AIDS Behav (2016) 20:1–6
DOI 10.1007/s10461-015-1193-9

GUEST EDITORIAL

A SWOT Analysis of the Updated National HIV/AIDS Strategy for the U.S., 2015–2020

David R. Holtgrave[1] · **Robert Greenwald**[2]

Published online: 14 September 2015

Abstract In July 2015, President Barack Obama released an updated National HIV/AIDS Strategy (NHAS) for the United States to guide HIV efforts through the year 2020. A federal action plan to accompany the updated NHAS will be released in December 2015. In this editorial, we offer a strengths, weaknesses, opportunities and threats analysis with the aim of increasing discussion of ways to truly fulfill the promise of the updated NHAS and to address barriers that may thwart it from achieving its full potential.

Keywords HIV · Planning · Economics · Policy

Introduction

The United States did not have a unifying, comprehensive HIV/AIDS plan until July 2010 when President Barack Obama released the National HIV/AIDS Strategy (NHAS) to guide the country's response to the epidemic through 2015 [1]. The NHAS has been met with enthusiasm in the HIV/AIDS community. Over the last 5 years, it has served as a useful guide to encourage better evidence-based prevention and care efforts which are more heavily focused on disproportionately impacted communities, and implemented with greater coordination at all levels of the public and private sector. It is difficult to find examples of domestic HIV/AIDS programs which have not in some way referenced the NHAS in policy development, program planning, service delivery, grant writing, and evaluation.

While there is much to praise in the 2010 NHAS, it did not include an estimate of the necessary resources needed to achieve the goals of the strategy, and the ensuing years saw relatively flat appropriations of HIV-related funding except for some noticeable increases in treatment funding (in particular, increased funding to provide access to HIV medications to persons who at the time were on waiting lists under the AIDS Drug Assistance Program of the Ryan White Care Act) [2]. In this journal, we have previously estimated (a) the resources needed to meet the 2015 goals of the NHAS, (b) the impact the availability of such resources would have on the epidemic, and (c) the relative public health return on this investment [2]. Further, in the past, we have highlighted which policy and programmatic barriers seem to be most urgently needed to be overcome to meet the NHAS 2015 goals [3].

In 2013, we became concerned that the original NHAS would soon be ending, and therefore published our thoughts about the necessary time frame of an updated NHAS, as well as possible goals to be considered for any such updated strategy [4]. Discussions among a variety of groups increased in 2014 and early 2015 regarding the need for an updated NHAS, and starting in 2014 the White House's Office of National AIDS Policy held listening sessions to better understand local and state efforts to implement the original NHAS as well as to hear thoughts people in the field had about what needed to be included in an updated strategy [5]. In July 2015, the Administration held a ceremony at Morehouse College in Atlanta to release the updated NHAS for the years 2015 through 2020, and the President signed an Executive Order to make the updated NHAS a guiding force for the national

✉ David R. Holtgrave
david.r.holtgrave@jhu.edu; dholtgra@jhsph.edu

[1] Department of Health, Behavior and Society, Johns Hopkins Bloomberg School of Public Health, 624 N Broadway, Suite 280, Baltimore, MD 21205, USA

[2] Center for Health Law and Policy Innovation, Harvard Law School, Cambridge, MA 02138, USA

response to the epidemic for the next half-decade [6, 7]. In the interest of making the updated NHAS a reality immediately for local HIV/AIDS programming, on the day it was released Johns Hopkins Bloomberg School of Public Health held a viewing and discussion session featuring the response of key community leaders to the strategy, specifically regarding the impact the NHAS could have on the heavily affected City of Baltimore.

A federal action plan to execute (at least the federal efforts under) the strategy will be issued by the Administration in December 2015 [7]. Because there is truly no time to waste in implementing the updated strategy, the present editorial is intended to provide some reactions to the updated strategy and to offer some suggestions for action steps to be considered for possible incorporation in the federal action plan to be released. The format we have chosen for this editorial is a SWOT analysis (strengths, weaknesses, opportunities, threats) [8]. We chose this format because we wish to see the impact of the updated NHAS realized as quickly and meaningfully as possible, and because highlighting the internal strengths and weaknesses of the NHAS while reflecting on the current external opportunities and threats may help promote the implementation approaches most likely to yield success. Below, we highlight a small number of key factors under each element of the SWOT analysis, and then conclude with overarching recommendations for next steps. Our purpose here is not comprehensiveness, but rather to highlight a few factors we see as truly critical, and to hopefully spark further discussion and elaboration in the field.

Strengths (Internal to the Updated NHAS)

The updated NHAS has many strengths, and its release has generally been met with enthusiasm in the HIV/AIDS community [9]. Here we highlight three very important internal strengths of the updated NHAS. While all of these strengths were present in the original 2010 NHAS, in the updated NHAS each of these strengths is reinforced and magnified.

First, the updated NHAS in many instances refers to recent scientific advances in treatment, "treatment as prevention," pre-exposure prophylaxis (PrEP), and behavioral and social interventions to both support linkage to and retention in care as well as avoid HIV infection or transmission [6, 10]. It strongly encourages that all HIV/AIDS programming be grounded on the most up-to-date scientific evidence possible and encourages further scientific research (especially research focusing on a cure for HIV disease) [6]. The updated NHAS also acknowledges key social determinants that can impact the scientific research agenda and/or the uptake of recent research findings [6].

Second, the updated NHAS strikes an important balance between the needs of the American population as a whole and the communities that are disproportionately affected by HIV. The updated document notes that all Americans are potentially at risk to become infected with HIV and, consequently, everyone in the country needs to know basic information about the disease. The updated NHAS also acknowledges, however, that some communities are very heavily impacted by HIV, and therefore the response in these communities must be disproportionately intense [6]. For this reason, the updated NHAS recommends not only the continued education of all residents of the country about HIV but also focusing efforts to serve the following specific communities: gay, bisexual and other men who have sex with men (in particular Black gay and bisexual men); Black women and men; Latino men and women; persons who inject drugs; young people from 13 through 24 years old (especially young Black gay and bisexual men); persons who live in the southern U.S. (and other urban areas with relatively high rates of HIV); and transgender women (in particular Black transgender women).

Third, the updated NHAS is clear that HIV care and treatment must be affordable, accessible, and very broadly defined to encompass the behavioral and ancillary services needed to address the social determinants of HIV [6]. The updated strategy highlights the need for evidence-based services that support linkage to and retention in HIV care (including mental health and substance use treatment services, supportive housing, transportation, childcare, food and nutrition security services, among others), as well as services to address social factors that are too often ignored (such as HIV-related stigma and discrimination). The updated strategy is clear that while we have effective treatments available, many people living with HIV are not able to access them. Further, the updated NHAS includes indicators specifically focused on the distal outcomes of viral suppression and all-cause mortality among persons living with HIV; these outcomes are important because they emphasize that our job is not done when treatments are developed, but rather our job is only finished when those treatments have clinically helped all who might benefit from them.

Weaknesses (Internal to the Updated NHAS)

We believe that the strengths of the updated NHAS are substantial. However, in a document this complex and far-reaching, some issues and concerns inevitably remain. In that spirit, here we note some areas of concern that we believe should be addressed in the upcoming federal action plan.

First, the updated NHAS does not include quantitative estimates of the population size of unmet service needs, estimates of the necessary resources to meet those needs, or estimates of the public health return on investment of such resources. In a footnote, the updated NHAS makes clear that it is not a budget document, and discussion of resources would take place through the appropriations process [6]. While we recognize the importance of the appropriations process, we also would highlight that it is essential for public health planning to estimate the scope of unmet needs, identify resources to meet those needs, and estimate (perhaps via mathematical modeling and forecasting) the public health and economic impact of such investments. These estimates are essential to develop so as to inform the federal action plan soon to be released. Further, the updated NHAS does not contain quantitative, updated estimates of HIV incidence or transmission rates for the U.S. (indicators centrally featured in the original NHAS). The absence of these estimates makes it challenging to fully understand the current trajectory of the epidemic in the U.S.; we return to and elaborate on this point below.

Second, the updated NHAS highlights the importance of the delivery of PrEP for all who might benefit, but it is vague as to how to pay for implementation of this strategy. CDC has estimated that approximately 275,000 HIV seronegative gay men and 140,000 HIV serodiscordant heterosexual couples could benefit from utilization of PrEP [11]. It has been estimated that the annual cost of PrEP is roughly $13,000 per person (with some estimates varying from that number) [12]. Simply multiplying these unmet need and cost per client numbers would suggest an investment of roughly $5.4 billion which is over 6.7 times larger than CDC's entire HIV prevention budget [13]. Therefore, to implement PrEP for persons who might benefit one must delve into substantial detail about how to ensure coverage by public sector programs, as well as how to involve the private sector in reducing the drug price and encouraging insurance companies to guarantee coverage. Further, estimates of the cost-effectiveness of this investment would be useful as the published literature on the cost-effectiveness of PrEP varies from study to study largely depending on how PrEP is targeted in its implementation (and cost-effectiveness is key for achieving the maximum public health benefit for a given level of resource) [14–16]. Therefore, PrEP is a critical new tool in HIV prevention, but identifying payment strategies and ways to best target PrEP services are key to its most impactful implementation and should be included in the federal action plan to the updated NHAS.

Third, the first section of the updated strategy highlights reducing HIV incidence as a general goal (as was done in the original NHAS), but now it substitutes a reduction in HIV diagnoses as a key indicator to be measured instead of reductions in HIV incidence and transmission rates (the national HIV transmission rate for the U.S. is simply HIV incidence divided by HIV prevalence for a given year) [1, 6, 17]. The updated NHAS clearly states that changing testing technologies and data timeliness make HIV incidence hard to estimate and to use as an indicator. It also notes that diagnoses are not the same as incidence (unless there is instant and perfect awareness of HIV seroconversion which is currently not the case in the US), and when there is a large percentage of undiagnosed seropositivity in a community then one might actually want to see an increase in diagnoses before a decrease ultimately can be achieved and measured. Despite these very substantial limitations to using HIV diagnoses as a proxy indicator for HIV incidence, the updated NHAS paradoxically goes on to use diagnoses as a proxy for incidence and to highlight diagnosis information throughout the document. We feel (as do some others [18]) that there is danger in putting diagnoses in this role because to do so could take our eyes off of the real "front end" of the epidemic in terms of incidence and transmission rate (and doing so could slow the relative growth of our HIV/AIDS programmatic investments in geographic areas and communities with rapidly emerging local or regional epidemics such as the Southern U.S.). Further, switching to a measurement of new diagnoses instead of incidence and transmission rates could also lead to incorrect and potentially harmful public health actions due to a false sense of goal achievement (i.e., if testing efforts faltered, this could lead to decreased diagnoses and thereby meet the diagnosis goal when in fact increases in testing and in diagnoses are desperately needed in the short term in at least some communities with currently high levels of undiagnosed seropositivity such as among young gay men and in the Southern U.S.). This use of diagnoses as the indicator of choice appears to be a case where using an indicator that is more readily and easily available (HIV diagnoses) could actually lead astray public health efforts, and this situation should be remedied in the federal action plan by restoring indicators for reductions in HIV incidence and transmission rates.

Fourth, while the updated NHAS puts a heavy emphasis on linkage and retention in care, there are relatively few concrete recommendations as to how to address existing barriers to care and treatment that are pervasive in this country despite the advances we have made with implementation of the Affordable Care Act. While the updated NHAS acknowledges that gaps in coverage and affordability exist that must be addressed, it is not very specific regarding strategies that will be necessary to hold Qualified Health Plans (QHPs), Medicaid, and Medicare accountable for providing comprehensive HIV care and treatment that is in line with federal treatment guidelines, affordable to all

people living with HIV, and meets established quality standards. The federal action plan should include strategies for implementing these objectives if we are going to meet the linkage and retention in care goals of the NHAS.

Opportunities (External)

In a SWOT analysis, the "strengths" and "weaknesses" represent internal factors of the strategy under analysis. The "opportunities" and "threats" reflect the external environment in which the strategy is situated. Here we highlight three external opportunities we believe to be especially critical for the updated NHAS.

First, there is an opportunity for the updated NHAS to re-energize what we believe is a sagging sense of urgency about HIV in the field and in the general population. Kaiser Family Foundation polls have found in 1995, 40 % of persons in the US surveyed said they were very or somewhat concerned about personally contracting HIV; in 2012 this figure was down to 24 % [19]. Relatedly, Kaiser Family Foundation polls have found that in the general population there is substantial misinformation about HIV; for example, even in 2012, 34 % of people surveyed got one or more question wrong in a set of three questions about HIV transmission (can you get HIV from a drinking glass, toilet seat or swimming pool) [19]. Further, the Black AIDS Foundation recently conducted a survey and found that among 3600 front line HIV service providers, respondents correctly answered on average 63 % of HIV science and treatment items [20]. The updated NHAS can be a potential tool to reignite interest and cause people to once again intensively focus on HIV in their own lives and well as to support HIV care and prevention efforts overall. There is also an opportunity for the updated NHAS to fill key knowledge gaps among the general population and among those working in HIV.

Second, a number of jurisdictions in the US (including New York, Washington State, and San Francisco) have constructed plans with the goal of "ending AIDS" in their locales [6]. While the construction of such local plans is to be celebrated, for them to succeed, there must be an overarching national plan with the same general purpose. The updated NHAS has the potential to act as a complementary initiative to these local plans. It is generally resonant with these emerging plans, and sets a national background that can support and nurture such local planning efforts. Indeed such local and national planning efforts can be synergistic and can together foster a speeding up of the arrival of the "end of AIDS" in one's own backyard and in the nation.

Third, there is an increasing awareness in medicine that one must not simply treat the disease impacting a patient, but rather provide care that supports the whole person, promotes wellness, and improves quality of life broadly defined [21]. Some might argue that the field of HIV care helped to foster this recognition of the need for truly comprehensive, whole-person health care. Now is a pivotal moment in the history of medicine and public health when efforts to build, foster, and sustain systems of truly comprehensive care and wellness promotion would seemingly be met with understanding and support from policy makers and the health care financing community. This theme of wellness promotion for people living with HIV is articulated to a considerable degree in the updated NHAS. Such efforts should be able to truly flourish now given significant Affordable Care Act investments in early intervention, prevention and wellness and the general embrace of this philosophy in medicine and public health.

Threats (External to the Updated NHAS)

Unfortunately, successful achievement of the 2020 goals of the updated NHAS is by no means guaranteed. First, the updated NHAS has been unveiled against a background of highly constrained resources for discretionary HIV programs in the appropriations process. Most HIV programs have been largely flat funded for several years, despite significant increases in the number of people living with HIV in the United States [2–4]. Recent Congressional Appropriations processes could create even more dramatic constraints as they include potential reductions in funding, as well as proposals to entirely eliminate the Secretary's Minority AIDS Initiative Fund and the Title X Family Planning program [22]. The goals of the updated NHAS can only be achieved with adequate funding of discretionary HIV programs.

Second, while the Affordable Care Act is very important for expanded access to HIV care and treatment for people living with HIV, to date 20 states have not expanded Medicaid under ACA [23]. The failure to expand access to care and treatment through Medicaid leaves those who reside in such "non-expansion" states with continued, substantial challenges to accessing care. Similarly, coverage limitations and the cost of HIV medications and other health services under some insurance plans offered on the state and federal Marketplaces threatens access to effective care and treatment for many people living with HIV. Against this backdrop, there seems to be general support in the appropriations process for continuing the Ryan White HIV/AIDS Program. While this is good news, the federal action plan provides an additional opportunity to highlight the crucial and ongoing importance of both comprehensive and affordable Marketplace private health insurance and the Ryan White Program in addressing the care, treatment, and essential support service needs of men, women and children living with HIV (including residents of the US

without immigration documentation). The failures of new private health insurance systems along with threats to the Ryan White Program undermine the updated NHAS goal of increasing access to care and improving health outcomes for people living with HIV.

Third, while "coverage completion" services (such as those provided under the Ryan White program) are essential for meaningful access to HIV care and treatment, alone they are insufficient to overcome long standing and entrenched social factors such as HIV-related stigma, discrimination, and criminalization. While such undesirable social conditions must be addressed, doing so requires sustained systemic social change which unfortunately may take time to achieve. Accelerating such social change (such as by attempting to reduce and even remove HIV-related stigma in society) will be important to the achievement of the updated NHAS goals.

Finally, the information gaps noted above under opportunities might also be considered threats. As a nation, we seem too close to thinking that a chronic disease (which HIV has thankfully become for most people successfully engaged in care) is the same as no disease. We also seem too close to thinking that highly successful forms of treatment are the same as a cure. The major threat here is that such points of view could lead to HIV being swept aside (both in terms of funding and awareness levels) only to emerge or re-emerge in accelerated ways. This is, in fact, already taking place in parts of the United States, such as the Southeast, where inadequate investment in a sound public health response to HIV continues to lead to disproportionately high new diagnosis rates and AIDS mortality. As another example, the recent HIV cluster outbreak in Indiana should be a wake-up call beyond Indiana and its surrounding states [24]. Intensifying local and national resources after the fact, in an effort to make up for lost time and missed opportunities in AIDS programming, is not a sound response to HIV. In order to prevent similar outbreaks from occurring in the first place, we need strong, coordinated national, state and local public health responses to HIV, HCV, and other infectious diseases in all parts of this country. Infectious diseases throughout history have had a tendency to make us pay dearly if we relax our attention and dismantle the funding and service infrastructure too soon. We must not make this mistake if we are going to meet the goals of the updated NHAS and its ultimate goal of eliminating HIV in the United States.

Conclusions

In summary, we have just seen the release of an updated NHAS which has many strengths and the chance to meet unmet needs in the United States in a fashion designed to accelerate progress locally and nationally toward an end to this epidemic. However, there are some challenges, both internal and external, which could serve to limit its impact on the course of HIV. Our purpose here was not to exhaustively list every factor possible to consider in a SWOT analysis of the updated NHAS, but rather to foster further discussion and perhaps engender interest the development of a broader SWOT analysis. It was also to offer some recommendations for consideration as our federal government moves forward in developing our nation's federal action plan, to be released in December 2015. Time is of the essence, for the epidemic marches on every hour of every day in the United States, and the human and economic consequences of the epidemic are enormous [1, 6, 10, 25]. The updated NHAS provides an opportunity to mitigate those consequences, but achievement of the great promise of the updated NHAS requires thoughtful, swift, and sustained action.

Acknowledgments The authors wish to sincerely thank Mr. Robert Bonacci and Dr. Cathy Maulsby for insightful and substantial comments on a previous draft of this editorial.

References

1. White House. National HIV/AIDS Strategy. http://www.whitehouse.gov/administration/eop/onap/nhas. Accessed 15 Aug 2014.
2. Holtgrave DR, Hall HI, Wehrmeyer L, Maulsby C. Costs, consequences and feasibility of strategies for achieving the goals of the National HIV/AIDS Strategy in the United States: a closing window for success? AIDS Beh. 2012;16(6):1365–72.
3. Holtgrave DR. Achieving and advancing the goals of the National HIV/AIDS Strategy for the United States. AIDS Behav. 2015; 19(2):211–3.
4. Holtgrave DR. Development of year 2020 goals for the National HIV/AIDS Strategy for the United States. AIDS Behav. 2014;18(4):638–43.
5. White House. ONAP Concludes Series of Community Forums on Updating National HIV/AIDS Strategy. https://www.whitehouse.gov/blog/2015/05/14/onap-concludes-series-community-forums-updating-national-hivaids-strategy. Accessed 19 Aug 2015.
6. White House. National HIV/AIDS Strategy for the United States: Updated to 2020. https://www.aids.gov/federal-resources/national-hiv-aids-strategy/nhas-update.pdf. Accessed 18 Aug 2015.
7. White House. Executive Order—Implementating the National HIV/AIDS Strategy for the United States for 2015-2020. https://www.whitehouse.gov/the-press-office/2015/07/30/executive-order-implementing-national-hivaids-strategy-united-states. Accessed 18 Aug 2015.
8. Helms MM, Nixon J. Exploring SWOT analysis—where are we now? A review of academic research from the last decade. J Strategy Manag. 2010;3(3):215–51.
9. AIDS.gov What They're Saying: Release of the Updated National HIV/AIDS Strategy. https://blog.aids.gov/2015/08/what-theyre-saying-release-of-the-updated-national-hivaids-strategy.html. Accessed 19 Aug 2015.
10. Marrazzo JM, del Rio C, Holtgrave DR, et al. HIV prevention in clinical care settings: 2014 recommendations of the International Antiviral Society-USA Panel. JAMA. 2014;312(4):390–409.
11. Centers for Disease Control and Prevention. New guidelines recommend daily HIV prevention pill for those at substantial risk

(Dear Colleague Letter). http://www.cdc.gov/nchhstp/Dear_colleague/2014/DCL-051414-HIV-prep.html. Accessed 24 Aug 2015.
12. McNeil DG. Advocating Pill, U.S. Signals Shift to Prevent AIDS. http://www.nytimes.com/2014/05/15/health/advocating-pill-us-signals-shift-to-prevent-aids.html. Accessed 18 Aug 2015.
13. Centers for Disease Control and Prevention. CDC—HIV/AIDS, viral hepatitis, sexually transmitted infections, and tuberculosis: FY 2015 President's Budget Request. http://www.cdc.gov/fmo/topic/Budget%20Information/FY-2015-Fact-Sheets/HIV-AIDS-Viral-Hepatitis-STIs-and-TB.pdf. Publication date not stated. Accessed 19 Aug 2015.
14. Cremin I, Hallett TB. Estimating the range of potential epidemiological impact of pre-exposure prophylaxis: run-away success or run-away failure? AIDS. 2015;29(6):733–8.
15. Kessler J, Myers JE, Nucifora KA, Mensah N, Toohey C, Khademi A, Cutler B, Braithwaite S. Evaluating the impact of prioritization of antiretroviral pre-exposure prophylaxis in New York. AIDS. 2014;28(18):2683–91.
16. Juusola JL, Brandeau ML, Owens DK, Bedavid E. The cost-effectiveness of preexposure prophylaxis for HIV prevention in the United States in men who have sex with men. Ann Intern Med. 2012;156(8):541–50.
17. Hall HI, Holtgrave DR, Tang T, Rhodes P. HIV transmission in the United States: considerations of viral load, risk behavior, and health disparities. AIDS Behav. 2013;17(5):1632–6.
18. AVAC. US National HIV/AIDS Strategy Gets a Reboot. http://www.avac.org/blog/us-national-hivaids-strategy-gets-reboot. Accessed 18 Aug 2015.
19. Kaiser Family Foundation. 2012 Survey of Americans on HIV/AIDS. http://kff.org/hivaids/poll-finding/2012-survey-of-americans-on-hivaids/ Accessed 18 Aug 2015.
20. Black AIDS Institute. When We Know Better, We Do Better. https://www.blackaids.org/images/reports/15-know.pdf. Accessed 18 Aug 2015.
21. Cleveland Clinic. Integrative & Lifestyle Medicine. http://my.clevelandclinic.org/services/wellness/integrative-medicine. Publication date unknown. Accessed 24 Aug 2015.
22. White House. Letter from Office of Management and Budget Director Shaun Donovan to Senator Thad Cochran and Senator Barbara Mikulski Regarding the FY2016 Labor, Health and Human Services, Education and Related Agencies Appropriations Bill. https://www.whitehouse.gov/sites/default/files/omb/legislative/letters/senate-labor-hhs-ed-letter-cochran.pdf. Accessed 24 Aug 2015.
23. Kaiser Family Foundation. State of State Action on the Medicaid Expansion Decision. http://kff.org/health-reform/state-indicator/state-activity-around-expanding-medicaid-under-the-affordable-care-act/ Page Last Updated July 20, 2015. Accessed 18 Aug 2015.
24. Centers for Disease Control and Prevention. Community outbreak of HIV infection linked to injection drug use of oxymorphone—Indiana, 2015. Morb Mortal Wkly Rep. 2015;64(16):443–4.
25. Farnham PG, Holtgrave DR, Gopalappa C, Hutchinson AB, Sansom SL. Lifetime costs and quality-adjusted life years saved from HIV prevention in the test and treat era. J Acquir Immune Defic Syndr. 2013;64(2):e15–8.