

**Effectiveness analysis of the popular
opinion leader intervention on reducing
HIV rates in the Jackson MSA**



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Research Questions



1. Is the National HIV / AIDS Strategy effective at curving the rate of HIV Community Viral Load in Mississippi among African American Men who have Sex with Men.
2. Does the presence of Popular Opinion Leader, evidence-based HIV behavioral intervention have any impact on the incidence of HIV among African American men who have sex with men in the Jackson MSA?

Introduction



- ❧ HIV- Is the Human Immunodeficiency Virus.
- ❧ AIDS- Acquired Immunodeficiency Syndrome
- ❧ EBI- Evidence Based Intervention
 - ❧ Popular Opinion Leader Intervention
- ❧ The HIV epidemic in the United States impacts the lives of hundreds of thousands of individuals every day, a fact underscored by the release of the first National HIV / AIDS Strategy for the nation in July 2010.

Introduction



- ❧ Community viral load, defined as an aggregation of individual viral loads of people infected with HIV in a specific community. It has been proposed as a useful measure to monitor HIV treatment uptake and quantify its effect on transmission.
- ❧ The first reports of community viral load were published in 2009, and the measure was subsequently incorporated into the US National HIV/AIDS Strategy.
- ❧ Although intuitively an appealing strategy, measurement of community viral load has several theoretical limitations and biases that need further assessment, which can be grouped into four categories:
 - ❧ issues of selection and measurement,
 - ❧ the importance of HIV prevalence in determining the potential for ongoing HIV transmission,
 - ❧ interpretation of community viral load and its effect on ongoing HIV transmission in a community,
 - ❧ the ecological fallacy (i.e., ecological bias).

Current Federal Policy



There are three primary goals for the NHAS:

- ❧ Reducing HIV incidence
- ❧ Increasing access to care and optimizing health outcomes
 - ❧ increased linkage to and retention in care as a prevention strategy
- ❧ Reducing HIV-related health disparities

Policy Statement/Requirement

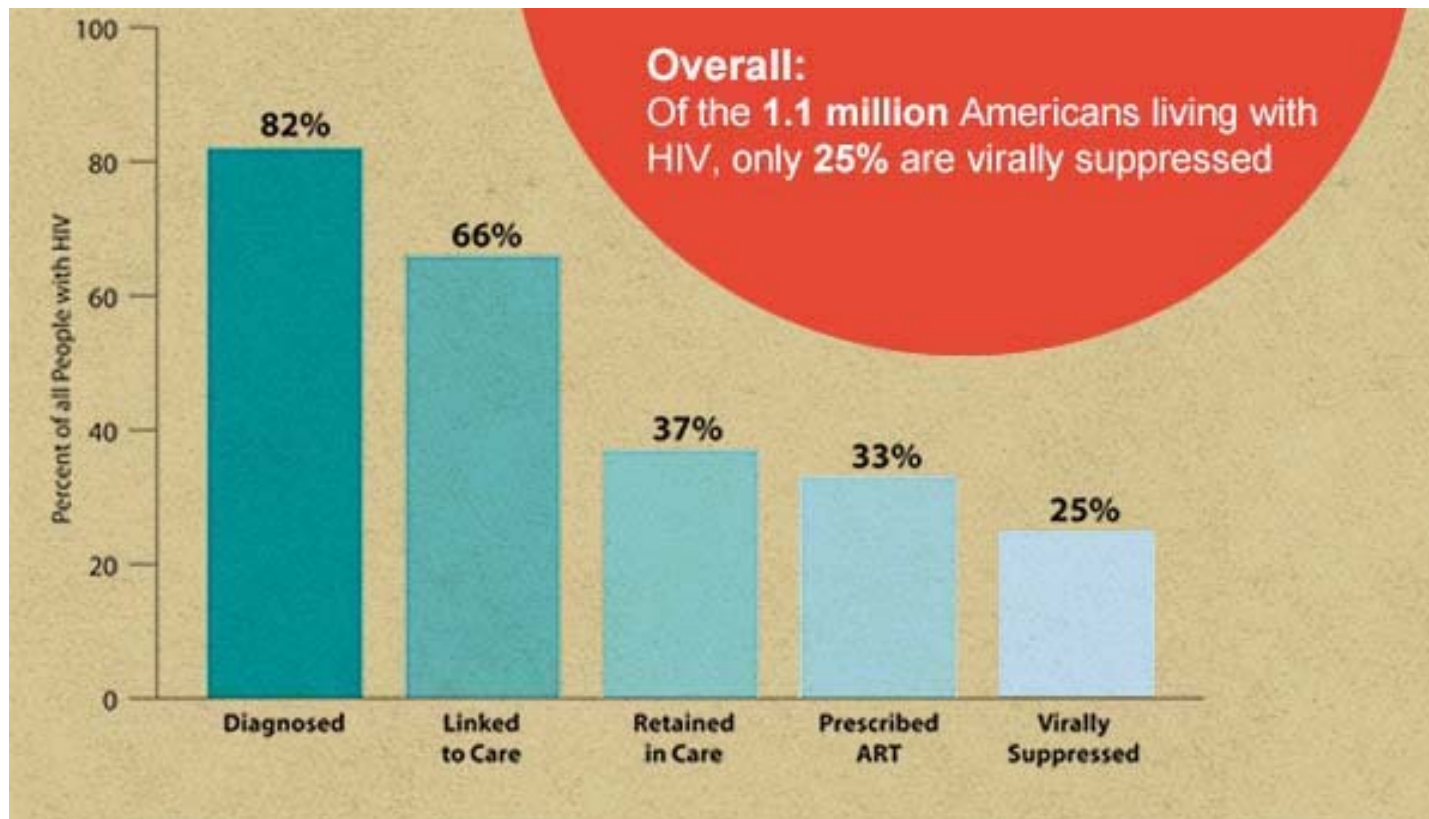


The policy is designed to place reporting requirements on:

- ❧ Federal Government Agency
- ❧ State Health Departments
- ❧ Directly Funded agency (CBO and ASO)

This is done in effort to engaged clients into care and monitor community viral load.

HIV / AIDS Care Continuum



Source: <http://aids.gov/federal-resources/policies/care-continuum/>

Current Strategies for Reducing Community Viral Load



- ❧ The use of Evidence Based Intervention (POL)
- ❧ Test and Treat Model (Treatment as prevention)
- ❧ Medical Monitoring Project

Efforts to Monitor CV



- ❧ Supplemental HIV Surveillance Funding Awarded supplemental funding (\$5.6 million in FY 2010 and \$7.2 million in FY 2011) to HIV surveillance jurisdictions to support the implementation and maintenance of electronic lab reporting for all HIV-related test results, as well as importing of results into the HIV surveillance database.
- ❧ Awarded supplemental funding (~\$1 million in FY 2010 and ~\$1.2 million in FY 2011) to support jurisdictions for geocoding (determining associated geographic coordinates from geographic data such as street addresses or ZIP codes) of HIV surveillance data.
- ❧ In collaboration with the Health Resources and Services Administration, HIV/AIDS Bureau, sponsored a *Consultation on Monitoring and Use of Laboratory Data Reported to HIV Surveillance* in March 2011.
- ❧ In collaboration with state and local HIV programs, developed technical guidance on calculating VL measures and released guidance to HIV surveillance coordinators in August 2011.
- ❧ Developing SAS programs to assist state and local HIV surveillance programs with calculating VL measures; these are scheduled for release in early 2012.

Incidence of HIV in MS by Public Health Districts in 2012

Public Health Districts	Counties	Cases	Rates Per 100,000
District 1:	Coahoma, De Soto, Grenada, Panola Quitman Tallahatchie, Tate, Tunica, Yalobusha	67	20.8
District 2:	Alcorn, Benton, Itawamaba, Lafayette, Lee Marshall, Pontotoc, Prentiss, Tippah, Tishomingo, Union	24	6.6
District 3:	Attala, Bolivar, Carroll, Holmes, Humphreys, Leflore, Montgomery, Sunflower, Washington	33	15.6
District 4:	Calhoun, Chickasaw, Choctaw, Clay, Lowndes, Monroe, Oktibbeha, Webster, Winston	30	12.2
District 5:	Claiborne, Copiah, Hinds, Issaquena, Madison, Rankin, Sharkey, Simpson, Warren, Yazoo	231	36.1
District 6:	Clarke, Jasper, Kemper, Lauderdale, Leake, Neshoba, Newton, Scott, Smith	41	16.9
District 7:	Adams, Amite, Franklin, Jefferson, Lawrence, Pike, Walthall , Wilkinson	27	15.6
District 8:	Covington, Forest, Greene, Jefferson Davis, Jones, Lamar, Marion, Perry, Wayne	43	13.9
District 9:	George, Hancock, Harrison, Jackson, Pearl River, Stone	51	10.7
Total:		547	18.3

Federal Award FY 2012 to state of Mississippi for HIV Prevention and Research

FOA#	FOA Title	City	State	Award #	Grantee	FY 2012 Total Funds
PS08-802	HIV/ AIDS Surveillance	Jackson	MS	1037	Mississippi State Department of Health	\$445,555
PS09-937	Medical Monitoring Project (MMP)	Jackson	MS	1589	Mississippi State Department of Health	\$419,745
PS10-1003	Human Immunodeficiency Virus (HIV) Prevention Projects for Community Based Organizations	Jackson	MS	2612	Building Bridges, Inc.	\$387,347
PS11-1103	Sexually Transmitted Disease/Human Immunodeficiency Virus Prevention Training	Jackson	MS	3294	University Mississippi Medical Center	\$732,227
PS12-1201	Comprehensive HIV Prevention Programs for Health Departments	Jackson	MS	3674	Mississippi State Department of Health	\$2,816,120
PS12-1210	Secretary's Minority AIDS Initiative Funding for Care and Prevention in the United States	Jackson	MS	3975	Mississippi State Department of Health	\$16,164,137
PS09-906	Capacity Building Assistance (CBA) to Improve the Delivery and Effectiveness of HIV Services	Ridgeland	MS	1682	My Brother's Keeper, Inc.	\$401,787
PS10-1003	Human Immunodeficiency Virus (HIV) Prevention Projects for Community Based Organizations	Ridgeland	MS	2517	My Brother's Keeper, Inc.	\$335,113
PS11-003	PS11-003 Minority HIV/ AIDS Research Initiative (MARI) to Build Capacity	Ridgeland	MS	3315	My Brother's Keeper, Inc.	\$140,172
PS11-1113	Human Immunodeficiency Virus (HIV) Prevention	Ridgeland	MS	3583	My Brother's Keeper, Inc.	\$356,213

Funding for HIV Treatment and Care in Mississippi 2013



Location	CDC HIV/AIDS Funding	HOPWA	SAMHSA	Ryan White Program	OMH	Total
Mississippi	\$7,272,057	\$2,125,613	\$0	\$18,269,717	\$0	\$27,667,387
Alabama	\$5,364,379	\$2,001,172	\$4,616,715	\$31,902,964	\$0	\$43,885,230
Arkansas	\$2,084,182	\$863,949	\$0	\$10,743,496	\$0	\$13,691,627
Georgia	\$21,138,883	\$11,003,662	\$6,249,304	\$93,635,168	\$0	\$132,027,017

Source : <http://kff.org/hivaids/state-indicator/total-federal-grant-funding/>

Methodology



- ❧ Evaluation Research
- ❧ Quantitative
- ❧ Non experimental Research Design
 - ❧ Before and After research design
 - ❧ Three years prior (2005-2008) to 2009 and three years after (2010-2012)
 - ❧ T-test

Case Study of POL Intervention

Characteristics	#	%	N
Male	48	100	48
Age			
18-29	8	16.67	
20-21	14	29.16	
22-24	23	47.92	
25-29	3	6.25	
Missing	0	0	
Total	48	100	48

Demographics



Race	#	%	N
African American	47	97.92	
Caucasian	0	0	
Hispanic	0	0	
Asian Pacific Islander	0	0	
Other	1	2.08	
Missing	0	0	
Total	48	100	48

Risk Factor Category



Risk Factor	#	%	N
MSM Only	32	66.67	
MSW	2	4.17	
MSM & W	12	25	
WSW	0	0	
WSW & M	0	0	
Missing	2	4.17	
Total	48	100	48

Hypotheses Testing



H₁ The mean score of participant's who participated in the POL intervention knowledge is higher in the posttest than in pretest.

HIV/AIDS Knowledge	N	Mean	Std. Deviation	Sig (2-tailed)
Pre-test	37	6.46	1.145	.000**
Posttest	37	7.41	.725	

**p < .001


Hypothesis Testing Continued

H2 The Mean score of the participant's knowledge of the POL intervention and community are greater in the post-test than in the pre-test.

POL and Community Knowledge	N	Mean	Std. Deviation	Sig. (2-tailed)
Pre-test	37	3.16	1.068	.000**
Posttest	37	4.38	.861	

**p<. 001

Hypothesis Testing Continued

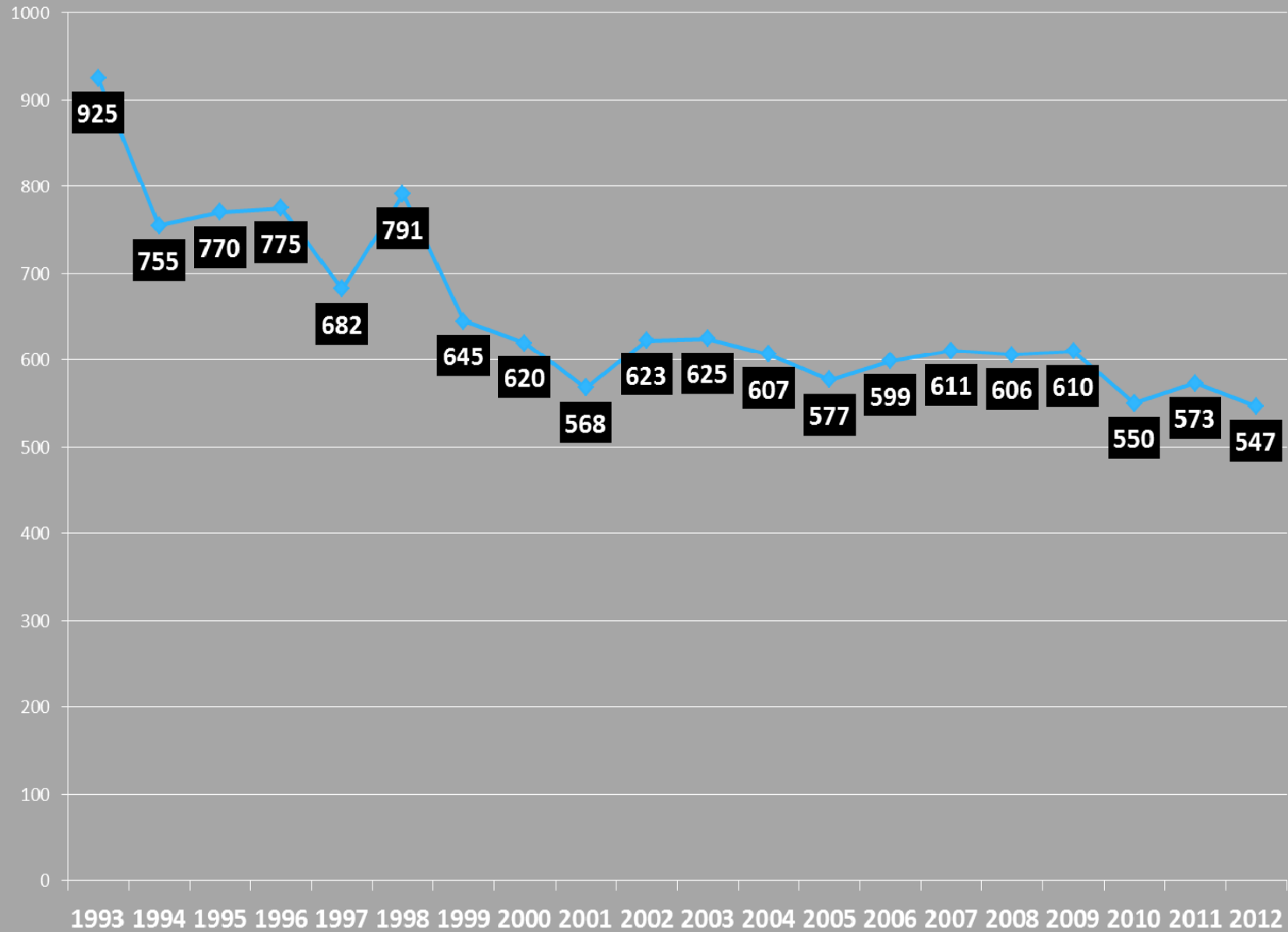


H3 The mean score of the participant's risky behaviors are lower in the post-test than in the pre-test.

Risky Behavior	N	Mean	Std. Deviation	Sig. (2-tailed)
Pre-test	40	24.23	9.275	.053 *
Posttest	40	21.38	2.959	

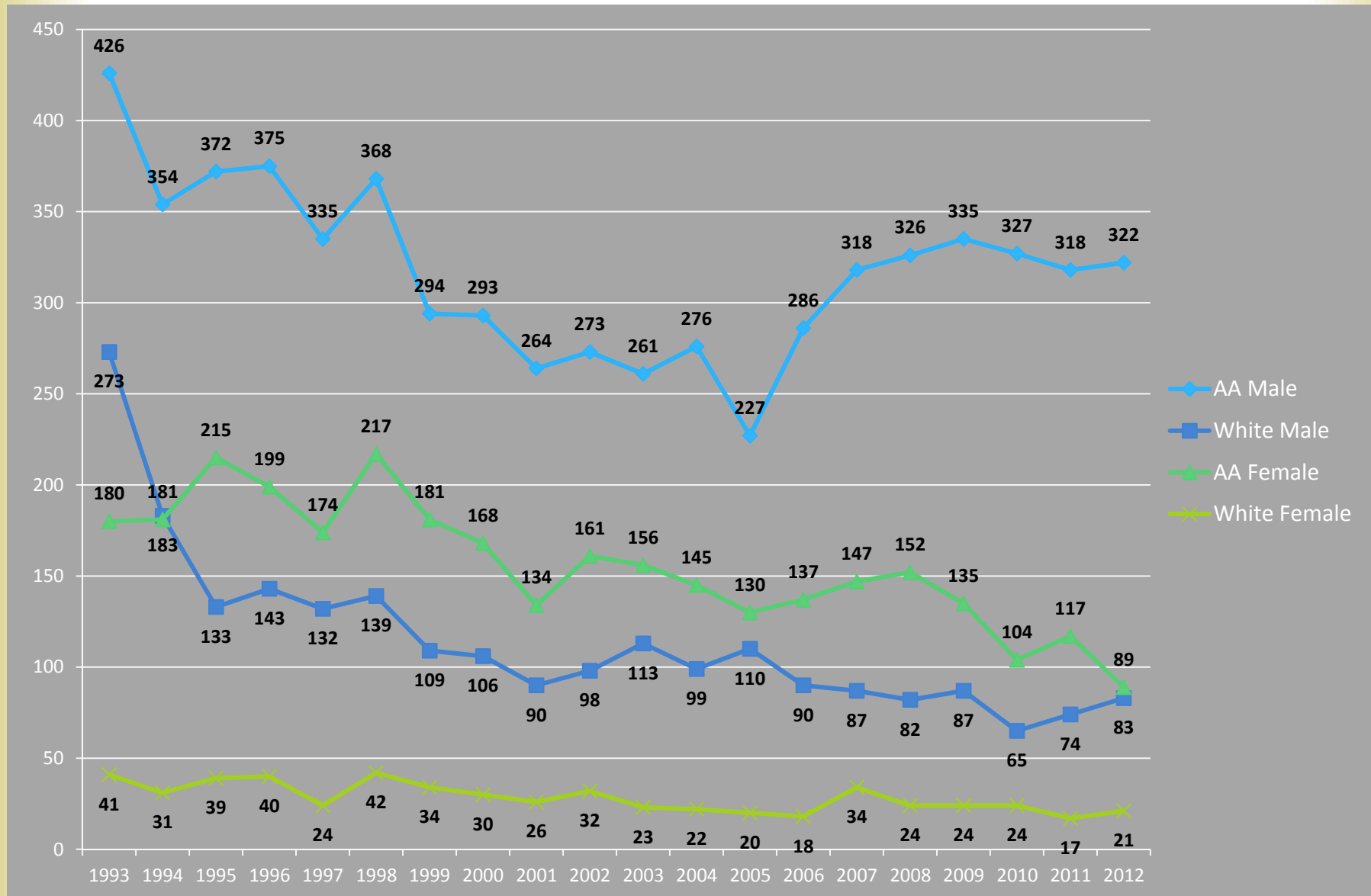
* $p < .05$

HIV Disease in Mississippi (based on date of report), 1993-2012



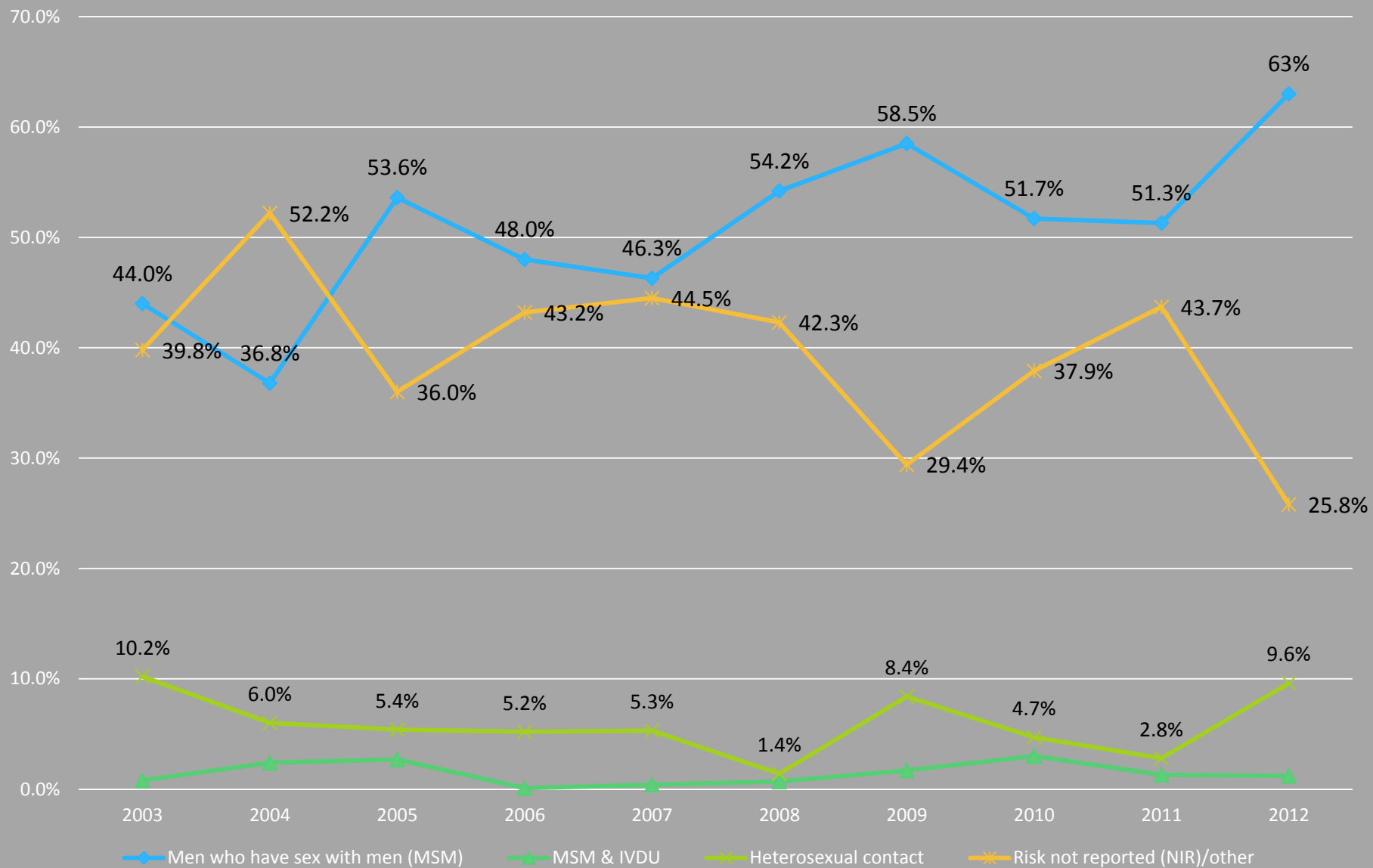
Source: MSDH. *People living with HIV disease 2011. Annual Report*, Jackson : Mississippi State Department of Health , 2013.

HIV Disease by Race and Sex, MS, 1993-2012



Source: MSDH. *People living with HIV disease 2011. Annual Report*, Jackson : Mississippi State Department of Health , 2013.

Transmission Category Reported among African American Men, 2003-2012



Source: MSDH. *People living with HIV disease 2011. Annual Report*, Jackson : Mississippi State Department of Health , 2013.

Findings



- ❧ The use of the Popular Opinion Leader intervention is effective in increasing knowledge of HIV/ AIDS facts and of POL intervention and community norms.
- ❧ The use of the Popular Opinion Leader intervention is effective in reducing self reported risk of HIV transmission among AA MSM in Jackson MSA.
- ❧ The POL intervention along does not have any direct impact on the community viral load.

Findings



- ❧ There is an excessive amount of spending on HIV Prevention prior to the 2010 NHAS, which refocused its efforts on targeting individuals living with HIV and high risk negatives.
- ❧ The HIV EBI work effectively in the beginning of the HIV/AIDS epidemic. However, they did not transform when the disease shift populations.
- ❧ More funds are being reallocated by federal agencies from prevention to primary care and treatment.

Further Research



- ❧ Community Viral Load among various at risk populations
- ❧ Redesigning HIV-Prevention Interventions
- ❧ Increased efforts to secure funding to assist individuals living with HIV / AIDS within states borders.