

Women's Risk for HIV/AIDS and the Availability of Abortion

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Statement of Problem

Current trends in AIDS incidence:

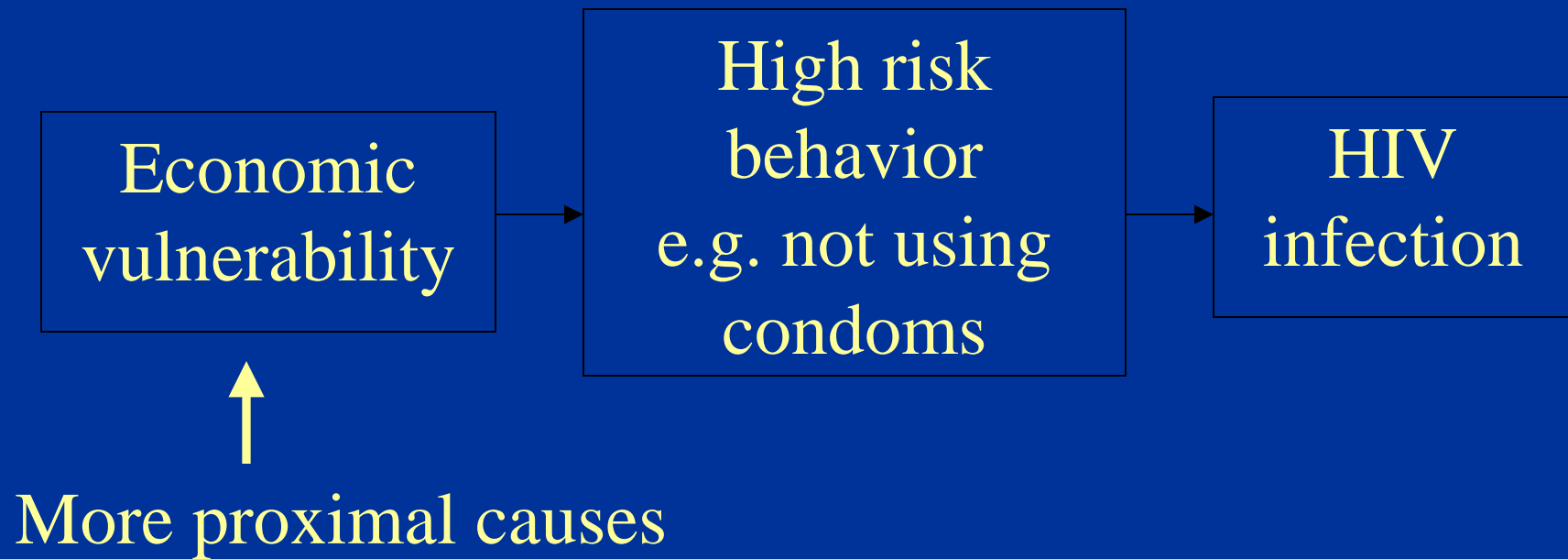
- In general AIDS incidence rates are in **decline**
- BUT decreases in AIDS incidence were **smallest among women, particularly African-American women, women from the South, and women infected by heterosexual contact**

Why are women being infected by heterosexual contact?

Structural

- e.g. economic vulnerability leads to high risk activities in exchange for economic resources

Structural explanation



Suggested causes of economic vulnerability

Unplanned pregnancy and birth

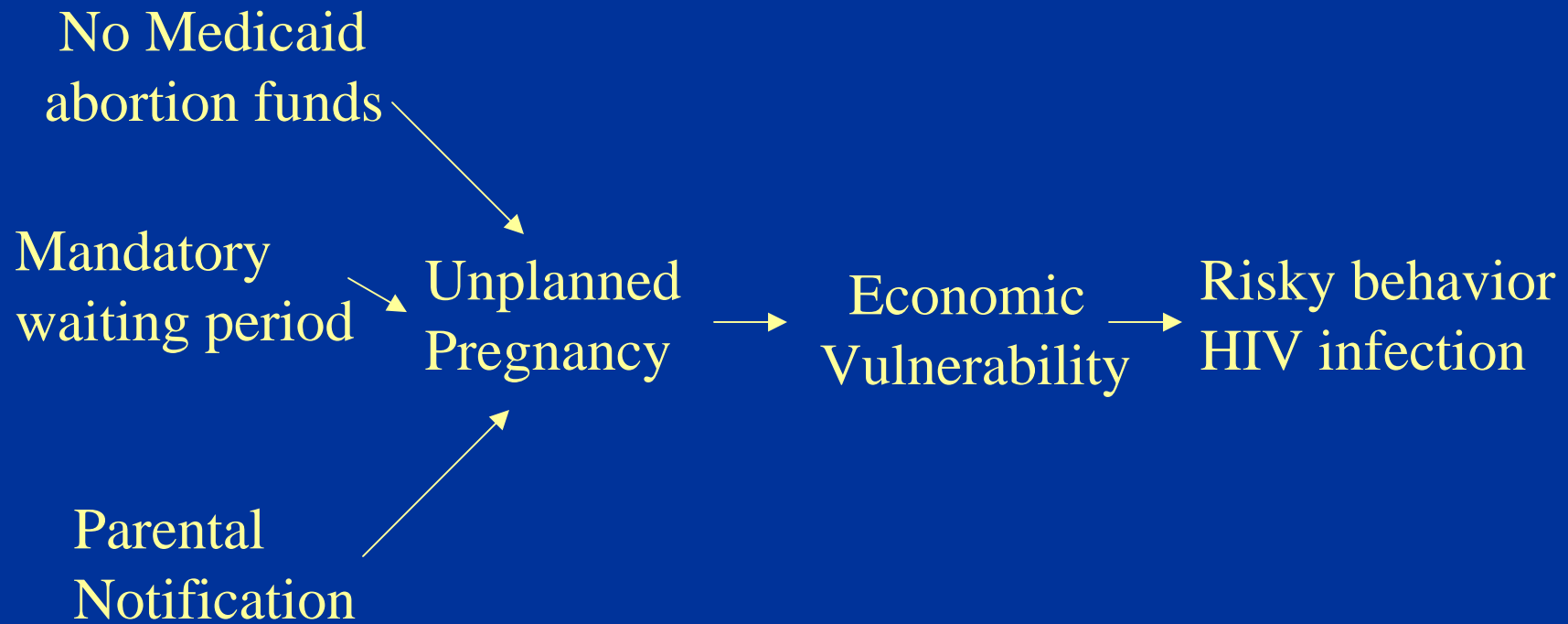
- Economic burden of caring for a child that a woman may not be financially or socially able to support

Causes of unplanned pregnancies

State laws restricting abortion access,
specifically:

1. parental notification
2. mandatory waiting period
3. Medicaid funding of abortion

Model of HIV infection



Aim of this study

- Investigate the association between state abortion access laws and state AIDS incidence rates
- If there is an association, investigate mechanisms by which abortion access policies could be influencing AIDS rates

Methods

Collect data on the 50 US states and DC on:

- State AIDS incidence rates (from the CDC year-end surveillance reports)
- State abortion policies from 1996 (from the Alan Guttmacher Institute)
- Possible confounding factors

State AIDS incidence rates

- AIDS incidence rates in females per 100,000 population from 1996 and 2001
- Change in AIDS incidence rates in females per 100,000 population between 1996 and 2001 calculated for each state and DC, used as dependent variable

State abortion policies from 1996

- Parental notification (yes or no)
- Mandatory waiting period (yes or no)
- Medicaid funding of abortion (yes or no)
- Also composite variable created by summing the 3 variables (Cronbach's $\alpha=0.6$)

Possible confounding factors

- Percent female-headed households
- Percent unemployment
- Percent African American
- Percent of persons living below the poverty line

Statistical Analyses

Abortion access composite variable

- **Multivariate analyses:** add confounding factors to linear regression model
- **Effect modification by race:** test interactions between abortion access composite variable and percent African American

Statistical Analyses (cont'd)

3 individual abortion access variables

- Bivariate correlations between 3 individual variables and change in AIDS incidence rates
- Effect modification by race: test interactions between 3 individual variables and percent African American

Economic vulnerability as mediator of effect

- To test this hypothesis, percent female-headed households below the poverty line considered as a mediating variable
- Path analysis to assess the independent contributions of the abortion access composite variable and percent female-headed households below the poverty line to the change in AIDS incidence rates

Results

Descriptive statistics:

Variable	N	Mean	SD
% African American	50	11.09	11.83
% unemployment	51	3.61	0.75
% female-headed household	51	11.63	2.36
% below poverty level	50	12.73	3.11
Change in female AIDS incidence rate 1996-2001	51	-2.17	4.08
Reproductive health composite variable	51	0.55	0.30
% female-headed household below poverty level	51	26.58	5.54

Bivariate model:

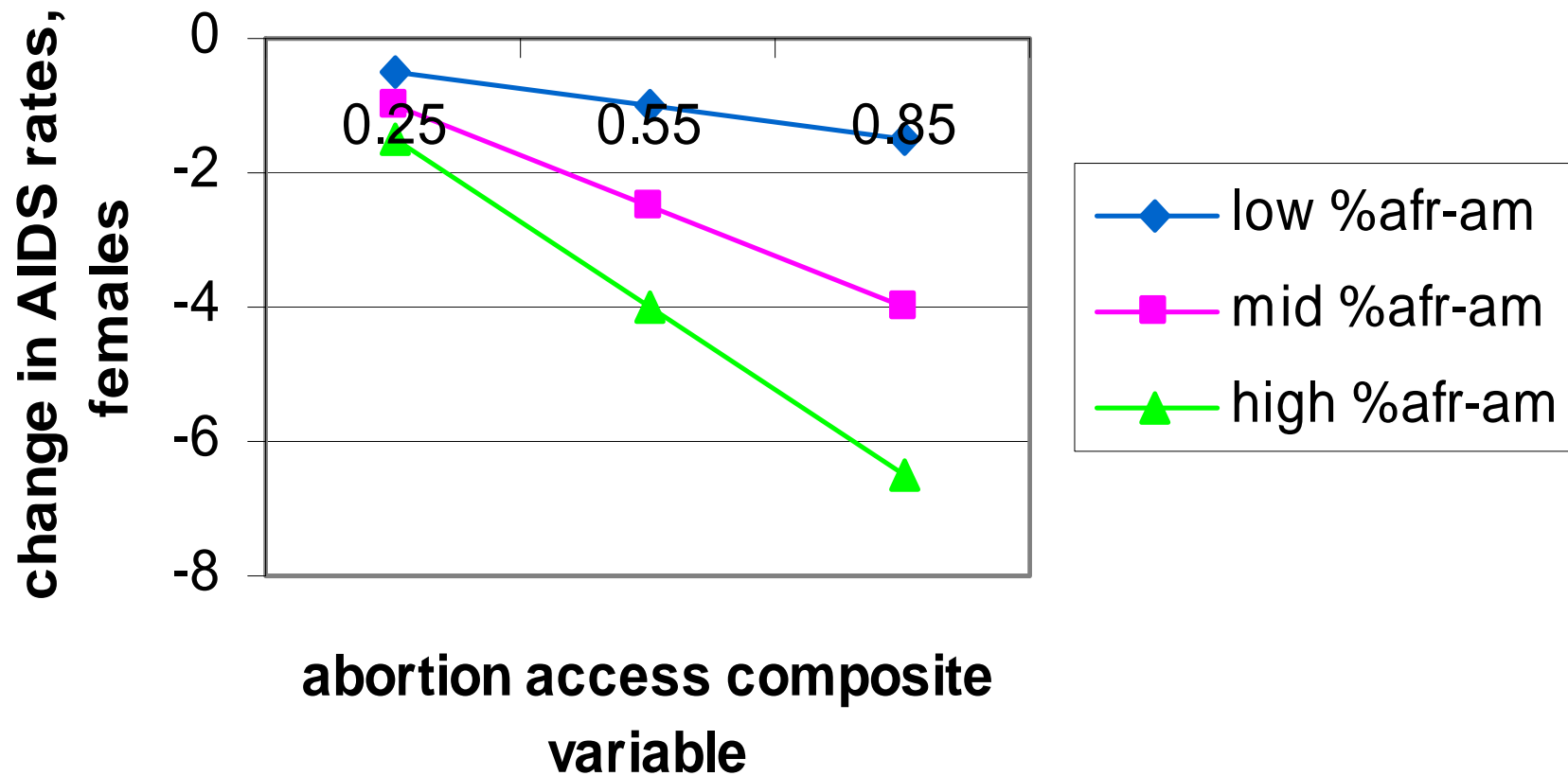
- Change in AIDS incidence = abortion access composite variable

Multivariate model:

- Change in AIDS incidence = abortion access composite variable + confounding variables

Model	β	P	R ²
Bivariate	-3.99	0.0149	0.1150
Multivariate	-4.07	0.0263	0.3297

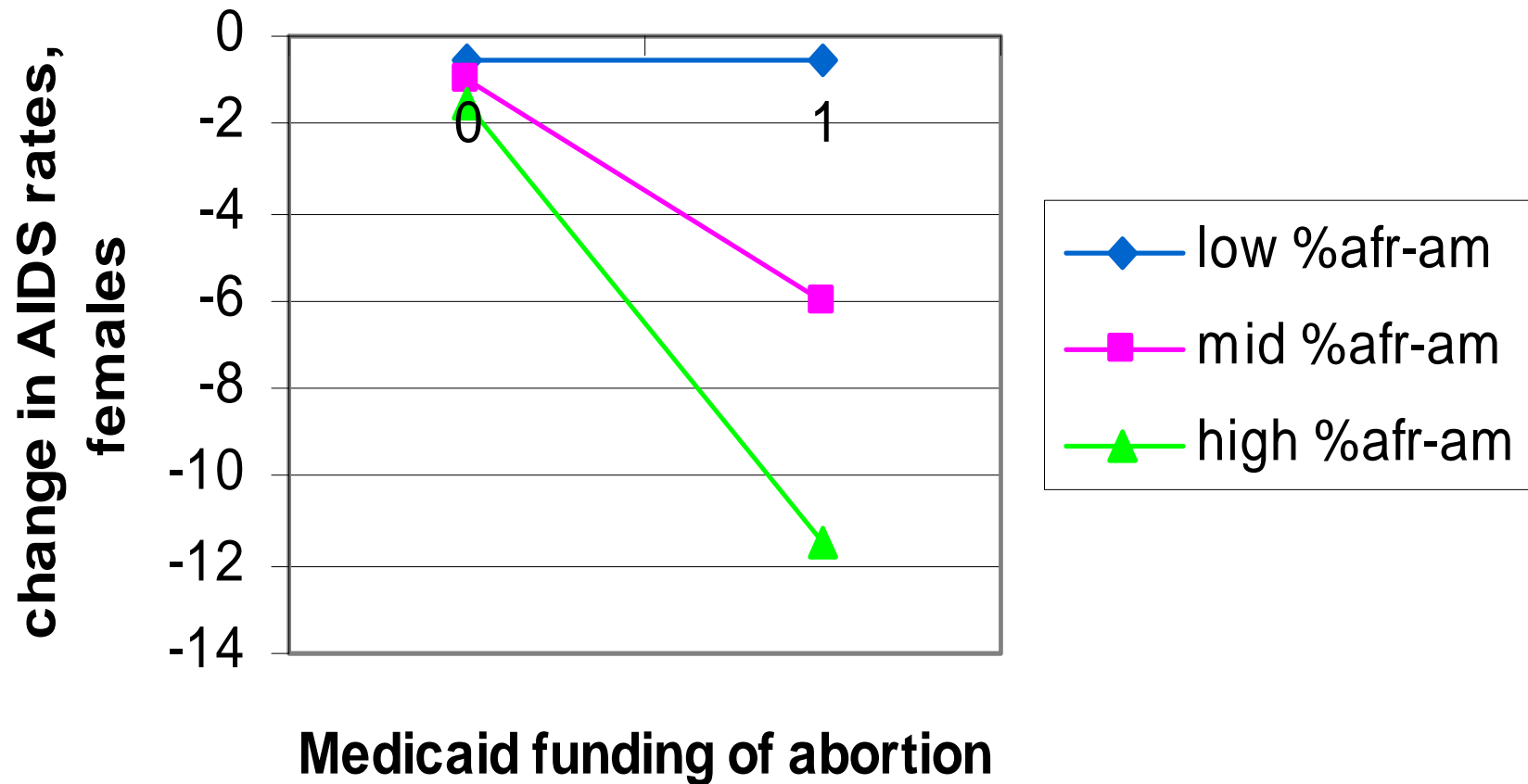
Interaction of percent African-American and abortion access composite variable



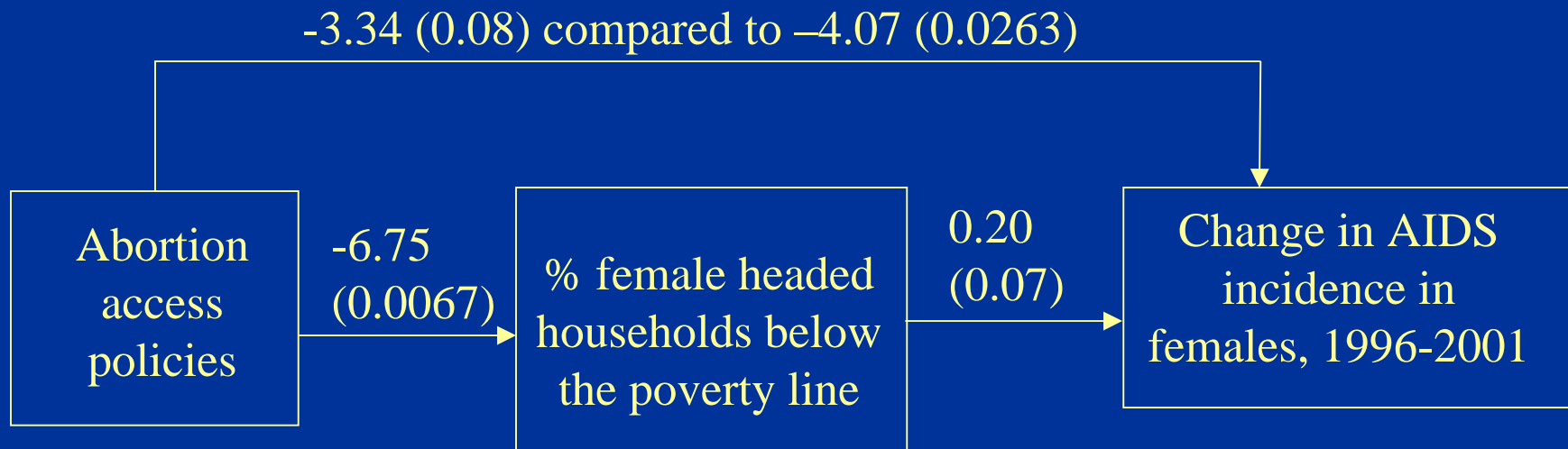
Correlation of individual abortion access variables with change in AIDS incidence

Variable	Change in AIDS incidence (r value)
Parental notification	-0.23980 (0.0901)
Mandatory waiting period	-0.21300 (0.1334)
Medicaid funding of abortion	-0.30615 (0.0289)

Interaction of percent African-American and Medicaid funding of abortion



Path Analysis



(all models adjusted for % African American, % unemployment and % female headed households)

Discussion

Summary of results:

- Abortion access composite variable is significantly associated with change in AIDS incidence rates in females in multivariate models
- Medicaid funding of abortion is significantly correlated with change in AIDS incidence in bivariate analyses

Discussion (cont'd)

Summary of results (cont'd):

- Interaction by race was borderline statistically significant, such that the association between the abortion access composite variable as well as Medicaid funding of abortion and change in AIDS incidence was stronger in states with higher % African Americans
- Economic vulnerability acts as a mediating variable: it explains some of the variance in change in AIDS rates that was explained by the abortion access variable

Implications

- Interventions to reduce the incidence of HIV/AIDS in women include increasing access to reproductive health services, including abortion
- And states must give better economic support to poor women with children

Issues / Questions

- **AIDS incidence vs. HIV incidence**, not the same indicator, progression from HIV to AIDS highly variable, not random
- **Population-level data vs. individual-level data:** individual-level data with a large % with the dx of AIDS as well as sociodemographic, economic information would be preferable
- Is abortion access a **proxy** for another factor?

Future directions

- Qualitative study, ask women about their economic circumstances, and do these circumstances drive them towards specific behaviors?