



# Investigating the Vocational Rehabilitation Service Experience of African American Women Diagnosed with HIV/AIDS

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# Background/Rationale

## HIV and Women:

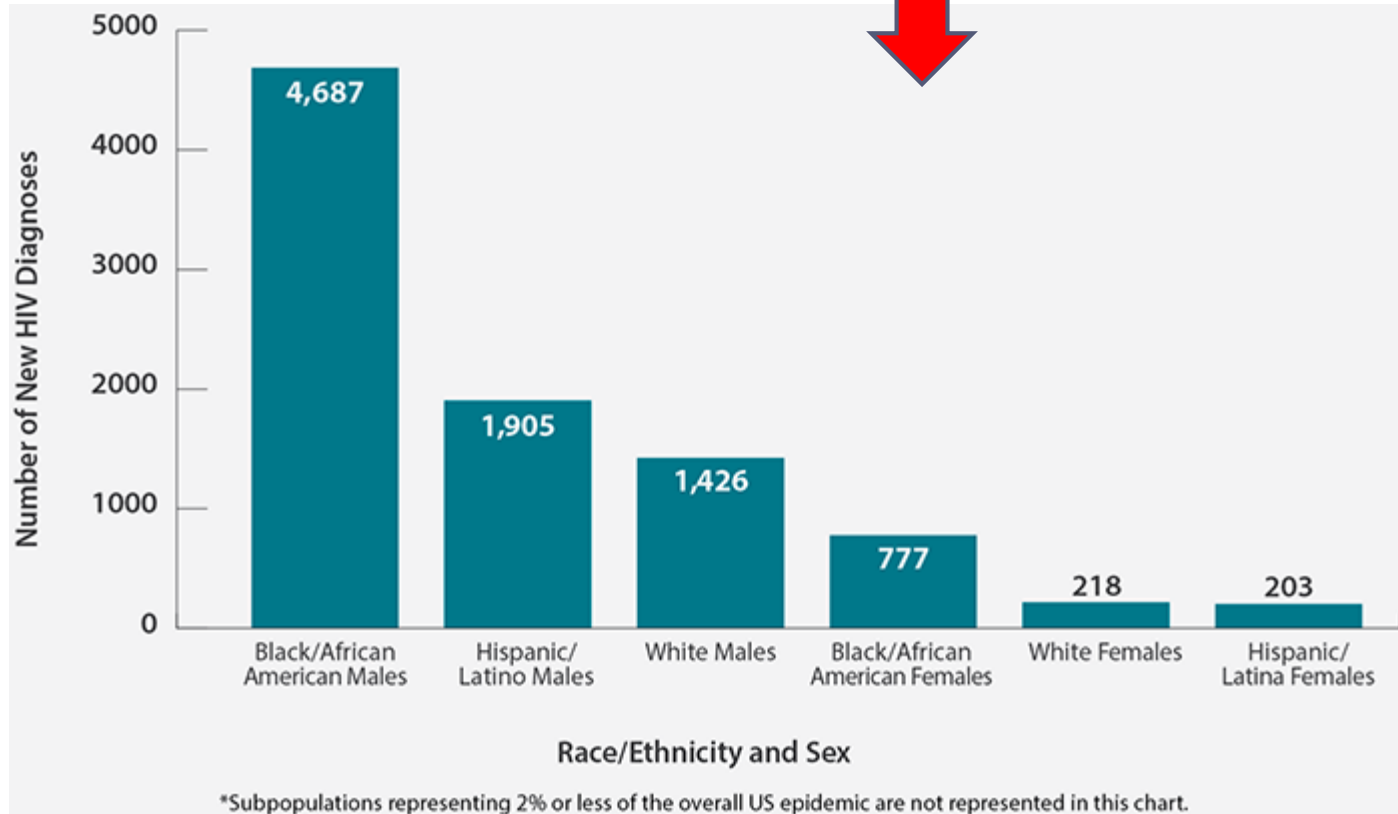
Recent data from Centers for Disease Control and Prevention (2016)

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- ▶ 2005-2014: New HIV diagnoses declined 40% among women
  - ▶ 42% among African American women
  - ▶ 30% among white women
  - ▶ 35% among Latina women
  
- ▶ 2013: Living with HIV
  - ▶ 61% (137,504) African American,
  - ▶ 17% (39,177) White,
  - ▶ 17% (38,664) Hispanics/Latinas
  
- ▶ 2014: HIV Diagnosis
  - ▶ 5,128 African American
  - ▶ 1,483 White
  - ▶ 1,350 Hispanic/Latino women



# Transition Age Youth with HIV/AIDS



**2014- Estimated New HIV Diagnoses Among Youth Aged 13-24 in the United States, by Race/Ethnicity and Sex**

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# NATIONAL HIV/AIDS STRATEGY for the UNITED STATES:

UPDATED TO 2020

JULY 2015



- ▶ **Reduce New Infections**
- ▶ **Increase Access to Care and Improve Health Outcomes for People Living with HIV**
- ▶ **Reduce HIV-Related Health Disparities and Health Inequities**
- ▶ **Achieve a More Coordinated National Response to the HIV Epidemic**

## VISION

The United States will become a place where new HIV infections are rare, and when they do occur, every person, regardless of age, gender, race/ethnicity, sexual orientation, gender identity, or socio-economic circumstance, will have unfettered access to high quality, life-extending care, free from stigma and discrimination.



# Media Releases

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- ▶ <https://www.youtube.com/watch?v=ejJ3CLqiZ8A&feature=youtu.be>
- ▶ [https://www.youtube.com/watch?v=hpGQN\\_qmtfk&feature=youtu.be](https://www.youtube.com/watch?v=hpGQN_qmtfk&feature=youtu.be)





# Research Questions

# Research Question 1

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- ▶ For the years 2010-2013, is there a statistically significant difference in the eligibility/acceptance rate of African American women diagnosed with HIV compared to the rest of the population of persons with disabilities serviced by the state-federal vocational rehabilitation system?





## Research Question 2

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- ▶ For the years 2010-2013, what factors (age, education level, receipt of cash benefits, and vocational rehabilitation services received) influenced competitive employment status for African American women diagnosed with HIV serviced in the state-federal vocational rehabilitation system?





Method

# RSA-911 Data Set

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- ▶ Data for this ex-post facto study was retrieved from the RSA-911 database for fiscal years of 2010 to 2013.
  - ▶ Coding procedure used to conduct analysis in this study is in confirmation with guidelines established by RSA in 1995.
  - ▶ Although, RSA uses 18 crosscheck to overcome inaccurate data entry and coding error, an unknown number of errors that are assumed to be random may still exist.
  - ▶ After deleting cases with missing data, RSA-911 data for analysis included 2,371,024 clients whose cases were closed from 2010 to 2013.
  - ▶ As the focus of this study was on African American women with HIV, those cases were extracted from the larger data set.
  - ▶ **The primary dataset for analysis included 743 African American women with HIV.**
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# Dependent Variable 1

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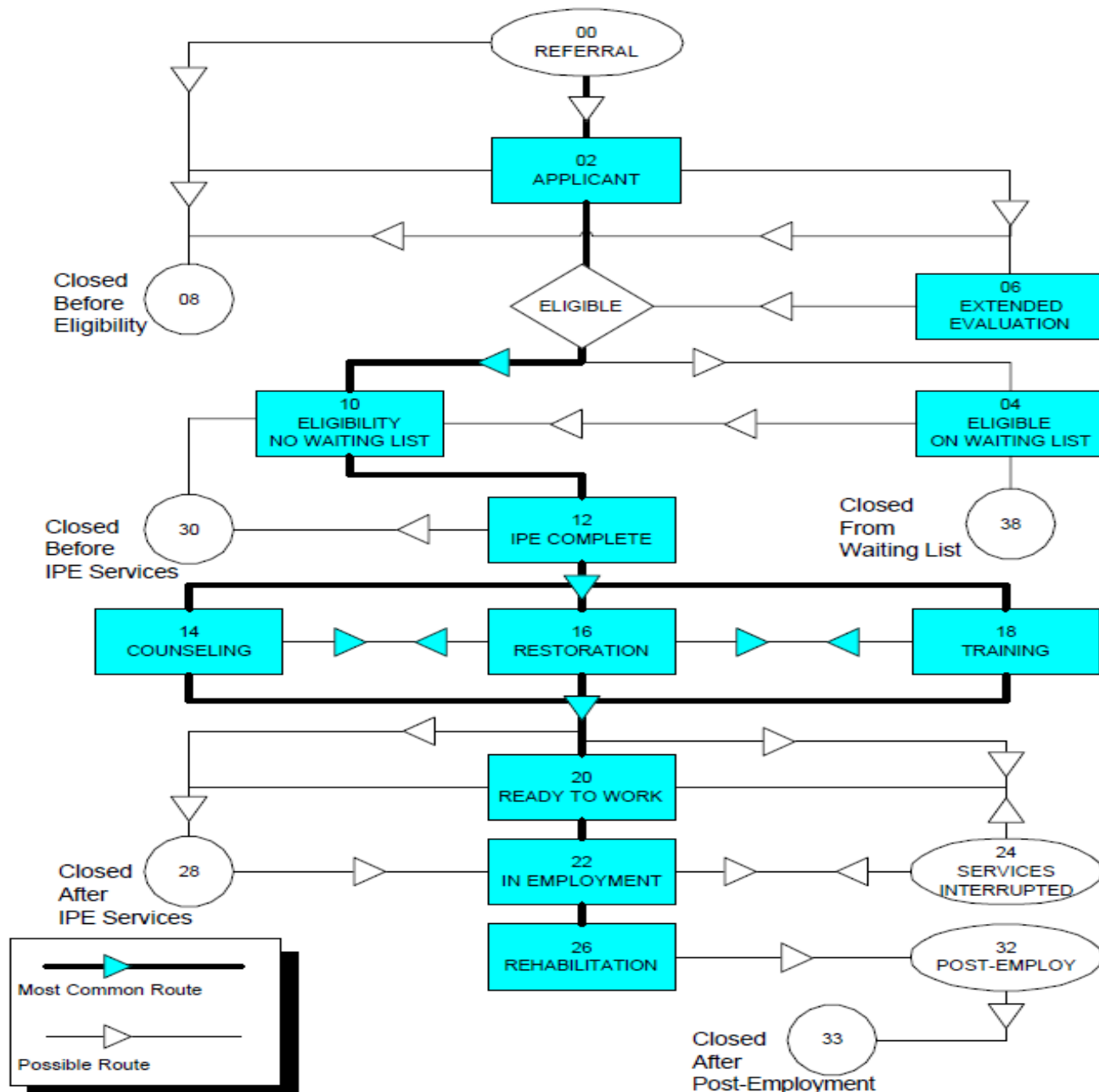
- ▶ **Eligibility/Acceptance Rate** of African American women with HIV (compared to all vocational rehabilitation clients for fiscal years 210-2013)
  1. **Exited as an applicant** Statuses 02 or 08
  2. **Exited during or after a trial work experience/extended evaluation** Statuses 06 or 08
  3. **Exited with an employment outcome** Status 26
  4. **Exited without an employment outcome, after receiving services** Status 28
  5. **Exited without an employment outcome, after a signed IPE, but before receiving services** Status 28
  6. **Exited from an order of selection waiting list** Statuses 04 or 38
  7. **Exited without an employment outcome, after eligibility, but before an IPE was signed** Status 30

*Red recoded as application not accepted/ineligible for services*

*Green recoded as application accepted/eligible for services*

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# Dependent Variable 2

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- ▶ **Competitive Employment Status** of African American women diagnosed with HIV
  - ▶ Competitive employment defined as:
    - ▶ working full-time or part-time in an integrated setting
    - ▶ self-employment
    - ▶ In Business Enterprise program for  $\geq$ minimum wage
  - ▶ Non-competitive employment
    - ▶ not employed in an integrated setting after receiving the VR services and completing the program



# Independent Variables

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## Related to DV 1

- ▶ Impact of race (African American), gender (woman), and disability type (HIV) on acceptance/eligibility rate.

## Related to DV 2

- ▶ Impact of age, education level, and receipt of cash benefits (Supplemental Security Income or Social Security Disability Insurance) on competitive employment status.
- ▶ Impact of vocational rehabilitation services received on competitive employment status.



**Table 1**

Frequency and percentage of VR service distribution by age

	Age 16-34 N (%)	Age 35-54 N (%)	Age 55-64 N (%)
<b>Assessment</b>	<b>88 (63.8%)</b>	<b>325 (59.5%)</b>	<b>31 (52.5%)</b>
Diagnosis and Treatment of Impairments	44 (31.9%)	174 (31.9%)	23 (39.0%)
<b>Vocational Rehabilitation Counseling and Guidance</b>	<b>87 (63.0%)</b>	<b>307 (56.2%)</b>	<b>26 (44.1%)</b>
College or University Training	29 (21%)	64 (11.7%)	8 (13.6%)
Occupational/Vocational Training	22 (15.9%)	117 (21.4%)	6 (10.2%)
On-the-Job Training	2 (1.4%)	11 (2.0%)	0 (0%)
Basic Academic Remedial or Literacy Training	1 (0.7%)	6 (1.1%)	0 (0%)
Job Readiness Training	18 (13%)	84 (15.4%)	89 (13.6%)
Disability-Related, Augmentative Skills Training	5 (3.6%)	10 (1.8%)	1 (1.7%)
Miscellaneous Training	16 (11.6%)	77 (14.1%)	13 (22%)
Job Search Assistance	26 (18.8%)	121 (22.2%)	10 (16.9%)
Job Placement Assistance	42 (30.4%)	215 (39.4%)	21 (35.6%)
On-the-Job Supports	15 (10.9%)	49 (9.0%)	7 (11.9%)
<b>Transportation Services</b>	<b>65 (47.1%)</b>	<b>289 (52.9%)</b>	<b>37 (62.7%)</b>
Maintenance Services	29 (21.0%)	93 (17.0%)	8 (13.6%)
Rehabilitation Technology	4 (2.9%)	23 (4.2%)	3 (5.1%)
Reader Services	0 (0%)	2 (0.4%)	0 (0%)
Interpreter Services	0 (0%)	2 (0.4%)	0 (0%)
Personal Attendant Services	0 (0%)	0 (0%)	0 (0%)
Technical Assistance Services	0 (0%)	3 (0.5%)	0 (0%)
Information and Referral Services	14 (10.1%)	69 (12.6%)	4 (6.8%)
Other Services	39 (28.3%)	191 (35.0%)	15 (25.4%)



**Table 2.** Description of Vocational Rehabilitation Services

Types of Services	Descriptions of Services
<i>Assessment</i>	<b>Services provided and activities performed to determine an individual's eligibility for vocational rehabilitation services, to assign an individual to a priority category of a state vocational rehabilitation agency that operates under an order of selection, and/or to determine the nature and scope of vocational rehabilitation services to be included in the Individual Plan for Employment (IPE); included in this category are trial work experiences and extended evaluation.</b>
<i>Diagnosis and Treatment of Impairments</i>	Surgery, prosthetics and orthotics, nursing services, dentistry, occupational therapy, physical therapy, speech therapy, and drugs and supplies; this category includes diagnosis and treatment of mental and emotional disorders.
<i>Vocational Rehabilitation Counseling and Guidance</i>	<b>Discrete therapeutic counseling and guidance services necessary for an individual to achieve an employment outcome, including personal adjustment counseling; counseling that addresses medical, family, or social issues; vocational counseling; and any other form of counseling and guidance necessary for an individual with a disability to achieve an employment outcome; this service is distinct from the general counseling and guidance relationship that exists between the counselor and the individual during the entire rehabilitation process.</b>
<i>College or University Training</i>	Full-time or part-time academic training above the high school level that leads to a degree (associate, baccalaureate, graduate, or professional), a certificate, or other recognized educational credential; such training may be provided by a four-year college or university, community college, junior college, or technical college.
<i>Occupational/Vocational Training</i>	Occupational, vocational, or job skill training provided by a community college and/or a business, vocational/trade, or technical school to prepare students for gainful employment in a recognized occupation; this training does not lead to an academic degree or certification.
<i>On-the-Job Training</i>	Training in specific job skills by a prospective employer; generally the individual is paid during this training and will remain in the same or a similar job upon successful completion; this category also includes apprenticeship training programs conducted or sponsored by an employer, a group of employers, or a joint apprenticeship committee representing both employers and a union.



<i>Basic Academic Remedial or Literacy Training</i>	Literacy training or training provided to remediate basic academic skills needed to function on the job in the competitive labor market.
<i>Job Readiness Training</i>	Training to prepare an individual for the world of work (e.g., appropriate work behaviors, methods for getting to work on time, appropriate dress and grooming, methods for increasing productivity).
<i>Disability-Related, Augmentative Skills Training</i>	Service includes, but is not limited to, orientation and mobility, rehabilitation teaching, training in the use of low vision aids, Braille, speech reading, sign language, and cognitive training/retraining.
<i>Miscellaneous Training</i>	Any training not recorded in one of the other categories listed, including GED or high school training leading to a diploma.
<i>Job Search Assistance</i>	Job search activities that support and assist a consumer in searching for an appropriate job; may include help in preparing resumes, identifying appropriate job opportunities, and developing interview skills, and may include making contacts with companies on behalf of the consumer.
<i>Job Placement Assistance</i>	A referral to a specific job resulting in an interview, whether or not the individual obtained the job.
<i>On-the-Job Supports</i>	Support services provided to an individual who has been placed in employment in order to stabilize the placement and enhance job retention; such services include job coaching, follow-up and follow-along, and job retention services.
<i>Transportation Services</i>	<b>Travel and related expenses necessary to enable an applicant or eligible individual to participate in a vocational rehabilitation service; includes adequate training in the use of public transportation vehicles and systems.</b>



<i>Maintenance Services</i>	Maintenance means monetary support provided for those expenses such as food, shelter and clothing that are in excess of the normal expenses of the individual, and that are necessitated by the individual's participation in an assessment for determining eligibility and vocational rehabilitation needs or while receiving services under an individualized plan for employment (IPE).
<i>Rehabilitation Technology</i>	The systematic application of technologies, engineering methodologies, or scientific principles to meet the needs of, and address the barriers confronted by, individuals with disabilities in areas that include education, rehabilitation, employment, transportation, independent living, and recreation; includes rehabilitation engineering services, assistive technology devices, and assistive technology services.
<i>Reader Services</i>	Services for individuals who cannot read print because of blindness or other disability; includes reading aloud and transcribing printed information into Braille or sound recordings if requested by the individual; generally are offered to individuals who are blind or deaf-blind but may also be offered to individuals unable to read because of serious neurological disorders, specific learning disabilities, or other physical or mental impairments.
<i>Interpreter Services</i>	Sign language or oral interpretation services performed by specially trained persons for individuals who are deaf or hard of hearing, and tactile interpretation services for individuals who are deaf-blind; includes real-time captioning services; does not include language interpretation.
<i>Personal Attendant Services</i>	Those personal services that an attendant performs for an individual with a disability such as bathing, feeding, dressing, providing mobility and transportation, and so on.
<i>Technical Assistance Services</i>	Technical assistance and other consultation services provided to conduct market analyses, to develop business plans, and to provide resources to individuals in the pursuit of self-employment, telecommuting, and small business operation outcomes.
<i>Information and Referral Services</i>	Services provided to individuals who need assistance from other agencies (through cooperative agreements) not available through the vocational rehabilitation program.
<i>Other Services</i>	All other vocational rehabilitation services that cannot be recorded elsewhere; included here are occupational licenses, tools and equipment, initial stocks and supplies, and medical care for acute conditions arising during rehabilitation and constituting a barrier to the achievement of an employment outcome.



# Data Analysis 1:

## Chi Square Test of Independence

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- ▶ Chi-square test for independence examines if there is statistical differences between categorical variables to investigate if there is an **actual difference** between those variables or it is because of sampling errors.
- ▶ Contingency tables are used to show percentages and counts of those variables.



## Data Analysis 2: Multiple Logistic Regressions

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- ▶ Multivariate logistic regression analysis was performed to investigate factors influencing competitive employment rate for African American women diagnosed with HIV.
- ▶ Hosmer, Lemeshow, and Sturdivant (2013) suggested to use “purposeful selection” between the predictor variables in logistic regression analysis because it produces most parsimonious and “best-fit” model.



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- ▶ The 7 steps of purposeful selection method was recommended as follows.
    1. Identifying variables that have one-on-one significant relationships with the outcome variable using an  $\alpha$  level of .20 or .25 to recruit important predictor variables.
    2. Entering all variables that were found to have a significant relationship with competitive employment at step 1 using “enter” method
    3. Retaining variables that were significant using an  $\alpha$  level of .05, and removing variables that were not significant and removal of them did not change the  $\beta$  coefficients of the significant variables by more than 20%.
    4. Entering variables that were not significant at step 1 into the regression model one at a time and retaining them if they turned out to be significant
    5. Examining the variables and changes in the model more closely.
    6. Checking interactions between the variables in the model
    7. Assessing adequacy of the model and checking the model’s fit



# Results

## Results 1: Chi Square Test of Independence

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- ▶ The results indicated there was a **significant difference in acceptance/eligibility rate** between African American women diagnosed with HIV and the rest of the VR population.
- ▶ AA women with HIV had **lower rejection rates** than rest of the VR clients,  $X^2 (1, 2371024) = 6.200, p < .01$ .
- ▶ Ineligibility rates of AA with HIV was 14% versus 17% for other customers.





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- ▶ However, when **reasons for closure** were examined, the results indicated **there was a significant difference**,  $X^2 (14, 2371024) = 110.303, p < .01$  between African American women with HIV and other clients.
  - ▶ Despite the fact that African American women had lower rejection rate, in the VR system, they had **lower closure rate (19.4%)** that resulted in **less employment** than rest of the VR clients (30.1%).
  - ▶ In addition, African American women with HIV had:
    - ▶ **lower rates of service refusal** (15.5% versus 17.2%),
    - ▶ **higher rates of refused to cooperate** (23.8% versus 14.3%)
    - ▶ and **higher rates of unable to locate** (24% to 19.5%) than rest of the VR population.
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## Results 2: Competitive Employment Status

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- ▶ After completing vocational rehabilitation services, **more than half, 61.8%**, of the African American women clients diagnosed with HIV **did not achieve competitive employment.**



## Results 2:

### Variables impacting competitive employment status

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	Competitive Employment <i>M (SD)</i>	Non- competitive employment <i>M (SD)</i>	<i>t (p-value)</i>	<i>d</i>
Number of Services provided	4.37 (2.20)	3.89 (2.10)	$t_{(673)} = -2.84 (p < .001)$	-.21
Median cost of services	\$2829 (\$5907)	\$1624 (\$3820)		
Time in VR services	23.50 (18.71)	33.12 (23.81)	$t_{(636)} = 5.83 (p < .01)$	.46



## Results 2: Most Provided Services

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- ▶ Assessment (60.0%),
- ▶ Vocational Rehabilitation Counseling and Guidance (55.6%),
- ▶ Transportation (53.0%)

- ▶ *Less than 1% of the clients were provided technical assistance, personal attendance, interpreter, reader, basic academic remedial or literacy training services. Therefore, those services were not put in the regression analysis.*



## Results 2: Predictor Variables in Regression Model

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- ▶ **age at application**
  - ▶ 16-34 (reference category)
  - ▶ 35-54
  - ▶ 55-64
- ▶ **education level at application**
  - ▶ special education
  - ▶ less than high school
  - ▶ high school graduate,
  - ▶ associate degree,
  - ▶ bachelor degree or higher (reference category)
- ▶ **Receipt of cash benefits**
  - ▶ SSI
  - ▶ SSDI
  - ▶ No SSI/SSDI (reference category)
- ▶ **Vocational rehabilitation services**
  - ▶ 18 of the 22 services listed in Tables 1 and 2

# Results 2: Significant Predictor Variables

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▶ Step 1: Predictors with significant correlation to competitive employment status ( $p < .20$ ; see step 1, Hosmer et al., 2013)

- ▶ Receipt of cash benefits
- ▶ Vocational Rehabilitation Services
  - ▶ job placement
  - ▶ maintenance
  - ▶ diagnosis and treatment
  - ▶ occupational/vocational training,
  - ▶ on-the-job training
  - ▶ disability related augmentative skills training
  - ▶ job search assistance
  - ▶ on-the-job support

▶ Step 2: Predictors associated with competitive employment in presence of all predictor variables

- ▶ Receipt of cash benefits
- ▶ Vocational rehabilitation services
  - ▶ Job placement
  - ▶ Maintenance
  - ▶ Diagnosis and treatment

\*Removing each variable that was not significant in step 2, one by one, did not change the  $\beta$  level of any of the significant variables by more than 20% (see step 3; Hosmer et al., 2013).

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Table 3

Logistic Regression: Odds ratio (95% confidence interval) of obtaining competitive employment for African American women diagnosed with HIV

<b>Predictor Variable</b>	<b>Odds Ratio</b>	<b>Confidence Interval</b>
Cash Benefits	0.58	0.41-0.80
Job placement services	2.71	1.95-3.78
Maintenance Services	1.70	1.11-2.59
Diagnosis and Treatment Services	0.65	0.46-0.93



# Conclusions / Implications



# Shift of perception of HIV/AIDS

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Are we doing enough to help educate and empower our community on the subject of HIV and AIDS? Have we become so complacent that we are OK with the alarming statistics that are working against our people? Are we ourselves part of the problem as we choose to ignore the real issues?  
– Hydeia Broadbent



Just as those with various diseases are embraced and cared for by the community, we must extend that same courtesy to those infected with HIV and AIDS and end the judgmental ideologies and begin educating.  
-Hydeai Broadbent



“It’s about maintaining dignity when your back is against the wall,”

“One day my body reshaped itself without my permission,” the fashion lover says. She saw her size 6 frame transform into a broad-shouldered size 14 on top and a size 4 in the waist. “None of my clothes fit. I worked hard to reshape my body,” she recalls. She also had fat buildup under her chin. A dermatologist at her AIDS clinic performed liposuction. “I still have a slight pouch,” she says. “It’s a visible reminder I have HIV.”

New medicines arrived with new issues. Kaletra gave Lewis-Thornton kidney stones and Saquinavir caused violent dreams. “I held on,” she remembers. “Then I looked up and I was still alive.”

“By 1996, my T-cell count was 8 and my viral load was 397,000,” says Lewis-Thornton.



# Are we using all available resources?

## ▶ U.S. Department of Housing and Urban Development

<https://www.hudexchange.info/training-events/dol-hud-getting-to-work-curriculum-for-hiv-aids-providers/>

**Module 1: Understanding the Value of Work**  
This module is the first in a three-part series. In it, we will explore the many reasons why people living with HIV/AIDS are choosing work, and why service providers should be considering employment options with them.

**Module 2: Adopting an Employment and Training Mindset – Organizationally and Individually**  
This module is the second in a three-part series. In it, we will explore what employment services are and how they can be delivered.

**Module 3: Incorporating Employment into the HIV/AIDS Service Menu**  
This module is the third in a three-part series. In it, we will explore promising strategies for delivering employment services, including cultivating collaborations with key partners.

**Disclaimer:**  
The name, title, and organizational affiliation of video recorded participants are accurate as of the recording date of May 1, 2014 and may have changed prior to the launch of this curriculum.

**System Requirements:**

- Adobe Flash Player is required to view the videos. [Download Adobe Flash Player.](#)
- For the best website experience, use the latest version of one of the following supported browsers: Chrome, Firefox, Internet Explorer 10.0 or higher, or Safari. [Download the latest version of browsers compatible with this site.](#)

**User Assistance:**

HIV and employe....pptx | HIV and employment.pptx | Show all downloads...

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▶ <https://www.hudexchange.info/training-events/dol-hud-getting-to-work-curriculum-for-hiv-aids-providers/>

# Vocation needs

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- ▶ Please see seminal article by Lisa Conyers and colleagues (2014)-
- ▶ **Common Threads: An Integrated HIV Prevention and Vocational Development Intervention for African American Women Living with HIV/AIDS**
  - ▶ Lack of funding for vocational services linked to large HIV/AIDS initiatives such as the Ryan White program (Ciasullo & Escovitz, 2005)
  - ▶ Fear of losing benefits leading to financial vulnerability
    - ▶ Cultural mistrust of the process (Alston, 2004)
    - ▶ Literacy level need to understand work incentives policies (Sykes, 2007)
  - ▶ They want to work, but face unique barriers (e.g., Conyers & Datti, 2009)

# Paradigm Shift

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- ▶ **Employment as a social determinant of health (Conyers et al., 2014)**
  - ▶ Consider National HIV/AIDS policy addressing homelessness/poverty
- ▶ **Client-Focused Considering Work Model**
  - ▶ Stage 1: Pre-vocational and vocational development needs
  - ▶ Stage 2: Micro-enterprise circle
    - ▶ Moving through initial stages of change
    - ▶ Intervention to decrease poverty (jewelry making as economic activity)
  - ▶ Stage 3: Made it Ourselves”
    - ▶ Market place to share products

# HIV/AIDS and Co- or Multi-morbidities

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- ▶ Black women diagnosed with HIV are more susceptible to comorbidities (Lang & Bird, 2015).
  - ▶ However, Black women have unique circumstances that may further exacerbate negative health outcomes.
  - ▶ In a recent study of Blacks and Whites of both sexes diagnosed with HIV, comorbid diabetes and hypertension was more prevalent in Black women (Willig et al., 2015).
  - ▶ In 2008, the rate of hospitalization for uncontrolled diabetes was higher for Black women compared to their racial/ethnic counterparts (AHRQ, 2012).
  - ▶ The risk of comorbidity increases as all persons live longer with HIV.
  - ▶ Typically comorbid health conditions include metabolic and cardiovascular diseases, leading causes of death and disability in the United States (Centers for Disease Control and Prevention [CDC], 2015; Kim et al., 2012).
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# Consider Costs on Strained Economy

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- ▶ The lifetime economic cost of HIV medical treatment from diagnosis to death is an average of \$379,668 as reported for the year 2010 (Center for Disease Control and Prevention [CDC], 2013).
- ▶ The total cost of treatment for those newly diagnosed with HIV in the year 2009 was estimated at \$16.6 billion (CDC, 2013).
- ▶ These figures reflect the growing healthcare costs of treating persons with HIV in the United States and these costs are projected to rise due to the increased life span of those diagnosed with HIV.
- ▶ The economic cost of treating these preventable chronic health conditions is substantial.
  - ▶ For example, in 2010, 68% of all healthcare spending in the United States was allocated to treating persons with one or more chronic health conditions (Agency for Healthcare Research & Quality, 2010).



# Let's Extend Their Work...

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**NATIONAL  
WORKING  
POSITIVE  
COALITION**



<http://www.workingpositive.net/>

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# Websites to Visit

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- ▶ <https://www.dol.gov/odep/pdf/hivreferencelist.pdf>
- ▶ <http://www.cdc.gov/hiv/workplace/index.html>
- ▶ <https://www.aids.gov/gettingtowork/>
- ▶ <https://www.dol.gov/odep/topics/HIVAIDS/>



## For further reading...

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- ▶ Conyers, L. M. (2008). HIV/AIDS and employment research a need for an integrative approach. *The Counseling Psychologist*, 36(1), 108-117.
- ▶ Razzano, L.A., Hamilton, M. M., Yost, C., Pashka, N. J., & Perloff, J. K. (2015). Employment outcomes for individuals with HIV/AIDS and co-occurring mental health factors. *American Journal of Psychiatric Rehabilitation*, 18(1), 19-41.

