





UNIVERSITY OF SOUTH CAROLINA



Uptake of HIV testing during post-reproductive years among midlife women (50-64 years old)



Lisa Wigfall, PhD
Research Assistant Professor

138th APHA Annual Meeting & Expo (November 6-10, 2010)




Background & Significance

- Misperceptions persist about older adults not being at risk for HIV/AIDS
 - Patients:
 - No longer concerned about getting pregnant so don't need to use a condom¹⁻²
 - Providers:
 - Older adults are not still having sex³
 - Older patients' symptoms (i.e., dementia, fatigue) must just be signs of aging⁴
 - After all, they're not having sex so it couldn't be AIDS



Background & Significance cont'd

- Older adults may be at an increased risk for acquisition of HIV infection due to physiological and biological changes associated with aging
 - Decreased immunity (age)⁵
 - Thinning of vaginal lining (age * gender)⁶




Institute for Partnerships to
Eliminate Health Disparities

Background & Significance cont'd

- Disproportionate burden of late diagnosis⁷

Data for 34 states	Diagnosis of AIDS after diagnosis of HIV infection				Total No.
	<12 Months ^a		≥12 Months ^b		
Age at diagnosis (yr)	No.	(%) ^c	No.	(%) ^c	
<13	19	11	149	89	169
13-14	9	20	36	80	45
15-19	204	14	1,205	86	1,408
20-24	765	18	3,414	82	4,179
25-29	1,345	28	3,534	72	4,879
30-34	1,555	33	3,126	67	4,681
35-39	2,194	39	3,481	61	5,675
40-44	2,450	41	3,549	59	5,999
45-49	1,938	44	2,433	56	4,372
50-54	1,345	47	1,514	53	2,859
55-59	785	52	727	48	1,512
60-64	404	55	335	45	739
≥65	377	59	265	41	642


Cases of HIV infection and AIDS in the United States and Dependent Areas, 2007 [Table 2]



Institute for Partnerships to
Eliminate Health Disparities

Background & Significance cont'd


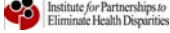
- Duffus et al⁸⁻⁹ has shown that missed opportunities for earlier diagnosis of HIV/AIDS exist in health care settings
 - Older adults more likely to be diagnosed late
 - Risk-based HIV testing is ineffective
- Duffus et al (unpublished data)
 - Women 42+ more likely to be diagnosed late
- CDC 2006¹⁰ revised HIV testing guidelines
 - All persons 13-64 years old, regardless of risk



Institute for Partnerships to
Eliminate Health Disparities



Objective

- To examine HIV testing uptake among post-menopausal women
 - 50-64 years old

  Institute for Partnerships to Eliminate Health Disparities



Methods

- Data Source: BRFSS 2008
 - Deep South states (AL, GA, LA, MS, NC, SC)
- Sample (n=2,027)
 - NHB and NHW women
 - 50-64 years old
 - Previously tested for HIV
 - Based on self-report

  Institute for Partnerships to Eliminate Health Disparities

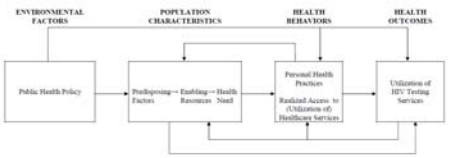
Methods cont'd

- Outcome of interest
 - Age at most recent HIV test
 - ≤44 or >44 years old
- Descriptive statistics
 - Frequencies & proportions
 - Bivariate (Chi-square tests)
- Multivariate logistic regression
 - Model
 - tested for HIV during post-reproductive years = Yes



  Institute for Partnerships to Eliminate Health Disparities

Conceptual Framework

Behavioral Model of Vulnerable Populations¹¹



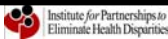

```
graph LR; subgraph ENVIRONMENTAL_FACTORS; A[Public Health Policy]; end; subgraph POPULATION_CHARACTERISTICS; B["Phylogeny - Funding - Health Resources - Social"]; end; subgraph HEALTH_BEHAVIORS; C["Personal Health Practices"]; D["Racial/Ethnic Access to (Utilization of) Health Services"]; end; subgraph HEALTH_OUTCOMES; E["Utilization of HIV Testing Services"]; end; A --> B; B --> C; B --> D; C --> E; D --> E; C --> D; D --> C;
```



Results

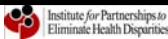

- Prevalence of HIV testing:
 - 26% (n=2,027) of Deep South women 50+ years old (n=8,346) who completed the 2008 BRFSS survey reported that they had ever had an HIV test.
 - More than half (54.6%) of the 2,027 women in our subsample reported that they had been tested for HIV most recently during their post-reproductive years (n=1,091).
 - Only 14% (n=1,091) of the 8,346 women in the larger study reported being tested for HIV most recently during their post-reproductive years.

Weighted Proportions



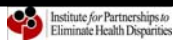

Results cont'd

- Women 50-54 years older were significantly **less** likely to have been tested for HIV during their post-reproductive years than those 60-64 years old.
 - 50-54 years old: AOR=0.64, 95% CI 0.46-0.88



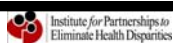

Results cont'd

- NH white (NHW) older women were significantly **less** likely to have been tested for HIV during their post-reproductive years than NH black (NHB) older women.
 - NHW: AOR=0.48, 95% CI 0.36-0.64





Results cont'd

- Both urban and suburban older women were significantly **more** likely to have been tested for HIV during their post-reproductive years than rural older women.
 - Urban: AOR=1.53, 95% CI 1.15-2.03
 - Suburban: AOR=1.66, 95% CI 1.09-2.52



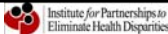

Discussion

- Although the prevalence of HIV testing in our study was low, it was higher than that reported in a similar study conducted using the 2006 NHIS data¹²
 - CDC used this data as a baseline measure of prevalence of HIV testing before the 2006 revised HIV testing guidelines were released and 2007 new initiatives to ↑HIV testing
 - 5.9% tested for HIV
 - 45-64 years old (n=7,180)
 - Males and females



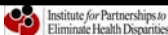

Discussion cont'd

- HIV testing is underutilized among post-menopausal women
 - Increased uptake of HIV testing is needed among women 50+ years old
- More providers need to routinely offer an HIV test to their older patients, regardless of perceived risk
 - esp. among those who have never tested for HIV
- Increased prevention efforts that target older women are needed
 - esp. among those who are sexually active as they may not perceive themselves as being at risk for HIV/AIDS



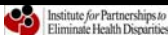

Discussion cont'd

- Further research is needed to explain our study's finding that women 50-54 years old were significantly **less** likely to report that they had been tested for HIV compared to women 60-64 years old.
 - Hypothesis:** Providers may *still* be using risk-based testing strategies (e.g., testing older women with HIV/AIDS symptoms such as fatigue and dementia, which can mimic the signs of aging in this target population)




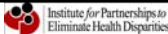
Limitations

- BRFSS data did not assess:
 - HIV/AIDS status
 - HIV-positive
 - Diagnosed with AIDS
 - Sexually active
 - Provider had offered an HIV test but patient refused
- Measurement weaknesses:
 - Self-reported data
 - Social Desirability
 - Recall bias
 - HIV test had been done but patient either didn't remember or wasn't aware that they had been tested
 - Prevalence of HIV testing could be underreported




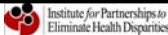
Strengths

- Estimate prevalence of HIV testing among a population-based sample
 - NOTE:** These data would not otherwise be available except for national surveys such as the BRFSS, NHIS, etc. because all HIV testing is not reported
 - e.g., private health care providers are not required to report the number of HIV tests performed, just any HIV-positive test results
- Telephone-based, interviewer-administered survey
 - ↓ socially desirable responses

References

1. Sherman CA, Harvey SM, Noell J. Are they still having sex? STI's and unintended pregnancy among midlife women. *J Women Aging* 2005; 17(3):41-55.
2. Sormanti M and Shibusawa T. Predictors of condom use and HIV testing among midlife and older women seeking medical services. *J Aging Health* 2007; 19(4):705-19.
3. Lindau ST et al. A study of sexuality and health among older adults in the United States. *N Engl J Med* 2007; 357(8):762-74.
4. Wooten-Bielski K. HIV & AIDS in older adults. *Geriatr Nurs* 1999; 20(5):268-72.
5. Boraschi D, Del Giudice G, Dutel C et al. Ageing and immunity: addressing immune senescence to ensure healthy ageing. *Vaccine* 2010; 28(21):3627-31.
6. Samsioe G. Urogenital aging – a hidden problem. *Am J Obstet Gynecol* 1998; 178(5):S245-9.
7. CDC. Cases of HIV infection and AIDS in the United States and Dependent Areas, 2007. Atlanta, GA: 2009.

References cont'd

8. Duffus et al. Missed opportunities for earlier diagnosis of HIV infection – South Carolina, 1997-2005. *MMWR* 2006; 55(47):1269-1272
9. Duffus WA, Weis K, Kettinger L, Stephens T, Albrecht H, Gibson JJ. Risk-based HIV testing in South Carolina health care settings failed to identify the majority of infected individuals. *AIDS Patient Care STDS* 2009;23(5):339-45.
10. CDC. Revised recommendations for routine testing in healthcare settings. *MMWR* 2006.
11. Gelberg L, Andersen RM, Leake DB. The Behavioral Model for Vulnerable Populations: application to medical use and outcomes for homeless people. *Health Services Research* 2000; 34(6):1273-1302.
12. CDC. Persons test for HIV – United States, 2006. *MMWR* 2008; 57(31):1-5.




Contact Information:
 Lisa Wigfall, PhD
 (803) 251-2298 office
 (803) 210-9696 mobile
lisa.wigfall@sc.edu
