When “Heightened” Means “Lessened”: The Case of HIV Prevention Resources in the United States

David R. Holtgrave

The HIV/AIDS epidemic continues to be a major public health concern in the United States. There is a very heavy impact of HIV/AIDS in urban communities; metropolitan statistical areas with populations over 1/2 million account for 84.6% of cumulative AIDS cases through 2005.¹ There are also glaring racial/ethnic health disparities in the epidemic. In 33 states that tracked HIV/AIDS diagnoses via named reporting from 2001 to 2005, African Americans accounted for 13% of the population and 50.5% of the new HIV/AIDS diagnoses.² The Center for Disease Control and Prevention (CDC) has just issued a report entitled, “A Heightened National Response to the HIV/AIDS Crisis Among African Americans.”³ That report outlines a number of important steps in attempting to address these health disparities. The purpose of this commentary is not to critique the action steps outlined in the report, but rather to focus on the resources available to conduct this “heightened response” campaign.

In one brief paragraph in the report (pages 3–4), CDC states that for fiscal year 2007 (FY07) their budget for domestic HIV/AIDS prevention is \$652 million, that almost half of that is devoted to programs for African Americans, that CDC devotes the majority of any newly available monies to African American communities, and that adjusted by the Biomedical Research and Development Price (an index used to adjust research program budgets for inflation) the purchasing power of CDC’s budget dropped 17% from 2001 to 2006.³ This very important paragraph—seemingly entirely overlooked by media coverage of CDC’s report—raises multiple important questions including the following: (a) does CDC attempt to apportion its resources according to disease burden by race/ethnicity? (b) what is the sum total of CDC’s domestic HIV prevention resources? and (c) is their claim correct that the purchasing power of their resources is shrinking? As there exists some previously published evidence that CDC attempts to concentrate its HIV prevention programmatic resources in approximate proportion with racial/ethnic disease burden,^{4,5} we focus here on the later two questions.

We examined a detailed functional table from CDC’s FY08 budget submission (available on CDC’s website).⁶ That CDC budget document contains a White House Office of Management and Budget (OMB) estimate of the impact of a full-year continuing resolution on CDC FY07 activities (such a full-year continue resolution was passed by Congress in February 2007). This functional table indicates a budget estimate of \$652 million for FY07 activities in CDC’s National

Holtgrave is with the Department of Health, Behavior & Society, Johns Hopkins Bloomberg School of Public Health, Baltimore, Maryland, USA.

Correspondence: David R. Holtgrave, Department of Health, Behavior & Society, Johns Hopkins Bloomberg School of Public Health, 624 N. Broadway, Suite 280, Baltimore, Maryland 21205, USA. (E-mail: dholtgrave@jhsph.edu)

Center devoted to HIV, STD, TB, and hepatitis prevention and control, and the budget document also reveals over \$64 million in other resources across other CDC organization units. These other HIV-specific activities include \$1.026 million for HIV/AIDS questions on the Behavioral Risk Factor Surveillance System; \$41.852 million for HIV-related School Health programs; \$3.423 million for HIV-related “Safe Motherhood” activities; \$0.448 million for HIV-related oral health work; and \$17.304 million in HIV-related hemophilia activities. Hence, the Center charged with HIV prevention at CDC has about \$652 million to work with in FY07, but CDC as an agency has a total of just more than \$716 million in domestic HIV-specific resources in FY07.

So, is the pool of resources shrinking or expanding over time? Recently, Holtgrave and Kates examined the correlation over time of CDC’s HIV prevention budget and HIV incidence in the U.S.⁷ They adjusted CDC’s budget for inflation by using the Consumer Price Index as calculated for each federal fiscal year. Included in their paper in tabular form was CDC’s HIV prevention budget for FY81 to FY06 expressed in nominal dollars (as allocated by Congress), real dollars (adjusted for inflation to FY83 dollars), and annual percentage changes in budget. Here, we update their CPI adjustment for FY06 (as new CPI data have since become available) and add FY07 nominal and real budgetary information (nominal values are described in the paragraph above); the nominal and real HIV prevention budgets through FY07 are shown graphically here in Figure 1.

It is immediately clear from Figure 1 that there is a contraction in the purchasing power of CDC’s HIV prevention budget. Before FY03, there had never been a budgetary decrease 2 years in a row, and only 3 years of decrease in total (however, many of the annual increases were clearly modest in real dollar terms and funding has been rather “flat” since the early 1990s). Now, FY07 marks the fifth year in a row that the CDC’s HIV prevention budget has shrunk in real dollar terms (and the fourth year in a row in nominal terms). The average annual decrease during the last five fiscal years has been 4.15%, and there has been a 19.3%

FIGURE 1. CDC’s HIV prevention budget by fiscal year in nominal (unadjusted) and real (inflation-adjusted, 1983) dollar terms.

decrease between FY02 and FY07. This figure is just slightly larger than CDC's adjustment for inflation between FY01 and FY07, which used a different inflation index that focuses on research activities. We also observe that the purchasing power of CDC's HIV prevention budget has not been this low since FY93.

It is troubling that in a time when the epidemic continues to progress in the U.S., nearly 1 in 5 federal HIV prevention dollars (in real dollar terms) has been taken away over a five-fiscal-year period. During this time frame, President Bush put forward several nominally "flat" budgets for domestic HIV prevention, but in FY07 included a proposal for a \$93 million increase in targeted voluntary counseling and testing (VCT) programs.⁸ This \$93 million Presidential proposal, however, was not passed by Congress. Still, CDC has indicated to Congress that it is attempting internally to identify \$45 million in additional resources for HIV testing in FY07.⁹ Whereas this is an encouraging sign, we have not yet included this amount in our analysis for the following reasons: (a) the source of this redirected \$45 million in CDC's budget has not yet been made public (i.e., which public health program is "paying for" this potential redirection is not clear); (b) the exact details of the possible uses for the \$45 million are not yet known; (c) at this point, it would appear that this potential redirection would be a one-time investment (not an ongoing Congressional appropriation).

It is worth noting that some of the nominal decrease between FY03 and FY04 reflects a new budget structure at CDC in which administrative and management costs at the agency level (purportedly in support of HIV/AIDS activities) were removed permanently from the HIV/AIDS budget and transferred to an administrative budget line.¹⁰

We might ask whether CDC's budget contraction is being compensated for by increases in prevention funds in the Minority AIDS Initiative (MAI; this Initiative began in FY99 as an urgent attempt by Congress to direct new monies toward HIV prevention, treatment, and related services in communities of color disproportionately impacted by the epidemic). Unfortunately, the Minority AIDS Initiative is not compensating for CDC's HIV/AIDS budget contraction. CDC's "share" of the Minority AIDS Initiative funds are already contained in CDC's budget (with the possible exception of a relatively small amount of MAI funding from the Secretary of Health and Human Services' Minority Communities Fund of approximately \$50 million, which can be allocated across the Department's agencies including CDC).¹¹ In fact, the Minority AIDS Initiative across the Department of Health and Human Services is now also contracting in real dollar terms (please see Figure 2, which graphs MAI funding levels obtained from the Kaiser Family Foundation and Congressional Research Service, and converts them to real dollar terms).^{10,11,12} There are also small amounts of HIV prevention resources in other federal agencies, but CDC and the Minority AIDS Initiative account for the bulk of the federal HIV prevention funding.

So what needs to be done to address the situation (at least in part)? If we begin with an FY07 estimated budget of \$716 million, an additional \$171 million would be needed simply to get back to the purchasing power of the FY02 budget (\$887 million in total); that would undo the damage of nominal dollar cuts, CDC's budget restructuring, and the effects of inflation.

The literature contains estimates of the cost of unmet HIV prevention needs in the U.S.¹³ Expressed here in FY07 dollars, it has been estimated that an additional \$434 million (above FY02 budget levels) would be needed each year for 4 years to provide HIV prevention services to those now unserved or underserved.¹³ This

FIGURE 2. Minority AIDS initiative budget by fiscal year in nominal (unadjusted) and real (inflation-adjusted, 1983) dollar terms.

means that to both address the contraction of the HIV prevention budget and provide resources to address unmet needs, CDC’s HIV prevention should be in the order of \$1.321 billion.

If such an investment were made it would be cost-saving to the U.S. as a society if it could avert 22,094 of the expected 160,000 new HIV infections over the next 4 years. This statement assumes that without the programmatic expansion the current 40,000 HIV infections per year might continue in the U.S.,¹⁴ and that the net present value of HIV treatment over a lifetime is \$239,253 (though the literature suggests it might be even higher than this value).^{15,16} Such a threshold would appear highly achievable.

In conclusion, we see that CDC’s new “heightened” response to HIV prevention in African American communities comes at a time when almost 1 dollar in 5 has been removed from HIV prevention efforts over the last 5 fiscal years (in real dollar terms). The reasons for this contraction would appear to be caused by a myriad of factors possibly including political will (and interest in abstinence-only programs), budget restructuring at CDC, HIV complacency, misperceptions of HIV prevention effectiveness, stigma, and discrimination; what the precise set of reasons might be could be the subject of lengthy and legitimate debate.

What is known with more certainty is that there appears to be an inverse correlational relationship between HIV prevention funding levels and HIV incidence,⁷ and therefore this budgetary contraction comes with public health peril. At least bringing the HIV prevention budget back to its FY02 real dollar value, and on top of that, addressing unmet HIV prevention needs are critical to truly bring down HIV incidence in the US and address health disparities in a highly impactful way. Sadly, at this moment, “heightened” appears to mean “lessened” in our national budgetary lexicon.

We believe that continued analyses of this type are needed to track inflation-adjusted trends in public health expenditures, elucidate estimates of unmet needs,

and utilize threshold analyses to set performance standards. Such ongoing analyses are needed not only in HIV/AIDS, but in all areas of public health.

ACKNOWLEDGMENTS

No financial support was provided for this project. The author declares no conflict of interest.

REFERENCES

1. Centers for Disease Control and Prevention. *HIV/AIDS Surveillance Report, 2005. Vol. 17*. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention; 2006.
2. Centers for Disease Control and Prevention. Racial/ethnic disparities in diagnoses of HIV/AIDS—33 States, 2001–2005. *Morb Mort Wkly Rep*. 2007;56(09):189–193.
3. Centers for Disease Control and Prevention. *A Heightened National Response to the HIV/AIDS Crisis Among African Americans*. CDC: Atlanta, Georgia, 2007.
4. Holtgrave DR, Thomas CW, Chen H, Edlavitch S, Pinkerton SD, Fleming P. HIV prevention community planning and communities of color: do resources track the epidemic? *AIDS Public Policy J*. 2000;15:75–81.
5. Valdiserri RO, Ogden LO, Janssen RS, Onorato I, Martin T. Aligning budget with U.S. national HIV prevention priorities. *J Public Health Manag Pract*. 2004;10:140–147.
6. Centers for Disease Control and Prevention. *FY2008 Budget Submission Detail Table*. CDC budget document. Available at: http://www.cdc.gov/fmo/PDFs/FY08_Functional_Table.pdf. Accessed March 5, 2007.
7. Holtgrave DR, Kates J. HIV incidence and CDC's HIV prevention budget: an exploratory correlational analysis. *Am J Prev Med*. 2007;32:63–67.
8. Holtgrave DR. The president's fiscal year 2007 initiative for human immunodeficiency virus counseling and testing expansion in the United States: a scenario analysis of its coverage, impact and cost-effectiveness. *J Public Health Manag Pract*. 2007;13:239–243.
9. Centers for Disease Control and Prevention. Memo on CDC's FY 2007 operating plan. Available at: http://www.cdc.gov/fmo/PDFs/JR_Communication_Summary.pdf. Accessed on May 10, 2007.
10. Congressional Research Service. *AIDS Funding for Federal Government Programs: FY1981–2008*. CRS Report for Congress, Updated March 8, 2007. Report Order Code RL30731.
11. Aragon R, Kates J. *The Minority AIDS Initiative*. Kaiser Family Foundation HIV/AIDS Policy Brief. June 2004.
12. Congressional Research Service. *AIDS Funding for Federal Government Programs: FY1981–2006*. CRS Report for Congress, Updated March 23, 2005. Report Order Code RL30731.
13. Holtgrave DR, Pinkerton SD, Merson M. Estimating the cost of unmet HIV prevention needs in the United States. *Am J Prev Med*. 2002;23:7–12.
14. Centers for Disease Control and Prevention. A glance at the HIV/AIDS epidemic. Worldwide web document released January 2007. Available at <http://www.cdc.gov/hiv/resources/factsheets/PDF/At-A-Glance.pdf>. Accessed on March 17, 2007.
15. Holtgrave DR, Pinkerton SD. Updates of cost of illness and quality of life estimates for use in economic evaluations of HIV prevention programs. *J Acquir Immune Defic Syndr Human Retrovirol*. 1997;16:54–62.
16. Schackman BR, Gebo KA, Walensky RP, et al. The lifetime cost of current human immunodeficiency virus care in the United States. *Med Care*. 2006;44:990–997.