Battling AIDS in America: An Evaluation of the National HIV/AIDS Strategy

Baligh Yehia, MD, and Ian Frank, MD

Thirty years ago, the Centers for Disease Control and Prevention reported the first cases of AIDS in the United States. Since then, more than half a million Americans have died of AIDS, and 1.1 million people are currently living with HIV in the United States.

In an attempt to reinvigorate the domestic response to the HIV epidemic, the Obama administration developed and released the *National HIV/AIDS Strategy for the United States* (NHAS). The NHAS has 3 focus areas: reducing new infections, improving access to care and health outcomes, and reducing HIV-related disparities.

With ambitious five-year targets set for each goal, the NHAS requires significant fiscal investment to achieve its desired impact on the domestic HIV epidemic. (*Am J Public Health*. 2011; 101:e4–e8. doi:10.2105/AJPH.2011.300259)

ON JULY 13, 2010, THE OBAMA administration released the *National HIV/AIDS Strategy for the United States* (NHAS), the most comprehensive federal response to the domestic HIV epidemic to date. The NHAS's goals are grouped into three areas: reduce the number of new HIV infections, improve access to care and health outcomes, and reduce HIV-related health disparities (Table 1).[1] The NHAS is being touted as a major advance in HIV policy because of its sharpened focus, its detailed implementation plan, and its enhanced monitoring process. Nevertheless, the NHAS faces several challenges—namely, securing new federal resources and effectively implementing the strategy's objectives within target populations. If these challenges are not addressed, the NHAS goals will be difficult, if not impossible, to accomplish in the next five years.

LESSONS FROM PAST NATIONAL STRATEGIES

Since the late 1980s, two US presidents have each released a national plan for responding to the AIDS crisis. These efforts, although well intentioned, have largely been unsuccessful, and they highlight plan-construction errors that should be avoided in the future. The first plan was released under President Reagan, who in 1987 created the Presidential Commission on the HIV Epidemic. The commission issued 597 recommendations, calling for increased HIV testing, stronger legal protection for people with HIV, prevention and treatment of substance abuse, and expansion of the workforce providing HIV care and treatment.[2,3] Unfortunately, because of President Reagan's lukewarm commitment to ensuring implementation of the commission's recommendations, their report was largely ignored.

In December 1996, President Clinton released the first National AIDS Strategy. The strategy outlined six goals: strengthen HIV-related research; reduce the number of new HIV infections; give persons with HIV access to high-quality services, both medical and supportive; eliminate HIV-related discrimination; support international efforts to address the HIV epidemic; and ensure that research advances are translated into care and prevention programs. Although the plan had specific objectives, it lacked a timeline for meeting targets and did not clearly identify federal offices responsible for each goal, making the strategy's impact difficult to assess.[2]

The NHAS is unique and avoids many of its predecessors' failures. First, it is focused, with only 3 main objectives. Second, the NHAS was released with two companion documents: the NHAS *Federal Implementation Plan* details actions for each goal, assigns responsibility to appropriate government agencies, and includes a timeline for completion, and the *President's Memorandum to Federal Agencies* directs government agencies to develop a detailed operational plan based on assigned tasks identified in the implementation plan.[4,5] Third, the strategy makes a concerted effort to increase transparency and monitor progress through annual public reporting, with the first progress report due for release at the end of 2011. These components distinguish the NHAS from previous attempts, but the new strategy still faces the same challenge that confronted its forerunners: transforming broad national goals into specific, timely, and effective interventions within communities across America.

GOAL 1: REDUCING NEW HIV INFECTIONS

The NHAS has set a goal of reducing new HIV infections by 25% within the next five years. A decrease in HIV incidence is dependent on both the prevalence of HIV and the HIV transmission rate. The transmission rate is influenced by many factors, including awareness of serostatus, risk behavior, and access to prevention services and treatment.[6] Over the next 10 years, HIV prevalence is expected to increase by 24% to 38%, mostly because of the life-extending effect of antiretroviral therapy.[7] Therefore, with the population of people who can transmit HIV increasing, the NHAS needs to focus on interventions that can reduce the HIV transmission rate.

The first hurdle will be identifying the 21% of HIV-infected people who are unaware of their status. Studies indicate that people decrease their sexual risk-taking

TABLE 1—Summary of the National HIV/AIDS Strategy's Primary Goals, Critical Steps, Anticipated Results, and Major Challenges

Primary Goals	Critical Steps to Be Taken	Anticipated Results by 2015	Major Challenges
1. Reducing the number of people who become infected with HIV	Intensify HIV prevention efforts in communities where HIV is most heavily concentrated. Expand targeted efforts to prevent HIV infection using a combination of effective, evidence-based approaches. Educate all Americans about the threat of HIV and how to prevent it.	Reduce the annual number of new infections by 25% (from 56 300 to 42 225). Reduce the HIV transmission rate, which is a measure of annual transmissions in relation to the number of people living with HIV, by 30% (from 5 persons infected each y per 100 people with HIV to 3.5 persons infected each y per 100 people with HIV). Increase the percentage of people living with HIV who know their serostatus from 79% to 90% (from 948 000 to 1 080 000 people).	Full implementation of CDC HIV testing guidelines. Achieving opt-out testing policies in all states. Identifying, locating, obtaining consent from, and testing subpopulations at greatest risk of HIV. Securing state and federal funding for HIV screening. Funding and implementing new prevention strategies.
2. Increasing access to care and optimizing health outcomes for people living with HIV	Establish a seamless system to immediately link people to continuous, coordinated, high-quality care when they are diagnosed with HIV. Take deliberate steps to increase the number and diversity of available providers of clinical care and related services for people living with HIV. Support people living with HIV who have co-occurring health conditions and those who have challenges meeting their basic need, such as housing.	Increase the proportion of newly diagnosed patients linked to clinical care within three months of their diagnosis from 65% to 85% (from 26 824 to 35 076 people). Increase the proportion of Ryan White HIV/AIDS Program clients who are in continuous care (at least 2 visits for routine HIV medical care in 12 mo at least 3 mo apart) from 73% to 80% (from 237 924 to 260 739 people). Increase the percentage of Ryan White HIV/AIDS Program clients with permanent housing from 82% to 86% (from 434 000 to 455 800 people). This serves as a measurable proxy of efforts to expand access to Department of Housing and Urban Development support and other housing supports to all needy people living with HIV.	Improving linkage between testing location and medical care sites. Enhancing retention in HIV care. Adequately providing substance abuse treatment and mental health care for all patients in need of such services. Expanding the HIV medical workforce. Improving geriatric training for HIV providers and increasing the amount of geriatric-related services available to people with HIV. Securing state and federal funding to implement interventions aimed at improving access to and quality of care.
3. Reducing HIV-related health disparities	Reduce HIV-related mortality in communities at high risk for HIV infection. Adopt community-level approaches to reduce HIV infection in high-risk communities. Reduce stigma and discrimination against people living with HIV.	Increase the proportion of HIV-diagnosed gay and bisexual men with undetectable viral load by 20%. Increase the proportion of HIV-diagnosed Blacks with undetectable viral load by 20%. Increase the proportion of HIV-diagnosed Latinos with undetectable viral load by 20%.	Addressing poverty in populations vulnerable to HIV infection. Improving health literacy. Decreasing the prevalence of HIV in Black and MSM sexual networks. Improving screening and treatment of HIV patients in the criminal justice system. Reducing the high rate of incarceration among Black and Hispanic men. Instituting science-based drug policies and evidence-based interventions, such as needle exchange, contingency management, and cash transfers.

Note. MSM = men who have sex with men.

behaviors following diagnosis, and those unaware of their status are 3.5 times more likely to transmit HIV than are those who know they are infected.[8,9] The key to locating these nearly 250 000 individuals is to increase HIV-testing efforts. In 2006, the Centers for Disease Control and Prevention (CDC) revised their HIV testing recommendations, advising that all patients aged 13 to 64 years be screened for HIV in all health care settings (unless the local prevalence of undiagnosed HIV infection has been documented to be < 0.1%).[10] Since the release of the CDC testing guidelines, multiple barriers have impeded their implementation, including conflicting state laws; persistent stigma associated with HIV; the feasibility of routinely testing large numbers of patients in the hospital, office, and emergency department settings; and limited federal funding for testing programs.[10] Additionally, apart from expanding routine screening, testing efforts need to target subpopulations at greatest risk of HIV: men who have sex with men (particularly adolescents, Blacks, and Latinos), injection drug users, and commercial sex workers.[10,11] These groups are often difficult to identify, locate, and gain consent from, making testing extremely challenging.[11]

The NHAS recognizes the importance of HIV prevention (which often includes HIV testing) and calls for the development of novel prevention strategies and expanded access to prevention services, but the plan remains vague with regard to the specific actions needed to increase HIV testing within these populations. A greater emphasis needs to be placed on increasing advocacy efforts to align all state laws with CDC testing guidelines and providing resources that enable state and local health departments to identify high-risk populations, seek them out in the community, and provide them with testing services.

Another challenge facing the NHAS is how it will incorporate new prevention innovations—such as "test and treat" (i.e., starting antiretroviral therapy soon after diagnosis, irrespective of CD4 count, in an attempt to decrease community viral load), pre-exposure prophylaxis (i.e., using antiretroviral medications as a form of prophylaxis against HIV acquisition), and microbicides that contain antiretroviral medication—into prevention programs. These new approaches offer a great deal of promise, but they require significant financial investment to be implemented. The cost of pre-exposure prophylaxis alone for 100 000 people at the highest risk of acquiring HIV would exceed $1 billion annually, which surpasses the CDC's entire HIV-prevention budget.[12] In addition, these new prevention techniques constellate a number of social issues, including the possibility of increased high-risk sexual behavior among individuals receiving prophylaxis. These concerns must be addressed and a detailed HIV-testing plan must be swiftly implemented if new HIV infections are to be reduced over the next five years.

GOAL 2: IMPROVING ACCESS TO CARE AND HEALTH OUTCOMES

The second goal of the NHAS is to improve access to medical care and health outcomes. Currently, 45% of patients develop AIDS within three years of receiving their HIV diagnosis, suggesting that people with HIV have difficulty accessing the health care system and obtaining life-saving antiretroviral medications.[13] The Patient Protection and Affordable Care Act (ACA) expands Medicaid coverage to include all people younger than 65 years with incomes up to 133% of the federal poverty level. More importantly for people with HIV, the ACA also eliminates the disability criteria for Medicaid enrollment. The ACA does increase the availability of health insurance, but the challenge of linking patients to care and maintaining them in care remains. The NHAS appropriately calls for improving connections between testing and care sites and enhancing linkages to substance abuse treatment and mental health services. Lead agencies tasked with accomplishing these goals should explore the use of new health delivery models, such as the patient-centered medical home, community health workers, and integrated medical information systems, because these programs have the potential to increase care coordination and retention.

Improving health outcomes depends on securing a large, well-trained, and racially/ethnically diverse HIV workforce. The combination of a growing HIV-positive population and a lack of corresponding growth among the medical workforce has created a perilous situation that, if maintained, can lead to collapse of the HIV care system.[14] The NHAS recognizes the importance of having an adequate supply of HIV providers, and it calls for increased HIV-specific training in professional schools. Unfortunately, the plan does not address the larger problem of poor reimbursement associated with pursuing a career in HIV medicine.[14,15] In addition, now that more than 25% of all people with HIV are older than 50 years, the types of services that HIV patients require (i.e., geriatric services, cardiovascular care, non-HIV-related preventive care) are expanding. The NHAS needs to recognize the aging of the HIV population, improve geriatric training for HIV providers, and increase the amount of geriatric-related services available to people with HIV. This will involve enhanced collaboration among federal agencies (the Department of Health and Human Services, the Health Resources and Services Administration, the Centers for Medicare & Medicaid Services, the Administration on Aging, and others), state governments, medical education institutions, and professional medical societies.

GOAL 3: REDUCING HEALTH DISPARITIES

The NHAS's final goal focuses on reducing health disparities associated with race/ethnicity and sexual orientation for people with HIV. HIV-related health disparities are disproportionately worse than are health disparities associated with other medical conditions. The rate of new AIDS cases is 9.7 times higher for Blacks and 3.3 times higher for Hispanics than for Whites, representing the largest HIV-related health disparity for both of these racial/ethnic groups.[16] Confronting disparities requires a multipronged approach and involves addressing patients' socioeconomic situations, barriers to access to care, substance abuse, cultural norms, sexual practices, and coinfections. The NHAS does not provide any concrete solutions to tackling these problems; it only calls for increased laboratory testing and the adoption of a community-level approach to reducing disparities.

Specific attention should focus on the treatment of substance abuse. Prior to the 18th International AIDS Conference, scientific

and policy leaders released the Vienna Declaration, which calls upon governments and international organizations to pursue a number of initiatives aimed at improving policies on illicit drugs, including undertaking a transparent review of the effectiveness of current drug policies, implementing and evaluating science-based approaches to address the harms stemming from illicit drug use, and calling for evidence-based drug dependence treatment options to be scaled up.[17] Agencies implementing the NHAS, along with other relevant bodies, should heed the call of the Vienna Declaration.

In addition to addressing drug policies, other interventions aimed at decreasing disparities should include helping women out of poverty so they will not feel the need to engage in commercial or coercive sex, particularly Black and Hispanic women; improving disclosure of HIV status between sexual partners to facilitate safer sex practices; reducing the high rate of incarceration among Black and Hispanic men, leading to better community stability; and treating alcohol, cocaine, and methamphetamine addiction among men who have sex with men, because these substances have been associated with increased risk-taking behavior in this population.[18] Strategies should also be developed to increase HIV screening and treatment of individuals involved in the criminal justice system, with particular focus on continuing treatment during and after community re-entry. Prevention interventions must be evidence-based and effective, such as needle exchange, contingency management, and cash transfers. Furthermore, interventions should not be disregarded solely on the basis of ideological concerns.[18]

Addressing HIV health disparities will involve many government agencies, making interagency coordination extremely important for achieving success.

INSUFFICIENT FUNDS

The NHAS is critically underfunded. On the federal level, the Obama administration has only dedicated $30 million of the ACA Prevention and Public Health Fund to expansion of the prevention efforts outlined in the NHAS. Locally, many states are facing budget shortfalls because of the prolonged economic recession and are unable to invest in new HIV initiatives. Recent modeling suggests that the total cost of implementing the NHAS through 2015 would be approximately $15 billion, with the majority (> $10 billion) spent on treatment and medical care services.[6] Although this may appear to be a large sum, if the NHAS is implemented effectively, the total cost savings achieved by averting new infections would approximate $18 billion.[6]

Apart from evaluating the total potential cost of implementing the NHAS, policymakers will also need to consider how individual program budgets will be affected. A budget-impact analysis by Martin et al. found that expanding HIV screening and treatment would result in costs shifting from entitlement programs (Medicaid, Medicare) to discretionary programs (Ryan White HIV/AIDS Program).[19] These estimates will likely change in 2014 when the Medicaid program is expanded, but they call attention to the fact that all relevant government programs need to be sufficiently funded to provide care for newly identified cases. As HIV prevalence grows and costs of care increase, investing in HIV prevention today will ultimately save the public money in the future. The goals of the NHAS cannot be achieved without strong financial support. No matter how thoughtful and well designed the NHAS may be, lack of sufficient and appropriately designated funding makes success unlikely.

CONCLUSIONS

The NHAS provides a general road map for addressing the HIV epidemic. It contains three focus areas, each with strategically defined action steps tied to measurable outcomes. Despite its well-designed construction, the NHAS faces the major challenge of translating the operational plans of government agencies into specific actions within communities across America. This enhanced level of coordination will have to be implemented in the context of a rapidly changing health care system and with very limited financial support. The NHAS is a step forward in America's battle against AIDS, but further refinement and substantial financial support are needed for it to achieve its goals and slow the HIV epidemic in the United States. ■

About the Authors

Baligh Yehia and Ian Frank are with the Division of Infectious Disease, University of Pennsylvania School of Medicine, Philadelphia. Ian Frank is also with the Penn Center for AIDS Research Clinical Core, University of Pennsylvania School of Medicine.

Correspondence should be sent to Baligh Yehia, MD, University of Pennsylvania School of Medicine, 1300 Blockley Hall, 423 Guardian Drive, Philadelphia, PA 19104 (e-mail: byehia@upenn.edu). Reprints can be ordered at http://www.ajph.org by clicking the "Reprints/Eprints" link.

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Contributors

B. Yehia conceptualized the article and wrote the first and final drafts. I. Frank reviewed and edited the article.

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