

Abstract

In Fall 2006, the CDC revised their recommendations for HIV testing among adults, in part due to the large number of persons who are infected but unaware of their status. The purpose of this study was to determine which factors are most strongly associated with reporting not ever being tested for HIV among adult Nevadans. A cross-sectional analysis was performed using weighted data from the 2005 Nevada Behavioral Risk Factor Surveillance System (BRFSS). Using SAS v9.1, stepwise logistic regression analysis was used to evaluate which variables were potential risk factors for not getting tested for HIV and to check model fit. Weighted odds ratios and 95% confidence intervals were obtained for all participating BRFSS survey respondents 18 years or over (N=3,161) in Nevada. A total of 1,295 [53.9% (95% CI 50.8 - 57.0)] respondents reported that they had not ever been tested for HIV. Self-reported predictor variables included high risk sexual behavior, health status, health care access, sex, education, income, race, and age. Significant interactions were found between race and most health care access variables, and therefore three individual models were run. The predictors of not getting HIV tested varied by race and included high risk sexual behavior, age, never seeing a doctor for a routine check-up, general health, health care coverage, and income. Larger epidemiological studies are necessary to investigate whether true racial disparities exist for not getting HIV tested. Our findings also suggest that different strategies across races may be necessary to improve HIV testing rates in Nevada.

Results

- For 2005 in Nevada, 3161 adults responded to the BRFSS:
 - 51% males, 49% females
 - 63% White, Non-Hispanic, 21% Hispanic, and 16% Other, Non-Hispanic
 - 12% were 18-24 years of age, 50% were 25-49 years of age, and 38% were 50+ years of age
- In 2005, a total of 1295 [53.9% (95% CI 50.8-57.0)] respondents reported that they had not ever been tested for HIV.

•Statistically significant interactions were found between race*covariates, so 3 separate models were run.

**Table 1. Predictors of Not Getting Tested
Final Adjusted Logistic Regression Models by Race**

Race	Predictor	Adjusted Odds Ratio
White, Non-Hispanic	Engaging in high risk sexual behavior	1.75
	Older age	2.84*
	Reporting general health as fair/poor	1.36
Hispanic	Higher income	0.32**
	Older age	1.52**
	Having a regular health care provider	0.37**
Other, Non-Hispanic	Engaging in high risk sexual behavior	1.24
	Older age	5.85***
	Reporting general health as fair/poor	3.52***

*p<.0001
**p<.05
***p<.0005

Background

HIV/AIDS in Nevada

- In 2004 and 2005, Nevada ranked 15th in the nation for AIDS rates for all ages.
- In the western region, Nevada ranked first among AIDS case rates, at 12.3 per 100,000 persons, closely followed by California at 11.3 per 100,000 in 2005.
- In 2005, 84.4 percent of persons newly diagnosed with HIV (not yet AIDS) and 83.3 percent of persons newly diagnosed with AIDS were male.
- By race/ethnicity, White residents comprised 47.5 percent of AIDS cases in 2004 and 48.9 percent in 2005. For persons newly diagnosed with HIV (not yet AIDS), 52.9 percent in 2004 and 47.4 percent in 2005 were White.
- In 2005, of the newly diagnosed HIV/AIDS cases, Black residents accounted for 20.8 percent of the HIV (not yet AIDS) cases and 27.3 percent of the AIDS cases, while only accounting for 7 percent of the population in Nevada.
- In 2005, Hispanic residents comprising 20.2 percent of newly diagnosed AIDS cases and 26.3 percent of HIV (not yet AIDS) cases.

Study Objectives

We sought to:

1. Determine the proportion of adult Nevadans reporting not getting tested for HIV in 2005
2. Determine which factors are most strongly associated with reporting not getting tested for HIV among adult Nevadans

Methods

Study Design

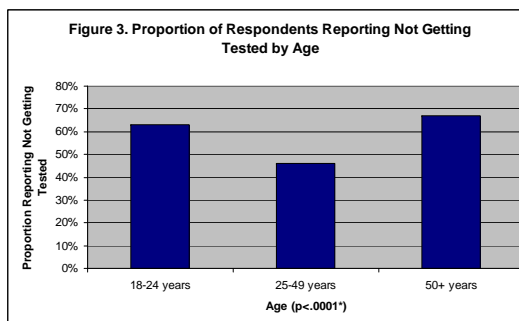
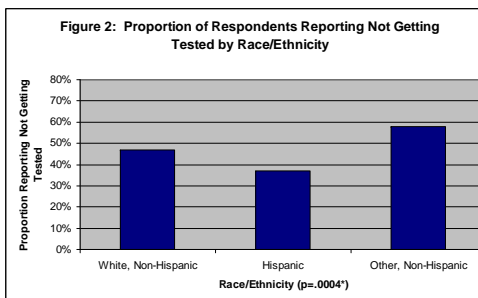
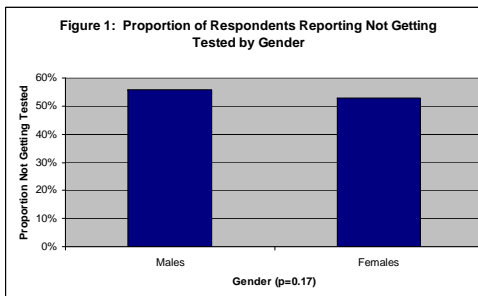
- Cross-sectional design
- Weighted data from the 2005 Nevada Behavioral Risk Factor Surveillance System (BRFSS)

Methods

- Disproportionate Stratified Sampling (DSS)
- Random digit dialing (RDD) telephone survey across Nevada

Statistical Analysis

- SAS, v9.1
- Secondary data analyses providing weighted prevalence rates
- Multilevel logistic regression models
- Stepwise logistic regression analysis:
 - Which variables were potential risk factors for not getting tested for HIV
 - Weighted odds ratios and 95% confidence intervals were obtained
- Rao-Scott chi-sq to determine between group differences
- PROC SURVEYLOGISTIC
 - Adjusted for multistage complex weighting



Conclusions

Over half of the respondents in Nevada for 2005 reported not getting tested for HIV.

- The predictors for not getting tested for HIV varied by race.

- **Study Limitations**
- Self-report phone survey
- Small number of respondents from minority subgroups prevented robust racial comparisons.
- May have lost statistical power in the individual models.

Study Strengths

- Results are generalizable to Nevada due to study design and weighting.
- Identified potential racial disparities among Nevadans not getting tested for HIV.

Recommendations

- Larger epidemiological studies are necessary to investigate whether true racial disparities exist among Nevada residents for not getting tested for HIV.
- Our findings also suggest that different strategies across races may be necessary to improve HIV testing rates in Nevada