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
HIV Treatment Cascade

- Diagnosed: 82%
- Linked to care: 66%
- Retained in care: 37%
- Prescribed ART: 33%
- Viral Suppression: 25%
WHEN WE KNOW BETTER, WE DO BETTER!

US HIV WORKFORCE KNOWLEDGE SURVEY RESULTS

Presented by Phill Wilson,
President and CEO
Black AIDS Institute
A survey was designed to analyze the level of HIV Science and Treatment Literacy among the non-medical HIV/AIDS Workforce in US, in three areas:

- Basic Knowledge and Terminology
- Treatment Knowledge
- Clinical/Biomedical Knowledge

Data collected between 2012-2014
The primary objective of the study is to assess the level of knowledge of HIV science and treatment literacy, and familiarity with and attitudes about Bio-Medical interventions among nonmedical HIV workers.

In addition, the study hoped to gain insights on the following:

- Does the level of HIV Knowledge vary by respondent characteristics, such as:
  - Gender
  - Sexual Orientation
  - Ethnicity
  - HIV Status
  - Level of Education
  - Tenure in the HIV Field

- Does the level of HIV Knowledge vary by organizational characteristics, such as:
  - Organization Size
  - Organization Type
  - Services Provided
  - Communities Served
**Approach**

**Design**

A quantitative survey was developed to assess the level of HIV science and treatment knowledge. The instrument also measured familiarity with biomedical interventions, attitudes about biomedical interventions, respondent demographics, and information about the respondent’s work organization.

**Implementation**

- The survey was administered online, via iPad on site or via respondents’ computer
- There were multiple waves of data collection:
  - US Conference on AIDS (USCA)
  - National Rollout, conducted via intercepts in each of 10 US markets
  - Spanish language roll out with 300 respondents
  - State Survey via state & local health departments conducted in 43 states

<table>
<thead>
<tr>
<th>Wave</th>
<th>Dates</th>
<th># Completes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total across waves</td>
<td>9/30/12-9/7/14</td>
<td>3663</td>
</tr>
<tr>
<td>USCA</td>
<td>9/30-10/2/12</td>
<td>643</td>
</tr>
<tr>
<td>National Rollout</td>
<td>3/22-5/5/13</td>
<td>1523</td>
</tr>
<tr>
<td>Spanish Language augmentation</td>
<td>10/10-12/2/13</td>
<td>300</td>
</tr>
<tr>
<td>State Rollout</td>
<td>6/13-9/7/14</td>
<td>1197</td>
</tr>
</tbody>
</table>
Approach

Length

The survey took approximately 15 minutes to complete, on average.

Language

- At the USCA conference, the survey was offered in English only.
- For both the National Rollout and the State Rollout waves, the survey was offered in both English and Spanish.
- A Spanish only augmentation was rolled out in the fall of 2013 with 300 respondents.

Assessing HIV Knowledge

HIV Knowledge was assessed via 26 questions.

In order to prevent the use of outside sources of information to answer these questions, respondents were only allowed 60 seconds to answer each HIV Knowledge question. If they failed to answer in the allotted time, the survey moved on to the next question.

From these data an HIV Knowledge Score was calculated. The HIV Knowledge score is the percentage of correct answers on the 26 knowledge indicators.
In order to participate in the survey, all respondents had to do work that primarily focused on the domestic epidemic in the US and meet the following requirements:

- Age 18 or older
- Work in any of the following:
  - AIDS Service Organization
  - State/local health department
  - Other community-based organization
- Be non-medical personnel—no doctors, nurses, Pas, NPs
Overall, the level of knowledge of HIV science & treatment is quite low.

The average HIV Knowledge Score is 61%-63%

- Even the median score is only 64%
- with a score below 70%--67% get a D or lower
- Only 4% of those surveyed would get an A grade—that is, a score of 90% or above.
There were three knowledge categories, with the most basic category having the highest score.

Questions covered 3 major topic areas—Basic Knowledge & Terminology, Treatment and Clinical/Biomedical Interventions.

Scores were highest, on average, for Basic Knowledge and Terminology questions (73%-76%), and lowest for the questions pertaining to Clinical/Biomedical Interventions (45%-46%).

**Average Score by Category**

- Basic Knowledge & Terminology: 73%-76%
- Treatment: 54%-56%
- Clinical/Biomedical Interventions: 45%-46%
- All Questions: 61%-63%

**Proportion of questions per Category**

- Basic Knowledge & Terminology: 46%
- Treatment: 35%
- Clinical/Biomedical Interventions: 19%

*Image credit: The Black AIDS Institute*
HIV KNOWLEDGE SCORE PREDICTORS
On average, Black and Hispanic respondents scored lower than white and "other" respondents on the HIV Knowledge questions.

“Other" consists of respondents identifying themselves primarily as any one of the following: American Indian or Alaskan Native (n=37), Native Hawaiian or other Pacific Islander (n=26), Asian (n=57) or "Other" (n=76).

% Correct Answers by Race/Ethnicity

Overall mean: 63.1%

Sample size: 3363; African American: 1188; Hispanic: 441; White: 1538; Other: 196
Statistically significant differences between comparison groups marked with a letter (95% significance)
Education and tenure in the HIV field are the most powerful predictors of HIV Knowledge.

The higher the level of education, the higher the HIV Knowledge score:
- Those with a college degree score an average of almost 8 points higher compared to those with an Associate’s Degree or less education.
- Post-College education adds another 10 percentage points; those with graduate level education score 18 points higher, on average than respondents who have an AA degree or less education.

Greater tenure in the HIV field is also associated with higher HIV Knowledge Scores:
- 10-14 years in the field adds almost 3 points to one’s score
- Having 15+ years adds an additional 5 points; those with 15 or more years score 8 percentage points higher than those with less than 10 years of HIV field experience
HIV+ respondents score higher than those who are HIV-, on average.

% Correct Answers by HIV Status

Overall mean: 63.1%

Sample size: 3261; Positive: 526; Negative: 2735 (excludes DK and “Decline to state.”)
Statistically significant differences between comparison groups marked with a letter (95% significance)
Demographic Factors

Both Black and Hispanics score markedly lower on the HIV Knowledge questions.

- These effects are NOT due to lower levels of education or tenure, or to any other demographic or organizational differences.

LGBT and HIV+ respondents each score about 3 points higher on average, regardless of their level of education, tenure, organizational position, etc.

Since these ethnic, sexual orientation and HIV status effects are large and remain significant even when other demographic and organizational factors are statistically controlled, we assume they are due to the knowledge base these respondents bring from membership in these communities/experience with HIV.

- Being HIV+ would tend to raise one’s knowledge of the virus, through personal experience.
- Since the LGBT community has a longer history with HIV/AIDS, the level of awareness and base knowledge about HIV/AIDS may be higher for LGBT respondents.
- Awareness of HIV/AIDS has historically been lower and stigma higher in both the Black and Hispanic communities, so Black & Hispanic respondents may be entering the HIV field with a lower knowledge base concerning HIV/AIDS.
Respondents from the deep South score lower than those from other regions.

% Correct Answers by Region

Northeast (A): 65%
Midwest (B): 66%
(Deep) South (C): 61%
West (D): 64%

Overall mean: 63.1%

Sample size: 3036; Northeast: 790; Midwest: 455; (Deep) South: 1316; West: 495(excludes “Other”)

Statistically significant differences between comparison groups marked with a letter (95% significance)
State-Level Differences

While, North Carolina, Florida, Texas and Georgia have below average HIV Knowledge scores, Maryland respondents have above average scores. Those from Alabama, Louisiana, and DC have scores that are close to the national average.

**Top five States:**
- Ohio: 67%
- Pennsylvania: 66%
- Maryland: 66%
- Missouri: 65%
- District of Columbia: 64%

**Bottom five States:**
- Arizona: 62%
- Texas: 60%
- Florida: 60%
- Georgia: 59%
- North Carolina: 57%
When We Know Better, We Do Better

The 15 States with large enough samples to analyze, ranked from highest average score to lowest.

<table>
<thead>
<tr>
<th>State</th>
<th>Base size</th>
<th>Mean % correct</th>
<th>State Ranking of New Diagnoses - 2012</th>
<th>State Ranking of Blacks living w/ HIV - 2010</th>
<th>Established BTAN Cities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ohio</td>
<td>69</td>
<td>67%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>125</td>
<td>66%</td>
<td>9</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Missouri</td>
<td>83</td>
<td>65%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maryland</td>
<td>161</td>
<td>66%</td>
<td>8</td>
<td>5</td>
<td>+</td>
</tr>
<tr>
<td>California</td>
<td>279</td>
<td>61%</td>
<td>1</td>
<td>6</td>
<td>+</td>
</tr>
<tr>
<td>Illinois</td>
<td>149</td>
<td>63%</td>
<td>6</td>
<td>9</td>
<td>+</td>
</tr>
<tr>
<td>District Of Columbia</td>
<td>95</td>
<td>64%</td>
<td></td>
<td></td>
<td>+</td>
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<tr>
<td>New York</td>
<td>280</td>
<td>62%</td>
<td>4</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Louisiana</td>
<td>141</td>
<td>62.7%</td>
<td></td>
<td></td>
<td>+</td>
</tr>
<tr>
<td>Alabama</td>
<td>120</td>
<td>62%</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Arizona</td>
<td>50</td>
<td>62%</td>
<td></td>
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<tr>
<td>Texas</td>
<td>398</td>
<td>60%</td>
<td>3</td>
<td>3</td>
<td>+</td>
</tr>
<tr>
<td>Florida</td>
<td>202</td>
<td>60%</td>
<td>2</td>
<td>2</td>
<td>+</td>
</tr>
<tr>
<td>Georgia</td>
<td>151</td>
<td>59%</td>
<td>5</td>
<td>4</td>
<td>+</td>
</tr>
<tr>
<td>North Carolina</td>
<td>99</td>
<td>57%</td>
<td>10</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>

Sample size: 3363; States combined across the three waves
Statistically significant differences between comparison groups marked with a letter (95% significance)).
The lower scores in the southern states are visually clear here.

Sample size: 3363; States combined across the three waves. Highest scoring states included in this analysis are those with high enough base sizes for reasonable comparisons: Ohio, Pennsylvania, Missouri, Maryland, California, Illinois. Lowest scoring states included in this analysis are those with high enough base sizes for reasonable comparisons: Nevada, North Carolina, Georgia, Mississippi, Florida, Texas. Statistically significant differences between comparison groups marked with a letter (95% significance).
FAMILIARITY AND ATTITUDES
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) are significantly more likely to have higher scores on the HIV Knowledge questions. This makes sense, as both the knowledge questions and the agreement/familiarity questions appear to measure knowledge of HIV.

Sample size: 3363
Statistically significant differences between comparison groups marked with a letter (95% significance)
DEMOGRAPHICS
The sample was fairly equally divided by gender (at birth) overall, but the National Rollout wave had a proportionately higher representation of men than other waves, while the State Survey had a higher representation of women.

**Gender by Wave**

- **USCA (A)**: 41% Male, 57% Female
- **National Rollout (B)**: 57% Male, 43% Female
- **State Survey (C)**: 59% Male, 66% Female

Sample size: 3363; USCA wave: 643; National Rollout: 1523; State Survey: 1197

Statistically significant differences between comparison groups marked with a letter (95% significance)
Survey respondents are primarily either white (47%) or Black (35%), with the next largest group identifying primarily as Hispanic (11%).

African American representation was higher and white representation lower among USCA respondents.

Race/Ethnicity

Sample size: 3363; USCA wave: 643; National Rollout: 1523; State Survey: 1197

Statistically significant differences between comparison groups marked with a letter (95% significance)
Overall, close to 70% of respondents identify as heterosexual.

USCA & State Survey Respondents are also more likely than those from the National Rollout to identify as Gay/Lesbian, but the percentages identifying as bisexual or other are comparable across waves.

Sexual Orientation

- Heterosexual/Straight
- Gay/Lesbian
- Bisexual/Other

Sample size: 3363; USCA wave: 643; National Rollout: 1523; State Survey: 1197

Statistically significant differences between comparison groups marked with a letter (95% significance)
Overall, almost three quarters of respondents have at least a college degree, and nearly 40% have a graduate degree.

Educational attainment is highest among the USCA and State Survey respondents, with almost half in each of these two waves having at least some graduate education.

**Education by Wave**

- **USCA (A)**
  - Assoc degree or below: 28%
  - College Degree: 27%
  - Some graduate educ or above: 28%

- **National Rollout (B)**
  - Assoc degree or below: 25%
  - College Degree: 38%
  - Some graduate educ or above: 24%

- **State Survey (C)**
  - Assoc degree or below: 47%
  - College Degree: 35%
  - Some graduate educ or above: 48%

**Sample size:** 3363; USCA wave: 643; National Rollout: 1523; State Survey: 1197

Statistically significant differences between comparison groups marked with a letter (95% significance)
An overwhelming majority of respondents report being HIV negative.

**HIV Status**
- Positive: 15%
- Negative: 82%
- Do not Know: 1%
- Decline to State: 2%

**HIV Status by Wave**
- USCA (A)
- National Rollout (B)
- State Survey (C)

Sample size: 3363; USCA wave: 643; National Rollout: 1523; State Survey: 1197

Statistically significant differences between comparison groups marked with a letter (95% significance)
ORGANIZATION AND POSITION BREAKDOWN
Respondents are most likely to work for an AIDS service organization or a community-based organization.

State Survey respondents are the most likely to be work in state/local health departments, however, their distribution across the 3 organization types is relatively even, while USCA respondents are more concentrated in other community-based organizations and National Rollout respondents in AIDS service organizations.

**Type of Organization by Wave**

<table>
<thead>
<tr>
<th>Type of Organization</th>
<th>USCA (A)</th>
<th>National Rollout (B)</th>
<th>State Survey (C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIDS Service Organization</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>State/local health department</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other community-based organization</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

45%  
34%  
21%

Sample size: 3363; USCA wave: 643; National Rollout: 1523; State Survey: 1197
Statistically significant differences between comparison groups marked with a letter (95% significance)
Among the total sample, about half are working in either prevention/outreach or in case management/social work.

- National Rollout respondents are more concentrated in case management/social work and support services than those from the other two waves. State Survey respondents are least likely to work in prevention & outreach and more likely to be administrators.

**Role in Organization by Wave**

- **USCA (A)**
  - Prevention & Outreach: C 28%, AC 18%
  - Case Mgmt/Social Work: A 11%, B 12%
  - Director/Mgr: B 8%, AB 6%
  - Administrator: AC 15%, B 17%

- **National Rollout (B)**
  - Prevention & Outreach: C 26%
  - Case Mgmt/Social Work: A 18%
  - Director/Mgr: B 18%
  - Administrator: AB 11%

- **State Survey (C)**
  - Prevention & Outreach: C 22%
  - Case Mgmt/Social Work: A 18%
  - Director/Mgr: B 12%
  - Administrator: AB 13%

**Sample size:** 3363; USCA wave: 643; National Rollout: 1523; State Survey: 1197

Statistically significant differences between comparison groups marked with a letter (95% significance).
On average, respondents have worked in the HIV field for about 9 years, but there is marked variation in field tenure, with close to a quarter in the field for less than 3 years and a third in the field for more than 10 years.

Tenure in HIV Field

- 0-2 years: 21%
- 3-5 yrs: 27%
- 6-10 yrs: 20%
- 11-15 yrs: 13%
- 16+: 19%

Median: 6.0
Mean: 8.8
Std. Deviation: 7.8

Sample size: 3363; USCA wave: 643; National Rollout: 1523; State Survey: 1197

Statistically significant differences between comparison groups marked with a letter (95% significance).
RECOMMENDATIONS
Further training is desperately needed and should focus on treatment and new biomedical interventions, and how to do culturally competent outreach.
4 recommendations to raise the HIV/AIDS Science and Treatment knowledge

Call for a national movement to increase science and treatment knowledge to end the AIDS Epidemic in America.

Most respondents had HIV Knowledge Scores of a D or F (below 70%), while only 4% scored an A grade of 90% or higher.

1. 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.
   The curricula multifaceted and should focus on the two weakest topic areas:
   — Clinical/Biomedical interventions
   — HIV Treatment
2. Developing a clear set of core competencies for workers in the HIV field would help increase baseline knowledge
3. Establish a nationwide certification program for the HIV/AIDS workforce.
4. Require that HIV/AIDS workers pursue continuing education on HIV science and treatment issues.

In addition, the material should be presented in a culturally competent manner; talking about HIV to the Black or Hispanic communities presents different challenges than doing so to the LGBT community, and guidance on how to talk about the virus with these different communities is an essential part of training.
Organizations working in HIV testing, prevention, outreach, patient navigation, and adherence need to make an extra effort to educate Black and Hispanic workers in the field.

The low level of awareness and high levels of stigma associated with HIV in the Black, Hispanic, southern Communities has an adverse impact on the knowledge level of AA and Hispanic workers in the HIV field.

- Having highly trained HIV workers from these three communities is vital.
- Paradoxically, it is the low level of HIV awareness and knowledge in the Black, Hispanic, and southern communities that makes reaching these communities so important.
- Providing guidance to those who work with these communities so that they know how to talk about HIV in terms that are less likely to alienate the populations they serve seems critical.
Greater representation of those with the virus might help improve the level of knowledge in states with low scores.

It would seem that having workers who are HIV+ would not only tend to increase the level of knowledge of the workforce in these states but might also improve outreach more generally.

- Who better to reach out than those who have the virus themselves?
NATIONAL ROLLOUT PLAN

THE BLACK AIDS INSTITUTE
<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>City</th>
<th>Agencies</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friday</td>
<td>10 am-12 pm</td>
<td>Dallas</td>
<td>Dallas County Health and Human Services; AIDS Arms, Inc.</td>
<td>Dallas County Health and Human Services 2377 N. Stemmons Fwy., Rm. 627</td>
</tr>
<tr>
<td>February 6</td>
<td>11 am-1:30 pm</td>
<td>Broward</td>
<td>Florida Health Department; Broward Health; Community Access Center Fort Lauderdale; Broward Schools</td>
<td>City of Lauderdale Lakes City Hall Multi-Purpose Building 4340 N.W. 36 St. Ft. Lauderdale, FL 33319</td>
</tr>
<tr>
<td>Friday</td>
<td>12:30-3:30 pm</td>
<td>Baltimore</td>
<td>Maryland Department of Health and Mental Hygiene; University of Maryland</td>
<td>Department of Health and Mental Hygiene Baltimore, MD 21202</td>
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<tr>
<td>February 6</td>
<td>1-4 pm</td>
<td>Atlanta</td>
<td>Fulton County Health Department</td>
<td>Loudermilk Conference Center 40 Courtland St., N.E., Atlanta, GA 30303</td>
</tr>
<tr>
<td>Friday</td>
<td>10-2pm</td>
<td>Los Angeles</td>
<td>One Woman Can; Los Angeles County Health Department Division of HIV &amp; STD Programs; Magic Johnson Foundation; National Coalition of Negro Women View Park Section; APLA Health &amp; Wellness; The Wall Las Memorias; ReachLA; Wellness Station Pueblo Del Rio Housing, Beverly Hills/Hollywood NAACP, LA LGBT Center, I Choose Life Health &amp; Wellness Centers</td>
<td>Offices of Supervisor Mark Ridley-Thomas 700 Exposition Park Drive, Los Angeles, CA 90037</td>
</tr>
<tr>
<td>Monday</td>
<td>9 am-12 pm</td>
<td>Houston</td>
<td>Texas Department of State Health Services; Houston Department of Health and Human Services; Bee Busy, Inc; AIDS Foundation Houston; Legacy Community Health Services</td>
<td>Houston Department of Health and Human Services Northeast Multi-Service Center 9720 Spaulding St. Houston, TX 770016</td>
</tr>
<tr>
<td>February 9</td>
<td>11 am-1 pm</td>
<td>Kansas City</td>
<td>State of Missouri Department of Health and Senior Services Bureau of HIV, STD, and Hepatitis, HIV/STD; City of Kansas Health Department</td>
<td>Kansas City Health Department 2400 Troost Ave. Kansas City, MO 64108</td>
</tr>
<tr>
<td>Monday</td>
<td>11 am-2 pm</td>
<td>Charlotte</td>
<td>Mecklenburg County Health Department; Carolinas CARE Partnership; North Carolina AIDS Action Network; Quality Home Health Care; RAIN; Novant Health</td>
<td>Mecklenburg Government Center 600 E. 4th St., Rm. CH14</td>
</tr>
<tr>
<td>February 9</td>
<td>6:30-8:30 pm</td>
<td>Oakland</td>
<td>Alameda County Health Department, East Bay AIDS Center, Allen Temple Baptist Church AIDS Ministry</td>
<td>Lake Chalet 1520 Lakeside Dr. Oakland, CA 94612</td>
</tr>
<tr>
<td>Wednesday</td>
<td>9 am-12 pm</td>
<td>Chicago</td>
<td>Chicago Department of Public Health; AIDS Foundation of Chicago</td>
<td>Conference Chicago at University Center Lake Room 525 S. State St., Chicago, IL 60605</td>
</tr>
</tbody>
</table>
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State of HIV/AIDS Science and Treatment Literacy in the HIV Workforce

THANK YOU!

#KnowBetterDoBetter