# When We Know Better, We Do Better

The State of HIV/AIDS Science and Treatment Literacy in the HIV/AIDS Workforce

## Black AIDS Institute February 6, 2015



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The Spanish language augmentation was not included in the original study. The Spanish language augmentation data is included in the city, state, and national fact sheets.

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## Introduction: Biomedical Tools Alone Can't End the AIDS Epidemic

### The late Dr. Maya Angelou said, "Do the best you can until you know better. Then, when you know better, do better!"



I can't think of a more appropriate quote or a more fitting messenger when I think of this moment in

time in the trajectory of the HIV/AIDS epidemic in America.

Nearly 35 years have passed since the HIV/AIDS epidemic was first recognized, and nearly two decades have gone by since Highly Active Antiretroviral Therapy (HAART) emerged. Only two years ago, at the International AIDS Conference in Washington, D.C., scientists and activists, including myself, hailed the potential for ending the epidemic once and for all.

Yet despite the passage of time and the emergence of powerfully effective tools to fight HIV, prevention efforts in the United States remain stalled. Every year, about 50,000 people are newly infected with HIV—nearly half of them Black, almost two-thirds of them gay and bisexual men, and an increasing number of them women.

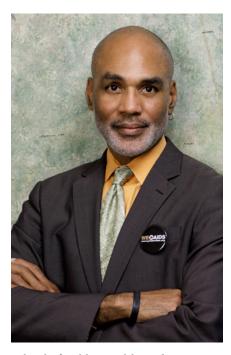
The scientific evidence is now clear. We have the tools we need to end the epidemic in America. Never before have our prevention and treatment tools been this effective. As a result of steady advances in diagnostic science, it has never been easier or cheaper to learn your HIV status. The treatment regimens available today are highly effective, simple to take, and easy to tolerate, and they not only improve health and prevent death but can also stop HIV transmission in its tracks. With new bio-medical prevention tools we can even interrupt acquisition of the virus as well. When properly used, Pre-Exposure Prophylaxis (PrEP) can reduce acquisition of HIV by 96%. Even our surveillance tools have improved. With geo-mapping increasingly used to identify HIV/ AIDS hotspots, we can identify where the epidemic is down to the census tract or zip code.

Yet all these advances—all these extraordinary biomedical

breakthroughs—may not be enough to bring AIDS to its knees. All the tools in the world will not end the AIDS epidemic unless those responsible for using those tools understand them, believe in them, and know how to use them.

This report highlights perhaps the most important missing element in our quest to end the epidemic in America. As has been true for every advance recorded in our long national struggle with this epidemic, the HIV/ AIDS workforce has a vital role to play if these powerful treatment and prevention tools are to be effectively mobilized. To ensure rapid and effective use of these biomedical tools, the HIV/AIDS workforce needs to possess a strong understanding of HIV science and treatment and a passionate belief in the effectiveness of the HIV/ AIDS toolkit.

In this report, we describe the results of the largest-ever survey of the HIV/AIDS workforce in the United States (over 3,600 respondents from 44 states, the District of Columbia and U.S. territories), and the first survey ever of the knowledge and attitudes of that workforce. The Black AIDS Institute undertook this study in collaboration with the CDC, the Latino Commission on AIDS, the National Alliance of State and Territorial Health Directors, Johns Hopkins Bloomberg



School of Public Health, and Janssen Therapeutics.

This survey yields some disturbing findings. Overall, the HIV science and treatment knowledge of the HIV/AIDS workforce is far too low. In many cases, people working in HIV/AIDS appear to doubt the science behind breakthrough biomedical tools for HIV prevention, and far too many members of the workforce are not familiar with many of the bio-medical interventions that will play a critical role in ending the epidemic.

It's vital that these findings spur us

to action, and the report closes with a series of priority recommendations to build strong HIV science and treatment knowledge in the HIV/AIDS workforce. But it's also important that we don't misinterpret the results of this survey. For nearly 35 years, we in the HIV/AIDS field have built an infrastructure and that investment has been a wise one. Those working and volunteering in the HIV/AIDS field and people living with HIV/ AIDS are the ones who have gotten us to this point. Let's not get it twisted. Every advancement in HIV/AIDS over the last 34 years, including the scientific ones, have been driven by the HIV/AIDS community. We are the reasons we can contemplate ending this epidemic. The HIV/AIDS workforce developed the first HIV prevention programs, successfully fought for research investments that have yielded these historic biomedical breakthroughs, and used the knowledge of the communities we serve to develop effective methods of reaching people neglected by medical institutions and policy makers.

Having worked in the HIV/AIDS field since the epidemic's early years, I know that the HIV/AIDS workforce can help take us to the finish line. But we won't get there unless we raise HIV science and treatment literacy among people living with HIV, those working in the HIV/AIDS field, and those most at risk of infection. The Black AIDS Institute has already developed a demonstrated model that shows that the HIV/AIDS workforce can learn this stuff, retain this stuff, teach others, and develop programs that link People Living With HIV/AIDS (PLWHA) to care, help them stay in care, and help high risk negatives access PrEP and other high-impact prevention tools.

We have a lot of work to do to close the HIV/AIDS knowledge gap in the workforce. But the dividends that this knowledge will pay should inspire us. We really can be the generation that ends the HIV/AIDS epidemic.

Maya Angelou also said, "Whoever you are, where ever you are. Start there!" We can know better, and we will do better. Let's now get busy ensuring that our HIV/AIDS workforce is prepared to lead that fight.

Yours in the Struggle

Phill Wilson President and CEO Black AIDS Institute



## **Executive Summary**

The scientific evidence is clear. As a result of extraordinary advances in biomedical research, we now have the tools we need to end the HIV epidemic in the United States.

However, biomedical tools, even the most powerful ones, are only effective if they are used by those who need them. The HIV/AIDS workforce which for more than three decades has provided essential guidance and support for people living with HIV and those most at risk of HIV infection—has a pivotal role to play in maximizing the use and impact of these powerful treatment and prevention tools now at our disposal.

New data summarized in this report suggest that the HIV/AIDS workforce does not have the science and treatment knowledge it needs to respond to the challenges and opportunities presented by these new scientific developments.

Fully leveraging the potential of new HIV/AIDS biomedical tools demands that HIV/AIDS workers have strong knowledge of HIV science and treatment issues. To assess the level of HIV science and treatment literacy in the HIV/AIDS workforce, the Black AIDS Institute collaborated with the CDC, the Latino Commission on AIDS, the National Alliance of State and Territorial AIDS Directors, Johns Hopkins Bloomberg School of Public Health, and Janssen Therapeutics to conduct the largest-ever survey of the HIV science and treatment literacy of the HIV/AIDS workforce.

More than 3,600 HIV/AIDS respondents from 48 states, the District of Columbia, and U.S. territories completed a 62-question web-based survey. The survey was broadly representative of the HIV/ AIDS workforce. Men accounted for 54% of respondents, while people of color represented 57% of survey participants. Forty-one percent of the respondents work in the South.

## Low HIV Science and Treatment Literacy in the HIV/AIDS Workforce

Survey results were concerning; on average respondents answered only 63% of survey questions correctly essentially getting a "D" grade on HIV science and treatment issues. Participants were more likely to answer basic science questions correctly (76%) than questions pertaining to HIV treatment. The average score on treatment-related questions was 56%, or an "F."

Respondents appear especially ill-prepared to assist PLWHA and those at high risk for HIV infection (HRN) in using antiretroviral-based biomedical prevention tools, such as PrEP and Treatment as Prevention (TasP). The average score on clinical/ biomedical interventions was 46%, and the survey found considerable questions among respondents regarding the effectiveness of biomedical interventions.

## Disparities in HIV Science and Treatment Knowledge among HIV/AIDS Workers

Black and Latino respondents scored notably lower than their white colleagues. This is true even after controlling for education, region of residence, time working in the AIDS field, or any other variable taken into account in the survey. By contrast, LGBT and HIV-positive respondents scored higher than the workforce as a whole.

The smaller the organization, the less likely the staff were to exhibit strong HIV science and treatment knowledge. Participants working at community-based organizations (CBOs) had generally lower scores than staff at AIDS service organizations. No major differences were observed between workers in health departments and those working at AIDS service organizations (ASOs).

Among all variables studied, the educational attainment of the participant was most closely correlated with higher scores on the survey. The longer a worker remains in the AIDS field, the higher on average is his or her knowledge level, with especially pronounced knowledge advantages among people who have worked at least 15 years in the HIV/AIDS field.

Respondents from the deep South scored lower, on average, than workers from other regions—a distinction that persists even after controlling for educational level and other variables. However, within regions of the country, there were considerable differences between and within states in participants' scores.

## Closing the HIV Science and Treatment Knowledge Gap: An Urgent National Priority

Although biomedical tools are largely prescribed in clinic settings, physicians and nurses typically lack the time, expertise, and grounding in the community to address all the many factors that influence an individual's ability to use biomedical treatment and prevention technologies. By contrast, the HIV/AIDS workforce has, over nearly 35 years, specifically been designed to understand and address the needs of those most affected by HIV. If the individuals who need to use these biomedical tools are to be fully informed, engaged, and empowered consumers who can successfully

adhere to prescribed regimens, it will be the HIV/AIDS workforce that will provide the critical assistance to make this happen.

An urgent national initiative is needed to build the HIV science and treatment literacy of the HIV/ AIDS workforce. Specific attention will be needed in the groups of HIV/AIDS workers who appear to have especially sub-optimal understanding of biomedical issues, although the initiative will need to be comprehensive and nationwide in scope, as scores are unacceptably low across the HIV/AIDS workforce. Continuing education opportunities will be needed, as the evidence base for HIV science and treatment will continue to evolve. HIV/AIDS organizations will need to prioritize professional development on HIV science and treatment issues, and particular steps will need to be taken to deploy people living with HIV as unmatched peer educators and patient navigators.

## **The Findings**

The jury is in. The AIDS epidemic which has claimed the lives of more than 650,000 Americans and devastated countless communities—can be brought to an end—in our lifetime!

Advances in biomedical science have turned the corner on what was once thought by most to be an automatic death sentence into a problem that can now potentially be solved—once and for all. Antiretroviral drugs, it turns out, not only largely halt the effects of HIV infection within the body, but also have an extraordinary ability to prevent transmission and acquisition of HIV.

Globally, recent modeling by UNAIDS confirms that bringing available tools to the right scale in the next five years would reduce the number of new HIV infections by 89% and the number of AIDSrelated deaths by 81% by 2030, effectively ending the epidemic as a public health threat over the next 15 years.<sup>1</sup> Biomedical tools are now at the center of the HIV toolkit, with UNAIDS modeling finding that achievement of these ambitious aims is largely dependent on rapid scaleup of antiretroviral therapy and other antiretroviral-based prevention methods such as PrEP.

Here in the U.S., biomedical strategies represent the cornerstone for the CDC's High Impact Prevention (HIP) approach, which aims to maximize the number of new HIV infections averted with existing tools and resources.<sup>2</sup>

However, the *availability* of highimpact biomedical prevention tools is only the first part of the equation toward ending the epidemic. These tools need to be understood, effectively used, and sustained by those who need them.

So, the question is: Is the HIV/ AIDS field prepared to translate these breakthrough scientific findings into concrete results for affected communities?

Since the early years of the epidemic, when members of congress

worked to squelch safer sex programs and to withhold funding for lifesaving AIDS research, the AIDS field has insisted that the nation's response to the epidemic should be based on scientific evidence. But in 2015—34 years after the epidemic was first identified—is the HIV workforce still committed to a science-based approach? And, if so, are we sure that workers in the AIDS field are sufficiently aware of and confident in these new treatment and prevention approaches?

"We have talked a lot about getting to zero, and we've also repeatedly said that we have the tools to make that happen," said Leisha McKinley-Beach, HIV program administrator for the Fulton County Department of Health and Wellness in Atlanta. "But we might not have the workforce to get us to zero."

Moises Agosto, head of the Treatment Education, Adherence and Mobilization Team at the National Minority AIDS Council, has similar concerns. "In all my years doing treatment literacy and health literacy, I've found that people working in the AIDS field are least prone to educate themselves about the clinical aspects of HIV."

## The HIV Knowledge Continuum and the HIV/AIDS Workforce

Although everyone in the HIV/AIDS workforce requires basic scientific and treatment knowledge, the level of knowledge needed varies depending on the activity.

Promoting and delivering HIV testing: Comprehensive, detailed knowledge isn't needed to encourage someone to learn their HIV status. However, testing workers need to be prepared to explain why an HIV test is beneficial, including the benefits of early therapy. Workers need to be prepared to address misconceptions about HIV treatment, such as lingering, mistaken perceptions that HIV regimens are complex and highly toxic.

Linking people to care: Encouraging an individual who has tested HIV-positive to enter care requires somewhat more knowledge. The basic components of the HIV clinical process may need to be explained, and assistance may be required to help individuals understand their health care options. HIV workers will also need to understand the early diagnostic tests that will be performed and be prepared to help the individual understand how these tests will be interpreted and how they will inform decisions about treatment.

Promoting treatment retention and adherence: Even greater knowledge is needed to help individuals successfully navigate the HIV treatment continuum. A comprehensive understanding of the HIV clinical process is required, as well as an in-depth understanding of side effects and co-morbidities, including how to detect them and how they can best be managed.

Promoting antiretroviral-based prevention among HIV-uninfected people: This line of work may require the greatest degree of knowledge, as PrEP and other antiretroviral-based tools remain poorly understood in the community. Individuals considering PrEP may have questions about how the intervention works biologically, be skeptical that it works, or have concerns that they might become resistant to antiretroviral drugs if they ultimately seroconvert.

## A Pioneering Survey of the HIV/AIDS Workforce

To determine whether the HIV workforce has the knowledge and skills needed to help AIDS-affected communities use these transformative tools, the Black AIDS Institute partnered with the Centers for Disease Control, the Latino Commission on AIDS, the National Alliance of State and Territorial AIDS Directors, and Janssen Therapeutics to sponsor the largest-ever survey of the HIV workforce. To ensure the scientific validity and rigor of the survey tool, experts at the CDC and at Johns Hopkins Bloomberg School of Public Health reviewed and commented on the survey instrument.

A 62-question web-based survey was completed by 2,166 workers in the HIV field between 2012 and 2013. The first wave was administered by the Institute to 643 attendees at the 2012 U.S. Conference on AIDS (USCA), the largest HIV-related meeting in the U.S., attended by case managers, public health workers and advocates, policy makers, and people living with HIV. Survey participants at USCA used iPads to complete the survey, either at a special exhibition booth or when contacted by survey staff throughout the venue.

The second wave involved a national rollout to an additional 1,523 employees, contractors, and volunteers working in AIDS service organizations, state and local health departments, and other communitybased organizations. The Institute and local volunteers went to local community organizations or clinics in 12 major cities (Atlanta, Ga.; Baton Rouge, La.; Chicago, Ill.; Ft. Lauderdale, Fla.; Houston, Tex.; Jackson, Miss.; Los Angeles, Calif.; Miami, Fla.; New Orleans, La.; New York, N.Y.; San Francisco, Calif.; and Washington, D.C.), promoting and administering the survey in both English and Spanish from

March to May 2013. Survey partners collaborated to identify non-medical HIV workers nationwide, who were invited to participate through various awareness measures.

Research activities were reviewed by an institutional review board and granted an exemption under 45 CFR § 46.101(b)(2) as a de-identified survey activity. Small incentives were provided to participants—\$15 for the first wave, and \$5 for online completion during the second and third waves. No incentive was provided in the fourth wave. E-mail addresses of participants were collected in order to avoid duplicate participation. On average, completion of the survey required 15 minutes.

As this report describes, the survey yielded results that are cause for deep concern. Overall, basic HIV-related scientific knowledge is much lower than it ought to be, with particular deficits on key factual matters relating to the biomedical strategies that have the potential to end the epidemic. And not only is knowledge low in the HIV workforce, but survey findings also suggest that many HIV workers are not familiar with and don't have faith in the research results that have transformed the national approach to preventing new infections.

Although knowledge scores are low across the HIV/AIDS workforce, there are also particular knowledge patterns that demand attention. HIV/AIDS workers who have been in the field longest, are better educated, and are gay or bisexual are more likely to be knowledgeable about HIV science and treatment issues. By contrast, lower knowledge scores are reported among workers who are Black or Latino, work in a small organization, and/or work in the South.

The low levels of HIV scientific literacy identified by the survey—more than 15 years since the emergence of antiretroviral therapy—suggest that concerted national action is needed to ensure that the HIV workforce is prepared to play its role in ending the epidemic. But the survey also offers a way forward. The robust findings across a range of HIV-related scientific and biomedical questions highlight the specific areas where training and capacity-building are needed. Similarly, demographic differences in documented knowledge levels also highlight where educational measures are most needed.

## Who Is the HIV/AIDS Workforce?

This extensive survey provides a representative snapshot of the HIV workforce. The breadth of survey participants is striking, with HIV workers from 48 states, the District of Columbia, and U.S. territories participating. The survey represents the largest known effort ever undertaken to assess the scientific and treatment knowledge of the HIV workforce.

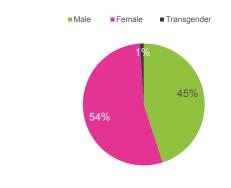
Men accounted for 54% of survey participants, with people of color accounting for 57% of those participating. LGBT participants accounted for roughly one-third of people who completed the survey. Educational levels varied considerably, with 39% of participants reporting at least some post-graduate education and 27% reporting educational attainment of an associates degree or lower. People living with HIV accounted for 16% of survey participants.

Consistent with the national HIV epidemic, the largest share of survey participants (40%) live in the South. Compared with its share of AIDS cases (29%), the Northeast was somewhat under-represented in the survey, accounting for 17% of participants. The West and Midwest accounted for 17% and 12% of participants, respectively, with the remainder from Puerto Rico, Guam, and the U.S. Virgin Islands.

As would be expected in a survey of the HIV/AIDS workforce, employees, contractors, or volunteers of ASOs made up the largest share (46%) of participants by organizational type. CBOs and state/local health departments accounted for 38% and 16% of participants, respectively. The size of participants' organizations varied substantially, with a majority working in agencies with 20 or fewer employees and 9% working in organizations with more than 100 staff. Most organizations represented in the survey provide prevention

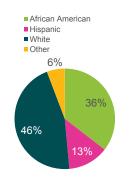
#### 1. Gender Identification

Sample size: 3,363 Statistically significant differences between comparison groups marked with a letter (95% significance)



#### 2. Race/Ethnicity

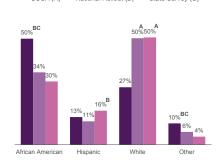
Sample size: 3,363; USCA wave: 643; National Rollout: 1,523; State Survey: 1,197 Statistically significant differences between comparison groups marked with a letter (95% significance)



#### 3. Race/Ethnicity by Wave

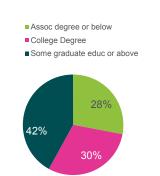
Sample size: 3,363; USCA wave: 643; National Rollout: 1,523; State Survey: 1,197 Statistically significant differences between comparison groups marked with a letter (95% significance)

USCA (A) National Rollout (B) State Survey (C)



#### 4. Education

Sample size: 3,363; USCA wave: 643; National Rollout: 1,523; State Survey: 1,197 Statistically significant differences between comparison groups marked with a letter (95% significance)



#### 5. Education by Wave

Sample size: 3,363; USCA wave: 643; National Rollout: 1,523; State Survey: 1,197 Statistically significant differences between comparison groups marked with a letter (95% significance)

USCA (A) National Rollout (B) State Survey (C)

Assoc degree or below College Degree Some graduate educ or above

services (72%) and treatment and prevention education (62%), with roughly half (49%) providing HIV treatment and care. Black-serving organizations represented the majority (56%) of organizations represented in the survey, with nearly one in three organizations serving people living with HIV (35%) and men who have sex with men (32%). Seventy-five percent of participants were employees, 12% were consultants, and 13% were volunteers.

People with less than two years' experience in the HIV/AIDS workforce accounted for 22% of participants, while 17% had worked in the AIDS field 16 years or more. Prevention and outreach workers represented the largest share of participants by job type (27%), followed by case managers and social workers (23%), and managers (16%). On average, participants had worked in the AIDS field almost nine years.

#### 6. HIV Status

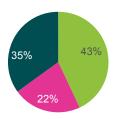
Sample size: 3,363; USCA wave: 643; National Rollout: 1,523; State Survey: 1,197 Statistically significant differences between comparison groups marked with a letter (95% significance)



#### 8. Type of Organization

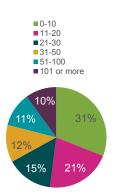
Sample size: 3,363; USCA wave: 643; National Rollout: 1,523; State Survey: 1,197 Statistically significant differences between comparison groups marked with a letter (95% significance)

- AIDS Service Organization
- State/local health department
- Other community-based organization



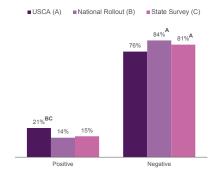
#### 10. Size of Organization

Sample size: 3,363; USCA wave: 643; National Rollout: 1,523; State Survey: 1,197 Statistically significant differences between comparison groups marked with a letter (95% significance)



#### 7. HIV Status by Wave

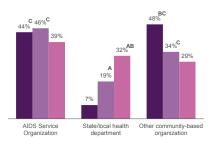
Sample size: 3,363; USCA wave: 643; National Rollout: 1,523; State Survey: 1,197 Statistically significant differences between comparison groups marked with a letter (95% significance)



#### 9. Type of Organization by Wave

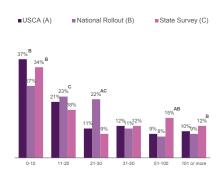
Sample size: 3,363; USCA wave: 643; National Rollout: 1,523; State Survey: 1,197 Statistically significant differences between comparison groups marked with a letter (95% significance)





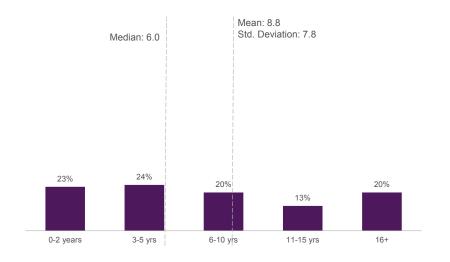
#### 11. Size of Organization by Wave

Sample size: 3,363; USCA wave: 643; National Rollout: 1,523; State Survey: 1,197 Statistically significant differences between comparison groups marked with a letter (95% significance)



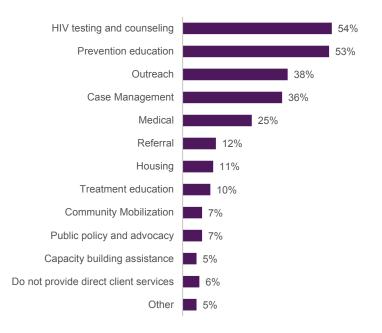
#### 12. Tenure in HIV Field

Sample size: 3,363; USCA wave: 643; National Rollout: 1,523; State Survey: 1,197 Statistically significant differences between comparison groups marked with a letter (95% significance)



#### 13. Services Provided

Sample size: 3,363; USCA wave: 643; National Rollout: 1,523; State Survey: 1,197 Statistically significant differences between comparison groups marked with a letter (95% significance)



## Assessing HIV Knowledge and Attitudes Among the HIV/AIDS Workforce

A basic knowledge of the science of HIV is essential if HIV workers are to educate and counsel people at risk about the disease, dispel myths about HIV transmission, provide compelling encouragement for people at risk to get tested, help people living with HIV to be linked and retained in care, and help people at risk of infection negotiate and access HIP, including PrEP and non-occupational postexposure prophylaxis (NPEP).

To tease out the level of the HIV/ AIDS workforce's knowledge about HIV and to identify specific gaps, the U.S. HIV/AIDS Workforce Survey asked a series of basic questions about HIV infection: Which body fluids are capable of transmitting HIV? What is an opportunistic infection? What is the difference between HIV and AIDS? How is HIV diagnosed? Who is at highest risk of acquiring HIV?

The survey also asked about basic aspects of HIV treatment, such as the causes of drug resistance, the relationship between adherence and drug resistance, and the typical trajectory of CD4 and viral load when an individual's HIV infection is left untreated. The survey also asked participants basic questions about the meaning of viral load, federal recommendations for viral load testing, and the effect of antiretroviral therapy on viral load. Participants were asked about common HIV opportunistic infections and comorbidities and about the process for evaluating new antiretroviral drugs.

The survey posed questions regarding biomedical HIV prevention tools, asking participants to differentiate recommended biomedical strategies from others that are not recommended. Participants were also asked about experimental prevention tools, such as vaginal microbicides.

In addition to assessing the basic knowledge of HIV workers, the survey also sought to obtain a glimpse of workers' familiarity with and attitudes about biomedical tools. For example, participants were asked to agree or disagree with the statement, "Suppressing HIV viral load with antiretroviral treatment reduces the risk of transmitting HIV." Similar questions were posed regarding PrEP, with participants given multiple options to assess the degree to which they agreed or disagreed with the statement. The survey also inquired about workers' interest in obtaining additional learning regarding biomedical HIV prevention tools.

## HIV/AIDS Science and Treatment Literacy Among the HIV/AIDS Workforce Is Low

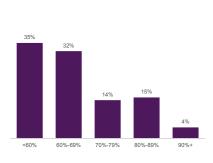
Overall, the HIV workforce has a low level of HIV-related scientific knowledge. The average score on the survey was 63%, roughly the same as the median (64%). Seventy percent of HIV workers surveyed received a "D" score (i.e., below 70%), while only 4% received an "A" (i.e., 90% or above). More than one-third of participants (35%) received a failing score (i.e., below 60%).

HIV workers scored highest on basic science and terminology questions, at 76%. This suggests that most HIV workers understand some basic facts about HIV—how it is transmitted and how it is diagnosed. Yet even the brightest spot in the survey findings offers cause for concern, as the HIV workforce gets only a grade of "C" for the most basic facts about the disease they are working to address.

Nearly two decades after the emergence of HAART, the HIV/AIDS workforce lacks knowledge about the

#### 14. % Correct Answers





## 76% 56% 63% 46% Basic Knowledge & Treatment Clinical/Biomedical All Questions Interventions

16. Average Score by Category

Sample size: 3,363

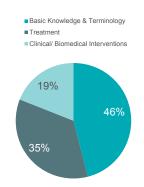
#### 15. Statistics

Sample size: 3,363

Mean	63.1	
Median	63.8 Cumulative Percent	
F (<60%)	35	
D (60-69%	67	
C (70-79%)	81	
B (80-89%)	96	
A (90+%)	100	

#### 17. Proportion of Questions per Category

Sample size: 3,363



basics of HIV treatment. Even as CDC funding shifts to prioritize continuumof-care interventions for people living with HIV, the HIV/AIDS workforce gets an "F" on treatment-related issues, with an average score of only 56. One positive side to the otherwise bleak research findings has to do with results from participants who work with people living with HIV, who score 5.2 points higher on average than respondents as a whole.

Survey findings also suggest that the HIV/AIDS workforce is even less prepared to accelerate uptake of PrEP, TasP, and other biomedical prevention tools. Indeed, the HIV workforce scores lowest (46%) on questions related to clinical and biomedical interventions.

Mark Harrington, executive director of Treatment Action Group, says that the way PrEP was developed and approved may help explain the low scores on biomedical HIV prevention. Early studies on PrEP generated ambiguous results before larger studies provided more definitive evidence of efficacy. When Truvada was approved for PrEP in 2012, the drug's maker refrained from promoting it for HIV prevention, meaning that this paradigm-busting prevention tool was launched without advertisements or public health campaigns.

Harrington wonders whether results on PrEP-related questions might be somewhat higher were the survey administered in 2015 rather than in 2012-2013. With a robust national debate playing out on the safety and efficacy of PrEP in 2014and with the CDC issuing formal guidance endorsing PrEP in the midst of this debate-Harrington views last year as an inflection point in the AIDS field's understanding of this biomedical intervention, with sciencebased activists making the case for PrEP in response to misreading of the scientific evidence. "A whole lot of changes happened in 2014 that may have made the answers to these questions a lot different," he says.

## Race Matters: Highest Risk, Lowest HIV Science and Treatment Knowledge Among Communities of Color

Black and Latino people account for 14% and 16% of the U.S. population, respectively, but they make up 44% and 21% of new HIV infections.<sup>3</sup> With Black and Latino communities facing disproportionate risks for HIV infection, they need biomedical treatment and prevention technologies the most. By extension, they need an HIV workforce that is fully prepared to seize new opportunities to lay the foundation to end the epidemic.

However, Black and Latino workers in the AIDS field were significantly less likely than white respondents or those from other races/ethnicities to exhibit robust HIV science and treatment knowledge. Importantly, these differences remained statistically significant after controlling for education, region of residence, time working in the AIDS field, or any other variable taken into account in the survey. On average, Black respondents scored about six points lower than white survey participants, while Latino workers scored eight points lower.

By contrast, LGBT and HIVpositive survey participants scored about three points higher than other survey participants. Unlike Black and Latino communities, where treatment education programs have traditionally been weak or non-existent, LGBT staff belong to a community that has prioritized grassroots treatment education since the epidemic's early years. People living with HIV obviously have a personal interest in learning about HIV-related science and treatment issues. In addition, a host of resources (e.g., magazines, websites, blogs) are available for people living with HIV to learn about treatment

issues, but these have not always been targeted to Blacks and Latinos living with HIV.

Other demographic patterns emerge from the findings. The mean score for male respondents is significantly higher than for women, although women who participated in the survey were more likely than their male counterparts to score in the top quartile. Women were also more likely than men to score in the bottom quartile.

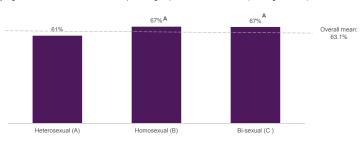
As a general rule, age did not directly correlate with HIV knowledge. However, the youngest respondents (ages 18-24) scored by far the lowest of all age groups.

# 18. % Correct Answers by Race/Ethnicity Sample size: 3,363; African American: 1,188; Hispanic: 441; White: 1,538; Other: 196 Statistically significant differences between comparison groups marked with a letter (95% significance) 68% ABD AB Overall mean: 59% 68% ABD AB Overall mean: 63% Overall mean: 63%



#### 19. % Correct Answers by Sexual Orientation

Sample size: 3,363; Heterosexual: 2,268; Homosexual: 861; Bisexual: 234 Statistically significant differences between comparison groups marked with a letter (95% significance)



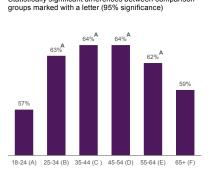
#### 20. % Correct Answers by Gender

Sample size: 3,363; Male: 1,536; Female: 1,827 Statistically significant differences between comparison groups marked with a letter (95% significance)



#### 22. % Correct Answers by Age

Sample size: 3,363; 18-24: 117; 25-34: 1,207; 35-44: 667; 45-54: 735; 55-64: 563; 65+: 74 Statistically significant differences between comparison



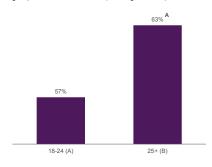
#### 21. % Correct Answers by Gender

Sample size: 3,363; Male: 1,536; Female: 1,827 Statistically significant differences between comparison groups marked with a letter (95% significance)

	Male (A)	Female (B)	
Mean	63.9% <sup>B</sup>	62.5%	

#### 23. % Correct Answers by Age

Sample size: 3,363; 18-24: 117; 25-34: 1,207; 35-44: 667; 45-54: 735; 55-64: 563; 65+: 74 Statistically significant differences between comparison groups marked with a letter (95% significance)



## Size Matters: Some Organizations Have Higher HIV Science and Treatment Knowledge than Others

The smaller the organization, the less likely workers were to have high HIV knowledge scores. Consistent with this pattern, the lowest scores were found among those working in organizations with 10 or fewer workers. This trend could flow from comparative differences in organizational access to professional development resources, such as national, regional, or statewide conferences. Larger organizations are more likely to have sufficient resources to dedicate staff to HIV scientific issues or to invest in staff development.

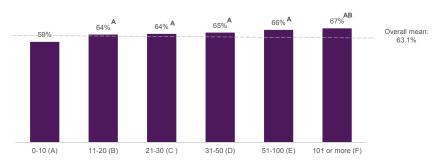
Encouragingly, participants working at organizations serving highest-risk groups reported higher levels of HIV-related knowledge. Organizations serving heterosexual men scored quite low on HIV science and treatment knowledge, with an average score of 49.

Radical differences were not observed in knowledge levels based on the type of organization in which participants worked. However, participants affiliated with CBOs were less likely than workers at ASOs and health departments to exhibit higher knowledge scores, with these differences found to be statistically significant. However, no significant differences were observed in knowledge scores among workers at state/local health departments and staff at ASOs.

Participants working in organizations that engage in advocacy and public policy work and that provide direct services to clients had the highest knowledge scores. Disturbingly, staff responsible for capacity-building assistance—i.e., HIV/AIDS workers tasked with building the competence and skills of other HIV/AIDS workers—scored lower (60%) on average than HIV/ AIDS workers as a whole (63%).

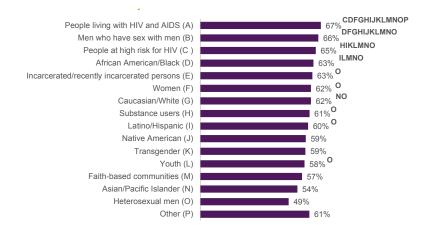
#### 24. % Correct Answers by Organization Size

Sample size: 3,363; 0-10: 1,048; 11-20: 702; 21-30: 512; 31-50: 387; 51-100: 367; 101 or more: 347 Statistically significant differences between comparison groups marked with a letter (95% significance)



#### 25. % Correct Answers by Communities Served

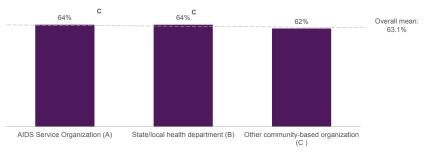
Sample size: 3,363; People living with HIV and AIDS: 1,387; Mem who have sex with men: 1,247; People at high risk for HIV: 850; African American/Black: 1,862; Women: 358; Incarcerated populations/recently incarcerated persons: 146; Caucasian/ White: 878; Substance users: 389; Latino/Hispanic: 885; Youth: 342; Native American: 116; Faith-based communities: 105; Transgender: 134; Asian/Pacific Islander: 66; Heterosexual men: 61; Other: 114 Statistically significant differences between comparison groups marked with a letter (95% significance)



#### 26. % Correct Answers by Organization Type

Sample size: 3,363; AIDS service organization: 1,458; State/local health department: 726; Other community-based organization: 1,179

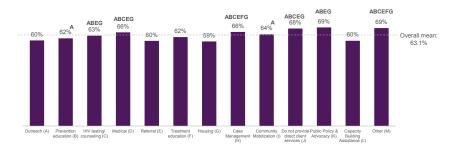
Statistically significant differences between comparison groups marked with a letter (95% significance)



#### 27. % Correct Answers by Primary Services Provided

Sample size: 3,363; Outreach: 1,293; Prevention education: 1,769; HIV testing/counseling: 1,824; Medical: 827; Referral: 399; Treatment education: 321; Housing: 361; Case management: 1,210; Community mobilization: 219; Do not provide direct client services: 204; Other: 168

Statistically significant differences between comparison groups marked with a letter (95% significance)



### **Education Matters**

The importance of education emerges as a clear theme across the survey findings. Among all variables, the level of educational attainment of the survey participant emerged as the most important predictor of strong HIV science and treatment knowledge. Participants with a college degree scored eight points higher, on average, than those with an associate's degree or less, while graduate education added an additional 10 points on the survey results.

Volunteers scored lower than employees and consultants on the survey. This is likely explained by employees' comparatively greater access to training and professional development resources. Consultants are often former staff who have benefited from professional advancement opportunities.

The longer a worker remains in the AIDS field, the higher his or her knowledge of HIV science and treatment. In particular, there was a marked difference in scientific knowledge between workers who had been in the field at least 10 years and those with shorter tenures.

Workers who are directors or administrators are substantially more likely to be knowledgeable about HIV science and treatment issues than other workers. Participants focused on HIV prevention and outreach and on HIV support services were likely to score the lowest, with workers in AIDS housing programs scoring the lowest of all categories.

## Location Matters: Regional and State Variation in HIV Knowledge

Respondents from the deep South, on average, scored two points lower than HIV workers from other parts of the country and five points lower than workers from the Midwest, who had the highest average level of HIV science and treatment knowledge. While the regional differences appear somewhat modest (Fig. 32), the difference between Southern HIV workers and those from other parts of the country is statistically significant. These differences remain statistically significant after controlling for education, length of tenure, and other variables.

"I was quite surprised to see where staff in the South who have the same educational levels as counterparts in other regions of the country score lower in some of these HIV-related knowledge areas," said Fulton County's McKinley-Beach. "Access to training may be the key factor that explains these differences. Many Southern organizations and health departments are using every resource we have to ensure our communities survive this epidemic. It is difficult to prioritize training, staff development, and planning over service delivery. It will be difficult to achieve zero new infections without a strategy to build workforce capacity to implement scientific advances."

Although the HIV workforce in the South overall scored notably lower than workers from other regions, the South is not monolithic in this regard. Respondents from Kentucky, South Carolina, and Virginia actually scored above the national average on HIV science and treatment knowledge, while participants from Alabama and Louisiana had scores that were roughly equivalent with the national average. However, respondents from Florida, Georgia, North Carolina, and Texas scored clearly below average.

State-by-state comparisons of survey results need to be made with caution, as the number of respondents in some states was quite small. Among states with a sufficient number of respondents, Ohio, Pennsylvania, and Missouri had the highest average scores, followed by Maryland, California, and Illinois. All three states with the lowest average scores—North Carolina, Georgia, and Florida—are in the South.

Statistical analyses of survey results identified several factors that appear to be driving state differences in HIV treatment literacy among the HIV workforce. Respondents from states with the highest scores generally are better educated, more likely to work for organizations serving highincidence groups, and/or more likely to be HIV-positive or LGBT.

### Notes

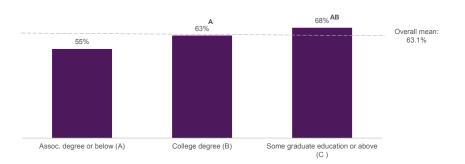
1. UNAIDS (2014). Fast-Track: Ending the AIDS Epidemic by 2030.

2. CDC (2014). HIV Prevention in the United States: Expanding the Impact. Available: http://www.cdc.gov/nchhstp/ newsroom/HIVFactSheets/Future/High-Impact-Prevention.htm.

3. CDC (2012). New HIV Infections in the United States. Available: http://www. cdc.gov/nchhstp/newsroom/docs/2012/ HIV-Infections-2007-2010.pdf.

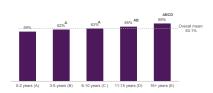
#### 28. % Correct Answers by Level of Education

Sample size: 3,363; Associate degree or below: 928; College degree: 1,021; Some graduate education or above: 1,414 Statistically significant differences between comparison groups marked with a letter (95% significance)



#### 29. % Correct Answers by Tenure in HIV Field

Sample size: 3,363; 0-2 years: 763; 3-5 years: 822; 6-10 years: 670; 11-15 years: 442; 16+ years: 666 Statistically significant differences between comparison groups marked with a letter (95% significance)



#### **30. Bivariate Correlation**

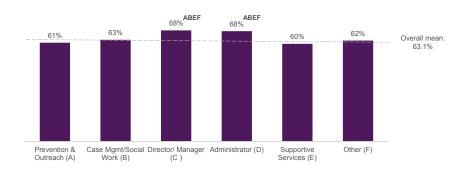
Sample size: 3,363; 0-2 years: 763; 3-5 years: 822; 6-10 years: 670; 11-15 years: 442; 16+ years: 666 Statistically significant differences between comparison groups marked with a letter (95% significance)



\*Statistically significant at the 95% level of confidence

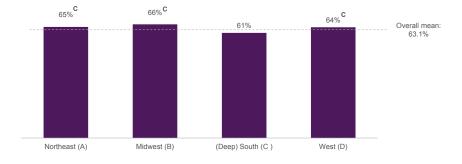
#### 31. % Correct Answers by Primary Role

Sample size: 3,363; Prevention and outreach: 837; Case management/social work: 707; Director/manager: 554; Administrator: 283; Supportive services: 418; Other: 564 Statistically significant differences between comparison groups marked with a letter (95% significance)



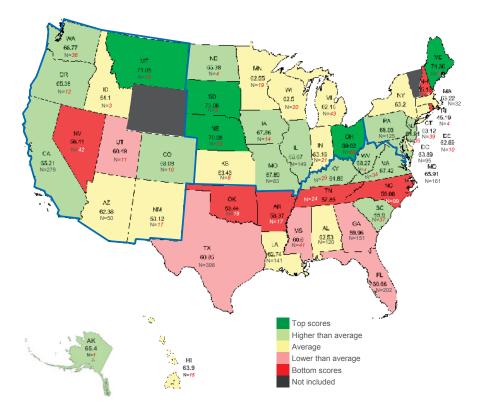
#### 32. % Correct Answers by Region

Sample size: 3,036; Northeast: 790; Midwest: 455; (Deep) South: 1,316; West: 495 (Excludes "Other") Statistically significant differences between comparison groups marked with a letter (95% significance)



#### 33. Scores by State

Sample size: 3,363; States combined across the three waves. Highest-scoring states included in this analysis were those with high enough base sizes for reasonable comparisons: Ohio, Pennsylvania, Missouri, Maryland, California, Illinois. Lowest-scoring states included in this analysis were those with high enough base sizes for reasonable comparison: Nevada, North Carolina, Georia, Mississippi, Florida, Texas Statistically significant differences between comparison groups marked with a letter (95% significance)







## HIV Science and Treatment Literacy: Why It Matters

Throughout most of the HIV epidemic, the condom was the primary technology for preventing sexual transmission. For decades, the main focus of HIV prevention was behavioral. Prevention efforts endeavored to help people recognize their risk for HIV and to take steps to avoid acquiring HIV—either by delaying sexual intercourse or by using a condom during intercourse.

### **Treatment as Prevention**

In 2011, the HIV prevention enterprise dramatically changed with the release of results from the HPTN 052 trial, which found that antiretroviral therapy reduced the risk of sexual HIV transmission by 96%.<sup>1</sup> The implications of this landmark study were immediately apparent. The very drugs that have transformed HIV infection from an automatic death sentence to one that is often chronic and manageable also have the potential to stop the epidemic in its tracks.

Additional biomedical tools have since been validated by HIV prevention research, yet antiretroviral therapy remains by far the most potent prevention tool available (Fig. 34).

The HPTN results, however, also quickly raised profound questions about the effectiveness of prevention efforts. Even though HAART has been widely available in the U.S. since the mid-1990s, the national response has yet to effectively capture the prevention potential of HIV treatment, with the annual number of new HIV infections remaining steady at round 50,000.

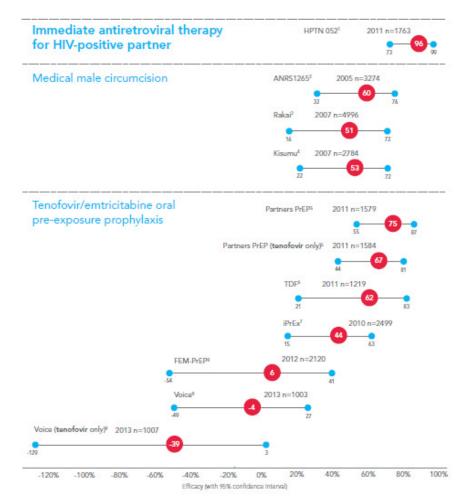
In reality, gaps across the HIV care continuum diminish the therapeutic and prevention benefits of HIV treatment. The most recent CDC analysis (Fig. 35) found that while 86% of people living with HIV know their HIV status, only 40% are engaged in regular HIV medical care. Due to patient loss across the HIV continuum, only 30% of people living with HIV have viral suppression.<sup>2</sup> Without viral suppression, people living with HIV fail to reap the full health benefits of treatment, and the communities in which they live lose the prevention benefits of lower community viral load.

As these patterns underscore, the central aim of HIV prevention efforts must be to close these gaps in the treatment continuum and to increase the share of people living with HIV who are virally suppressed to the highest level possible.

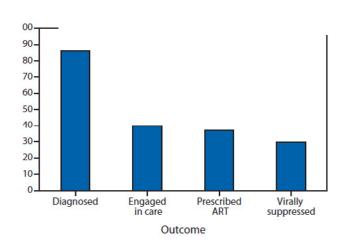
Informed patients and communities are vital to this quest to maximize viral suppression. People at risk of HIV appear increasingly to be getting the message that learning one's HIV status is essential, as the proportion of people living with HIV who know their status has steadily risen and is now approaching 90%. However, far too many people

#### 34. Efficacy of Available Bio-Medical Prevention Interventions Derived from Randomized Clinical Trials

Modified with permission from Marrazzo et al, JAMA, in press, 2014\*



## 35. Estimated Percentage of Persons Living with HIV Infection\* by Outcome Along the HIV Care Continuum United States, 2011



who are diagnosed with HIV do not understand the clinical and prevention benefits of immediate HIV treatment and fail to take on board the importance of regular clinical monitoring, and many don't take their medicines as prescribed. Many people, especially those who remember earlier times in the epidemic, may fear that current HIV treatments have some of the same side effects that proved so challenging for early HAART regimens, when in reality current treatment regimens are relatively simple to take and easy to tolerate. For many people living with HIV, sub-optimal patterns of medical utilization stem not just from a lack of awareness or misconceptions but from life challenges that impede regular engagement in medical care, such as poverty, housing instability, substance use, mental illness, and violence and abuse

### Other Antiretroviral-Based Prevention Tools

Although a central focus of HIV prevention must be improving outcomes for people living with HIV, people who are uninfected but are at high risk of HIV infection also need strategies to lower their risk of acquiring the virus. In recent years, various antiretroviral-based methods have emerged to complement the welldocumented prevention benefits of condom use, harm-reduction measures for people who inject drugs, and other risk-reduction measures.

These antiretroviral-based methods appear to be powerfully effective. This is especially well-documented for daily, oral PrEP, the efficacy of which exceeds 90% for individuals who take the regimen as prescribed.<sup>3</sup> Initiation of antiretroviral therapy within 72 hours of a significant exposure (known as post-exposure prophylaxis, or PEP) is also recommended as another prevention tool for HIV-uninfected people who engage in high-risk activities. These antiretroviral-based strategies are especially important for young Black gay men, whose HIV incidence (measured at 5.9% by one major research cohort)<sup>4</sup> is roughly equivalent to the rate of new infections among young women in Southern Africa.<sup>5</sup>

These antiretroviral-based tools have achieved minimal uptake to date, especially among the populations that need these potent prevention tools the most. The maker of Truvada, a recommended regimen for PrEP, actively promotes the drug for therapeutic use but has declined to actively promote its use for PrEP. Scattered demonstration projects are underway, but their implementation has been slow, especially among young Black gay men. With young Black gay men experiencing HIV risks that are among the highest in the entire world, that low public health priority placed on rapid scale-up of PrEP in high-risk populations is perplexing.

But there are additional reasons why these new prevention tools have yet to be taken up. According to a recent survey by the Henry J. Kaiser Family Foundation, only about onequarter (26%) of gay and bisexual men in the U.S. know about PrEP, only one in 10 know someone who has taken PrEP, and the vast majority report hearing little or nothing about PrEP.6 Mis-statements in the media—suggesting that PrEP is far less effective than condoms, when in fact the efficacy of these two strategies is comparable when individuals closely adhere to the daily regimen-may have fed a certain skepticism, among potential users and the broader HIV workforce, regarding the effectiveness of this still-new prevention strategy.

For all antiretroviral-based prevention methods—including PrEP, PEP and HIV TasP—consistent adherence to the prescribed regimen is pivotal. Only individuals who fully understand the importance of adherence and the consequences of non-adherence will have the means to make full use of antiretroviral-based prevention tools.

### Notes

1. Cohen MS et al. Prevention of HIV-1 infection with early antiretroviral therapy. N Engl J Med. 2011;365(6):493 505.

2. CDC (2014). Vital Signs: HIV Diagnosis, Care, and Treatment Among Persons Living with HIV—United States, 2011. MMWR 63:1113-1117.

3. Grant RM et al. (2010). Preexposure Chemoprophylaxis for HIV Prevention in Men Who Have Sex with Men. New Eng J Med 363:2587-2599.

4. Koblin BA et al. (2013). Correlates of HIV Acquisition in a Cohort of Black Men Who Have Sex with Men in the United States: HIV Prevention Trials Network (HPTN) 061. PLoS ONE 8:e70413.

5. Marrazzo J et al. (2013). Preexposure prophylaxis for HIV in Women: Daily oral tenofovir, oral tenofovir/ emtricitabine, or vaginal tenofovir gel in the VOICE Study (MTN 003). 20th Conference on Retroviruses and Opportunistic Infections, Atlanta.

6. Hamel L et al. (2014). HIV/AIDS in the Lives of Gay and Bisexual Men in the United States.



## Essential: An Educated, Informed HIV/AIDS Workforce

WHY DOES THE HIV SCIENTIFIC AND TREATMENT LITERACY OF THE HIV/AIDS WORKFORCE MATTER? IF THE PRIMARY HIV PREVENTION OUTCOMES ARE NOW CLINICAL, CAN'T HEALTH CARE PROVIDERS HANDLE HIV PREVENTION ON THEIR OWN?

While the paradigm shift from behavioral to biomedical prevention might seem at first to diminish the role of community-based HIV workers, nothing could be further from the truth. "Looking at the changing landscape of HIV prevention, it's clear that the HIV workforce is as important as ever," advises Danielle Houston, senior program advisor of the National Minority AIDS Council's Treatment Education, Adherence and Mobilization Team.

One reason is every biomedical intervention depends on behavior, and the HIV/AIDS workforce has spent more than three decades in building expertise on influencing behavior.

"Suggesting that primary HIV prevention is exclusively or even primarily clinical misses the point," says Phill Wilson, president and CEO of the Black AIDS Institute. "I've been living with HIV for 35 years now. Every night when I look at the meds in my hand that I'm about to take, I'm face to face with the reality that I have an essential role to play in my own health. The meds can remain in their bottle, or I can take them. What the pills do is biomedical. What I do is behavioral. Our goal, therefore, should be to integrate the biomedical with the behavioral, as neither one is sufficient without the other."

As the health care environment continues to evolve, new opportunities for health care access also mean new opportunities for individuals to fall through the system's cracks. Without the support of community workers who are knowledgeable about the science of HIV, many people are likely to miss out on the promise of biomedical treatment and prevention technologies.

"The whole structure of HIV care has changed, with the Affordable Care Act and Medicaid expansion," says Moises Agosto, director of the National Minority AIDS Council's Treatment Education, Adherence and Mobilization Team. "With these changes, there is going to be a big expansion in the universe of health care providers working with people living with HIV. Increasingly, people living with HIV will be receiving their care not from a Ryan White clinic or a community-based AIDS organization, but from community health centers and other less-specialized providers. As people increasingly get their care from providers who have less experience in treating patients with HIV, ensuring that consumers are fully informed and actively engaged in their own care will be more important than ever."

One lesson the AIDS response has clearly taught is that an empowered and engaged health care consumer is an informed consumer. Individuals need to understand why adherence is so important, how to interpret their lab results, and how to develop a strong, open relationship of communication with their health care providers.

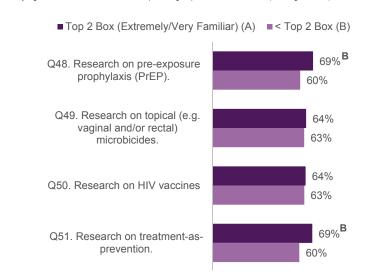
While physicians and nurses have an important role to play in educating their patients, the HIV/ AIDS workforce is uniquely positioned

## Familiarity and Attitudinal Agreement Go Hand-in-Hand with Higher Scores

On all but two of the attitudinal items, respondents with high familiarity (Q48-Q51) or high agreement (Q52-Q62) were significantly more likely to have higher scores on the HIV knowledge questions. This makes sense, as both knowledge questions and the agreement/familiarity questions appear to measure knowledge of HIV.

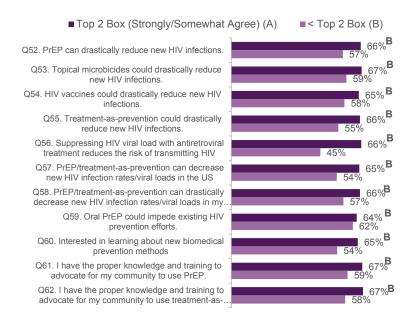
#### 36. % Correct Answers by Level of Familiarity

Sample size: 3,363 Statistically significant differences between comparison groups marked with a letter (95% significance)



#### 37. % Correct Answers by Level of Agreement

Sample size: 3,363 Statistically significant differences between comparison groups marked with a letter (95% significance)



to deliver treatment education in a language that patients can understand. Occupying a relationship of trust with community members, HIV/AIDS workers can also help dispel myths about HIV testing and treatment. The HIV workforce is also ideally skilled to recognize and address challenges to treatment adherence and retention in care, such as housing instability, substance use issues, poverty, and depression.

While clinical sites can help promote retention in care—through automatic call-backs before appointments and other adaptations to clinic practices—most health care sites lack the capacity or expertise to ensure that patients remain engaged in care. Innovative partnerships between clinics and CBOs offer an unusually effective model to help patients maintain their HIV care. In particular, peer-based patient navigators can help patients overcome challenges associated with complex health care financing and delivery systems.

A well-educated, highly-motivated HIV/AIDS workforce will be critical to closing gaps in the HIV treatment cascade. "We need to rapidly increase testing of at-risk populations and get those people into care," notes Mark Harrington of the Treatment Action Group. "All those things can't all be done in the medical setting. The doctor simply doesn't have enough time to explain everything an individual needs to know. The solution is to link community-based organizations to provider networks."

For chronic diseases like HIV, selfcare plays a central role in obtaining good health outcomes. While brief educational interventions during the delivery of clinical care have been shown to improve treatment adherence for a number of health conditions, these will be even more effective if they are complemented by strong community-based programs that provide more intensive, peerbased education and support. For example, collaborative learning models allow peers to learn from each other over time, building and reinforcing knowledge about HIV-related selfcare. "HIV is now a bit like diabetes," Harrington notes. "Effectively managing HIV infection requires a lifelong commitment to behavior change and health promotion. There is a huge role for community health workers and peer health navigators to help people remain engaged in care. We know from drug addiction treatment and programs for the homeless that peer groups and peer navigators can really help people stay in care."

The HIV/AIDS workforce's role in promoting health care access is important not only for people living with HIV but also for HIV-negative people. However, people who are well, especially younger people, often perceive little reason to regularly access health care services. In New York State's plan for ending the AIDS epidemic, jointly developed by community advocates and political leaders, the state aims to use Medicaid expansion to link high-risk HIVnegative people to regular health care, which can be used as a platform for delivering a combination of prevention approaches. For this vision to become a reality, HIV workers will need to play a central role in educating community members, motivating them to access care, and assisting them in navigating a rapidly evolving health care landscape.

"PrEP is definitely a game changer," says Fulton County's McKinley-Beach. "We have to have an educated staff to be able to speak about this tool in an unbiased manner."

The Institute's survey findings confirm that strong HIV science knowledge is likely to play a critical role in uptake of PrEP and other biomedical prevention tools, and high levels of HIV knowledge are closely linked with HIV workers' willingness to promote biomedical prevention tools (Fig. 28). Unfortunately, as the Institute's groundbreaking survey shows, people working in the HIV/ AIDS field have inadequate knowledge of biomedical interventions. Many, the survey found, don't even believe the scientific evidence for the efficacy of these biomedical technologies.

"It would be a shame to have these tools that we've developed through research not be used because we've not invested in the training needed to get us to zero," said McKinley-Beach.

To ensure that the HIV/AIDS workforce can play its optimal role in a rapidly changing environment, changes will be required. "We need to figure out how to restructure the HIV workforce so it can function in this new framework," says Harrington. "It is clear that the HIV workforce has decades of useful experience, but now we need to ensure that medical training is part of their skill set."

Building the HIV science and treatment capacity of the HIV/AIDS workforce isn't something that can be achieved on the fly. Instead, long-term, focused investments are needed to create the kind of HIV/AIDS workforce that can be optimally effective in the new world of HIV prevention.

"We need a long-term educational and professional development plan for the HIV workforce," said McKinley-Beach. "If you just take PrEP as an example, the HIV workforce not only needs to know basic information about PrEP, but also about how to integrate the intervention in HIV counseling and testing and in other components of the prevention continnum. This is not something that can happen in a one-hour training."

## Urgent Action Agenda: Build Strong HIV Science and Treatment Literacy

Experience has proven that the HIV/AIDS workforce is highly knowledgeable—about HIV itself, about the communities they serve, and about effective strategies to reach, engage and serve people living with and affected by HIV. Every advance in the history of HIV/AIDS has been led, supported or shepherded by the HIV/AIDS workforce.

What the U.S. HIV/AIDS workforce survey shows, however, is that many HIV/AIDS workers have yet to be trained or educated about the major scientific developments of recent years that have transformed both the medical management of HIV/AIDS and the prevention of HIV transmission. As experience with countless other diseases demonstrate, the very best biomedical tools in the world will not be effective if they are not well used. To ensure that these tools are effectively mobilized to end the HIV/AIDS epidemic once and for all, a major new national effort is needed to combine the behavioral and operational savvy of the HIV/AIDS workforce with robust knowledge and understanding of HIV science and treatment.

Specifically, the Black AIDS Institute urges immediate action to implement the following priority recommendations: To help end the HIV/AIDS epidemic, a major national initiative is needed to increase HIV science and treatment literacy among the non-medical HIV/AIDS workforce.

A diverse array of trainings and skills-building strategies will be needed to build HIV science and treatment literacy in the workforce. High-intensity trainings, such as year-long, multisession programs that combine extensive classroom instruction with opportunities for practical learning and ongoing mentoring and coaching, will be essential to build strong organizational capacity on HIV science and treatment issues and to instill the knowledge and skills needed by HIV/AIDS workers who will work most closely with science and treatment issues. Mediumintensity trainings include threeday regional trainings and participation in time-limited learning collaboratives that use adult learning techniques to increase knowledge and self-efficacy. Low-intensity trainings include single-day trainings, webinar series and other distance learning methods to build HIV science and treatment literacy.



## Establish a clear and specific set of core competencies.

You never know what you don't know.

Many workers don't know what kinds of information they need to know to be better equipped to respond to an HIV/AIDS world where biomedical interventions are a critical part of the Prevention arsenal. In addition, people working in AIDS service organizations, communitybased organizations, and health departments are going to have to interact with clinical providers on a routine basis. They will need to have different skills to maximize the services they bring to these organizations.

Finally, different roles and responsibilities demand different skill sets in order to be effective. There needs to be a series of consultations with policy makers, clinical providers, members of the HIV/AIDS workforce, HRNs, other experts, and PLWHA to establish a clear, concise and specific set of core competencies that people working in HIV/AIDS must have.

### Establish a nationwide certification program for the HIV/AIDS workforce.

Thirty-four years into the HIV/AIDS epidemic, after the first national assessment of the HIV science and treatment knowledge of the HIV/AIDS workforce, it is clear that we no longer have the luxury of learning as we go. With the tools available to end the HIV/AIDS epidemic, we need to make sure that we have a workforce that can get us to the finish line.

Agreement needs to be reached on the core competencies needed by the HIV/AIDS workforce, and a certification program should be put in place to provide quality control for HIV/AIDS workers.

### Require that HIV/ AIDS workers pursue continuing education on HIV science and treatment issues.

Even with the very best training programs, knowledge often fades or becomes fuzzy over time, underscoring the need to period knowledge reinforcements. Moreover, the evidence base on HIV science and treatment continues to evolve, meaning that workers will need to stay abreast of new developments as they occur.

A mandatory continuing education program for the HIV/AIDS workforce should be put in place and linked to renewal of certification as an HIV/AIDS worker in good standing.



### Dramatically increase the number of People Living with HIV/ AIDS in the HIV/AIDS workforce.

People living with HIV can play an extremely important role in prevention, treatment, patient navigation, policy, and advocacy. As data from the U.S. HIV/AIDS study shows, people living with HIV/AIDS in the workforce demonstrated higher levels of science and treatment knowledge than their HIV negative colleagues. They tended to be more familiar with bio medical interventions and held a higher level of belief in the efficacy of those interventions. Being HIV-positive would tend to raise one's knowledge of the virus through personal experience. People living with HIV/AIDS can serve as peer mentors and peer advocates. Who better to reach out to undiagnosed and newly diagnosed people living with HIV/AIDS than those who have the virus themselves?



## Appendix

### 34 National Fact Sheet

### 38 State Fact Sheets

Alabama Arizona California **District of Columbia** Florida Georgia Illinois Louisiana Maryland **Michigan** Missouri New York North Carolina Ohio Pennsylvania Texas

### 102 **State Comparisons** Overall Knowledge Scores

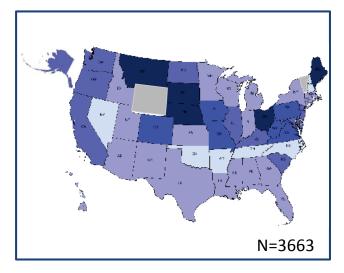
Individual Questions: Basic Knowledge & Terminology Treatment Clinical or Biomedical Interventions Familiary with Biomedical Interventions Efficacy of Biomedical Interventions

### 132 DMA Fact Sheets

Atlanta Austin Baltimore Birmingham California Bay Area Chicago Dallas-Fort Worth Houston Los Angeles Miami-Ft. Lauderdale New Orleans New York Philadelphia Washington, D.C.

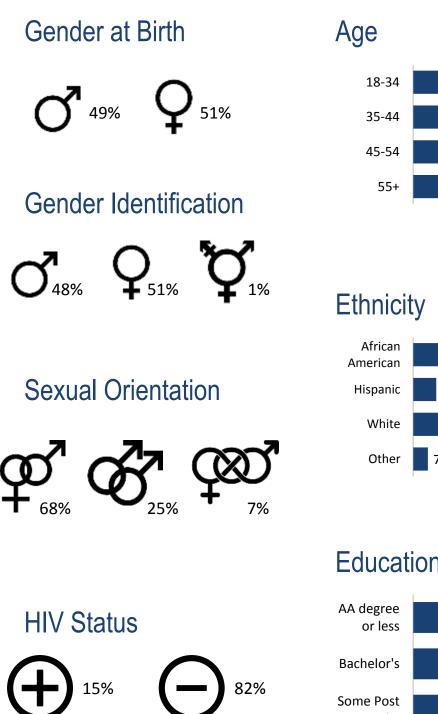
## HIV Knowledge, Attitudes and Beliefs: HIV Workforce Study

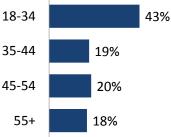
National Fact Sheet

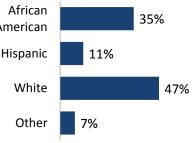




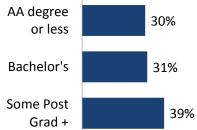
## **Demographic Profile: National**





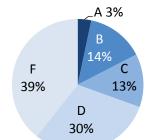


## Education

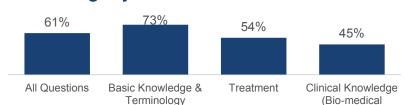


## **Knowledge Scores: National**

**Grade Distribution** 



Average % Correct by Question Category

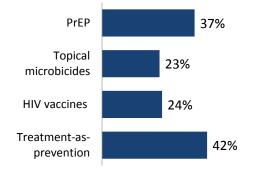


Ethnicity Avg. Score 69% Af Am (n=1272) 57% 51% 41% Hispanic (n=404) 54% 64% 50% 38% White (n=1739) 67% 80% 59% 49% Other (n=248) 55% 63% 50% 44% Role Prev./Outreach (n=855) 60% 74% 52% 44% Director/Manager (565) 68% 78% 62% 54% Administrator (n=288) 68% 77% 61% 56% Case Mgmt/SW (n=764) 60% 75% 53% 39% Support Services (n=627) 53% 64% 48% 38% All Other (n=564) 74% 62% 55% 46%

## Attitudes

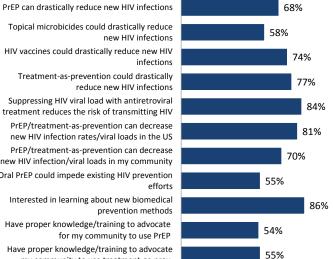
### Familiarity with Bio-Medical Interventions

Rated "Extremely Familiar" or "Very Familiar"



## Belief in Bio-Medical Interventions

Rated "Strongly Agree" or "Somewhat Agree"



interventions)

Topical microbicides could drastically reduce new HIV infections HIV vaccines could drastically reduce new HIV infections

> Treatment-as-prevention could drastically reduce new HIV infections

Suppressing HIV viral load with antiretroviral treatment reduces the risk of transmitting HIV PrEP/treatment-as-prevention can decrease new HIV infection rates/viral loads in the US PrEP/treatment-as-prevention can decrease

new HIV infection/viral loads in my community Oral PrEP could impede existing HIV prevention

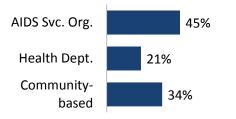
Interested in learning about new biomedical prevention methods

Have proper knowledge/training to advocate for my community to use PrEP

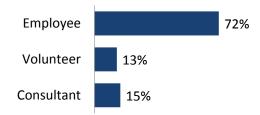
Have proper knowledge/training to advocate my community to use treatment-as-prev.

# Work Profile: National

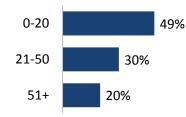
# Type of Organization



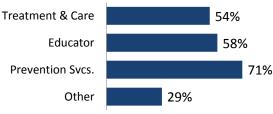
# Role in Organization



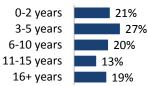
## Size of Organization



## **Primary Services**



# Tenure in HIV Field



## Tenure in Role

0-2 years	40%
3-5 years	28%
6-10 years	17%
11-15 years	9%
16+ years	7%

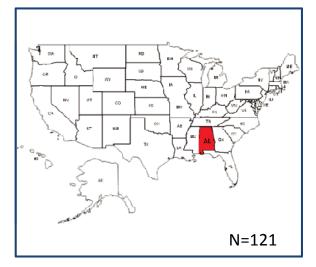
# Type of Role

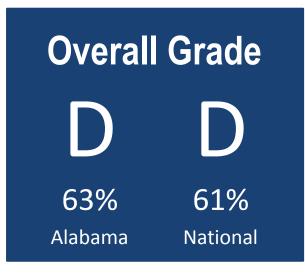
Prevention & Outreach Director/Manager Administrator Case Mgmt/ Social Work Supportive Services Other

23%
15%
8%
21%
17%
15%

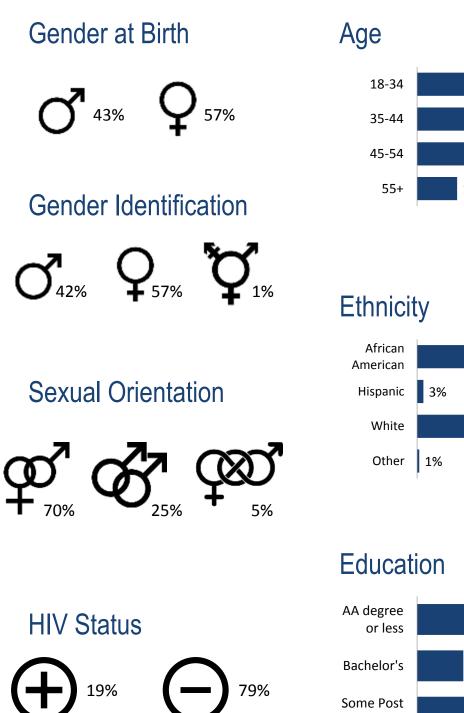
Af Am/Black	51%
People with HIV/AIDS	38%
MSM	37%
Latino/Hispanic	27%
	Z170
Caucasian/White	26%
Those high risk for HIV	25%
Substance users	13%
Women	11%
Youth	10%
Native American	6%
Transgender	5%
Asian/Pacific Islander	4%
Faith-based comm.	4%
Incarcerated pop.	4%
Heterosexual men	3%
Other	3%

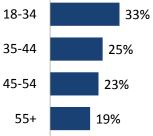
# Alabama Fact Sheet

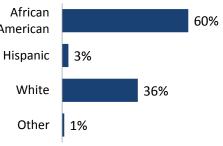


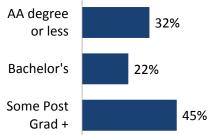


# **Demographic Profile: Alabama**



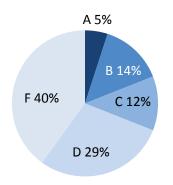




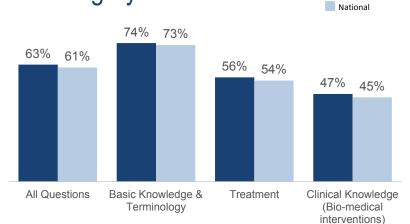


# Knowledge Scores: Alabama

### Grade Distribution



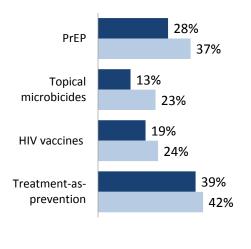
### Average % Correct by Question Category



# Attitudes

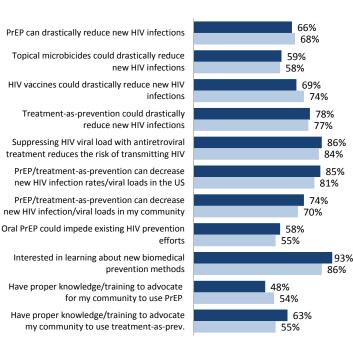
### Familiarity with Bio-Medical Interventions

Rated "Extremely Familiar" or "Very Familiar"



#### Belief in Bio-Medical Interventions

Rated "Strongly Agree" or "Somewhat Agree"

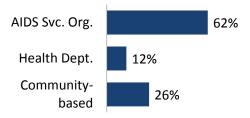


Alabama

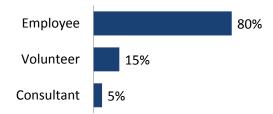
National

# Work Profile: Alabama

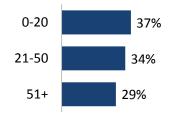
# Type of Organization



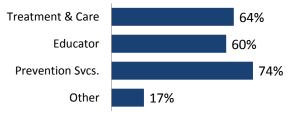
# Role in Organization



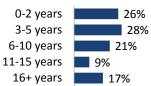
## Size of Organization



## **Primary Services**



# Tenure in HIV Field



## Tenure in Role

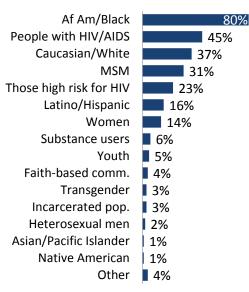
0-2 years	
3-5 years	26%
6-10 years	12%
11-15 years	10%
16+ years	7%

# Type of Role

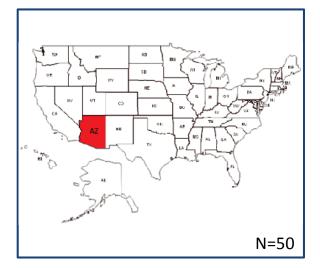
Prevention & Outreach Director/Manager Administrator Case Mgmt/ Social Work Supportive Services Other

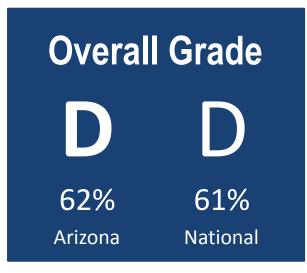
27%
15%
10%
12%
17%
20%

44%

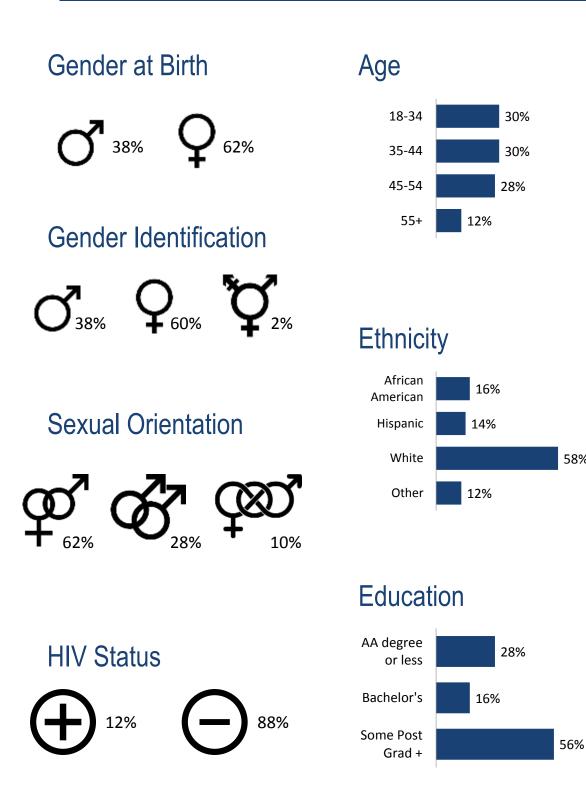


# **Arizona Fact Sheet**





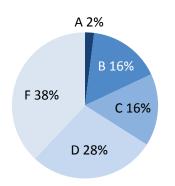
# **Demographic Profile: Arizona**



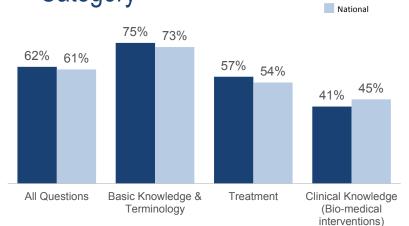
58%

# Knowledge Scores: Arizona

# Grade Distribution



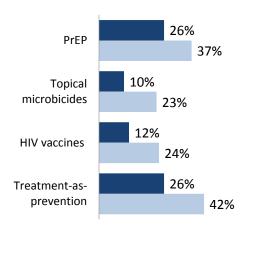
### Average % Correct by Question Category



# Attitudes

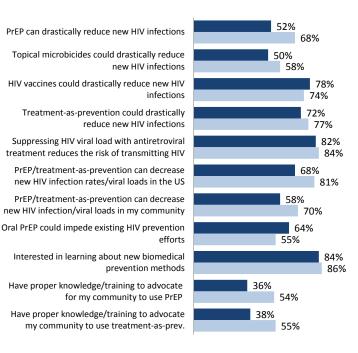
### Familiarity with Bio-Medical Interventions

Rated "Extremely Familiar" or "Very Familiar"



#### Belief in Bio-Medical Interventions

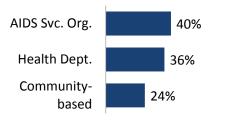
Rated "Strongly Agree" or "Somewhat Agree"



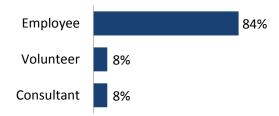
Arizona National

# Work Profile: Arizona

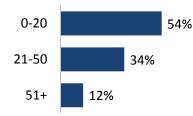
## Type of Organization



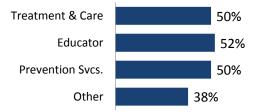
### **Role in Organization**



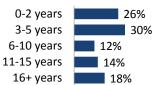
## Size of Organization



## **Primary Services**



## **Tenure in HIV Field**



### Tenure in Role

0-2 years			48%
3-5 years		30%	
6-10 years	10%		
11-15 years	6%		
16+ years	6%		

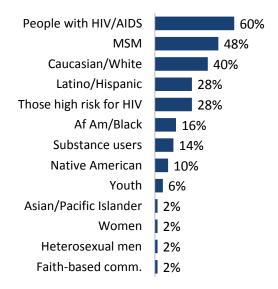
# Type of Role

Prevention & Outreach	16%
Director/Manager	20%
Administrator	18%
Case Mgmt/ Social Work	12%
Supportive Services	14%
Other	20%

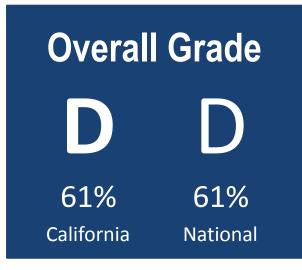
# **Communities Served**

20% 18%

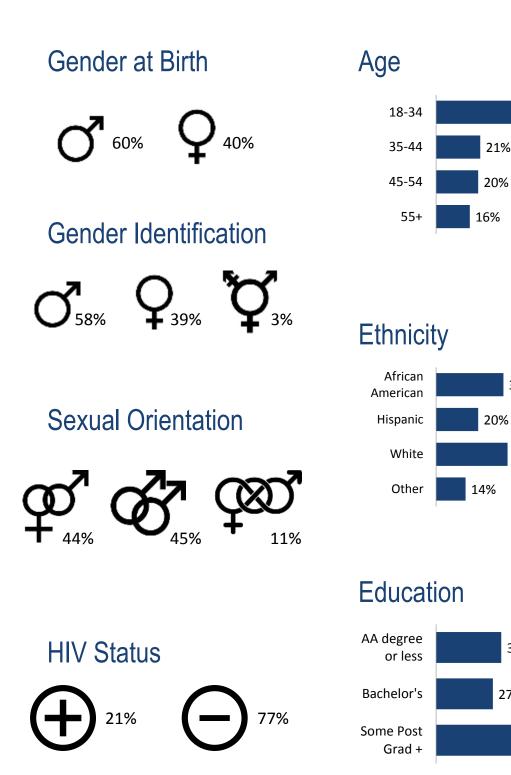
20%







# Demographic Profile: California



WHEN WE KNOW BETTER, WE DO BETTER

41%

43%

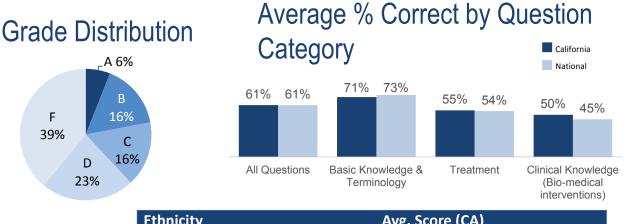
32%

34%

31%

27%

# Knowledge Scores: California

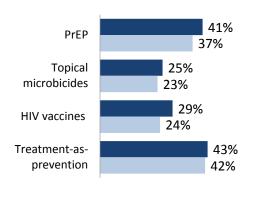


Ethnicity		Avg. So	core (CA)	
Af Am (n=101)	56%	65%	49%	47%
Hispanic (n=63)	58%	69%	54%	42%
White (n=108)	67%	76%	62%	56%
Role				
Prev./Outreach (n=64)	60%	70%	53%	47%
Director/Manager (51)	73%	81%	67%	63%
Case Mgmt/SW (n=52)	56%	64%	52%	43%
Support Services (n=61)	53%	60%	50%	43%
All Others (n=89)	65%	77%	55%	54%

# Attitudes

### Familiarity with Bio-Medical Interventions

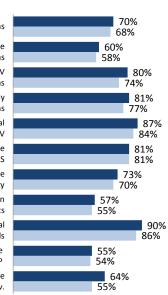
Rated "Extremely Familiar" or "Very Familiar"



#### Belief in Bio-Medical Interventions

Rated "Strongly Agree" or "Somewhat Agree"

- PrEP can drastically reduce new HIV infections Topical microbicides could drastically reduce
- new HIV infections HIV vaccines could drastically reduce new HIV
- infections Treatment-as-prevention could drastically
- reduce new HIV infections Suppressing HIV viral load with antiretroviral
- treatment reduces the risk of transmitting HIV PrEP/treatment-as-prevention can decrease
- new HIV infection rates/viral loads in the US PrEP/treatment-as-prevention can decrease
- new HIV infection/viral loads in my community Oral PrEP could impede existing HIV prevention
- efforts Interested in learning about new biomedical
- prevention methods Have proper knowledge/training to advocate
- for my community to use PrEP Have proper knowledge/training to advocate
- my community to use treatment-as-prev.

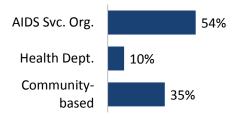


California

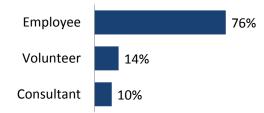
National

# Work Profile: California

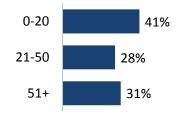
# Type of Organization



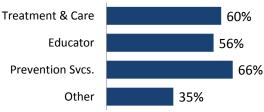
### Role in Organization



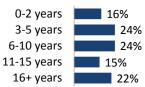
## Size of Organization



### **Primary Services**



# Tenure in HIV Field



### Tenure in Role

0-2 years	37%
3-5 years	30%
6-10 years	23%
11-15 years	6%
16+ years	4%

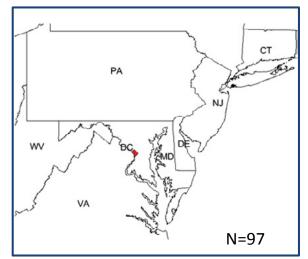
# Type of Role

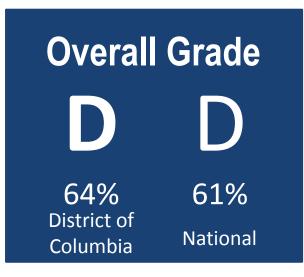
Prevention & Outreach Director/Manager Administrator Case Mgmt/ Social Work Supportive Services Other

h	20%
r	16%
r	7%
k	16%
S	19%
r	21%

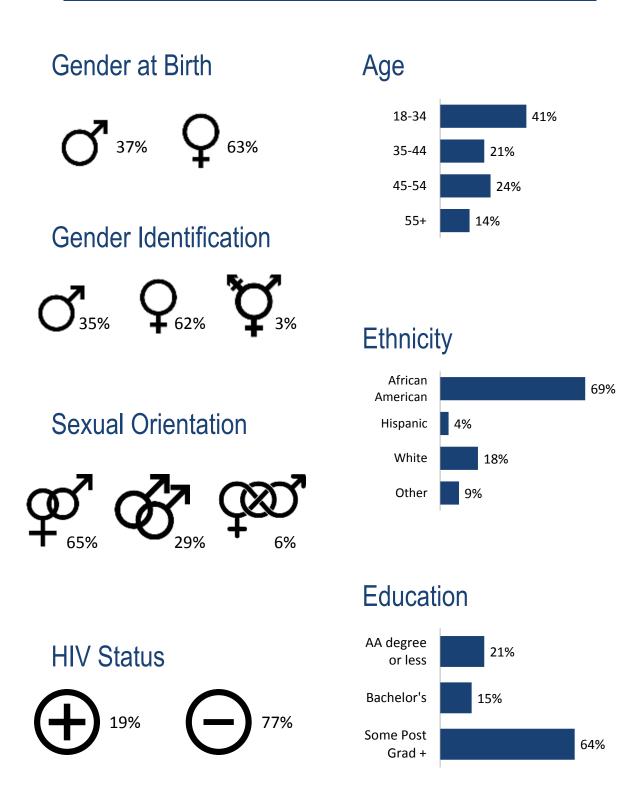
MSM	43%
Af Am/Black	40%
Latino/Hispanic	39%
People with HIV/AIDS	39%
Those high risk for HIV	22%
Caucasian/White	18%
Substance users	18%
Youth	12%
Transgender	<b>1</b> 0%
Women	9%
Asian/Pacific Islander	8%
Native American	7%
Incarcerated pop.	4%
Faith-based comm.	3%
Heterosexual men	2%
Other	5%

# District of Columbia Fact Sheet



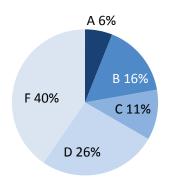


# Demographic Profile: DC

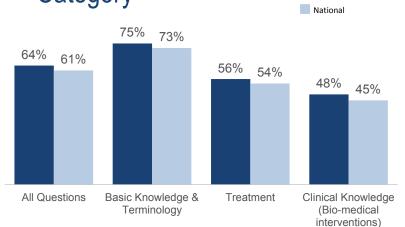


# Knowledge Scores: DC

## Grade Distribution



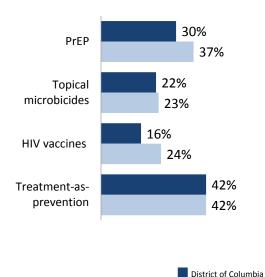
### Average % Correct by Question Category



# Attitudes

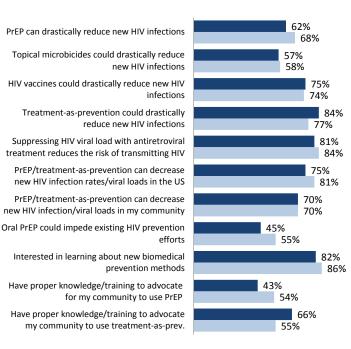
### Familiarity with Bio-Medical Interventions

Rated "Extremely Familiar" or "Very Familiar"



#### Belief in Bio-Medical Interventions

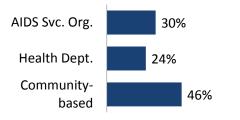
Rated "Strongly Agree" or "Somewhat Agree"



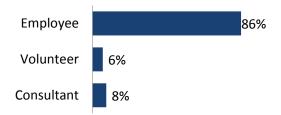
National

# Work Profile: DC

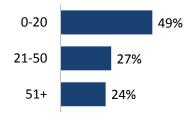
## Type of Organization



### **Role in Organization**



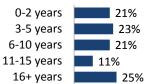
## Size of Organization



## **Primary Services**



# **Tenure in HIV Field**



## Tenure in Role

0-2 years	
3-5 years	20
6-10 years	13%
11-15 years	10%
16+ years	9%

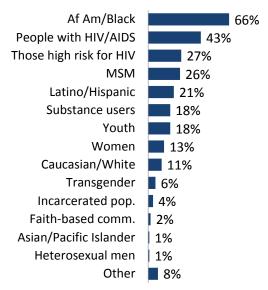
# Type of Role

Prevention & Outreach Director/Manager Administrator Case Mgmt/ Social Work **Supportive Services** Other

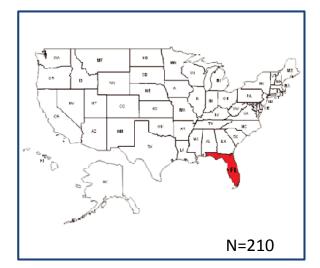
2	1%
	27%
6%	
8%	
10%	6
	28%

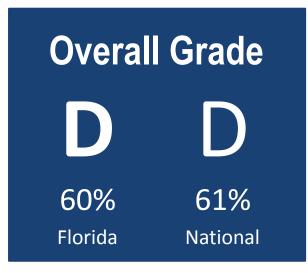
47%

20%

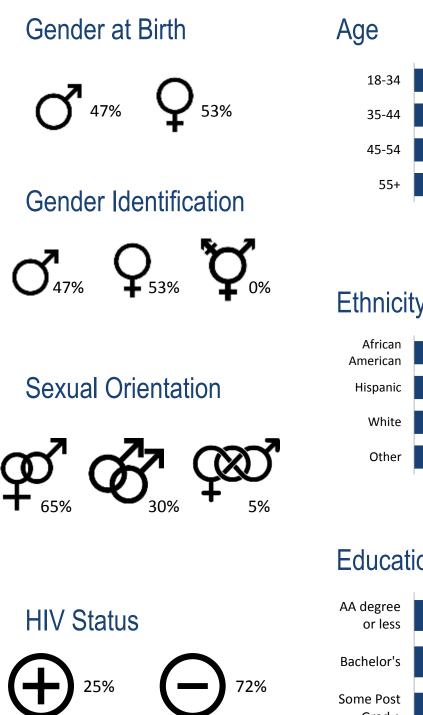


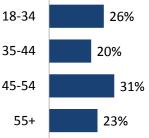
# Florida Fact Sheet



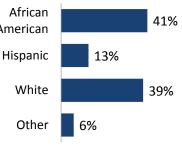


# **Demographic Profile: Florida**

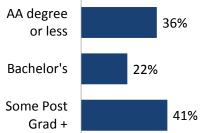




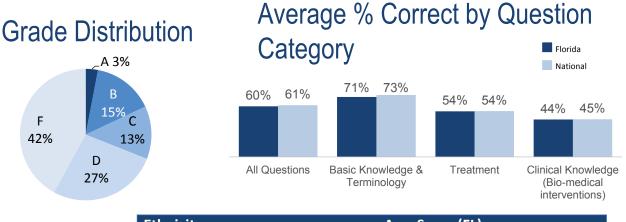
# Ethnicity



# Education



# Knowledge Scores: Florida

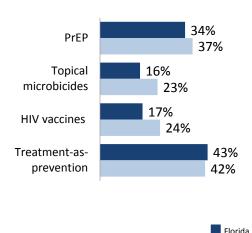


Ethnicity	Avg. Score (FL)			
Af Am (n=87)	56%	67%	50%	39%
White (n=82)	66%	76%	59%	52%
Role				
Prev./Outreach (n=54)	55%	68%	49%	37%
Director/Manager (43)	70%	79%	64%	58%
All Others (n=113)	58%	69%	52%	43%

# Attitudes

### Familiarity with Bio-Medical Interventions

Rated "Extremely Familiar" or "Very Familiar"



#### Belief in Bio-Medical Interventions

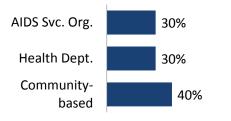
Rated "Strongly Agree" or "Somewhat Agree"

68% PrEP can drastically reduce new HIV infections 68% Topical microbicides could drastically reduce 53% new HIV infections 58% HIV vaccines could drastically reduce new HIV 71% 74% infections Treatment-as-prevention could drastically 76% reduce new HIV infections 77% Suppressing HIV viral load with antiretroviral 83% treatment reduces the risk of transmitting HIV 84% PrEP/treatment-as-prevention can decrease 77% new HIV infection rates/viral loads in the US 81% PrEP/treatment-as-prevention can decrease 74% new HIV infection/viral loads in my community 70% Oral PrEP could impede existing HIV prevention 61% efforts 55% Interested in learning about new biomedical 84% prevention methods 86% Have proper knowledge/training to advocate 44% for my community to use PrEP 54% Have proper knowledge/training to advocate 53% my community to use treatment-as-prev. 55%

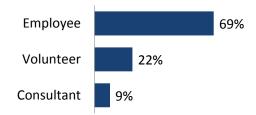
National

# Work Profile: Florida

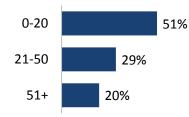
# Type of Organization



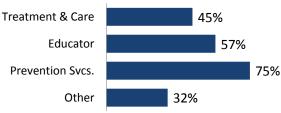
## Role in Organization



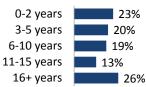
## Size of Organization



## **Primary Services**



# Tenure in HIV Field

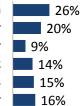


## Tenure in Role

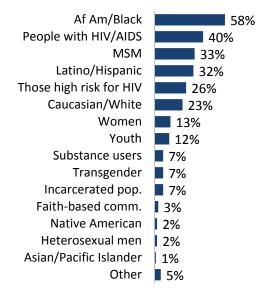
0-2 years	
3-5 years	22%
6-10 years	17%
11-15 years	12%
16+ years	8%

# Type of Role

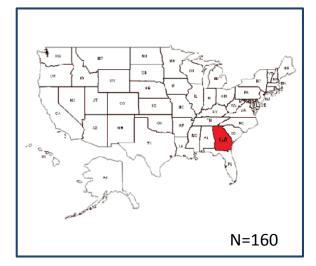
Prevention & Outreach Director/Manager Administrator Case Mgmt/ Social Work Supportive Services Other



41%

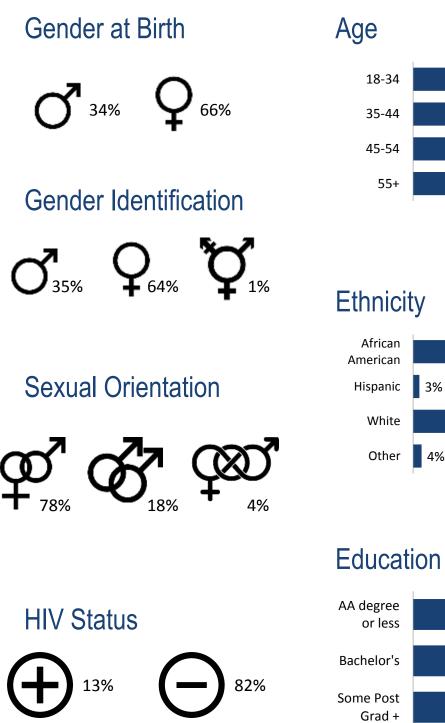


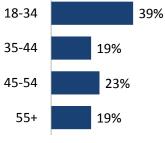
# **Georgia Fact Sheet**

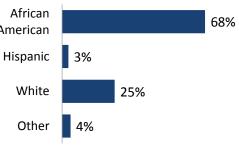




# Demographic Profile: Georgia







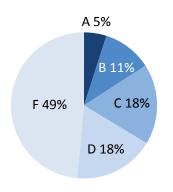
27%

53%

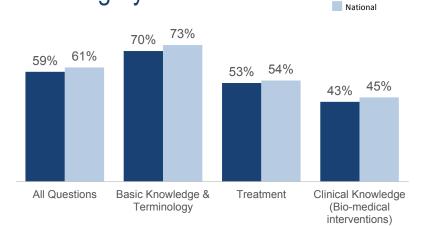
21%

# Knowledge Scores: Georgia

### Grade Distribution



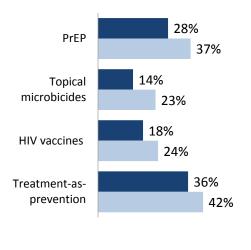
# Average % Correct by Question Category



# Attitudes

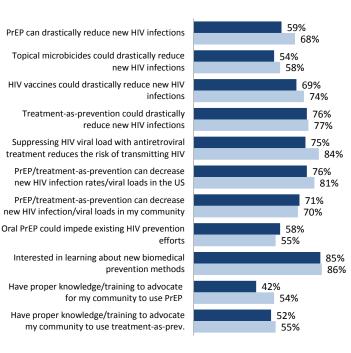
### Familiarity with Bio-Medical Interventions

Rated "Extremely Familiar" or "Very Familiar"



#### Belief in Bio-Medical Interventions

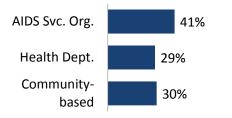
Rated "Strongly Agree" or "Somewhat Agree"



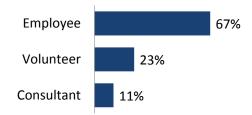
Georgia National

# Work Profile: Georgia

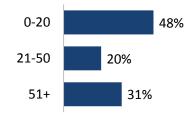
### Type of Organization



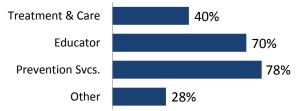
### Role in Organization



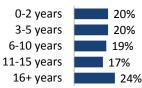
## Size of Organization



### **Primary Services**



# **Tenure in HIV Field**

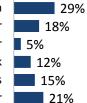


### Tenure in Role

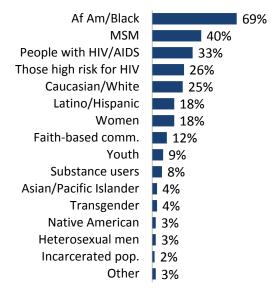
0-2 years	3
3-5 years	27%
6-10 years	14%
11-15 years	11%
16+ years	9%

# Type of Role

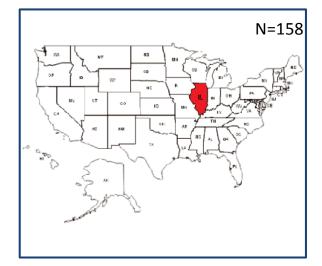
Prevention & Outreach Director/Manager Administrator Case Mgmt/ Social Work Supportive Services Other

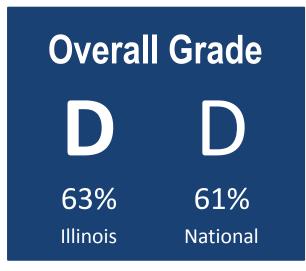


39%

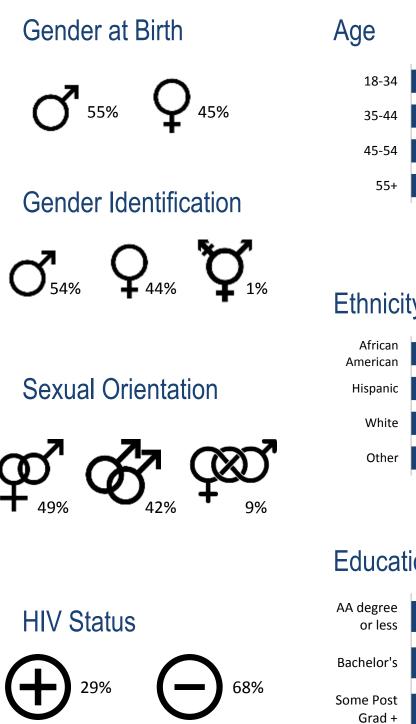


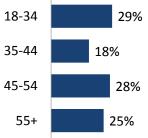
# **Illinois Fact Sheet**



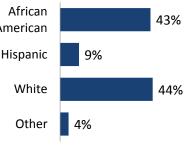


# **Demographic Profile: Illinois**

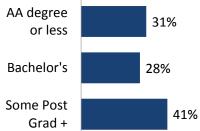




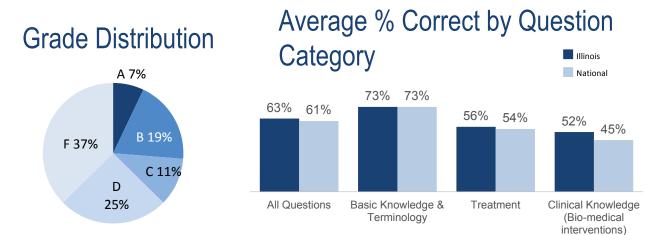
# Ethnicity



# Education



# Knowledge Scores: Illinois

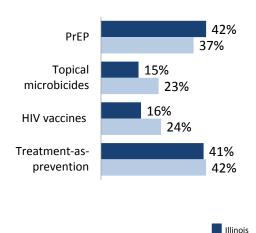


Ethnicity		Avg. S	core (IL)	
Af Am (n=68)	57%	67%	50%	44%
White (n=69)	71%	82%	63%	60%

# Attitudes

### Familiarity with Bio-Medical Interventions

Rated "Extremely Familiar" or "Very Familiar"



#### **Belief in Bio-Medical Interventions**

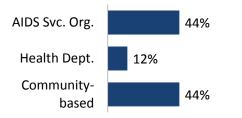
Rated "Strongly Agree" or "Somewhat Agree"

77% PrEP can drastically reduce new HIV infections 68% Topical microbicides could drastically reduce 59% new HIV infections 58% HIV vaccines could drastically reduce new HIV 77% 74% infections Treatment-as-prevention could drastically 78% reduce new HIV infections 77% Suppressing HIV viral load with antiretroviral 85% treatment reduces the risk of transmitting HIV 84% PrEP/treatment-as-prevention can decrease 85% new HIV infection rates/viral loads in the US 81% PrEP/treatment-as-prevention can decrease 78% new HIV infection/viral loads in my community 70% Oral PrEP could impede existing HIV prevention 43% efforts 55% Interested in learning about new biomedical 85% prevention methods 86% Have proper knowledge/training to advocate 60% for my community to use PrEP 54% Have proper knowledge/training to advocate 61% my community to use treatment-as-prev. 55%

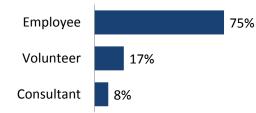
National

# Work Profile: Illinois

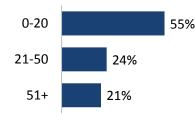
# Type of Organization



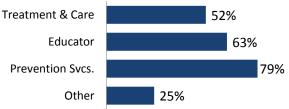
### Role in Organization



## Size of Organization



### **Primary Services**



# Tenure in HIV Field

0-2 years	20%
3-5 years	19%
6-10 years	23%
11-15 years	18%
16+ years	20%

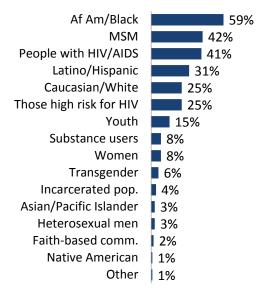
### Tenure in Role

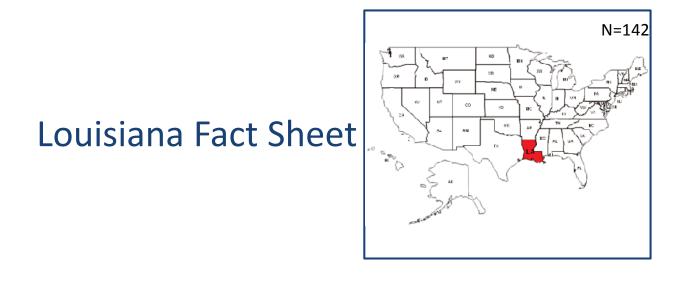
0-2 years	37%
3-5 years	23%
6-10 years	25%
11-15 years	8%
16+ years	6%

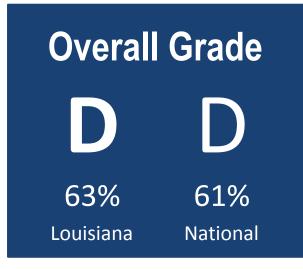
# Type of Role

Prevention & Outreach Director/Manager Administrator Case Mgmt/ Social Work Supportive Services Other

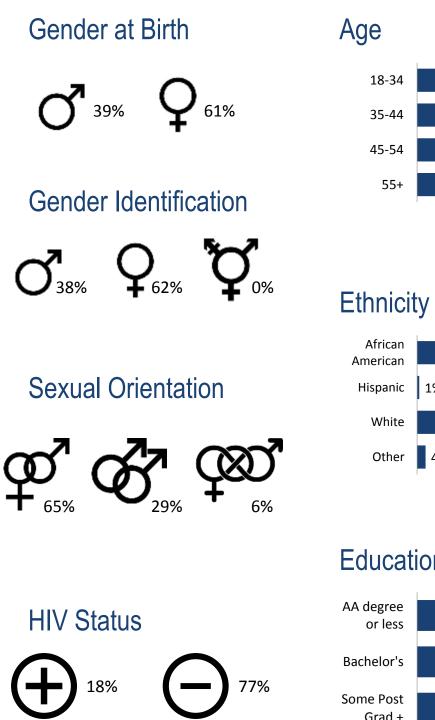
25%
13%
11%
16%
20%
16%

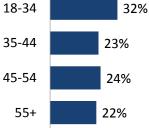


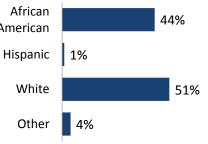




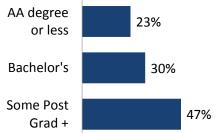
# Demographic Profile: Louisiana



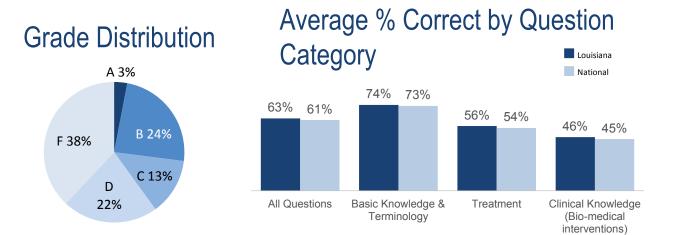




# Education



# Knowledge Scores: Louisiana

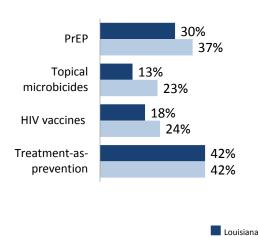


Ethnicity	Avg. Score (LA)			
Af Am (n=62)	55%	67%	49%	36%
White (n=73)	68%	80%	61%	53%

# Attitudes

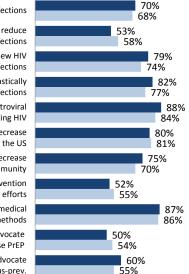
### Familiarity with Bio-Medical Interventions

Rated "Extremely Familiar" or "Very Familiar"



#### **Belief in Bio-Medical Interventions**

Rated "Strongly Agree" or "Somewhat Agree"



PrEP can drastically reduce new HIV infections Topical microbicides could drastically reduce

new HIV infections

HIV vaccines could drastically reduce new HIV infections

Treatment-as-prevention could drastically reduce new HIV infections

Suppressing HIV viral load with antiretroviral treatment reduces the risk of transmitting HIV

PrEP/treatment-as-prevention can decrease new HIV infection rates/viral loads in the US

PrEP/treatment-as-prevention can decrease new HIV infection/viral loads in my community Oral PrEP could impede existing HIV prevention

Interested in learning about new biomedical prevention methods

Have proper knowledge/training to advocate

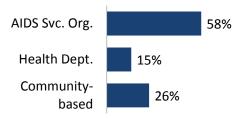
for my community to use PrEP Have proper knowledge/training to advocate

my community to use treatment-as-prev.

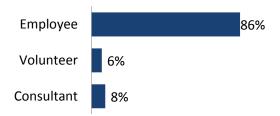
National

# Work Profile: Louisiana

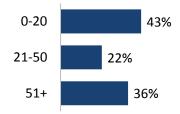
# Type of Organization



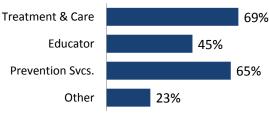
## Role in Organization



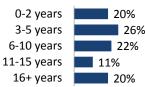
## Size of Organization



# **Primary Services**



# Tenure in HIV Field

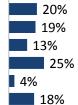


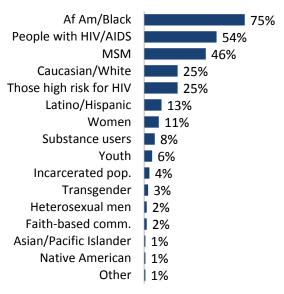
## Tenure in Role

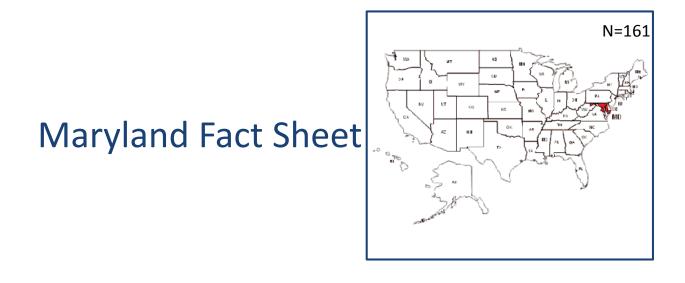
0-2 years	40%
3-5 years	23%
6-10 years	16%
11-15 years	11%
16+ years	9%

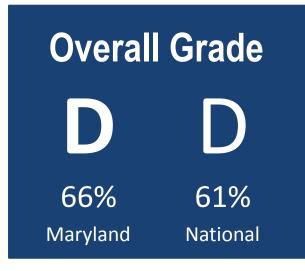
# Type of Role

Prevention & Outreach Director/Manager Administrator Case Mgmt/ Social Work Supportive Services Other

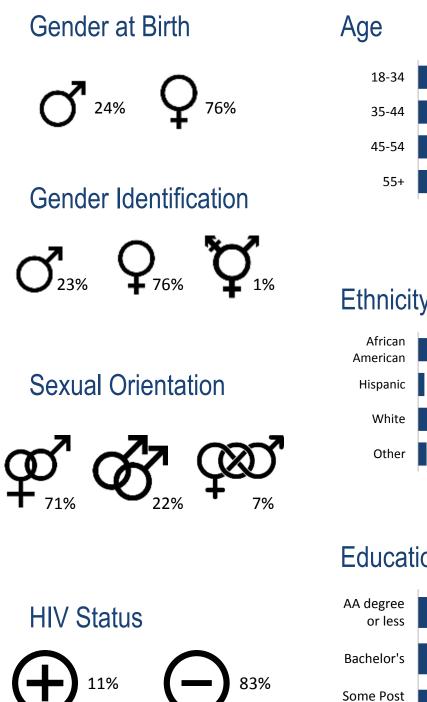


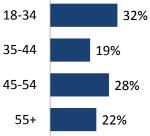




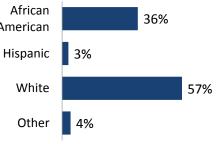


# Demographic Profile: Maryland

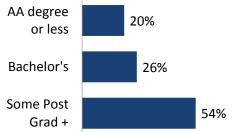




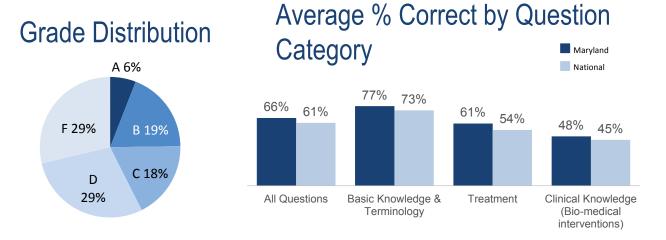
# Ethnicity



# Education



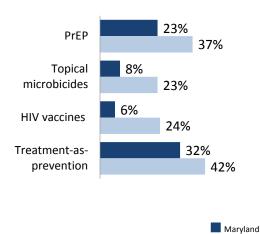
# Knowledge Scores: Maryland



Ethnicity	Avg. Score (MD)			
Af Am (n=58)	64%	77%	58%	43%
White (n=92)	69%	80%	63%	52%

# Attitudes

#### Familiarity with Bio-Medical Interventions Rated "Extremely Familiar" or "Very Familiar"



#### Belief in Bio-Medical Interventions

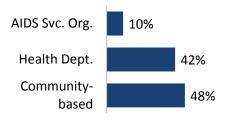
Rated "Strongly Agree" or "Somewhat Agree"

75% PrEP can drastically reduce new HIV infections 68% Topical microbicides could drastically reduce 57% new HIV infections 58% HIV vaccines could drastically reduce new HIV 74% 74% infections Treatment-as-prevention could drastically 79% reduce new HIV infections 77% Suppressing HIV viral load with antiretroviral 89% treatment reduces the risk of transmitting HIV 84% PrEP/treatment-as-prevention can decrease 83% new HIV infection rates/viral loads in the US 81% PrEP/treatment-as-prevention can decrease 78% new HIV infection/viral loads in my community 70% Oral PrEP could impede existing HIV prevention 47% efforts 55% Interested in learning about new biomedical 84% prevention methods 86% Have proper knowledge/training to advocate 37% for my community to use PrEP 54% Have proper knowledge/training to advocate 55% my community to use treatment-as-prev. 55%

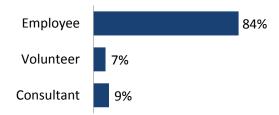
National

# Work Profile: Maryland

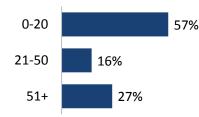
### Type of Organization



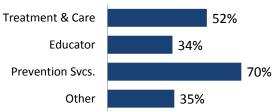
#### Role in Organization



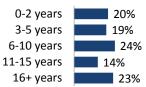
### Size of Organization



#### **Primary Services**



### Tenure in HIV Field

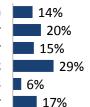


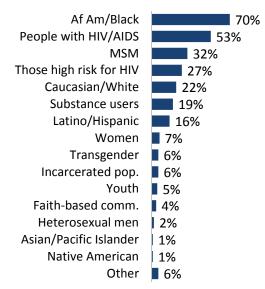
#### Tenure in Role

0-2 years	38%
3-5 years	25%
6-10 years	20%
11-15 years	9%
16+ years	8%

### Type of Role

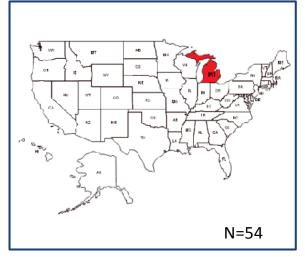
Prevention & Outreach Director/Manager Administrator Case Mgmt/ Social Work Supportive Services Other

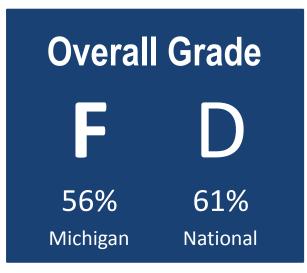




# HIV Knowledge, Attitudes and Beliefs: HIV Workforce Study

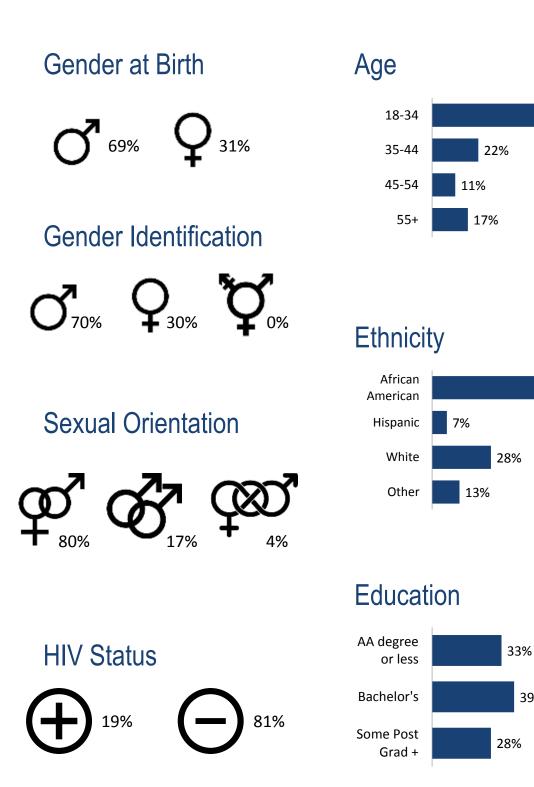
# Michigan Fact Sheet





74 WHEN WE KNOW BETTER, WE DO BETTER

## Demographic Profile: Michigan



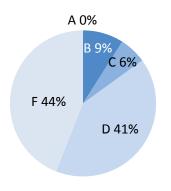
39%

50%

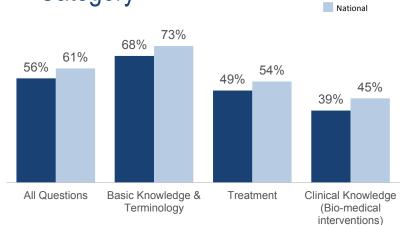
52%

## Knowledge Scores: Michigan

### Grade Distribution



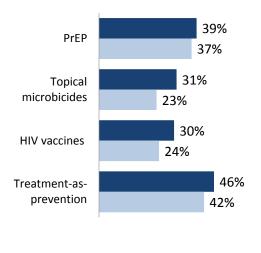
### Average % Correct by Question Category



### Attitudes

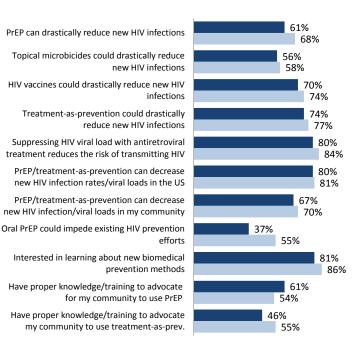
#### Familiarity with Bio-Medical Interventions

Rated "Extremely Familiar" or "Very Familiar"



#### Belief in Bio-Medical Interventions

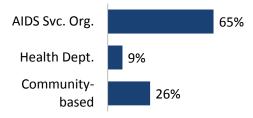
Rated "Strongly Agree" or "Somewhat Agree"



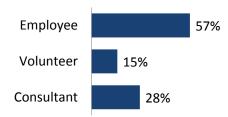
Michigan National

# Work Profile: Michigan

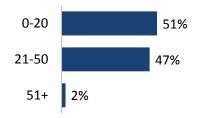
### Type of Organization



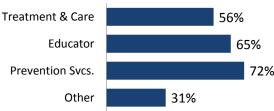
#### Role in Organization



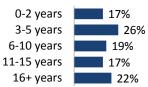
### Size of Organization



### **Primary Services**



### Tenure in HIV Field

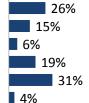


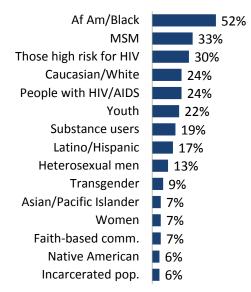
### Tenure in Role

0-2 years	35%
3-5 years	30%
6-10 years	15%
11-15 years	9%
16+ years	11%

### Type of Role

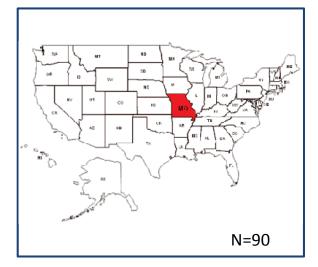
Prevention & Outreach Director/Manager Administrator Case Mgmt/ Social Work Supportive Services Other

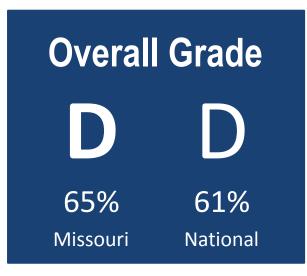




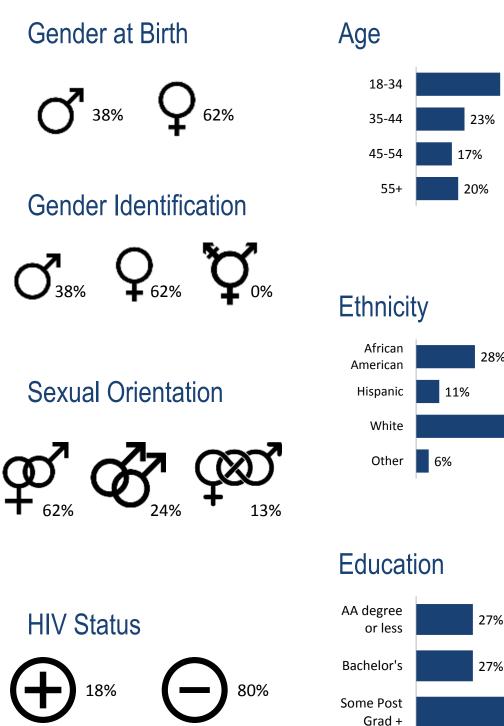
# HIV Knowledge, Attitudes and Beliefs: HIV Workforce Study

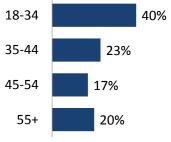
### Missouri Fact Sheet

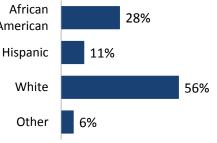




### Demographic Profile: Missouri





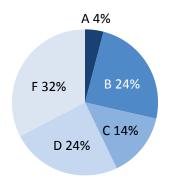


WHEN WE KNOW BETTER, WE DO BETTER 79

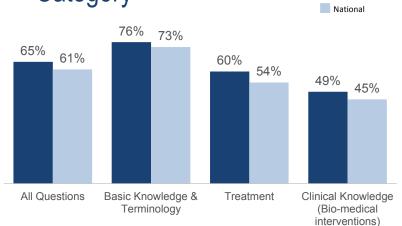
47%

### Knowledge Scores: Missouri

### Grade Distribution



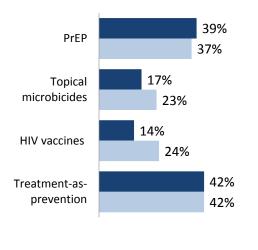
### Average % Correct by Question Category



### Attitudes

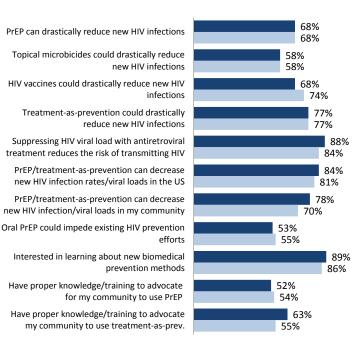
#### Familiarity with Bio-Medical Interventions

Rated "Extremely Familiar" or "Very Familiar"



#### Belief in Bio-Medical Interventions

Rated "Strongly Agree" or "Somewhat Agree"

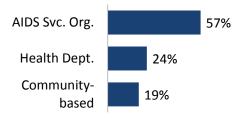


Missouri

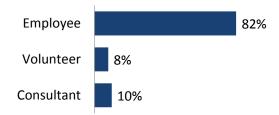
National

# Work Profile: Missouri

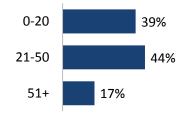
### Type of Organization



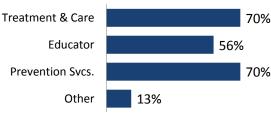
#### **Role in Organization**



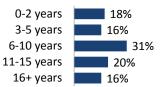
### Size of Organization



### **Primary Services**



### Tenure in HIV Field

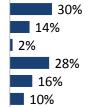


### Tenure in Role

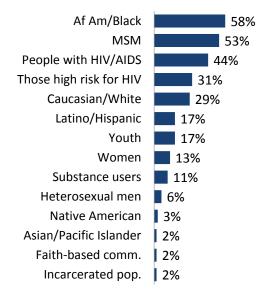
0-2 years	36
3-5 years	30%
6-10 years	23%
11-15 years	6%
16+ years	6%

### Type of Role

Prevention & Outreach Director/Manager Administrator Case Mgmt/ Social Work **Supportive Services** Other

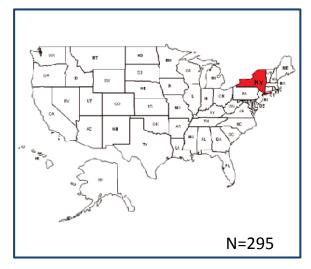


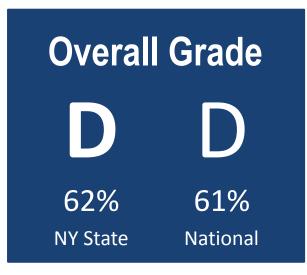
36%



# HIV Knowledge, Attitudes and Beliefs: HIV Workforce Study

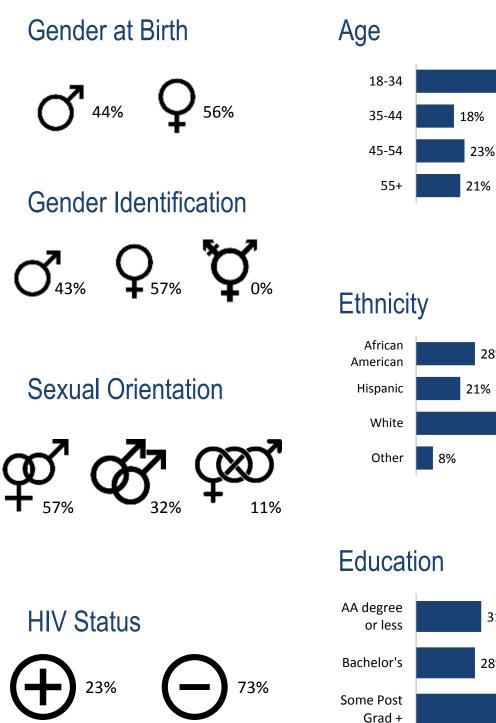
NY State Fact Sheet

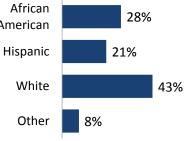




82 WHEN WE KNOW BETTER, WE DO BETTER

## **Demographic Profile: NY State**





38%

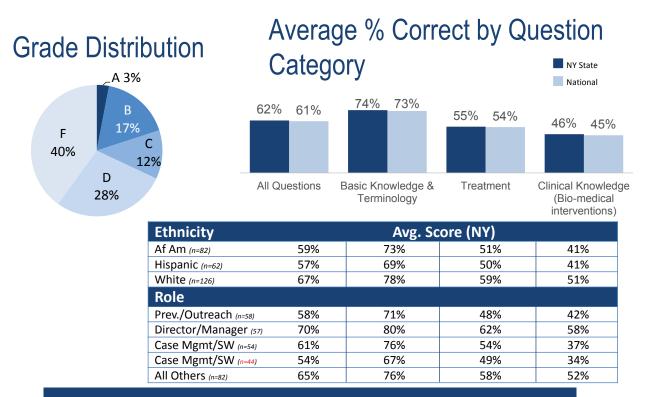
### WHEN WE KNOW BETTER, WE DO BETTER

31%

28%

41%

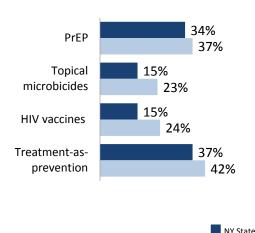
### Knowledge Scores: NY State



### Attitudes

#### Familiarity with Bio-Medical Interventions

Rated "Extremely Familiar" or "Very Familiar"



#### Belief in Bio-Medical Interventions

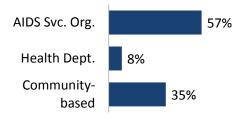
Rated "Strongly Agree" or "Somewhat Agree"

73% PrEP can drastically reduce new HIV infections 68% Topical microbicides could drastically reduce 54% new HIV infections 58% HIV vaccines could drastically reduce new HIV 77% 74% infections Treatment-as-prevention could drastically 76% reduce new HIV infections 77% Suppressing HIV viral load with antiretroviral 82% treatment reduces the risk of transmitting HIV 84% PrEP/treatment-as-prevention can decrease 84% new HIV infection rates/viral loads in the US 81% PrEP/treatment-as-prevention can decrease 74% new HIV infection/viral loads in my community 70% Oral PrEP could impede existing HIV prevention 54% efforts 55% Interested in learning about new biomedical 85% prevention methods 86% Have proper knowledge/training to advocate 54% for my community to use PrEP 54% Have proper knowledge/training to advocate 62% my community to use treatment-as-prev. 55%

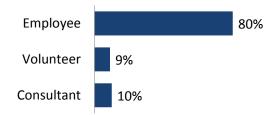
National

# Work Profile: NY State

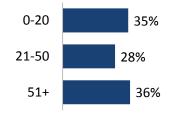
### Type of Organization



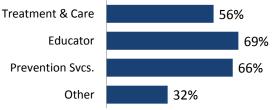
### Role in Organization



### Size of Organization



#### **Primary Services**



#### **Tenure in HIV Field**

0-2 years	22%
3-5 years	21%
6-10 years	21%
11-15 years	14%
16+ years	22%

#### **Tenure** in Role

0-2 years	
3-5 years	23%
6-10 years	19%
11-15 years	10%
16+ years	5%

42%

20%

19%

18%

15%

19%

8%

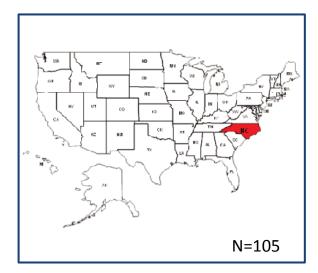
### Type of Role

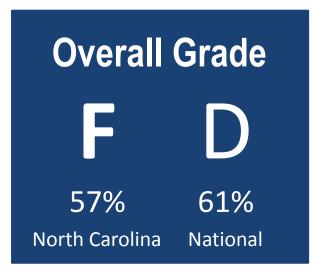
Prevention & Outreach Director/Manager Administrator Case Mgmt/ Social Work **Supportive Services** Other

People with HIV/AIDS	48%
1 /	40%
Af Am/Black	46%
Latino/Hispanic	40%
MSM	36%
Those high risk for HIV	25%
Substance users	21%
Caucasian/White	16%
Women	10%
Youth	8%
Transgender	5%
Asian/Pacific Islander	3%
Native American	3%
Heterosexual men	3%
Faith-based comm.	3%
Incarcerated pop.	3%
Other	3%

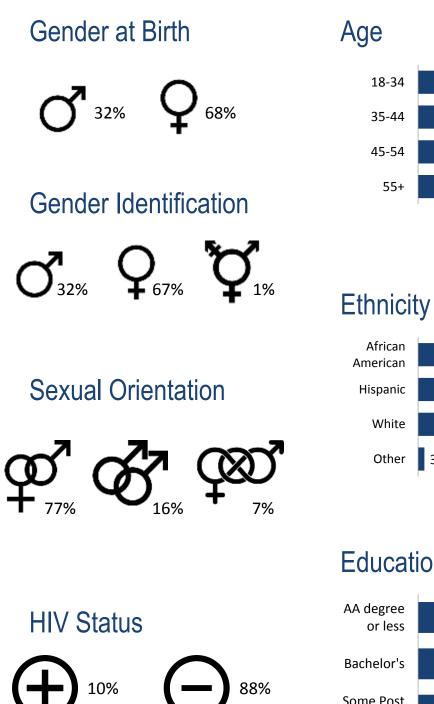
# HIV Knowledge, Attitudes and Beliefs: HIV Workforce Study

North Carolina Fact Sheet





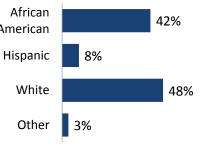
# Demographic Profile: North Carolina



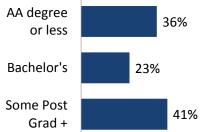


32%

24%

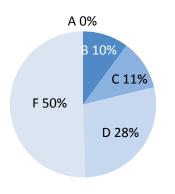


### Education

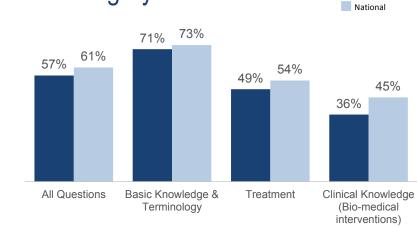


### Knowledge Scores: North Carolina

### **Grade Distribution**



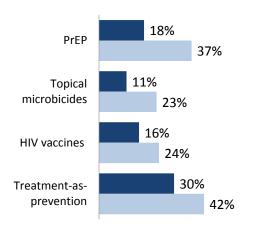
#### Average % Correct by Question Category North Carolina



### Attitudes

#### Familiarity with Bio-**Medical Interventions**

Rated "Extremely Familiar" or "Very Familiar"



#### **Belief in Bio-Medical Interventions**

(Clinical/Biomedical)

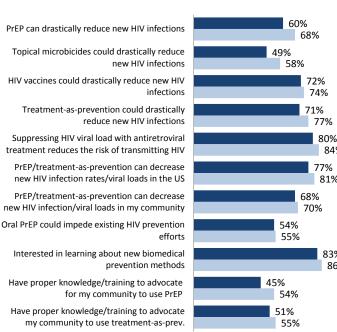
84%

81%

83%

86%

Rated "Strongly Agree" or "Somewhat Agree"

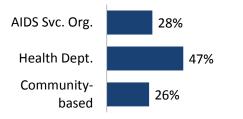


North Carolina

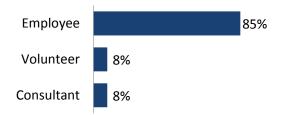
National

## Work Profile: North Carolina

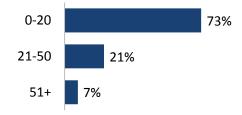
### Type of Organization



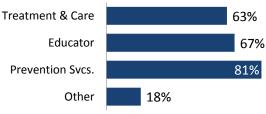
#### Role in Organization



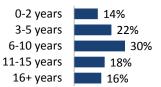
#### Size of Organization



### **Primary Services**



### Tenure in HIV Field



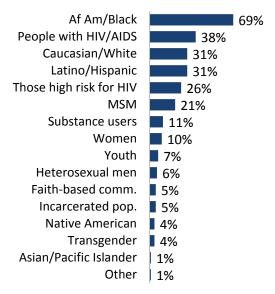
#### Tenure in Role

0-2 years	26%
3-5 years	23%
6-10 years	30%
11-15 years	15%
16+ years	6%

### Type of Role

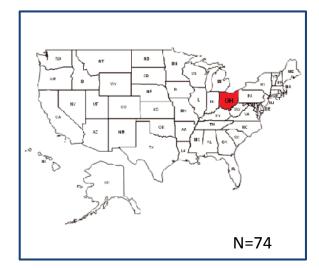
Prevention & Outreach Director/Manager Administrator Case Mgmt/ Social Work Supportive Services Other

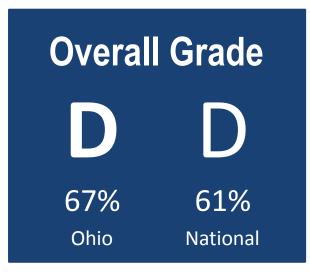
23%
11%
10%
24%
14%
17%



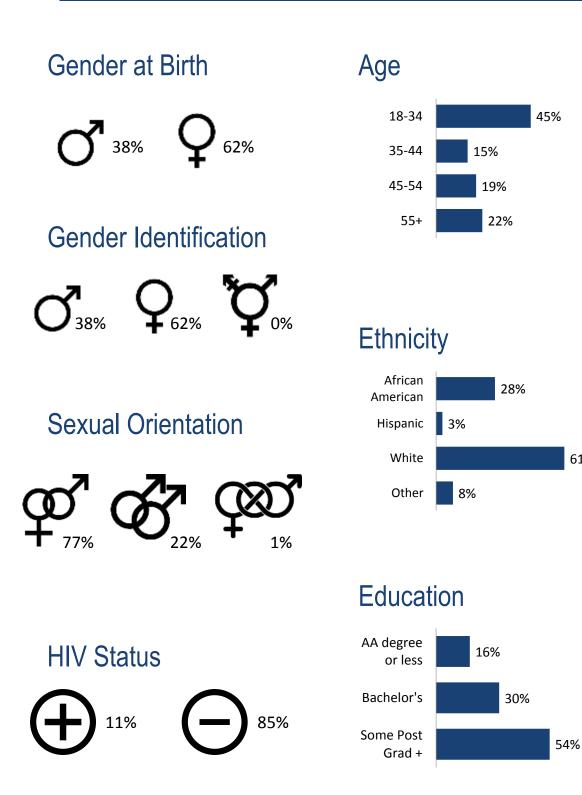
# HIV Knowledge, Attitudes and Beliefs: HIV Workforce Study

**Ohio Fact Sheet** 





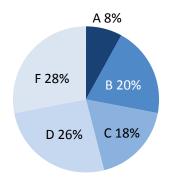
## Demographic Profile: Ohio



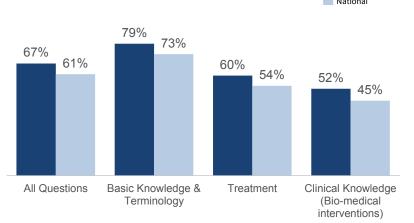
61%

### **Knowledge Scores: Ohio**

### **Grade Distribution**



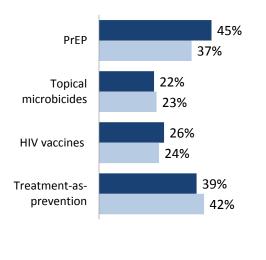
#### Average % Correct by Question Category Ohio National



### <u>Attitudes</u>

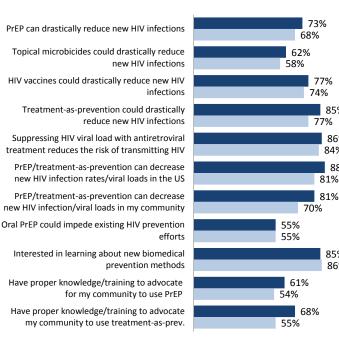
#### Familiarity with Bio-**Medical Interventions**

Rated "Extremely Familiar" or "Very Familiar"



#### **Belief in Bio-Medical Interventions**

Rated "Strongly Agree" or "Somewhat Agree"



85%

86%

84%

85%

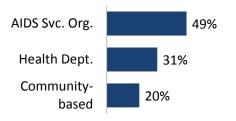
86%

88%

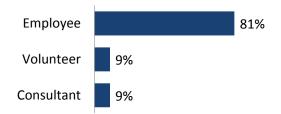
Ohio National

# Work Profile: Ohio

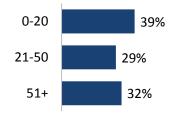
### Type of Organization



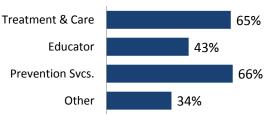
### Role in Organization



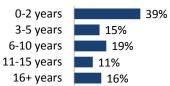
### Size of Organization



### **Primary Services**



### **Tenure in HIV Field**



55%

19%

16% 16% 18%

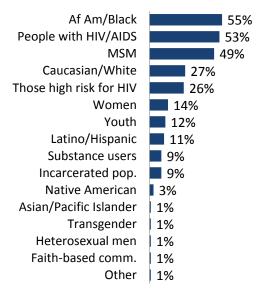
20%

### Tenure in Role

0-2 years	
3-5 years	16%
6-10 years	14%
11-15 years	9%
16+ years	5%

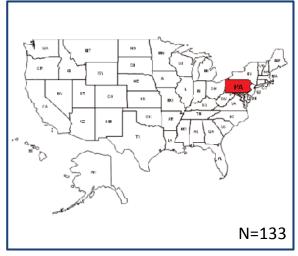
### Type of Role

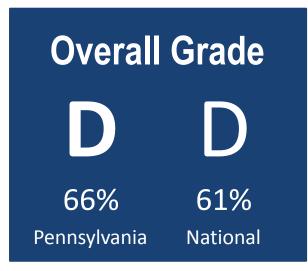
Prevention & Outreach	199	
Director/Manager	11%	
Administrator	16%	
Case Mgmt/ Social Work	16%	
Supportive Services	189	
Other	20	



# HIV Knowledge, Attitudes and Beliefs: HIV Workforce Study

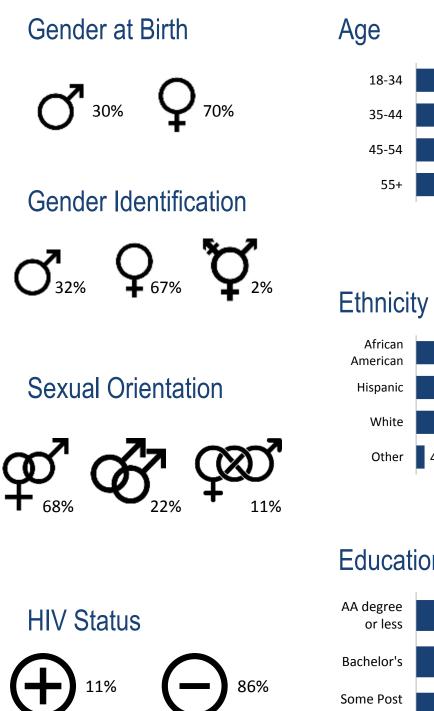
Pennsylvania Fact Sheet

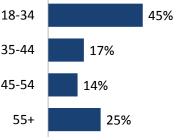


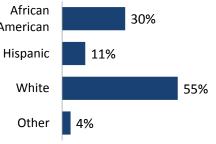


94 WHEN WE KNOW BETTER, WE DO BETTER

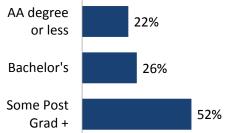
## Demographic Profile: Pennsylvania



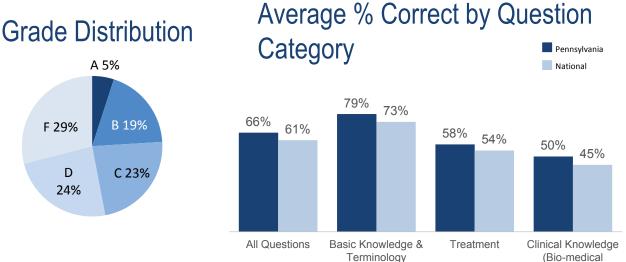




### Education



### Knowledge Scores: Pennsylvania

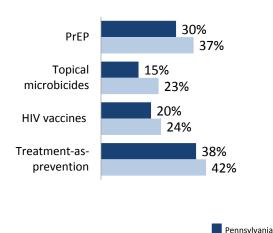


(Bio-medical interventions)

### Attitudes

#### Familiarity with Bio-Medical Interventions

Rated "Extremely Familiar" or "Very Familiar"



#### **Belief in Bio-Medical Interventions**

Rated "Strongly Agree" or "Somewhat Agree"

68% PrEP can drastically reduce new HIV infections 68% Topical microbicides could drastically reduce 59% new HIV infections 58% HIV vaccines could drastically reduce new HIV 77% 74% infections Treatment-as-prevention could drastically 82% reduce new HIV infections 77% Suppressing HIV viral load with antiretroviral 87% treatment reduces the risk of transmitting HIV 84% PrEP/treatment-as-prevention can decrease 77% new HIV infection rates/viral loads in the US 81% PrEP/treatment-as-prevention can decrease 76% new HIV infection/viral loads in my community 70% Oral PrEP could impede existing HIV prevention 55% efforts 55% Interested in learning about new biomedical 87% prevention methods 86% Have proper knowledge/training to advocate 50% for my community to use PrEP 54% 57%

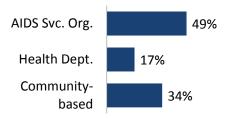
55%

Have proper knowledge/training to advocate my community to use treatment-as-prev.

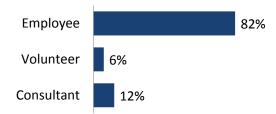
National

# Work Profile: Pennsylvania

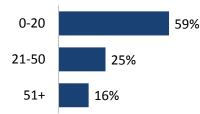
### Type of Organization



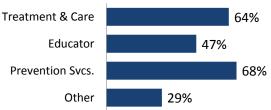
#### Role in Organization



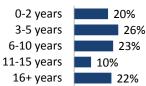
### Size of Organization



### **Primary Services**



#### **Tenure in HIV Field**

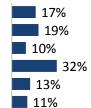


#### Tenure in Role

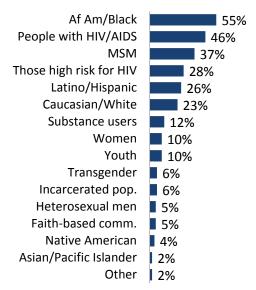
0-2 years	
3-5 years	21%
6-10 years	20%
11-15 years	10%
16+ years	8%

### Type of Role

Prevention & Outreach Director/Manager Administrator Case Mgmt/ Social Work Supportive Services Other

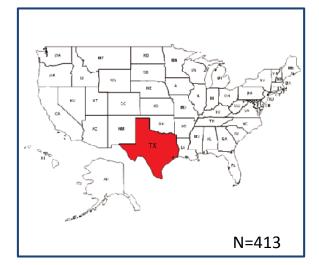


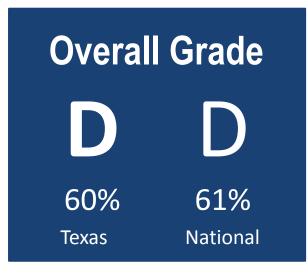
41%



# HIV Knowledge, Attitudes and Beliefs: HIV Workforce Study

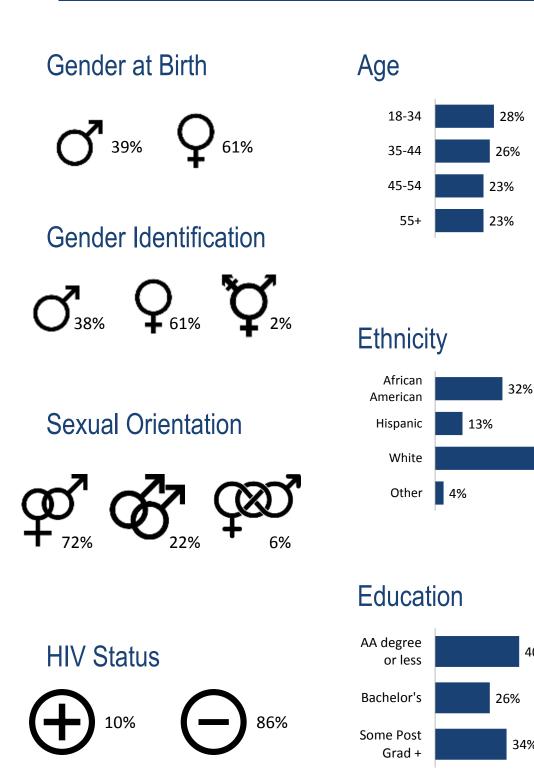
### **Texas Fact Sheet**





98 WHEN WE KNOW BETTER, WE DO BETTER

### **Demographic Profile: Texas**

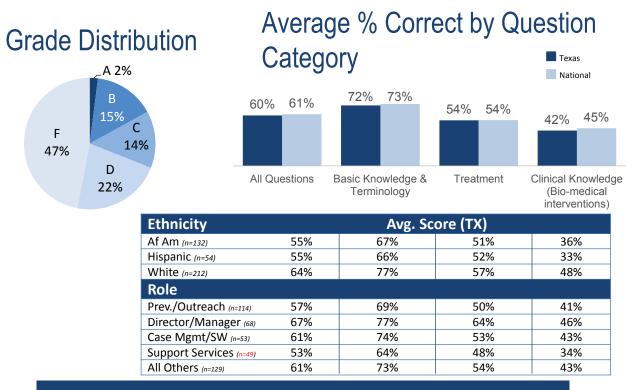


51%

40%

34%

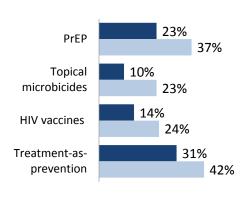
### **Knowledge Scores: Texas**



### Attitudes

#### Familiarity with Bio-Medical Interventions

Rated "Extremely Familiar" or "Very Familiar"



#### Belief in Bio-Medical Interventions

Rated "Strongly Agree" or "Somewhat Agree"

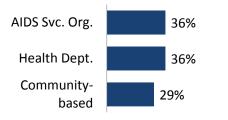
65% PrEP can drastically reduce new HIV infections 68% Topical microbicides could drastically reduce 50% new HIV infections 58% HIV vaccines could drastically reduce new HIV 70% 74% infections Treatment-as-prevention could drastically 73% reduce new HIV infections 77% Suppressing HIV viral load with antiretroviral 82% treatment reduces the risk of transmitting HIV 84% PrEP/treatment-as-prevention can decrease 74% 81% new HIV infection rates/viral loads in the US PrEP/treatment-as-prevention can decrease 71% new HIV infection/viral loads in my community 70% Oral PrEP could impede existing HIV prevention 54% efforts 55% Interested in learning about new biomedical 87% prevention methods 86% Have proper knowledge/training to advocate 44% for my community to use PrEP 54% Have proper knowledge/training to advocate 53% my community to use treatment-as-prev. 55%

Texas

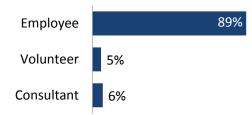
National

# Work Profile: Texas

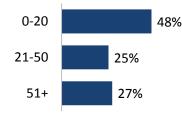
### Type of Organization



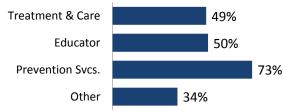
### Role in Organization



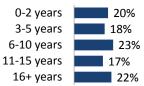
### Size of Organization



### Primary Services



### Tenure in HIV Field



#### Tenure in Role

0-2 years	37%
3-5 years	25%
6-10 years	19%
11-15 years	10%
16+ years	9%

### Type of Role

Prevention & Outreach Director/Manager Administrator Case Mgmt/ Social Work Supportive Services Other

28%
16%
9%
13%
12%
22%

MSM		50%
Af Am/Black		49%
People with HIV/AIDS	40	)%
Latino/Hispanic	38	%
Those high risk for HIV	33%	6
Caucasian/White	17%	
Substance users	12%	
Incarcerated pop.	7%	
Women	6%	
Youth	6%	
Native American	3%	
Transgender	2%	
Asian/Pacific Islander	1%	
Heterosexual men	1%	
Faith-based comm.	1%	
Other	5%	

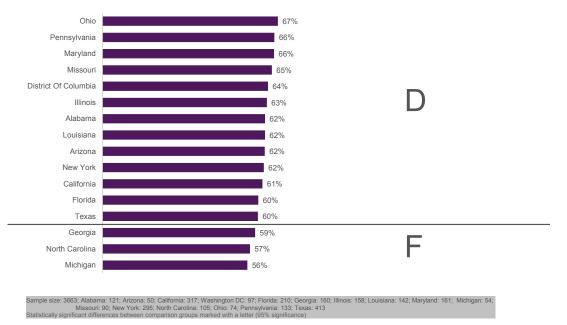
# State Comparisons

Overall Knowledge Scores

102 WHEN WE KNOW BETTER, WE DO BETTER

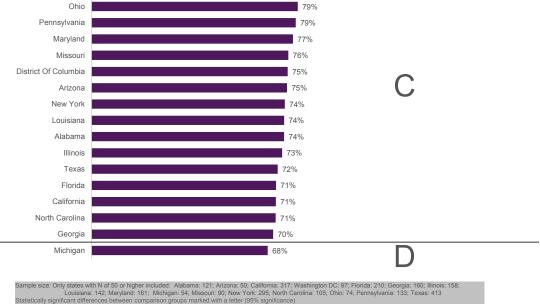
## Three states—Georgia, North Carolina and Michigan had failing overall scores.





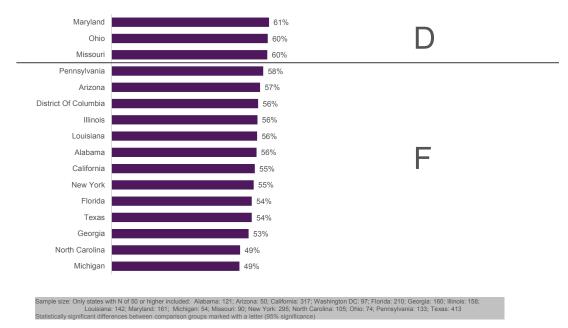
## All states had a passing grade overall in the Basic Science & Terminology Category.



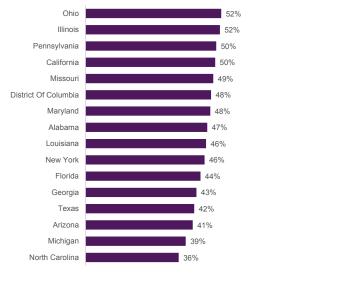


## The majority of the states had an overall failing grade in the Treatment Category.

#### % Correct Answers: Treatment Category (by State)



## All of the states shown had an overall failing grade in the Clinical or Biomedical Interventions Category.



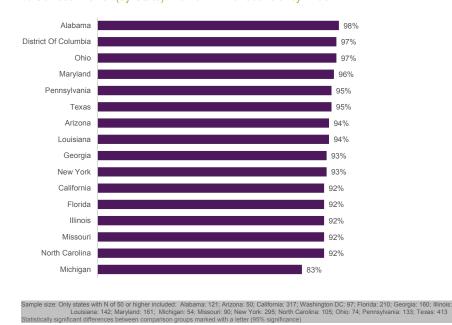
% Correct Answers: Clinical or Biomedical Interventions Category (by State)

Sample size: Only states with N of 50 or higher included: Alabama: 121; Arizona: 50; California: 317; Washington DC: 97; Florida: 210; Georgia: 160; Illinois: 158; Louisiana: 142; Maryland: 161; Michigan: 54; Missouri: 90; New York: 295; North Carolina: 105; Ohio: 74; Pennsylvania: 133; Texas: 413 Statistically significant differences between comparison groups marked with a letter (95% significance)

# State Comparisons

Basic Knowledge & Terminology: Individual Questions

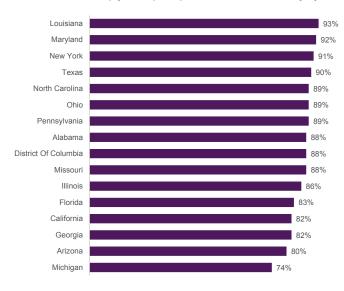
#### Q22. What does 'HIV' stand for?



% Correct Answer (by State): Human immunodeficiency virus

#### Q23. What does 'AIDS' stand for?

% Correct Answer (by State): Acquired immune deficiency syndrome



Sample size: Only states with N of 50 or higher included: Alabama: 121; Arizona: 50; California: 317; Washington DC: 97; Florida: 210; Georgia: 160; Illinois: 158; Louisiana: 142; Maryland: 161; Michigan: 54; Missouri: 90; New York: 295; North Carolina: 105; Ohio: 74; Pennsylvania: 133; Texas: 413 statistically significant differences between comparison groups marked with a letter (9% significance)

### Q24. Which of the following bodily fluids $\underline{cannot}$ transmit HIV?

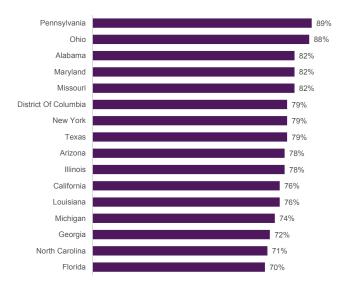




Sample size: Only states with N of 50 or higher included: Alabama: 121; Arizona: 50; California: 317; Washington DC: 97; Florida: 210; Georgia: 160; Illinois: Louisiana: 142; Maryland: 161; Michigan: 54; Missouri: 90; New York: 295; North Carolina: 105; Ohio: 74; Pennsylvania: 133; Texas: 413 Statistically significant differences between comparison groups marked with a letter (9% significance)

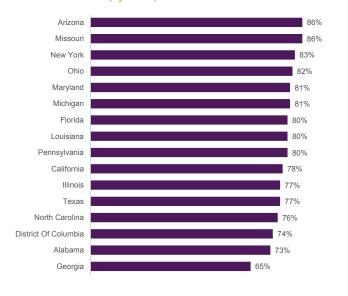
#### Q26. What is a CD4 cell?

% Correct Answer (by State): A type of white blood cell that helps the immune system fight disease



Sample size: Only states with N of 50 or higher included: Alabama: 121; Arizona: 50; California: 317; Washington DC: 97; Florida: 210; Georgia: 160; Illinois: 158; Louisiana: 142; Maryland: 161; Michigan: 54; Missouri: 90; New York: 295; North Carolina: 105; Ohio: 74; Pennsylvania: 133; Texas: 413 Statistically significant differences between comparison groups marked with a letter (95% significance)

# Q27. In general, how do HIV viral loads and CD4 cell counts change when HIV infection is left untreated?

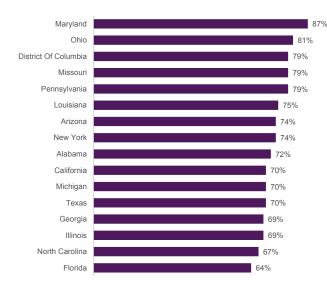


% Correct Answer (by State): Viral loads increase and CD4 cell counts decrease

Sample size: Only states with N of 50 or higher included: Alabama: 121; Arizona: 50; California: 317; Washington DC: 97; Florida: 210; Georgia: 160; Illinois: 156; Louisiana: 142; Maryland: 161; Michigan: 54; Missouri: 90; New York: 295; North Carolina: 105; Ohio: 74; Pennsylvania: 133; Texas: 413 Statistically isoinficant differences between comparison groups marked with a letter (95% significance)

#### Q28. What is a comorbidity?

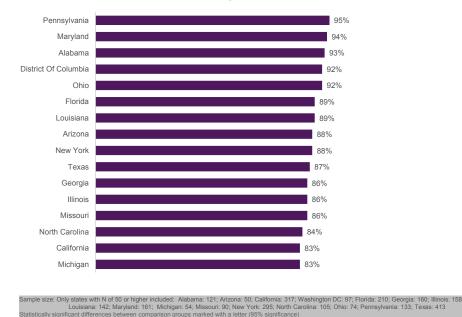
% Correct Answer (by State): The presence of one or more diseases in addition to a primary disease



ample size: Only states with N of 50 or higher included: Alabama: 121; Arizona: 50; California: 317; Washington DC: 97; Florida: 210; Georgia: 160; Illinois: 158; Louisiana: 142; Maryland: 161; Michigan: 54; Missouri: 90; New York: 295; North Carolina: 105; Ohio: 74; Pennsylvania: 133; Texas: 413 atlistically significant differences between comparison groups marked with a letter (95% significance)

## Q29. Which of the following correctly defines an opportunistic infection?

% Correct Answer (by State): An infection that occurs more frequently or is more severe in someone who has a weakened immune system



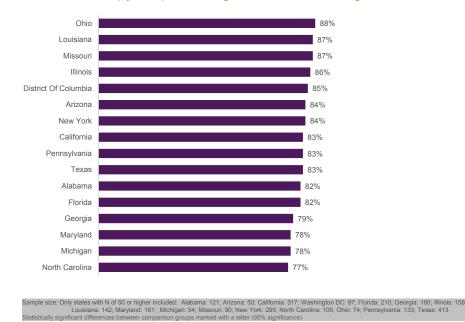
Q35. Which opportunistic infection is described as a fungal infection of the mouth, throat or vagina?



% Correct Answer (by State): Candidiasis (thrush)

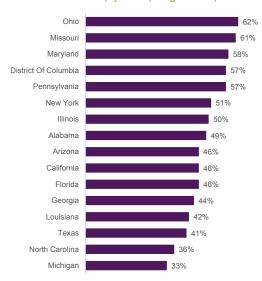
Sample size: Only states with N of 50 or higher included: Alabama: 121; Arizona: 50; California: 317; Washington DC: 97; Florida: 210; Georgia: 160; Illinois: 158 Louisiana: 142; Maryland: 161; Michigan: 54; Missouri: 90; New York: 295; North Carolina: 105; Ohio: 74; Pennsylvania: 133; Texas: 413 Statistically ignificant differences between comparison groups marked with a letter (95% significance)

## Q40. From the list below, who is at the highest risk of acquiring HIV?



% Correct Answer (by State): An HIV-negative woman who has vaginal sex with an HIV-positive man

## Q41. Which is an **unlikely** contributor to the development of HIV drug resistance?

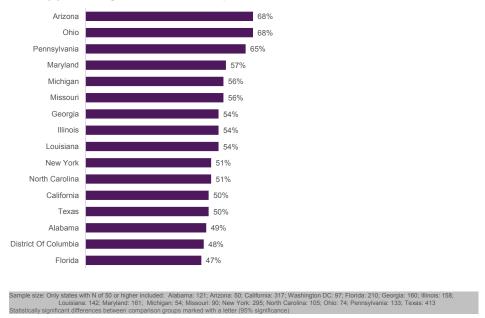


#### % Correct Answer (by State): High absorption of antiretroviral drugs

Sample size: Only states with N of 50 or higher included: Alabama: 121; Arizona: 50; California: 317; Washington DC: 97; Florida: 210; Georgia: 160; Illinois: 158; Louisiana: 142; Maryland: 161; Michigan: 54; Missouri: 90; New York: 295; North Carolina: 105; Ohio: 74; Pennsylvania: 133; Texas: 413 Statistically isjonficant differences between comparison groups marked with a letter (95% significance)

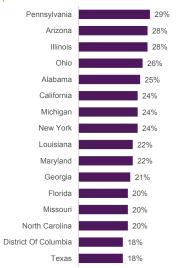
#### Q43. What is meant by the "clinical latency period" of HIV?

% Correct Answer (by State): Period during which people with HIV may have no symptoms for many years though HIV continues to replicate



## Q45. After HIV attachment and fusion with a host cell, what is the correct sequence of events in the HIV lifecycle?

% Correct Answer (by State): Translation of HIV RNA  $\rightarrow$  integration of HIV DNA  $\rightarrow$  assembly of HIV proteins

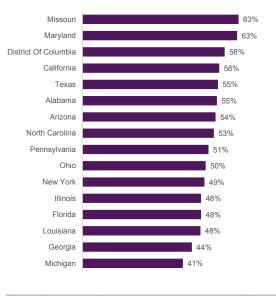


Sample size: Only states with N of 50 or higher included: Alabama: 121; Arizona: 50; California: 317; Washington DC: 97; Florida: 210; Georgia: 160; Illinois: 15 Louisiana: 142; Maryland: 161; Michigan: 54; Missouri: 90; New York: 295; North Carolina: 105; Ohio: 74; Pennsylvania: 133; Texas: 413 Statistically isignificant differences between comparison groups marked with a letter (95% significance)

# State Comparisons

Treatment: Individual Questions

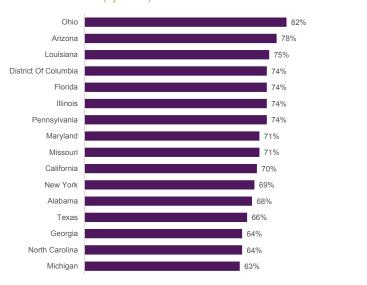
## Q25. Which of the following best describes current DHHS recommendations regarding antiretroviral therapy for treatment-naïve patients?



% Correct Answer (by State): Initiate therapy in all HIV-infected patients

Sample size: Only states with N of 50 or higher included: Alabama: 121; Arizona: 50; California: 317; Washington DC: 97; Florida: 210; Georgia: 160; Illinois: 158 Louisiana: 142; Maryland: 161; Michigan: 54; Missouri: 90; New York: 295; North Carolina: 105; Ohio: 74; Pennsylvania: 133; Texas: 413 Statistically significant differences between comparison groups marked with a letter (95% significance)

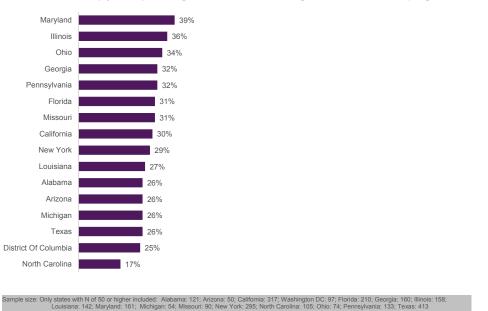
Q30. Adherence of less than 95% can decrease the likelihood of antiretroviral treatment success.



% Correct Answer (by State): True

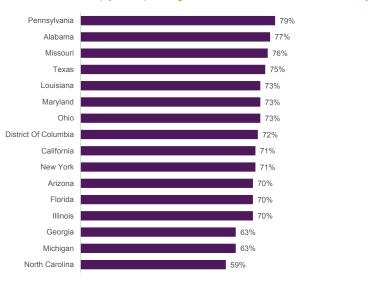
Sample size: Only states with N of 50 or higher included: Alabama: 121; Arizona: 50; California: 317; Washington DC: 97; Florida: 210; Georgia: 160; Illinois: 1 Louisiana: 142; Maryland: 161; Michigar: 54; Missouri: 90; New York: 295; Noth Carolina: 105; Ohio: 74; Pennsylvania: 133; Texas: 413 Statistically ignificant differences between comparison groups marked with a letter (95% significance)

## Q31. Which of the following correctly describes the sequence of clinical events when HIV treatment failure occurs?



% Correct Answer (by State): Virologic failure  $\rightarrow$  Immunologic failure  $\rightarrow$  Clinical progression toward AIDS

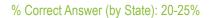
## Q36. There are several criteria for diagnosing AIDS. Which of the following is not used to diagnose AIDS?

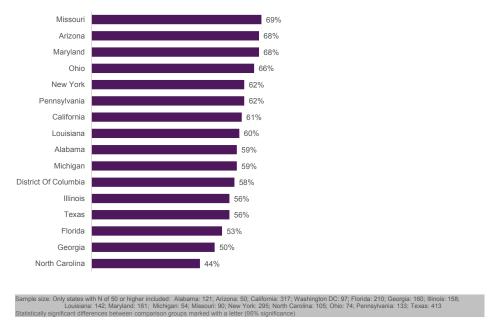


% Correct Answer (by State): Living with HIV infection for more than 10 years

Sample size: Only states with N of 50 or higher included: Alabama: 121; Arizona: 50; California: 317; Washington DC: 97; Florida: 210; Georgia: 160; Illinois: 158; Louisiana: 142; Maryland: 161; Michigan: 54; Missouri: 90; New York: 295; North Carolina: 105; Ohio: 74; Pennsylvania: 133; Texas: 413 Statistically significant differences between comparison groups marked with a letter (95% significance)

## Q37. According to current estimates, what proportion of people living with HIV/AIDS are <u>not</u> currently diagnosed?





Q38. According to DHHS recommendations, how often should viral loads be measured in patients on a stable antiretroviral treatment regimen?

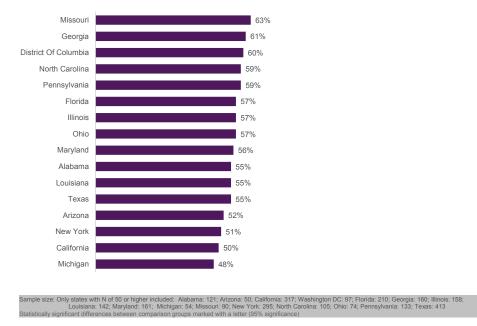


% Correct Answer (by State): Every 3-6 months

Sample size: Only states with N of 50 or higher included: Alabama: 121; Arizona: 50; California: 317; Washington DC; 97; Florida: 210; Georgia: 160; Illinois: 158 Louisiana: 142; Maryland: 161; Michigan: 54; Missouri: 90; New York: 295; North Carolina: 105; Ohio: 74; Pennsylvania: 133; Texas: 413 Statistically significant differences between comparison groups marked with a letter (95% significance)

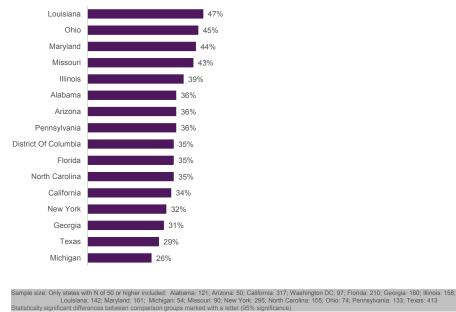
## Q39. A patient's first antiretroviral treatment has the best chance for success.

#### % Correct Answer (by State): True



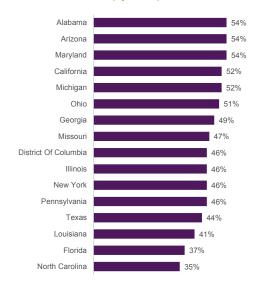
## Q42. Which of the following statements is true regarding the management of antiretroviral treatment-experienced HIV patients?

% Correct Answer (by State): Even briefly stopping treatment in a patient with viremia can result in rapid viral load increases



## Q47. Which of the following is not a goal of the National HIV/AIDS Strategy?

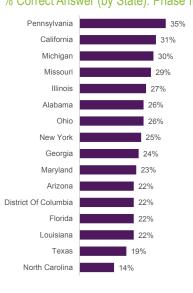
% Correct Answer (by State): Elimination of mother-to-child transmission of HIV



Sample size: Only states with N of 50 or higher included: Alabama: 121; Arizona: 50; California: 317; Washington DC: 97; Florida: 210; Georgia: 160; Illinois: 158; Louisiana: 142; Maryland: 161; Michigan: 54; Missouri: 90; New York: 295; North Carolina: 105; Ohio: 74; Pennsylvania: 133; Texas: 413 Statistically significant differences between comparison groups marked with a letter (95% significance)

# State Comparisons

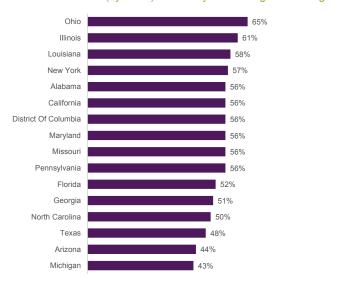
Clinical or Biomedical Interventions: Individual Questions Q32. Which phase of drug development can be described as "treatment given to large groups of people to confirm its effectiveness, monitor side effects, compare it to commonly used treatments, and collect information that will allow it to be used safely"?



% Correct Answer (by State): Phase III

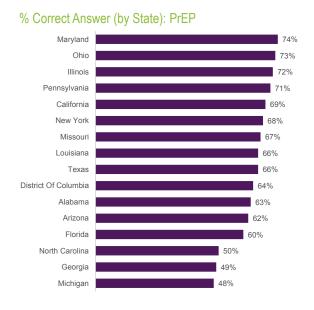
Sample size: Only states with N of 50 or higher included: Alabama: 121; Arizona: 50; California: 317; Washington DC: 97; Florida: 210; Georgia: 160; Illinois: 16 Louisiana: 142; Maryland: 161; Michigan: 54; Missouri: 90; New York: 295; North Carolina: 105; Ohio: 74; Pennsylvania: 133; Texas: 413 Statistically isolinicant differences between comparison groups marked with a letter (95% significance)

# Q33. Which of the following is not considered a biomedical intervention to prevent the spread of HIV?



% Correct Answer (by State): Voluntary counseling and testing

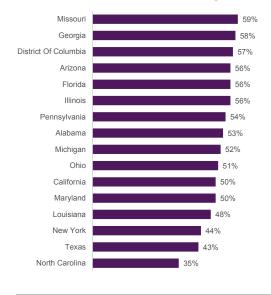
Sample size: Only states with N of 50 or higher included: Alabama: 121; Arizona: 50; California: 317; Washington DC; 97; Florida: 210; Georgia: 160; Illinois: 158 Louisiana: 142; Maryland: 161; Michigan: 54; Missouri: 90; New York: 295; North Carolina: 105; Ohio: 74; Pennsylvania: 133; Texas: 413 Statistically significant differences between comparison groups marked with a letter (95% significance) Q34. Which of the following biomedical interventions refers to the use of antiretroviral medication by HIV-negative persons prior to HIV exposure, with the goal of preventing HIV infection?



Q44. What is HIP?

% Correct Answer (by State): High Impact Prevention: combinations of scientifically proven, costeffective, and scalable interventions targeted to the right populations in the right geographic areas

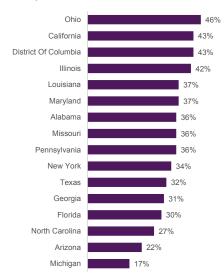
ample size: Only states with N of 50 or higher included: Alabama: 121; Arizona: 50; California: 317; Washington DC: 97; Florida: 210; Georgia: 160; Illinois: Louisiana: 142; Maryland: 161; Michigan: 54; Missouri: 90; New York: 295; North Carolina: 105; Ohio: 74; Pennsylvania: 133; Texas: 413



Sample size: Only states with N of 50 or higher included: Alabama: 121; Arizona: 50; California: 317; Washington DC: 97; Florida: 210; Georgia: 160; Illinois: 158; Louisiana: 142; Maryland: 161; Michigan: 54; Missouri: 90; New York: 295; North Carolina: 105; Ohio: 74; Pennsylvania: 133; Texas: 413 Statistically significant differences between comparison groups marked with a letter (95% significance)

## Q46. Which of the following is <u>**not**</u> a way that a topical microbicide is believed to work?

% Correct Answers (by State): Stimulates the body's immune system to recognize and destroy HIV viral particles

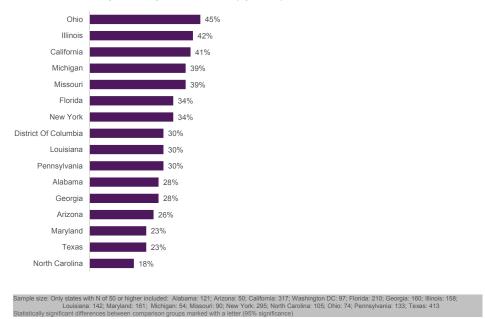


Sample size: Only states with N of 50 or higher included: Alabama: 121; Arizona: 50; California: 317; Washington DC: 97; Florida: 210; Georgia: 160; Illinois: 158; Louisiana: 142; Maryland: 161; Michigan: 54; Missouri: 90; New York: 295; North Carolina: 105; Ohio: 74; Pennsylvania: 133; Texas: 413 Statistically significant differences between comparison groups marked with a letter (9%; significance)

# State Comparisons

Familiarity with Biomedical Interventions: Individual Questions

#### Q48. Research on pre-exposure prophylaxis (PrEP)



% Rated "Extremely" or "Very Familiar" with (by State):

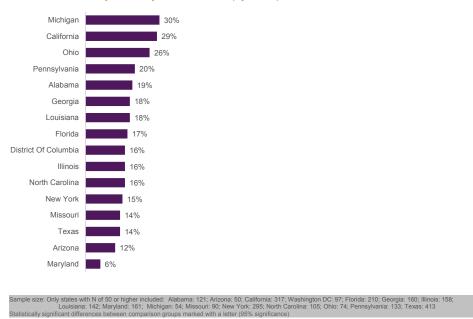
## Q49. Research on topical (e.g. vaginal and/or rectal) microbicides



#### % Rated "Extremely" or "Very Familiar" with (by State):

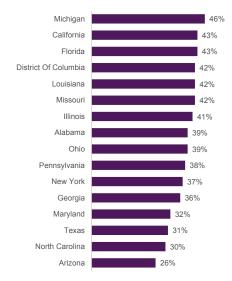
Sample size: Only states with N of 50 or higher included: Alabama: 121; Arizona: 50; California: 317; Washington DC: 97; Florida: 210; Georgia: 160; Illinois: 158 Louisiana: 142; Maryland: 161; Michigan: 54; Missouri: 90; New York: 295; North Carolina: 105; Ohio: 74; Pennsylvania: 133; Texas: 413 Statistically significant differences between comparison groups marked with a letter (95% significance)

#### Q50. Research on HIV vaccines



% Rated "Extremely" or "Very Familiar" with (by State):

#### Q51. Research on treatment-as-prevention



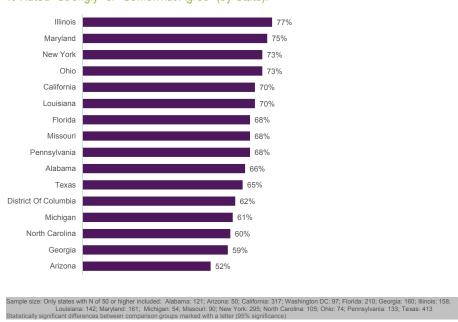
% Rated "Extremely" or "Very Familiar" with (by State):

Sample size: Only states with N of 50 or higher included: Alabama: 121; Arizona: 50; California: 317; Washington DC: 97; Florida: 210; Georgia: 160; Illinois: 158; Louisiana: 142; Maryland: 161; Michigan: 54; Missouri: 90; New York: 295; North Carolina: 105; Ohio: 74; Pennsylvania: 133; Texas: 413 Statistically ignificant differences between comparison groups marked with a letter (9%; significance)

# State Comparisons

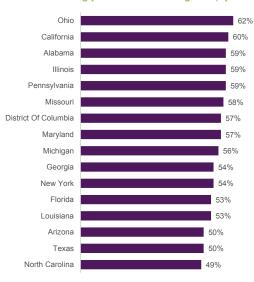
Efficacy of Biomedical Interventions: Individual Questions

## Q52. I believe that PrEP can be effective at drastically reducing new HIV infections



% Rated "Strongly" or "Somewhat Agree" (by State):

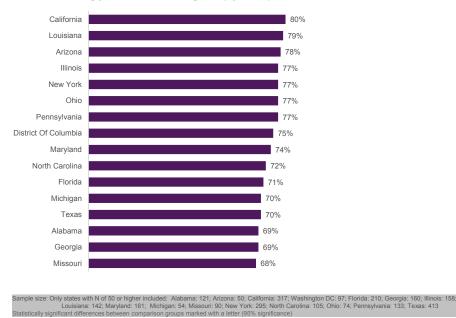
## Q53. I believe that topical (vaginal and/or rectal) microbicides could drastically reduce new HIV infections



% Rated "Strongly" or "Somewhat Agree" (by State):

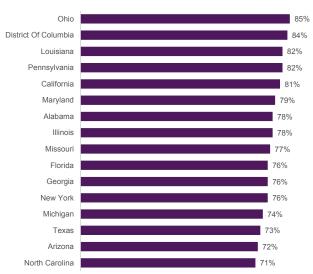
Sample size: Only states with N of 50 or higher included: Alabama: 121; Arizona: 50; California: 317; Washington DC: 97; Florida: 210; Georgia: 160; Illinois: 158; Louisiana: 142; Maryland: 161; Michigan: 54; Missouri: 90; New York: 295; North Carolina: 105; Ohio: 74; Pennsylvania: 133; Texas: 413 Statistically significant differences between comparison groups marked with a letter (95% significance)

## Q54. I believe that HIV vaccines could drastically reduce new HIV infections



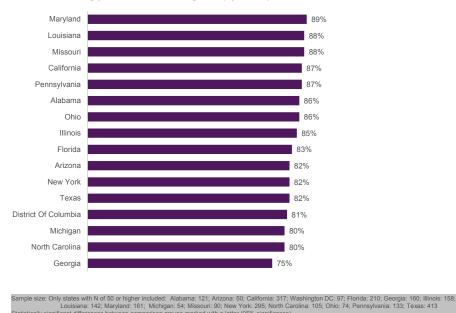
#### % Rated "Strongly" or "Somewhat Agree" (by State):

## Q55. I believe that treatment-as-prevention could drastically reduce new HIV infections



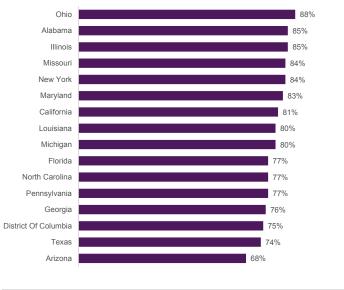
#### % Rated "Strongly" or "Somewhat Agree" (by State):

Sample size: Only states with N of 50 or higher included: Alabama: 121; Arizona: 50; California: 317; Washington DC: 97; Florida: 210; Georgia: 160; Illinois: 156; Louisiana: 142; Maryland: 161; Michigan: 54; Missouri: 90; New York: 295; North Carolina: 105; Ohio: 74; Pennsylvania: 133; Texas: 413 Statistically significant differences between comparison groups marked with a letter (95% significance) Q56. I believe that suppressing HIV viral load to undetectable levels with antiretroviral treatment reduces the risk of transmitting HIV to others



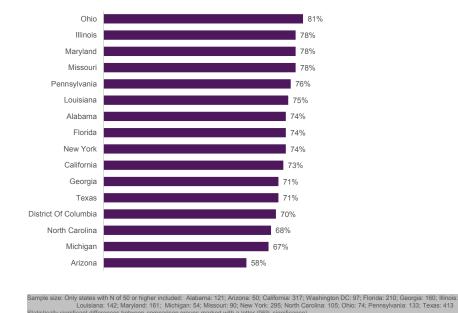
% Rated "Strongly" or "Somewhat Agree" (by State):

Q57. If properly funded and programmed, PrEP and treatment-as-prevention are tools that can drastically decrease new HIV infection rates and community viral loads **in the US** 



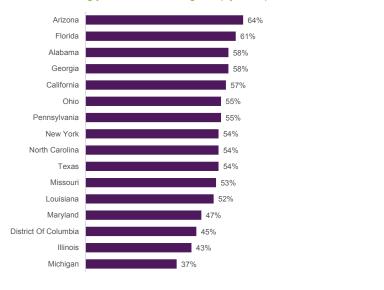
% Rated "Strongly" or "Somewhat Agree" (by State):

Sample size: Only states with N of 50 or higher included: Alabama: 121; Arizona: 50; California: 317; Washington DC: 97; Florida: 210; Georgia: 160; Illinois: 158 Louisiana: 142; Maryland: 161; Michigan: 54; Missouri: 90; New York: 295; North Carolina: 105; Ohio: 74; Pennsylvania: 133; Texas: 413 Statistically significant differences between comparison groups marked with a letter (95% significance) Q58. If properly funded and programmed, PrEP and treatment-as-prevention are tools that can drastically decrease new HIV infection rates and community viral loads **in my community** 



% Rated "Strongly" or "Somewhat Agree" (by State):

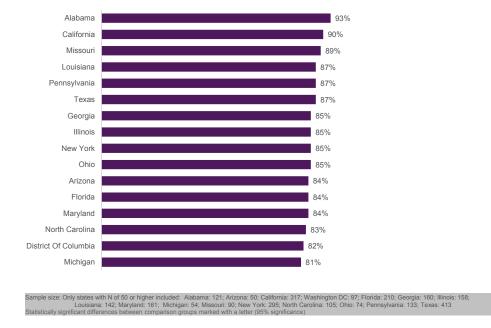
Q59. I believe that use of oral pre-exposure prophylaxis (PrEP) could impede existing HIV prevention efforts in any of the following ways: provide a false sense of security, lead to reduced use of condoms, or lead to other high-risk behavior(s)



% Rated "Strongly" or "Somewhat Agree" (by State):

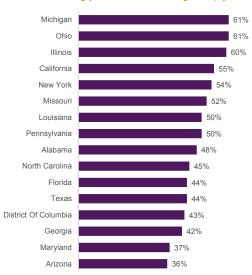
Sample size: Only states with N of 50 or higher included: Alabama: 121; Arizona: 50; California: 317; Washington DC: 97; Florida: 210; Georgia: 160; Illinois: 151 Louisiana: 142; Maryland: 161; Michigan: 54; Missouri: 90; New York: 295; North Carolina: 105; Ohio: 74; Pennsylvania: 133; Texas: 413 Statistically isoinficant differences between comparison groups marked with a letter (195% sionificance)

## Q60. I am interested in learning about new biomedical prevention methods and their application in my local community



% Rated "Strongly" or "Somewhat Agree" (by State):

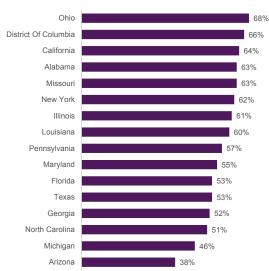
## Q61. I have the proper knowledge and training to advocate for my community to use PrEP, if offered



% Rated "Strongly" or "Somewhat Agree" (by State):

Sample size: Only states with N of 50 or higher included: Alabama: 121; Arizona: 50; California: 317; Washington DC: 97; Florida: 210; Georgia: 160; Illinois: 158; Louisiana: 142; Maryland: 161; Michigan: 54; Missouri: 90; New York: 295; North Carolina: 105; Ohio: 74; Pennsylvania: 133; Texas: 413 Statistically significant differences between comparison groups marked with a letter (95%; significance)

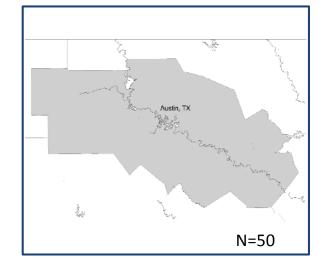
## Q62. I have the proper knowledge and training to advocate for my community to use treatment-as-prevention to prevent new HIV infections



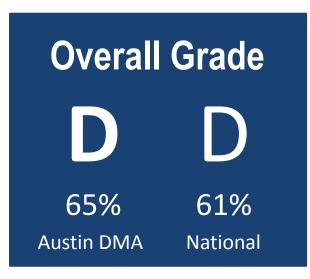
% Rated "Strongly" or "Somewhat Agree" (by State):

Sample size: Only states with N of 50 or higher included: Alabama: 121; Arizona: 50; California: 317; Washington DC: 97; Florida: 210; Georgia: 160; Illinois: 158; Louisiana: 142; Maryland: 161; Michigan: 54; Missouri: 90; New York: 295; North Carolina: 105; Ohio: 74; Pennsylvania: 133; Texas: 413 Statistically significant differences between comparison groups marked with a letter (9%; significance)

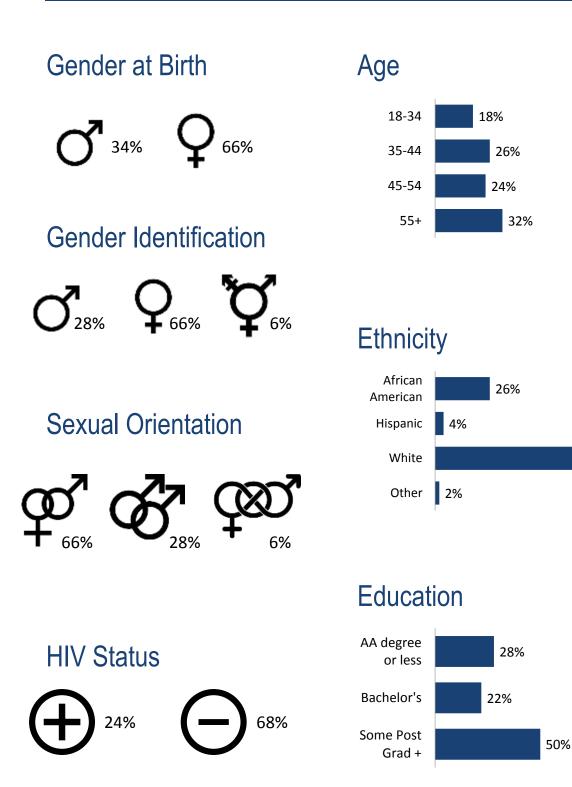
# HIV Knowledge, Attitudes and Beliefs: HIV Workforce Study







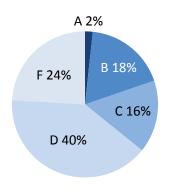
## **Demographic Profile: Austin**



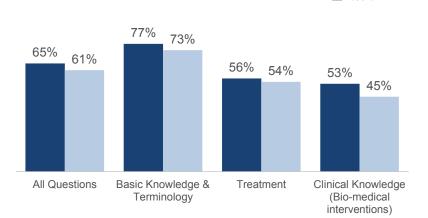
68%

## **Knowledge Scores: Austin**

### Grade Distribution



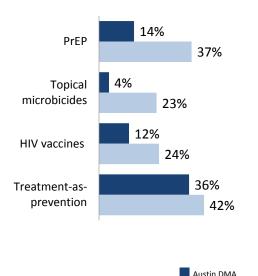
## Average % Correct by Question Category



## Attitudes

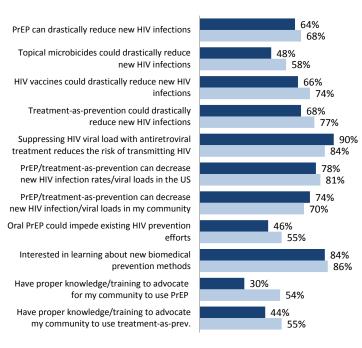
#### Familiarity with Bio-Medical Interventions

Rated "Extremely Familiar" or "Very Familiar"



#### **Belief in Bio-Medical Interventions**

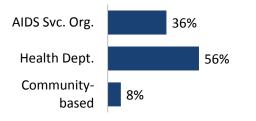
Rated "Strongly Agree" or "Somewhat Agree"



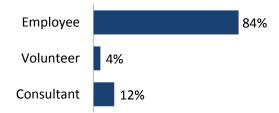
National

# Work Profile: Austin

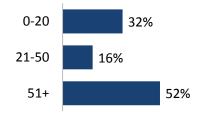
### Type of Organization



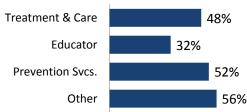
### Role in Organization



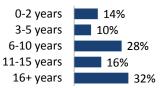
### Size of Organization



#### Primary Services



### Tenure in HIV Field



#### Tenure in Role

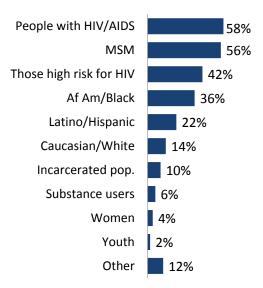
0-2 years	30%
3-5 years	30%
6-10 years	24%
11-15 years	10%
16+ years	6%

## Type of Role

Prevention & Outreach Director/Manager Administrator Case Mgmt/ Social Work Supportive Services Other

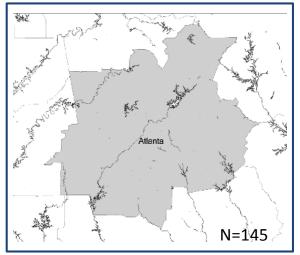
2	24%
16%	
12%	
8%	
8%	
	32%

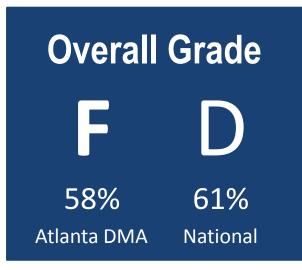
## **Communities Served**



# HIV Knowledge, Attitudes and Beliefs: HIV Workforce Study

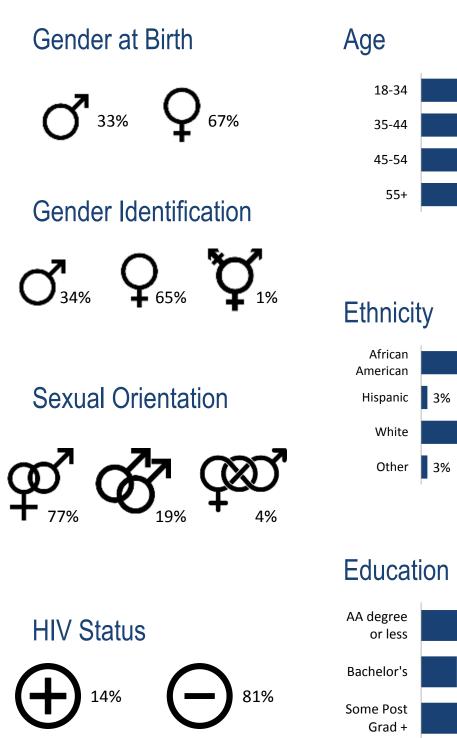
Atlanta DMA Fact Sheet





136 WHEN WE KNOW BETTER, WE DO BETTER

# Demographic Profile: Atlanta



#### I

17%

37%

71%

19%

24%

20%

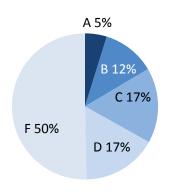
22%

28%

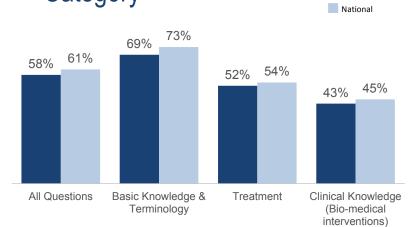
55%

## Knowledge Scores: Atlanta

### Grade Distribution



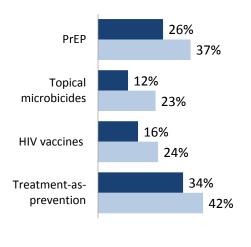
### Average % Correct by Question Category



## Attitudes

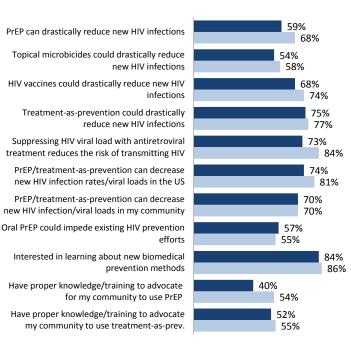
#### Familiarity with Bio-Medical Interventions

Rated "Extremely Familiar" or "Very Familiar"



#### Belief in Bio-Medical Interventions

Rated "Strongly Agree" or "Somewhat Agree"

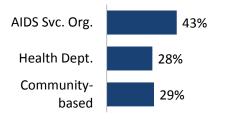


Atlanta DMA

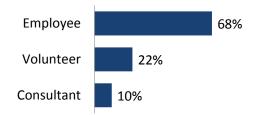
National

# Work Profile: Atlanta

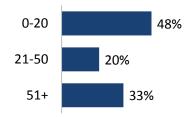
#### Type of Organization



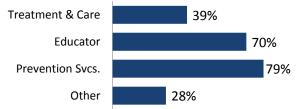
#### Role in Organization



#### Size of Organization



#### **Primary Services**



### **Tenure in HIV Field**

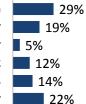


#### Tenure in Role

0-2 years	
3-5 years	2
6-10 years	15%
11-15 years	11%
16+ years	8%

## Type of Role

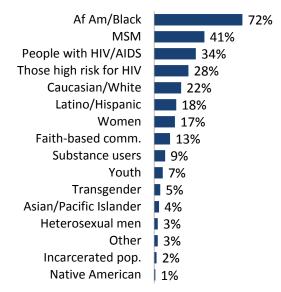
Prevention & Outreach Director/Manager Administrator Case Mgmt/ Social Work Supportive Services Other



39%

26%

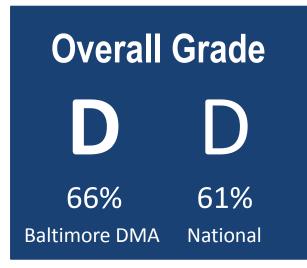
## **Communities Served**



# HIV Knowledge, Attitudes and Beliefs: HIV Workforce Study

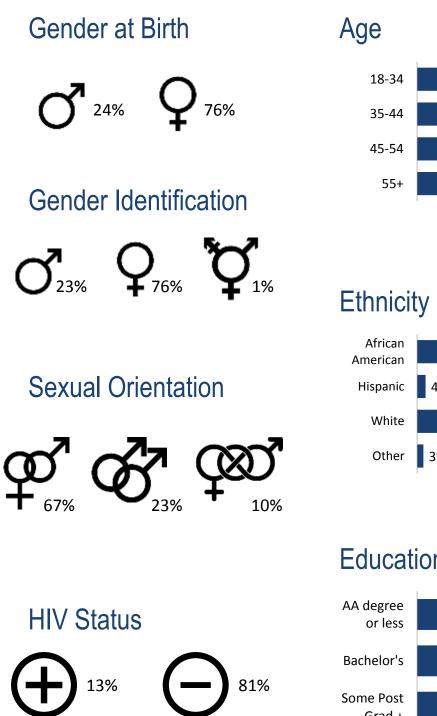
# Baltimore DMA Fact Sheet

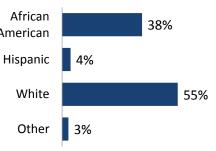




140 WHEN WE KNOW BETTER, WE DO BETTER

## Demographic Profile: Baltimore





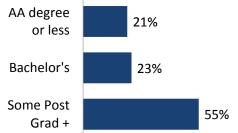
29%

26%

24%

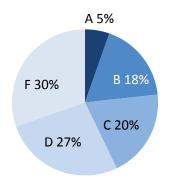
21%

### Education



## Knowledge Scores: Baltimore

#### Grade Distribution



#### Category National 78% 73% 66% 61% 60% 54% 46% 45%

Average % Correct by Question

All Questions

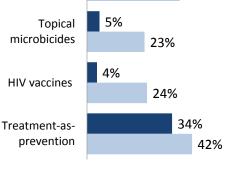
Treatment Clinical Knowledge (Bio-medical interventions)

Baltimore DMA

## <u>Attitudes</u>

#### Familiarity with Bio-**Medical Interventions** Rated "Extremely Familiar" or "Very Familiar"

27% PrEP 37%

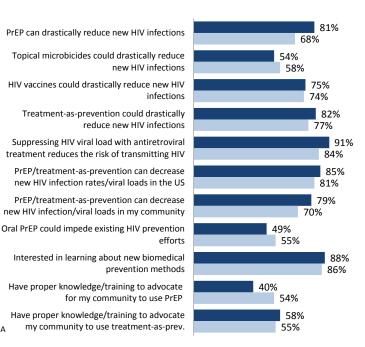


#### **Belief in Bio-Medical Interventions**

Rated "Strongly Agree" or "Somewhat Agree"

Basic Knowledge &

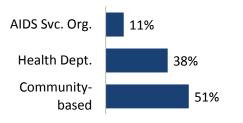
Terminology



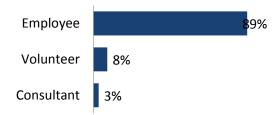


# Work Profile: Baltimore

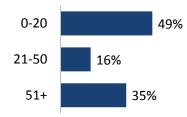
### Type of Organization



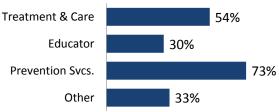
#### Role in Organization



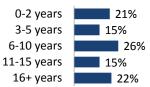
#### Size of Organization



#### **Primary Services**



#### Tenure in HIV Field

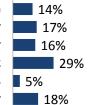


#### Tenure in Role

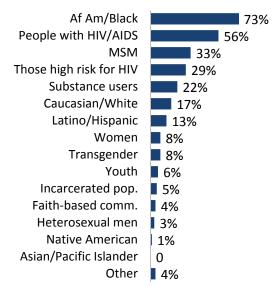
0-2 years	38%
3-5 years	25%
6-10 years	21%
11-15 years	7%
16+ years	9%

## Type of Role

Prevention & Outreach Director/Manager Administrator Case Mgmt/ Social Work Supportive Services Other

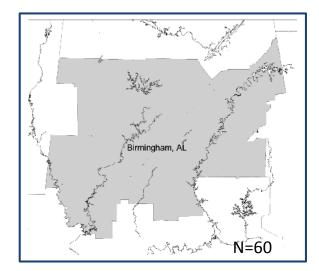


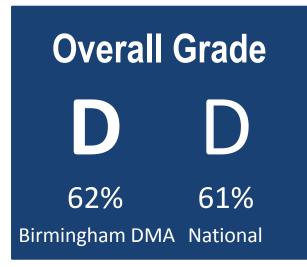
## **Communities Served**



# HIV Knowledge, Attitudes and Beliefs: HIV Workforce Study

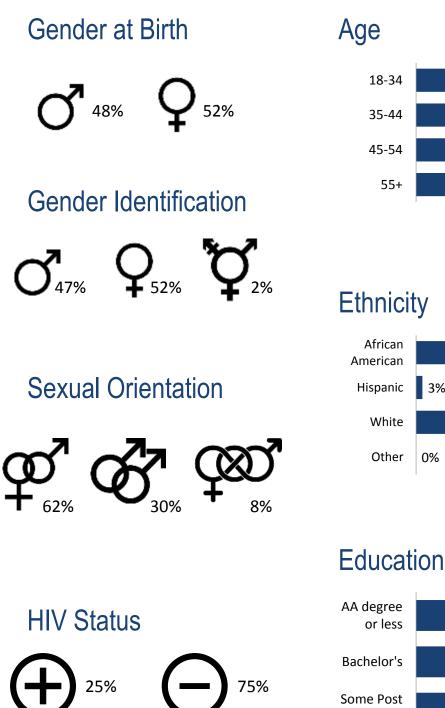
Birmingham DMA Fact Sheet

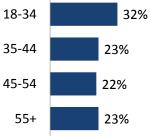


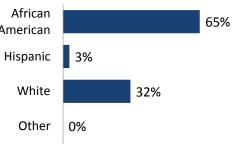


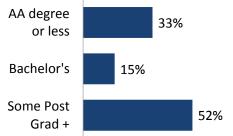
144 WHEN WE KNOW BETTER, WE DO BETTER

### Demographic Profile: Birmingham



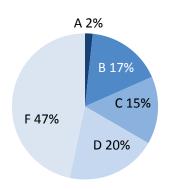




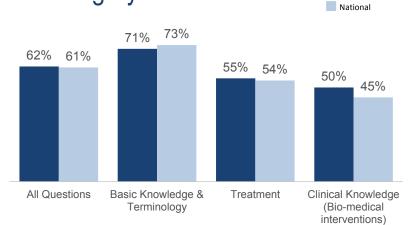


## Knowledge Scores: Birmingham

### Grade Distribution



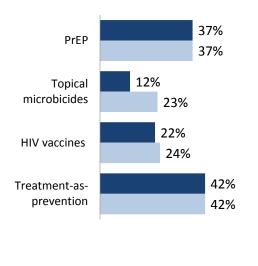
#### Average % Correct by Question Category



### Attitudes

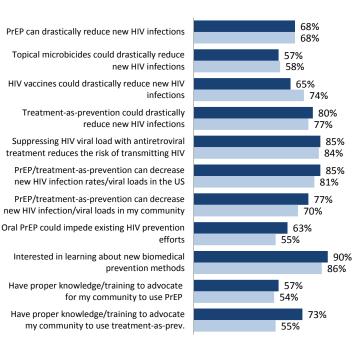
#### Familiarity with Bio-Medical Interventions

Rated "Extremely Familiar" or "Very Familiar"



#### Belief in Bio-Medical Interventions

Rated "Strongly Agree" or "Somewhat Agree"

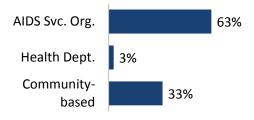


Birmingham DMA

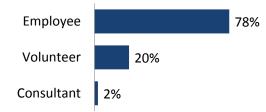
National

### Work Profile: Birmingham

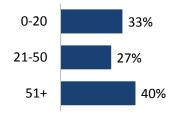
### Type of Organization



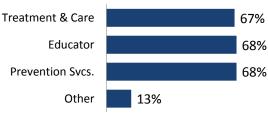
#### Role in Organization



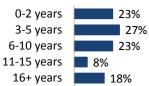
#### Size of Organization



#### **Primary Services**



#### Tenure in HIV Field



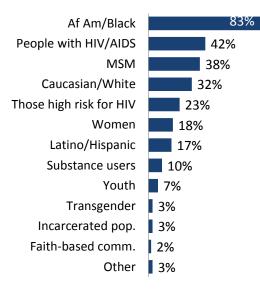
#### Tenure in Role

0-2 years	38%
3-5 years	27%
6-10 years	15%
11-15 years	12%
16+ years	8%

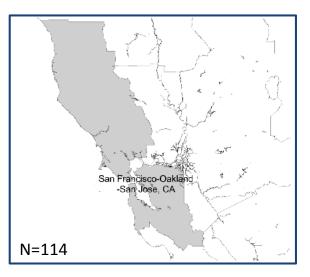
### Type of Role

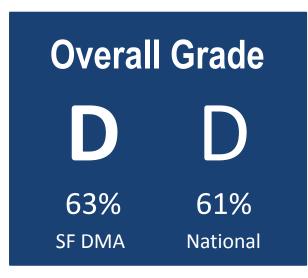
Prevention & Outreach Director/Manager Administrator Case Mgmt/ Social Work Supportive Services Other

	35%
15%	6
7%	
8%	
179	6
189	%



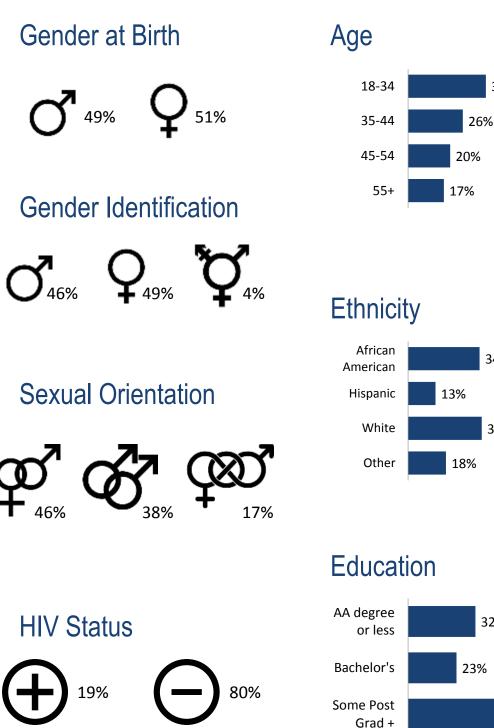
### CA Bay Area DMA Fact Sheet

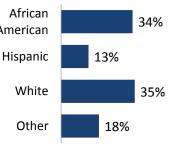




148 WHEN WE KNOW BETTER, WE DO BETTER

#### Demographic Profile: CA Bay Area DMA





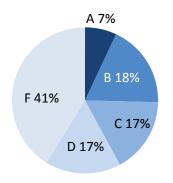
37%

32%

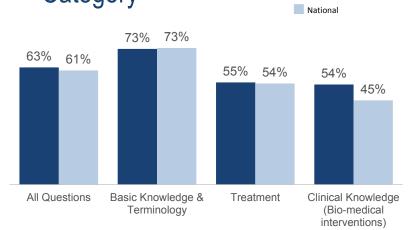
46%

#### Knowledge Scores: CA Bay Area DMA

#### Grade Distribution



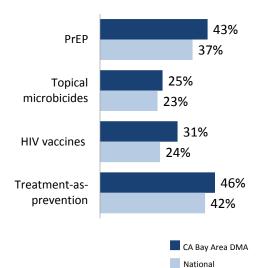
#### Average % Correct by Question Category



### Attitudes

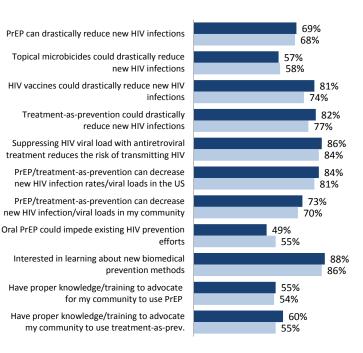
#### Familiarity with Bio-Medical Interventions

Rated "Extremely Familiar" or "Very Familiar"



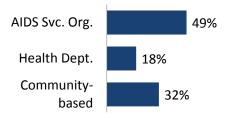
#### **Belief in Bio-Medical Interventions**

Rated "Strongly Agree" or "Somewhat Agree"

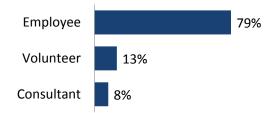


### Work Profile: CA Bay Area DMA

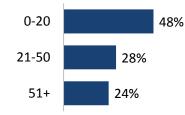
#### Type of Organization



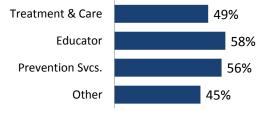
### Role in Organization



#### Size of Organization



#### **Primary Services**



#### Tenure in HIV Field



#### Tenure in Role

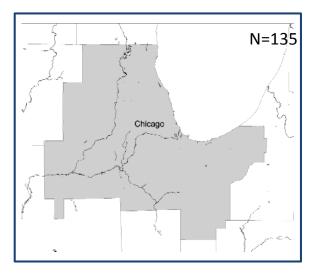
0-2 years			46%
3-5 years		27%	
6-10 years	19	9%	
11-15 years	4%		
16+ years	3%		

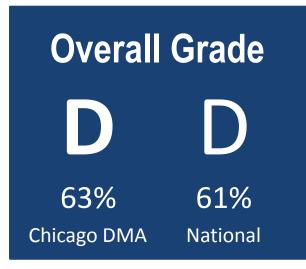
### Type of Role

Prevention & Outreach	13%
Director/Manager	17%
Administrator	11%
Case Mgmt/ Social Work	18%
Supportive Services	22%
Other	19%

Af Am/Black	44%
MSM	41%
People with HIV/AIDS	39%
Latino/Hispanic	27%
Substance users	23%
Those high risk for HIV	21%
Caucasian/White	19%
Women	13%
Youth	10%
Asian/Pacific Islander	8%
Transgender	<b>7</b> %
Native American	4%
Incarcerated pop.	4%
Heterosexual men	3%
Faith-based comm.	3%
Other	6%

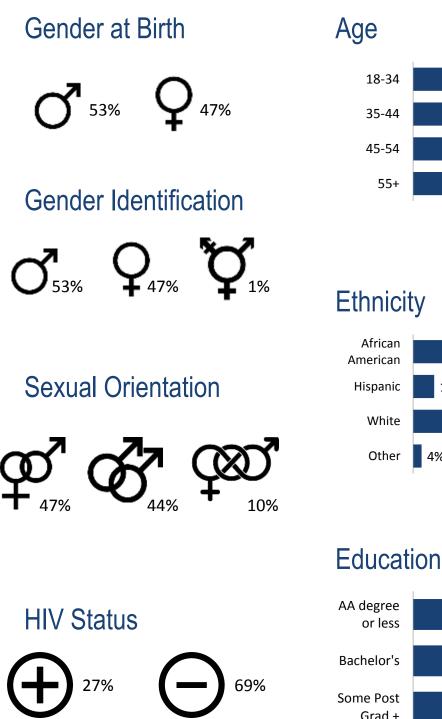
Chicago DMA Fact Sheet

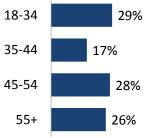


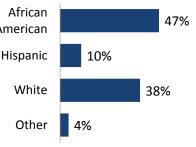


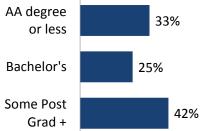
152 WHEN WE KNOW BETTER, WE DO BETTER

### **Demographic Profile: Chicago**

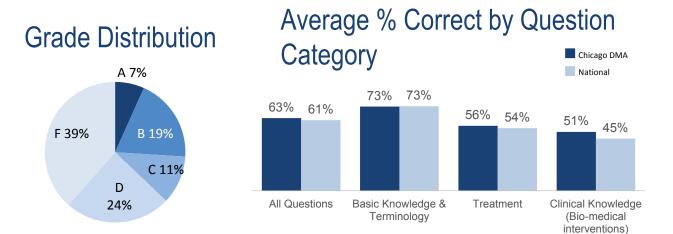








### Knowledge Scores: Chicago

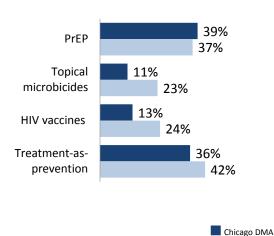


Ethnicity	Avg. Score (Chicago)			
Af Am (n=64)	57%	67%	50%	44%
White (n=51)	72%	83%	65%	60%

### Attitudes

#### Familiarity with Bio-Medical Interventions

Rated "Extremely Familiar" or "Very Familiar"



#### Belief in Bio-Medical Interventions

Rated "Strongly Agree" or "Somewhat Agree"

PrEP can drastically reduce new HIV infections Topical microbicides could drastically reduce new HIV infections HIV vaccines could drastically reduce new HIV infections Treatment-as-prevention could drastically reduce new HIV infections

Suppressing HIV viral load with antiretroviral treatment reduces the risk of transmitting HIV

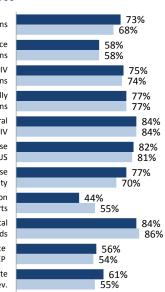
PrEP/treatment-as-prevention can decrease new HIV infection rates/viral loads in the US PrEP/treatment-as-prevention can decrease new HIV infection/viral loads in my community

Oral PrEP could impede existing HIV prevention efforts Interested in learning about new biomedical

prevention methods

Have proper knowledge/training to advocate for my community to use PrEP

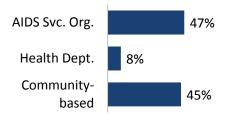
Have proper knowledge/training to advocate my community to use treatment-as-prev.



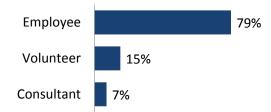
National

## Work Profile: Chicago

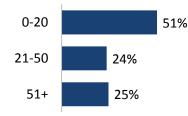
#### Type of Organization



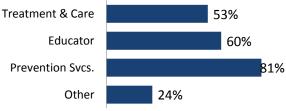
#### Role in Organization



#### Size of Organization



#### **Primary Services**



#### Tenure in HIV Field



#### Tenure in Role

0-2 years	39%
3-5 years	21%
6-10 years	26%
11-15 years	9%
16+ years	5%

### Type of Role

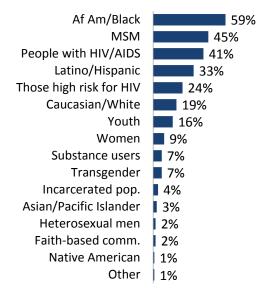
Prevention & Outreach	
Director/Manager	
Administrator	
Case Mgmt/ Social Work	
Supportive Services	
Other	

### **Communities Served**

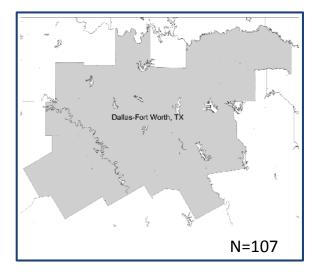
21%

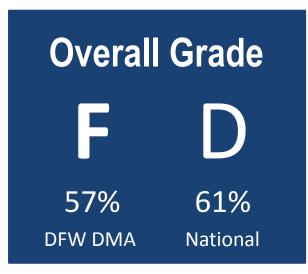
18%

13% 12% 16% 19%



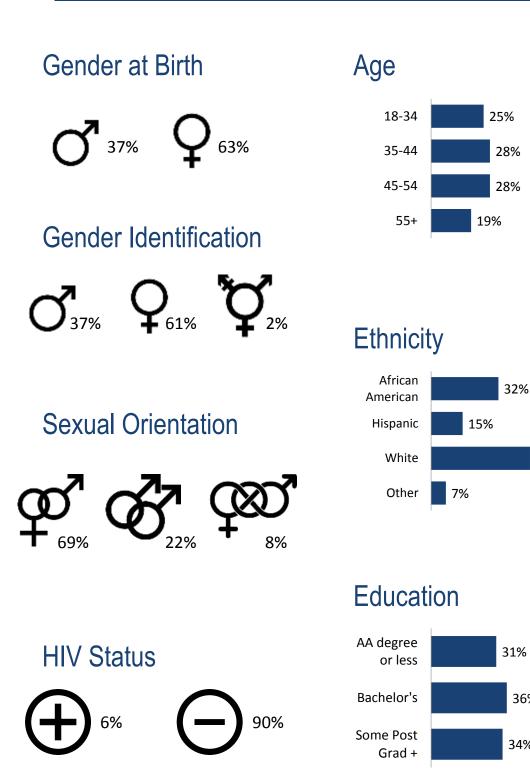
## Dallas-Fort Worth DMA Fact Sheet





156 WHEN WE KNOW BETTER, WE DO BETTER

### Demographic Profile: Dallas/FW



WHEN WE KNOW BETTER, WE DO BETTER

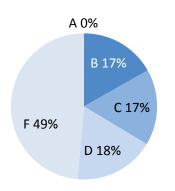
36%

34%

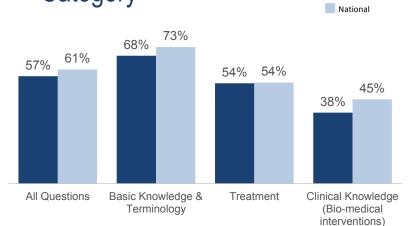
47%

## Knowledge Scores: Dallas/FW

### Grade Distribution



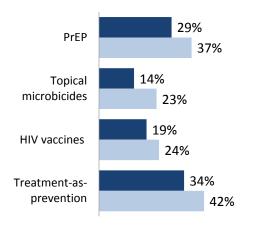
### Average % Correct by Question Category



### Attitudes

#### Familiarity with Bio-Medical Interventions

Rated "Extremely Familiar" or "Very Familiar"



#### Belief in Bio-Medical Interventions

Rated "Strongly Agree" or "Somewhat Agree"

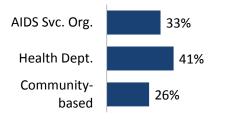


DFW DMA

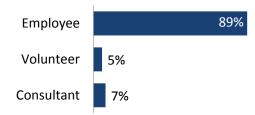
National

## Work Profile: Dallas/FW

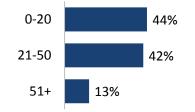
#### Type of Organization



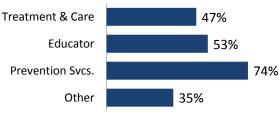
#### Role in Organization



#### Size of Organization



#### **Primary Services**



#### Tenure in HIV Field

0-2 years	21%
3-5 years	14%
6-10 years	22%
11-15 years	20%
16+ years	23%

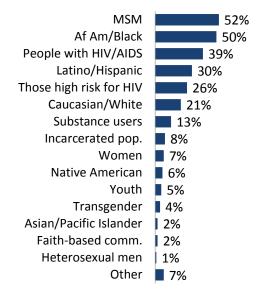
#### Tenure in Role

0-2 years	32%
3-5 years	30%
6-10 years	19%
11-15 years	7%
16+ years	13%

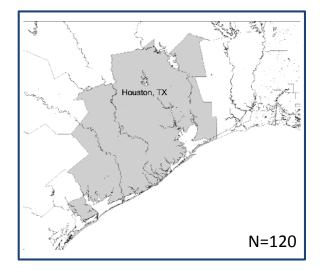
### Type of Role

Prevention & Outreach Director/Manager Administrator Case Mgmt/ Social Work Supportive Services Other

h	21%
er	19%
or	7%
k	16%
es	15%
er	23%

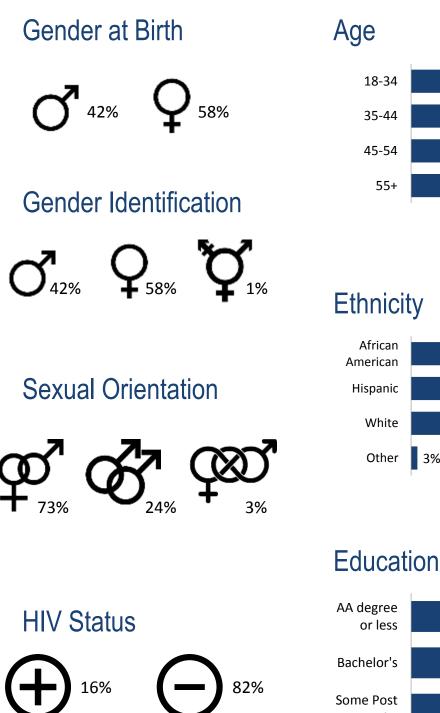


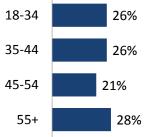
Houston DMA Fact Sheet

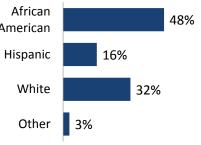


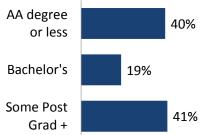


### **Demographic Profile: Houston**



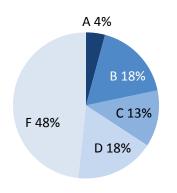




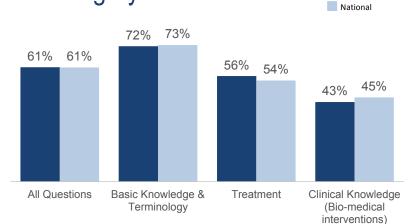


### **Knowledge Scores: Houston**

#### Grade Distribution



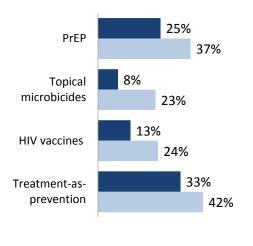
#### Average % Correct by Question Category



### Attitudes

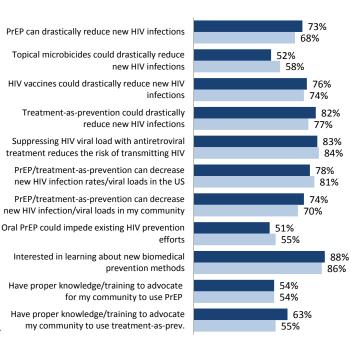
#### Familiarity with Bio-Medical Interventions

Rated "Extremely Familiar" or "Very Familiar"



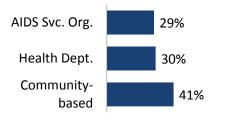
#### Belief in Bio-Medical Interventions

Rated "Strongly Agree" or "Somewhat Agree"

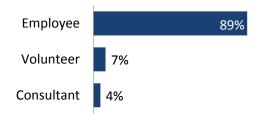


### Work Profile: Houston

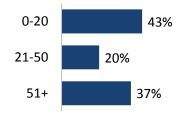
#### Type of Organization



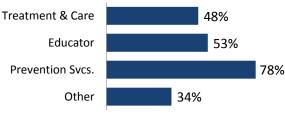
#### **Role in Organization**



#### Size of Organization



#### Primary Services



#### Tenure in HIV Field

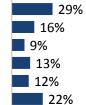


#### Tenure in Role

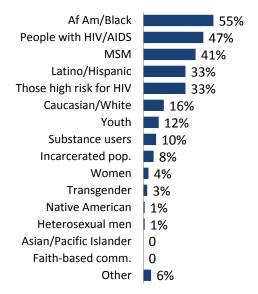
0-2 years	
3-5 years	21%
6-10 years	26%
11-15 years	9%
16+ years	5%

### Type of Role

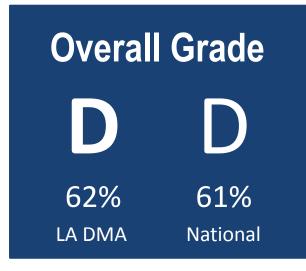
Prevention & Outreach Director/Manager Administrator Case Mgmt/ Social Work Supportive Services Other



39%

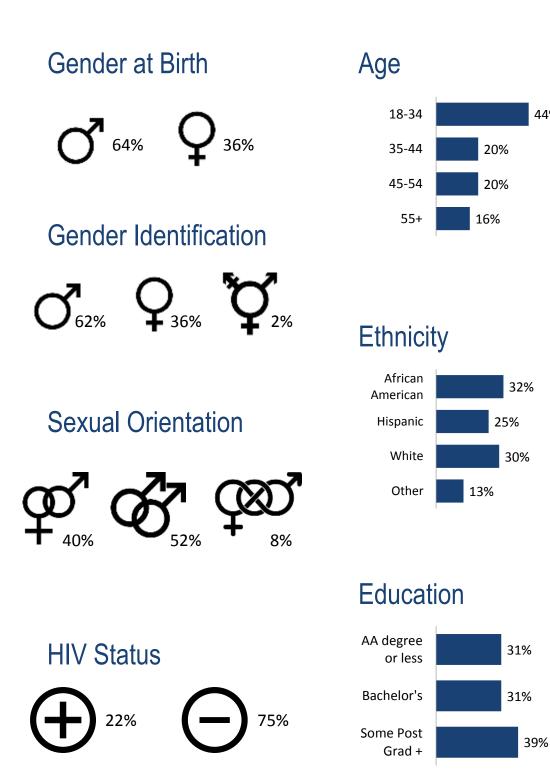






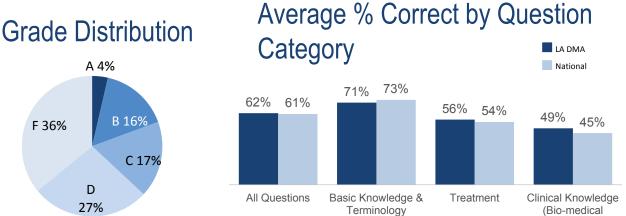
164 WHEN WE KNOW BETTER, WE DO BETTER

### **Demographic Profile: LA DMA**



44%

### Knowledge Scores: LA DMA



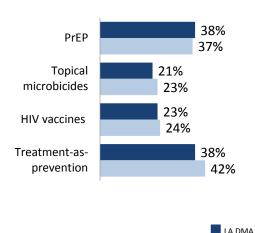
interventions)

Ethnicity		Avg. So	core (LA)	
Af Am (n=54)	54%	63%	47%	47%
Hispanic (n=41)	62%	72%	59%	44%
White (n=50)	67%	75%	63%	52%

### Attitudes

#### Familiarity with Bio-Medical Interventions

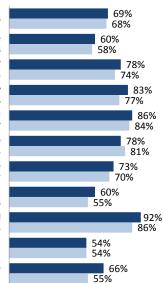
Rated "Extremely Familiar" or "Very Familiar"



#### Belief in Bio-Medical Interventions

Rated "Strongly Agree" or "Somewhat Agree"

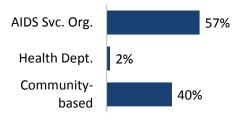
- PrEP can drastically reduce new HIV infections Topical microbicides could drastically reduce
- new HIV infections HIV vaccines could drastically reduce new HIV infections
- Treatment-as-prevention could drastically
- reduce new HIV infections Suppressing HIV viral load with antiretroviral treatment reduces the risk of transmitting HIV
- PrEP/treatment-as-prevention can decrease
- new HIV infection rates/viral loads in the US PrEP/treatment-as-prevention can decrease new HIV infection/viral loads in my community
- Oral PrEP could impede existing HIV prevention efforts
- Interested in learning about new biomedical prevention methods
- Have proper knowledge/training to advocate for my community to use PrEP
- Have proper knowledge/training to advocate my community to use treatment-as-prev.



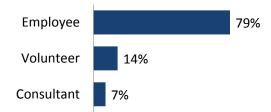
National

### Work Profile: LA DMA

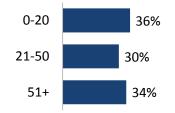
### Type of Organization



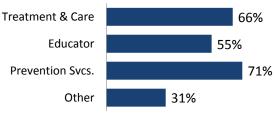
#### Role in Organization



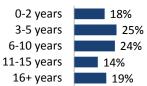
#### Size of Organization



#### **Primary Services**



#### Tenure in HIV Field



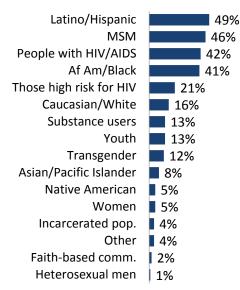
#### Tenure in Role

0-2 years	32%
3-5 years	29%
6-10 years	26%
11-15 years	6%
16+ years	6%

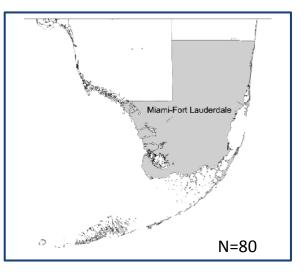
### Type of Role

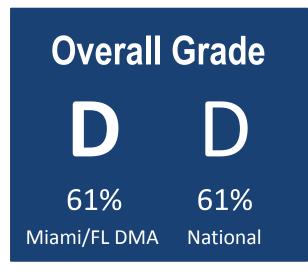
Prevention & Outreach Director/Manager Administrator Case Mgmt/ Social Work Supportive Services Other

h	24%
er	16%
or	5%
٢k	16%
es	15%
er	25%



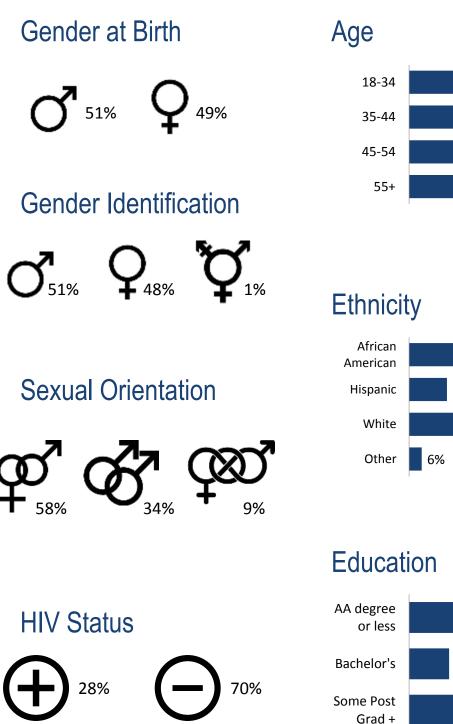
Miami Ft. Lauderdale DMA Fact Sheet

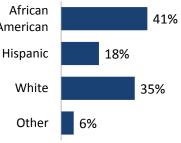




168 WHEN WE KNOW BETTER, WE DO BETTER

### Demographic Profile: Miami/FL





21%

24%

25%

30%

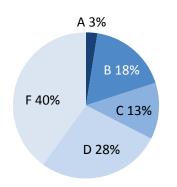
19%

31%

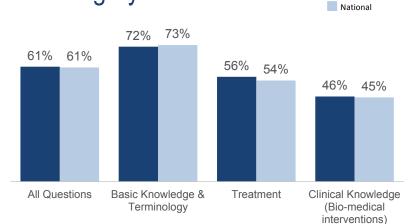
50%

### Knowledge Scores: Miami/FL

#### Grade Distribution



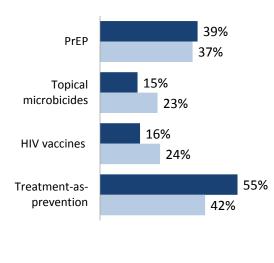
#### Average % Correct by Question Category



### Attitudes

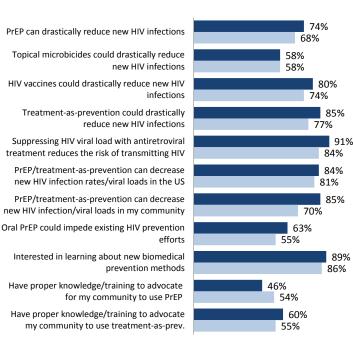
#### Familiarity with Bio-Medical Interventions

Rated "Extremely Familiar" or "Very Familiar"



#### Belief in Bio-Medical Interventions

Rated "Strongly Agree" or "Somewhat Agree"

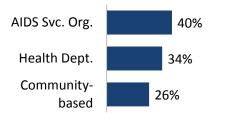


MEL DMA

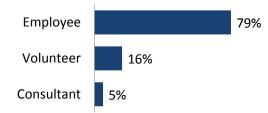
National

## Work Profile: Miami/FL

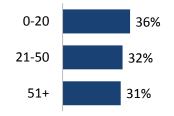
#### Type of Organization



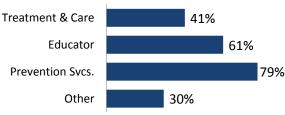
#### Role in Organization



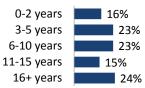
#### Size of Organization



#### **Primary Services**



#### Tenure in HIV Field

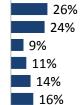


#### Tenure in Role

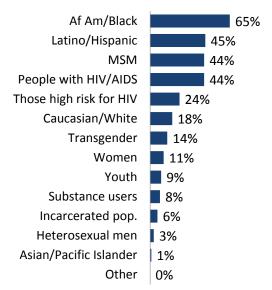
0-2 years	
3-5 years	24%
6-10 years	18%
11-15 years	11%
16+ years	10%

### Type of Role

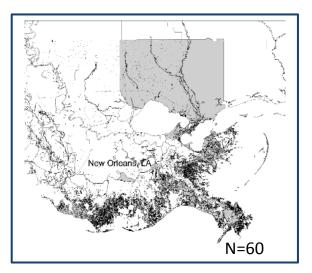
Prevention & Outreach Director/Manager Administrator Case Mgmt/ Social Work Supportive Services Other



38%



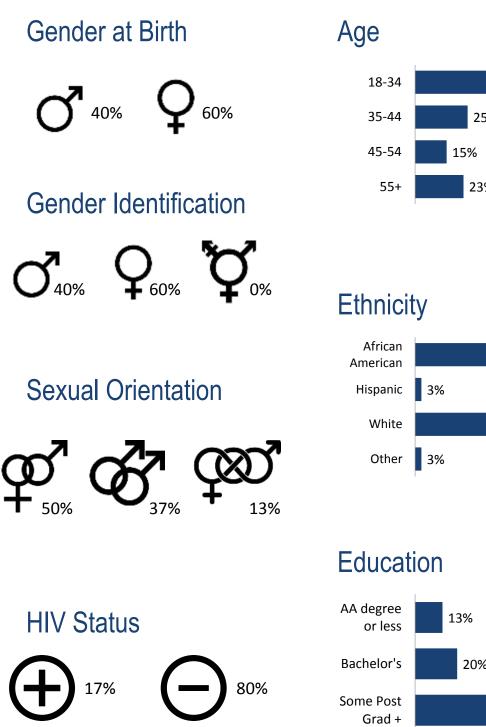
### New Orleans DMA Fact Sheet

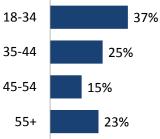


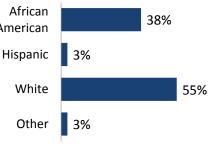


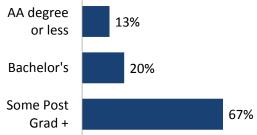
172 WHEN WE KNOW BETTER, WE DO BETTER

### Demographic Profile: New Orleans





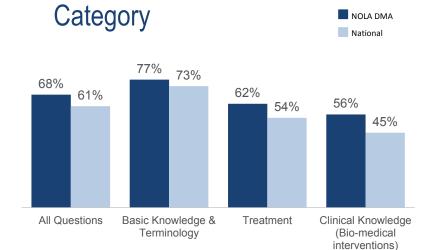




### Knowledge Scores: New Orleans

### Grade Distribution



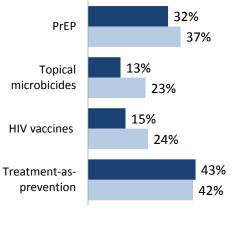


Average % Correct by Question

<u>Attitudes</u>

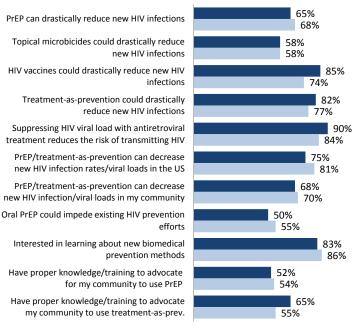
#### Familiarity with Bio-**Medical Interventions**

Rated "Extremely Familiar" or "Very Familiar"



#### **Belief in Bio-Medical Interventions**

Rated "Strongly Agree" or "Somewhat Agree"

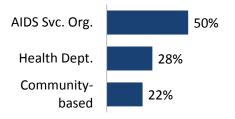


National

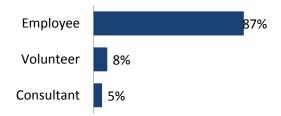
my community to use treatment-as-prev.

### Work Profile: New Orleans

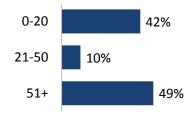
#### Type of Organization



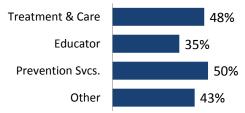
#### Role in Organization



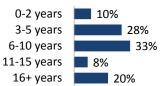
#### Size of Organization



#### Primary Services



#### Tenure in HIV Field

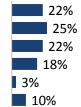


#### Tenure in Role

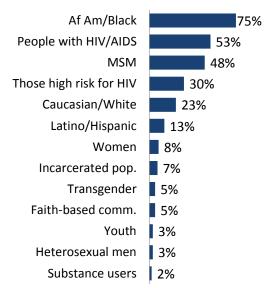
0-2 years	
3-5 years	23%
6-10 years	20%
11-15 years	10%
16+ years	5%

### Type of Role

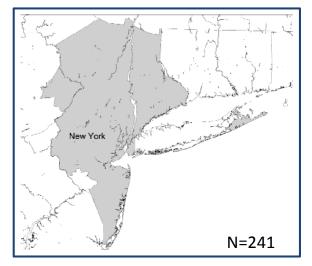
Prevention & Outreach Director/Manager Administrator Case Mgmt/ Social Work Supportive Services Other

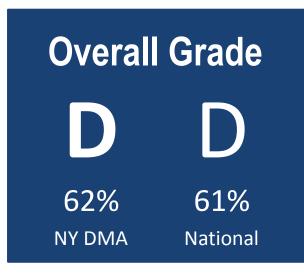


42%



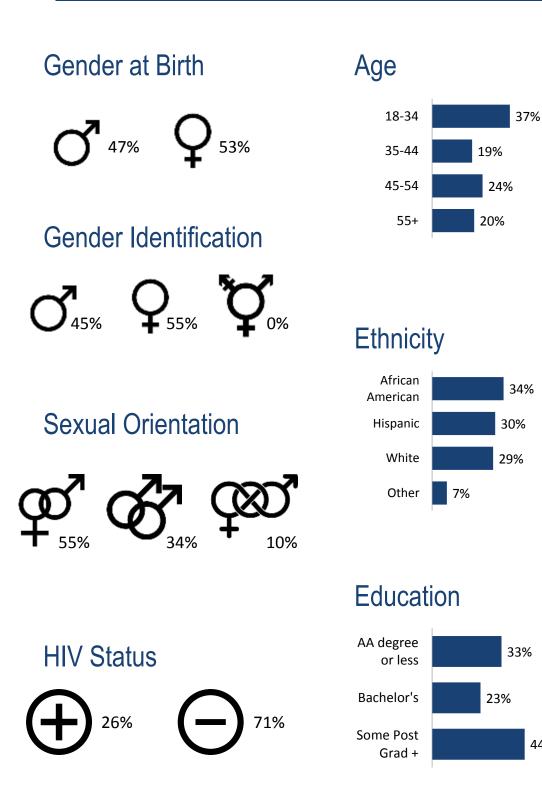
### NY DMA Fact Sheet





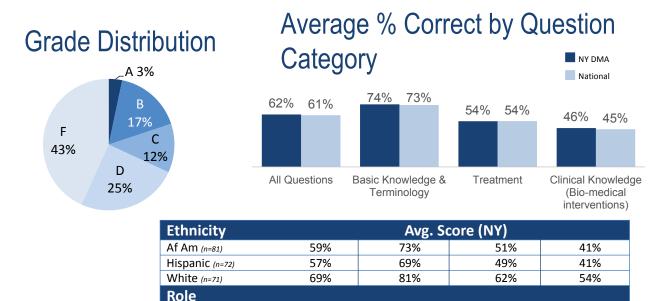
176 WHEN WE KNOW BETTER, WE DO BETTER

### Demographic Profile: NY DMA



44%

### Knowledge Scores: NY DMA



### Attitudes

56%

71%

58%

59%

Prev./Outreach (n=51)

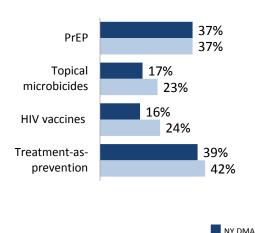
Director/Manager (52)

Case Mgmt/SW (n=41)

All Others (n=97)

#### Familiarity with Bio-Medical Interventions

Rated "Extremely Familiar" or "Very Familiar"



#### Belief in Bio-Medical Interventions

Rated "Strongly Agree" or "Somewhat Agree"

PrEP can drastically reduce new HIV infections

69%

82%

75%

70%

46%

64%

51%

52%

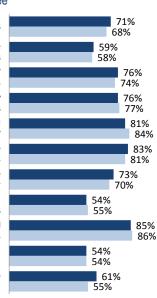
40%

59%

33%

43%

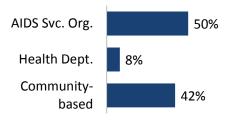
- Topical microbicides could drastically reduce new HIV infections
- HIV vaccines could drastically reduce new HIV infections
- Treatment-as-prevention could drastically reduce new HIV infections
- Suppressing HIV viral load with antiretroviral treatment reduces the risk of transmitting HIV
- PrEP/treatment-as-prevention can decrease new HIV infection rates/viral loads in the US
- PrEP/treatment-as-prevention can decrease new HIV infection/viral loads in my community Oral PrEP could impede existing HIV prevention
- efforts Interested in learning about new biomedical
- prevention methods Have proper knowledge/training to advocate
- for my community to use PrEP
- Have proper knowledge/training to advocate my community to use treatment-as-prev.



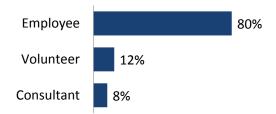
National

### Work Profile: NY DMA

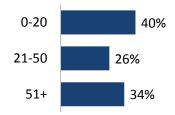
### Type of Organization



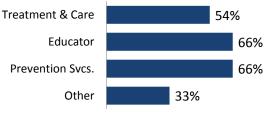
#### Role in Organization



#### Size of Organization



#### **Primary Services**



#### Tenure in HIV Field

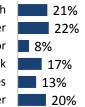


#### Tenure in Role

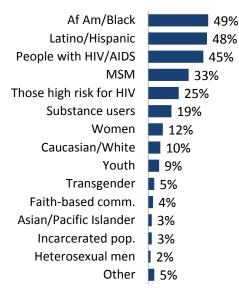
0-2 years	
3-5 years	24%
6-10 years	21%
11-15 years	10%
16+ years	6%

### Type of Role

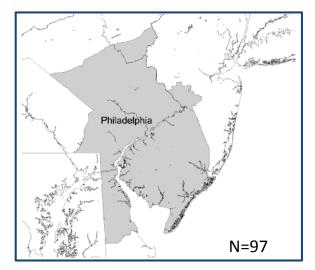
Prevention & Outreach Director/Manager Administrator Case Mgmt/ Social Work Supportive Services Other



40%



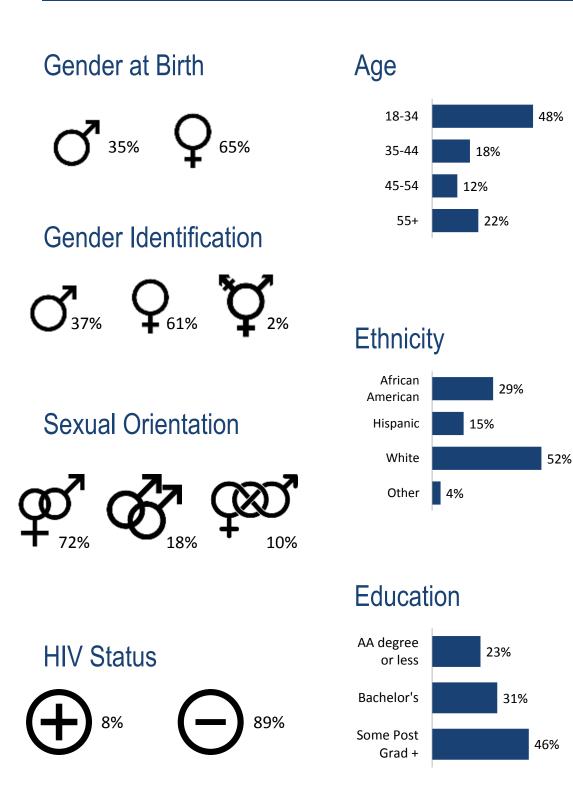
## Philadelphia DMA Fact Sheet





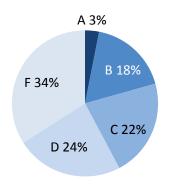
180 WHEN WE KNOW BETTER, WE DO BETTER

### Demographic Profile: Philadelphia



### Knowledge Scores: Philadelphia

### **Grade Distribution**



#### National 77% 73% 64% 61% 56% 54% 46% 45% All Questions Basic Knowledge & Treatment Clinical Knowledge Terminology (Bio-medical

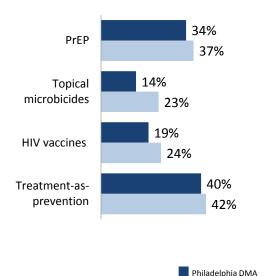
Philadelphia DMA

interventions)

### <u>Attitudes</u>

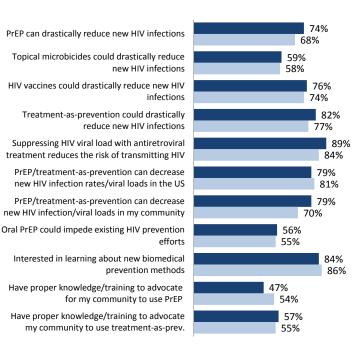
#### Familiarity with Bio-**Medical Interventions**

Rated "Extremely Familiar" or "Very Familiar"



#### **Belief in Bio-Medical Interventions**

Rated "Strongly Agree" or "Somewhat Agree"



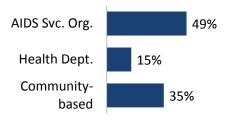
#### Average % Correct by Question Category

WHEN WE KNOW BETTER, WE DO BETTER 182

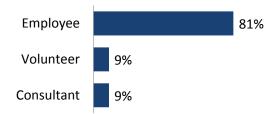
National

### Work Profile: Philadelphia

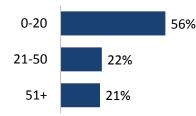
#### Type of Organization



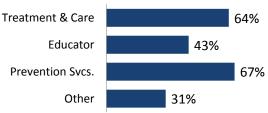
#### Role in Organization



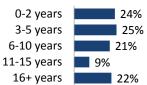
#### Size of Organization



#### **Primary Services**



#### Tenure in HIV Field

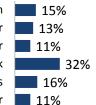


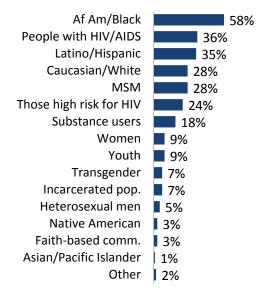
#### Tenure in Role

0-2 years	37%
3-5 years	29%
6-10 years	16%
11-15 years	10%
16+ years	7%

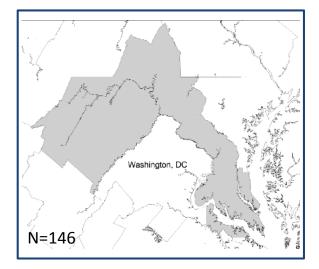
### Type of Role

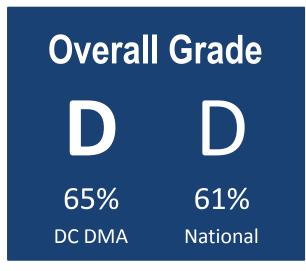
Prevention & Outreach Director/Manager Administrator Case Mgmt/ Social Work Supportive Services Other





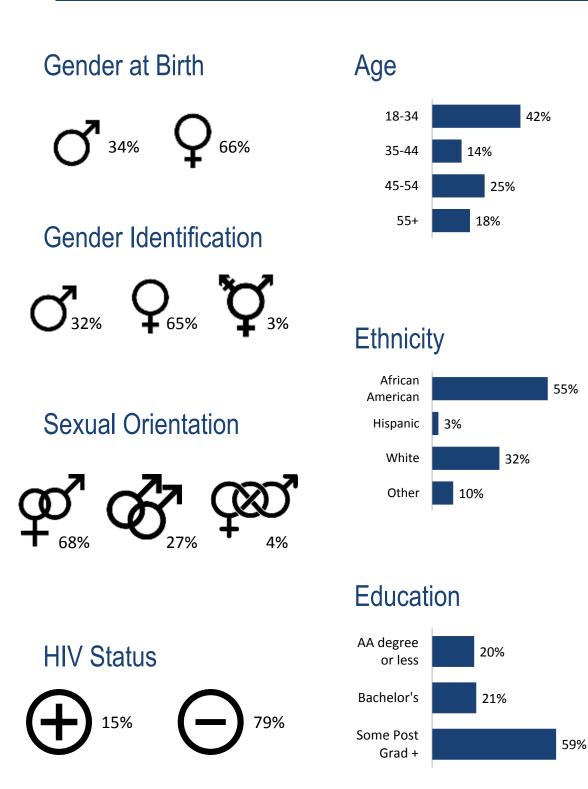
## Washington DC DMA Fact Sheet



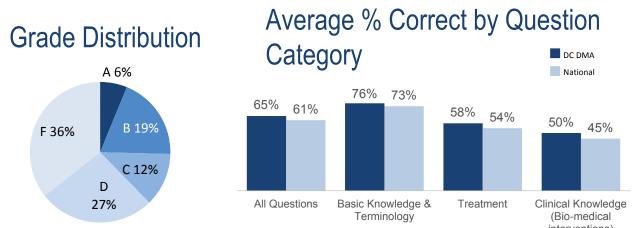


184 WHEN WE KNOW BETTER, WE DO BETTER

### Demographic Profile: DC DMA



### Knowledge Scores: DC DMA



interventions)	

62%

60%

58%

68%

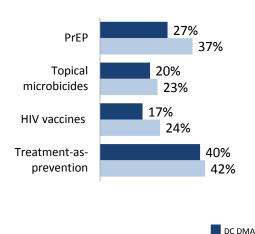
78%

Ethnicity		Avg. So	core (DC)	
Af Am (n=81)	63%	74%	56%	47%
White (n=46)	68%	78%	61%	54%

### Attitudes

#### Familiarity with Bio-Medical Interventions

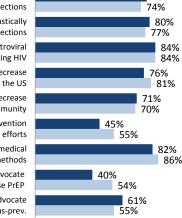
Rated "Extremely Familiar" or "Very Familiar"



#### Belief in Bio-Medical Interventions

Rated "Strongly Agree" or "Somewhat Agree"

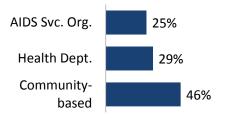
- PrEP can drastically reduce new HIV infections Topical microbicides could drastically reduce new HIV infections
- HIV vaccines could drastically reduce new HIV infections
- Treatment-as-prevention could drastically reduce new HIV infections
- Suppressing HIV viral load with antiretroviral treatment reduces the risk of transmitting HIV
- PrEP/treatment-as-prevention can decrease new HIV infection rates/viral loads in the US
- PrEP/treatment-as-prevention can decrease new HIV infection/viral loads in my community Oral PrEP could impede existing HIV prevention
- errors Interested in learning about new biomedical prevention methods
- Have proper knowledge/training to advocate
- for my community to use PrEP Have proper knowledge/training to advocate
- my community to use treatment-as-prev.



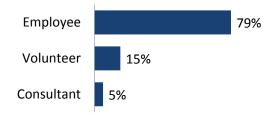
National

### Work Profile: DC DMA

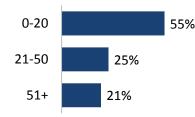
### Type of Organization



#### **Role in Organization**



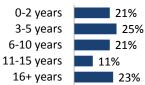
#### Size of Organization



#### **Primary Services**



#### Tenure in HIV Field

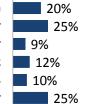


#### Tenure in Role

0-2 years	
3-5 years	21
6-10 years	14%
11-15 years	11%
16+ years	9%

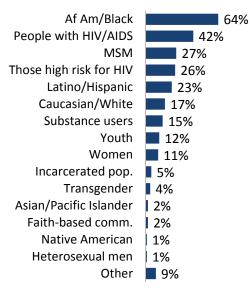
### Type of Role

Prevention & Outreach Director/Manager Administrator Case Mgmt/ Social Work **Supportive Services** Other



45%

21%



# **Black AIDS Institute**

Founded in May of 1999, the Black AIDS Institute is the only national HIV/AIDS think tank focused exclusively on Black people. The Institute's Mission is to stop the AIDS pandemic in Black communities by engaging and mobilizing Black institutions and individuals in efforts to confront HIV.

The Institute interprets public and private sector HIV policies, conducts trainings, offers technical assistance, disseminates information, and provides advocacy mobilization from a uniquely and unapologetically Black point of view.

Our motto describes a commitment to self-preservation: "Our People, Our Problem, Our Solution."

#### African American HIV University

The African American HIV University was developed in 1999 as a structural intervention program intended to change cultural norms and perceptions in the Black community around access to and utilization of HIV prevention services and to strengthen Black organizations' and individuals' capacity to address the HIV/AIDS epidemic in their communities.

AAHU is made up of two colleges. The Science and Treatment College is a four-stage program that raises HIV science and treatment literacy among HIV/AIDS workers and teaches them how to promote high-quality care in HIV/AIDS treatment and prevention, and implement HIP that leads to better outcomes along the HIV/AIDS treatment cascade and care continuum. Through the program, ASOs develop Black Treatment Advocates Networks to improve treatment outcomes and move toward viral suppression in Black communities.

The Community Mobilization College prepares community-based and AIDS service organizations to engage traditional Black institutions churches, civil rights and social organizations, political leaders, sororities/fraternities, academia, and the media—in local strategies to fight HIV.

#### Black Treatment Advocates Network

Black Treatment Advocates Network is the only collaboration of its kind, linking Black Americans with HIV into care and treatment, strengthening local and national leadership, connecting influential peers, raising HIV science and treatment literacy in Black communities, and advocating for policy change and research priorities. Each BTAN chapter hosts annual trainings and conducts treatment education, patient navigation, voluntary disclosure, and advocacy programming.

#### **Greater Than AIDS**

A collaboration between the Black AIDS Institute and the Kaiser Family Foundation, Greater Than AIDS is a national media campaign that increases awareness and encourages communities to be greater than any challenge ever faced, including HIV/ AIDS.

#### **Local Trainings**

The Institute hosts pre-conference strategic meetings and post-conference updates in connection with leading national and international HIV/ AIDS conferences. In conjunction with AAHU Fellows and local BTAN chapters, the Institute also conducts one-day trainings on groundbreaking HIV/AIDS topics in local communities.

#### **National Webinars**

The Institute broadcasts national webinars featuring acclaimed experts on various HIV/AIDS-related topics. Webinars occur each quarter and typically focus on groundbreaking HIV/AIDS science and research updates.

#### **Technical Assistance**

The Institute provides customized technical assistance to health departments, ASOs/CBOs, and clinical providers to enhance community engagement, improve HIV planning, and facilitate linkages between health departments, clinical providers, ASOs/ CBOs, and people living with HIV and/or at high risk for HIV infection.

#### **U.S. HIV Workforce Survey**

The U.S. HIV Workforce Survey assesses the knowledge, attitudes, and beliefs of the United States HIV/AIDS workforce.

Developed by the Black AIDS Institute in partnership with industry leaders, researchers, and health departments, the survey provides a baseline assessment of what the HIV/AIDS workforce knows about HIV transmission, HIP, biomedical interventions, and the National HIV/ AIDS Strategy.

#### **Brown Bag Lunch Program**

The Brown Bag Lunch Program is a series of monthly train-thetrainer webinars that raise the HIV programming knowledge of participants.

Each webinar is conducted by renown HIV experts who raise participants' levels of awareness about biomedical research, medical interventions, and HIV-related policy, as well as other critical health issues such as STIs and hepatitis C. Upon completion of the series, participants are better able to develop their own HIV/AIDS programming informed by the latest HIV research and science. FOR MORE INFORMATION OR MORE COPIES OF THIS REPORT, CONTACT: BLACK AIDS INSTITUTE 1833 WEST EIGHTH STREET #200 LOS ANGELES, CALIFORNIA 90057-4257 213-353-3610, 213-989-0181 FAX INFO@BLACKAIDS.ORG WWW.BLACKAIDS.ORG

