following sources: Statistical Abstract US, 2009; CDC estimate of 4% of men are MSM (MSM denotes men who have sex with men); The National Survey on Drug Use and Health Report, October 29, 2009; Brady et al., Journal of Urban Health 2008; and Thierry et al., Emerging Infectious Diseases, 2004.

**Figure 2. HIV incidence among 13–29 year old men who have sex with men (MSM) overall and by race/ethnicity — United States, 2006–2009**



Source: Prejean J, Song R, Hernandez A, Ziebell R, Green T, et al. (2011) Estimated HIV Incidence in the United States, 2006–2009. PLoS ONE 6(8): e17502. doi:10.1371/journal.pone.0017502 . <http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0017502>

While the LGBT community mobilized early in the epidemic to protect gay men and demand a government response to the AIDS epidemic, after three decades HIV no longer commands the same level of community concern.

We are at a crossroads. Current HIV incidence trends suggest that the epidemic among gay men could take a turn for the worse, reversing decades of efforts and threatening a new generation of young men.

While additional research on HIV prevention among gay men is clearly warranted, recent legislative and scientific advances provide an opportunity to refocus efforts now to reduce new HIV infections, ensure that HIV-positive gay men receive care and treatment, and ultimately end the HIV epidemic. The National HIV/AIDS Strategy articulates a new federal commitment to focus on HIV prevention among gay men, while the advent of health care reform

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promises to increase insurance coverage for millions who previously lacked it—a singular opportunity to reach gay men at risk for HIV through the health care system. New advances in antiretroviral treatment suggest the possibility of reversing or even ending the HIV epidemic via “treatment as prevention.” But while new tools show promise, they will be successful only if strategically and appropriately deployed. In short, while there is cause for hope, success will depend on leadership, particularly among the LGBT community. The time to act is now.

### HIV Prevention Strategies to Date: Successes and Failures

By many measures, the story of HIV prevention in the United States is a success. The Centers for Disease Control and Prevention (CDC) estimates that in 2009 there were 4.19 transmissions per 100 persons living with HIV—a 90%

decline in the estimated HIV transmission rate since the peak level of new infections in the mid-1980s.<sup>7</sup> It is as a consequence of this lower transmission rate—itsself associated with successful HIV prevention and treatment—that HIV incidence has remained stable in spite of increasing prevalence.

Among gay men, the success of prevention programs to date has been pronounced. Since the early 1980s, gay men and the larger LGBT community—at first with little support from government—took responsibility for developing and promoting HIV prevention strategies to protect each other in the face of significant odds. Throughout the epidemic, MSM have always experienced elevated risk for HIV infection due to sharply higher community HIV prevalence within close social and sexual networks. Moreover, gay men are at greater risk for depression, anxiety, substance abuse, and sexual risk taking—as well as health disparities generally—associated with systemic discrimination and stigma.<sup>8,9</sup> In spite of these challenges, the majority of gay men report consistent, long-term condom use and have avoided HIV infection; delineating the factors that promote resilience among gay men constitutes an important area of future research. Meta-analyses suggest that HIV prevention interventions for gay men reduce HIV risk taking by approximately one-third, a rate that is consistent with other populations.<sup>10,11</sup>

Interventions to reduce behavioral risks are inherently limited, however. Most HIV prevention efforts among gay men are based on two objectives: helping men to 1) reduce HIV risk behaviors, primarily through condom use; and 2) learn their HIV status, as research has shown that those who are aware of their infection take fewer risks.<sup>12</sup> The successes noted above notwithstanding, data collected by CDC in 2008 through the National HIV Behavioral Surveillance system (NHBS) show worrisome trends. Among 8,175 MSM surveyed at gay venues in 21 urban centers, 25% reported unprotected anal intercourse (UAI) in the previous 12 months with a casual male partner and 37% reported UAI with a main male partner. Among men whose most recent contact was a casual partner, 53% were unaware of their partner's HIV status, compared to 19% of those whose most recent contact was a main male partner. Overall, 12% of MSM reported UAI with a partner who was HIV positive or whose HIV status was unknown. Thirty-three percent (33%) reported using one or more non-injection drugs during the past 12 months, including cocaine (18%), poppers (13%), or non-injection methamphetamine (6%), while 57% reported binge drinking during the previous 30 days. Approximately half of men who used alcohol or drugs during their most recent encounter also reported UAI.<sup>13</sup>

Behavioral risk factors alone do not account for the disproportionate HIV incidence among black gay men, however. In a meta-analysis of 53 studies, rates for key risk factors among black MSM were comparable (unprotected anal intercourse, commercial sex work, sex with a known HIV-positive partner, HIV testing history) or lower (substance abuse, number of sex partners) compared to white MSM. Disproportionate HIV incidence among black MSM is more likely associated with greater background prevalence (an artifact of higher UAI rates in the first decade of the epidemic), higher rates of sexually transmitted infections, less frequent use of antiretroviral therapy, or greater likelihood of unrecognized HIV infection.<sup>14</sup>

### Behavioral risk factors alone do not account for the disproportionate HIV incidence among black gay men.

CDC estimates that as of 2009, 18.1% of those who were HIV positive were unaware of their infection, a proportion that was substantially higher among certain groups, including young people ages 13–24 (59.5%) and 25–34 (28.1%) (see Figure 3).<sup>15</sup> Among 8,153 MSM tested for

HIV in the NHBS in 2008, approximately 19% were HIV positive and of those, 44% were previously unaware of their infection. The proportion unaware of their infection was higher among younger MSM than older MSM: among 163 MSM between the ages of 18–29 who tested positive, 73% were unaware of their infection.<sup>16</sup> The consequences are profound: A recent analysis estimated that 49% of new infections were from 20% of people living with HIV.<sup>17</sup>

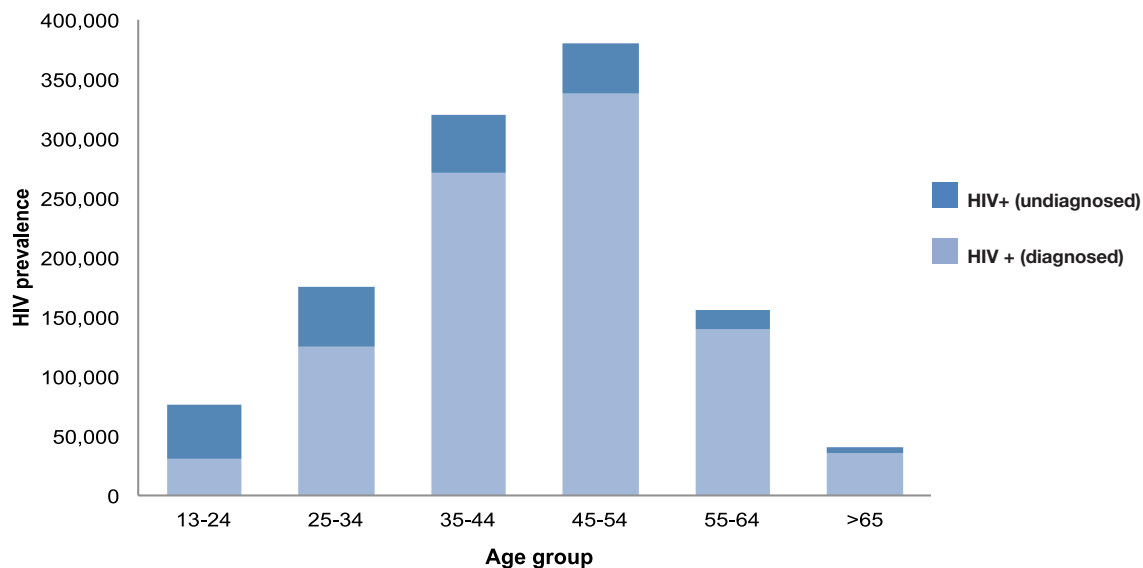
HIV testing has been the cornerstone of HIV prevention efforts for decades and current CDC guidelines recommend routine testing for adults in all health care settings.<sup>18</sup> But NHBS survey data suggest a wide variation in the extent to which these guidelines are followed. Among 7,271 MSM who did not report a previous positive HIV test, 680 (9%) were HIV positive. Of those receiving a new HIV-positive test result, 16% had never previously been tested, while 29% had been tested in the past six months.

NHBS data also suggest that the frequency of HIV testing may be inadequate, even among those who are tested. While current CDC guidelines suggest more frequent testing (at 3–6 month intervals) for gay men with high-risk behaviors, among many men this does not appear to reflect actual practice.<sup>19</sup> Among the 7,271 MSM who had not previously tested HIV positive, 61% had been tested in the previous 12 months. Among these, 7% had a new, positive HIV test result when tested for NHBS in 2008. While 81% of the 7,271 MSM reported high-risk behaviors, only 44% of them had been tested in the previous six months. Of particular importance, HIV prevalence did not vary substantially between MSM who did and did not report high-risk behaviors (7% and 8% respectively), suggesting that self-reported risk behaviors may be an insufficient guide to establish the appropriate frequency for testing.<sup>20</sup> Perhaps an indication of a missed opportunity, 73% of the 680 individuals who received a new HIV diagnosis in the context of the NHBS survey had visited a health care provider in the previous 12 months, but of those, 48% did not receive an HIV test during that visit.<sup>21</sup>

### The Promise (and Limitations) of “Treatment as Prevention”

Especially in light of the limits inherent in prevention interventions targeting individual risk behaviors, there is considerable interest in “treatment as prevention” or “test and treat” strategies, population-level interventions to reduce the overall level of circulating virus in a given community (i.e., community viral load). Recent studies

**Figure 3. Estimated HIV prevalence among persons aged 13 years and older by age group with proportion of undiagnosed infections, United States, 2009.**



Source: CDC. Monitoring selected national HIV prevention and care objectives by using HIV surveillance data—United States and 6 U.S. dependent areas—2010 (Table 5a). HIV Surveillance Supplemental Report 2012;17 (No. 3, part A). <http://www.cdc.gov/hiv/topics/surveillance/resources/reports/>. Published June 2012. Accessed August 1, 2012.

conducted among sero-discordant heterosexual couples demonstrate that early initiation of antiretroviral therapy (ART) reduces the risk of HIV transmission to the uninfected partner by 96%.<sup>22</sup> Theoretically, were such early use of ART to be widespread among HIV-infected individuals, community viral load would decrease. In San Francisco, overall reductions in community viral load were associated with fewer HIV infections.<sup>23</sup> Mathematical models have suggested the possibility that widely deployed early detection and treatment to lower community viral load could substantially reduce new HIV transmissions.<sup>24</sup>

For gay men, however, realizing the potential of treatment-as-prevention strategies poses substantial challenges. Successfully lowering community viral load requires a cascade of interconnected events: a high percentage of HIV-infected individuals must be diagnosed, linked into care, retained in care, initiated on ART, continued on ART treatment over time, and supported to successfully adhere to a treatment regimen. As an illustration of the complexity of achieving this sequence of events, one analysis estimated that only 19% of all HIV-infected individuals were currently virally suppressed. Through mathematical modeling, it calculated that improvements in any one component of the treatment-as-prevention cascade

(diagnosis, linkage, retention, treatment, persistence, adherence) would yield only a marginal decline in community viral load.<sup>25</sup> More recently, CDC estimated that only 41% of all HIV-infected individuals were both aware of their infection and receiving HIV care, and as such, only 28% were virally suppressed. MSM were least likely to be aware of their infection and to have received prevention counseling (39% compared to 50% of heterosexual men and women).<sup>26</sup> For young MSM, linkage to care and maintaining adherence may prove even more challenging. Among 81 young black and Latino MSM participating in an intervention designed to enhance access to primary care, only 63% remained engaged after one year.<sup>27</sup>

There are also ethical concerns about prescribing ART for the purpose of reducing the probability of transmission in addition to personal clinical benefit. While federal guidelines

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recommend ART treatment for all HIV-infected individuals, the recommendation to initiate therapy among those with >500 CD4+ cell counts is rated only BIII (moderate, based upon expert opinion).<sup>28</sup> As with HIV testing, it will be essential that individuals decide in consultation with their physicians whether or not to initiate treatment based upon their particular circumstances.

Among MSM and other populations, studies have also demonstrated the potential of pre-exposure prophylaxis (PrEP), i.e., the use of antiretroviral therapy among uninfected individuals to prevent infection. In an international trial investigating once-daily administration of tenofovir/FTC (Truvada®) in the context of comprehensive HIV prevention services to 2,499 HIV-negative MSM and male-to-female transgender persons, PrEP was associated with a 44% overall reduction in HIV incidence. Adherence varied substantially among participants, however, both self-reported and as measured by objective biologic assay. Among participants reporting ≥90% adherence, risk was reduced by 73%; among those for whom blood drug levels were confirmed by assay, the reduction was 92%.



Participants in both treatment and placebo arms reported significantly lower risk behaviors during the course of the trial.<sup>29</sup>

In interim guidance, CDC has stressed that PrEP should only be 1) targeted to MSM at high risk for HIV infection; 2) delivered as part of a comprehensive set of prevention services, including risk-reduction and adherence counseling, ready access to condoms, and diagnosis and treatment of sexually transmitted infections; and 3) accompanied by monitoring of HIV status, side effects, adherence, and risk behaviors at regular intervals.<sup>30</sup> Additional studies are needed to better understand the public health implications of PrEP.

### HIV Prevention for Gay Men in the Context of Health Care Reform

Signed by President Obama in 2010, the Patient Protection and Affordable Care Act (ACA) represents the most momentous change to the nation's health care system since the advent of Medicaid and Medicare in 1965. Health care reform presents significant opportunities to impact the HIV epidemic, most importantly by augmenting Medicaid or private insurance coverage for people living with HIV. Although the number of people with HIV currently without coverage is not precisely known, in a recent convenience sample among people with HIV in 12 U.S. cities, 42% were covered by Medicaid, while 24% were covered through Ryan White programs (for which uninsured or underinsured individuals are generally eligible).<sup>31</sup> Moreover, the ACA holds the possibility of improving care for gay men with HIV by more fully integrating HIV testing and other preventive services within the clinical care system, promoting health equity by taking into account the social determinants of health, mitigating barriers faced by gay men in accessing culturally sensitive health care, and ensuring that gay men testing HIV-positive have access to suitable care and treatment.

The ACA also presents an opportunity to reconfigure a health care delivery system that has calcified around outdated paradigms—in particular, federal programs and funding streams that segregate prevention and treatment services. Moreover, as full implementation of the ACA will result in health coverage for far more people with or at risk for HIV, it may be possible to redirect resources currently paying for “safety net” services for the uninsured to meet other urgent needs. Critical to the success of health care reform for people living with HIV will be broad adoption of the Medicaid expansion by all states.

The National HIV/AIDS Strategy, released by the Obama administration in 2010, underscores the need to “intensify HIV prevention efforts in communities where HIV is most heavily concentrated,” including “populations at highest risk of HIV infection: gay and bisexual men, Black men and women, Latinos and Latinas, and substance abusers [sic].” It establishes a goal of lowering the annual number of new infections by 25%, which would require reducing the HIV transmission rate (the number of HIV transmissions associated with each infected person) by 30% and increasing from 79% to 90% the number of people living with HIV who are aware of their serostatus. The strategy also frames an imperative to direct greater attention to HIV prevention among gay men, noting: “The United States cannot reduce the number of HIV infections nationally without better addressing HIV among gay and bisexual men.”<sup>32</sup>

### Gay Men and a “Whole Health” Model of HIV Prevention

Successfully reducing HIV transmissions among gay men in the United States will require a multifaceted approach incorporating testing, treatment, risk reduction, and other interventions. It will also require acknowledging that for many gay men, HIV is but one of an array of challenges they face in their day-to-day lives.

### Among the gay community, there remains substantial stigma associated with HIV infection, particularly among young people.

CDC refers to “two or more afflictions, interacting synergistically, contributing to excess burden of disease in a population” as syndemics. Among gay men, syndemics such as substance use, depression, partner violence, or childhood sexual abuse have been shown to contribute to health disparities, intensify adverse psychosocial health outcomes, and ultimately, exacerbate the HIV epidemic.<sup>33</sup> Particularly among communities of color, disproportionate violence and incarceration rates may also play a role. Overt homophobia, in the form of anti-gay violence or bullying, pervasive anti-gay rhetoric in political discourse, and stereotypical portrayals in popular culture, all contribute to an environment that gay men may experience as hostile. Institutionalized homophobia in the form of marriage or tax laws that favor heterosexuals may signal to gay men that their lives and well-being are less valuable, leading to increased risk-taking.<sup>34</sup>

For young gay men in particular, these environmental assaults may be compounded by rejection or hostility from their families. In a study conducted among LGBT young adults, those who reported higher levels of family rejection during adolescence were 8.4 times more likely to report having attempted suicide and 3.4 times more likely to report having engaged in unprotected sexual intercourse.<sup>35</sup> Among black LGBT youth surveyed in Illinois, 43% had thought about or attempted suicide as a result of issues related to their sexual orientation, while more than half feared or had experienced family disownment as a result of coming out of the closet.<sup>36</sup> Meanwhile, among the gay community, there remains substantial stigma associated with HIV infection, particularly among young people. In recent focus groups conducted by the Kaiser Family Foundation, black gay and bisexual men expressed concern about disclosing to family and friends in the event of a positive HIV test.<sup>37</sup>

Because HIV prevention occurs in the context of gay men’s lives, reducing HIV incidence among gay men will require improving their lives overall, i.e., confronting syndemics that increase the risk for HIV infection via an approach that accounts for the “whole health” of gay men.

### Prioritizing HIV Prevention Interventions Among HIV-Positive Gay Men

While traditional risk-reduction strategies for gay men that emphasize helping HIV-negative men to protect themselves will continue to be important, a greater emphasis on interventions focusing on HIV-positive men has the potential to immediately reduce HIV incidence among gay men. Such interventions have two broad goals:

- Reducing the proportion of HIV-positive gay men who are unaware of their status. Knowledge of serostatus is associated with reductions in risk-taking, while HIV testing provides an opportunity to engage HIV-negative and HIV-positive individuals in risk-reduction counseling and to link HIV-positive individuals to care. More prolific testing is also likely to detect more early infections, when viral load is highest and HIV is most transmissible.
- Increasing the proportion of gay men with HIV who are successfully treated with ART. AIDS treatment saves and improves lives, and treatment must reach more gay men with HIV. Effectively deployed treatment-as-prevention strategies could also lower community viral load, reducing overall risk for HIV infection in the gay male population.

But while a strategy focusing prevention efforts on HIV-positive gay men may be more epidemiologically efficient, its success will depend in part on reframing the possible outcomes for those testing positive, i.e., confronting the many reasons gay men may quite logically *avoid* HIV testing. In addition to addressing the syndemics facing gay men and confronting the stigma faced by HIV-positive men, it will be important to mitigate the unique barriers that gay men testing positive may confront in accessing health care and treatment.

Recent experience in local and state jurisdictions may provide a template. In San Francisco, local public health officials promote a “combination prevention” approach that incorporates interventions and establishes targets at every step along the prevention-treatment continuum, while the Healthy San Francisco initiative makes health

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care services accessible and affordable to uninsured San Francisco residents. As a consequence, the proportion of people living with HIV with full viral suppression is considerably higher in San Francisco (47%) than the national average (19–27%).<sup>38</sup> In Massachusetts, universal access to health care, combined with an accessible health care system (with good community health centers), the ability to utilize the AIDS Drug Assistance Program (ADAP) to pay health insurance premiums, health providers who are generally well educated about HIV, and a social environment that is on the whole supportive of gay people all contribute to an environment that supports HIV testing. By one analysis, gay men in Massachusetts have an incentive to test because they are confident they will have access to the care they need in a non-stigmatizing environment, leading to higher than average testing rates.<sup>39</sup> Preliminary research, though limited, suggests that policies conferring protections or affirming rights for gay men may have a salutary effect on health care utilization. In Massachusetts, for example, health care use and costs declined among gay men following enactment of same-sex marriage laws among partnered and non-partnered men alike.<sup>40</sup>

### Community Mobilization to Increase Health Literacy Among Gay Men

For the gay community, though HIV continues to constitute a serious and pervasive threat, a sense of urgency appears to have waned. As it did early in the epidemic, the LGBT community must renew its leadership in confronting the epidemic by leveraging new results of scientific studies and legislative advances to propel a reduction in HIV incidence among gay men. To that end, LGBT community organizations should embrace a “whole health” agenda for gay men—acknowledging the syndemics faced by many gay men, including HIV—as part of their overall political priorities.

Among gay men most at risk for HIV infection, the value of HIV testing and treatment must be situated in a broad understanding of individual and community health. While this may pose significant challenges for gay men in the communities in which they live, there are also challenges within the gay community, where HIV seroconversion and infection often remain stigmatized. For the gay community, increasing HIV testing and treatment rates will entail embracing a vision for HIV-negative men to stay negative, and for HIV-positive men to stay healthy—and to prevent transmission to others. At a recent Congressional briefing, one speaker talked about the prospect of treatment as prevention: “We need to change the conversation—antiretroviral treatment isn’t just about preventing sickness, it’s about maintaining health...It should be a badge of honor to know your HIV status and be on treatment if you have HIV, and remain HIV free if you do not.”<sup>41</sup>

For gay men, it will also be important to reinforce a “whole health” perspective through a greater understanding of the social determinants associated with HIV infection. Creative social marketing campaigns that portray affirming roles for sexually-active HIV-positive men are needed. Because bars and bathhouses may no longer represent the best way to reach gay men, it will be essential for such campaigns to exploit new communications channels (i.e., social media). CDC has already pursued such an approach in several funding initiatives. In Birmingham, AIDS Alabama has created a drop-in center with a variety of services for gay and bisexual men. Some are HIV-specific services, including HIV testing, while other services promote a positive environment to confront the social determinants of HIV infection, through GED prep courses, financial counseling, LGBT meetings, etc. Recently, CDC announced new funding to enhance the focus on sexual health (including but not limited to HIV) at non-HIV-focused organizations that serve gay and bisexual men.<sup>42</sup>



## Increasing HIV testing and treatment rates will entail embracing a vision for HIV-negative men to stay negative, and for HIV-positive men to stay healthy.

These programs may provide a gateway to HIV testing and a “whole health” approach to HIV prevention.

HIV community organizations and advocates must play an even greater role. Historically, AIDS service organizations (ASOs) have undertaken to fill critical service gaps as the clinical care system struggled in, or resisted, adapting to meet the needs of those at risk for or living with HIV. Such an approach will remain essential, both to demand that the health care system adapt to better serve the needs of gay men, and to fill service gaps as the system struggles to do so. As HIV prevention and care is increasingly, appropriately, integrated within the mainstream health care system, ASOs that currently provide HIV testing may shift their focus toward other services, particularly linkage to care and adherence support.

Given the challenges presented by the treatment-as-prevention cascade, one idea worth exploring is to create HIV-specific community health workers modeled on the “patient navigators” envisioned in the ACA. While patient navigators are charged primarily with helping consumers navigate the insurance marketplace, HIV community health workers could help people get tested, linked to care, and then to remain adherent to their treatment regimen, services that would complement newly reimbursable preventive services, such as HIV testing. Ideally with the support of Ryan White funding, some ASOs may develop or further enhance their capacity to provide comprehensive primary and preventive care, including mental health/substance abuse services, and transition to become federally qualified health centers. In such instances, ASOs may best evolve to become community health programs designed to address the range of “whole health” needs of gay men and lesbians.

### Scaling Up HIV Testing among Gay Men

Because knowledge of serostatus is a prerequisite for every other component in the treatment-as-prevention cascade, a sharply increased focus on HIV testing may provide the best opportunity to impact the epidemic among gay men in the near term. In a recent analysis, mathematical modeling

suggests that reaching the National HIV/AIDS Strategy goals of reducing HIV incidence by 25% and the HIV transmission rate by 30% by 2015 would be possible—and highly cost-effective—by incrementally scaling up diagnostic and prevention services for people living with HIV, but not by scaling up coverage of medical care and treatment alone.<sup>43</sup> Furthermore, with increased coverage for HIV testing via health care reform, it may be possible to scale up HIV testing on a cost-neutral basis, by redirecting resources that currently pay for testing outside of clinical settings (see *Reconfiguring Federal HIV Programs and Funding Streams*, p.12). Finally, because successfully expanding HIV testing will require improvements at every level of the public health and clinical care systems, it may provide a useful roadmap for scaling up other interventions.



The Institute of Medicine identified a wide range of barriers to expanded HIV testing, including state and local laws, discordant federal guidelines and recommendations, inadequate reimbursement, laboratory policies that may limit the use of rapid testing, prison policies that compromise inmate confidentiality, limited provider knowledge, and stigma and discrimination.<sup>44</sup> In addition to mitigating these barriers, it will be important to think creatively about new ways to promote HIV testing among gay men. The implementation considerations discussed below are not intended to be comprehensive, but rather illustrative of the implications of such an approach.

**Revise professional standards and guidelines to reflect current science.** Many providers adhere to professional guidelines to determine the appropriate range and frequency of preventive services. CDC guidelines recommend HIV screening for virtually all adults in health care settings, with annual repeat screening for those at increased risk of infection (including gay men) and more frequent testing (at 3–6 month intervals) for gay men who have multiple or anonymous sexual partners or who have sex in conjunction with using drugs, and immediate diagnostic testing for patients with symptoms that suggest acute seroconversion.<sup>45</sup> Recently, CDC has highlighted studies suggesting that more frequent testing for all gay men, regardless of self-reported risk behaviors, may be warranted,<sup>46, 47</sup> and the agency is reportedly undertaking a cost-effectiveness analysis before issuing a formal guidance.<sup>48</sup>

Other government bodies and professional associations have taken a more conservative position, however. Current US Preventive Services Task Force (USPSTF) guidelines only provide an “A” recommendation for HIV screening for adults and adolescents at increased risk (including members of subpopulations with prevalence >1%) and do not specify an appropriate frequency for retesting. The USPSTF neither makes a recommendation for nor against HIV screening for adults and adolescents who are not at increased risk for HIV infection, for which it provides a “C” recommendation.<sup>49</sup> Professional

associations will also play a role, as many periodically consider and adopt clinical practice guidelines and recommendations. Although many professional societies have adopted the CDC guidelines (e.g., American College of Physicians, Infectious Diseases Society of America, American Medical Association, American College of Obstetrics and Gynecology), others have not (e.g., American Academy of Family Physicians).<sup>50</sup> Should CDC guidelines evolve to recommend more frequent HIV testing for gay men, the U.S. Surgeon General may be best positioned to secure such endorsements.

**Make HIV testing widely available in clinical settings.**

HIV testing is currently available in a wide range of settings, including clinical, institutional (jails, prisons, shelters), and social service and outreach settings. As HIV testing is further mainstreamed via health care reform, a greater proportion of HIV testing is likely to occur in clinical settings, where the cost of such services would be included among covered benefits, and where patients can be appropriately linked to care in the event of a positive test. More frequent HIV testing in clinical settings may also address missed opportunities discussed above. Among newly diagnosed MSM in 21 cities, 73% of those previously unaware of their HIV infection had a clinical visit in the prior year, but of those only 52% received an HIV test.<sup>51</sup> The integration of HIV testing into clinical practice will also have the benefit of contributing additional population-level data, particularly with the increased utility of Regional Health Information Organizations among providers and other stakeholders across health care systems.

Of course, even upon full ACA implementation, a quarterly visit to a health care provider will remain impractical for most individuals, let alone many of those at increased risk for HIV infection. As such, HIV testing provided by ASOs and other alternative HIV testing venues will remain important, though it will be critical to ensure that such programs effectively target those at increased risk, particularly young gay men of color, and that systems to connect those testing



positive with health care are made more robust. New testing technologies (see Exploit new testing technologies, below) may provide additional options.

**Train providers about the importance of more frequent HIV testing for gay men.** While guidelines may suggest appropriate interventions, clinical decisions are generally left to the judgment of the provider. As such, it will be important for clinicians—particularly those likely to serve gay men—to understand the rationale and justification for more frequent HIV testing. To this end, professional associations are likely to play a key role (see Revise professional standards and guidelines to reflect current science, p.10).

Absent routine screening protocols, HIV testing is generally dependent on a clinical risk assessment, though studies show both patients and doctors are often uncomfortable discussing risk behaviors, including same-sex contacts. In a study conducted among MSM in New York City, 39% of patients did not disclose their same-sex attraction or sexual contacts to their health care provider, with men of color, men who also had sex with women, and men not born in the United States all less likely to disclose.<sup>52</sup> Because frank, non-judgmental and supportive discussions concerning sexuality are key to assessing HIV risk behaviors and appropriately recommending HIV testing, it will be important to articulate standards of care for gay men and to educate providers about the exigencies of caring for gay men. Sensitivity to issues concerning sexual and drug-using behaviors, as well as the challenges posed by syndemics associated with HIV infection, will become increasingly important as newly eligible Medicaid enrollees (many from previously disconnected populations) seek services. As such, it will be essential that networks serving newly Medicaid- or insurance-eligible enrollees include providers with experience caring for gay men.

**Ensure insurance coverage for HIV testing.** Which services individuals are offered or receive is frequently the result of insurance coverage, both in the private (health insurance) and public (Medicare, Medicaid) spheres, with private-sector coverage often influenced by public programs. While coverage for preventive services is currently spotty among both sectors, full ACA implementation will require coverage for newly eligible Medicaid recipients (with no co-payment) for preventive services rated “A” or “B” by the USPSTF.<sup>53</sup>

To ensure that HIV testing is available to those most in need, it will be important for DHHS to ensure that the wide range of federal programs currently providing HIV testing (e.g., DHHS

[community health centers, SAMHSA, Ryan White], VA, and DOD) adhere to new guidelines, and that Medicaid and Medicare include recommended testing among covered benefits. The DHHS Secretary should ensure harmonization across federal programs and may be able to secure a commitment from America’s Health Insurance Plans to provide coverage for these essential services.

**Employ new health information technology to encourage testing.** ACA implementation is accelerating the use of new health information technology, as the need to coordinate patient care across multiple providers grows. In particular, the use of Electronic Health Records (EHR) and disease registries to manage individual patient data and Clinical Decision Support (CDS) programs to aid screening, diagnosis, and prescribing are all becoming standard, and it will be important that these systems reflect updated standards of care with respect to HIV screening. For example, many EHR scripts provide automatic prompts to signal clinicians to perform routine screening tests. Here, support from the Office of the National Coordinator for Health Information Technology will be essential, as will CDC support for local health departments to adapt to new technologies.

**Exploit new testing technologies to their fullest potential.** Outside of clinical settings, where test results can typically be delivered in a short time frame, greater use of rapid HIV tests (which provide results in 10–30 minutes) in alternative testing venues may reduce the number of individuals who never learn their test results. Their ease of use also makes them especially suitable for use in outreach settings such as bathhouses, bars, or homeless shelters, where there may be a higher prevalence of undiagnosed infections. In one large study, 267 (1.1%) of 23,900 individuals receiving rapid tests in community settings were HIV positive; of those, 75% received their confirmatory test results and 64% were referred to care. Seventy-six percent were from racial/ethnic minority groups, and 58% identified themselves as MSM, 72% of whom reported having multiple sex partners in the past year.<sup>54</sup>

CDC recently announced a pilot program in which retail drugstores will offer rapid HIV tests and refer customers testing positive to HIV care, with select stores initially offering the test free of charge. If the pilot is successful, CDC will use results to develop a nationwide model for pharmacists and nurse practitioners to offer HIV tests. One important challenge will be cost, and it will be important for the agency and others to advocate for insurer



reimbursement.<sup>55</sup> The availability of over-the-counter rapid HIV tests for home use may also increase the number of individuals who become aware of their HIV infection, though the impact remains unknown. The FDA recently approved the Oraquick® rapid HIV test, which consumers may use to self-administer an HIV test at home. (Previously approved home HIV test kits required users to submit a blood sample to a laboratory.)

## Reconfiguring Federal HIV Programs and Funding Streams

Historically, most discretionary federal HIV funding has been categorical, i.e., specifically mandated by Congress and directed by the federal government for discrete programs (e.g., CDC prevention, HRSA/Ryan White, HUD/HOPWA housing, SAMHSA substance abuse treatment, etc.). To the extent that a “whole health” approach to HIV breaks down the distinctions between prevention and care, the role of such categorical programs changes.

In turn, most categorical programs are designed to meet the needs of uninsured or underinsured individuals, or to complement reimbursable services provided by health insurance or government programs. As more individuals gain access to third-party coverage, an important opportunity will arise to repurpose federal funds to ensure they remain “payer of last resort.”

The National HIV/AIDS Strategy explicitly commits to better coordination among federal HIV programs. Moving forward, one approach would be to reconfigure funding streams to meet new service gaps via the virtual (or actual) merging of these legacy programs. Another approach would be to formalize approaches that “blend” or “braid” funding streams with programs that deliver an integrated array of services, funded jointly via collaborative agreements among two or more agencies. HHS’s National HIV/AIDS Strategy Operational Plan already contemplates exploring policy, budgetary, and programmatic strategies to better align HHS efforts with those being conducted by other federal

**Epidemiologic trends suggest that the epidemic may be worsening, particularly among young black gay men, threatening to reverse progress made to date and heralding a new catastrophe.**

departments, including joint funding announcements and other opportunities to blend or braid funding across programs.<sup>56</sup>

As increasing numbers of individuals with or at risk for HIV gain access to health care via Medicaid, it will be important for the Centers for Medicare and Medicaid Services (CMS) to promote new models of care that account for the syndemics confronting gay men with or at risk for HIV infection. One innovative proposal to the Center for Medicare and Medicaid Innovation for an Integrated Services Delivery System imagines such an approach— with a continuum of prevention, care, and treatment services delivered by managed care organizations under contract through a prepaid, capitated payment model that permits use of various federal program funds to provide “wraparound” services. In the proposed demonstration, CMS-funded care services are linked with CDC prevention services for HIV-positive individuals, HRSA-funded intensive case management, SAMHSA-funded behavioral interventions, and HUD-funded housing assistance.<sup>57</sup> Such an approach, which braids currently discrete funding streams, is likely to provide a model for other patients with complex needs.

## Conclusion

For more than 30 years, the AIDS crisis has represented an incomparably grave threat to gay men, especially gay men of color. Recently, epidemiologic trends suggest that the epidemic may be worsening, particularly among young black gay men, threatening to reverse progress made to date and heralding a new catastrophe. Confronting this challenge will require measures that go beyond traditional risk reduction interventions, including programs to improve the health and well-being of gay men generally, and specific interventions to help HIV-positive gay men learn their status, connect to appropriate health care services, stay in care and maintain treatment adherence, and prevent transmission to others. Young gay men must be a priority.

While there are clearly unmet research needs related to ending the epidemic among gay men, there are also concrete steps that can be taken now. Consistent with its role throughout the epidemic, the LGBT community must assume a substantial leadership responsibility to renew the fight against AIDS among gay men, while successfully addressing the crisis will require the active participation of virtually every stakeholder, including government agencies, health care providers, public health officials, and insurers. There is no time to lose.



## Endnotes

- 1 The terms “gay,” “bisexual,” and “men who have sex with men (MSM)” are imperfect. Some men who experience same-sex attraction self-identify as neither gay nor bisexual, while others may find the designations too rigid to capture their more dynamic experience of sexuality. Conversely, because for many, being gay has cultural and social, as well as sexual dimensions, the term “MSM” may be too clinical. In this report, the term “gay” is used to refer to men who experience same-sex attraction as part of their sexual, cultural or community lives, while the term “MSM” is used in reference to surveillance or other data that report on sexual contacts between men.
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