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THE DOMESTIC EPIDEMIC IS WORSE THAN WE THOUGHT: A WAKE-UP CALL FOR HIV PREVENTION

HEARING

BEFORE THE

COMMITTEE ON OVERSIGHT AND GOVERNMENT REFORM

HOUSE OF REPRESENTATIVES

ONE HUNDRED TENTH CONGRESS

SECOND SESSION

SEPTEMBER 16, 2008

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THE DOMESTIC EPIDEMIC IS WORSE THAN WE THOUGHT: A WAKE-UP CALL FOR HIV PREVENTION

TUESDAY, SEPTEMBER 16, 2008

HOUSE OF REPRESENTATIVES,
COMMITTEE ON OVERSIGHT AND GOVERNMENT REFORM,
Washington, DC.

The committee met, pursuant to notice, at 10:08 a.m., in room 2154, Rayburn House Office Building, Hon. Henry A. Waxman (chairman of the committee) presiding.

Present: Representatives Waxman, Kucinich, Tierney, Watson, McCollum, Sarbanes, Speier, Davis of Virginia, Shays, and Turner.

Also present: Representative Waters.

Staff present: Caren Auchman and Ella Hoffman, press assistants; Jen Berenholz, deputy clerk; Zhongrui "JR" Deng, chief information officer; Miriam Edelman and Mitch Smiley, special assistants; Earley Green, chief clerk; Karen Lightfoot, communications director and senior policy advisor; Karen Nelson, health policy director; Leneal Scott, information systems manager; Naomi Seiler and Tim Westmoreland, counsels; Lawrence Halloran, minority staff director; Jennifer Safavian, minority chief counsel for oversight and investigations; Ellen Brown, minority legislative director and senior policy counsel; Jill Schmalz, minority counsel; Molly Boyl and Adam Fromm, minority professional staff members; and Brian McNicoll, minority communications director.

Chairman WAXMAN. The committee will come to order.

We are here today to discuss some alarming developments in the fight against HIV and AIDS in the United States.

The Centers for Disease Control and Prevention recently announced that the HIV epidemic in the United States is growing at a rate far greater than was previously thought. The new figures are a stark reminder that the HIV epidemic is far from over, and that we must take new and urgent steps to strengthen our national HIV prevention efforts.

The first cases of what later came to be identified as AIDS were reported in Los Angeles in 1981. Over the next 2 years, the case reports accumulated, and we learned that a distinct syndrome was being diagnosed in different populations all across the country. By the mid-1980's, there were an estimated 130,000 new infections every year in the United States.

As infections increased, so did our investment in HIV prevention efforts. Even before the virus called HIV was identified as the cause of AIDS, CDC experts had figured out the transmission

routes and issued early recommendations for the prevention of infection. The Federal Government started investing significant amounts of funding in prevention and education efforts nationwide.

These investments paid off, and the infection rate dropped dramatically, but this is a job that is never done. This was recently demonstrated in dramatic fashion when CDC reported that the real infection rate is much higher than we thought. Over the past 10 years, CDC's official estimate for annual new infections have been about 40,000, but last month CDC announced that, in fact, there were over 56,000 new HIV infections in 2006. The higher figure was due to improved counting methods, not to an actual jump in infections, but it tells us that the epidemic in the United States is and has been growing faster than we had thought.

The message these new findings send is clear: We are not doing enough to limit the spread of this deadly disease.

What is more, we are still seeing severe disparities in HIV's impact on different populations. Men who have sex with men constitute 57 percent of new infections. Blacks, who make up about 12 percent of the total population, account for 45 percent of new HIV infections. Hispanics are also disproportionately affected.

Part of the problem is that the Federal Government has not been doing enough for HIV prevention in the United States. In adjusted dollars, the CDC's HIV prevention budget has dropped more than 20 percent since 2002. This year the administration actually asked for a $1 million decrease in HIV funds. This didn't make sense to me, so I asked the Centers for Disease Control to prepare a budget that reflects not what the White House wanted, but rather the agency's professional scientific judgment of what it would take to fully implement effective HIV prevention in the United States.

As we will hear today, the administration asked for less than half of what CDC's scientific professionals estimate is necessary for effective HIV prevention. Instead of listening to its own experts, the administration requested that Congress fund HIV prevention programs at far lower levels.

What is even more senseless is that by underfunding prevention, the Nation will incur greater treatment costs down the road. It is indisputable that evidence-based HIV prevention saves money in addition to saving lives by avoiding the high cost of medical care and lost productivity. But on this issue the administration apparently prefers to be penny wise and pound foolish.

We are here today to learn from some of our Nation's top HIV prevention experts what a truly robust national HIV prevention program would look like. We will hear from leaders at CDC and NIH about how they are attempting to roll out effective programs and research potential new ones. We will discuss barriers to evidence-based HIV prevention, like the Federal needle exchange ban and this administration's stubborn and irrational focus on abstinence-only programs. And because HIV infections don't occur in a vacuum, we will hear recommendations from all of our witnesses on how the Federal HIV prevention response should address the societal factors that contribute to risk, including poverty, homelessness, racial and gender inequality, homophobia, and stigma related to HIV status.

I look forward to a constructive discussion of these questions today, but one point should be clear from the outset: The status quo simply isn't acceptable. We undermine public health, betray some of America's most vulnerable citizens, and allow the further spread of a deadly and still incurable disease by failing to invest in proven prevention methods. We aren't doing everything we can and should, and I hope this hearing will be the first step in returning the necessary spotlight, resources, and political will to HIV prevention efforts in the United States.

[The prepared statement of Chairman Henry A. Waxman follows:]

Opening Statement of Rep. Henry A. Waxman
Chairman, Committee on Oversight and Government Reform
The Domestic Epidemic is Worse Than We Thought:
A Wake-Up Call for HIV Prevention
September 16, 2008

We're here today to discuss some alarming developments in the fight against HIV and AIDS in the United States.

The Centers for Disease Control and Prevention recently announced that the HIV epidemic in the U.S. is growing at a rate far greater than was previously thought. The new figures are a stark reminder that the HIV epidemic is far from over, and that we must take new and urgent steps to strengthen our national HIV prevention efforts.

The first cases of what later came to be identified as AIDS were reported in Los Angeles in 1981. Over the next two years, the case reports accumulated, and we learned that a distinct syndrome was being diagnosed in different populations all across the country. By the mid-1980s, there were an estimated 130,000 new infections every year in the United States.

As infections increased, so did our investment in HIV prevention efforts. Even before the virus called HIV was identified as the cause of AIDS, CDC's experts had figured out the transmission routes and issued early recommendations for the prevention of infection. The federal government started investing significant amounts of funding in prevention and education efforts nationwide.

These investments paid off, and the infection rate dropped dramatically.

But this is a job that is never done. This was recently demonstrated in dramatic fashion when CDC reported that the real infection rate is much higher than we thought.

Over the past ten years, CDC's official estimate for annual new infections has been about 40,000. But last month, CDC announced that in fact there were over 56,000 new HIV infections in 2006.

The higher figure was due to improved counting methods, not to an actual jump in infections. But it tells us that the epidemic in the United States is — and has been — growing faster than we had thought.

The message these new findings send is clear: we're not doing enough to limit the spread of this deadly disease.

What's more, we're still seeing severe disparities in HIV's impact on different populations. Men who have sex with men constitute 57% of new infections. Blacks, who make up about 12% of the total population, account for 45% of new HIV infections. Hispanics are also disproportionately affected.

Part of the problem is that the federal government has not been doing enough for HIV prevention in the United States. In adjusted dollars, the CDC's HIV prevention budget has dropped more than 20% since 2002. This year, the Administration actually asked for a million-dollar decrease in HIV funds.

This didn't make sense to me. So I asked CDC to prepare a budget that reflects not what the White House wanted but rather the agency's professional scientific judgment of what it would take to fully implement effective HIV prevention in the United States.

As we will hear today, the Administration asked for less than half of what the CDC's scientific professionals estimate is necessary for effective HIV prevention. Instead of listening to its own experts, the Administration requested that Congress fund HIV prevention programs at far lower levels.

What's even more senseless is that by underfunding prevention, the nation will incur greater treatment costs down the road. It is indisputable that evidence-based HIV prevention saves money in addition to saving lives by avoiding the high costs of medical care and lost productivity. But on this issue, the Administration apparently prefers to be penny-wise and pound-foolish.

We're here today to learn from some of the nation's top HIV prevention experts what a truly robust national HIV prevention program would look like. We will hear from leaders at CDC and NIH about how they are attempting to roll out effective programs and research potential new ones.

We will discuss barriers to evidence-based HIV prevention, like the federal needle exchange ban and this Administration's stubborn and irrational focus on abstinence-only programs. And because HIV infections don't occur in a vacuum, we will hear recommendations from all of our witnesses on how the federal HIV prevention response should address societal factors that contribute to risk, including poverty, homelessness, racial and gender inequality, homophobia, and stigma related to HIV status.

I look forward to a constructive discussion of these questions today.

But one point should be clear from the outset: the status quo simply isn't acceptable. We undermine public health and betray some of America's most vulnerable citizens — and allow the further spread of a deadly and still-incurable disease — by failing to invest in proven prevention methods.

We aren't doing everything we can and should, and I hope this hearing will be the first step in returning the necessary spotlight, resources, and political will to HIV prevention efforts in the United States.

Chairman WAXMAN. Before recognizing our very distinguished panel of witnesses, I want to recognize the gentleman from Ohio Mr. Turner for an opening statement.

Mr. TURNER. Thank you, Mr. Chairman. Thank you for holding this hearing to examine new data on the incidence of HIV infection on the United States. We appreciate your longstanding dedication to public health issues and your abiding commitment to meet the many challenges posed by the AIDS epidemic.

Using a more sensitive surveillance tool, the Centers for Disease Control found 56,300 new HIV infections in 2006. That is a 40 percent higher incidence than previous estimates. The upward adjustment does not reflect an acceleration of the epidemic, but a more precise capability to establish between recent and longer-term infections. So it still appears the epidemic has, in fact, plateaued in terms of new infections per year over the last decade, but at a markedly higher rate than we thought.

With this new knowledge about the path and the scope of the epidemic, public health officials can better target efforts to prevent the spread of the virus that causes AIDS. How to bring those prevention tools to at-risk groups has always been a challenge at every level. This more accurate data should inject a renewed sense of urgency into the Federal, State, local, and private-sector partnerships working to stop the spread of HIV. But behind the figures lurks one deadly fact: No prevention strategy works on a person who doesn't know he or she is infected.

At any given time, it is estimated fully 25 percent of Americans carrying HIV have not been diagnosed. They are far more likely to engage in high-risk behaviors that expose still others to the silent infection. Breaking that silence, research has proven, the power of information is a barrier against the virus.

Once diagnosed and properly counseled, HIV-infected individuals are significantly less likely to engage in behaviors that put others at risk. That leaves public health officials to confront the hard questions: Who should be offered testing? How often? And who pays for any broader HIV screening that might detect latent or unknown infections?

HIV/AIDS is not curable, but it is treatable. With the tools at our disposal, we need not consign thousands of our fellow citizens each year to the devastation of preventable HIV infection.

Since its outbreak, the United States has played a leading role in research and treatment of HIV and AIDS. One of the witnesses today, Anthony Fauci, is a recognized leader in unlocking the lethal mechanisms by which the virus attacks the immune system.

This is an important hearing about the implications of this new CDC data for public health officials and public policymakers. Mr. Chairman, I appreciate your attention to this issue.

Chairman WAXMAN. Thank you very much, Mr. Turner.

[The prepared statement of Hon. Tom Davis follows:]

HENRY A. WAXMAN, CALIFORNIA
CHAIRMAN

TOM DAVIS, VIRGINIA
RANKING MINORITY MEMBER

ONE HUNDRED TENTH CONGRESS
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Statement of Rep. Tom Davis
Ranking Republican Member
Committee on Oversight and Government Reform
"The Domestic Epidemic is Worse than We Thought: A Wake-Up Call for HIV Prevention"
September 16, 2008

Thank you Chairman Waxman for holding this hearing to examine new data on the incidence of HIV infection in the United States. We appreciate your longstanding dedication to public health issues, and your abiding commitment to meet the many challenges posed by the AIDS epidemic.

Using a more sensitive surveillance tool, the Centers for Disease Control (CDC) found 56,300 new HIV infections in 2006. That's a forty percent higher incidence than previous estimates. The upward adjustment does not reflect an acceleration of the epidemic, but a more precise capability to distinguish between recent and longer term infections. So it still appears the epidemic has in fact plateaued in terms of new infections per year over the last decade, but at a markedly higher rate than we thought.

With this new knowledge about the path and scope of the epidemic, public heath officials can better target efforts to prevent the spread of the virus that causes AIDS. In fact, we do know how to prevent HIV transmission. Abstinence, safer sex practices, not sharing needles, and proper medical treatment of pregnant women who are HIV-positive can effectively block the most common infection pathways. How to bring those prevention tools to at-risk groups has always been a challenge at every level. This more accurate data should inject a renewed sense of urgency into the federal, state, local and private sector partnerships working to stop the spread of HIV.

But behind the figures lurks one deadly fact: No prevention strategy works on a person who doesn't know he or she is infected. At any given time, it's estimated fully twenty-five percent of Americans carrying HIV have not been diagnosed. They are far more likely to engage in the high-risk behaviors that expose still others to silent infection. Breaking that silence, research has proven the power of information as a barrier against the virus. Once diagnosed and properly counseled, HIV-infected individuals are significantly less likely to engage in behaviors that put others at risk. That leaves public health officials to confront the hard questions: Who should be offered testing? How often? And who pays for any broader HIV screening that might detect latent or unknown infections?

HIV/AIDS is not curable, but it is treatable. With the tools at our disposal, we need not consign thousands of our fellow citizens each year to the devastation of preventable HIV infection. Since its outbreak, the United States has played a leading role in research and treatment of HIV and AIDS. One of our witnesses today, Dr. Anthony Fauci, is a recognized leader in unlocking the lethal mechanisms by which the virus attacks the immune system. I look forward to hearing from him, and all of today's witnesses, about the implications of this new CDC data for public health officials and public policy makers.

Chairman WAXMAN. For our first panel, we are pleased to have Dr. Julie Gerberding, who has been the Director of the Centers for Disease Control and Prevention since 2002. In this role she has led the CDC in its mission of health promotion and disease prevention in the United States and abroad.

Dr. Gerberding has contributed to numerous peer-reviewed publications and textbook chapters, and to guidelines and policies on a range of health issues, including HIV prevention. She has served on Federal and non-Federal advisory councils, including the CDC's HIV Advisory Committee, and teaches infectious disease medicine at both Emory University and the University of California at San Francisco.

We want to welcome you back to the committee, Dr. Gerberding, and we are pleased that you are here, coming right from Texas where you have been trying to deal with the tragic consequences of the hurricane.

Dr. Gerberding is accompanied by Dr. Kevin Fenton, who, since 2005, has served as the Director of CDC's National Center for HIV/AIDS, Viral Hepatitis, STD and TB Prevention. He leads the U.S. Government's HIV surveillance and prevention efforts, interacting with State and local agencies, community organizations and researchers nationwide. Dr. Fenton has worked in HIV research, epidemiology and prevention since 1995, including as Director of the HIV and Sexually Transmitted Infections Department at the United Kingdom's Health Protection Agency.

Dr. Anthony S. Fauci has served as the Director of the National Institute of Allergy and Infectious Diseases at the National Institutes of Health since 1984. He oversees a broad range of research on the prevention, diagnosis, and treatment of infectious diseases, including HIV/AIDS. He continues to conduct his own research on immune-mediated and infectious disease, and has contributed to over 1,000 scientific publications.

Dr. Fauci served as one of the key advisors to the White House and the Department of Health and Human Services on AIDS issues, and is a member of The National Academy of Sciences, the American Academy of Arts and Sciences, and the Institute of Medicine. Dr. Fauci has testified on numerous occasions before this committee and other committees that I chaired in the Congress since the early 1980's.

And we are happy to have you here as well.

Dr. Fauci is accompanied by Dr. Thomas Insel, the Director of the National Institute for Mental Health at NIH. In that role Dr. Insel oversees the agency's research on behavioral prevention methods for HIV.

We are pleased that all of you are here today. It is the practice of this committee that all witnesses who testify before us do so under oath. So if you would please rise and raise your right hands.

[Witnesses sworn.]

Chairman WAXMAN. Your prepared statements will be in the record in full. We would like to ask each of you to make your oral presentation in around 5 minutes. We will have a clock that will allow you to see when the 5 minutes is up. It will be green for 4 minutes, yellow for 1 minute, red when the 5 minutes has passed. And we won't be strict on it, but we would like that to be a guide,

so that when you see the red light, since we have many witnesses yet to come, we would like to ask you to try to reach your conclusion so that we can ask questions and hear from the other witnesses as well.

Dr. Gerberding, we are pleased to have you.

STATEMENTS OF JULIE GERBERDING, DIRECTOR, CENTERS FOR DISEASE CONTROL AND PREVENTION, ACCOMPANIED BY KEVIN FENTON, DIRECTOR, NATIONAL CENTER FOR HIV/AIDS, VIRAL HEPATITIS, STD AND TB PREVENTION, CENTERS FOR DISEASE CONTROL AND PREVENTION; AND ANTHONY S. FAUCI, DIRECTOR, NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASE, NATIONAL INSTITUTES OF HEALTH, ACCOMPANIED BY THOMAS INSEL, DIRECTOR, NATIONAL INSTITUTE FOR MENTAL HEALTH, NATIONAL INSTITUTES OF HEALTH

STATEMENT OF JULIE GERBERDING

Dr. GERBERDING. Thank you very much.

I would like to start with my first slide, which is a reflection on Ike striking in Galveston. I did visit the hurricane territory yesterday, and for the record I would like to acknowledge the tremendous effort of State health commissioner Dr. Lehi and the whole pantheon of experts in public health across the State that are performing miracles.

I think we all recognize that hurricanes represent urgent public health threats, and when people recognize an urgent threat, they hold nothing back in responding to it. Unfortunately, on the next slide we have another urgency, and that is the urgent reality of HIV/AIDS in America. Last month I spent 2 weeks at San Francisco General Hospital taking care of patients, and on my service I had two undiagnosed AIDS patients die; I had several individuals come in with the opportunistic infections that we started seeing in 1981 when I was an intern. And in that community, we learned that there is an epicenter of HIV transmission among men who have sex with men, and particularly among African Americans.

Similarly, I visited Oakland earlier this year, and found to my astonishment—and found an even grimmer situation in terms of HIV transmission in that community.

On my next graphic I tried to represent the progress that we have made despite these current situations. And we are currently proposing federally a $24.1 billion HIV budget for all AIDS-related activities at the Federal level. Of that, 4 percent is reflected in CDC's prevention budget. And I think over time we have had some good news. We are definitely seeing people live longer with HIV, and many are thriving despite the complications of the drug treatment and everything else that having a chronic illness represents.

In addition, we have made tremendous progress in perinatal AIDS, in reducing the incidence among injection drug users and among heterosexuals at high risk.

We have also seen the rate of transmission decline over time. That means for every 100 HIV-infected individuals, the number of new people that they infect has continued to drop precipitously since the early phases of the epidemic.

And, finally, I think studies do show that prevention interventions can work. We have evidence of efficacy in at least 49 behavioral interventions, and several others are on the docket for coming forward.

Let me just quickly show you the pictures of what these statistics look like. The red line here is the number of people in America living with HIV, and the blue line are the number of new cases that were reported that precipitated this hearing. And you can see that although the number of people with HIV in our country continues to increase, the number of new infections is holding steady over the past several years and declining as the large picture in the United States; meaning that our interventions are successful, or we would see that blue line go up commensurate with the red line.

On the next graphic, you can see the picture of perinatal transmission, again, evidence that prevention can work.

On the next graphic, the picture of what is happening recently among people at high-risk heterosexual contact. And I could repeat that for injection drug users and others.

But on the next graphic we have the sobering statistic that is my frame for the urgent reality that we are facing, and this is the incidence rates going up among men who have sex with men in the United States.

On the next graphic I show some statistics that were released last week which really reflect a detailed understanding of the epidemiology of this risk, showing that while overall the majority of men who have sex with men and get HIV infection are White, there is disproportionate representation of African Americans, and particularly young African Americans and Hispanics. They are represented here way out of proportion to their prevalence in society.

And on the next graphic we have the rates of HIV infection which use as the denominator the number of people in our society in those categories. So you can see that African Americans have an infection rates that is about seven times that of Whites, and Hispanics have a rate that is about three times that of Whites across America.

So this is very serious information, and it tells us where we need to target our prevention interventions.

So let me conclude by telling you what I think are the priorities for those prevention interventions. We have submitted a long professional judgment. We have tried to put everything in there we could think of. We understand the reality of the budget, but we wanted you to know what the universe of possibility might be. So on the first slide, I am trying to summarize some of those interventions that relate to finding the leading edge of the epidemic.

The information we just published is the first time we have ever been able to say in real terms, where is the infection now, and how bad is it going, and who is getting it? So we need to expand our ability to do that so that we have that information at the community level and can target those interventions that do work for those individuals.

We also need to integrate services. It is great that we have representatives from mental health, substance abuse, and a broad continuum, because there is a syndemic of these factors that come together in the concept of social justice and in social determinants of

health that we have to address if we are going to be successful here. And we need to conduct not just individual interventions, but social marketing campaigns.

On the next graphic I am emphasizing the importance of finding the people who are infected. This is Epidemiology 101, but it is something that we still haven't been able to do successfully in this disease. Twenty-five percent of infected people still don't know they have the virus. So we need to expand access to rapid testing. And, in particular, our Federal facilities need to move to support the CDC guidelines and allow screening for HIV, using the protocols that we have recommended for the routine screening. We also need to have better tests, and we need to focus those tests on finding people early, hopefully as they are seroconverting, because that is the time when they pose the biggest transmission risk, and we are missing them, and they are highly infectious, and they account for a disproportionate part of the epidemic.

Now, my last graphic, I mentioned those aspects that relate to the need for new tools. We don't have all the answers here. I wish we did. We have been working on it, but our research budget hasn't really allowed us to update and modernize our toolkit.

One area in particular, given the difficulties we are having with the vaccine, are the preexposure treatment trials to determine whether or not taking HIV drugs before you are exposed could result in an overall health benefit and a reduced risk of infection. CDC is conducting three of those studies and are collaborating on a fourth, and I know NIH is doing one, too, as well. So we are hoping that could put a new biomedical toolkit or two in our toolbox while we are working on some of these other measures that we think are important.

I just want to make one final point here. AIDS is a social disease as much as it is a viral disease, and part of bringing people to accept prevention is to create that expectation in an environment of hope. Many of the people who are getting this infection now are functioning in a society that offers them very little hope for education, economic, or social attainment, and if we don't address the underpinnings of the problem, we are never going to be able to get where we need to be as a Nation.

So thank you for allowing me to explode with a lot of information in a very short period of time. But we are very, very passionate about this and very committed to this issue.

Chairman WAXMAN. Thank you. It is very helpful information.

[The prepared statement of Dr. Gerberding follows:]

Testimony
Before the Oversight and Government Reform Committee
United States House of Representatives

HIV/AIDS in the United States: A Look Back and a Look Forward

Statement of
Julie L. Gerberding, M.D., M.P.H.
Director
Centers for Disease Control and Prevention
U.S. Department of Health and Human Services

For Release on Delivery
Expected at 10:00 am
September 16, 2008

Introduction:

Good morning Mr. Chairman and Members of the Subcommittee. I am Dr. Julie Louise Gerberding, Director of the Centers for Disease Control and Prevention within the Department of Health and Human Services (HHS). I am accompanied by Dr. Kevin Fenton, Director of CDC's National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention. Thank you for the opportunity to discuss the 2006 estimates of HIV incidence for the United States and the status of the domestic HIV/AIDS epidemic.

CDC has always taken very seriously its responsibility to monitor the HIV/AIDS epidemic and to constantly improve our nation's ability to describe the leading edge of the epidemic. Recent surveillance data indicate that, more than 25 years into the epidemic, HIV continues to exact a tremendous toll here in the United States. CDC maintains a comprehensive HIV/AIDS surveillance system that monitors many aspects of the epidemic including incidence of new HIV infections, HIV and AIDS diagnoses, risk behaviors associated with HIV, and deaths among persons with AIDS. All of these components work together to provide the most complete profile of the epidemic that our country has ever had.

To provide context for the new incidence numbers, it might be helpful to differentiate between the various types of surveillance data CDC collects and their utility in HIV prevention. As of 2008, all state and local health departments report HIV and AIDS diagnoses to CDC. This includes all 50 states, the District of Columbia, and 5 US dependent areas, including Puerto Rico. CDC uses reported HIV/AIDS cases to estimate the number of unduplicated HIV and AIDS cases that are diagnosed in a given year. Only states that have been conducting name-based HIV surveillance for

at least 4 years are included in the estimates for HIV cases to allow for reporting adjustments and stabilization of the data. At present, 33 states and the 5 U.S. dependent areas are included in these estimates. This number will increase steadily in each coming years, and by 2013, data from all 50 states will be available. In 2006, nearly 39,000 estimated cases of HIV infection were identified in the 33 states and 5 US dependent areas with mature confidential name-based HIV reporting. This represents the number of persons who learned they were infected that year and were newly known to be in need of HIV-related medical care and prevention programs to reduce their risk of transmitting HIV and to contact partners who may have been unknowingly exposed to HIV. As such, estimated HIV diagnoses are essential for planning HIV treatment and prevention programs, resource allocation, and program evaluation.

Estimated AIDS cases and AIDS-related deaths are also critical types of surveillance data because they represent the most severe outcomes of HIV disease and are indicators of missed opportunities. In 2006, in states and areas with mature confidential name-based HIV reporting systems, 38% of persons with HIV were diagnosed with AIDS within a year of learning that they have HIV. Persons who progress to AIDS have likely been infected for years, meaning that critical opportunities to diagnose HIV early, prevent transmission to others, and provide HIV-infected persons with antiretroviral treatments have been missed. Across the country, more than 14,000 persons with AIDS died in 2006. We know that existing HIV treatments, when started sufficiently early in the course of the disease dramatically slow progression to AIDS and death. These AIDS cases and deaths should not be happening in this country at this rate.

As important as these data are, they have not allowed us to track the epidemic in real-time because some individuals are not diagnosed with HIV or AIDS until years after they became infected. Our new incidence estimates give us that information—by estimating the number of individuals who become newly infected in a given year. As you are aware, CDC recently reported 2006 incidence estimates from this surveillance system in the *Journal of the American Medical Association*. These more precise estimates are possible only because of breakthrough technology developed by CDC that can distinguish recent from long-standing HIV infections.

CDC worked for years with state and local health departments to plan, establish and evaluate this critical surveillance system, and we consider the publication of these estimates to be a sentinel event in the course of the HIV/AIDS epidemic for two reasons: (1) this is the first national surveillance system of its kind in the world and is based on direct measurement of new HIV infections; and (2) we now have much more direct information about the leading edge of the epidemic, which will allow us to better target our efforts to reduce the unacceptable burden of HIV/AIDS in this country.

Status of the epidemic: Incidence

The estimates from our nation's new HIV incidence surveillance system reveal that the U.S. epidemic is and has been worse than previously estimated. Using the new approach called Serological Testing Algorithm for Recent HIV Seroconversion (STARHS) that distinguishes recent from longstanding HIV infections, CDC estimates that 56,300 new HIV infections occurred in the United States in 2006. Prior to the availability of STARHS, CDC estimated that approximately 40,000 new HIV infections occurred annually since the 1990s.

It is important to note that the 2006 estimate does not represent an actual increase in the annual number of new infections; rather, a separate CDC historical trend analysis published alongside the incidence estimate suggests that the number of new HIV infections was never as low as 40,000 and has been roughly stable since the early 2000s. Even though the analysis shows overall stability in new HIV infections in recent years, the HIV/AIDS epidemic remains at an unacceptably high level and has been steadily increasing among men who have sex with men (MSM). Taking a closer look at the 2006 HIV incidence estimates, we see that:

Seventy-three percent (73%) of new HIV infections were among men. Even though many heterosexual men are affected by HIV, most of the infections in men occur in gay and bisexual men. In 2006, MSM represented 53% of all new HIV infections. Historical trend analyses indicate that HIV incidence has been steadily increasing among gay and bisexual men since the early 1990s (see Figure 1), confirming a trend suggested by prior data showing increases in risk behavior, sexually transmitted diseases, and HIV diagnoses in this population throughout the past decade.

New CDC data released last week show that there are differences by race in the ages at which MSM become infected. Young MSM of color are of particular concern. Among black and Latino MSM, those ages 13-29 had the most new HIV infections, accounting for 52% of new infections among black MSM and 43% of new infections among Latino MSM. Among all MSM, black MSM ages 13-29 had the largest number of new infections (Figure 2). Among white MSM, those ages 30-39 had the most new HIV infections, accounting for 35% of new infections among white MSM. The new data reinforce that another group disproportionately affected by HIV is African Americans. Although blacks constitute only 13% of the U.S. population, 45% of new HIV

infections were among blacks. While the number is alarmingly high, historical trend analyses show the number of infections among blacks has been roughly stable, with some fluctuations, since the early 1990s. However, blacks are more severely affected by HIV and AIDS than any other racial or ethnic group in the United States, with an HIV incidence rate that is 7 times higher than whites and almost 3 times higher than Latinos (Figure 3). The new analysis shows that among African Americans, men account for the majority of new infections and women are disproportionately affected compared to women of other races and ethnicities. Sixty-four percent of infections among African Americans were in men, and of those, 62% were among MSM. Thirty-five percent of infections among African Americans were in women. Eighty-three percent of those infections occurred through high-risk heterosexual contact.

Latinos are also disproportionately affected, and had rates of new HIV infections that were 3 times higher than rates among whites. Latinos account for 17% of new HIV infections, but constitute only 13% of the US population. Seventy-six percent of new HIV infections among Latinos were in men, and of those, 72% were in MSM. Twenty-four percent of new infections among Latinos were in women. Eighty-two percent of those infections occurred through high-risk heterosexual contact. Overall, these data clearly show that levels of HIV infection in the U.S. are too high—and we cannot allow the HIV epidemic in this country to continue at this rate. (See Figures 1-3)

HIV is still a problem in the U.S.: Prevention works—but challenges exist

The new HIV incidence estimate clearly shows that HIV infection is taking a greater toll on the lives of Americans than was previously known. A large number of research studies and multiple independent reviews show that prevention works, but too many people who are living with HIV or

are at-risk for HIV infection are not being reached by prevention programs. For example, 25% of people living with HIV/AIDS in the U.S. are unaware of their infection. These persons are believed to unknowingly account for more than half of new HIV infections in the United States.

The new estimates underscore the continued challenges facing HIV prevention programs but reveal some encouraging signs of success. For example, reductions in new infections among injecting drug users and heterosexuals are important signs of progress. Between 1988-1990 and 2003-2006, new HIV infections among injection drug users (IDUs) declined overall by 80 percent, and HIV infections among heterosexuals have been declining in recent years. Additionally, dramatic decreases in mother-to-child HIV transmission are one of the great success stories of HIV prevention. The number of perinatally infected infants with AIDS has declined more than 95% since the mid-1990s. This decline is due to multiple interventions, such as routine voluntary HIV testing of pregnant women and the use of antiretroviral therapy by HIV-infected women during pregnancy and infants after birth.

The much-welcomed success of HIV treatments means that an increasing number of people are living with HIV than ever before. CDC currently estimates that 1- 1.2 million people are living with HIV/AIDS in the United States. Although this large number of people living with HIV means that there are more opportunities for HIV transmission to occur, the overall number of new HIV infections has remained relatively stable in this decade.

In fact, a new analysis conducted by researchers at Johns Hopkins University and CDC show that the rate of HIV transmission, that is, the number of new infections each year for every 100 persons

living with HIV, has declined significantly. In 1984, the year before HIV testing became widely available, there were approximately 44 new HIV infections for every 100 people living with HIV. This rate has declined by 89% to approximately 5 new HIV infections per 100 people living with HIV in 2006. Looking at a more recent period, from 1997 to 2006, the rate of HIV transmission declined by approximately one-third. These declines represent the significant success of our public health efforts to identify HIV infection early through voluntary HIV testing, linking persons who test positive to medical care and prevention services, and the provision of prevention programs to persons who are at-risk of contracting HIV.

Many persons at risk are not being reached by HIV prevention efforts. Recent data indicate that in the past year, 80% of MSM have not been reached by the intensive interventions we know to be effective. This illustrates some of the myriad challenges to preventing the spread of this disease—reaching new generations, adapting to the evolving epidemic, and sustaining efforts for at-risk persons and those living with HIV as they age. Perceptions of HIV risk and treatment options have changed over time, and prevention barriers such as complacency, stigma, homophobia, and substance abuse allow this disease to continue to spread.

For example, although HIV has been a threat for more than 25 years, many people who are at risk believe they are at low risk of becoming infected or infecting their partner. Antiretroviral treatment success contributes to these beliefs. For example, some individuals may mistakenly believe that they or their partners cannot spread the virus when they take HIV medication or that having HIV is a relatively minor condition with no life-threatening consequences. They may not fully understand

the lifelong implications of HIV infection and, as a result, underestimate the serious impact that this disease continues to have on the health and wellbeing of persons living with HIV.

The HIV epidemic exists within a backdrop of other epidemics and social problems that interact synergistically to increase an individual's risk for HIV infection and make it difficult to obtain high-quality health care that includes appropriate antiretroviral treatments if an individual becomes infected. This context includes other sexually transmitted infections, substance abuse, poor mental health, physical and sexual assault, homelessness, destabilization of relationships due to incarceration, poverty, racism, homophobia, and the stigma, discrimination, and secrecy that often surround HIV and AIDS. For example, methamphetamine use is associated with significantly increased risk of HIV transmission and acquisition, and other sexually transmitted infections increase both infectivity and susceptibility to HIV infection. These coexisting health and social problems continue to exacerbate the challenges associated with stopping the spread of HIV in this country. Overall, the new incidence estimates underscore the need for accelerated progress and a greater resolve among all Americans for HIV prevention.

Despite the inherent challenges, we have considerable evidence that prevention works. As mentioned above, we have seen substantial declines in HIV infections among injection drug users, heterosexuals, mother-to-child transmission, and in the overall rate of HIV transmission. An overwhelming number of published studies and multiple independent reviews have also documented that prevention works. CDC's HIV/AIDS Prevention Research Synthesis (PRS) Project, through its ongoing efficacy review process, identifies evidence-based HIV behavioral interventions to help HIV prevention planners and providers in the U.S. select interventions most

appropriate for their communities. In 2007, CDC published an update to the *Compendium of HIV Prevention Interventions* with evidence of effectiveness, in response to prevention service providers requesting science-based interventions that work. The 49 interventions in the *Compendium* have been proven effective through research studies that showed positive behavioral and/or disease outcomes. Studies employed rigorous research designs, with both intervention and control groups, so that the positive outcomes could be attributed to the interventions. We expect the next update of the *Compendium* to be available in December 2008.

CDC has worked with the researchers to create user-friendly kits that contain the information and materials necessary to implement each intervention. CDC currently supports training and dissemination on 16 of these interventions and is working to increase this number substantially. The dissemination of effective interventions related to effective HIV prevention is a critical part of prevention for populations at risk for HIV.

What CDC is Doing to Address the Epidemic

CDC is firmly committed to achieving the greatest public health impact and supports a wide range of science-based activities to monitor the course of HIV/AIDS in the United States, expand the reach of HIV testing, increase the number of effective HIV prevention programs for persons living with HIV and those who are at-risk for HIV infection, and assess the impact of these efforts. For example, CDC is working in a number of different ways to reduce the number of infected Americans who do not know their HIV status. CDC has provided over $70 million in additional dollars this year and last to increase testing in areas with the highest number of AIDS cases among African Americans. Grantees from these jurisdictions will be meeting in Atlanta in the fall to

discuss their successes in implementing this program as well as challenges of providing routine testing and to report preliminary outcome data. Additionally, CDC recommended in 2006 that all Americans between the ages of 13 and 64 receive voluntary screening for HIV, and we are working with key stakeholders to increase the implementation of these recommendations. CDC is conducting evaluation projects to assess which testing strategies are most effective and cost effective in reaching African American women and men who have undiagnosed HIV infection. Our state and local health departments are key partners in our HIV prevention efforts and are the recipients of the majority of CDC's HIV funding. We will continue to work with state and local health departments to ensure that the allocation of resources matches the local epidemics and provide health departments with resources that can strengthen their prevention programs. For example, given the data regarding increasing HIV infection among MSM, CDC is providing more than $4 million this year to health departments to reassess and strengthen evidence-based prevention efforts specifically for gay and bisexual men.

CDC is also working to increase the number of behavioral interventions with proven effectiveness, specifically for populations that are disproportionately affected by the HIV epidemic. We are conducting research to develop new behavioral interventions for communities hardest hit by the epidemic and expanding training and technical assistance on effective interventions. This year CDC will begin providing training and technical assistance to local health departments and community-based organizations on 9 new behavioral interventions that have been scientifically proven to reduce HIV risk behavior. One of these interventions, *D-Up!*, a community-level intervention designed for and developed by black MSM, has been shown to reduce the number of risky sex partners and rates of high-risk sex. Starting later this year, CDC will provide training on

this intervention to more than 200 organizations. Another intervention is Modelo de Intervención Psicomédica (MIP), which was developed and tested in Puerto Rico in Spanish to reduce risk among injection drug users. CDC also distributed 700 copies of *Safe in the City*, a 23-minute educational video that has been proven effective in reducing new sexually transmitted diseases (STDs) among STD clinic patients.

Additionally, CDC is working to develop and widely implement social marketing campaigns designed to increase knowledge of HIV status and promote HIV risk reduction. One of these campaigns, *Take Charge, Take the Test,* is for African American women and has been shown to increase HIV testing and the identification of new cases of HIV infection. A multi-million dollar social marketing campaign aimed at increasing HIV testing among gay and bisexual men is being developed, and planning for other campaigns is underway. CDC is also looking for new ways to address the burden of HIV among youth. *¡Cuídate!* (Take Care of Yourself) is a small-group, culturally based intervention to reduce HIV sexual risk among Latino youth that is currently being readied for nationwide dissemination by CDC. Through the use of role plays, videos, music, and interactive games, *¡Cuídate!* builds on HIV knowledge, an understanding of sexually active youth's vulnerability to HIV infection, attitudes and beliefs that promote healthy behaviors, and promotes abstinence and risk reduction.

In addition, CDC is funding groundbreaking clinical trials and laboratory research to develop effective biomedical interventions to reduce HIV transmission. This is an important area of research, particularly for preventing HIV infection among women. CDC is currently conducting laboratory, safety, and efficacy trials of pre-exposure prophylaxis or PrEP, which involves the use

of antiretroviral drugs by uninfected persons in order to prevent new HIV infections. Research suggests that PrEP is one of the most important prevention approaches being explored today. Multiple data sources suggest the promise of PrEP. These include data on the effectiveness of drugs to prevent transmission of HIV from mother to child during the perinatal period, data on the effectiveness of post-exposure prophylaxis among healthcare workers, and animal studies conducted by CDC. Animal studies have shown that PrEP can significantly reduce, and in some cases prevent, the transmission of a virus similar to HIV in monkeys who are exposed repeatedly to the virus. CDC is currently supporting various stages of research on PrEP in injection drug users, high-risk heterosexuals, MSM, and serodiscordant couples (couples where one person is HIV positive and one person is HIV negative). In addition, CDC is supporting and collaborating on research assessing the safety of vaginal microbicides as well as studies to inform the development of rectal microbicides. Microbicides are gels, creams, or suppositories that can kill or neutralize viruses and bacteria. The success of male circumcision trials in the international setting also holds potential promise in the United States. CDC is currently conducting a demonstration project to assess the feasibility and acceptability of adult voluntary circumcision as a risk reduction strategy for high risk heterosexual men in the US. Biomedical interventions of these types hold considerable promise for preventing new HIV infections in the coming decade. CDC also recognizes the continued importance of vaccine research conducted by NIH and others which ultimately may yield a biomedical intervention with the potential to have the most cost-effective impact on the epidemic.

Further, CDC is committed to continue to expand, reassess, and improve its efforts to address HIV/AIDS among African Americans, Latinos, gay and bisexual men of all races and ethnicities, and all persons at risk of HIV infection. Because, as a nation, we cannot be successful in these

prevention efforts without the support and involvement of local communities and their leaders—CDC is working to intensify efforts to reach out to and mobilize members of disproportionately impacted communities.

For example, CDC—along with our public health partners and leaders in the black community—have joined forces through the Heightened National Response to the Crisis of HIV/AIDS among African Americans (HNR) to mobilize African American communities against HIV/AIDS, change community perceptions about HIV/AIDS and reduce stigma, promote early HIV diagnosis and treatment, and encourage healthy behaviors that prevent the spread of HIV. Since May 2007, 200 African American leaders have joined the HNR initiative. In May 2007, CDC established an internal HIV/AIDS Hispanic/Latino Executive Committee (HLEC) to provide guidance and recommendations in matters concerning the HIV epidemic in Latino communities. Since its inception, HLEC has held a consultation with Latino leaders in HIV prevention and is currently developing an action plan that will guide CDC's HIV prevention efforts among Latinos.

In addition to efforts described above, CDC is taking additional steps to respond to the U.S. epidemic in light of the new incidence estimates. CDC is appointing an independent panel of national experts who will review our HIV surveillance, research, and program efforts and make recommendations for the future. This review is currently being initiated and will be completed by mid-2009. A report from this review will be made available to the public shortly after the review is completed. The recommendations will form the foundation for the development of a clear and strategic road map for HIV prevention, with measurable objectives, that will guide us through the year 2020. CDC is also developing a resource allocation model that uses information from the new

HIV incidence surveillance system. This model, which will be completed by mid-2009, will allow CDC to assess whether an even greater impact could be achieved by redirecting some resources to different populations or prevention strategies.

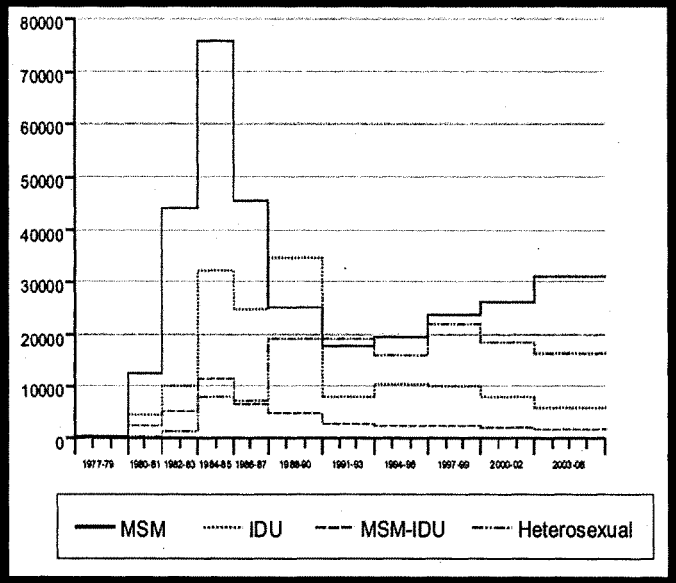
While the new incidence system allows us to better monitor the number of new infections, other systems such as the Program Evaluation and Monitoring System (PEMS) increase accountability by allowing grantees to collect agency, community planning, and program plan data and report back to CDC. This accountability means collecting, evaluating, and sharing needed data on how prevention resources are being utilized nationally. PEMS ensures that CDC receives standardized, accurate, and thorough program data from health department and community based organizations. It allows more comprehensive reporting of HIV prevention activities, fiscal information, and local HIV prevention community planning efforts. These data will increase the ability to monitor the utilization of prevention services, assess program implementation, and evaluate progress. In the coming year, data will be linked with PART, GPRA, and Healthy People 2010 indicators to create a comprehensive system for monitoring the progress of HIV prevention efforts.

Closing

In conclusion, CDC's new and innovative HIV incidence surveillance system is a vital component of HIV prevention. The use of the new system signifies a major advancement in our nation's ability to monitor and evaluate HIV prevention. Specifically, the new system makes the following possible: (1) better targeting of prevention programs and resources; (2) more precision with which to measure progress; and (3) more compelling reasons for communities to mobilize against the spread of HIV and to take the steps needed to protect themselves and their loved ones from HIV.

The 2006 incidence estimates emphasize the need for continued access to HIV prevention activities. As a nation, we must agree that it is not acceptable for 56,300 Americans to be infected with HIV annually; for HIV/AIDS to become a rite of passage for gay, bisexual men, and men who have sex with men; for HIV/AIDS to continue to over-burden African American and Latino communities; and for young Americans to grow up without the knowledge, skills, confidence and motivation necessary to protect themselves against HIV for their entire lifetimes. CDC is steadfast in its commitment to ending the epidemic; however, to achieve this goal, the HIV/AIDS epidemic in our own backyards must be met with an even greater sense of commitment, purpose, and urgency by affected individuals, communities, and by the nation as a whole. Thank you.

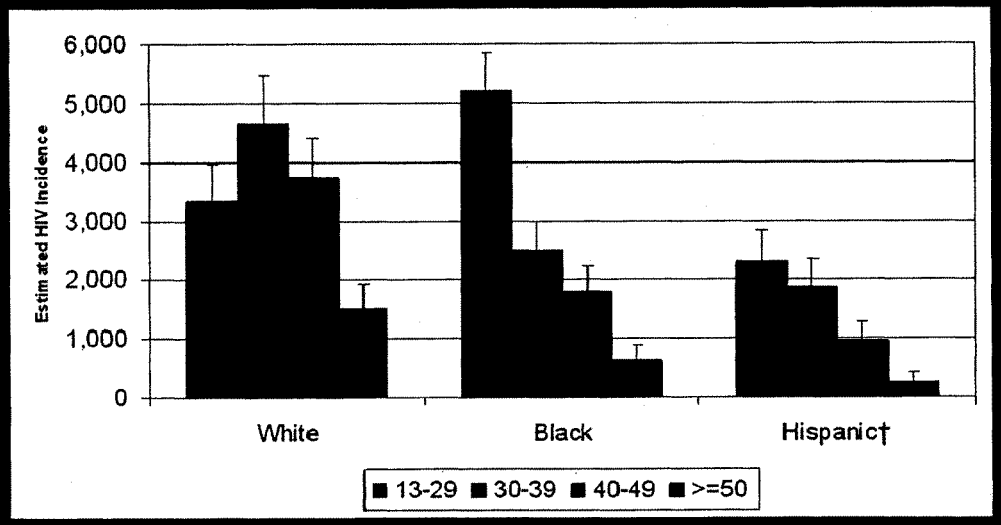
Figure 1: Estimated Number of New HIV Infections by Transmission Category, Extended Back-Calculation Model, United States, 1977-2006



Hall et al. *JAMA*. 2008; 300: 520-529.
Note: MSM refers to men who have sex with men; IDU refers to injection drug users

CDC

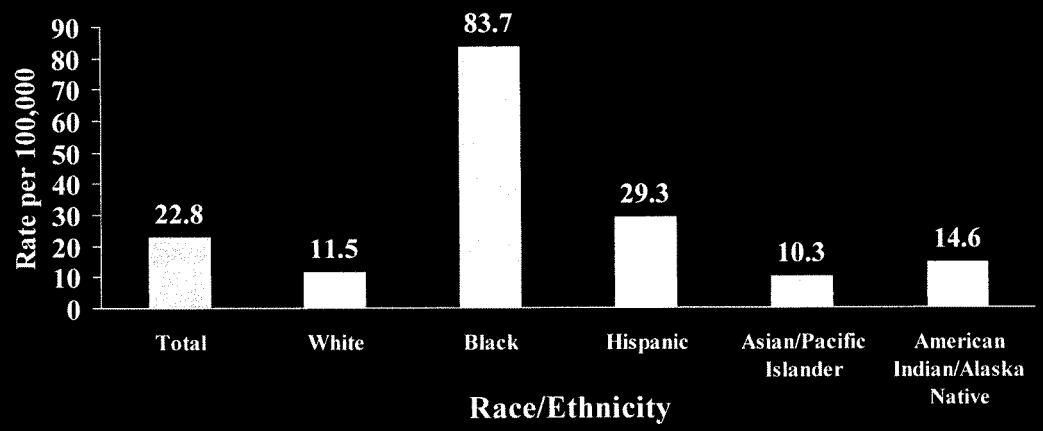
Figure 2: Estimated Number* of New HIV Infections among MSM, by Race/Ethnicity and Age Group, United States, 2006



*Incidence estimates are adjusted for reporting delays and reclassification of cases reported without information regarding an HIV transmission category, but not for underreporting.
† Might be of any race. Note: MSM refers to men who have sex with men.

CDC

Figure 3: Estimated Rates of New HIV Infections, United States, 2006



Total Male: 34.3 per 100,000

Total female: 11.9 per 100,000

CDC

Chairman WAXMAN. Dr. Fenton, you are just here to answer questions?

Dr. FENTON. That is right.

Chairman WAXMAN. Well, we will have questions for you.

Dr. Fauci.

STATEMENT OF ANTHONY S. FAUCI

Dr. FAUCI. Thank you, Mr. Chairman and members of the committee. Thank you for giving me the opportunity to testify before you here today on the role of the NIH research endeavor in HIV prevention, the subject of this hearing. I guess the slides don't work, so we will go with the—are they up? OK. There they are.

OK. On the first slide shown on the board there, I want to just emphasize that since the very early days of HIV that you described in your opening statement, in the summer of 1981, there have been some spectacular advances in AIDS research ranging from the initial discovery of the virus to the delineation of the pathogenesis, natural history, but, importantly, treatment.

Now, treatment has been one of the more spectacular successes in the development of now over 25 drugs that have transformed the lives of HIV-infected individuals. The results of this have been quite impressive.

On the next slide is a review paper showing the results of the first decade of HIV written up in the Journal of Infectious Diseases that there is a conservative estimate of about 3 million lives—years of life have been saved in the United States alone from 1996 through 2005 on the basis of the accessibility of treatment, particularly the combinations of therapies. This has been repeated and verified in Europe, Australia, and Canada.

Now, that is the very good news. But the subject of the hearing is what is still going on? So on the next slide, just to reiterate what Dr. Gerberding had said, we still have a major ongoing problem globally and even here in the United States with over one-half million deaths, 1.1 million people infected with HIV, and, as underscored by Dr. Gerberding, 25 percent of them are unaware that they are infected. And we know the majority of infections come from an individual who does not know that he or she is infected, transmitted to another individual.

And an example is something that is very close to home. We make rounds three times a week at our clinic, up at the clinical center at the NIH, and just last week a patient was presented to me, a resident of the District of Columbia, 38 years old, who presented for the first time with advanced tuberculosis, central nervous system lymphoma, and CB4 count of 3, which is about as low as you can get in a viral load. That person clearly was infected for many years, has now compromised his own ability to be treated because he is so advanced, and who knows how many people that person exposed, mainly because he did not know that he was infected.

Now, on the next slide, what about prevention? The NIH and its multiple institutes, particularly our institute, NIAID, NIMH, NIDA, Child Health, and others, have been heavily involved in prevention research. And when I say prevention research, it's to try

and get some of the scientific facts that would help inform some of the activities that are implemented so well by the CDC.

On this slide we show that if you include vaccine, behavioral change, and microbicides, about 38 percent of the NIH budget is devoted to prevention activities. And I just want to spend a minute to underscore some of the proven strategies as well as those that are still investigational and for which we have remaining challenges on the next slide.

Proven HIV prevention strategies again underscores what Dr. Gerberding mentioned, that prevention does work when it is applied and implemented. For example, preventing sexually transmitted disease, cognitive behavior interventions when applied have been shown to work. Behavioral changes regarding sexual transmission are paramount in its prevention. Condom promotion. In a study, a group of studies that were sponsored by the NIH just a year and a half ago on adult male circumcision in an international basis, predominantly in sub-Saharan Africa, showed anywhere from a 55 to 65 percent prevention in males who were circumcised that lasted for 3 to 4 years of followup and likely much more.

The prevention of blood-borne transmission. Clearly needle exchange programs work. There is no doubt about that. Drug treatment programs, methadone and related programs have been shown in a number of studies by the CDC and by NIDA and NIH to work.

And probably the most dramatic success story is the prevention of mother-to-child transmission, by treating the mother during pregnancy and the baby soon after delivery, and most recent studies, weeks to months of breast feeding have been truly a great success story.

The next slide.

There are also some investigational prevention strategies, some of which are in the process of being proven, others that are still challenging. The first is the prevention and treatment of coinfections, such as tuberculosis, malaria, and other sexually transmitted diseases. Not all STDs, or sexually transmitted diseases, when you treat them result in a decrease in HIV transmission, but some do. And we are now continuing our studies to try and delineate that a little bit more clearly.

We have been challenged by topical microbicide studies. The initial studies over the past several years have proven not to be effective. They were the first generation of studies that did not incorporate specific anti-HIV drugs; they were merely chemicals that would block transmission, but not in a specific anti-HIV manner. The products that are currently in the pipeline we are cautiously optimistic about.

The last two I want to close on is antiretrovirals as prevention and vaccines. By an antiretroviral as prevention, we mean that if you treat people who are infected, you could theoretically and in reality decrease their ability to transmit to others. You can talk about population studies; if you treat enough people in a population, you will get the mean viral load in the population low enough that you might decrease the incidence; but even more potentially exciting is what we call PrEP, and Dr. Gerberding mentioned that on one of her slides, or preexposure prophylaxis. There is a large study conducted by the CDC, several other studies, some

of which are conducted by the NIH, looking at a large number of individuals to see if, in fact, this treatment prior to infection would significantly block transmission.

And then there is vaccines, which in the history of viral diseases are generally the Holy Grail of how you stop the transmission of a viral infection. We have not been successful thus far. As shown on this slide, at the last meeting this summer in Mexico city of the International AIDS Society, we discussed some of the remaining challenges and the reality that we will not have an HIV vaccine at least for several years at best. I am cautiously optimistic that we will, but up until the time that we do, we are going to be left with the prevention measures that were discussed by Dr. Gerberding and myself and in your own opening statement, Mr. Chairman.

So in the last slide, I want to emphasize that point; that when we talk about prevention, it is not unidimensional, and it is not one-size-fits-all. We refer to it as a comprehensive prevention toolbox, of which a vaccine would be a major contribution. But even if we get a vaccine that is effective, we would still have to rely very heavily on the other prevention measures that have been discussed in our various statements.

So I will close here, Mr. Chairman, and be happy to answer any questions.

Chairman WAXMAN. Thank you very much, Dr. Fauci.

[The prepared statement of Dr. Fauci follows:]

Testimony
Committee on Oversight and Government Reform
United States House of Representatives

The Role of NIH Research in HIV Prevention

Statement of
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Director
National Institute of Allergy and Infectious Diseases
National Institutes of Health
U.S. Department of Health and Human Services

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Mr. Chairman and members of the Committee, thank you for giving me the opportunity to discuss the research efforts of the National Institutes of Health (NIH), an agency of the U.S. Department of Health and Human Services, with regard to the prevention of human immunodeficiency virus (HIV) transmission. I am the Director of the National Institute of Allergy and Infectious Diseases (NIAID), one of the many Institutes and Centers of NIH that support research on HIV prevention. The NIH supports a broad portfolio of HIV/AIDS research, including prevention research to understand the factors that lead to HIV acquisition as well as studies to develop evidence-based interventions—both biomedical and behavioral—to prevent transmission of HIV. The President's Budget request for fiscal year 2009 for HIV/AIDS research at NIH is $2.9 billion, with more than $1.1 billion allocated for HIV prevention research.

In the quarter century since HIV was identified as the cause of the acquired immune deficiency syndrome (AIDS), we have made extraordinary progress in understanding the disease-causing mechanisms—or pathogenesis—of HIV/AIDS. That this research has led to the development of numerous drugs to treat HIV/AIDS is perhaps the greatest success story in NIH-funded AIDS research. NIH-supported research helped make possible the more than 25 antiretroviral drugs (ARVs) that have transformed HIV/AIDS in the United States from an almost uniformly fatal disease into a manageable chronic condition. While only 30 percent of people throughout the world who should be receiving ARVs according to standard treatment guidelines are receiving them, the heroic efforts of many organizations and individuals are making progress in providing access in the developing world to life-saving drugs for those infected with HIV.

Yet despite our accomplishments in the area of treatment, HIV/AIDS continues to exact a staggering toll. An estimated 33 million people worldwide are infected with HIV, and approximately 2.7 million people were newly infected with HIV in 2007, according to UNAIDS. In low- and middle-income countries for every person who commenced antiretroviral therapy in 2007, approximately 2.5 people were newly infected. Clearly, we cannot end the HIV/AIDS pandemic without preventing new infections. The first line of defense against any disease, and particularly an infectious disease pandemic, is prevention.

While the situation in the developing world dramatically illustrates this point, the need for prevention also applies to the epidemic here in the United States, where approximately 56,300 new HIV infections occurred in 2006, according to recent estimates from the Centers for Disease Control and Prevention (CDC). Among at-risk groups, men who have sex with men (MSM) comprise the greatest proportion—53 percent—of these new infections. African-Americans are impacted more than any other racial or ethnic group, accounting for 45 percent of the new infections in 2006, even though they account for only 12-13 percent of the U.S. population. The new data do not indicate an actual increase in the annual number of new HIV infections, but reflects a more accurate way of measuring new infections. A CDC historical trend analysis has suggested that the annual number of new infections has remained fairly stable for the last decade.

NIH Prevention Research

The NIH supports a broad portfolio of HIV prevention research that includes basic, translational, and clinical research on biomedical interventions for HIV infection as well as basic, translational, and clinical behavioral and social sciences research associated with HIV risk, transmission, and acquisition. The highest priority of NIH for HIV/AIDS research is to expand the range of modalities for preventing HIV transmission beyond those that are currently available.

The federal investment in HIV research over the last two decades has generated a number of successes in the area of prevention; for example, we have proven interventions and strategies to prevent HIV transmission. Moreover, the risk factors associated with HIV transmission have been well defined, and prevention programs have been implemented to some extent in most nations of the world. In virtually all developed nations and in certain developing countries such as Uganda, Brazil, and Thailand, these prevention programs have proven effective in slowing the spread of the HIV pandemic. Interventions implemented with varying levels of success include courses of ARVs to prevent mother-to-child transmission of HIV; education and outreach to at-risk populations; behavioral modification programs, such as the promotion of abstinence, fidelity and condom use; voluntary HIV testing and counseling; treatment for drug abuse (including drug abusers in the criminal justice system); mass media campaigns; screening of donated blood; and condom distribution.

Coordination with CDC

NIH works closely with its sister agency, CDC, in coordinating NIH's behavioral and biomedical prevention research activities with the prevention activities of CDC. For example, NIH worked closely with the CDC to develop a Program Announcement, released in May 2008, to encourage applications in dissemination, implementation, and operational research for HIV prevention. NIH and CDC are represented on each other's advisory councils and on other working groups, participating in the processes to set priorities for the two agencies, including in the area of HIV prevention. In addition, NIH and CDC collaborate directly on prevention research. For example, NIH and CDC are collaborating on a trial evaluating the use of rapid testing and counseling in drug abuse programs. Lastly, NIH program staff are in frequent contact with CDC program staff on a more informal basis, keeping CDC informed about findings of NIH-supported HIV prevention research.

Prevention of Mother-to-Child Transmission

Mother-to-child transmission of HIV, which can occur during pregnancy, childbirth, or through breastfeeding, accounts for more than 90 percent of all cases of childhood HIV infection, especially in countries where effective ARVs are not readily available. In addition to the role that certain ARVs play in the treatment of HIV-infected individuals, drug regimens have also been shown to reduce dramatically the risk of HIV transmission from mother to child. In the United States and other developed countries, provision of ARVs to prevent mother-to-child transmission has reduced perinatal HIV infection rates to less than one to two percent. The NIH-supported HIVNET 012 study

demonstrated that a single dose of nevirapine given to the mother at the onset of labor and a single dose of nevirapine given to the infant within 72 hours after birth reduced dramatically the risk of perinatal transmission. This regimen has been adopted as the standard of care in many resource-poor countries; however, widespread implementation has been limited. In 2007, NIH-supported studies provided more tools for the prevention of mother-to-child transmission in developing countries. This year, combined results from the SWEN study conducted in Uganda, Ethiopia, and India and the PEPI study in Malawi showed that extended courses of daily nevirapine administered to newborns decreased further HIV transmission via breastfeeding and reduced mortality. The development of safe, simple, and inexpensive interventions that would be more globally applicable, including those to reduce transmission during breastfeeding, remains a high priority for the NIH and is the subject of ongoing research.

Behavioral Interventions

A critical component of NIH prevention research is the development and testing of behavioral interventions. These interventions may be focused on men, women, and adolescents at high risk of acquiring HIV (primary prevention) or they may be directed toward persons living with HIV to reduce the risk of their transmitting HIV to others (secondary prevention). In addition, NIH supports research to better understand the sociocultural context of HIV risk or protection, particularly in communities at high risk of HIV acquisition.

Data summarized from over one hundred intervention trials—with participants numbering in the tens of thousands—indicate that behavioral modification strategies are effective in increasing condom use, delaying initiation of sexual activity in adolescents, and reducing acquisition of sexually transmitted diseases (STDs); these outcomes are frequently used in behavioral intervention trials as a surrogate for HIV transmission. One such NIH intervention trial, Project Light, was conducted at 37 urban STD clinics in five U.S. cities, with blacks comprising 74 percent of the study participants. This randomized clinical trial compared a seven-session cognitive-behavior intervention with the provision of standard HIV/AIDS information and a video. The Project Light intervention resulted in a 50 percent reduction in new gonorrhea cases among men and an increase in condom use. Modeling of HIV infections prevented by the intervention estimated a 40 percent reduction in primary infections—12 HIV infections were averted per 1,000 male participants; for females, 3 infections per 1,000 participants were averted. NIH produced a toolkit and instructional CD-ROM to facilitate dissemination of this intervention, and the intervention materials are also available through the CDC. This research effort is an example of many behavioral interventions that NIH has been able to "hand off" to the CDC for dissemination and implementation by community-based organizations and state and local health departments across the United States. The NIH behavioral research program places a high priority on addressing at-risk groups in the United States, including racial and ethnic populations. For example, NIH-supported studies demonstrated the effectiveness of a four-session intervention for women of color who lived in public housing, where rates of pregnancy and sexually transmitted infections were high. This study not only demonstrated the effectiveness of

this community-level intervention, but also included the development of training manuals and resource materials for its implementation.

NIH will soon begin enrollment of 2,000 black MSM in a study of a multi-component intervention package. The components of the experimental intervention package include HIV counseling, testing, and referral for care; STD testing and referral for care; screening for substance abuse and mental health issues and referral for care; and engagement with peer health navigators to facilitate actual uptake of health care referrals by participants. This pilot study will examine the feasibility and acceptability of the intervention in preparation for a large-scale community-level randomized trial to test the efficacy of the intervention in reducing HIV incidence, as opposed to surrogate outcomes such as STD infection.

Prevention of HIV Transmission among Drug Users

Behaviors associated with drug abuse are important factors in the spread of HIV infection in the United States. Early in the epidemic, drug abuse and HIV infection were typically connected in people's minds with infection via injection drug use and needle sharing; however, this view greatly underestimates the impact that drug and other substance abuse can have on the spread of HIV/AIDS through the dangerous risk behaviors it engenders. Drug and alcohol intoxication affect judgment and can lead to risky sexual behaviors that place people in danger of contracting or transmitting HIV.

The new CDC data indicates that HIV infections among injection drug users declined overall by 80 percent between 1988-1990 and 2003-2006. This success can be attributed to a focus on drug abuse intervention and treatment. In addition to providing a substitute for injection drug use, drug treatment programs provide a good setting for reaching IDUs and their partners with HIV prevention and care messages and interventions. These programs also can be a bridge to other needed services, such as primary health care, mental health, or other social services. Numerous studies, primarily focused on methadone maintenance treatment, have shown that substance abuse treatment programs can have a dramatic effect on HIV transmission among opiate injectors, reducing their risk as much as four- to six-fold. Drug abuse treatment works principally because it helps IDUs decrease the number of injections or helps them stop injecting altogether. Furthermore, less drug use leads to fewer drug-related risk behaviors, and that, in turn, leads to fewer exposures to HIV. Among non-injection cocaine users, drug treatment has also been shown to decrease cocaine use from an average of ten days per month at baseline to one day per month at six months. Reduction in cocaine use was associated with an average 40 percent decrease in HIV risk across gender and ethnic groups, mainly as a result of fewer sexual partners and less unprotected sex.

The Community-Based Outreach Model was designed to reach out-of-treatment IDUs who are unable or unwilling to stop using and injecting drugs and who cannot or will not access drug treatment. Compared to those in treatment, out-of-treatment IDUs are at significantly greater risk of HIV and other infections because they are more likely to

inject drugs more frequently; to share drugs, syringes, and other injection equipment; and to practice unsafe sex while under the influence of drugs. The ongoing outreach program attempts to reduce HIV risk through education on the risk factors for HIV transmission and by teaching effective skills in reducing those risks.

Adult Male Circumcision

Another HIV prevention strategy that has been proven effective is male circumcision. NIH-supported researchers in Kenya and Uganda demonstrated that medically supervised adult male circumcision reduced by more than 50 percent the risk of heterosexual African men becoming infected with HIV, validating many observational studies that saw a correlation between male circumcision and a decreased rate of HIV infection. This protective effect is sustained for more than three years after the procedure. The public health impact of increased access to male circumcision is predicted to be most pronounced in those areas with low rates of male circumcision and high rates of heterosexually transmitted HIV. Adult male circumcision is beginning to be implemented internationally as part of the President's Emergency Plan for AIDS Relief (PEPFAR), and CDC is conducting a demonstration project to assess the feasibility and acceptability of adult voluntary circumcision as a risk reduction strategy for high risk heterosexual men in the United States.

Prevention and Treatment of Co-infections

Although it seems counterintuitive, HIV is a virus that thrives in situations where the host's immune system is activated. In particular, there is considerable evidence of a

link between other infectious diseases (e.g. STDs, malaria, and tuberculosis) and an increased susceptibility to HIV infection or a rapid progression of HIV disease. As such, one potential strategy to prevent HIV infection is to treat the coinfections that activate the immune system and create a permissive environment for HIV replication; however, this strategy is still in the conceptual phase. An NIH-supported study found that the use of acyclovir to suppress herpes simplex virus 2 did not decrease HIV acquisition. Despite these results, treatment of HIV coinfections as well as the use of vaccines to prevent coinfections are active areas of study by many NIH-supported research groups.

Antiretroviral Therapy as Prevention

Strategies for the prevention of mother-to-child transmission are one example of how the ARVs that are so effective in treating HIV disease can also be used to prevent disease. Another proven intervention that uses antiretroviral drugs is Post-Exposure Prophylaxis (PEP) after occupational and non-occupational exposures to HIV. Data from NIH-supported research informed the development of the 2005 federal guidelines that recommend that ARVs be administered within 48–72 hours after exposure and continued for 28 days to reduce the likelihood of HIV acquisition.

One promising area of prevention research is the concept of Pre-Exposure Prophylaxis (PrEP), or administration of a daily dose of ARVs to individuals who are at an increased risk of HIV infection. This strategy is based on the concept that if HIV replication can be inhibited immediately following exposure to the virus, that permanent infection might be

thwarted—an effective strategy for other infectious diseases, such as malaria, and in preventing the transmission of HIV from mother to infant. Studies in animals suggest that this approach might be feasible. Multiple clinical studies of PrEP are underway in the United States and in different populations around the world, sponsored by a number of governmental and nongovernmental organizations. For example, NIH and the Bill and Melinda Gates Foundation are sponsoring a study in the United States and at international sites to test the preventive effect of antiretroviral drugs in conjunction with safe sex counseling and condom use among HIV-seronegative MSM. As data become available from this and other studies, we will understand more about the promise of this approach, including how it affects drug resistance and how it might impact risk behavior.

Another important aspect of HIV prevention is that of secondary prevention—rather than preventing HIV-seronegative individuals from acquiring HIV, the goal is to prevent HIV-infected individuals from transmitting virus to others. Certainly, behavior plays a major role in secondary prevention, but biomedical interventions may assist in these efforts. This might be achieved by reducing the viral load of HIV-infected individuals as a means of rendering these persons less infectious. The most direct way to accomplish this may be through treatment with ARVs such that viral levels are reduced to undetectable levels. Thus far, data are inconclusive as to whether HIV-infected individuals who are receiving ARV therapy and have undetectable levels of virus are still capable of transmitting HIV to uninfected partners and what level of risk, if any, this poses; this question remains an important area of study.

An important component of ARV treatment as a means of secondary prevention is promoting adherence to treatment regimens. NIH also supports behavioral intervention research to assist HIV-infected persons in adhering to HIV treatment regimens. Data from multiple studies indicate that these interventions are effective; participants receiving these interventions are 50 percent more likely to report 95 percent adherence to treatment regimens and 25 percent more likely to achieve an undetectable viral load than participants in the control arm of the studies.

Microbicides

One of the most urgent needs in the area of HIV prevention is for microbicides to prevent HIV transmission. Microbicides may be especially important for women who are otherwise dependent on male-controlled prevention strategies, such as male condoms. Research on microbicides is one of the highest priorities for the NIH. Thanks to multiple governmental and nongovernmental sponsors, the research in this field is very active. According to the Alliance for Microbicide Development, there are ongoing clinical trials on a dozen candidate products, and preclinical testing is underway on more than 50 other potential products. For example, an NIH-supported Phase II/IIb safety and effectiveness trial of two different microbicide candidates is scheduled to end this month. In addition, NIH, through its Microbicide Trials Network, is preparing to launch the Vaginal and Oral Interventions to Control the Epidemic (VOICE) study, which is a Phase IIb study that will compare a daily pill combining two ARVs to an ARV-based vaginal gel to prevent HIV transmission.

While new products continue to enter the microbicide candidate pipeline, the development of microbicides poses significant challenges. Last year, two Phase III efficacy trials of a candidate microbicide, cellulose sulfate, were stopped due to safety concerns. Other trials have failed to show product effectiveness or have identified participant lack of adherence to the investigational product as a concern. Suboptimal product adherence can compromise clinical trials; attention to other behavioral issues, such as participant behavior during the trial, will also be critical in the accurate interpretation of future trials that combine behavioral and biological prevention approaches. NIH will continue to pursue research to define markers of protection and safety for microbicide use and will continue to examine carefully all ongoing microbicide trials for safety. Our focus for further development of microbicides will continue to be on candidate products with strong safety profiles and potential for protection.

Vaccines

Historically, vaccines have led to some of our greatest successes in the fight against infectious diseases, including the eradication of smallpox, the near eradication of polio, and enormous reductions in the disease burden imposed by measles, mumps, hepatitis, influenza, diphtheria, and many other infections. For virtually all infections, particularly viral infections, if the patient does not die, the immune system ultimately clears the infection and the person is immune to subsequent exposure to the infectious agent, sometimes for life. An effective vaccine only needs to mimic the effect of natural infection on the immune system to prevent infection and/or disease upon exposure to the infectious agent in question. For example, the Salk vaccine against polio, which

became available in 1955, was based on a killed polio virus. Injection of the inactivated virus alone was sufficient to provoke an immune response that mimicked natural immunity and was capable of blocking infection upon exposure to the live, virulent virus.

For HIV, a vaccine that mimics natural infection will likely not be good enough because despite our considerable success in treating HIV infection and improving the length and quality of life for people living with HIV, there is no well-documented case of anyone being truly cured of HIV disease. In addition, except in rare cases, the body seems incapable of mounting an effective immune response that blocks the progression of disease in the absence of antiretroviral therapy. Thus, in order to induce a protective immune response, an HIV vaccine must do better than natural infection. Thus far, this has proven to be one of the most difficult scientific challenges ever confronted in infectious disease research. Last September, two clinical trials of a promising HIV vaccine candidate were halted after the vaccine failed to show efficacy. Since then, NIH and HIV vaccine researchers have held intensive consultations at the NIH-sponsored HIV Vaccine Summit in March 2008 and other forums to discuss the way forward for HIV vaccine research and development. These experts concluded that the balance between fundamental discovery research and vaccine development should shift toward basic discovery. To this end, NIH recently announced a new initiative to spur fundamental research that will contribute directly to the development of an HIV vaccine as well as to encourage the participation of investigators from an array of life sciences disciplines in this endeavor.

The ultimate goal of an HIV vaccine is to prevent infection. However, we must also recognize that even a vaccine that does not prevent infection but significantly alters the course of disease or the infectivity of the individual could have a positive impact on both individuals and the community. I remain cautiously optimistic that, despite recent setbacks, we will eventually have a vaccine that will be an effective tool in controlling the HIV pandemic.

Conclusion

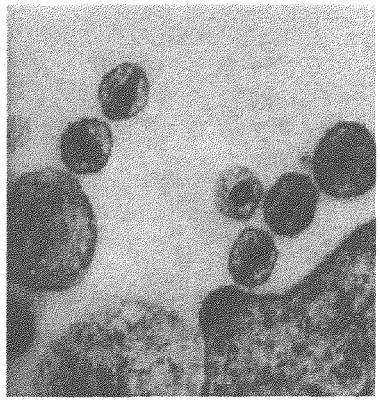
Despite the progress we have made in the treatment of HIV disease, the worldwide scope of the pandemic paints a grim picture. Here in the United States, the number of new infections each year has been roughly stable. While we have amassed a number of proven prevention strategies for HIV, both biomedical and behavioral, the numbers speak for themselves and illustrate the need for new and improved interventions to prevent HIV transmission. New prevention interventions should include the combination of biomedical advances with effective behavioral strategies to prevent HIV, providing a comprehensive approach that addresses both biological risk as well as the behavioral and social factors that contribute to HIV infection.

It is likely that no single prevention strategy or intervention method being developed by NIH and our sister agencies and nongovernmental partners will be 100 percent effective in preventing HIV infection. Instead, we must confront this disease with multiple effective interventions, assembling a comprehensive prevention toolkit that may include vaccines, topical microbicides, circumcision, and behavioral interventions, such as

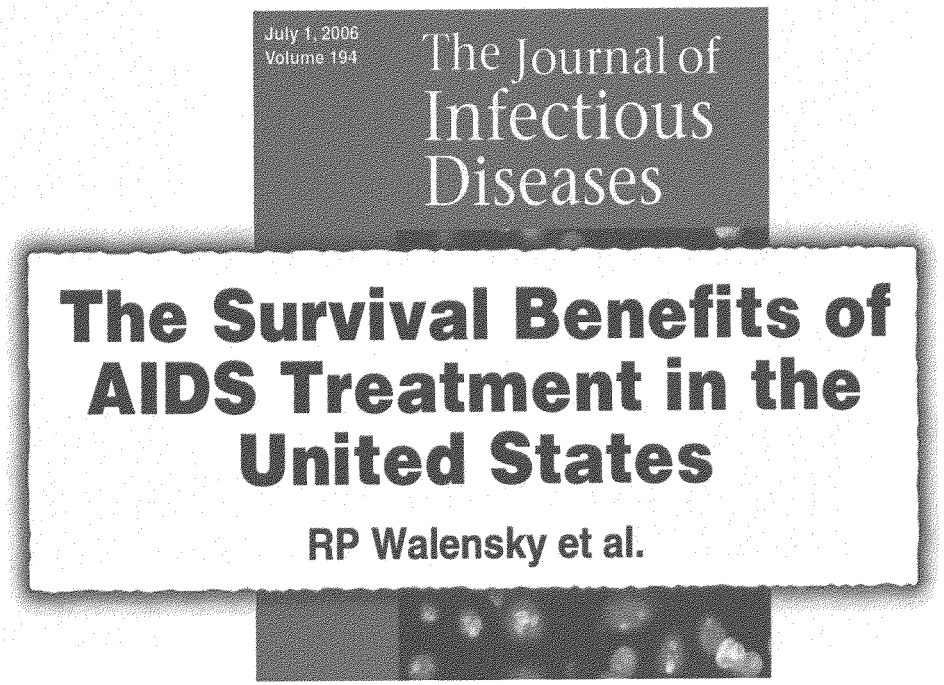
abstinence, fidelity, and condom use, depending on the target population. Only then will we be successful in effectively controlling the HIV pandemic both domestically and globally.

Advances in AIDS Research, 1981-2008

- Etiology
- Diagnosis
- Molecular Virology and Epidemiology
- Pathogenesis
- Natural History
- Treatment
- Prevention
- Vaccine Development



AIDS Drugs Have Saved 3 Million Years of Life in the United States

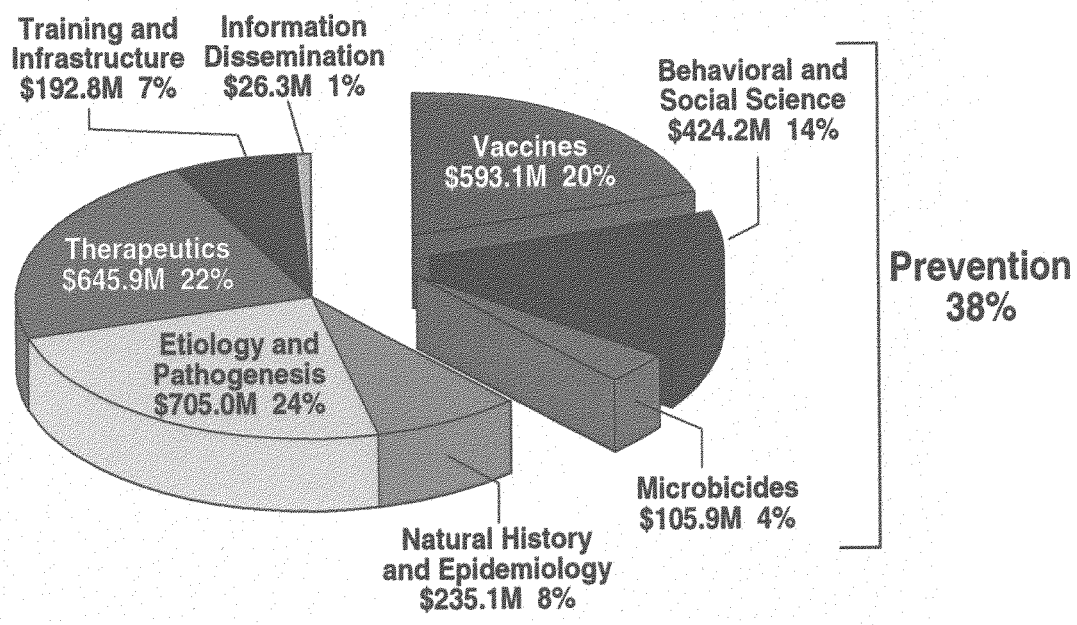


HIV/AIDS in the United States

- 545,805 cumulative deaths
- ~1.1 million living with HIV
  - 25% unaware of their infection
- ~56,300 new infections in 2006

Source: CDC, Includes 50 states and District of Columbia

NIH HIV/AIDS Budget



FY2008 Enacted
$2.93B

Proven HIV Prevention Strategies

- Preventing sexual transmission (e.g. behavior change programs, condom promotion, adult male circumcision)
- Preventing blood-borne transmission (e.g. needle/syringe exchanges, drug treatment programs)
- Preventing mother-to-child transmission (e.g. ARVs)

Investigational HIV Prevention Strategies

- Preventing/treating co-infections (e.g. TB, malaria, other STDs, parasitic infections)
- Topical microbicides
- ARVs as prevention
- Vaccines

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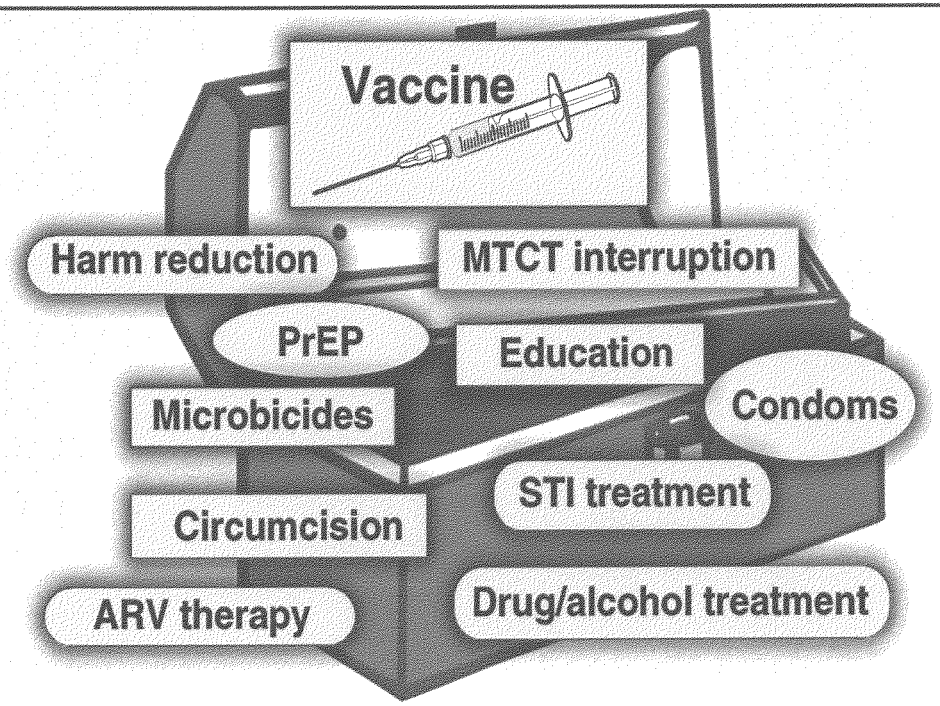
An HIV Vaccine – Challenges and Prospects

Margaret I. Johnston, Ph.D. and Anthony S. Fauci, M.D.

A Comprehensive HIV Prevention "Toolbox"



Chairman WAXMAN. Dr. Insel, do you have a statement?

Dr. INSEL. No statement, just to go on to questions.

Chairman WAXMAN. OK. I want to start off the questions for you, Dr. Gerberding. I want to ask about CDC's HIV prevention goals and its budget.

In January 2001, and I understand this was before your tenure as Director, CDC released a document called HIV Prevention Strategic Plan Through 2005. At the time, the working estimate of annual new infections per year in the United States was 40,000. The agency called this number relatively stable, but unacceptably high, and stated that a new strategic plan for HIV prevention was essential.

In this 2001 document, what was CDC's target for reducing annual new HIV infections?

Dr. GERBERDING. I would want to let you know that although I was not the CDC Director during this period of time, I was on an advisory committee before I went to the Center, before I went to CDC, so I participated in the earliest phases of that development. And the expectation optimistically at that time was a 50 percent reduction in the number of new infections, to be able to drive the infection rate down to 20,000. At that time we didn't have a lot of evidence to model or base those figures on, but we believed that if we did everything we knew how to do, we could strive for that. It made sense to create a stretch goal, and obviously we didn't make it.

Chairman WAXMAN. Because if we look at 2005, fast forward 5 years later, CDC's estimate of annual new infections at that point was still 40,000 a year, and the figure hadn't budged. Why do you think that nothing changed? Was it—what is your assessment?

Dr. GERBERDING. I think it is complicated, but there are two factors that probably play a pretty big role. One is the fact that our earlier estimates were made before we recognized the benefits of drug treatment. And so what happened was we suddenly had a larger and larger and larger number of people in our country with HIV who presented a transmission risk to other people because they were surviving instead of dying from the disease. So it was a positive factor, but it clearly made our earlier estimates fairly irrelevant.

The second thing is that I don't think we adequately controlled for the generational effect. So as new young people come into the risk environment, they don't behave—kids are not little adults. They don't behave the way we would expect more mature people who have lived through their friends dying to behave. And so we saw increased infection rates, as we are still seeing today, among the youngest people. So our estimates did not adequately adjust for the generational problem of new cohorts at risk.

Chairman WAXMAN. When we look at the CDC budget in 2001, there was a steady growth in the prevention part. And by that time, in 2007, CDC's HIV prevention budget actually dropped in adjusted dollars by 20 percent. So while we didn't see the decrease we had hoped for, we saw, in fact, a steady level, which would be that—a failure of the prevention efforts to succeed.

At that point, CDC put a document forward extending its HIV prevention through 2010. And what was the goal in that document, if you can tell us?

Dr. GERBERDING. I would have to go back and review that particular estimate.

Kevin, maybe you can answer that question.

Dr. FENTON. Thank you very much for that question.

In the 2007 revision of the HIV prevention strategy, what we were attempting to do is to identify shorter-term goals for HIV prevention as well as looking at goals which were achievable within the resources that we had at CDC. One of the experiences we had from 2001 to 2007, as you mentioned, was the fact that our budget remained relatively flat over that time, so it was crucially important that we looked at what was achievable in the next 3 years. In the meantime——

Chairman WAXMAN. And the numbers that you found that you thought was achievable was, rather than 50 percent, down to 10 percent; Is that right?

Dr. FENTON. That is correct.

Chairman WAXMAN. And was that 10 percent goal modeled on the fact that you saw a decrease in the prevention side of the HIV budget?

Dr. FENTON. It was modeled on the realities of the existing prevention budget as well as the availability of better information, better surveillance information, better data on incidence which we knew were forthcoming in the next few years.

Chairman WAXMAN. And how much did the administration request for HIV prevention for this next fiscal year, 2009?

Dr. GERBERDING. The request in the proposed budget is less than the request from last year by a percent or so. So it is a reduction.

Chairman WAXMAN. As I understand, that is $752.6 million?

Dr. GERBERDING. I believe that is correct.

Chairman WAXMAN. Now, according to your professional judgment budget, the funding that CDC needs to conduct appropriately scaled-up domestic HIV prevention programs and research for 2009, I understand, is $1.63 billion; is that right?

Dr. GERBERDING. If we were able to walk out the door today and do absolutely everything that we knew how to do to full scale, it would be expensive, and those numbers reflect that kind of best-case scenario. I think we also recognize we couldn't go from where we are to where we would like to be as fast as we probably reflected in our budget estimates, but we wanted to give you the flavor that the scale here is one challenge. The "what to do" is the other challenge.

Chairman WAXMAN. Well, and just to look at where we are and where you would like us to be and where do you think the money could wisely be spent, the administration is proposing half of what CDC's experts say is necessary. And, in fact, that is an actual decrease of $1 million from fiscal year 2008. So the proportion, it appears to us, for domestic HIV funding for prevention would be around 5 percent.

Dr. GERBERDING. I think the figure for the large request for domestic HIV, the $24.1 billion overall that has been requested includes about a 4 percent prevention budget, at least according to

the analysis that we have been able to review from Kaiser. So it is a very small piece of the overall budget. And I think the concept of a dime of prevention is worth a dollar of cure is what we need to relook at, especially now that we have these new incidence data. In addition, we know that it is cost-saving to prevent HIV because it is so expensive to treat.

Chairman WAXMAN. You are telling us that information. Did you tell the President? Did you tell the Secretary of HHS? Did anyone in the administration ever come and ask you over the last 6 years what you and your expert colleagues believed and what you would need in order to turn the domestic epidemic around?

Dr. GERBERDING. We have had a lot of briefings on this subject. And I think one of the challenges that I face at CDC is my own expert judgment, that it isn't going to be enough to just do more of the same. We have to really step back and say, you know what? If you keep doing the same thing over and over again, it doesn't matter how big you do it, you are not really going to solve the problem.

So not only do we need to expand what we know can work, we have to find new things. And so I really want to emphasize that the research for new tools is also a very, very big part of this. And I am sure that Dr. Fauci would agree with that, that there is more we need to know and not just more that we need to do.

Chairman WAXMAN. Well, just to conclude my questioning here, you can't do more of the same with less money, even if some of the same things you were doing were successful.

Dr. GERBERDING. Unless you are a magician.

Chairman WAXMAN. And if you could get new tools, that would be great. But you may not be able to even do the new tools if your prevention budget is decreasing and the population of people being infected is even more than we expected.

Dr. GERBERDING. What I am really also—and what I have asked Dr. Fenton to do is to look at whatever the pie is, whatever the investment that we have, and make absolutely sure that whatever we are doing with it, we are getting the absolute maximum out of it that we can. We may need to rebalance. We would like to have more, but we may need to also rebalance what we are doing to make sure that it is making the biggest difference.

Chairman WAXMAN. Thank you very much.

Mr. Davis.

Mr. DAVIS OF VIRGINIA. Of course, Congress appropriates the money, not the administration. So this Congress has the authority to move those numbers up or down appropriately, don't they?

Dr. GERBERDING. That is correct.

Mr. DAVIS OF VIRGINIA. OK. And are we spending more internationally on AIDS prevention and treatment than we are nationally now?

Dr. GERBERDING. We are spending more internationally for the President's emergency program as well as the global fund.

Mr. DAVIS OF VIRGINIA. So basically we have seen more funding for AIDS and HIV prevention and treatment, but it is going internationally instead of——

Dr. GERBERDING. May I just qualify that for a statement?

Mr. DAVIS OF VIRGINIA. Please.

Dr. GERBERDING. Because as I said, our total Federal budget for HIV is $24-some billion a year because of the mass investment that we make in treatment naturally. So we are not spending $24 billion internationally a year.

Mr. DAVIS OF VIRGINIA. Now, a full 25 percent of individuals with HIV, I think, are unaware of their infection, and these individuals account for about 50 percent of new infections?

Dr. GERBERDING. It is about—it is probably close to 50 percent. We know that once people find out what—I think it is actually 58 percent. The undiagnosed people are accounting for about 60 percent of the infections that we are seeing. But we are also learning more recently that probably early infection is a special subset of that group. And so people who are newly infected don't recognize it, aren't getting tested as they develop the systems of the conversion illness, are highly infectious with great——

Mr. DAVIS OF VIRGINIA. How long does it take after the contact that you're infected and can pass it on? Is it a matter of hours? Days?

Dr. GERBERDING. It is not hours, but it happens faster than we realize now that we have more and more sensitive tests. So although the antibody test may not become positive for many days, the virus is replicating very early on after exposure. And that is why people can transmit even though they don't know they have it.

Mr. DAVIS OF VIRGINIA. I recently spent about 10 days in Africa touring some of our facilities that were there on AIDS prevention. One of the problems there is the people that have it now are getting medical care, they are keeping mothers from passing it to their kids, they are able to live seminormal lives. But over there, the men are just not as likely to go in and turn themselves in, and there is still a lot of denial in Africa. Is there anything similar in the United States?

Dr. GERBERDING. There are many comparable social issues. One of them is shame; the people are ashamed to have the infection. The other is stigma; they are punished if someone else finds out they have it. And then the third is ignorance. There are still many people in this country and around the world who don't recognize the risk and don't understand that their behavior puts them at risk.

Mr. DAVIS OF VIRGINIA. Now, I understand that 38 percent of the individuals, roughly, with newly diagnosed HIV are now developing full-blown AIDS within a year of diagnosis. For these individuals, prevention, testing, and treatment strategies don't seem to have worked. What do you see? Is there a granular understanding of this population, what leads to this outcome in people who are being diagnosed and then moving quickly to AIDS?

Dr. GERBERDING. Well, the HIV diagnosis is happening perhaps years after the infection has occurred at the time people are beginning to develop symptoms. So it is a failure to diagnose, a failure to reach out and get yourself tested, or a failure for health professionals or people you encounter in——

Mr. DAVIS OF VIRGINIA. But that is a diagnosis question and waiting so long?

Dr. GERBERDING. So, D, the diagnosis of the prevention paradigm, has to be a strong emphasis.

Mr. DAVIS OF VIRGINIA. Now, as the epidemic has progressed, the perception of HIV/AIDS has changed. The success of effective treatments may have the downside of creating a sense of complacency about HIV/AIDS impact. What are the Federal efforts that are under way in order to address complacency and correct some of these misconceptions? Anything that we can do?

Dr. GERBERDING. We need to do so much more than we are doing right now. We need to get AIDS back on the radar screen. We need to highlight the fact that this isn't just something that happens underground; this is something that is still posing a threat to college students and to young men and women across our Nation's fabric. We need to engage community leaders. We need to engage popular opinion leaders. We need to make it clear that it is not a problem "over there," it is a problem at home. And all you have to do is look at the statistics in the metropolitan D.C. area to see a picture that would suggest we have nothing to be complacent about.

Mr. DAVIS OF VIRGINIA. It's remarkable, the medical progress that has been made in this area over the last 10 years. I was very surprised. I mean, people who were diagnosed, now it is no longer a death sentence if you take your medication regularly. We are being able to stop it from being passed on to kids and the like. I mean, getting treatment now, if you are HIV-positive, going and getting treatment is literally a lifesaver, Isn't it?

Dr. GERBERDING. Treatment is lifesaving. And this is hard to say, but as much as we want people with HIV infections to live and thrive and survive, it is not good to have HIV. These drugs are hard to take. They are fraught with complications and side effects. It is not easy to have HIV and take these drug treatments for a lifetime.

Mr. DAVIS OF VIRGINIA. And it is expensive.

Dr. GERBERDING. And it is expensive. And it isn't a disease that anyone should want to have, and it is certainly not a disease that we should accept as just part of our advanced society. We still need to prevent this disease.

Mr. DAVIS OF VIRGINIA. For the uninsured who are diagnosed HIV-positive, obviously having to take the medication is, what, $1,000 a month. What would it be?

Dr. GERBERDING. It depends very much on which regimen you are taking. And there are, fortunately, right now so many good choices that there are a variety of options and a variety of cost factors. But it is not inexpensive. It is one of the most expensive chronic diseases to treat and manage.

Mr. DAVIS OF VIRGINIA. OK.

Chairman WAXMAN. Thank you, Mr. Davis.

Mr. Tierney.

Mr. TIERNEY. Thank you, Mr. Chairman.

Thank you all for your testimony here. You have testified about the importance of implementing evidence-based prevention programs, so I want to ask a few questions tying it in on the evidence behind some of our policies that affect the prevention programming.

The new CDC incidence numbers show that injection drug use directly accounts for about 12 percent of the new infections. The sexual partners, the children of injection drug users are also indirectly at risk.

There is scientific consensus that needle exchange programs reduce the transmission of HIV and other infectious diseases without increasing the rate of drug use. Needle exchange programs also connect people to important health and social services, including drug treatment. These are conclusions that have been reached, as far as I understand it, based on evidence of at least 18 groups of experts and the most prominent professional and public health societies in the world, including the CDC and NIH. Just recently, when the CDC published its August data, the authors noted that infections among injection drug users dropped 80 percent, and they stated that, among other factors, one reason was that drug users, and I quote, have reduced needle sharing by using sterile syringes available through needle exchange programs or pharmacies.

So despite this overwhelming mountain of evidence, every year the Labor-HHS Department appropriations bill includes provisions banning the use of Federal funds for the needle exchange programs. So it looks like other programs around the country and communities and States are doing all that they can do, private people, but they are not really being supported by the Federal Government.

So, Dr. Fauci, let me start with you, if I could. In your professional scientific judgment, does the public health evidence support the Federal ban on funding needle exchange programs?

Dr. FAUCI. No, it doesn't. Actually, I was part of a group that I helped cochair years and years ago to look in a somewhat meta-analysis way of all the data that you referred to asking the two questions, A, does needle exchange help promote illicit drug use; and, B, does it impede or block in many respects the transmission of HIV? And the answer to both of those questions were: It doesn't increase the injection drug use, and it does prevent HIV infection.

So the scientific data are really rather firm and totally convincing that injection drug use and the transmission of HIV through injection drug use can be decreased significantly by needle exchange programs.

Mr. TIERNEY. Dr. Gerberding and Dr. Fenton, in your professional scientific judgment, do you agree with Dr. Fauci?

Dr. GERBERDING. I agree. And I also ran a bridge program to needle exchange in San Francisco, from San Francisco General Hospital, so I had a chance to see first-hand.

I want to emphasize the word you used, though, "program," because it isn't just the needle, it is the surrounding education, the reduction in partners and sharing and so forth. So it has to be done in the context of the overall program. And my understanding is that there is actually for CDC a congressional prohibition on using any of our appropriated dollars for needle exchange. So we need to work on this.

Mr. TIERNEY. That was the dilemma that I was pointing out.

Dr. Fenton, do you also agree?

Dr. FENTON. I concur.

Mr. TIERNEY. OK. So let me move on now and ask a question about programs for youth. The new CDC data shows that almost a third of the new infections occur with people under the age of 30. There's been a number of comprehensive sex education programs that appear to show a reduction of HIV or HIV risk behaviors among young people. But aside from a small amount of money in CDC's Department of Adolescent School Health, there doesn't appear to be any Federal funds dedicated to comprehensive sex education. In the meantime, we spend about $1.5 billion on abstinence-only until-marriage programs.

I am aware that no evidence that this kind of narrow program decreases HIV risk. In fact, a longitudinal, independent, congressionally mandated study that came out last year found that the programs had no impact at all on teen behavior compared to the control group. In April, we heard from the American Public Health Association, the American Academy of Pediatrics, and others that these programs are not supported by evidence.

So, I want to ask each of you individually, in your professional scientific judgment, do you believe that evidence at this time supports abstinence-only until-marriage programs as an effective intervention to reduce HIV risk among youth? Dr. Gerberding.

Dr. GERBERDING. Let me say that I have spent a great deal of time in preparation for this hearing reviewing those data, and I agree with the conclusions that there is no evidence of benefit from the 10 abstinence-only programs that have been evaluated. And in looking at the comprehensive curricula programs, there is more evidence of benefit, at least in terms of benefit, in knowledge. And hopefully STDs in the long term—although we have never studied an impact on HIV.

But I also want to emphasize that there are many in the STD world of science who believe that delaying the entree to sexual behavior is a good and very important part of a comprehensive program. So, abstinence is not a dirty word, but programs that deal with youths' sexual health need to bring to them the entire compendium of tools that we know they may need in their efforts to protect themselves.

Mr. TIERNEY. Dr. Fenton.

Dr. FENTON. I agree with the statements of Dr. Gerberding. I know of no evidence supporting the effectiveness of abstinence-only until-marriage programs in preventing STDs or HIV incidence among young people. And I also support and concur with Dr. Gerberding's statement regarding the role of comprehensive sex education programs as an effective tool or as part of an effective program toward better sexual health among our youth.

Mr. TIERNEY. Dr. Fauci.

Dr. FAUCI. Yes, I agree also. It is pretty clear that if you look at abstinence only in a vacuum, that there is no data to indicate that decreases transmission of HIV or other sexually transmitted diseases.

But, again, to underscore what Dr. Gerberding says, as part of a comprehensive program where you try to delay the sexual debut, but you also inform people of what you need to do if you do not practice abstinence has to go along with that; otherwise, alone in a vacuum, it doesn't work.

Mr. TIERNEY. Let me, if I can, conclude by asking, has Health and Human Services ever asked any of you for your opinion on these two subjects?

Dr. GERBERDING. We have had many briefings on this subject, and say that as the data have come forward, it has only been recently that we have had evaluation studies pulled together to really ask the question. From a CDC standpoint, our total investment in abstinence every year is about $2.2 million, and I actually wish 15 years ago we had made a much bigger investment because we would know the answers to the questions that we are finally now being able to surface. So we erred, perhaps, in retrospect, in not going into this with an open mind and doing those kinds of programmatic, innovative evaluation programs in the first place.

Mr. TIERNEY. I would be comforted if the budget reflected the error and changed around and moved some of that money to a more effective place. But we're going to have to fight for that one, I think. Thank you.

Chairman WAXMAN. Mr. Shays.

Mr. SHAYS. Thank you.

A number of years ago, I chaired the committee that oversaw HHS, and we had Donna Shalala come before us because HHS had failed for a year to get the committee together that was to begin to describe how we—and determine how we could protect the blood supply. We had 25,000 hemophiliacs who died. And I never saw it as my purpose to go after the Clinton administration, nor do I think it is my purpose here to go after the Bush administration. But I am really puzzled that this would in any way be a political issue.

I would like to know from both our key witnesses have you found in any way that the administration has been unresponsive in trying to deal with this AIDS epidemic?

Dr. GERBERDING. I would like to say that my intersection with both Secretaries that I've worked for as individuals, as well as staff from the White House that I have encountered on the issue of domestic and international AIDS, has come to me to ask for science, they have come to me to ask for the data. I don't personally feel that I've come under any pressure to comply with a particular policy.

Mr. SHAYS. Have you found them unresponsive?

Dr. GERBERDING. No, I haven't. That has not been my experience.

Mr. SHAYS. Dr. Fauci, have you found them unresponsive?

Dr. FAUCI. No, I have not. They've listened, several administrations, the current administration, the Clinton administration, and the——

Mr. SHAYS. I mean, it seems like it's the one area where politics has kind of not been part of it, so I would hate to introduce it now.

What you have basically said to us is the upward adjustment does not reflect an acceleration of the epidemic, but a more precise capability to distinguish between recent and long-term infections. So isn't it clear that we have new information, and when there is new information, we need to respond to it? Dr. Fauci.

Dr. FAUCI. Yes. As we get new information, we certainly do need to respond to it, and that is the reason for the intensification.

Mr. SHAYS. Isn't this new information that we are learning? I mean, we are learning that with the epidemic hasn't gone up, it is just that our statistics were not as accurate as they could be, correct?

Dr. FAUCI. Yes. As Dr. Gerberding has mentioned, and I will obviously leave for her to comment on that, the new, more sophisticated and accurate counting measures indicate that the incidence or number of new infections per year is higher than we had thought it was. But it has been stable since the 1990's, so it has not gone up. It is just higher numbers because of better counting.

Dr. GERBERDING. The new information is based primarily on new testing activities in the States as well as new tests. What it tells us is that there is no room for complacency; 55,600——

Mr. SHAYS. Absolutely, there is no room for complacency. The issue is that we have new information, and from this new information we can better act on it, correct?

Dr. GERBERDING. That is exactly why——

Mr. SHAYS. Now, do either of you appear before the——

Chairman WAXMAN. If you will forgive me. I know it is your 5 minutes, but it seems to me you haven't let a witness complete a sentence yet. And I know you only have a limited time, but I would be glad to yield.

Mr. SHAYS. I am sorry, I just have a number of questions, but I am delighted to have you continue.

Dr. GERBERDING. I think the important message here is that we need to be able to have this kind of information at the community level, because it tells us right where we need to go. This data tells us nationally we need to go to men who have sex with men, African Americans and Hispanic people, and do a lot more than we are doing right now in those targeted populations. But in communities there will be even more specific information that can tell us how to use the resources we have to get the most benefit from it.

So you are absolutely right. This information has to—it tells me that we need to reframe what we are doing. And I have asked Dr. Fenton to bring in experts and really look at our portfolio as it exists in light of this new information, and say where are we and where should we be.

Mr. SHAYS. And I congratulate both the chairman and ranking member, because I know they worked together in having this hearing. This is a huge piece of information. It really isn't political information, it is new knowledge, based on new science, and we need to respond to it.

I would like to make sure, do you either, any of the four of you, make presentations before the Congress on funding requests?

Dr. FAUCI. Yes. We defend the budget every year at our appropriations hearing in front of the House and the Senate.

Mr. SHAYS. And you are never required to say something that is not true before those hearings, correct?

Dr. FAUCI. Correct.

Mr. SHAYS. So in other words, if a committee member asked you a question about your funding needs, you would be very candid with them; is that not correct?

Dr. FAUCI. Yes.

Mr. SHAYS. Is that correct?

Dr. GERBERDING. Yes.

Mr. SHAYS. So if someone on the committee said, is this enough money to do your job, and you said—you didn't think it was, you would tell them, well, we think we need more; and if we had more, we would put it to this use. Is that correct?

Dr. GERBERDING. Well, Mr. Shays, there is the reality as an agency head, and I know Dr. Fauci feels this as an institute head, we can always think of good ways to spend money to do more than we are doing. But we also have to respond to the realities of the budget proposals that are put in front of us. But when you ask me for my professional judgment, I give you my very best answer, unconstrained by any other realities.

Mr. SHAYS. So any member on that committee who says, do you need more money in these areas, and how you would use it, you would let them know?

Dr. GERBERDING. I tell the truth.

Mr. SHAYS. Thank you.

Ms. MCCOLLUM. Mr. Chairman, if I may, as an appropriator on that committee.

Mr. SHAYS. Sure.

Ms. MCCOLLUM. I think what Dr. Gerberding said was honest, but I think it honestly needs to be said that she comes in and she does her job as an utmost professional. She is very, very honest, as everyone is from CDC, NIH. But they all defend—they all defend the President's priorities and the President's choices.

Mr. SHAYS. Right. And then you, as a member of the committee, feel very inclined to ask very candid questions. And I know that, based on the testimony, that they would give you a candid response in return.

Ms. MCCOLLUM. And then if we do anything, it is called an earmark by the President.

Mr. SHAYS. So I will just conclude by saying, in the end this was a budget agreed to by a Democratic Congress, suggested by a Republican President. It is a bipartisan budget. And in the end, we have to work together to come up with the best conclusions.

Thank you very much.

Chairman WAXMAN. Without objection, the Chair would like to recognize himself for an additional minute. Hearing no objection.

Dr. Fauci and Dr. Gerberding, as I understand it, when you come before the Congress, you are defending the budget submitted by the administration; isn't that correct?

Dr. FAUCI. Correct.

Dr. GERBERDING. Correct.

Chairman WAXMAN. Now, unless you are asked what your professional judgment might be, you are there to represent the administration.

Dr. Gerberding, when I asked you questions earlier, you indicated that you thought that you should have had more money in the prevention efforts going all the way back to the beginning of your time. And I asked you about whether you heard from people in the administration, the President, Secretary, and others, whether they asked you what you really needed. You said you had lots of meetings held with superiors who discussed these needs.

I would like to ask you for the record to submit documents and any other further information about the meetings you had to tell them what you thought you needed to prevent the epidemic from increasing in scope.

Dr. GERBERDING. I will do my best to resurrect that.

I must also say that HIV isn't the only place that we have gone to say we are concerned about.

Mr. SHAYS. Would the gentleman yield for a slight intervention?

Chairman WAXMAN. Certainly.

Mr. SHAYS. Thank you.

I just want to make sure for the record, was this new data available—and I don't know what the answer is. But was this new data that is available today available when the President and Congress were presenting their—doing their last budget?

Dr. GERBERDING. The new data were published in August, at the beginning of August of this year.

Mr. SHAYS. This year. So it was not available either to the President or to Congress?

Dr. GERBERDING. That's correct.

Mr. SHAYS. Thank you.

Chairman WAXMAN. In your developing your CDC budget do you start from scratch from what you believe is needed or do you receive a preset total from HHS or the Office of Management and Budget into which you must fit your goals?

Dr. GERBERDING. I think, like every agency, we're given some parameters. They vary from year to year. When I started, we were given parameters for increases. Recently, we have been given parameters to have scenarios for a modest increase, a flat line or a reduction. And we go forward with different versions of our request based on what parameters are finally selected by the administration to present the final budget to Congress. I also present our request to the formal budget council in the Department, and that is a factor that the Secretary weighs when he looks at all of the agency budgets in aggregate, because he has to finally bring the budget forward.

Chairman WAXMAN. Now, when all is said and done, your budget now for domestic HIV prevention is around 5 percent, and that's a drop in the percentage you've had in previous years, isn't that correct?

Dr. GERBERDING. I'm not sure of the 5 percent figure, but most of our domestic HIV money is for prevention. But the amount of money that our government is spending on prevention is still hovering at about 4 percent of the total.

Chairman WAXMAN. OK, thanks.

Ms. Speier.

Ms. SPEIER. Thank you, Mr. Chairman.

I had the opportunity recently to spend some time at Gilead which is a company in my district. And I'm going to preface my questions based on that fact, because they provided me with information that I thought was pretty astonishing. One is that, of the 50,000 new HIV individuals in America, the vast percentage of them are African American women. Now that seems to be different from what you provided today. But their concern to me was that

African American women are the highest increase in those contracting HIV. Is that not the case?

Dr. FENTON. No, that's incorrect. The majority of new HIV infections are occurring among men, and the majority of those are among men who have sex with men.

Ms. SPEIER. So the women, then, the African American women are an increasing number?

Dr. FENTON. What you may have heard is that the largest proportion of women who are newly infected with HIV are African American women. So they account for nearly a substantial proportion, more than half, or just about half of the new infections which are occurring in women in the United States. And then you have smaller proportions of infections occurring among Hispanics and White women; that may have been the statistic they were referring to.

Ms. SPEIER. What was most amazing to me was the regime now for drugs has been reduced, at least with Gilead's work, to 1 pill a day, as opposed to 9 or 10 pills in which patients oftentimes will not take one of the pills because it is upsetting physically to them. And by being able to just take one pill, you're getting greater compliance.

What they impressed upon me was the importance of testing, because as I think one of my colleagues earlier said, it is not a death sentence anymore. In fact, being diagnosed with HIV means that you can in fact have a full life, a full life expectancy. It is just being tested early, being diagnosed early and getting the drugs and following the regime that is offered; is that not the case?

Dr. GERBERDING. That is the case. The one pill has many drugs in it.

Ms. SPEIER. Correct.

Dr. GERBERDING. But they are able to combine them into a single tablet.

Ms. SPEIER. So listening to them and listening to you it seems to me that we need to do two things, one is augment the testing that goes on in this country everywhere. Two, we require all other countries to come up with National HIV AIDS plans if they are participating in PEPFAR, but we don't have a national plan; is that true?

Dr. GERBERDING. We have a national strategy, and we are committed to updating it in light of the new incidence information that we are receiving.

We also in, I think in December, Kevin, will be publishing a new update on interventions that work that we can incorporate into the national strategy.

Ms. SPEIER. So testing, what do we do to augment testing in this country?

Dr. GERBERDING. There are some things we are doing right now. One of the biggest advances is the rapid test, that allows people to be tested in non-medical environments. We are really pushing hard to make testing a routine part of medical care so that when you come in, you get tested. I was so pleased to see this in action at San Francisco General, it is night and day compared to even 5 years ago, but that's not happening everywhere. It is particularly not happening in VA hospitals and Federal facilities yet because

they have regulations that have to be changed in order for that to happen. But we need to make testing universally accepted and acceptable in all kinds of nontraditional environments.

Ms. SPEIER. Would it make sense to make Medicaid funding contingent on participating in a program where testing is done uniformly?

Dr. GERBERDING. Well, I would like to see us work with CMS around support for screening, because ultimately screening will be cost effective for CMS and HRSA and the other federally funded health programs, so I think that is an important lever that we want to pull. And we are working on how to get those regs changed.

Ms. SPEIER. Finally, in terms of microbicides, that was heralded some years ago as being an outstanding opportunity for us to address the issue, particularly in places around the world, Africa in particular. It appears in your testimony that I just read that there has been some disappointing results in the clinical trials. Could you expand on that please and tell us where you are going with microbicides?

Dr. GERBERDING. The clinical trial so far with the available compounds have been disappointing. They have failed to prevent and in some cases may have actually enhanced transmission because of irritation in the mucosal tissues in contact with the microbicide, but that doesn't mean that we won't find compounds that work. And there are studies ongoing right now in animal models and early clinical studies looking at both vaginal as well as rectal microbicides. So this is a very important area for investment. It is one of those new tools that I'm trying to make a plea for working collaboratively with NIH, of course, as well as FDA.

Dr. FAUCI. Most of those studies, Ms. Speier, were done with microbicides that don't have a specific anti-HIV drug in it. The second generations are those that are now incorporating drugs that specifically block the virus, so the issue that Dr. Gerberding mentioned is one we still haven't overcome, is the propensity toward vaginal irritation which can sometimes paradoxically make things worse, but also there has not been potent anti-HIV drugs in the compounds, which now the second and third generations ones that we feel a little bit more optimistic about now are ones that do contain those compounds.

Ms. SPEIER. And my last question, Mr. Chairman, to both of you, if you were being asked today how much money we should be spending in the United States on HIV and AIDS, how much would that budget be?

Dr. GERBERDING. We have submitted that for the record, our professional judgment without constraint. And as Kevin and I sat down and walked through that budget, I think we recognize that this isn't just a CDC question, it has to include the NIH, it has to include SAMHSA for mental health because we can't solve this problem without doing more for mental health and substance use. And we need to addressthe correctional facilities, because a disproportionate part of the population at risk is in correctional environments. So we only have a piece, and we probably need to sit down together as a collaboration and really think through a true

national strategy, and that's what we are proposing to do as these new data become available.

Ms. SPEIER. Give us a number nonetheless.

Dr. FAUCI. I can give you an NIH number. Our budget, as you know, has been essentially flat for the last 4 or 5 years. So we have $29-plus billion in research that we've—that we spend, which is a substantial amount of money. The difficulty is if you have no increases for several years in a row, you're really looking at a 3.2 percent decrease per year in actual real money in the sense of inflationary index. So you are looking at a minus 12, 13 or plus percent decrease over a period of 5 years. So when people ask us, in our professional judgment, which I will give you now, that if you're looking at what we could use and spend quite well, the NIH budget is $2.9 billion for AIDS on a budget that's $29 billion for all of NIH, so it is a little more than 10 percent. With a $2.9 billion budget for the NIH for AIDS, we could spend about $3.35 billion.

Chairman WAXMAN. Thank you, Ms. Speier, your time has expired.

Ms. McCollum.

Ms. MCCOLLUM. Thank you, Mr. Chair.

People are dying every day in this country because of AIDS, and the numbers continue to increase despite the fact that AIDS prevention works. And I know this all too well, because I recently lost a friend from AIDS. It was a story that could go with maybe not being tested quick enough. It is a story that you could talk about fear and discrimination, but it also includes the Federal Government and the State of Minnesota not doing what it could do to support people who are on anti-retro viral treatment and the stress that these individuals go through when their treatment is threatened or cutoff and then they find themselves scrambling for treatment.

We're here today because we need to get our energy back into the need for HIV prevention and education efforts, and I appreciate sincerely the testimony of the panel. We know that there are populations now that are more at risk than other populations. We're here today because the CDC's report found out this that there were 60, excuse me, 56,000 new HIV infections last year focused in racial and ethnic minorities; that's 70 percent of new cases. This is also true of Minnesota, and I wish Mr. Shays was still here. Maybe he'll come back.

Minnesota has recorded the highest number of HIV cases seen in the last 10 years in 2007. With 325 new cases, gay, bisexual men are the highest group impacted with 77 percent of all cases. Minnesota also is facing higher increases among young men and among Latina women. We know that the HIV rate in African American men and in the immigrant population is 20 times higher than the statewide average.

Mr. Chair, I would—I'll submit some issues for the record, but one thing that was brought up in a question was, well, this is new because we're testing better. Well Minnesota's been testing since 1985, so it is going up in Minnesota. I'm—I—I want to ask you, again, do you think the only reason why you're seeing rates increase in the populations that I have mentioned and across this

country, the only reason is because testing is more effective, knowing that States submit records to you on a regular basis?

Dr. GERBERDING. I regret if I implied that we thought the reason for the number that this was related to testing. This number is a new number because we have a new diagnostic test that allows us to tell when somebody was infected, so we can distinguish very old infections from recent infections, so that's the test element of the number. But the number that we are reporting today and the back calculations that we did using the new methodology of extrapolation over time allows us to recognize that we've been misunderstanding the true incidence for a long period of time. In part it is complicated and I would be happy to sit down an walk through some of the science of it. But is not that we are doing more testing, and you're right Minnesota was one of the first to have HIV reporting and the first to take an aggressive perspective on that. But, nevertheless, even in Minnesota, there are undiagnosed people and there is ongoing transmission.

Ms. MCCOLLUM. Thank you.

One of the people who took it to the street, took it to public officials was a wonderful person, our State epidemiologist, Dr. Michael Osterholm, who made sure that we kept track of records. And some people called him an alarmist for going out and talking about it at the time. I think the alarm needs to go off again, and so I thank you again for your report.

Mr. Chairman, the Minnesota Department of Health Federal CDC HIV prevention grant has been reduced by 8 percent in the past 5 years. Federal CDC STD prevention grants, which is also a precursor that's been used, has been reduced 4 percent since 2003. That's despite the number of STD cases has risen 14 percent since 2003.

Mr. Chair, I'm going to submit some information into the record from the State of Minnesota and the profile of HIV epidemic. I will be around if there's an opportunity for more questions. I originally wasn't going to spend my time so much talking about Minnesota, but I wanted to, for the public, clear up any misunderstanding that might have been what these statistics are really indicating to us, and that's to wake up and to start getting correct information, and to let today's youth know that treatment is not a cure; it is not a cure.

Thank you, Mr. Chair.

Chairman WAXMAN. Thank you very much, Ms. McCollum.

We will be, without objection, we will be pleased to receive the information for the record that you would like to submit.

[The information referred to follows:]

Profile of HIV Epidemic in Minnesota

Minnesota AIDS Project AIDSLINE, 612-373-AIDS
800-248- AIDS www.mnaidsproject.org

NEW REPORT INDICATES AN INCREASE IN NEWLY DIAGNOSED CASES OF HIV. In 2007, 325 new cases of HIV were reported in Minnesota. This continues a slow, yet steady, growth of newly reported HIV infections. This number of newly reported cases within one year has not been seen since the 1990's. Absent comprehensive HIV education for all Minnesotans on an ongoing basis, this is to be expected as more individuals in Minnesota live longer and healthier lives with HIV due to medical advances Absent a vaccine, Minnesota will continue to see rising infection rates.

UNREPORTED INFECTIONS. Experts estimate approximately 2,500 Minnesotans are believed to be living with HIV disease but do not know they are infected.

ONE NEW INFECTION REPORTED NEARLY EVERY DAY.
A new case of HIV disease is reported in Minnesota every 27 hours.

STEADILY INCREASING NUMBER LIVING WITH HIV DISEASE.
As of December 31, 2007, 5,950 people are known to be living with HIV disease in Minnesota. This represents nearly 30% more individuals living with HIV in 2007 than in 2002. It is an increase of 81% since 1997, the year in which HAART (highly active anti-retroviral therapies) were introduced that dramatically lowered the death rate.

CUMULATIVE CASES. To date, 8,504 cases of HIV disease have been reported in Minnesota since 1982. Of those, 2,912, or 34% of these people have died.

GEOGRAPHIC DISTRIBUTION. In 2007, 38% of the newly reported cases of HIV resided in Minneapolis, 13% in Saint Paul, 37% in Twin Cities' suburbs, and 12% in Greater Minnesota. There has been a steady increase in reported Twin Cities' suburban cases over the past five years.

IMPACT OF INJECTING DRUG USE.
Minnesota continues to see great success in preventing new infections linked to injecting drug use Only 16 new cases (5% of total) diagnosed last year indicated injecting drug use as the only risk factor. This compares to the national average of approximately 13%.

MINNESOTA GAY & BISEXUAL MEN STILL LARGEST GROUP IMPACTED BY HIV. 77% of Minnesota's living cases of HIV are male. Of that total, 72% have contracted this virus solely through male-to-male sex or through male-to-male sex and injecting drug use (dual risk). Of male cases reported in 2007, 63% were similarly infected.

DISTURBING INCREASE IN YOUNG GAY & BISEXUAL MEN
There has been a steady increase in new cases occurring within the population of young gay and bisexual men (under the age of 24) since 2001. Of newly reported cases of HIV in 2007, 15% occurred in young men ages 13 – 24. In 2005 – 2007, virtually all of these cases (98%) are estimated to have male-to-male sex as their risk.
Of the 18 newly reported male cases of any age who report male-to-male sex *and* injecting drug use as a risk factor, 5 (28%) are under the age of 24. This may be due to the continuing problem of injecting meth use within this community.

GAY AND BISEXUAL MEN OF COLOR CASES DISPROPORTIONATE.
Looking at 2005 – 2007, 96% of newly diagnosed Caucasian men, 76% of African American men and 90% of newly diagnosed Latino men reported male-to-male sex (including male-to-male sex and injecting drug use) as a risk factor.

BIRTHRATE TO HIV+ WOMEN INCREASING.
While the number of infants born to mothers who have tested HIV-positive continues to increase rapidly, the rate of transmission of HIV to the infants remains at 1%. Many women only learn through prenatal screening that they are HIV+. In 2007 14% of women newly-diagnosed learned their status due to these tests.

AFRICAN AMERICANS AND AFRICAN BORN. 22% of new cases (71) of adult and adolescent HIV disease in Minnesota are among African Americans, who represent just over 4% of the State's population. The increase is in male cases, largely amongst African American men who report male-to-male sex as a risk factor.
New cases of HIV in the African born community saw an increase in 2007 (48 cases in '07 vs. 36 cases in '06.) However, the overall number of new cases has been quite stable over the past seven years.

HISPANIC CASES REMAIN LEVEL
During 2007 the number of new cases reported within the Hispanic community remained relatively level to 2006, which was a record high.

NEW INFECTIONS AMONG WOMEN OF COLOR STILL DISPROPORTIONATE.
Seventy-four percent of new HIV cases among females occurred in women of color. This concerning trend has continued for a number of years. Of that group, 32% of these women are African born and an additional 23% are African American. 10% are Latina and 7% Native American.

PREVALENCE DATA INDICATE A "GRAYING EPIDEMIC" OF THOSE LIVING WITH HIV
As the number of Minnesotans continues to grow due to declining death rates resulting from improved medications, the number of HIV+ individuals over the age of 50 is increasing rapidly. Of the 5,950 reported to be living with HIV 45% are over the age of 45. This compares to only 31% in this age range just five years ago (2002). These data point to a need to understand the impact this has on medical treatment, prevention and support services.

MORTALITY
According to a report issued by the Minnesota Department of Health looking at all causes of death to those living with HIV both before and after the advent of the newer highly effective medications, the distribution of deaths due to HIV-related causes and non-HIV related causes is evenly distributed.

NOTES

HIV DISEASE: HIV disease starts at infection. This term is inclusive of people with advanced stage infection, who can have the technical classification of AIDS.
AIDS: This is the reporting classification for people with advanced stage HIV disease.

Data from the Minnesota Department of Health, April 2008

Chairman WAXMAN. Ms. Watson.

Ms. WATSON. Thank you, Mr. Chairman.

I just want to clarify something that was said, and I'll direct this toward you, Dr. Fenton, as I understood, HIV is spreading more quickly among African American women than any other group. Is that correct or not correct?

Dr. FENTON. HIV infection is spreading at the greatest rate among gay and bisexual men. In fact the data shows that they are the only group where we have seen consistent and sustained increases in HIV incidence since the early 1990's.

Ms. WATSON. Then, let me go back, because after the virus was spread—I mean, identified around 1980, 1981, it was believed to be among White males having sex with males. It seemed that there was attention given to that segment of society, and things improved, and that's where the funding was going. Maybe 10 years later, there was data showing that it was moving quicker among African American women, coming from partners who injected themselves.

As I understand that, there is a disproportionate toll on African Americans, males, females at this time, and they account for 12 percent of the population but 45 percent of the new infections in the year 2006. Is that true?

Dr. FENTON. That's true.

Ms. WATSON. OK, I might have missed this part of your testimony, so let me just refer back to it. But can you tell us more about what CDC is doing in terms of the Heightened National Response to address HIV and AIDS in the African American community?

Dr. FENTON. Thank you. I would be delighted to tell you about that. The Heightened National Response is an initiative which was started in 2006, and it brings together CDC, our Federal partners and our partners and leaders in the African American community to focus on the epidemic among African Americans and to accelerate our prevention efforts.

And the Heightened National Response is built on four key pillars. The first is to expand HIV testing within the African American community. The second is to expand the reach of our prevention services; in other words, to scale up effective prevention interventions with African Americans so we know it will have an impact on the epidemic. The third is to mobilize the African American community. And we have been really working with a range of amazing African American leaders to focus and to bring the conversation back to HIV and the importance of community leadership on HIV/AIDS. And the fourth pillar is on research, to ensure that we are investing in research for and by African Americans, so that we're looking at culturally competent prevention interventions moving forward.

Ms. WATSON. Now, the main points that you are describing to us, did you get new funding to be able to implement?

Dr. FENTON. No, this is a great example of what Dr. Gerberding said of looking at our existing prevention portfolio and having to make tough decisions to realign our existing prevention dollars into what we believe are urgent threats or urgent realities and to deal

with the matters at hand. And so this is part of the activities that we have to do in the current environment.

Ms. WATSON. Well, going back and looking at the history because I chaired the health and human services in the California Senate for 17 years. I was there when we identified the virus, and I was there when money flowed in to address White males having sex with White males. I was there, too, when we discovered that it was moving among the African American female community. And I never saw the funding keep pace with the spread. So I will expect, in trying to reach your goals to reduce the rate of infection, that you have not been able to reach those goals of reducing the rate of infection among that population.

Dr. FENTON. Well, actually, we do know that the transmission rate of HIV has been declining in the United States. There are more people living with HIV, but——

Ms. WATSON. But what about African Americans? I really want to see zero in, because this was a great concern. I carried the needle exchange program for years. I was called on the carpet by, particularly, the ministerial community. I had to go to San Francisco and sit in the hot seat. And it was very, very difficult to have an understanding that if we do a needle exchange, at least we take a dirty needle out. And at that time, as Dr. Gerberding has said, that we're able then to give information about treatment and at the point of exchange. And that program only was adopted after Willie Brown took over, and I was gone at that point.

But I'm still concerned as to what is happening in that community. And I'm still concerned about resources. And I would like to know the status of mobilizing the community—I know we are working through a lot of our churches now. Could you just add to that, please?

Dr. FENTON. Sure. It has been an amazing couple of years in which we've brought leaders from all walks of life into the African American community to dialog with us and to plan with us. Leaders from the African American faith communities, from the academic sector, from the business sector, from grassroots organizations who have come to Atlanta to talk about their activities and their plans and look at ways is in which CDC can accelerate efforts toward prevention. This has been a new way for us to work as an agency. It is an important way for us to work as an agency moving forward.

Ms. WATSON. If I might take just another minute, Mr. Chairman.

Chairman WAXMAN. Without objection, the gentlelady is yielded another minute.

Ms. WATSON. In the African American community, our churches are the place where people come together. And that is a route that I think should be more focused on. And if we had the necessary budget items, and this is something I have in mind, to impact those who are appropriators, we really need to—and I understand also that HIV/AIDS is spreading among Hispanic Americans now, where it wasn't as heightened as, 10 years ago, as it appears to be now. So I think that we need a special program expanded to deal particularly in the African American community with our churches and other community programs.

With that, I will say thank you, Mr. Chairman.

And thank you, Dr. Fenton.

Chairman WAXMAN. Thank you, Ms. Watson.

Mr. Sarbanes.

Mr. SARBANES. Thank you, Mr. Chairman.

Thanks to the panel.

I would imagine that just about any condition can be treated or involves sort of two prongs at least in your strategy combat it. One is sort of behavioral modification. The other is treatment. So—but, obviously, there are certain kinds of conditions, diseases and so forth where that interplay is more relevant and elastic.

And—so I had a couple of questions. Is there any evidence, or can you describe how progress on the treatment front may have contributed to some backsliding on sort of the behavioral practice or modifying behaviors up front? And if that has happened, you know, how do you address that? What are the strategies for—to maintain the intensity and focus on both strands without having them sort of contribute to going in the opposite direction with the other? And along those lines, and this is my only question, so then I ask you all to just jump in, are there conditions or diseases that have been good reference points for you to look at where the analogy is strong enough, in terms of what we are dealing with HIV and AIDS, of what's happened in terms of how we've managed those is instructive in terms of the strategies that we're trying to employ with respect to HIV and AIDS?

Dr. GERBERDING. I'll start. I think that the risk period for people, all other things being considered, for the highest chance of transmitting to others is very early after infection and then again very late in infection when the viral load is very high. But you can transmit at any time. So if treatment is successful in suppressing viral load, it stands to reason that people would be less infectious to others during that period of time. They also tend to change their behavior when they know they are infected and protect other people as a consequence of their disease.

But we are experiencing anecdotal and I think more systematically a cohort of people who have falsely been reassured that their lives are going to be unaffected by this treatment, and so there is some complacency and some recidivism and increase in risk behavior. And we see that by indicators such as the incidence of rectal syphilis going up in some populations where there has been an increase in unsafe sexual practices, so that is a phenomenon.

There is—it is very difficult to find a good analogy to HIV in the context that you're asking the question. To some extent, TB is like that. You have to treat it for a long time, and people become less infectious when they are in treatment. They can be falsely reassured by the therapy early on and be less conscientious about infecting the people in their households, but AIDS is a pretty unique infectious disease, a chronic infectious disease for which we have a chronic infectious disease treatment. And so we're kind of learning as we go with this one.

Dr. FAUCI. Just to underscore what you said about the perceptions. The perception of something not being as bad as we decades ago thought it was, if you look at the environment that we're in, we used to have hospices and 20 to 40 percent of the hospital beds

in some cities were occupied by people with HIV infection. It is mostly an outpatient disease right now.

The public perceptions that put on the face of someone with HIV, if you look at some of the advertisements for some of the drugs, you open up medical journals and you page through the first 10 pages and they have these extraordinarily healthy looking people rock climbing saying, I'm doing very well on my Atripla or on my, whatever drug combination they are on, and it really creates a false impression that we've been trying to underscore here, and Dr. Gerberding mentioned it actually formally in her presentation, is the issue that it is a bad thing to get HIV infected. Even though with all the very, very effective drugs we have, it is not a good thing. It's difficult to take the medications. It is a lifelong disease. If you stop, we have shown as others have, that the virus bounces right back, and at this point, we have not been able to cure it.

Mr. SARBANES. Would you attribute any of the increase that has been talked about here today to this sort of misperception, or is it—I'm sure it is hard to draw a straight line.

Dr. FAUCI. No, I think there is no question in our mind that when people practice risk behavior, if you question them and talk about it with them, a significant amount, I can't give you a number, is due to the feeling that it isn't as bad as it was back in the early 1980's. Of course, there was an incredible amount of fear. If you were in New York City or San Francisco or Los Angeles or some of the other cities, the fear among the community, particularly among the gay community, was palpable. There is much less of that now because of the perception that we can treat it very well.

Chairman WAXMAN. Thank you, Mr. Sarbanes.

Without objection, Representative Maxine Waters, who is not a member of our committee, will be allowed to sit with us and enter a statement in the record and to ask questions. Without objection, that will be the order.

Ms. WATERS. Thank you so much, Mr. Chairman. I am just so pleased that you are holding this hearing and I would like to thank you and Ranking Member Tom Davis for this hearing today.

I'd just like to give a little bit of background and ask a few questions.

Many people in the Black community have long suspected that the epidemic was worse than our Nation's leaders thought it was, even before the CDC's new estimates were released. We knew that African Americans accounted for about half of all of the new AIDS cases, and we knew that HIV/AIDS was having a profound impact on African Americans.

In 1998, we sounded the alarm in the halls of Congress on April 24, 1998, while I was the Chair of the Congressional Black Caucus, the CBC held a brain trust which was sponsored by Congressman Louis Stokes. During that brain trust, those same members were shocked by the presentation of Bennie Primm, the executive director of the Addiction, Research and Treatment Corp. Dr. Primm's presentation described the state of HIV/AIDS crisis in minority communities, particularly the Black community.

On May 11, 1998, the CBC held a meeting that brought together many public health workers, AIDS activists and representatives from all over the country to tell us about the impact of the HIV/

AIDS in minority communities. That same day, the CBC called for President Bill Clinton to declare a public health emergency to combat the crisis in minority communities.

In the fall of 1998, Lou Stokes, Donna Christensen and I met with Donna Shalala, the Secretary of Health and Human Services, to discuss the crisis. We agreed that what we really needed was not a declaration of a public health emergency but rather money for programs to address the crisis.

On October 28, 1998, the CBC held an event to roll out the Minority Aids Initiative. The event featured the participation of President Clinton, Secretary Shalala and representatives of HIV/AIDS organizations from around the country.

At the 1998 roll out, we announced that the Minority Aids Initiative would receive an initial appropriation of $156 million in fiscal year 1999. The minority AIDS initiative grew significantly over the next 5 years, but since then, funding has remained stagnant at about $400 million per year since fiscal year 2003, and at some points, it dropped below the $400 million.

Having said that, African Americans again have been seriously and disproportionately affected by HIV/AIDS. There are more than one half million African Americans living with HIV/AIDS today. African Americans account of about half of all the new AIDS cases, although only 12 percent of the population is Black. African American women represent somewhere between 66 and 75 percent of all the new AIDS cases among women. And African American teenagers represent 69 percent of all the new AIDS cases among teenagers. I could go on and on with this.

Are you shocked about this crisis? Are you bothered about this crisis?

Let me start with Dr. Julie Gerberding. Does this information shock you?

Dr. GERBERDING. I, as I said before you were here, I believe this is an urgent situation. Am I shocked by it? I'm certainly not happy about it.

Ms. WATERS. Do you think it's a crisis?

Dr. GERBERDING. I think it is a crisis.

Ms. WATERS. Mr. Fenton, are you shocked? Do you think this is a crisis?

Dr. FENTON. I'm saddened, and CBC has portrayed this as an severe and ongoing crisis among the community.

Ms. WATERS. Do you do think it is a crisis?

Dr. FENTON. I do.

Ms. WATERS. Dr. Anthony Fauci, do you think it is a crisis?

Dr. FAUCI. Yes, I do, Ms. Waters.

Ms. WATERS. OK, given we all believe this is a crisis and these statistics and this information is shocking, what do you recommend?

Dr. GERBERDING. I would be happy to share the professional judgment budget that we have presented to this committee with you, which I think reflects three major focal areas. One is to know not just who got it then or who is getting it now, but who is going to do get it if we don't act and invest in the systems that tell us what to do about that. Second is to get everybody diagnosed who's

had it, so they can benefit from treatment. And the third is to put a significant effort into new research——

Ms. WATERS. How long have you been at CDC?

Dr. GERBERDING. Six years.

Ms. WATERS. Six years? You heard my background on how I created the Minority Aids Initiative. I created that because we needed to focus on building capacity and getting communities that had little or no resources involved in RFP processes. We've been working very hard, and I come here, and I hear you, Mr. Fenton, talk about all this great work you're doing with minority leaders and minority communities. I don't know about it. I've been involved in this issue for a long time, having created this and watching the incidence of HIV/AIDS grow in African American communities across the country.

And I want to know, because I don't get a sense that you really feel this is a crisis. And when you tell me that, well, I submitted a budget, take a look at the budget, how have you sounded the alarm? What have you done to deal with this growing crisis? Do you see what I just said about African American teenagers from 13 to 19-years old representing 69 percent of all the new AIDS cases among teenagers? Doesn't that bother you?

Dr. GERBERDING. Mrs. Waters, we will be briefing the Black Caucus this afternoon, but if you would be able to participate in our enhanced initiative, we would love to have your voice because we need to get leaders involved in helping us——

Ms. WATERS. No, no, no, no, no.

Dr. GERBERDING. We need your help.

Ms. WATERS. No.

Excuse me, Mr. Chairman.

I am involved and I have been involved. And the Black Caucus has been screaming to the top of its voice for help. We just got one portion of this reauthorized with Ryan White. The other portions of the funding that we struggle with are not even official in the budget. What are you going to do about just getting CDC portion authorized? It is spread out among several of these agencies, including CDC and NIH and SAMSA. And I don't see any leadership from—I don't see any leadership from you.

Now, I know that you think I'm being a little bit harsh, and I am. I happen to be an African American woman. I don't want gays and lesbian and African American men and women fighting about who is worse off. We are all worse off. And I don't like it when I go out into the communities and I see all of these little groups struggling and fighting, and the way you deal with the discretionary money. We need some leadership.

And I'm so pleased that I am able to be here today, Mr. Waxman, and I thank you for indulging me in my frustration.

Chairman WAXMAN. Thank you very much.

The gentlelady's time has expired.

Dr. Fenton and Dr. Gerberding, one—once CDC identifies effective programs, the next step is to disseminate them to the States.

How does CDC identify effective programs?

Dr. GERBERDING. I would like to ask Dr. Fenton to take on this in detail, but just to tell you that there is a two-step process. One is to review the evidence of efficacy by expert scientists who are in

a position to make those judgments, and we respect that, and to get that up in the compendium, which will be updated again. But in addition, there is a process of diffusion where we work with an organization that trains and helps disseminate people. Right now, there is a bottleneck in the training, so that's one of the issues we addressed in our professional judgment budget.

Chairman WAXMAN. So you have a research time that applies a methodological review of studies of existing programs. They identify the ones that are found to work. You put it up on the compendium. Isn't that right?

Dr. GERBERDING. Yes. And we expect the grantees who receive our dollars when they are developing programs to use those programs that are proven to be effective. But in order for them to successfully implement them, they often need training and support, and that's one of the areas that we are not able to keep up with right now.

Chairman WAXMAN. When the compendium was first released in 1999, CDC said it would update it annually as effective new programs were identified, and CDC's experts did identify a number of additional programs that work, but as I understand it, you said there is a bottleneck. CDC did not issue annual updates to the compendium; is that right?

Dr. GERBERDING. I can't go back to 1999, but we have done two updates since I have been the director of the CDC. It is a little hard to do it annually because the data from these programs doesn't come forward that fast, but I think we are accelerating our ability to do that.

Chairman WAXMAN. When did CDC last issue an update on the compendium?

Dr. GERBERDING. 2007.

Chairman WAXMAN. Did CDC attempt to get HHS approval to release an updated compendium prior to that time?

Dr. GERBERDING. I believe we did.

Chairman WAXMAN. And what was the response from HHS?

Dr. GERBERDING. I would have to ask Kevin, who wasn't the director at the time, to go into the details of this, because I don't know all the steps involved. We can provide that paper trail for you. But to suffice to say that it was not a speedy process.

Chairman WAXMAN. OK. Well, I'd like the answer to that question for the record. I'd also like to know why didn't HHS approve any updates of the compendium until 2007?

Dr. GERBERDING. I can't answer that.

Chairman WAXMAN. OK.

Dr. GERBERDING. But I can say, in the recent years, we've had I think a much more accelerated process, and I'm satisfied that we are able do it in a timely way now. I hope we will have the update for 2008 before the end of this calendar year.

Chairman WAXMAN. Well, it took 8 years to update the list with crucial information about programs that have been shown to save lives. And I'm concerned that instead of encouraging effective HIV prevention, HHS seems to have been standing in the way. In fact, the committee asked CDC for a list of dates for which the compendium and other important HIV prevention documents were submitted to HHS for clearance and when they were actually released.

And my understanding is that the committee hasn't gotten a response because CDC's response is still in clearance at HHS.

Does CDC provide training or technical assistance for implementing the programs it identifies?

Dr. GERBERDING. Yes, we do.

Chairman WAXMAN. And how many organizations are currently on the waiting list?

Dr. GERBERDING. About 2,000.

Chairman WAXMAN. So 2,000 organizations out there want to provide identified effective HIV prevention programs, but they are still on a waiting list. I think that's unconscionable given the statistics we've been hearing about today, and I think we need to address it.

Dr. Gerberding, just a clarification of your testimony, you suggested earlier that one of the reasons that you lowered your prevention goals is that there are more people with HIV living because of treatment, but the data for 2000 estimated 945,000 people living with HIV, and for the data for the most recent year, we find around a million people. This is about a 5 percent. Does a 5 percent increase in people living with HIV produce an 80 percent decrease in your goal and a 20 percent decrease in funding for prevention?

Dr. GERBERDING. I'm not going to be able to do that math in my head, but I think what you're getting to is, you know, what is the full picture of the recalibration? And, again, I was on the advisory committee when we were struggling to develop that first 50 percent reduction. We recognized at that time that there was a bell shaped survival curve for HIV, so the projections were that we would see an excalation in death rates, and that was factored into the projection of the transmission. So it was a—I don't want to say it would be easier to prevent if there were fewer people living because that isn't our public health goal, but the calculus was different then. And that's not the only reason, as I already said, but that is one of the factors——

Chairman WAXMAN. Well, I asked that question——

Dr. GERBERDING [continuing]. Different as opposed to now.

Chairman WAXMAN. Because I was troubled by the answer you had given earlier so I just wanted to pursue that point. And I thank you for responding.

This panel has been very helpful. I think it is unfair to criticize the four of you for what you are trying to do. I think you're trying to do the best you can, and you're trying to do as much as you can without sufficient funds and without the barriers to your efforts being removed. And the purpose of having you here is not to criticize you but to try to be constructive in working with you to be sure that you have the ability to do the job, because we are all very concerned and frustrated that there are so many people whose lives are at risk and will be lost unless we in government do what's needed. And if it is not coming from the U.S. Government, it is not going to happen at all. I thank each of you for your testimony today.

I want to now call forward the witnesses for our second panel, Dr. David Holtgrave. We will wait a minute and have the second panel come forward.

We're pleased that you are here today, and I want to introduce those of you on the second panel.

Dr. David Holtgrave is founding Chair and professor at the Department of Health, Behavior and Society at the Johns Hopkins Bloomberg School of Public Health. He has served as director of behavioral and social sciences at the Emory Center for AIDS Research and as director of intervention research at CDC's Division of HIV/AIDS Prevention. Dr. Holtgrave has focused on the efficacy, effectiveness and economic evaluation of a variety of HIV prevention interventions, contributing to over 175 professional publication.

Dr. Ada Adimora is associate professor of medicine at the University of North Carolina School of Medicine and adjunct associate professor of epidemiology at the School of Public Health. She has been the principal investigator on multiple CDC and NIH funded research projects and has published extensively on the epidemiology of HIV in America, with a focus on African Americans. Dr. Adimora a practicing clinician and a fellow of the American College of Physicians.

Dr. George Ayala works as a research psychologist and public health analyst at RTI International's Urban Health Program in San Francisco, CA; and is also the executive officer of the Global Forum on Men Who Have Sex with Men and HIV. He is the former director of health promotion, community research, and capacity building at AIDS Project LA where he managed HIV prevention technical assistance and research. A clinical psychologist by training, Dr. Ayala's research focuses on the mechanisms through which social discrimination impacts health.

Heather Hauck is the director of Maryland Department of Health and Mental Hygiene AIDS Administration, leading statewide public health efforts to reduce HIV transmission in Maryland and to help Marylanders with HIV/AIDS live longer, healthier lives. Ms. Hauck is currently Chair-elect of the National Alliance of State and Territorial AIDS Directors. She has served as the section chief of the STD/HIV section for New Hampshire and as a consultant on HIV program issues for hospitals, national associations and State public health agencies.

Frank J. Oldham, Jr., is the executive director for the National Association of People with AIDS. He has spent over two decades as a leader in HIV policy, administering HIV programs for the cities of New York and Chicago, and working in numerous AIDS service organizations. Mr. Oldham has served and is currently serving on several planning and other policy bodies, including the New York City Commission on AIDS; the National Minority AIDS Council; CDC's 5-year strategic planning committee; and Lambda Lesbian and Gay Community services.

We are pleased to have you here today. I want to inform you that, in this committee's practice, all witnesses who appear before us do so under oath, so we'd like to administer and oath to you if you would please stand and raise your right hands.

[Witnesses sworn.]

Chairman WAXMAN. The record will indicate that each of the witnesses answered in the affirmative.

Your prepared statements will be in the record in full.

We'd like to ask, however, that you limit the oral presentation to 5 minutes. And we will have a clock that will tell you, for 4 minutes, it is green; and the last minute, it will turn orange; and when the time is up, it will turn red.

Dr. Holtgrave, let's start with you. There is a button on the base of the mic. Be sure it is pressed so we can hear you.

STATEMENTS OF DAVID HOLTGRAVE, PH.D., PROFESSOR AND CHAIR, DEPARTMENT OF HEALTH, BEHAVIOR AND SOCIETY, JOHNS HOPKINS BLOOMBERG SCHOOL OF PUBLIC HEALTH; ADAORA A. ADIMORA, M.D., DIVISION OF INFECTIOUS DISEASES, UNIVERSITY OF NORTH CAROLINA SCHOOL OF MEDICINE; GEORGE AYALA, PSY.D., RESEARCH HEALTH ANALYST, RTI INTERNATIONAL AND AIDS PROJECT LOS ANGELES; HEATHER HAUCK, DIRECTOR, AIDS ADMINISTRATION, MARYLAND DEPARTMENT OF HEALTH AND MENTAL HYGIENE; AND FRANK OLDHAM, JR., PRESIDENT, NATIONAL ASSOCIATION OF PEOPLE WITH AIDS

STATEMENT OF DAVID R. HOLTGRAVE, PH.D.

Mr. HOLTGRAVE. Chairman Waxman, Representative Davis and distinguished members of the committee, thank you for the opportunity to speak with you.

Today's hearing is truly urgent. CDC's HIV incidence estimate suggests that there is a new infection every 9½ minutes in the Nation. There is an AIDS-related death every 33 minutes. The ratio in ethnic health disparities are staggering. And the lifetime HIV care and treatment costs for one person can easily top $275,000.

Because of the new incidence estimates, one might ask two key questions: Are HIV prevention programs effective, and are they delivered at a sufficient scale in the United States? My answer will be yes to the first question and no to the second. To assess prevention effectiveness at the National level, we must examine HIV transmission rates. Obviously, HIV is spread from a person living with the virus to someone who is HIV negative. The transmission rate is the number of new HIV infections in a year divided by the number of people living with HIV in that year. As seen in this first slide the HIV transmission rate dropped from over 92 in 1980 to 6.6 in 1991.

On the second slide, we see that the transmission rate stayed at roughly this level until 1997 when, after the advent of new therapies, the transmission rate actually went up temporarily to 7.5. Thereafter it declined once again.

In 2006, the transmission rate appears to be just under 5. This means over 95 percent of persons living with HIV in the United States are not transmitting the virus to someone else in a given year.

Another key measure of prevention success is the difference between what we observed in the HIV epidemic and what would have occurred had prevention programs not been in place in slide three. From the beginning of the epidemic through 2006, I estimate very conservatively that roughly 362,000 infections were prevented in the Nation and over 3.3 million quality adjusted life years were saved.

There is a clear relationship between HIV prevention program funding and incidence, as seen in the fourth slide. The bottom line is that, in terms of HIV prevention investment, the Nation gets what it pays for. One must be concerned, therefore, that when adjusted for inflation, CDC's HIV prevention budget has fallen over 19 percent since fiscal year 2002, and in real dollar terms, the investment in the Minority AIDS Initiative is also in decline.

Further, CDC's data shows that a small fraction of gay men in need of HIV prevention services report receiving them. Clearly our investment in prevention is lacking. We must therefore scale up the use of evidence-based HIV prevention tools already at our disposal even as we hope for new intervention, such as a vaccine. As seen in slide five, some currently available evidence-based HIV prevention interventions are readily available to us. What's most important to emphasize is that we possess the technology to influence HIV-related risk behaviors, and an extensive scientific literature leaves very little doubt on that point.

So what is the right level of investment? I estimate that CDC's HIV prevention budget, now at $0.75 billion, needs to increase to about $1.32 billion per year and remain, on average, at that level for about 4 years at least so as to undo the damage done since fiscal year 2002 and to address HIV prevention needs in the United States.

What new services could be delivered at this higher level of investment? On the sixth and final slide, I list some of these. I believe it would provide sufficient resources to field the new very large-scale targeted HIV counseling and testing campaign; a nationwide public information and anti-stigma campaign; intensive client-centered, evidence-based prevention services for the minority of persons living with HIV who engage in any risk behavior that could result in transmission; in brief, the science-based intervention for 15 million HIV negative persons at risk of infection.

What public health impact would this achieve? After 4 years of heightened service delivery, the United States could reduce HIV transmission rates by 50 percent and HIV incidence by 50 percent. Further, we could achieve and maintain a 90 percent level of serostatus awareness of persons living with HIV. This is a great fiscal investment. The cost per infection averted via this new heightened response would be roughly $27,000, and that indicates the prevention programs could easily save more medical resources than cost to implement.

But accountability is key. The proposed intensification of these programs must be accompanied by a quick but careful review of current HIV prevention resources across the Federal Government, and we need a national AIDS plan. Further, the performance of all HIV prevention resources should be summarized in an annual report card so that mid-course corrections can be made.

In conclusion, we are at a historic crossroads in the HIV Epidemic in the United States. Doing more of the same will achieve more of the same. And as asserted by a recent report of Black AIDS Institute, the United States is indeed being "left behind." But we can find the national will to scale up evidence-based HIV prevention programs sufficiently to change the course of the epidemic in the United States once and for all.

Thank you, again, sincerely for your strong interest in HIV prevention.

[The prepared statement of Mr. Holtgrave follows:]

Written Testimony on HIV/AIDS Incidence and Prevention
For
Hearing to be held September 16, 2008

Submitted to:
Chairman Henry A. Waxman
Committee on Oversight and Government Reform
Congress of the United States
House of Representatives

Submitted by:
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Introductory Remarks. Chairman Waxman, Representative Davis, and distinguished members of the Committee on Oversight and Government Reform: thank you sincerely for the opportunity to speak with you today on the critical topic of HIV prevention in the United States. My name is David Holtgrave, and I am Professor and Chair of the Department of Health, Behavior & Society in the Johns Hopkins Bloomberg School of Public Health. From 1991-1995, and from 1997-2001, I worked at the US Centers for Disease Control and Prevention (CDC). In the later time period, I served as Director of the Division of HIV/AIDS Prevention – Intervention Research and Support at CDC.

Public Health Urgency. The topic of the hearing today is truly urgent. CDC's new HIV incidence estimates would suggest that there is, on average, a new HIV infection every 9.5 minutes in the US.[1] Further, there is also an AIDS-related death roughly every 33 minutes in the nation. The racial/ethnic disparities in HIV/AIDS are indeed staggering with African-American and Latino communities bearing disproportionate burdens.[1] Sadly, incidence appears to be again rising among gay and bisexual men. There are also important fiscal consequences of the epidemic. HIV care and treatment costs are approximately $22,500 per year (depending on the client's health status), and lifetime treatment costs can easily total over $275,000.[2,3,4]

Evidence Base of National Prevention Efforts. Because CDC's new base-case estimate of HIV incidence is higher than previously thought (55,000 or 56,000 instead of 40,000 infections per year), we might ask if HIV prevention services are without merit and should be discontinued.[1] I will argue today that actually HIV prevention services have been very successful at keeping the HIV transmission rate relatively low in the US, but as a nation, we have failed to scale up the implementation of evidence-based prevention programs to the level of coverage necessary to further impact the epidemic.

The HIV transmission rate is simply the number of new HIV infections in a year divided by the number of people living with HIV in that year. This statistic provides a sense of the speed of spread of the epidemic in a population. While a very simple statistic, only since 2004 has it garnered any attention in the US.[5,6] Along with collaborators from CDC, I have just updated in the past month the HIV transmission rate estimates for the US.[7] As can be seen in Figures 1 and 2, the HIV transmission rate dropped from 92.3 in 1980, to 31.2 in 1985, to 6.6 in 1991. It stayed at roughly this level until 1997 when, after the advent of highly active antiretroviral therapy (HAART), the transmission rate went up temporarily to almost 7.5. Thereafter, it continued once again on a downward trend. In 2006, we estimate the transmission rate to be approximately just under 5.0 (4.98). This means that for every 100 persons living with HIV in the US, there are just under five new infections on average in a year. That also means that over 95% of persons living with HIV in the US are not transmitting the virus to someone else is a given year. Because the transmission rate is rather low in the US, it will be very challenging for the nation to push that transmission rate number down even further.

The declines in the HIV transmission rate are not the only measure of HIV prevention success in the US. Perinatal infection in the US is near elimination,[8] the blood supply is

extremely safe,[9] and transmissions among injection drug users have noticeably declined over the course of the epidemic.[1] Many persons living with HIV came to access life saving care and treatment because they learned of their HIV serostatus via counseling and testing services provided by prevention programs.[10]

Of course, the ultimate measure of prevention success is the difference between what we observed in the HIV epidemic in the US, and what would have occurred had prevention programs not been in place.[11] One can never directly measure what would have happened had prevention programs not been in place in the US, but one can make careful and reasonable estimates based on the natural history of HIV disease and what we see occurring in other nations.[11] If we assume (very conservatively), that without our prevention programs, the HIV transmission rate in the US would have never dropped below 8.18 (this is the current global HIV transmission rate across all nations[12]), then we are led to the following conclusions. I believe that from the beginning of the epidemic through 2006, there were roughly 362,000 HIV infections prevented in the US (Figure 3). Over 3.3 million quality-adjusted years of life were saved. The prevention programs in the US over this time frame cost approximately $18.6 billion (including federal, state and private contributions). Therefore, the cost per infection prevented was about $52,000 which is the less than the cost of HIV care and treatment for one person over a lifetime; indeed, prevention programs appear to have actually saved money. If an intervention is cost-saving, then it is clearly a good investment even when compared to other medical and public health interventions in infectious and chronic diseases.

Prevention Funding Trends and Implications. Of course, one might ask if there is some demonstrable relationship between spending on HIV prevention programs and HIV incidence. Ms. Jen Kates of the Kaiser Family Foundation and I examined this correlational relationship between incidence and spending in a paper published in 2007.[13] We found a strong relationship as depicted in Figure 4. Using advanced statistical methods, we found two distinct periods in the epidemic. From the beginning of the epidemic until 1985, incidence tends to predict future investment (as if society is responding to the exploding epidemic by making larger investments). Here we measure investment as CDC's HIV prevention budget, adjusted for inflation. From 1986 onward, it appears that investment predicts future incidence, leading me to the conclusion that post -1985, the nation "gets what it pays for" in terms of HIV prevention investments.

Given this correlation between investment and incidence, one must be concerned that when adjusted for inflation, CDC's HIV prevention budget has fallen by over 19% since fiscal year 2002, and in real dollar terms the investment in the Minority AIDS Initiative is also in decline.[14] If there is a relationship between investment and incidence, and investment is in decline, then the potential for further growth of the epidemic seems to be increasing not lessening.

Scaling Up HIV Prevention in the U.S: Tools, Investments & Accountability. So, what can we do to actually make further reductions in HIV transmission rates, and also to reduce HIV incidence to a substantial degree? I believe that we must scale up the use of

evidence-based HIV prevention tools already at our disposal even as we all hope for the development of new interventions such as microbicides and a vaccine.

Many evidence based prevention tools are now at the ready. Dr. Ronald Valdiserri of the Veterans Administration (formerly of CDC) and others have reviewed the scientific literature and identified a number of types of evidence-based prevention interventions.[15-19] Some of these are listed in Figure 5. We possess the technology to be able to influence HIV-related risk behaviors, and the scientific literature leaves very little question on that point.

However, we have not scaled-up sufficiently to provide such services to everyone who needs them in the US. For instance, CDC's MMWR on behavioral surveillance of men attending gay-identified venues, only 15% had received an individual-level behavioral HIV prevention intervention in the past year, and only 8% had received a group-level prevention intervention.[20] Clearly, there is much work to be done.

By my calculations, I believe that with the right level of investment, utilization of evidence-based interventions, and strong accountability, we can achieve a 50% reduction in both transmission rate and incidence in a few years time. I have previously published an estimate that CDC's HIV prevention budget would need to increase from its current level to about $1.321 billion per year and remain at that higher level (for at least 4 years) so as to undo the inflationary and other damage done since FY02, and also to address unmet HIV prevention needs in the US.[14]

What would this higher level of investment support in terms of service delivery (over and above current HIV prevention efforts)? Over a four year time frame (Figure 6), I believe it would provide sufficient resources to field a new, truly large-scale, targeted HIV counseling and testing campaign; a nationwide public information and anti-stigma campaign; intensive, client-centered prevention services for all of the roughly 16% of persons living with HIV (and aware of their serostatus) who engage in any risk behavior that could result in transmission; and brief but evidence-based interventions for 15 million (of the roughly 26 million[21]) HIV negative persons in the US at risk of infection. To most effectively deliver these services, it would be desirable to load more of this investment into earlier years of the scale up (Figure 6) so as to most quickly get the level of HIV serostatus awareness among persons living with HIV as high as possible (this has additional benefits in downstream years).

What would this higher level of investment achieve in terms of public health outcomes? Based on my unpublished analysis, I estimate that after four years of service delivery at such a heightened intensity, the US could achieve a reduction of 50% in the HIV transmission rate, a reduction of 50% in incidence, and a high level of awareness of serostatus such that nearly 90% of persons living with HIV would at any point in time know their serostatus. Once such goals were achieved, it would be time once again to take stock of the necessary level of investment and types of services needed in the US.

The proposed massive intensification of HIV prevention programs must be preceded (or accompanied) by a quick but careful review of current HIV prevention resources at CDC and across the federal government to ensure that any and all existing HIV prevention resources are well spent. This is most especially true for federal HIV prevention resources outside of the National Center for HIV/AIDS, Viral Hepatitis, STD and TB Prevention. Also during this time, there would ideally be the rapid completion of a national AIDS strategy that spanned HIV prevention, care, treatment and housing (with a specific component of that plan focused on the logistical details of well-utilizing new prevention resources). It is important to emphasize that strong prevention, care, treatment and housing programs all go hand in hand; weakness in any of these programs directly undermines the others.

Further, the performance of all HIV prevention resources, be they extant or new, should be summarized in a national HIV prevention report card issued every year.[22] Such a report card should summarize HIV prevention investment levels; details on clients served and interventions delivered; summaries of evidence of short-term outcomes; and evidence of steps towards achievement of long-term impacts.[22] Such report cards must be issued frequently so that if the HIV prevention efforts in the US stray off course, they can be corrected mid-stream. Accountability is key to the responsible use of both existing and expanded HIV prevention resources.

My analysis also assumes that evidence-based programs could actually be delivered. Hence, there must exist a policy and societal environment that is favorable to allowing such interventions to be put in the field without interference (e.g., that homophobia would not block the delivery of evidence-based interventions for gay men).

Closing Remarks. I am the first to recognize that my comments may seem idealistic and overly ambitious. However, my statements here are backed up by careful analyses (some already in the peer-reviewed literature) that I would be most happy to share and discuss with the Committee. My comments are also based on 17 years of professional work on this epidemic. So, I stand behind the technical aspects of my assertions even if they appear grandiose.

Further, I believe that we are at a historic crossroads in the HIV epidemic in the US.[23] We can do more of the same, and get more of the same results; or we can find the national will to scale up HIV prevention sufficiently to change the course of the epidemic in the US once and for all. With the terrible human and fiscal consequences of HIV disease, a new HIV infection by 9.5 minutes is just not acceptable to me, and I hope not acceptable to the US.

Again, may I please thank you sincerely for your interest in HIV prevention as evidenced by your holding of this important hearing today.

Respectfully submitted by,
David R. Holtgrave, Ph.D.
Baltimore, MD

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Figure 1

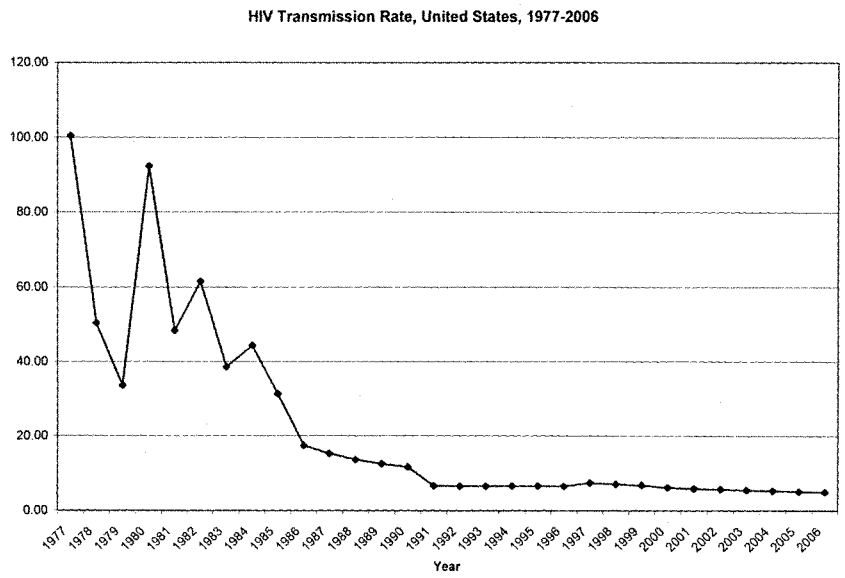
HIV Transmission Rate, United States, 1977-2006
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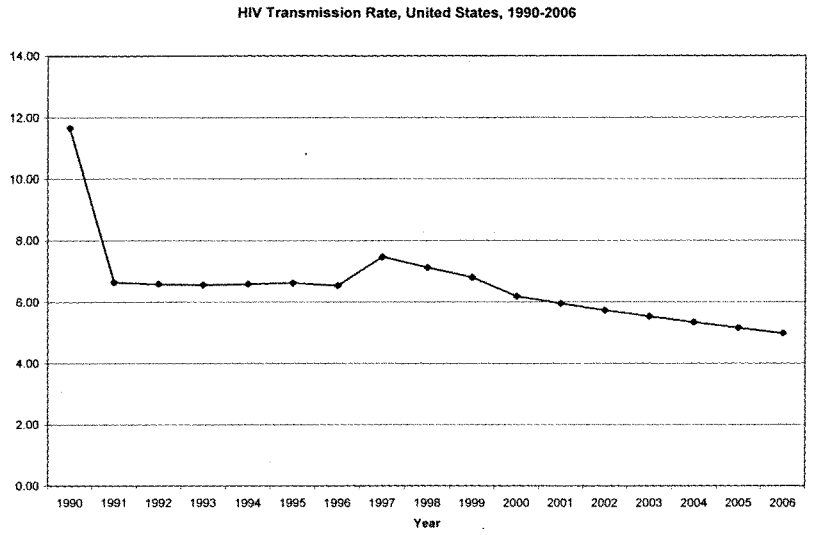
Figure 2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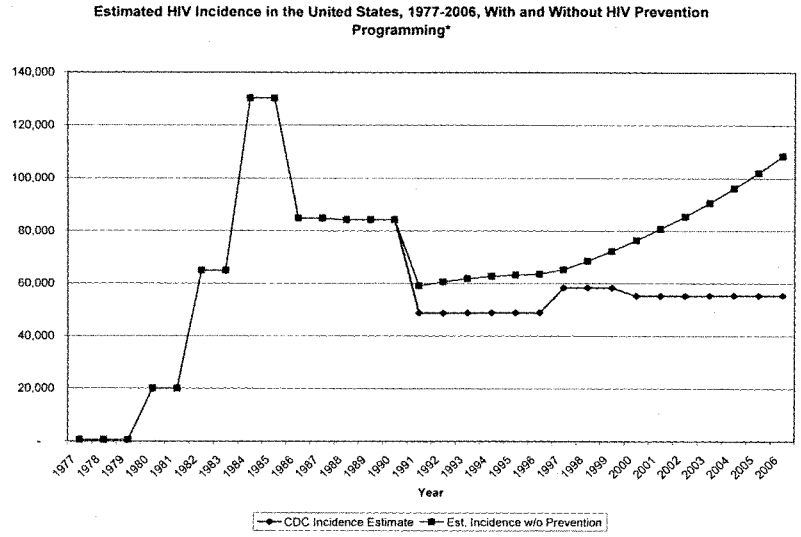
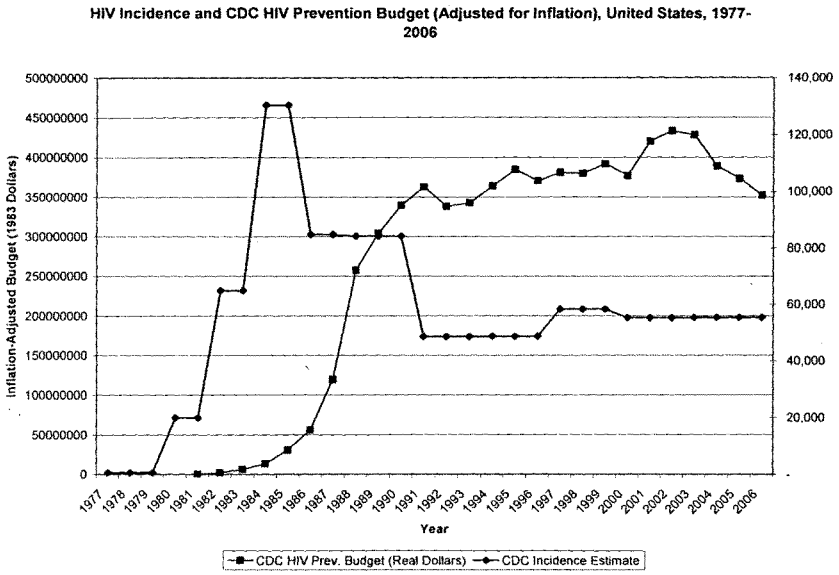


*Analysis assumes that without HIV prevention programs in place, annual HIV transmission rate would never drop below current global transmission rate of appox. 8.18.

Figure 4


HIV Incidence and CDC HIV Prevention Budget (Adjusted for Inflation), United States, 1977-2006
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CDC HIV Prev. Budget (Real Dollars)
CDC Incidence Estimate

Figure 5

Overview of Evidence-based HIV Prevention Interventions.
Adapted from: Valdiserri et al. *Nature Medicine* 2003;9(7):881-886.

Sexual Transmission Prevention

- Small group behavioral interventions
- Counseling and testing
- Community-level interventions
- Structural interventions
- STI diagnosis and treatment

Perinatal Transmission Prevention

- Pharmaceutical intervention (e.g., AZT; nevirapine)
- Breast-milk supplementation (depending on local circumstances)

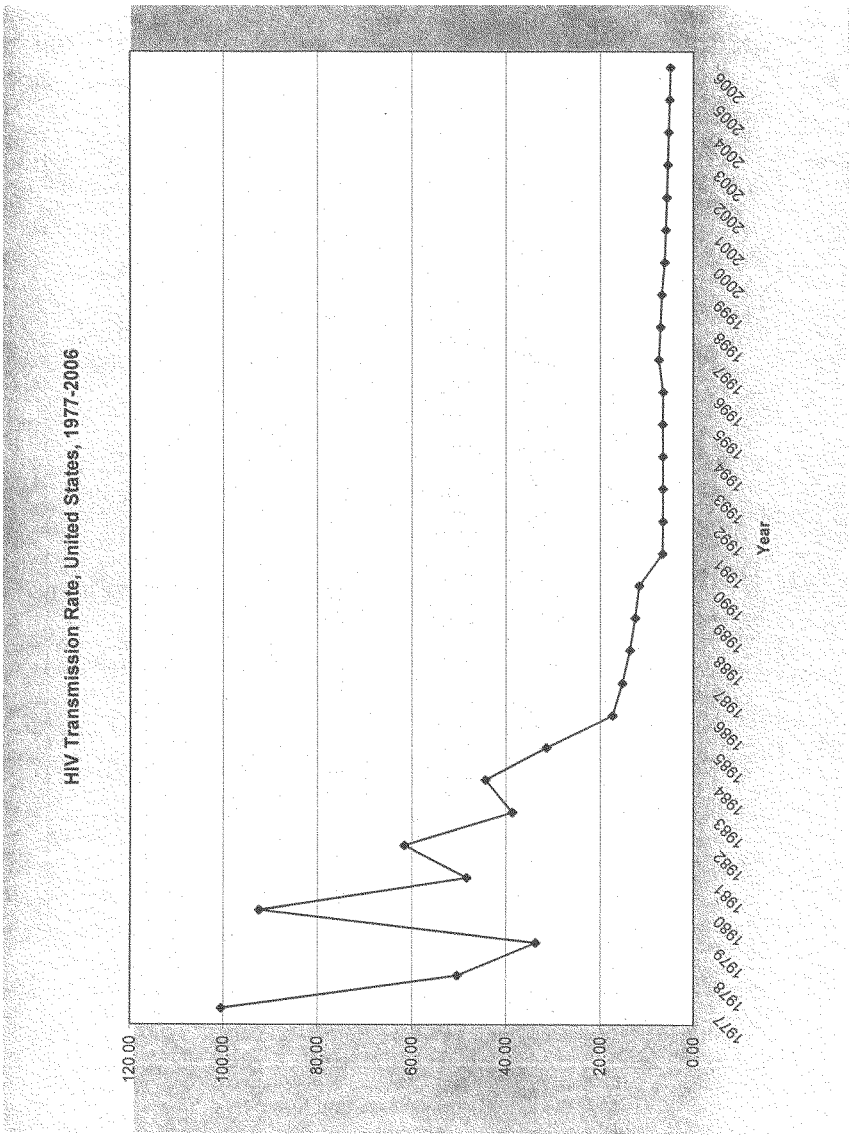
Parenteral Transmission Prevention

- Blood safety
- Occupation setting precautions
- Injection drug use programs
    - Behavioral change interventions
    - Drug treatment
    - Access to sterile injection equipment

Figure 6
Cost, Inputs, and Expected Consequences of Large Scale-Up of HIV Prevention Interventions, United States

Year	CDC Budget	Major New Program Elements*	Expected Awareness Level of HIV Sero-positivity	Expected HIV Transmission Rate	Expected HIV Incidence (Infections Averted)
0	Current Level	Review of Current Resources; Strategic Planning	75% Current	4.98 Current	55,400 Current
1	$1.637B	Public Information & Anti-Stigma Campaign; Massive, Targeted Counseling & Testing Effort	90%	3.57	40,600 (14,800 infections averted)
2	$1.239B	Substantial, Targeted Counseling & Testing Effort; Prevention for PLWH At Risk of Transmission; Prevention for Additional 5 Million At-Risk HIV Seronegative Persons	90%	3.03	34,500 (20,900 infections averted)
3	$1.210B	Substantial, Targeted Counseling & Testing Effort; Prevention for PLWH At Risk of Transmission; Prevention for Additional 5 Million At-Risk HIV Seronegative Persons	90%	2.58	29,700 (25,700 infections averted)
4	$1.192B	Substantial, Targeted Counseling & Testing Effort; Prevention for PLWH At Risk of Transmission; Prevention for Additional 5 Million At-Risk HIV Seronegative Persons	90%	2.32	27,000 (28,400 infections averted)

* It is assumed that all administrative and supporting program activities (such as necessary surveillance efforts) are also included in each year but are not separately listed.
Note: Additional investment divided by additional infections averted (across all years) is appox. $26,900 indicating cost-savings when compared to HIV medical care costs.
Note: Measurement of epidemiologic goals will lag by appox. 18 months.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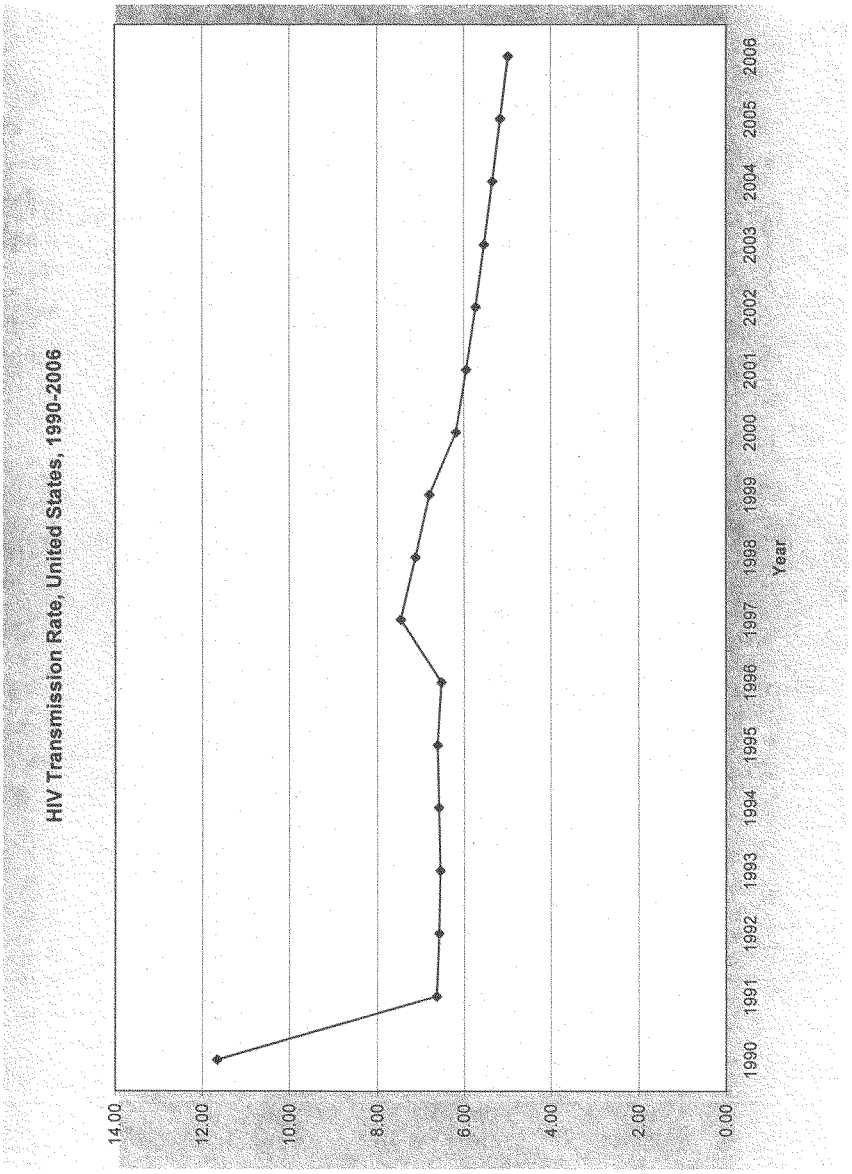
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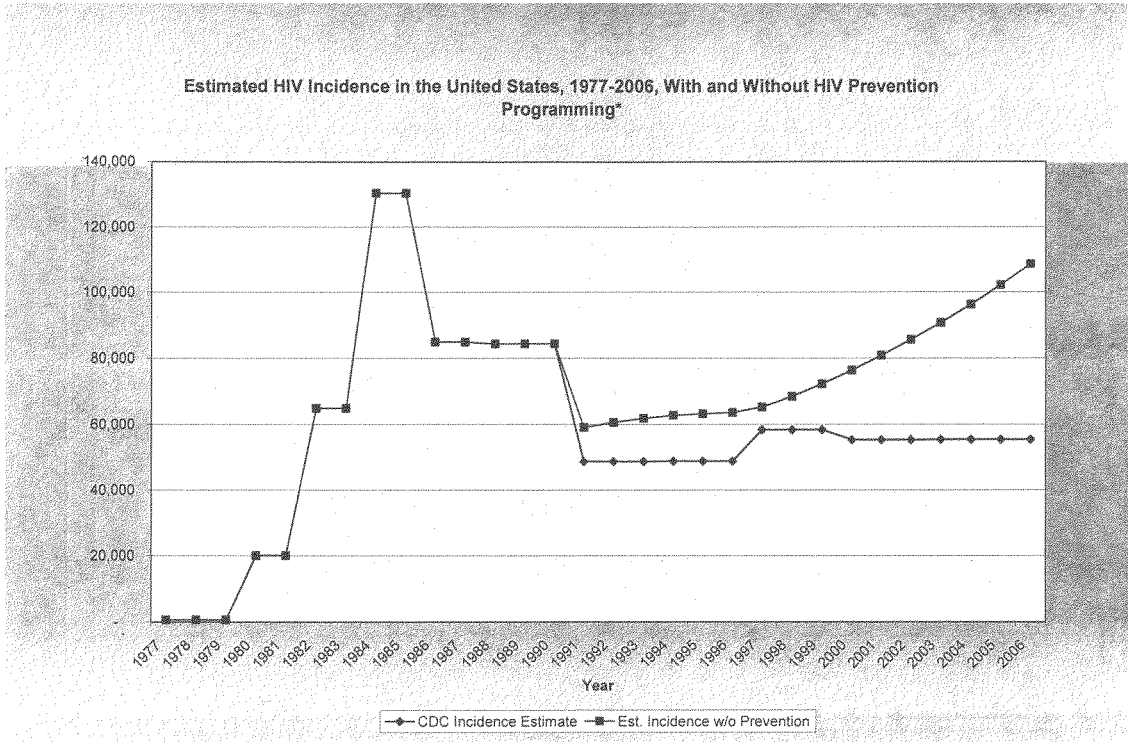

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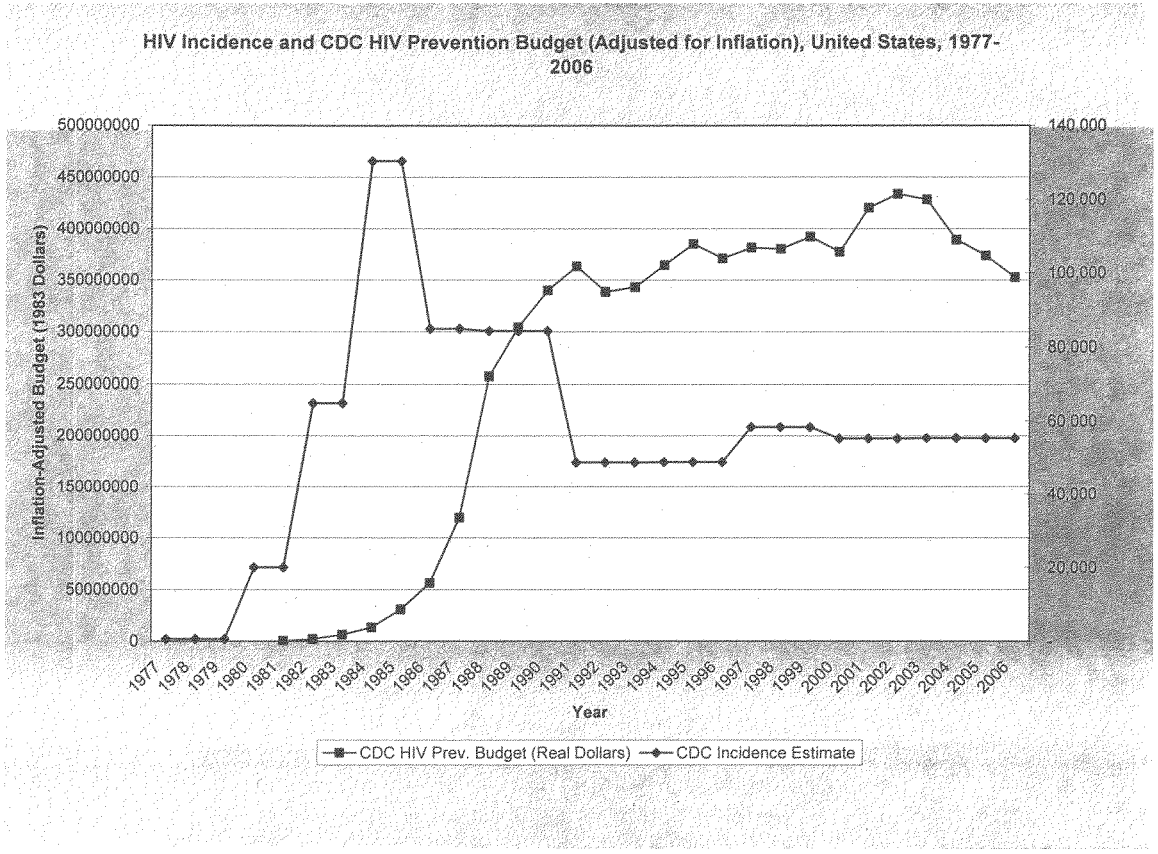
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Note: Additional investment divided by additional infections averted (across all years) is appox. $26,900 indicating cost-savings when compared to HIV medical care costs.

Chairman WAXMAN. Thank you very much, Dr. Holtgrave.

Dr. Adimora.

STATEMENT OF ADAORA A ADIMORA, M.D.

Dr. ADIMORA. Thank you for this opportunity to speak with you.

I have been asked to testify concerning HIV epidemiology in the United States, particularly with respect to African Americans, and structural and social forces that affect individual and community vulnerability HIV.

These are some of the essential concepts. First, individual level sexual behavior, such as partner number and condom use, don't completely explain racial disparities in the U.S. HIV rates. Second, sexual network patterns are critical in the spread of HIV throughout the population.

A sexual network is a set of people who are linked directly or indirectly through sexual contact. The distribution of network characteristics that promote population HIV spread, like concurrent partnerships and sexual mixing patterns, appears to differ by race in ways that increase HIV transmission among African Americans.

Third, social forces and social contacts that is social macroeconomic and other features that are outside the individual's control contribute to sexual network patterns that spread HIV. So some potential pathways between HIV and several social forces are relatively clear. For example, residential segregation by race supported by structural mechanisms, like mortgage lending practices, concentrates poverty in the segregated group.

Segregation may especially influence young people's HIV risk since residence often dictates school districts which influence adolescents' social and sexual networks. Also the sex ratio, the ratio of men to women, is a key determinant of the structure of the networks. The sex ratio among African Americans is strikingly low due to high mortality among Black men and is further decreased by high incarceration rates.

The relative scarcity of men contributes to low marriage and higher divorce rates. There is a strong association between being unmarried and having concurrent partnerships. Poverty, another force, works with the low sex ratio to help destabilize marriage and makes marriage less feasible in many Black communities.

The disproportionate incarceration of Black men dramatically affects sexual networks in Black communities. Incarceration disrupts existing partnerships, making it more likely that each partner will have concurrent partnerships. While inmates are in prison, they can join gangs and forge new long-term links with antisocial networks. These new links can then connect members of high-risk sub groups to previously low-risk people and their networks. High incarceration rates contribute to increased unemployment in poor minority communities, shrinking the number of financially viable male partners as well as the absolute number of men.

Rod Wallace showed how macro level forces shape social contacts and AIDS death rates in a New York City borough. In the 1970's, New York's fiscal crisis prompted city agencies to embark on a deliberate policy of planned shrinkage of the populations in Black and Hispanic neighborhoods. The plan involved withdrawing critical city services, including fire fighting services, from poor areas that

already had high fire rates. So neighborhoods burned. Many people moved to other parts of the borough, and social networks and community structure were disrupted. What was presumably not anticipated when these policies were implemented were the changes in the geography of drug abuse that resulted from this migration and the resulting upsurge years later in HIV.

So, finally, the pathways between social forces and HIV suggest that continuing to focus prevention efforts solely on individual risk factors and individual determinants won't significantly impact HIV rates among Blacks in the United States. Certainly the search for and implementation of effective biological and behavioral interventions must continue and must certainly be funded. However, public health research must also take into account the social forces that are driving the extraordinary racial disparity in HIV rates in this country.

I believe several steps, among others, should be taken immediately. First, the HIV epidemic among African Americans should be formally declared a national emergency, and moreover, the United States should act as if the epidemic is a true national emergency by developing and appropriately funding an effective domestic HIV plan that addresses not only biological and behavioral interventions but also the epidemic's social and economic roots. This will require involving clinicians and public health researchers as well as experts in sociology, economics, political science, criminal justice and other disciplines.

Second, incarceration affects the health of Black communities. Attention should be given to the markedly disproportionate incarceration of Black men.

Third, comprehensive sex education can be effective in reducing risky sexual behavior and should be given in schools.

Thank you very much.

[The prepared statement of Dr. Adimora follows:]

Sexual Networks, Social Forces, and the HIV Epidemic: Written Testimony for September 16, 2008 Hearing

Submitted to:

Chairman Henry A. Waxman
Committee on Oversight and Government Reform
Congress of the United States
House of Representatives

Submitted by:

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Introduction

Chairman Waxman and members of the Committee on Oversight and Government Reform, thank you for this opportunity to speak with you today. I have been asked to provide testimony concerning the epidemiology of HIV infection in the US, particularly with respect to African Americans, as well as research concerning structural and societal factors that affect individual and community vulnerability to HIV. The attached article, "Social Context, Sexual Networks, and Racial Disparities in Rates of Sexually Transmitted Infections",[1] addresses these issues; my remarks today summarize the findings of that paper.

Individual-level sexual behaviors do not explain racial disparities in US HIV rates

Although sexual behaviors contribute to sexual transmission of HIV, differences between blacks and whites in individual-level sexual behaviors, such as numbers of partners, do not adequately explain the marked racial disparities in HIV rates in the US. In a study of risk factors for heterosexual HIV transmission among African Americans in North Carolina, more than a quarter of people with HIV infection did not have high-risk behaviors. Among these low risk people with heterosexually transmitted HIV infection, poverty and less than high-school education were significant risk factors for infection.[2] A national study of youth and adolescents demonstrated that among low risk individuals the odds of HIV or other sexually transmitted infections (STI) were 25 times greater among blacks than whites.[3]

Sexual network patterns are critical in population spread of HIV

The term *sexual network* refers to a set of people who are linked directly or indirectly through sexual contact. Sexual network patterns are critically important in spread of STIs, including HIV, throughout a population.

Concurrent sexual partnerships, for example, are a key network building block that promotes population HIV spread. Concurrent partnerships are sexual partnerships that overlap in time and permit even more rapid spread of infection through a network than would the same rate of acquisition of new, sequential partnerships. (figure) The extent of concurrent partnerships influences both the speed of the epidemic's spread during its initial phase and the number of people who are infected at a later time period. [4], [5] In a study of heterosexual HIV transmission among North Carolina African Americans, having a partner who had concurrent partnerships was another significant risk factor for HIV.[3]

Another important network characteristic is the extent of mixing between people at high-risk for infection and those at low-risk. (Laumann)

Sexual network patterns appear to differ between blacks and whites in ways that foster more rapid HIV dissemination in blacks. Analyses of the NSFG, a large, population-based national survey, suggest that blacks are more likely than whites in the US to have concurrent partnerships.[6] Men are more likely to have concurrent partnerships than women. Moreover, men with concurrent partnerships are more likely to have nonmonogamous female partners, sex with another man, or sex while intoxicated on drugs or alcohol. The higher concurrency prevalence, evidence of dense sexual networks, and mixing between high-risk subpopulations and the general population may

be important factors in the US epidemic of heterosexual HIV transmission – especially among African Americans.[7]

Social context contributes to sexual network patterns that spread HIV infection

The term *social context* refers to demographic, socioeconomic, macroeconomic, sociopolitical, and related features of the individual's environment. These and other structural aspects of society outside the individual's control play an important role in epidemiologic factors and individual behaviors, including sexual behaviors, and transmission of HIV.

On a macro level, major events such as war, famine, and migration result in increased sexual mixing of different groups of people and in social upheaval that increases exchange of sex for goods, services, and personal security. Such events have altered social and sexual networks in Africa, Eastern Europe, and Asia, with resultant widespread transmission of HIV and other STIs in these regions.

Although the U.S. has enjoyed a relatively high degree of political and economic stability, enduring divisions and disparities along racial, ethnic, and economic lines, along with high mobility, commercially-driven media and entertainment industries, and considerable freedom from family, religious, and community constraints on personal behavior promote rapid but uneven evolution of sexual mores and lifestyles without corresponding evolution of social institutions. The resulting incongruities, such as widespread adolescent sexual involvement with severely constrained sexual education and reproductive health services, foster sexual behavior patterns that promote STI transmission.

Probably the major fault line in American society is the centuries-old racial divide. Residential segregation by race has been one of the most prominent features of racial discrimination in the U.S. and is maintained not only by individual actions but also by longstanding structural mechanisms, such as mortgage and realtor discrimination. Segregation concentrates poverty and other deleterious social and economic influences within racially isolated groups and thus increases risk of socioeconomic failure of the segregated group. Exposure to neighborhood violence, drugs, poverty, and teenage pregnancy is more common for middle-income black children than middle-income white children. Residential segregation is important to the structure of sexual networks because many people tend to choose sex partners from the neighborhoods where they live and may be especially critical to the networks of young people, since in many areas of the US, residence dictates the school district students attend, which in turn influences the social (and sexual) networks of adolescents.

The sex ratio (ratio of men to women) is likely a key determinant of the structure of sexual networks, marital patterns, and family stability. There are significantly fewer black men than women. The sex ratio among African Americans is strikingly low due to higher mortality rates among black males because of disease and violence. The relative scarcity of men results in low marriage rates and higher divorce rates among those who do marry, and epidemiologic studies demonstrate a strong association between being unmarried and concurrency. The shortage of men places women at a disadvantage in negotiating and maintaining mutually monogamous relationships.

Poverty, another contextual feature, works in concert with the low sex ratio to destabilize long-term partnering patterns. Poverty is associated with marital instability and makes marriage less feasible in many black communities.

The rise of the drug culture in poor black communities has worsened the numerous problems caused by segregation and concentrated poverty. Crack cocaine, for example, spread widely throughout many poor urban and rural areas, in part because of its low price and prevailing socioeconomic conditions. Crack use has directly altered sexual networks through increased sexual exploitation of women and high-risk sexual behavior, including increased numbers of sex partners and the exchange of sex for drugs, and thus promotes heterosexual HIV transmission.

Largely as a consequence of the war on drugs, the US has one of the highest incarceration rates in the world, with markedly disproportionate incarceration of black men. One of 8 Black men between the ages of 25 and 29 are currently in jail or prison. Incarceration directly affects sexual networks by disrupting existing partnerships and making it more likely that each partner will have concurrent partnerships. The partner entering prison is now at risk of forming new (sometimes coercive) sexual connections with a pool of individuals whose prevalence of sexual risk behaviors, HIV, and other STIs is high. The partner who remains behind in the community forfeits the social and sexual companionship of the incarcerated partner and may pursue other partnerships.

While in prison, inmates may join gangs and develop new long-term links with antisocial networks.[8] Because social networks affect sexual partnering patterns, these new associations can adversely affect sexual networks by connecting previously low-risk persons with subgroups whose HIV prevalence is high. As inmates return to the community they may either establish new sexual partnerships or resume old ones, increasing likelihood of concurrency. A history of incarceration reduces individuals' employment prospects,[9] which increases likelihood of poverty which further destabilizes long-term partnerships.[10], [11]

Incarceration also has adverse effects on the community. High incarceration rates result in high unemployment rates in poor minority communities, shrinking not only the absolute number of men, but also the proportion of financially viable male partners. High incarceration rates can also influence community norms and create an environment where "jail culture is normative", as evidenced by recent trends in clothing and music.[8] Such norms likely spill over into sexual behavior and sexual networks.

In a revealing account of how macro level forces shaped the contextual factors and health outcomes in a specific situation, Rod Wallace vividly outlined the links between municipal planning policies, disruption of social networks, and death rates from AIDS in the Bronx, New York City in the latter portion of the 20th century.[12], [13] In the 1970s city agencies embarked on a deliberate policy of "planned shrinkage" of the populations in black and Hispanic neighborhoods. The plan involved withdrawal of critical municipal services, including fire fighting resources, from areas that already had high fire rates. As a result, these neighborhoods sustained extensive loss of housing, and large numbers of people migrated to other parts of the borough, with disruption of social networks and community structure. What was presumably not anticipated were changes in the geography of drug abuse that resulted from this migration, and a subsequent upsurge in HIV transmission.

Conclusion

The relationship between socioeconomic context and sexual networks suggests that continued emphasis solely on individual risk factors and individual determinants for prevention efforts is unlikely to significantly impact HIV rates among blacks in the US. The search for and implementation of effective behavioral and biological interventions

must continue. However, public health research must take into account contextual factors that underpin the extraordinary racial disparity in HIV rates in this country.

In addition to the recommendations made by Dr. Holtgrave and the other experts who are testifying this morning, I believe several steps should be taken immediately:

1. The HIV epidemic among African Americans should be **formally declared a national emergency with development and appropriate funding of an effective domestic HIV plan that addresses not only biological and behavioral interventions, but also the epidemic's social and economic roots.** Development of an effective plan will require involvement of clinicians and public health researchers - as well as people with expertise in anthropology, sociology, economics, urban planning, political science, criminal justice, and other disciplines.

2. Given the effects of incarceration on the health of black communities, **attention should be given to the markedly disproportionate incarceration of black men.** For example, alternatives to incarceration for non-violent offenders should be sought.

3. **Comprehensive sex education** can be effective in reducing risky sexual behavior and should be provided in schools.

Thank you very much for your consideration.

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SUPPLEMENT ARTICLE

Social Context, Sexual Networks, and Racial Disparities in Rates of Sexually Transmitted Infections

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Background. Social context (demographic, socioeconomic, macroeconomic, and sociopolitical features of the environment) influences the epidemiology and consequences of individual behaviors that affect health outcomes. This article examines the role of social context in heterosexual networks that facilitate the spread of human immunodeficiency virus (HIV) infection and other sexually transmitted infections (STIs), particularly in relation to persistent racial disparities in rates of STIs in the United States.

Methods. Review of the medical, public health, and social science literature.

Results. Contextual factors, such as poverty, discrimination, epidemiology of illicit drug use in the community, ratio of men to women, incarceration rates, and racial segregation, influence sexual behavior and sexual networks directly and indirectly through a variety of mechanisms. Disparities in these contextual features likely contribute substantially to the persistence of marked racial disparities in rates of STIs.

Conclusions. Given the importance of contextual factors and the sharply contrasting social contexts for blacks and whites, exclusive emphasis on individual risk factors and determinants is unlikely to produce solutions that will significantly decrease HIV rates among blacks. Effective HIV prevention in this population will require multidisciplinary research to address the contextual factors that promote patterns of sexual networks that facilitate transmission of STIs.

Sexual networks are critical in the spread of sexually transmitted infections (STIs). Social context is an important influence on behavior, including sexual behaviors and the formation of sexual networks. This article will examine the potential role of socioeconomic context in the formation of, participation in, and evolution of sexual networks that facilitate spread of STIs. Because of the persistent and poorly understood racial disparities in rates of HIV infection and other STIs in the United States, we focused on the relationship between social context and patterns of heterosexual networks in black populations.

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CRITICAL ROLE OF SEXUAL NETWORKS IN TRANSMISSION OF STIs

Although modern epidemiology has tended to focus on individual risk factors and behaviors, the fundamental determinants of health at the population level are patterns of exposure and the environment—that is, the social and economic, as well as physical, environments [1, 2]. Population patterns of exposure, rather than simply numbers of exposed individuals, help determine a population's health [1]. This influence is particularly relevant for transmission of STIs, which is inherently social. Therefore, public health practitioners and researchers have devoted increasing attention to the role of sexual networks in STI epidemiology [3–13].

CHARACTERISTICS OF SEXUAL NETWORKS

The term "sexual network" refers to a set of people who are linked directly or indirectly through sexual contact [3, 14]. The pattern of linkages can dramatically influence health outcomes in a population [1], such as

the transmission of HIV and other STIs [15]. With regard to disease transmission, the important characteristics of a network are its size and its density or connectivity [16]. Because networks are dynamic, with new linkages forming and old ones dissolving, time is an important element [17]. The pattern least likely to propagate infection is a population predominantly composed of either individuals with no partners (isolates) or individuals in long-term monogamous relationships (unconnected dyads) [16]. The presence of a small number of individuals who change partners frequently has dramatic implications for transmission and persistence of a curable STI in a population [15, 18].

CONCURRENT PARTNERSHIPS AND TRANSMISSION OF STIs

The key building block of sexual networks that fosters transmission of STIs, even in the context of stable partnerships, is concurrency. Concurrent sexual partnerships (sexual relationships that overlap in time) permit an even more rapid spread of infection through a network than would the same rate of acquisition of new, sequential partnerships [19]. Once a concurrent partner acquires infection, transmission to a third person can occur without the delay involved in completing the first partnership and beginning the next. Moreover, because relationships overlap in time, early concurrent partners are not protected from infection more than those partners acquired later in the sequence [19]. The prevalence of concurrent partnerships influences both the speed of the epidemic's spread during its initial phase and the number of individuals who are infected at a later time period [20].

CONNECTIVITY AND TRANSMISSION OF STIs

The degree of connectivity of sexual networks also affects the likelihood of transmission across networks throughout the population. Infection is much less likely to propagate in a population composed of individuals in unconnected triads—each individual with 2 partners—than in a population composed of individuals with 2 partners within a completely connected network [1]. Moreover, a susceptible individual who has 1 partner in a high-risk network and 1 partner in a low-risk network will likely have a greater impact on the introduction of infection to the low-risk population than would an individual who has numerous partners who are all at low risk for infection [1].

DIFFERENCES IN SEXUAL NETWORKS IN BLACK VERSUS WHITE POPULATIONS

Differences in numbers of sex partners have not been established as an adequate explanation for the marked racial disparity in rates of STIs, but evidence suggests that patterns of sexual networks may differ between black versus white populations in ways that foster more-rapid dissemination of STIs in the former. One difference is that, among black persons, more-frequent sexual contact occurs between those with many partners (the "core") and those with few partners [21]. Another is that, because black persons are more likely to choose other black persons as sex partners, the sexual networks of black persons are more racially segregated than those of other racial or ethnic groups [21]. In addition, data from the 1995 National Survey of Family Growth (NSFG; sponsored by the National Center for Health Statistics, Hyattsville, MD) [22] indicate that the prevalence of concurrent sexual partnerships is greater among black women (21% in the preceding 5 years) than among white women (11% in the preceding 5 years) (table 1). This difference in concurrency appears to be mostly due to lower marriage rates and younger age at first sexual intercourse among black women, since the differences between black and white women markedly diminished with control of these variables [22]. Data from the population-based control group in our study of heterosexual transmission of HIV infection among black persons in North Carolina showed a higher prevalence of concurrent partnerships among black men (53% in the preceding 5 years) than among black women (31% in the preceding 5 years); in turn, the prevalence among black women was greater than that in the NSFG [22, 23]. Black persons in North Carolina who had recently reported HIV infection had even higher 5-year concurrency rates (60%) [24].

FORMATION OF SEXUAL NETWORKS

Formation of sexual networks is similar to that of social networks; people recruit sex partners in the same way that they recruit other associates, namely, through social networks and activities. Relationships tend to form among people with similar attributes, such as age, race or ethnicity, educational back-

Table 1. Prevalence of marriage and of concurrent partnerships during preceding 5 years, among US women and among black persons in rural North Carolina.

Group, stratified by race or sex	Married, %	Had concurrent partnerships during preceding 5 years, % (95% CI)
US women		
Black	25	21 (19–23)
White	54	11 (10–12)
Hispanic	47	8 (7–10)
Asian/Pacific Islander	49	7 (4–9)
Black persons in North Carolina		
Women	39	31 (24–39)
Men	55	53 (41–64)

NOTE. Sources: National Survey of Family Growth, Cycle 5 [22], and the Rural Health Project [23]. CI, confidence interval.

ground, and religion [16]. However, the additional forces that influence participation in sexual networks are poorly defined.

EFFECTS OF SOCIAL CONTEXT ON SEXUAL NETWORKS

The term "social context" refers to demographic, socioeconomic, macroeconomic, sociopolitical, and related features of the individual's environment. Economic forces, demographic features, and other structural aspects of society outside the individual's control play an important role in epidemiological factors and individual behaviors [25, 26], including sexual behaviors [27], transmission of STIs [25], and other health outcomes [28–34]. Community attributes—including poverty, rates of substance abuse, sex roles, norms for sexual behavior, and prevalence of STIs—can increase the frequency of and risk associated with individual behaviors and can impede the ability of individuals to adopt preventive behaviors [25].

MAJOR EVENTS AND FEATURES OF SOCIETY

On a macro level, major events such as war, famine, and migration result in increased sexual mixing of different groups of people and in social upheaval that increases the exchange of sex for goods, services, and personal security [35]. Such events have altered social and sexual networks in Africa, Eastern Europe, and Asia, with the resultant widespread transmission of HIV infection and other STIs in these regions [36–43]. Although the United States has enjoyed a relatively high degree of political and economic stability, enduring divisions and disparities along racial, ethnic, religious, and economic lines—along with high mobility, commercially driven media and entertainment industries, and considerable freedom from family, religious, and community constraints on personal behavior—have promoted the rapid but uneven evolution of sexual mores and lifestyles without a corresponding evolution of social institutions. The resulting incongruities, such as widespread sexual involvement among adolescents but severely constrained sex-education and reproductive-health services, foster patterns of sexual behavior that promote transmission of STIs.

RACIAL SEGREGATION

Probably the major fault line in American society is the centuries-old racial divide [44, 45]. Racial segregation—legal and extralegal—has characterized all sectors of American society since the colonial era. Despite the advances of the Civil Rights Movement and the more recent promotion of diversity, racial dualism persists in educational institutions, most occupations, health care, and social and sexual networks.

Residential segregation by race has been one of the most prominent features of racial discrimination in the United States. Marked residential segregation by race persists, particularly in urban areas, and is maintained not only by individual actions but also by long-standing structural mechanisms, such as discrimination in mortgage rates and by realtors [46]. Segregation concentrates poverty and other deleterious social and economic influences within racially isolated groups and thus increases the risk of socioeconomic failure of the segregated group [46]. For example, compared with the children of middle-income white families, children of middle-income black families are more likely to be exposed to violence, poverty, drugs, and teenage pregnancy in the neighborhoods where they live [46]. Residential segregation is important to the structure of sexual networks, because people tend to choose sex partners from the neighborhoods where they live [47], and may be especially critical to the networks of young persons, since, in many areas of the United States, residence dictates the school district students attend, which, in turn, influences the social (and sexual) networks of adolescents. The movement of black persons and other ethnic minority populations to urban areas and "white flight" to the suburbs have increased the physical separation of living areas and school districts for white persons and other ethnic groups.

For many black persons, racism and discrimination are a constant feature of the contextual landscape, which differs dramatically for black versus white populations. Institutional racism is a key factor underlying the enduring racial disparities in income, education, housing, neighborhood quality, government services, political power, morbidity, and mortality [46, 48–51]. Krieger [51] describes 5 pathways through which discrimination can harm health. Potential pathways with direct relevance to sexual networks and transmission of STIs include economic and social deprivation, residential segregation, targeted marketing of legal and illegal psychoactive substances, and inadequate health care from health-care facilities and from specific providers [51]. Additional mechanisms of critical importance include the numerous factors that alter the ratio of men to women (sex ratio) and the macroeconomic forces that discourage long-term stable partnering patterns.

LOW SEX RATIOS IN BLACK POPULATIONS

The sex ratio is likely a key determinant of the structure of sexual networks, marital patterns, and family stability [52]. The sex ratio in black populations is strikingly low (figure 1), owing to a variety of factors, including higher mortality rates among black male infants, children, and adults because of disease and violence [54]. For example, in the United States during 1989–1991, the probability of survival from age 15 years to age 65 years was 0.62 among black men, compared with 0.77 among black women, 0.77 among white men, and 0.87 among white women [55]. Other than during postwar shortages of men that have been experienced by various countries, black populations in the United States have sustained the most severe and per-

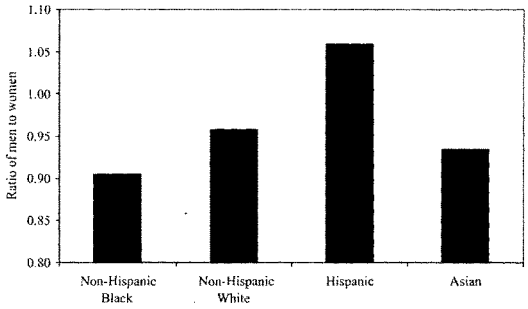

Figure 1. Ratio of men to women among selected racial and ethnic groups, United States, 2000. Source: Census 2000 Summary File 1 [53].

sistent shortage of men of any subculture since documentation by modern censuses [52] (table 2).

The relative scarcity of men results in low marriage rates and higher divorce rates among those who do marry [52]. The shortage of men places women at a disadvantage in negotiating and maintaining mutually monogamous relationships, because men can easily find another relationship if they perceive their primary relationship to be problematic [9]. Moreover, men who maintain multiple simultaneous partnerships may be confident that their primary partner will not end the relationship, because primary relationships are relatively difficult for women to attain [27]. In focus groups conducted among black persons in rural North Carolina, both men and women believed that the scarcity of men and the extremely adverse socioeconomic plight of black women (and men) profoundly influence partner selection, the sexual availability of women, the type of male sexual behavior that women tolerate, and the participation of both sexes in high-risk sexual behaviors [58]. Respondents reported extensive concurrent partnerships among unmarried persons, particularly men.

DESTABILIZATION OF PARTNERING PATTERNS BY ECONOMIC FACTORS

Economic adversity, another contextual feature, works in concert with the low sex ratio to destabilize long-term partnering patterns in black communities. Poverty is associated with marital instability [59]. In addition, the marginal economic status of many African American men makes them less appealing as potential husbands and decreases their interest in becoming husbands, ultimately limiting the feasibility of marriage in black communities [60]. The "male marriageable-pool index" (calculated as the ratio of the number of employed civilian men to the number of women of the same race and age group) assesses the combined influence of unemployment and low sex ratio on the "marriage market" [61]. From the 1960s through the early 1980s, this ratio declined particularly sharply among young black adults, revealing a progressive decrease in the proportion of young black men who were financially capable of supporting a family [61]. Thus, demographic features (such as the low sex ratio in this population), economic factors (such as poverty and unemployment), and interactions between demographic and economic factors may conspire to promote concurrency and partner change among black persons [62].

DRUGS

The rise of the drug culture within poor black communities has worsened the myriad problems caused by segregation and concentrated poverty [46], with direct effects on sexual networks and transmission of STIs. The effects of crack cocaine have been particularly well documented. Crack cocaine use spread widely throughout many urban areas of the United States during the 1980s, especially in poor racial and ethnic minority communities, in part because of its low price and prevailing socioeconomic conditions in urban ghettos [63–65]. The drug has subsequently made substantial inroads into rural areas of the Unites States as well [66, 67]. Because it is highly addictive, crack cocaine has directly altered sexual networks through increased sexual exploitation of women and high-risk sexual behavior, including increased numbers of sex partners and the exchange of sex for drugs, and has been found to promote heterosexual transmission of HIV infection [68–70]. Crack cocaine has had other, indirect effects as well. The crack-cocaine epidemic, which has altered the existing social structures of communities by providing an alternative source of money and power, has been associated with marked increases in violence and crime, which have further eroded already-trou-

Table 2. Ratio of men to women, by race, United States, 1950–2000.

Year	Ratio of men to women, by race	
	Black	White
2000[a]	0.905	0.957
1990[b]	0.896	0.954
1980[c]	0.896	0.948
1970[c]	0.908	0.953
1960[c]	0.934	0.974
1950[c]	0.943	0.991

[a] Source: Census 2000 Summary File 1 [53].
[b] Source: Census 1990 Summary Tape File 1 [56].
[c] Source: US Summary, General Population Characteristics: 1980 Census of Population [57].

bled ghetto communities [35]. The US response to the crack-cocaine epidemic has centered on efforts to interdict drug importation and to incarcerate dealers and users; public health efforts to combat the epidemic and its effects have been relatively limited [71].

INCARCERATION

Mostly as a consequence of the war on drugs, the United States has one of the highest incarceration rates in the world [72], with markedly disproportionate imprisonment of black and Latino men and women [73, 74]. Almost one-third of black men between the ages of 20 and 29 years are in jail, in prison, on probation, or on parole [75], and it has been estimated that, as of the year 2000, roughly 10% of all black men were incarcerated [76]. By 2002, 10.4% of black men 25–29 years of age were in prison, compared with 2.4% of Hispanic men and 1.2% of white men in the same age group [77].

Incarceration directly affects sexual networks through disruption of existing partnerships. The partner entering prison is now at risk of forming new (sometimes coercive) sexual connections with a pool of individuals among whom the prevalences of high-risk sexual behaviors, HIV infection, and other STIs are high [78–81]. The prevalence of HIV infection among prison inmates is estimated to be 8–10 times that of the general US population [73]. The partner who remains behind in the community forfeits the social and sexual companionship of the incarcerated partner and may pursue other partnerships to satisfy these needs. If the inmate contributed materially to the household, the partner who is not incarcerated loses financial support as well. Ethnographic research has suggested that "separational concurrency" is common among people whose partners are frequently incarcerated [82].

While in prison, inmates may join gangs and develop new long-term links with antisocial networks [73]. Because social networks affect patterns of sexual partnerships, these new associations can adversely affect sexual networks by connecting persons who previously were at low risk for HIV infection with subgroups whose prevalence of HIV infection is high. As inmates return to the community, they may either establish new sexual partnerships or resume old ones, increasing the likelihood of concurrency. A history of incarceration reduces the employment prospects of individuals [83], which increases the likelihood of poverty and the resultant instability of long-term partnerships [59, 84].

Incarceration also has adverse effects on the community. High incarceration rates result in high unemployment rates in poor minority communities, shrinking not only the absolute number of men but also the proportion of financially attractive male partners. Incarceration thus decreases the already low ratio of marriageable men to women and likely promotes concurrent sexual partnerships [62]. High incarceration rates also can influence community norms and create an environment in which "jail culture is normative," as evidenced by recent trends in clothing and music [73, page 224]. Such norms are likely to influence sexual behavior and sexual networks.

Economic, judicial, and political systems affect racial and ethnic minority groups with lower socioeconomic status more than other groups, mostly because these systems reinforce existing hierarchies and protect the privileged [46, 85–87]. In doing so, these systems create a demographic and socioeconomic context (e.g., scarcity of men and disproportionate economic adversity) that discourages long-term partnering patterns and promotes networks that facilitate transmission of STIs. The exclusive reliance of public health programs on individual-level behavioral interventions, such as condom use, may have slowed the increase in rates of heterosexual transmission of HIV infection among black persons but have not succeeded in reducing them. The physical and social circumstances associated with impoverishment hamper individually oriented behavioral risk-reduction approaches [88], because personal agency in situations of oppression is limited [49].

In a revealing account of how macro-level forces shaped the contextual factors and health outcomes in a specific situation, Wallace [89, 90] vividly delineates the links between municipal planning policies, disruption of social networks, and death rates from AIDS in the Bronx, New York, in the latter portion of the twentieth century. In the 1970s, city agencies embarked on a deliberate policy of "planned shrinkage" of the populations in black and Hispanic neighborhoods. The plan involved withdrawal of critical municipal services, including fire-fighting resources from areas that already had high fire rates. As a result, these neighborhoods sustained extensive loss of housing, and large numbers of people migrated to other parts of the borough, with disruption of social networks and community structure. What was presumably not anticipated were changes in the ge-

ography of drug abuse that resulted from this migration and a subsequent upsurge in HIV transmissions.

The relationship between socioeconomic context and sexual networks suggests that continued emphasis solely on individual risk factors and determinants for prevention efforts is unlikely to yield a significant effect on rates of HIV infection among black persons in the United States. Etiological and intervention research must consider contextual factors in order to eliminate the tragic disparity in rates of HIV infection in the African American population. Clinicians and public health scientists will not be able to accomplish this research without the involvement of people with expertise in anthropology, sociology, economics, urban planning, political science, and other disciplines. For example, to reduce transmission of HIV infection in the Bronx, Wallace [89] called for community interventions involving restoration of critical municipal services, provision of housing, and community organizing to strengthen social networks.

Although a history of racism and discrimination is the root cause of the enormous gulf between black versus white populations, in terms of access to political and economic resources, this gulf is maintained by current and often intentional actions of individuals and institutions. Following the model of environmental impact statements, the public health impact of government actions and policies should be explicitly assessed before adoption and continuously monitored for effects after implementation. Unless the attention of public health researchers extends to these macro-level forces, efforts at controlling HIV infection will continue to miss the forest for the trees.

Acknowledgment

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Chairman WAXMAN. Thank you very much, Dr. Adimora.
Dr. Ayala.

STATEMENT OF GEORGE AYALA, PSY.D.

Dr. AYALA. Chairman Waxman and distinguished committee members, thank you for this opportunity to speak with you today on the critical topic of HIV prevention in the United States. It is my privilege to be here with you today.

Presently HIV prevention in the United States lacks the resources and comprehensiveness that will significantly drive down HIV incidence rates, as has been demonstrated by my esteemed colleague Dr. Holtgrave. I ask that you consider the following: Serious HIV-related health disparities often fueled by stigma and discrimination continue to undermine HIV prevention efforts in communities of color. Men who have sex with men continue to make up the majority of new HIV infections nationally, across race and ethnicity, with Black and Latino men especially hard hit. Only four of the CDC's 49 recommended evidence-based interventions specifically target gay men, and only one of them is designed to address the needs the gay men of color.

In addition, and just as important to consider, are these facts: Substance abuse, prevention and treatment are underfunded and not routinely viewed as integral to overall HIV prevention efforts. Structural interventions are not commonly researched or endorsed, even when sound science support their broadbased adoption, as has been the case with multi-component syringe access and disposal programs.

Other than new HIV treatments, we have not yet harnessed the full potential of other promising biomedical interventions, including pre-exposure prophylaxis and microbicides. And many science-based prevention interventions are difficult for community-based providers to implement because they were tested under research conditions that are different from real-life settings or tested on populations other than those currently most vulnerable to HIV infection.

While HIV testing and treatment are crucial in our fight against AIDS, a singular focus on testing and treatment is inadequate and narrows an already sparse continuum of prevention strategies. We need a comprehensive national HIV prevention plan in the United States. At its core, such a plan would, one, work to eliminate disparities in health access and stigma associated with HIV, drug use, and homosexuality. The personal benefits of knowing one's HIV status early are lost on those who must overcome the significant barriers to treatment and persistent stigma that keep so many away from care.

Two, target interventions to those most at risk to HIV exposure and keep a steady and respectful focus on the prevention needs of gay and bisexual men, substance users and women at sexual risk. The alternative is that we accept silence and denial about sexuality, drug use and economic and equality, permitting stigma and discrimination to compromise our provision efforts.

Three, ensure that priority be given to expanding social science and intervention research aimed at gay and bisexual men, especially men of color.

Four, make the prevention and treatment of drug and alcohol addiction central to our HIV prevention efforts. The risk for HIV infection is heightened by drug and/or alcohol abuse.

Five, research and adopt community-sensitive structural interventions to compliment behavior modification programs. Structural level changes buttress the gains and behavior change made through individually geared prevention interventions by addressing the social factors that were addressed by my colleague Dr. Adimora that underline HIV vulnerability.

Six, support continued HIV treatment, vaccine and other biomedical interventions that are safe, ethical, and show promise of efficacy.

And finally, seven, balance the policy of promoting pre-packaged evidence-based HIV prevention interventions by supporting and evaluating more localized bottom-up and collaborative HIV prevention strategies. It is critical to respect on-the-ground responses to the HIV/AIDS epidemic by protecting local control over how HIV prevention strategies are developed, researched, prioritized and implemented.

In closing, HIV prevention efforts in general have not received the funding needed to make them ubiquitous and continuous, nor have our resources been adequately targeted to reach those at highest risk for HIV infection. We need a comprehensive national HIV prevention plan in the United States that clear clearly calls for culturally relevant, multilevel combination approaches that are well funded, targeted and sustained over many years.

Thank you.

[The prepared statement of Dr. Ayala follows:]

Written Testimony on HIV Incidence and Prevention
For
Congressional Hearing to be held September 16, 2008

Submitted to:
Chairman Henry A. Waxman
Committee on Oversight and Government Reform
Congress of the United States
House of Representatives

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Introduction

Chairman Waxman and distinguished members of the Committee on Oversight and Government Reform: thank you for this opportunity to speak with you today on the critical topic of HIV prevention in the United States. My name is George Ayala, and I work as a research psychologist at RTI International and as a Consultant to AIDS Project Los Angeles, where I was the Director of Education and Community-based Research for more than 6 years. I have worked in HIV prevention for 18 years. It is my privilege to be here with you today.

HIV prevention in the United States has been enormously successful and cost efficient despite the public scrutiny and criticism it continues to receive. As has been demonstrated by my esteemed co-panelist Dr. Holtgrave, HIV prevention efforts have resulted in the drop in HIV incidence from its peak of 161,000 infections in 1984. Moreover, the gross cost per HIV infection prevented is well below the estimated lifetime cost of treatment for one person living with AIDS.[1]

Several effective HIV prevention programs, largely individual-level behavior modification interventions, have been developed over the first two decades of the HIV/AIDS epidemic. Recent reviews of these interventions have demonstrated that across studies, reductions in HIV risk behavior and improvements in knowledge, attitudes and beliefs about HIV/AIDS were greater for the target populations who received the risk reduction intervention compared with those who did not. This is true for men who have sex with men[2 3], heterosexual adults[4], adolescents[5], and individuals receiving HIV prevention intervention delivered within drug treatment programs.[6]

In addition, overall reductions in the proportion of individuals engaging in sex without the use of condoms as a result of receiving an HIV prevention intervention range from 26% for men who have sex with men to 29% for heterosexual adults. These rates are comparable to the 30% efficacy rate established as the minimum acceptability standard when testing potential vaccine products.[7 8]

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So if HIV prevention works, why have HIV incidence rates not continued to drop? In our view, the key to further reducing HIV incidence in the U.S. is in our capacity to more effectively target resources and stay focused on classic prevention principles.

Presently, HIV prevention in the U.S. lacks the resources and comprehensiveness that will significantly drive down HIV incidence rates.[9] [10] In the absence of a clearly articulated, aggressive, and well targeted national HIV prevention plan, the U.S. instead relies on piecemeal initiatives for stepped up HIV testing and treatment.

The key to further reducing HIV incidence in the U.S. lies in how we think about, plan, and implement HIV prevention policy, research and practice. In other health fields with much longer histories, prevention has a more sophisticated shape. For example, smoking prevention programs combine pharmacological interventions, behavior modification, social persuasion techniques (including the use of social marketing to influence community norms), and structural change (like policy reform and legislative initiatives) designed to discourage nicotine use.

Obviously, nicotine addiction and HIV infection and the behavioral and social determinants of each are different and we must exercise caution in comparing the two. But the point of the comparison is compelling and raises important questions about some of the problems with contemporary HIV prevention in the U.S. Consider the following:

- Pharmacological interventions of HIV disease including anti-retroviral treatment do not cure HIV, are not effective for some, and are not accessible or available to everyone who is HIV infected;
- Addiction to substances other than nicotine, including alcohol and crystal methamphetamine, is highly stigmatized and in most cases criminalized rather than prevented or treated;
- HIV prevention programs are not always targeted to populations most at risk – nor are they sustained over long periods of time;
- Available HIV prevention interventions were primarily tested for efficacy in the late eighties and early nineties on groups heavily affected by HIV/AIDS at that time and may therefore have limited cultural relevance;
- Most HIV prevention interventions are designed to modify behavior at the individual level (i.e., perceived personal vulnerability, self efficacy, intention, assertiveness and communication skills, condom use, reduction in the number of sex partners) with little regard for the interpersonal, social and cultural determinants of HIV risk;
- Many HIV prevention interventions are difficult for community-based HIV prevention providers to adapt and therefore adopt because they were tested under research

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conditions that are different from real life settings or tested on populations different from those currently most at risk for HIV infection; and

- When addressing the risk for HIV infection, behavior modification seeks to redress personal deficits without regard for existing individual and collective strengths, competencies, or resources.

While HIV testing and treatment are crucial in our fight against HIV/AIDS, a singular focus on testing and treatment for people living with HIV/AIDS narrows even further an already sparse continuum of prevention strategies. A comprehensive national HIV prevention plan in the U.S. requires culturally relevant, multilevel, combination approaches that are well funded, targeted, coordinated, and sustained over many years.[11] The following are specific recommendations for building such a national plan:

Work to eliminate disparities in health access and stigma associated with AIDS, drug use, and homosexuality. Our collective desire to prevent new HIV infections and the urgency that we feel to do so quickly, open the doors to simplistic, overly medicalized and inadequately researched public health responses. This is the case with the current rush to promote circumcision as a prevention strategy and the CDC's almost singular focus on HIV testing and treatment.[12] This emphasis on testing and treatment, although crucial in our work to end HIV/AIDS, significantly narrows the continuum of possible prevention strategies. There is no disputing the potential personal and public health benefits of HIV testing. However, HIV-infected persons draw the greatest benefits from the latest available treatment when they can receive treatments early. Nearly 40% of HIV-infected persons learn of their infection within a year of receiving an AIDS diagnosis.[13] For Latinos and African Americans, this number can be much higher.[14] [15] Exacerbating the situation is the fact that African Americans and Latinos are over-represented among those living at or below poverty level and without health insurance.[16] [17] The personal benefits of knowing one's HIV-status early are lost on those who must overcome the significant barriers to care and treatment and persistent stigma that keep some away from care. *We must work for the eradication of disparities in health care access and social stigma associated HIV/AIDS, drug use or homosexuality.*

Target our HIV prevention efforts to those most at risk for HIV exposure, keeping a steady and respectful focus on the prevention needs of gay and bisexual men, substance users, and women at sexual risk. Mainstream descriptions of the HIV/AIDS epidemic in the U.S. often paint an incomplete and misleading picture about what's going on nationally. These descriptions often start with statements about the disproportionate toll HIV/AIDS is taking in

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[15] Supplemental HIV Surveillance Study Project. L.A. County, Department of Health Services, January 2000.

[16] United State Census Bureau, July 2001.

[17] Brodie, M. et al. The 2002 National Survey of Latinos. Pew Hispanic Center/Kaiser Family Foundation, December 2002.

communities of color, especially among African Americans with no mention of the specific sub-groups most at risk, namely gay/bisexual men, drug users, and women at sexual risk. Moreover, funding remains inadequately targeted to these groups. This is especially troubling when we consider, for example, that men who have sex with men continue to make up the majority of new HIV infections and the majority of people living with HIV/AIDS nationally across race and ethnicity. In many places around the country, gay and bisexual men, and especially gay men of color, continue to drive the AIDS epidemic. In fact, in jurisdictions like New York City and Los Angeles County where seroprevalence among Black and Latino men who have sex with men can be as high as 32%, the need for effective HIV prevention programs specifically designed for and targeted to these two groups is especially urgent.[18 19 20 21 22]

The HIV/AIDS epidemic's affect on women is intricately tied to the lives of these men. In addition, substance abuse continues to be one of the most powerful determinants of HIV risk across populations. Our ability to formulate effective prevention responses requires a more direct discussion about the nature of HIV risk that includes frank, open and non-judgmental conversations about gay/bi men, drug users, and women at sexual risk for HIV. The alternative is that we accept silence and denial about sexuality, drug use, and economic inequality, permitting HIV-related stigma, racism, sexism, homophobia, and poverty to continue to complicate our prevention efforts. *We must keep a steady and respectful focus on the prevention needs of gay/bisexual men, substance users, and women at sexual risk.*

Expand prevention and support services to people living with HIV/AIDS. It is also true that when people know they are infected with HIV, they are significantly more likely to protect their partners from infection than when they are unaware of their infection.[23 24] Research also tells us that behavior change that occurs as a result of HIV testing is sustainable for up to 18 months at best, making HIV testing as effective as other stand-alone behavioral interventions. Knowledge alone, in this instance knowledge about one's HIV status, is not enough to sustain and support behavior change over time.[25 26] *Prevention interventions and support services can enhance and reinforce behavioral changes among people with HIV/AIDS that occur as a consequence of testing. At present, these are not well supported.*

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[18] Valleroy et al. HIV prevalence and associated risks in young MSM. JAMA, 2000;284:198-204.

[19] Diaz, R. Ayala, G. Social discrimination and health: The case of Latino gay men and HIV risk. 2001. Commissioned Monograph. National Gay and Lesbian Task Force.

[20] Centers for Disease Control and Prevention. HIV incidence among young men who have sex with men--seven U.S. cities, 1994-2000. MMWR Morb Mortal Wkly Rep 2001;50(21):440-4.

[21] Blair JM, Fleming PL, Karon JM. Trends in AIDS incidence and survival among racial/ethnic minority men who have sex with men, United States, 1990-1999. JAIDS, 2002; 31(3):339-47.

[22] CDC. Cases of HIV infection and AIDS in the United States and Dependent Areas, 2005. HIV/AIDS Surveillance Supplemental Report 2007;17.

[23] Hays, R.B., et al. Actual versus perceived HIV status, sexual behaviors and predictors of unprotected sex among young gay and bisexual men who identify as HIV-negative, HIV-positive and untested. AIDS, 1997;11:1495-1502.

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[25] Helweg-Larsen, M., Collins, B.E. A social psychological perspective on the role of knowledge about AIDS in AIDS prevention. Curr Psychol Sci 1997;6:23-53.

[26] Fisher J.D, Fisher W.A. Theoretical approaches to individual-level change in HIV risk behavior. In Peterson & DiClemente (Eds.) Handbook of HIV Prevention. 2000. Kluwer Academic/Plenum Publishers.

Support continued vaccine, pre-exposure prophylaxis and microbicide research. Accessible HIV treatment and other biomedical interventions including pre-exposure prophylaxis (PrEP) and microbicides hold enormous prevention potential. From a prevention perspective, medical management of HIV disease lowers viral load thereby reducing infectiousness.[27] This makes treatment and adherence important components of our overall HIV prevention strategy. Additionally, microbicides and pre-exposure prophylaxis are important options for people who find themselves unable to avert high risk situations or for whom behavioral methods are not an option. *We must strive through sound research to broaden the range of HIV prevention options to include bio-medical prevention strategies. Continued support for vaccine, clinical, and microbicide research is needed.*

Make the prevention and treatment of drug and alcohol addiction central to HIV prevention efforts. In HIV prevention research, one of the most powerful behavioral predictors of HIV risk behavior is drug and/or alcohol use.[28] [29] The association between crystal methamphetamines and HIV risk behavior is well established.[30] Prevention providers and researchers have known this for years. And yet substance abuse prevention and treatment programs are few in number, under-funded, and in some instances, nothing more than court mandated 12-step programs, the quality of which varies from place to place and from meeting to meeting. *We must make the prevention and treatment of addiction central to a more comprehensive national HIV prevention plan.*

Intensify support for comprehensive sexual health education, screening and care. Behavioral interventions have been shown to significantly reduce the risk for HIV infection for adolescents as well as adults. Interventions designed to achieve condom use among sexually active adolescents were most successful when condoms were provided and information and skills training about their use was offered. Moreover, behavioral interventions reduce the risk for HIV specifically because they increase knowledge about sexual health, skill acquisition, sexual communication, and condom use, and they decrease the onset of sexual intercourse or the number of sexual partners.[31] [32] *Screening and treatment of sexually transmitted diseases for all must go hand-in-hand with comprehensive sexual health education and both must be seen as integral to our HIV prevention efforts.*

Develop programs for both aging adults and young people whose, HIV prevention needs may be different. Decreased visibility of targeted and regularly updated HIV prevention messages in recent years may have reduced the salience of HIV prevention programs for communities most at risk.[33] For example, outdated and over-simplistic prevention messages for

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[27] Quinn, T.C., Wawer, M.J., Sewankambo, N., et al. Viral load and heterosexual transmission of HIV-type 1. New England Journal of Medicine, 2000; 342:921-929.

[28] Parsons, J.T. Correlates of sexual HIV transmission risk behaviors among HIV+ MSM. National HIV Prevention Conference. 1999. Abstract No. 181.

[29] Strathdee et al. Determinants of sexual risk taking among youg HIV- gay and bisexual men, Journal of AIDS Human Retrovirology, 1998; 19:61-66.

[30] Stall, R., Mills, T.C., Williamson, J., Hart, T., Greenwood, G., Paul, J., et al. Association of co-occurring psychosocial health problems and increased vulnerability to HIV/AIDS among urban men who have sex with men. American Journal of Public Health, 2003; 93(6):939-42.

[31] Johnson, B.T., Carey M.P., Marsh, K.L., Levin, K.D., and Scott-Sheldon, L.A. Interventions to reduce sexual risk for HIV in adolescents. Archives Pediatric Adolescent Medicine. 2003;157:381-388.

[32] Kirby, D., Short, L., Collins J. 'School-based Programs to Reduce Sexual Risk Behaviors: A Review of Effectiveness.' Public Health Reports, 1994; 109:339-360.

[33] Aral, S. Elimination and reintroduction of sexually transmitted disease: lessons to be learned? American Journal of Public Health. 1999; 89: 995-997.

gay and bisexual men may explain what is often referred to as "HIV prevention fatigue" or "HIV/AIDS burnout." [34] With changing trends in the epidemic, and more people living longer with HIV, it is important that HIV prevention advocates, practitioners and policy makers not get seduced into forgetting that HIV prevention needs not only evolve, they must also expand. This is because in addition to aging adults who have managed to remain HIV negative, there are newer generations of young people with whom we must now also concern ourselves. Therefore, the *potential audiences for HIV prevention messages must be carefully segmented by age, gender, sexual orientation and race/ethnicity and messages specifically crafted and regularly updated for their respective audiences.*

Ensure that priority be given to expanding social science and intervention research aimed at gay and bisexual men especially men of color. The CDC recommends several evidence-based HIV prevention interventions as part of its Diffusion of Behavioral Interventions (DEBI) initiative.[35] [36] There is however a limited number of interventions available that are specifically designed to address the cofactors of HIV risk for gay and bisexual men of color.[37] [38] [39] In recent public comment (March 26, 2008) to the Presidential Advisory Council on HIV/AIDS regarding the CDC's newly revised compendium of evidence-based interventions, The AIDS Institute noted that only four (8%) of the compendium's 49 interventions specifically target gay men, despite the fact that men who have sex with men account for nearly 70% of all new HIV cases. Of those four, only one was specifically designed for and tested with Asian and Pacific Islander gay men. Although this is beginning to receive much needed attention, it remains a serious gap. *We must expand our research efforts with a focus on gay and bisexual men of color as a strategy for expanding available HIV prevention interventions for this disproportionately affected population.*

Support innovative prevention strategies that address both risk behavior and its social, cultural and contextual determinants. The risk for HIV infection is often understood as being connected to some individual trait, characteristic, or deficit. Another way to understand the risk for HIV infection is as a function of interpersonal and socio-cultural contexts. In other words, risk behavior does not happen in a social vacuum. At present, interventions that are endorsed by public health institutions in the U.S. largely focus on modifying individual risk behavior without taking into account the situational, interpersonal, social or cultural determinants of risk. It is important that our interventions address changing risk environments, social/sexual networks and socio-cultural factors that contribute to the heightened risk for HIV transmission.[40] *We*

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[34] Odets, W. AIDS education and harm reduction approaches for the 21st century. AIDS Public Policy Journal, 1994;9:1-15.

[35] HIV/AIDS Prevention Research Synthesis Project. Compendium of HIV Prevention Interventions With Evidence of Effectiveness. Atlanta, GA: Centers for Disease Control and Prevention; 1999.

[36] Kay, L., Crepaz, N., Lyles, C., et al. Update of the Compendium of HIV Prevention Interventions with Evidence of Effectiveness. In: National HIV Prevention Conference. Atlanta, GA; 2003.

[37] Mays, V.M., Cochran, S.D., Zamudio, A. HIV prevention research: are we meeting the needs of African American men who have sex with men? Journal of Black Psychology, 2004;30:78-103.

[38] Lyles, C.M., Kay, L.S., Crepaz, N., Herbst, J.H., Passin, W.F., Kim, A.S., et al. Best-evidence interventions: Findings from a systematic review of HIV Behavioral interventions for US populations at high risk, 2000-2004. American Journal of Public Health 2007;97(1):133-143.

[39] Millet, G.A., Flores, S.A., Peterson, J.L., and Bakeman, R. Explaining dispairities in HIV infection among black and white men who have sex with men: a meta-analysis of HIV risk behaviors. AIDS, 2007; 21: 2083-2091.

[40] Díaz, R. M., Ayala, G, & Bein, E. Sexual risk as an outcome of social oppression: Data from a probability sample of Latino gay men in three US cities. Cultural Diversity and Ethnic Minority Psychology, 2004; 10(3), 255–267.

should support prevention research and interventions that address both HIV risk behavior and their social, cultural and contextual determinants.

Explore and disseminate community-sensitive and ethical structural interventions to complement behavior modification programs. There is growing recognition that social, economic, and environmental forces directly affect the risk for HIV transmission. At the structural level, laws and policies that result in a lack of immigrant rights, discrimination against lesbian, gay, bisexual and transgender people, lack of family housing at migrant labor worksites, unregulated commercial sex, criminalization of possession of syringes, and lack of financial support for medical, educational, prevention, and social services can be changed through policy and legislative reform. For example, in 1992, New York State enacted a change in the public health law (Public Health Law 80.135) that carves out an exemption to the penal code regarding criminal possession of syringe equipment. The change in law gives the New York State Commissioner of Health the authority to grant waivers to community-based organizations and government entities to collect and furnish syringes. New York State supports a multi-component syringe access and disposal program that is informed by harm reduction principles, and which is credited for a 50% reduction in HIV transmission among injection drug users, a 75% decrease in the buying or renting of syringes, and a 63% decrease in syringe sharing behaviors.[41] Similar reductions in HIV incidence rates among injection drug users in New York are well documented[42] and there is evidence to support safer injection facilities.[43] Structural-level changes buttress the gains in behavior change made through individually geared prevention interventions. HIV prevention efforts cannot succeed in the long term without addressing, through structural interventions, the social factors that underlie HIV vulnerability.[44] *We must continue to support and explore community-sensitive structural interventions to complement behavior modification programs as part of a larger, more comprehensive national HIV prevention program.*

Balance the policy of promoting pre-packaged science-based HIV prevention interventions by supporting and researching more localized, indigenous and collaborative HIV prevention strategies. HIV prevention interventions currently being promoted by the CDC -- or the so-called "out-of-the-box," "evidence-based" interventions "scaled-up" for mass distribution -- are not easy to use and therefore reduce the likelihood that they would be adopted by the end-users of the interventions who are community-based health educators and outreach staff. Because these interventions were developed and tested within research conditions that do not mimic real-life conditions, they are often considered prescriptive. These interventions sometimes require unrealistic time commitments from clients and specialized training for the staff implementing them. Prevention providers asked to adopt pre-packaged interventions sometimes feel no ownership over what they are being asked to do. Their ability to introduce their own innovations from insights gained in their work with clients is often limited by overly determined intervention manuals.[45] It is critical to respect on-the-ground responses to the HIV/AIDS epidemic by protecting local control over how HIV prevention

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[41] New York State Department of Health, AIDS Institute. Presentation by Alma R. Candelas, March 2003.
[42] Des Jarlais, D.C. et al. HIV incidence among injection drug users in New York City, 1992-1997: evidence for a declining epidemic. American Journal of Public Health, March 2000, 90(3).
[43] Kerr, T., Tyndal, M., Li, K., Montaner, J., and Wood, E. Safer injection facility use and syringe sharing in injection drug users. Lancet, 2005; 366:316-318.
[44] Gupta, R.A., Parkhurst, J.O., Ogden, J.A., Aggleton, P., and Mahal, A. Structural approaches to HIV prevention. www.thelancet.com, August 30, 2008; Vol. 372.
[45] Ayala, G. Adapting evidence-based HIV prevention interventions. Focus: A Guide to AIDS Research and Counseling, 2007; 22(7), 6–7.

strategies are developed, researched, prioritized and implemented. This will ensure that HIV prevention efforts remain responsive, varied, dynamic and innovative. Available HIV prevention and epidemiological science should be used to guide local efforts, not dictate them. We must also ensure that the people setting priorities and designing HIV prevention programs at the local level have access to the best available evidence-based information and technologies possible. Technical assistance and capacity building should be made available when and if requested, and should be tailored to the specific needs of those requesting assistance. *We should strive for collaborative and participatory approaches to formulating effective HIV prevention interventions that are flexible enough to permit creative modifications and withstand organizational change typical for non-profit agencies.*[46 47] *Such approaches should involve researchers, service providers, and consumers alike.*[48 49]

Promote HIV prevention programs that build upon and mobilize existing individual and community strengths, competencies and resources. With few exceptions, HIV prevention interventions are problem oriented. They seek to remedy personal deficits rather than to promote or mobilize existing individual and collective competencies, strengths or resiliencies. What makes individuals and communities resilient to HIV is poorly understood and relatively overlooked in the HIV research literatures. There is prevention potential in engaging and mobilizing an individual or community's capacity to know what's best for them when they are given opportunities for self-reflection, social involvement and connectedness through volunteerism and activism.[50] *Whenever possible, we should promote HIV prevention research and programs that build upon and mobilize existing individual and community assets.*

Conclusion

Although HIV prevention interventions have been shown to be effective, HIV prevention efforts in general have not received the funding needed to make them more comprehensive and widespread. HIV prevention messages are not ubiquitous or sustained, and may not be reaching those at highest risk for infection. This may in part explain current HIV incidence rates. Driving down HIV incidence even further will require that we think differently about HIV prevention policy, research and programs. We must also expand our capacity to imagine new possibilities for HIV prevention work by challenging ourselves to remain creative and open to collaborative approaches in our efforts to end the HIV/AIDS epidemic. We need a comprehensive national HIV prevention plan in the U.S. that clearly calls for culturally relevant, multilevel, combination approaches that are well funded, targeted, coordinated, and sustained over many years.

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[46] Kalichman, S.C. et al. When briefer can be better: Single session approaches to HIV risk reduction interventions. Interamerican Journal of Psychology. 2001;Vol.35, No.2:41-58.

[47] Miller, R. Innovation in HIV prevention: Organizational and intervention characteristics affecting program adoption. American Journal of Community Psychology. 2001; Vol.29, No.4.

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[50] Zimmerman, M.A, Ramirez-Valles, J. et al. An HIV/AIDS prevention project for Mexican homosexual men: An empowerment approach. Health Education and Behavavior, 1997; 24(2):177-190.

Chairman WAXMAN. Thank you very much Dr. Ayala.

Ms. Hauck.

STATEMENT OF HEATHER HAUCK

Ms. HAUCK. Good afternoon, Mr. Chairman, Representative Davis, members of the committee.

Thank you for inviting me to participate on this very distinguished panel.

State Health Department AIDS directors appreciate that this committee is focusing on domestic HIV prevention activities, especially in light of the CDC's release of new HIV incidence estimates and the alarming rates of infection among African Americans and gay and bisexual men of all races and ethnicities.

I will focus today on describing State Health Department HIV prevention portfolios, including the central importance of HIV/AIDS surveillance. I will also share key recommendations from State AIDS directors for an HIV prevention response to end the epidemic in our Nation.

State Health Department HIV directors are responsible for implementing comprehensive HIV prevention care and treatment strategies in our States. We are stewards of more than half of CDC's $692 million budget for domestic HIV prevention surveillance programs, as well as significant State resources.

All States implement CDC's required HIV prevention program components, such as HIV counseling, testing, and referral, partner services, health education risk reduction, community planning, and program evaluation. Over the past 6 years, however, CDC's funding to State and local health departments has decreased by $30 million. For many States, especially medium and low prevalence States, this decline in Federal funding has resulted in significant reductions in core components of HIV prevention services. At the same time, there has also been an increased directive from CDC to focus resources on HIV testing. When faced with such directives and funding reductions, States are forced to eliminate effective interventions that are needed to prevent HIV transmission in our regions or among our populations.

HIV prevention efforts must be aligned to meet the needs of those who bear the greatest HIV/AIDS burden in the United States. As the recent CDC HIV incidence estimates clearly illustrate, African Americans, men and women, and gay and bisexual men of all races and ethnicities are significantly impacted by HIV. State and local health department HIV programs work to eliminate health disparities based on race, ethnicity, gender, sexual identity, and class.

In Maryland, our data show that HIV largely disproportionately impacts African Americans, regardless of transmission risk category, and therefore we prioritize the reduction of health disparities among racial and ethnic communities as a cross-cutting theme for all of our HIV initiatives.

A central activity of State HIV prevention programs is measuring and describing the epidemic through HIV surveillance activities. These activities are essential to understanding our local HIV epidemics so that we can then target HIV prevention activities appropriately. These data also determine the allocation and distribu-

tion of resources for HIV care and treatment via the Ryan White Program.

The CDC has been unable to adequately sustain funding for core surveillance or for projects such as the incidence surveillance projects which led to the new estimates released in August. For example, Maryland's total budget for HIV/AIDS surveillance was reduced by 40 percent in the last year, and the State is no longer funded for incidence surveillance.

The loss of surveillance funds in the States jeopardizes our ability to know the populations most impacted by the HIV epidemic: in Maryland, heterosexuals ages 30 through 49, disproportionately African American and living in the Baltimore metro area, Prince George's and Montgomery Counties. If we can't describe our epidemics, we can't plan effective HIV prevention strategies and interventions appropriate for our local communities. The CDC needs additional funding to restore and expand incidence surveillance and to shore up core surveillance across all jurisdictions.

AIDS directors articulated our vision for America's prevention response in a new blueprint for the Nation, Ending the Epidemic Through the Power of Prevention, and copies have been made available to the committee.

Three key elements are required to successfully reduce the number of new HIV infections. One, adequately fund CDC's HIV prevention and surveillance program at the level of at least $1.3 billion annually. Two, significantly invest in interventions that work to prevent infection, including research to develop new population specific interventions, access to sterile injection equipment, enhanced program in correctional settings, and establish a comprehensive sexuality education as the standard. Three, meaningfully invest in programs that support HIV prevention, including STD treatment, hepatitis vaccinations, substance abuse prevention and treatment, mental health services, housing, and expanded research for biomedical intervention.

State and local health departments know that HIV prevention works, and we know that health department, health care providers, businesses, faith leaders, community based organizations, and persons living with HIV and AIDS must all be equipped with adequate tools and resources to help prevent new infections.

Thank you again for holding this important hearing and for your thoughtful consideration of our recommendations to increase access to HIV prevention interventions provided by State and local health departments. I look forward to answering any questions you may have.

Chairman WAXMAN. Thank you very much.

[The prepared statement of Ms. Hauck follows:]

Maryland Department of
Health and Mental Hygiene
AIDS Administration

Testimony Submitted by

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Presented to the House Committee on Oversight and Government Reform

For the hearing "The Domestic Epidemic is Worse than We Thought: A Wake-Up Call for HIV Prevention"

Tuesday, September 16, 2008, 10:00 a.m.

As the Director of the Maryland AIDS Administration and the incoming Chair of the National Alliance of State and Territorial AIDS Directors (NASTAD), I respectfully submit testimony for the record regarding the current efforts and future direction of HIV prevention programs in the United States. State AIDS directors appreciate the longstanding support of the House of Representatives for domestic prevention programs and the Ryan White Program that are of the utmost importance to Americans living with and at risk for HIV/AIDS. The Committee should also be commended for holding a hearing focusing on domestic HIV prevention activities in light of the Centers for Disease Control and Prevention's (CDC) recent release of new HIV incidence estimates in the U.S. and the alarming rates of infection among gay and bisexual men of all races and African Americans.

In this testimony, I will share with you some of the views of state AIDS directors, in addition to those of the state of Maryland. I have the privilege of having administered state public health HIV programs for both a high prevalence state – Maryland – and a low prevalence state – New Hampshire. My testimony will focus on what state AIDS directors believe will be effective in stemming the tide of new infections, including one of the most neglected and least recognized pieces of the prevention portfolio – HIV/AIDS surveillance. Simply put, we have effective strategies and interventions to significantly reduce new infections. We need sound public health policy to eliminate barriers to the implementation of evidence based interventions and increased resources to expand the reach of our efforts to all those in need.

The mission of the Maryland AIDS Administration is to reduce HIV transmission in our state and to help Marylanders with HIV live longer and healthier lives. The Maryland AIDS Administration administers Maryland's HIV/AIDS prevention, surveillance, and care programs, which are funded by federal and state funds. The Maryland AIDS Administration has been monitoring new reports of HIV infections throughout the state for over 14 years and new reports of AIDS cases since the first case in 1981; Maryland reported the second and third AIDS case in the national AIDS epidemic. We have developed a detailed understanding of the HIV and AIDS epidemics in our state.

As of December 2006, there were over 33,000 people living with HIV/AIDS in Maryland. According to the 2006 CDC AIDS Case Report ranking by rate, Maryland is third in the country (28.5 per 100,000 population) behind the District of Columbia and the U.S. Virgin Islands and the Baltimore-Towson Metropolitan Area is second in the county (37.7 per 100,000 population).

The Maryland AIDS Administration's epidemiological data on HIV cases diagnosed and reported in 2006 indicate that of the approximately 2,144 newly reported HIV cases, over 90 percent are among residents of the Baltimore and Washington metropolitan areas. Forty-eight percent are from Baltimore City followed by Prince Georges County (16 percent) and Montgomery County (11 Percent) In Maryland, HIV disproportionately affects African-Americans (75 percent) men (64 percent), and persons age 30-49 (58 percent). Among Maryland's over 33,000 living HIV/AIDS cases, 80% percent are African-American. The most common exposure category among the newly reported HIV infections was heterosexual contact (49 percent); HIV transmission through heterosexual sex is currently the largest percentage of Maryland's HIV/AIDS epidemic. There has also been an increase in newly reported HIV infections among men who have sex with men (24 percent) in recent years. In 1994, Maryland's

HIV epidemic was largely transmitted through injection drug use (IDU) (60 percent) but now IDU transmission only accounts for 22 percent of the risk behavior for Maryland's HIV/AIDS epidemic. This is a notable public health success.

An important 2004 –2005 supplemental HIV behavioral surveillance study, BESURE, showed that of over 1,000 Baltimore metropolitan area gay men and other MSM recruited from bars, restaurants, social groups, and street locations, one-third were HIV+ (52 percent were African-American gay men and other MSM) and two-thirds of the HIV positive men were unaware of their HIV positive status. African-Americans and young men (18-29) were more likely to be unaware they were positive.

While CDC's new HIV incidence estimates are very valuable in understanding the national HIV epidemic and reflect the urgent need to expand access to HIV prevention initiatives, it is important to remember that each state's HIV/AIDS epidemic – like the Maryland epidemic – differs from the national trends. These differences highlight why it is very important to use available local surveillance data for making local policy and program decisions related to planning and allocation of funds, as well as evaluating the impact of prevention programs.

Role of Public Health in HIV/AIDS

State public health agencies serve an essential and unique role in the delivery of HIV/AIDS prevention and care and treatment programs. The agencies are entrusted through U.S. law as the "central authorities of the nation's public health system" and as such, bear the primary public sector responsibility for health. State public health responsibilities include disease surveillance; epidemiology and prevention; provisions of primary health care services for the uninsured and indigent; and overall planning, coordination, administration, and fiscal management of public health services.

Importance of State Public Health HIV Prevention Programs

HIV prevention and surveillance programs are funded by the CDC under general authority provided by federal public health law. Since 1988, CDC has provided HIV prevention resources to 65 state, local, and territorial health departments to implement comprehensive HIV prevention programs. In FY2008, these health departments received approximately $340 million to conduct the following required components in our comprehensive HIV prevention programs:

- *HIV Counseling, Testing and Referral and Partner Services* aim to ensure that individuals and their partners learn their HIV serostatus, receive counseling on behavior change to avoid infection or prevent transmission, and obtain referrals for prevention and care and treatment services.
- *Health Education/Risk Reduction* provides support for, and technical assistance on, targeted education and outreach activities for individual, group, and community-level interventions and street and community outreach. Health Education/Risk Reduction serves both HIV-negative and HIV-positive individuals.
- *Community Planning* ensures the participation of at-risk, infected and affected communities in the development of effective and appropriate HIV education and prevention programs.
- *Capacity Building* strengthens the delivery of effective prevention programs.

- *Quality Assurance and Program Evaluation* monitors progress, outcomes and the impact of the programs they support, as well as assesses needs and develops culturally appropriate services.
- *Other HIV Prevention Efforts* include HIV/AIDS surveillance, prevention of mother-to-child transmission, STD and viral hepatitis prevention, support for coordination and collaboration and support for HIV laboratories.

In addition to the services required by CDC, state and local HIV/AIDS programs may also support, directly and indirectly, a cadre of other services that work to prevent the transmission of HIV. These include needle and syringe access programs, drug substitution programs and non-occupational post-exposure prophylaxis. HIV/AIDS programs also partner with other public health and community programs including STD prevention, TB prevention, and viral hepatitis and control, substance abuse and mental health, reproductive / maternal and child health, immunization, corrections and education agencies and private clinicians.

Scaling up HIV Prevention

State and local health department HIV/AIDS programs are committed to ending the HIV/AIDS epidemic in our nation.

AIDS directors articulated their vision for America's prevention response by developing, *A New Blueprint for the Nation: Ending the Epidemic Through the Power of Prevention,* and a companion policy agenda. To be successful in reducing the number of new HIV infections, the following action steps must be taken.

Significantly Increase Resources for HIV Prevention

The U.S. must double CDC's domestic HIV prevention budget. We know that HIV prevention in this country works as it has held steady the number of new infections for over a decade. However, all components of our prevention arsenal have been drastically underfunded. As stewards of more than half of the CDC's $692 million domestic HIV prevention and surveillance program budget, as well as significant state resources, HIV/AIDS directors are responsible for implementing comprehensive HIV/AIDS prevention and care and treatment strategies across the nation. Over the past six years, CDC funding to state and local health departments has decreased by $30 million. When adjusted for inflation, experts estimate the CDC's domestic HIV prevention budget decreased over 19 percent between FY2002 and FY2007.

Essentially, states' HIV/AIDS programs are being asked to do more with less funding. For many states, especially medium and low prevalence states, this decline in federal funding over the past five years has resulted in reductions in core components of prevention services such as health education/risk reduction, quality assurance and evaluation, and capacity building. There has also been an increased focus on HIV testing which often forces states to redirect funding or attention away from the more intensive and comprehensive behavioral interventions that are needed to prevent HIV transmission. These funding reductions are occurring while the number of individuals living with HIV/AIDS increases.

Further, there have been several unfunded mandates by CDC in recent years that have diverted resources from direct prevention interventions. A primary example is CDC's requirement that states provide information for the Program Evaluation and Monitoring System (PEMS). While

health departments fully support accountability through the evaluation and monitoring of HIV prevention programs, implementation time spent on PEMS has never been funded. As a consequence of funding cuts and unfunded mandates such as PEMS, states are forced to make difficult decisions that lead to less funding for direct HIV prevention interventions. For example, Florida recently completed a competitive process for community-based organizations to apply for the state's CDC prevention dollars. Out of the 99 applications received, Florida was only able to fund 25 of these organizations to implement HIV prevention programs.

A central activity of state prevention programs is monitoring the epidemic. HIV/AIDS epidemiology, surveillance and seroprevalence activities provide data that are critical to targeting the delivery of HIV prevention and care and treatment services. State health agencies are uniquely positioned to conduct these activities because of the expertise, statutory authority, and confidentiality protections of existing public health disease surveillance and reporting systems. States conduct a variety of surveillance activities to track the HIV/AIDS epidemic. The six main types of surveillance are the following.

- *Core Surveillance* is the primary source of population-based data on persons living with HIV and AIDS in the U.S.
- *Incidence Surveillance* provides reliable and scientifically valid estimates of the number of newly-acquired HIV infections though collection and testing of blood specimens from all newly reported HIV infections; calculation of population-based estimates for HIV incidence; and monitoring and tracking HIV strains for resistance to antiretroviral drugs.
- *Behavioral Surveillance* is a multi-year, CDC sponsored surveillance effort whose goal is to measure an extensive set of HIV risk behaviors and related risk factors among selected high-risk populations in 26 cities with the highest number of people living with HIV/AIDS (as of the end of 2000).
- *Variant, Atypical and Resistant HIV Surveillance* is a CDC-sponsored surveillance project that tests for HIV drug-resistance through genotype testing and measures the prevalence of different strains of HIV.
- *Morbidity Monitoring Project* is a surveillance system under development that will be nationally representative of HIV-infected persons receiving medical care in the U.S. The system utilizes HIV care providers to collect necessary data.
- *Enhanced Perinatal Surveillance* monitors progress made in reducing perinatal HIV transmission.

Federal funding has eroded over the last decade for core HIV/AIDS surveillance. These data are critical in understanding the local HIV/AIDS epidemic; targeting the delivery of HIV prevention and care, and treatment services and distributing resources for HIV/AIDS care and treatment via the Ryan White Program. CDC has been unable to sustain adequate funding for special surveillance projects such as incidence surveillance (new infections) which led to the new HIV estimates released in August of this year. For example, Maryland's total budget for HIV/AIDS Surveillance was reduced by 40 percent in the last year and the state is no longer funded for Incidence Surveillance or Variant, Atypical, and Resistant HIV Surveillance projects. In every state implementing these projects, the projects were integrated with core surveillance and therefore, the loss of funds jeopardizes not only important projects such as Incidence Surveillance, but also core surveillance activities. Further, the loss of funding for surveillance results in a loss of capacity to describe the HIV epidemic in jurisdictions this impacts both HIV

prevention program planning and Ryan White and CDC funding. The CDC needs additional funding to restore incidence surveillance in the eight jurisdictions, including Maryland, which recently lost their grant awards and to shore up core surveillance across all jurisdictions.

Replicate HIV Prevention Successes

Many states have had significant public health successes in reducing HIV transmission from injection drug use (IDU) and from perinatal exposures. These successes demonstrate that HIV prevention works and that the combined efforts of the state health departments, local health departments, health care providers, consumers, community-based organizations, private industry, media leaders, and institutions of faith make a difference in the HIV epidemic in our states.

Of greatest importance, prevention tools that directly prevent HIV infection must be made readily available: condoms, clean needles and syringes, treatment for sexually transmitted diseases (STDs), and efforts to prevent mother-to-child transmission. Prevention strategies such as HIV counseling and testing; partner services; behavioral interventions, including individual counseling and small group, community-level and peer-opinion leader interventions; treatment adherence; public information campaigns; and comprehensive sexuality education are all successful in stopping the spread of HIV/AIDS. The expansion of HIV testing efforts is an important component of the comprehensive HIV prevention portfolio, but testing efforts must be balanced with other strategies and interventions that prevent infections before they occur. To this end, all tools in the prevention arsenal must be adequately supported and replicated to scale.

NASTAD supports Representative Jose Serrano's legislation, "The Community HIV/AIDS and Hepatitis Prevention Act of 2008" (HR 6680), which would effectively end the ban on use of federal funds for syringe access programs. This would have a significant impact on states by allowing them to use federal funds to support syringe access programs and reduce new infections in a very highly impacted population.

Expand the HIV Prevention Arsenal

Research translated into practice is essential to ending this epidemic. New behavioral interventions must be developed and interventions that are shown to be effective must be made widely available as quickly as possible. The new behavioral interventions must be developed to meet the needs of specific high risk populations. These interventions must be pulled from all sources, including rigorous academic research as well as locally-developed empirical studies. Those currently in the clearance pipeline must be fast-tracked to offer alternatives to our programs in the short-term as other interventions are developed.

CDC's Compendium of Evidence-Based Interventions includes rigorously researched and tested interventions that are available to prevention providers as tools proven to reduce behaviors that can lead to HIV infection. Due to a lack of funding for behavioral research at the National Institutes of Health (NIH) and CDC, interventions that support positive behavior change are not available for all high-risk populations. There is currently only one CDC approved prevention intervention for black gay and bisexual men and no specific interventions for Latino gay and bisexual men. There are also no interventions targeting transgender individuals, sex workers or homeless persons.

Due to a lack of approved CDC interventions, states develop interventions that are responsive to the local epidemic and prevention needs. For example, Maryland designed and launched two interventions: 1) the *Pharaoh* intervention for African American men with a history of incarceration which helps men explore the connection between gender stereotypes and their own behavior and 2) the *RISE—Rewriting Inner Scripts*—intervention for same-gender-loving African-American men which helps men explore and address oppressions that impact behaviors and connects the men into other health services such as HIV testing, HIV treatment, and substance abuse treatment. These efforts are critical to addressing our local epidemics; however, they are unfunded and take resources.

We must also invest in strategies deemed effective but not widely practiced such as non-occupational post-exposure prophylaxis. And, despite controversy and set-backs, further research into the development of options such as microbicides, vaccines and pre-exposure prophylaxis using antiretroviral drugs, must be scaled up.

Encourage all People Living with HIV/AIDS to Know their Status

We must continue to expand both targeted HIV counseling and testing and referral routine HIV screening efforts. Each of our jurisdictions must consider the cost effectiveness and efficacy of testing approaches and be allowed the flexibility to plan testing efforts appropriately. The Maryland Counseling, Testing and Referral (CTR) Services program provided 61,892 HIV tests to the residents of Maryland in 2007. Of these tests, the number of newly identified, confirmed HIV positive clients was over 1 percent. The majority of the clients tested were African Americans between the ages of 20 and 39.

The CDC initiative, *Expanded and Integrated HIV Testing for Populations Disproportionately Affected by HIV, Primarily African Americans* (PS07768), is an important step to increasing knowledge of serostatus. Currently 23 jurisdictions (18 states and five cities) receive funds for testing, including rapid testing, in clinical settings such as emergency rooms, community health centers, and STD and tuberculosis clinics. The funds can also be used to support partner services, linkage to medical care and prevention services, community-based HIV testing, social marketing and public-private partnerships in support of testing initiatives.

However, CDC must have the resources to expand the number of jurisdictions implementing routine testing in clinical settings – all jurisdictions have a need for increased resources for testing if we are to truly commit to providing access to testing for all individuals who do not yet know their HIV status. Those states and cities that are given the funding to increase HIV and AIDS case finding will also be advantaged in future years by increases in their Ryan White funding. CDC has an obligation to create a level playing field, particularly when future federal funding is at stake. CDC must also acknowledge the time and effort it takes to implement new HIV prevention programs. In particular, health departments must be given support as they develop their capacity and infrastructure to ensure the scale up of programs is successful and sustainable over time.

While we support an appropriate expansion of early diagnosis efforts in all forms, we must remind the nation that these services can never supplant a full expansion of interventions and services that have the potential to prevent new infections. Moreover, since HIV testing efforts

are largely a diagnostic endeavor, financing must be appropriately portioned out to all possible payers, most notably the public and private insurance systems in America.

Link People with HIV/AIDS to Care, Treatment and Prevention Services

Individuals living with HIV/AIDS are essential partners in the fight against this disease. Individuals who know their HIV status are more likely to reduce risk-taking behaviors and are therefore, less likely to transmit HIV to others. As importantly, once individuals are aware of their HIV-positive status, they can be linked to life-saving care and treatment services. An individual diagnosed early in their disease process and receiving quality care and treatment utilizes far fewer health care resources and has significant increases in quality adjusted life years. In addition to their improved health status, individuals adhering to a treatment regimen lower the probability they will transmit the virus to others, particularly utilizing ever-improving anti-retroviral regimens. The nation must make certain that these services are available to every American living with HIV/AIDS regardless of the status of his or her health care coverage. Systems like Medicare and Medicaid, the AIDS Drug Assistance Program, as well as all other parts of the Ryan White Program, particularly those that support primary care services, must be funded accordingly and have appropriate policies in place to ensure access to care and treatment.

Also important is the identification, notification and counseling of partners of persons living with HIV/AIDS. CDC, in partnership with health departments, has revised guidelines for the delivery of partner services. To extend the reach of this important core public health service, the revised guidelines integrate strategies that address both STD and HIV. With this intentional focus on both health concerns, human and fiscal resources can be better leveraged and the impact of prevention efforts can be maximized. In Maryland, increased efforts to educate public providers about Partner Services has led to 10-15 percent increase in acceptance rates for patients referred from these public testing sites. HIV/STD collaboration is also significantly enhancing our ability to monitor co-morbidity between HIV and other STDs, increase real-time identification of changes in geographic disease patterns, and provide key information for more effectively focusing prevention efforts.

Work to Eliminate Disparities Based on Race, Ethnicity, Gender, Sexual Identity and Class

HIV/AIDS prevention efforts must acknowledge and strive to eliminate the disparities that exist between those with power and privilege in our society and those who are marginalized. Further, HIV prevention efforts must be aligned to meet the needs of those who bear the greatest HIV/AIDS burden in the U.S. in order to provide the coverage of services necessary to reduce behaviors associated with HIV and other disease transmission, particularly STD and viral hepatitis.

The new incidence data show that in 2006, gay and bisexual men accounted for 53 percent of all new HIV infections. Infection rates among blacks were seven times greater than whites and nearly three times higher than Hispanics, a group that also was disproportionately affected. The HIV incidence rate for black females was 14.7 times the rate for white females, and the rate for Hispanic females was 3.8 times the rate for white females. The new estimates also underscore America's pervasive indifference toward ending racism, homophobia, poverty and sexism. Apathy about these root causes of health disparities continues to impede efforts to meet the needs of those most at risk for being infected with HIV/AIDS.

Confronting oppression and stigma must be at the foundation of the strategy to end the HIV/AIDS epidemic in America. Prevention efforts must be allowed to be delivered in a manner that respects the real life experiences of gay and bisexual men and African Americans, all who unacceptably bear the greatest burden of HIV disease. Woefully inadequate funding, oppression, and stigma have created the perfect storm in which thousands of gay and bisexual men and African Americans pay the ultimate price.

In an attempt to address some of the overlapping inequities of class, race, gender, and sexuality, state and local health departments have prioritized HIV prevention strategies targeting gay men. As an extension of the Florida Department of Health, the Office of HIV/AIDS of the Miami-Dade County Health Department (MDCHD) recently developed a participatory social marketing and community mobilization effort targeted at gay men (both HIV-positive and HIV-negative) aimed at instigating resistance against HIV/AIDS-related stigma in relation to underlying social inequality, namely, homophobia. The Anti-Homophobia campaign includes outdoor and print media to raise questions about social inequality, stimulate public discourse about HIV/AIDS-related stigma, and trigger action among gay men living with HIV/AIDS in Miami-Dade County. MDCHD began its social marketing efforts by erecting a makeshift graffiti wall in a high-visibility gay neighborhood in the Miami-Dade area and inviting residents to write responses to a question/statement posted on the wall. The graffiti wall remained for approximately four days, serving as a spontaneous community forum about HIV/AIDS-related stigma. Responses to the question, as well as observed reactions to the wall, were recorded by project volunteers and core group members on a daily basis and added to the data the core group used to develop their messages. This is one example illustrating health departments' commitment to addressing the real life issues faced by gay and bisexual men.

Address the Complexity of Individuals' Lives

The nation's HIV prevention response must operationalize programming that recognizes other real-life issues facing those being infected with HIV such as other STD, viral hepatitis, tuberculosis, reproductive health issues, homelessness and unstable housing, substance use/abuse and mental health concerns. Health departments are leading the way in efforts to integrate services at the client-level but need increased flexibility to scale up these efforts. Areas of service integration being implemented in health departments include HIV testing in venues offering STD and viral hepatitis services, screening and treatment of STDs and viral hepatitis in HIV venues, and the provision of hepatitis A and B vaccine for adults. Integration of services cannot be truly realized without a commitment to deconstruct the barriers of competing prevention and treatment philosophies, of "siloed" funding patterns, and of restrictive funding and federal application guidance and without additional resources given the limited federal dollars appropriated for these infectious diseases. To be effective in reducing new HIV infections, as well as STD and viral hepatitis infections, we must be able to easily leverage all necessary resources and services to offer a holistic response to the individuals we serve.

The U.S. has the unfortunate distinction of having the highest rates of STDs of all industrialized nations. In 2006 for the second consecutive year, the U.S. experienced record increases of the three leading STDs – chlamydia (5.6 percent), gonorrhea (5.5 percent), and syphilis (13.8 percent). After years of decline, our nation's urban areas continue to experience a significant

upswing in the number of syphilis cases, particularly among gay men and other MSM. A person with a pre-existing STD has a three to five fold greater risk of acquiring HIV/AIDS. Unfortunately, STD prevention programs at CDC have been cut or flat-funded since FY2003 while the number of persons infected continues to climb. State and local health departments need additional resources to integrate STD and HIV prevention programs, particularly targeting populations at highest risk for syphilis and other STD.

Approximately 6.25 million Americans are infected with the hepatitis C virus (HCV) and hepatitis B virus (HBV). Chronic viral hepatitis is now one of the leading killers of Americans living with HIV/AIDS. In addition, chronic viral hepatitis is the leading cause of liver cancer, now among the top 10 killers of Americans over the age of 25 years. Overall, the rate for HCV-related deaths in the U.S. is expected to triple by 2019. There is no federal funding to provide core public health services for viral hepatitis. Funds are needed for hepatitis B and C counseling, testing, and medical referral. States receive on average $90,000 for adult hepatitis prevention. This provides for little more than a position in the health department. Availability of testing is essential so individuals can take steps to protect their health and prevent infecting others.

The greatest remaining challenge for hepatitis A and B prevention is the vaccination of high-risk adults. High-risk adults account for more than 75 percent of all new cases of hepatitis B infection each year and annually result in an estimated $658 million in medical costs and lost wages. In FY2007, CDC allowed states to use $20 million of 317 Vaccine funds to vaccinate high risk adults for hepatitis B. States are integrating vaccination into service programs for persons with risk factors for infection (e.g., STD clinics, HIV counseling, and testing and referral sites, correctional facilities and drug treatment facilities). By targeting high-risk adults, including those with hepatitis C for vaccination, the gap between children and adults who have not benefited from routine childhood immunization programs can be bridged.

Use Structural-level Iinterventions

To truly change the course of the epidemic in America, structural-level impediments must be removed and structural-level assets must be leveraged. We must do everything in our power to promote policies that prevent new infections and promote health such as access to sterile injection equipment, buprenorphine and naloxone for people who use injection drugs; access to accurate science-based information for youth; and those that eliminate stigma and discrimination. We must also engage systems and institutions, including state and local governments, the Internet and faith communities, to leverage their support for our HIV prevention efforts.

A specific example is education for school-aged youth, who are desperately in need of HIV prevention services. The only federal funding for comprehensive sexual education currently available in the U.S. is through CDC's Division of Adolescent and School Health (DASH) program which provides funding to state and local education agencies to support the development and implementation of effective HIV prevention programs for school-aged children. The programs are locally designed to target those most vulnerable for sexual–risk taking behaviors. Comprehensive sexuality education programs have been found effective in delaying the onset of sexual intercourse, reducing the number of sexual partners, and increasing contraception and condom use. In FY2008, DASH's school health program was funded at $40.2 million.

In contrast, our nation has spent over $1 billion in the last five years to support abstinence-only-until marriage programs, which even government research has proven to be ineffective. Abstinence-only-until marriage programs are also stigmatizing for young people because they often reinforce heterosexual identities to the exclusion of gay, lesbian and transgender youth. Funding for DASH programs must be increased at the same time that Congress dedicates federal funding and support to broader comprehensive sexuality education programs. NASTAD supports Representative Barbara Lee's legislation, "The Responsible Education About Life Act," which would provide funding to all states to establish medically accurate and age-appropriate comprehensive sexuality education programs that includes information on both abstinence and contraception, from both a values and public health perspective.

Continuously Educate the Public

By sustaining public attention on HIV/AIDS and its impact, we can reinforce accurate, evidence-based information and begin to reduce the stigma associated with the disease. Educating the public about the economic, social and health consequences HIV/AIDS is having on our society will help build a supportive foundation for individual behavioral change and change at the community level. We must invest in a sustained national media presence that brings accurate knowledge and information about HIV to all individuals and communities in our country.

The Maryland AIDS Administration and the National Alliance of State and Territorial AIDS Directors thanks the Chairman, Ranking Member and members of the Committee for their thoughtful consideration of our recommendations to increase access to HIV prevention interventions provided by state and local health departments in response to data on each state's unique epidemic. Our response to the HIV epidemic in the United States defines us as a society, as public health agencies, and as individuals living in this country. There is no time to waste in our nation's fight against the HIV/AIDS epidemic.

Appendix I

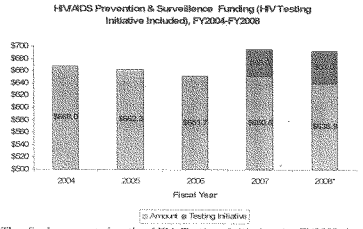
Support FY2009 HIV Prevention Funding

The Centers for Disease Control and Prevention (CDC) is on the verge or releasing revised estimates of HIV incidence that will show that there have been more new infections each year than previously thought. Funding has not kept pace and has in fact been cut since FY2003.

UNMET PROGRAMMATIC AND FISCAL NEEDS

Invest $608 million more or a total of $1.3 billion in core HIV prevention

The nation's prevention efforts must match our commitment to the care and treatment of infected individuals. State and local public health departments know what to do to prevent new infections, they just need the resources. The overall CDC HIV prevention and surveillance budget, measured by the Biomedical Research and Development Price Index used by the National Institutes of Health, has lost 11.4 percent of its purchasing power since FY2004.[1]



* The final amount for the HIV Testing Initiative in FY2008 is yet to be determined. $53 million is the amount included in the FY2008 Omnibus Report Language. The HIV Testing Initiative provides funding to 18 states and 5 cities.

State and local HIV prevention cooperative agreements have been cut by $28 million between FY2003 and FY2008 (this includes an estimated rescission amount for FY2008). With additional resources, the CDC can:

- Address the devastating impact on racial and ethnic minority communities.
- Expand outreach and HIV testing efforts targeting high-risk populations including racial and ethnic minority communities, young gay men of color, substance users, women and youth.
- Provide funds to state and local health departments to shore up their comprehensive prevention programs. Testing alone can never end the epidemic. All tools in the prevention arsenal must be supported.
- Build capacity and provide technical assistance to enable community-based organizations and health care providers to implement evidence-based behavior change interventions, ensure fiscal responsibility and refer partners of HIV-positive individuals to counseling and testing services.

HIV/AIDS PREVENTION & SURVEILLANCE

(Dollars in millions)

FY 2009 NASTAD Recommendation*:	$1,300.0
FY 2009 President's Budget:	$691.1
FY 2008 Appropriation:	$691.9

*an increase of $608.1 million

Invest $35 million more in HIV/AIDS surveillance

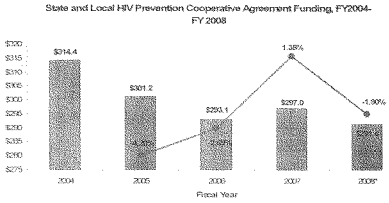
Core HIV/AIDS surveillance funding has eroded over the last decade, while the importance of this data has become paramount for targeting prevention efforts and directing Ryan White care and treatment resources. HIV/AIDS surveillance activities are critical in order to monitor the HIV/AIDS epidemic and to provide data for targeting the delivery of HIV prevention, care, and treatment services.

Maintain CDC's $45 million HIV Testing Initiative targeting communities of color

In FY2007, CDC awarded $35 million to 18 states and 5 cities to support routine testing in clinical settings particularly targeted to settings that see a large number of African Americans. The additional $10 million was used for activities to support the adoption of routine testing in clinical settings.

Block Funding of Duplicative Early Diagnosis Grant Program

No federal funds should be used to carry out the Early Diagnosis Grant Program in Section 209 of the *Ryan White Treatment Modernization Act of 2006*. This provision is a carve out of scarce HIV prevention resources when there is already $10 million dedicated to perinatal prevention and $45 million solely for routinization of HIV testing.



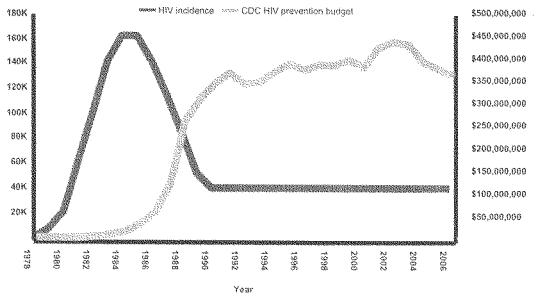
* This value includes an estimated rescission amount for FY2008

FY2009 HIV Prevention Funding Needs

The Need for HIV/AIDS Prevention Services

- The Centers for Disease Control and Prevention (CDC) estimates that over one million people are living with HIV disease in the U.S. and, of those individuals, approximately 436,639 are living with AIDS.[2]
- Despite declines in HIV infection rates among men who have sex with men (MSM) since the early years of the epidemic, MSM continue to be at risk for infection, accounting for an estimated 67 percent of HIV/AIDS diagnoses in 2006.[2]
- Although racial and ethnic minorities have been disproportionately affected by HIV/AIDS since the beginning of the epidemic, the devastation of AIDS in communities of color continues to grow.
- An estimated 25,541 AIDS cases were diagnosed in communities of color, representing 71 percent of AIDS cases diagnosed as of 2006.[2]
- Of all AIDS cases diagnosed in 2006, 49 percent were African American, 19 percent were Hispanic, 1 percent were Asian/Pacific Islander, and less than 1 percent were American Indian/Alaska Native.[2]
- Although African Americans represent 13 percent of the population, the rate of diagnosis was ten times that of White Americans.
- Of the estimated 126,964 HIV cases for female adults and adolescents reported to CDC through December 2005, 79 percent of those cases were among African American and Hispanic women (64 percent and 15 percent respectively).[3,4]
- HIV disease was the third leading cause of death for black females ages 25-34 in 2004.[5]

Estimated Annual HIV Incidence and CDC's HIV Prevention Budget (In 1993 Dollars), 1978-2006



Source: Holtgrave, DR. Untitled. 2006. Retrieved March 18, 2008, from www.kaisernetwork.org/health_cast/uploaded_files/David_Holtgrave.pdf

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[1] National Institutes of Health, Biomedical Research and Development Price Index, available on web at: http://officeofbudget.od.nih.gov/UI/GeneralBudgetInfo.htm.

[2] Centers for Disease Control and Prevention. *HIV/AIDS Surveillance Report, 2006*. Vol. 18. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention; 2008. http://www.cdc.gov/hiv/topics/surveillance/resources/reports/.

[3] CDC. *HIV/AIDS Surveillance Report, 2005*. Vol. 17. Rev ed. Atlanta: US Department of Health and Human Services, CDC: 2007:1-46.

[4] Includes HIV data from 33 states with confidential, name-based HIV reporting.

[5] WISQARS Leading causes of death reports, 1999-2004. Available at: http://webappa.cdc.gov/sasweb/ncipc/leadcaus10.html.

Appendix II

NASTAD™
NATIONAL ALLIANCE OF STATE & TERRITORIAL AIDS DIRECTORS

CDC HIV Prevention Funding
For State and Local Health Departments

Grantee	FY2000	FY2001	FY2002	FY2003	FY2004	FY2005	FY2006	FY2007
Alabama	$1,975,223	$2,311,365	$2,370,955	$2,357,253	$2,357,293	$2,307,088	$2,268,498	$2,129,587
Alaska	$1,337,005	$1,431,418	$1,482,135	$1,482,135	$1,473,391	$1,461,162	$1,417,619	$1,417,619
American Samoa	$101,231	$119,591	$184,591	$184,591	$137,627	$179,793	$174,435	$174,435
Arizona	$2,848,912	$3,209,754	$3,270,316	$3,270,316	$3,315,125	$3,287,746	$2,882,626	$3,028,369
Arkansas	$1,590,504	$1,801,670	$1,856,701	$1,856,701	$1,845,747	$1,646,284	$1,775,880	$1,582,922
California	$13,742,527	$15,682,315	$15,885,459	$15,853,584	$14,185,829	$14,036,477	$ 12,398,868	$13,618,189
Chicago	$5,760,017	$7,702,445	$5,784,509*	$5,761,293	$5,862,264	$ 5,625,957	$5,238,352	$5,443,889
Colorado	$4,205,236	$4,530,560	$4,589,810	$4,589,810	$4,562,729	$4,524,858	$4,390,017	$4,387,622
Connecticut	$5,885,439	$6,477,370	$6,546,470	$6,546,470	$6,507,845	$6,006,914	$6,516,225	$6,260,601
DC	$5,483,803	$6,107,404	$6,177,675	$6,099,142	$6,142,137	$6,093,037	$5,476,221	$5,736,854
Delaware	$1,754,129	$1,930,046	$1,983,775	$1,983,775	$1,993,035	$1,966,097	$1,897,423	$1,888,920
Fed of Micronesia	$88,635	$104,710	$224,710	$224,710	$189,486	$219,404	$212,866	$212,866
Florida	$17,892,945	$21,016,382	$21,178,983	$19,734,925	$19,996,914	$19,946,116	$19,254,142	$19,255,996
Georgia	$7,445,836	$8,432,934	$8,516,636	$8,516,636	$8,466,388	$4,544,989	$8,145,913	$8,090,047
Guam	$289,291	$341,759	$541,759	$541,759	$391,112	$439,589	$499,622	$499,622
Hawaii	$1,921,205	$2,081,019	$2,134,152	$2,134,152	$2,121,561	$2,101,770	$2,013,192	$2,041,255
Houston	$4,640,594	$5,420,848	$5,496,907	$5,496,907	$5,464,476	$5,204,596	$5,216,946	$5,092,037
Idaho	$791,440	$885,764	$936,478	$936,478	$930,953	$841,400	$869,899	$883,103
Illinois	$3,991,476	$4,199,153	$4,254,055	$4,254,055	$4,228,955	$4,193,855	$3,935,679	$4,068,878
Indiana	$2,303,735	$2,604,903	$2,663,260	$2,663,260	$2,699,936	$2,346,768	$2,347,105	$2,508,313
Iowa	$1,544,421	$1,672,475	$1,724,435	$1,724,435	$1,714,261	$1,580,679	$1,649,275	$1,649,372
Kansas	$1,620,421	$1,780,235	$1,833,369	$1,833,369	$1,822,551	$1,562,561	$1,519,181	$1,617,269
Kentucky	$1,782,340	$2,001,318	$2,002,304	$1,999,344	$1,990,559	$1,891,010	$1,899,445	$1,921,570
Los Angeles	$14,279,098	$16,843,670	$14,945,015*	$14,945,015	$13,395,763	$13,284,578	$12,888,698	$12,888,698
Louisiana	$4,728,909	$5,285,213	$5,346,802	$5,046,302	$5,407,409	$5,282,440	$5,227,174	$5,227,602
Maine	$1,570,331	$1,684,606	$1,736,857	$1,729,876	$1,706,787	$1,686,016	$1,635,773	$1,613,073
Marshall Islands	$87,998	$80,330	$130,330	$130,330	$97,171	$126,281	$122,518	$122,518
Maryland	$11,205,130	$13,258,768	$11,533,916*	$11,533,916	$10,244,452	$10,159,422	$9,619,186	$9,737,986
Massachusetts	$8,469,505	$9,168,525	$9,241,583	$9,241,583	$9,362,396	$9,007,880	$8,447,772	$8,655,094
Michigan	$6,229,813	$6,694,576	$6,765,218	$6,743,243	$6,733,011	$6,595,176	$6,386,659	$6,386,659
Minnesota	$3,045,530	$3,260,900	$3,316,087	$3,316,087	$3,296,521	$3,198,491	$3,163,933	$3,171,739
Mississippi	$1,836,906	$2,085,558	$2,141,975	$2,141,975	$2,112,454	$2,111,664	$1,623,221	$1,835,920
Missouri	$3,398,695	$3,844,260	$3,907,953	$3,907,953	$3,884,896	$3,682,508	$3,577,358	$3,737,842
Montana	$1,184,841	$1,274,334	$1,324,870	$1,324,870	$1,366,688	$1,236,899	$1,265,837	$1,263,843
N. Mariana Isles	$143,033	$168,974	$293,974	$293,974	$247,680	$181,526	$279,058	$1,205,605
Nebraska	$1,176,313	$1,291,214	$1,342,688	$1,342,688	$1,347,415	$1,339,368	$1,284,241	$192,386
Nevada	$2,573,129	$2,825,182	$2,881,724	$2,881,724	$2,864,722	$2,576,233	$2,751,027	$2,756,285
New Hampshire	$1,517,195	$1,634,512	$1,686,076	$1,686,076	$1,678,128	$1,622,216	$1,200,395	$1,598,713
New Jersey	$12,441,358	$13,829,529	$13,928,051	$13,928,051	$13,916,582	$12,807,632	$13,295,444	$13,192,984
New Mexico	$2,168,651	$2,328,107	$2,381,228	$2,381,228	$2,367,178	$2,339,634	$2,277,575	$2,270,963
New York	$26,743,052	$27,710,646	$28,141,146	$28,056,936	$28,075,896	$27,527,924	$26,820,184	$26,785,716

New York City	$18,264,748	$22,393,514	$22,207,921	$22,173,421	$22,291,440	$22,154,912	$21,267,893	$21,281,593
North Carolina	$3,866,927	$4,332,890	$4,397,336	$4,204,370	$4,497,416	$4,723,876	$4,338,589	$4,208,066
North Dakota	$598,468	$677,404	$727,549	$727,549	$723,256	$717,253	$695,879	$672,678
Ohio	$5,226,206	$5,701,970	$5,769,412	$5,722,537	$5,742,062	$5,352,428	$5,190,425	$5,206,904
Oklahoma	$2,285,536	$2,490,349	$2,545,146	$2,545,146	$2,530,130	$2,414,849	$2,138,838	$2,437,949
Oregon	$2,842,204	$3,098,818	$3,155,529	$3,155,529	$3,136,911	$3,110,875	$3,018,171	$3,018,171
Palau	$176,611	$208,641	$248,641	$248,641	$185,381	$242,937	$235,697	$235,697
Pennsylvania	$4,669,093	$4,969,099	$5,027,413	$5,027,413	$4,997,752	$4,956,271	$4,587,744	$4,377,928
Philadelphia	$5,664,367	$6,539,444	$6,613,822	$6,480,790	$6,575,584	$6,527,130	$6,328,212	$6,327,782
Puerto Rico	$3,496,948	$4,443,333	$4,434,870	$4,809,672	$4,332,551	$4,020,741	$3,897,634	$4,051,694
Rhode Island	$1,509,764	$1,663,940	$1,716,866	$1,716,866	$1,706,736	$1,692,570	$1,642,131	$1,642,131
San Francisco	$9,533,084	$10,426,780	$10,572,031	$10,572,031	$9,493,014	$9,440,710	$9,007,422	$9,005,739
South Carolina	$4,126,803	$4,597,329	$4,661,944	$4,654,369	$4,634,617	$4,591,174	$4,458,082	$4,460,943
South Dakota	$540,402	$621,307	$671,525	$671,525	$687,563	$658,962	$556,383	$642,291
Tennessee	$3,555,531	$4,026,504	$4,091,135	$4,091,135	$4,066,998	$4,033,242	$3,913,051	$3,913,051
Texas	$12,303,287	$13,858,060	$14,001,265	$13,932,861	$13,891,060	$13,765,747	$12,225,557	$12,936,907
Utah	$912,718	$1,069,758	$1,122,789	$1,122,789	$1,201,727	$1,189,912	$1,070,872	$1,071,870
Vermont	$1,385,458	$1,476,562	$1,527,157	$1,527,157	$1,518,147	$1,505,547	$1,460,681	$1,460,681
Virgin Islands	$580,494	$673,834	$633,512	$633,512	$472,964	$395,128	$454,452	$407,698
Virginia	$4,513,568	$5,100,755	$5,169,681	$5,156,853	$5,139,482	$4,654,553	$4,890,959	$4,938,495
Washington	$3,413,517	$3,845,483	$3,908,673	$3,908,673	$3,885,612	$3,853,361	$3,437,914	$3,337,579
West Virginia	$1,620,392	$1,709,980	$1,761,497	$1,761,497	$1,751,104	$1,739,675	$1,501,036	$1,684,759
Wisconsin	$3,287,978	$3,500,647	$3,798,017	$3,798,017	$2,940,691	$2,930,625	$2,790,680	$2,788,528
Wyoming	$691,119	$772,829	$823,077	$823,077	$818,221	$719,153	$784,765	$787,249
Total	**$286,841,075**	**$323,293,572**	**$322,271,745***	**$320,142,357****	**$313,723,742**	**$302,165,669**	**$293,758,549**	**$297,049,344**

**The decrease in FY2002 funding from FY2001 is due to the ending of the grants awarded for community coalition development projects to Maryland (Baltimore), Los Angeles and Chicago.*

***The decreases in FY2003 funding from FY2002 is due to some FY02 supplemental funding that was not built into base awards and because DSTD covered some of the direct assistance that had previously been covered by DHAP. Puerto Rico also includes the addition of unobligated funding."*

Chairman WAXMAN. Mr. Oldham.

STATEMENT OF FRANK OLDHAM

Mr. OLDHAM. Chairman Waxman and the entire Oversight Committee, people living with HIV/AIDS thank you for your demonstrated leadership and an opportunity to speak with you about the state of HIV prevention in the United States of America.

As a trusted and representative voice of more than 1 million people living with HIV/AIDS in America, I say with great confidence that we know our status, and that has enabled us to save lives.

HIV-related stigma and homophobia, homo-hatred continue to result in disproportionate HIV incidence among gay and bisexual men, Black and Hispanic men and women, and individuals challenged by poverty, incarceration, and mental illness. As a Black gay man, a person living with AIDS, and as a proud American, I ask, is this acceptable in our America?

HIV prevention can only succeed through access to evidence-based interventions, accurate information and education, protected and voluntary HIV testing and screening services, effective use of care—HIV care and treatment as prevention, reduced stigma, and increased support for sero status disclosure, and by addressing structural, systemic, and economic barriers that continue to perpetuate HIV vulnerability among the most marginalized groups of Americans.

This is the basis of support for our communities' call for a national AIDS strategy that is coordinated, evidence based, outcome driven, and inclusive of people living with HIV/AIDS.

We have heard testimony from the Centers for Disease Control that annual HIV incidence has been as much as 40 percent higher in the past 15 years. Prevention efforts have been flat-funded in our country for more than two decades, and the Minority AIDS Initiative has not been funded adequately to address the real HIV needs in communities of color.

As we increase resources for minority AIDS initiatives, we must be sure to hold organizations that receive MAI funds accountable. We must scale up HIV prevention in America to an annual investment of $1.3 billion. This investment will prove to those at increased risk for HIV that we care about their lives.

We hope that this will be a priority for the next administration. In the meantime, we urge an initial investment of $200 million for fiscal year 2009. The AIDS communities consent to this request.

Eight years of abstinence only until marriage programs has had dire human consequences. HIV risk reduction strategies such as comprehensive sex education and syringe exchange programs have been proven to reduce HIV infections; yet, these interventions have not received the requisite level of Federal funding. It is imperative that we make decisions based in science and don't sacrifice lives and waste already constrained resources on programs that have been proven to be ineffective.

The vast majority of individuals aware of their status are making decisions about their health and behavior that are not contributing to the spread of HIV. And I repeat, that are not contributing to the spread of HIV. Diagnosis, care, and treatment is effective HIV prevention, and our lives depend on it. This is all the more reason why

we must ramp up our efforts to make sure people are aware of their HIV status.

Sixteen years ago, the National Association of People With AIDS launched National HIV Testing Day, because we believe that taking an HIV test makes it possible for people to protect themselves and their loved ones. NAPWA supports increased in targeted testing at-risk populations, routine opt out screening for HIV in medical settings, and strongly believes there is an obligation to link people who test positive to high quality care, treatment, and support services. The Kaiser Foundation continues to report that 45 to 55 percent of those with HIV are still not in care; 45 to 55 percent of people who have HIV are not in care.

Whether by the passing of the Early Treatment for HIV Act or efforts to reform health care, America must ensure access to comprehensive and coordinated care for all persons living with HIV/AIDS. Aggressive research and treatment advances have helped more people live with HIV than ever before. The benefits of this research extend beyond HIV.

CDC needs more resources to do the requisite research and work on the ground. HRSA, the National Institutes of Health, and the substance abuse and health agencies also need appropriate resources to identify new research opportunities and collectively further expand the toolkit of prevention strategies.

Perceptions of stigma directly impact an individual's willingness to be open about their HIV status. NAPWA invites more leadership from all sectors of American society in life to increase the visibility of people living with HIV and AIDS, and opposes stigmatizing or negative language toward them. This is especially true in minority communities, in gay communities, and all communities challenged with social and economic inequality. The critical issue of AIDS in America must be a priority for all of us.

NAPWA supports HIV prevention activities that are culturally and gender specific. NAPWA supports community mobilization strategies for all communities disproportionately impacted by this disease, and will launch the first National Gay Men's HIV Awareness Day on September 27th, later this month, in Raleigh, North Carolina. They will seek to accomplish increased awareness about the needs of gay men for HIV prevention, care, and treatment, forums to strategize effective responses to the epidemic in our community. We ask your support on this historic day, Gay Men's HIV Awareness Day, September 27th. Thank you.

Chairman WAXMAN. Thank you very much, Mr. Oldham.

[The prepared statement of Mr. Oldham follows:]

NATIONAL ASSOCIATION OF PEOPLE WITH AIDS WRITTEN TESTIMONY ON DOMESTIC HIV PREVENTION

COMMITTEE ON OVERSIGHT AND GOVERNMENT REFORM CONGRESSIONAL HEARING ON DOMESTIC HIV PREVENTION

September 16, 2008

Committee Chairman Waxman, Ranking Member Davis, Congresswoman Holmes-Norton, Congressman VanHollen, and the entire Oversight Committee, thank you for your demonstrated leadership and the opportunity to speak with you about the state of HIV prevention in the United States of America.

As the trusted and representative voice of the greater than one million persons living with HIV/AIDS in America, I say with great confidence that we know our status and that has enabled us to save lives. HIV continues to disproportionately affect gay and bisexual men, women and men of color, and individuals challenged by poverty, incarceration, and mental illness. It is NAPWA's belief as well as many in the AIDS community that HIV is exacerbated by social marginalization with effects that manifest in individual health challenges.

For this reason, from our view HIV prevention can only succeed through access to and dissemination of evidence-based information and education, protected and voluntary HIV testing and screening services; expanded access to healthcare, treatment, and support services; and efforts to reduce stigma and increased support for sero-status disclosure, as well as by addressing structural/systemic/economic barriers that continue to perpetuate HIV vulnerability among the most marginalized groups of Americans.

This is the basis of support for the call for a National AIDS Strategy that is coordinated, evidence-based, outcome-driven and inclusive of people living with HIV/AIDS. The principles of the National AIDS strategy, as well as the over 300 organizations and 1000 individuals that have endorsed it, can be found online at *www.nationalaidsstrategy.org*. As we are in the midst of an election year, it is critical to those living with and concerned about HIV/AIDS in this country that those who are in or seeking political office once again prioritize HIV/AIDS through their support of the establishment and implementation of a National AIDS Strategy. To this end it is critical for people living with HIV/AIDS to share their lived experiences to inform development and implementation of a national AIDS strategy.

Evidence-based Information & Education

The Centers for Disease Control updated its annual HIV incidence estimate reporting that HIV infections have been as much as forty percent higher for the past fifteen years. This information does not indicate that prevention doesn't work, but that it is not reaching the amount of people that need it. Dr. David Holtgrave of Johns Hopkins University and Julie Scofield of the National Alliance of State and Territorial AIDS Directors (NASTAD) in the *Baltimore Sun*, August 31, 2008 articulated the community consensus that we must scale up HIV prevention in this country to an annual investment of $1.3 billion – this commitment will bring resources closer to pace with prevention and surveillance need and efforts.

Over the past eight years we've seen an emphasis on prevention interventions that are not science-based. The administration has pushed abstinence-only-until-marriage education and refused to remove the ban on federal funding for syringe exchange programs. These kinds of short-sighted policies have real consequences for people's lives. Max Siegel, now employed by AIDS Alliance for Women, Youth, and Families was inadequately prepared to make informed decisions about his own sexual health as a result of ideologically based abstinence-only-until-marriage programs. Max Siegel is now HIV-positive and sharing

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his experience to address the unintended consequences of failing to provide comprehensive sex education. At the same time the Centers for Disease Control also released information articulating that while HIV infections decreased slightly among women, women between the ages of pregnancy and sexually transmitted diseases – indicators of HIV risk—revealed increased susceptibility.

Human sexuality is a right! Evidence proves that risk reduction strategies reduce HIV infections. It is imperative that we don't sacrifice lives and waste already constrained resources on programs that have been proven to be ineffective. Verified by the testimony from the Centers for Disease Control, more people have been acquiring HIV than we previously thought.

Support HIV Diagnosis & Quality Healthcare and Treatment

Dr. Holtgrave provided research detailing that among persons living with HIV -- people like us--members of the National Association of People with AIDS -- 95% are making decisions about their health and behavior that aren't contributing to the spread of HIV. We mentioned earlier that we know our status and that has empowered us to save lives. Sixteen years ago, the National Association of People with AIDS (NAPWA) launched National HIV Testing Day because we believe that taking an HIV test makes it possible for us to protect ourselves and those we love. This supports the evidence from researchers that people who are aware of their HIV status make adjustments to their behavior that are vital to their health and advance HIV prevention goals. However, a positive HIV diagnosis is life altering and decisions to test must be made accessible in a safe, voluntary, and confidential manner. While NAPWA supports increased and targeted HIV screening to bring important health information to vulnerable populations, we strongly believe there is an obligation to link those HIV-positive individuals to high-quality care, treatment, and support services.

Highly Active Anti-retroviral Treatment (HAART), also known as "the drug cocktail" first came onto the scene in 1996. The availability of which has drastically reduced individual progression to AIDS as well as deaths. Despite documented evidence in a 2004 AIDS journal which indicates that HIV therapies reduce infectiousness by 60%, approximately half of people living with HIV that are eligible for HAART are not receiving it. NAPWA in partnership with the Treatment Access Expansion Project is seeking the passage of the Early Treatment for HIV Act (ETHA) (S.860; H.R.3326), the bill has been deadlocked in Congress for more than a decade. Access to quality and comprehensive healthcare and treatment should be a guaranteed right for American people, not an earned privilege. In many areas of the country, low-income pre-disabled people with HIV remain ineligible for Medicaid until they develop AIDS. Medicare Part D beneficiaries suffer from limited formulary access due to cost-sharing challenges. Ryan White recipients continue to attempt to piecemeal their care in a system that is supported by discretionary funds, and hold onto hope with each reauthorization that they will continue to be able to access life-saving care and treatment.

Numerous influential sources have made the connection between access and adherence to treatment and reduced HIV infectivity. However the Kaiser Family Foundation continues to report that 45-55% percent of those with HIV are still not in care, inclusive of the 24% - 27% of those that are not presently aware of their status. This is a central principle to any effort to increase routine HIV testing efforts. It is our view that any effort to diagnose HIV must be paired with a guarantee of access to HIV/AIDS care, treatment, and support for individual ability to manage the complexity of the disease.

Within this context we must address the absent resources and diminishing workforce to treat persons that are diagnosed. As experienced HIV clinicians and other healthcare providers retire and move on to other specialties, newly trained and rotating specialists have been moving into other more lucrative specialties

or using their talents and abilities to address the global pandemic. The Health Resources and Services Administration has begun to address this growing disparity, however the implications go beyond HRSA's purview and require a comprehensive approach to find solutions. This raises many concerns for those living with HIV as well as those who are newly diagnosed with HIV, who are revealing increased needs to respond to a complex chronic illness. These individual must be provided with appropriate and effective tools and information to increase their ability to prevent new infections.

Greg Millet, a researcher for the Centers for Disease Control completed an analysis of African-American men who have sex with men (MSM) which showed that unknown HIV seropositivity -- in addition to the lack of access to antiretroviral care among African-American men who know that they are positive – is so high that there is a much higher prevalence rate of men who are viremic in the population, which we in the community call "viral load". In the context of men whose sexual access is limited by race, and whose sexual networks have such a high community viral load, even modest levels of sexual risk-taking can result in very high transmission rates; even though the men are doing the best they can to be sexually safe.

Aggressive research and treatment advances have helped more people live with HIV/AIDS than ever before. This only occurred as a result of the concerted demands of people living with and concerned about AIDS. The benefits of this research have extended beyond HIV/AIDS into the treatment of other infections and diseases of concern. Information acquired about infectivity learned from the experience of HAART since 1996 also begs for more research into more available people-centered risk reduction methods to slow the spread of HIV. The global environment has been much more aggressive in researching and applying new HIV prevention technologies such as pre-exposure prophylaxis, microbicides, vaccines, the effects of treatment adherence on transmitting HIV, and more. We must allocate resources to the Centers for Disease Control and Prevention to continue to do the requisite research and work on the ground as well as to the National Institutes of Health to identify new research opportunities that will further expand the toolkit of prevention strategies.

In turn, NAPWA offers its trusted voice and reach into the community toward informing additional research and prevention efforts for people living with HIV/AIDS. Prevention with positives serves to increase and sustain individual sense of ability and control on the part of the person living with HIV to protect their individual health and the health of those they love. Prevention with positives can be most successful by engaging and educating PLWHA in self care and prevention; and support them in navigating disclosure, relationships, insurance/access, and other factors of daily living (housing, employment, non-HIV medical needs, mental health, addictions treatment, etc). Without these basic services and support, which every American has a right to, more people will die.

Reduction of HIV-Related Stigma and Increased Support for Sero-status Disclosure

Stigma and discrimination continue to serve as the most pronounced impediment before resources and access to care and prevention efforts in this country. Anecdotal information from members in the community continues to reveal that persons with HIV/AIDS are finding additional barriers to accessing care on the basis of their HIV-positive sero-status alone. At a recent meeting of people living with HIV/AIDS in Atlanta, GA, an anonymous participant stated, "I was refused treatment at my local clinic though they wouldn't tell me it was because I have HIV, the next nearest clinic to me is forty-five minutes away. How am I supposed to get there? I don't have a car, and I have a job!" The result of continued occurrences of this prejudicial treatment further perpetuates stigma and has a negative impact on self-disclosure, as well as threatens efforts to get others to screen for HIV if they perceive this is how they will be treated.

Regan Hoffmann, Editor-in-Chief of POZ magazine shares why she felt it was important to disclose to the world in the April 2006 issue of POZ magazine. She states, "Why now? Because there's a real need for positive people to be visible—AIDS needs to be in the spotlight again." Regan is responding to the complacency that has become pervasive in the community with regard to the treatment of people with AIDS as well as HIV prevention. She goes on to state, "AIDS is a preventable disease, yet last year there were more than 40,000 new infections in the U.S., including higher numbers of women and people of color than ever before. Not to mention that the stigma surrounding the disease, even after a quarter-century of education efforts, is still so severe that many with HIV feel they have to live in shame and secrecy." We now know that HIV incidence has been estimated 40% higher than previously thought.

Perceptions of stigma have been shown to be directly proportionate to willingness to be open about one's HIV status. NAPWA invites more leadership from all sectors of American society and life to increase the visibility of and oppose stigmatizing or negative language toward people living with HIV/AIDS, especially within the communities/individuals that are most disproportionately impacted by the disease. The critical issue of AIDS in America must be a political priority in the U.S. Like our economy, national security, and universal healthcare, HIV/AIDS remains a life and death issue for more than 1 million people in the U.S. Strong national leadership is required to make progress decreasing new HIV infections and improve the quality of life for people living with HIV/AIDS in the U.S.

Ignorance and misunderstanding remains about the plausible infection routes for HIV. People with HIV/AIDS report being denied dental care and have experienced providers wearing three pairs of gloves to provide treatment. Mary from Ohio reports, "She had so many pairs of gloves on, she could barely move her fingers! They seemed to get more in the way than anything else. That was the most painful dental visit I have ever had." More needs to be understood about how individuals interpret an HIV-positive diagnosis, and how stigma and discrimination must be addressed to increase engagement in HIV prevention education and testing.

Addressing Structural/Systemic/Economic Barriers

A recent report released by the Black AIDS Institute has helped us understand that if we adjusted our view of AIDS in this country to look at its impact on the Black community, the devastation would be greater than that of 7 of the 15 President's Emergency Plan for AIDS Relief funded countries.

NAPWA supports HIV prevention activities that are culturally and gender specific. The Centers for Disease Control and Prevention understanding that more thoughtful and coordinated efforts are needed launched the Heightened National Response to the HIV/AIDS epidemic in African American communities. NAPWA supports similar community mobilization strategies for all communities disproportionately impacted by this disease. In this manner, NAPWA will launch the first National Gay Men's HIV/AIDS Awareness Day on September 27, 2008 in Raleigh, North Carolina. The day will seek to accomplish increased awareness about the needs of gay men for HIV/AIDS prevention, care, and treatment, forums to strategize effective responses to the epidemic in this community, and social marketing campaigns that promote evidence-based and de-stigmatizing strategies and messages.

NAPWA seeks appropriate resources to provide capacity building assistance (CBA) in the form of technical assistance and skills building trainings to women-led or women-serving community based organizations (CBOs). The purpose of this CBA is to: 1) increase the effectiveness and sustainability of these CBOs in providing culturally competent, gender specific HIV prevention services and 2) strengthen partnerships between these CBOs and HIV positive women. Such a partnership is essential to reaching, encouraging, and supporting women access the continuum of HIV services beginning with HIV testing.

The global community has already begun to address how criminalization of HIV transmission exacerbates rather than promotes an effective and medically sound means of stopping the spread of HIV. Stigmatization has no preventative effects! It is extremely destructive to people already living with HIV and discourages others from disclosing their status or getting tested. Further, these cases undermine the efforts of public health advocates who have worked tirelessly over the years to educate the public about HIV.

Targeted HIV screening is sound public health and proven efficacious for maximizing resources. These well-intended efforts have at times resulted in missed opportunities for diagnosis and prevention and treatment intervention. Yvette Ogletree of San Marcos, CA reports going to doctor several times complaining of persistent illness. In spite of evidence immune suppression and a recently deceased husband, her doctor refused to test her for HIV on the grounds that she wasn't at risk because she was married. When Yvette was finally tested for HIV, she was diagnosed with AIDS, having 4 CD4 cells (the white blood cells that HIV inhabits to replicate and perpetuate its existence) and meningitis. This occurrence should never happen. The cost is individual life! Undiagnosed HIV results in AIDS and death.

PLWHA rights: I think we need to state unequivocally that PLWHA are partners to achieving HIV prevention goals but policies and laws that perpetuate stigma and discrimination and/or threaten confidentiality (forced testing; criminal transmission; immigration ban; onerous and invasive record keeping, etc) hurt efforts to engage PLWHA in prevention activities. Finally the lack of broad social marketing about HIV/AIDS that includes people openly living with HIV contributes to more ignorance and misinformation about all of us who are living with HIV/AIDS and adds to stigma.

The National Association of People with AIDS (NAPWA) continues to act as a conduit for people with HIV/AIDS to provide meaningful input in all issues affecting our lives. Such input is especially needed at the highest levels of political and public life. We urge both political parties to make a response to HIV/AIDS a central component of their plans for the nation.

- Development, implementation, and bipartisan support for a National AIDS Strategy to bring a much more *coordinated*, *evidence-based* and *results-oriented* approach to addressing HIV prevention and treatment in our country, inclusive of persons living with HIV/AIDS.
- Increased federal appropriations for domestic HIV prevention programs
- Federal leadership to address stigmatizing policies and increase visibility of persons living with HIV/AIDS
- Ensuring affordable to access comprehensive and quality care, treatment, and support services
- Increased support and funding for innovative biomedical and behavioral research initiatives

To be blunt our present course of action wastes valuable resources and most importantly costs the lives of American people.

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Chairman WAXMAN. I thank all of you for your testimony. Dr. Holtgrave, you prepared for us your idea of what a budget should be for HIV prevention, and it seems like what you've suggested is pretty much in the same ball park as what CDC said to us was their best professional judgment. Would you say that is an accurate statement?

Mr. HOLTGRAVE. I would say so. I would say there are more points of agreement probably than disagreements. I think that the central message probably from both is that we need to substantially scale up our investment in HIV prevention. And, also, that it is achievable to think about reducing transmission rates and incidence by 50 percent in the United States, and that it will take some years to do so.

I think some of the difference in terms of the $1.3 billion versus, say, the $1.7 billion or so that CDC called for is that they have some research funding, some activities on STD, TB, and hepatitis, which are very important, but that allows for some of the difference. And also, I think we could even be a little bit more aggressive and achieve the 50 percent reduction a bit sooner than CDC has estimated. But, again, I think there is much more to agree than disagree between the two estimates.

Chairman WAXMAN. But both you and CDC suggest that we could be preventing many more HIV infections than we are doing now, as well as increasing the proportion of people who know their HIV status, which of course goes together.

Do you think that the two estimates reflect a general consensus among HIV experts that better outcomes are within reach, even based on current knowledge?

Mr. HOLTGRAVE. I believe so. I think there is a general consensus scientifically that we have an outstanding array of tools, some of which that Dr. Fauci mentioned earlier, that are available to us now. And we need to make sure that we are using those tools. We must develop vaccines, we must develop microbicides. But we need to use immediately what we have available at our disposal.

Chairman WAXMAN. Thank you.

Dr. Adimora, I thought your presentation was very interesting. You presented a perspective that I hadn't heard before within the African American community. One of the aspects of the African American community, especially those who have HIV and AIDS, is that they live—many of them, if not most of them, live in poverty. How does poverty contribute to HIV risk for African Americans?

Dr. ADIMORA. There are a variety of pathways between poverty and HIV and population HIV transmission. In fact, I would consider this to be consider the culprits to be not only poverty, but also racial discrimination.

Among the pathways that I mentioned were segregation. And I mentioned some of the ways by which it works in terms of structuring people's social and sexual networks. Particularly alarming is the way in which it can structure the sexual networks of youth. Another issue concerning poverty is homelessness. Homeless people are particularly at risk for HIV. I mentioned just a few of the potential structural interventions that could be implemented, but I think that attention to homelessness and improved housing is certainly a major consideration, and that relates certainly to poverty.

Another issue is incarceration, given the disproportionate incarceration of Black men. And I think that it is important, in thinking about incarceration, there is sometimes a tendency to start talking about mandatory testing in prison. Certainly everyone should have available to them a means for learning their HIV diagnoses and for appropriate treatment; but in addition, I think that incarceration is actually a major symbol of racial discrimination and oppression in this country, and there needs to be—significant attention needs to be paid to because of the myriad of consequences that it is having—well, certainly it is wrong in the first place. But the other issue is that it is clearly having an impact on the health of people, particularly Black people.

Chairman WAXMAN. You mentioned incarceration in your original presentation to us. And you said, not only are people getting HIV when they are incarcerated, but that there is a social disruption that imprisonment causes. I thought that was an interesting point. Do you see bias, racial bias as well as discrimination among gay and bisexual men in the Black community as factors that are important for us to take note of?

Dr. ADIMORA. Unquestionably. There are pathways between racial discrimination and HIV infection. This is beyond a matter of simply social justice because that is a good thing. The absence of social justice is a major root cause of many of the racial disparities in health that we are seeing in the United States, and specifically of HIV infection.

Chairman WAXMAN. Dr. Ayala, do you have recommendations on how programs should take into account the specific needs of gay and bisexual men of color?

Dr. AYALA. As I said in my testimony, very, very few of the recommended prevention interventions are specifically designed or geared to men of color, gay men of color.

I think we have to do two things. One, we have to invest in a greater research portfolio that build HIV prevention interventions that are specifically geared to gay, gay men of color. And the second thing is that we should take what we have available and tailor them for use in the communities, both for the target population in question, but also with consideration to the needs of providers who have to ultimately implement the interventions.

Chairman WAXMAN. Ms. Hauck, at the State level, you stated surveillance measuring and monitoring the HIV/AIDS epidemic is crucial to HIV prevention efforts. The surveillance data not only helps you understand the epidemic but appropriately targeting resources. And I understand that Maryland was among eight States that actually lost funding, and you mentioned this in your opening statement, to conduct the kind of new incidence measurements in which the CDC based its recent estimates.

What has been the impact of this cut on Maryland and other States?

Ms. HAUCK. Thank you for the question. What happened at the State level was that our surveillance activities had been integrated. So we certainly received funding for core surveillance, which is really the basics of HIV surveillance and AIDS surveillance. And then we received these—funding for these projects. And we had in-

tegrated all of the activities, so that we were really gathering information in a holistic way about our epidemic.

When you start to peel off special projects that have been integrated into your core surveillance activities, you are no longer able to fully fund the staff that are gathering the information, you are not able to do the data collection that we need to the level that we need the data in order to accurately describe our epidemic. So we may be missing some important components, like risk transmission categories, like race, like ethnicity, as well as potentially missing cases, because it is a rather intensive process to gather this information through our surveillance activities.

So I think over time, what you will see is that States aren't able to sustain even our core surveillance activities, which again allow us to describe our epidemics, and, therefore, use that funding to allocate, distribute, and plan prevention as well as care and treatment services in our jurisdictions.

Chairman WAXMAN. CDC presented to us their professional judgment of what the budget should look like; and they would request more funding to strengthen behavioral and clinical surveillance activities in the States. Do you think that they have adequately funded that aspect, in their professional judgment, budget?

Ms. HAUCK. The National Alliance of State and Territorial AIDS Directors certainly states that at least an investment of $35 million in additional funding for surveillance is needed to both restore the cuts in surveillance that we've seen over time and to really bring all the jurisdictions up to standard operating budgets.

Chairman WAXMAN. Dr. Fenton in the first panel testified about the importance of integrating HIV services with services for other sexually transmitted diseases. I want to ask you about that at the State level.

Since 2000, the rate of syphilis in the United States has increased by 76 percent. As you know, this epidemic is primarily concentrated in the southeastern region of the United States among heterosexual African Americans and men who have sex with men. What will the States need to do to eliminate syphilis in these impacted populations? And, should those efforts be coordinated with HIV prevention efforts?

Ms. HAUCK. Thank you for asking the question, Mr. Chairman. I'll answer the first part first.

Yes, the CDC's budget for STD prevention has suffered many of the same declines that the HIV prevention budget has suffered over the years. Maryland is a southern State as well, and has certainly seen a significant syphilis epidemic, especially in Baltimore City and Prince Georges County, among African Americans, particularly men who have sex with men, and heterosexuals. And yet our funding has not kept pace with our need to address the syphilis epidemic in our State and certainly the majority of States that have had a syphilis epidemic. So I would say that the increase in resources is also needed. And we do integrate and do need to continue to integrate STD prevention and HIV prevention at the State level and at the local level.

Many of the clients who come to seek services certainly need to be given similar messages, similar education, similar screening, and need to receive that in a holistic manner when they walk in

the door of a clinic or an emergency room or a community-based organization, and we need the resources to enable the clients to receive those services at the time when they see them. Thank you.

Chairman WAXMAN. Thank you. We have infection rates continuing to rise among men who have sex with men, and in the meantime, discrimination and marginalization of men who have sex with men remains widespread.

Mr. Oldham, how does discrimination on the basis of sexual orientation affect gay and bisexual men who are living with HIV? And have any national campaigns in the U.S. HIV prevention directly addressed this kind of discrimination?

Mr. OLDHAM. There have been campaigns from community-based organizations, such as Gay Men's Health Crisis, the L.A. Gay and Lesbian Center in Los Angeles, and AIDS-Positive Los Angeles. However, there has not been the governmental campaigns. Like, for example, we have National Black AIDS Awareness Day, Chairman Waxman, we have National Hispanic AIDS Awareness Day and a number—there are 12 of them.

Even though the new CDC numbers indicate that gay men of all ethnic backgrounds make up the bulk of the epidemic and the loss of life in the epidemic, we do not even have a Gay Men's HIV/AIDS Awareness Day, which is why NAPWA is launching this on the 27th, to make sure that gay men are aware and are involved in this epidemic and not complacent about it themselves, and the rest of society deals with the issues of homophobia and homo-hatred, as barriers to HIV prevention and care services for gay men.

Chairman WAXMAN. I want to thank all of you on this panel for your presentation and your willingness to answer questions. We may have members submitting to you additional questions, which you may respond to in writing for the record, because I know many members had a lot of things that they wanted to pursue but there are so many competing things going on that not everybody can be here.

I think the purpose of this hearing has been to sound an alarm, because we have an increasing HIV epidemic in the United States. It is different than where we were in the early days, but it is very much with us. And unless we set a high priority to do the things we know that will work and to try to research and develop new ways of approaching the epidemic, we are going to fall further and further behind.

We know that when budgets are sent to us, they are budgets that are developed ultimately by the budget people in the administration. They may get the input from the agencies and the experts, but they are trying to figure out their overall priorities. And the overall priority for this administration has not been to deal with the HIV/AIDS epidemic in the way that we need to, to stop and prevent the transmission of this disease.

That is why I was pleased to have CDC and NIH present to us what their best professional judgment would be. It is always different when you ask that than what they have to say to us when they are making presentations before Congress, because then their presentations have to be consistent with the views of the administration in which they serve.

Well, I think that presentation to us and your expanded discussion of the groups that are primarily affected and all the complications that we need to be aware of is going to help us face this epidemic and, I hope, to defeat it. Thank you very much for your presentation.

That concludes the presentations at this hearing, and we stand adjourned.

[Whereupon, at 12:33 p.m., the committee was adjourned.]

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