Examining disparities in Asian health: the National Health Interview Survey Experience

Jacqueline Wilson Lucas, B.A., MPH
Renee Gindi, Ph.D.

Division of Health Interview Statistics

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Objectives

- Provide basic information about the National Health Interview Survey (NHIS)
- Briefly describe the Asian sample in the NHIS
- Illustrate use NHIS data to examine disparities in the health of the Asian population
What is the purpose of the NHIS?

- Collect data on the health status of the US population
- Address specific issues of current public health concern (e.g., health care disparities), meet priority data needs
- Provide estimates for monitoring, tracking health goals (Health U.S., Healthy People)
NHIS structure: Core Modules

**Household Core**
Demographic information on all household members

**Family Core**
General health info on all family members

**Sample Adult Core**
Health condition, risk behavior and health behavior data on randomly selected adult

**Sample Child Core**
Health condition, access, utilization data on randomly selected child

Source of race/ethnicity, gender, health insurance data

Source of Hep B vaccine data
Oversampling in the NHIS

- Method of sampling households at a higher rate based on selected criteria (population density, screening)

- Designed to increase reliability of estimates for population groups (e.g. by race, age)

- Implemented in 1985 – oversample of black households
  - 1995 – oversample of Hispanic households
  - 2006 – oversample of Asian households, households w/minority adults 65+ years of age
Sample sizes for total Asian population groups in the NHIS*

<table>
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<td>554</td>
<td>491</td>
<td>704</td>
<td>806</td>
<td>1098</td>
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</table>

* Includes adults and children

SOURCE: CDC/NCHS National Health Interview Survey, 2005-2011
Percent distribution of NHIS sample by race: 2011

- White: 73.94%
- Black: 15.21%
- AIAN: 1.1%
- Asian: 7.12%
- NHOPI: 2.4%
- Multiple race: 0.23%

SOURCE: CDC/NCHS, National Health Interview Survey, 2011
Percent distribution of NHIS Asian sample by population group: 2011

SOURCE: CDC/NCHS, National Health Interview Survey, 2011
Analyses of Asian health data

  - Health access and utilization
  - Conditions (activity limitations), diseases (diabetes, heart disease)
  - Immunizations

- New reports underway with 2007-2011 data

- Hepatitis B vaccinations in Asian adults
Global prevalence of Hepatitis B

Worldwide Rates of Chronic Hepatitis B

SOURCE: http://www.cdc.gov/hepatitis/Populations/api.htm
Analysis of Hepatitis B vaccination in Asian adults

- Significant public health issue in this population
- Combine 2006-2011 NHIS data - ~157,000 adults; 7,395 Asian adults
- Estimates based on NHIS self-reported data
  - Ever had vaccine, number of doses (3+, <3)
- Variables of interest
  - e.g., age, sex, education, nativity, access to care, health insurance coverage, language of interview, use of interpreter for interview, liver disease, occupation
Percentage of Asian adults who ever had a Hepatitis B vaccine, by population group (unadjusted): United States, 2006-2011

- Asian Indian: 38.3%
- Chinese: 32.5%
- Filipino: 37.1%
- Japanese: 24.2%
- Korean: 32.2%
- Vietnamese: 29.6%
- Other Asian: 34.0%

NOTES: Estimates are based on household interviews of a sample of the civilian noninstitutionalized population.
Percentage of Asian adults who ever had a Hepatitis B vaccine, by population group and nativity status (unadjusted): United States, 2006-2011

NOTES: Estimates are based on household interviews of a sample of the civilian noninstitutionalized population.

Next steps

- Compute age-adjusted estimates for demographic and health characteristics

- Determine covariates to select for modeling to test:
  - Are Asian groups significantly different from one another in the likelihood of having received a Hep B vaccine?
  - What factors are associated with receiving a Hep B vaccine?
  - Do those factors differ for Asian groups?

- Write up descriptive and multivariate results for publication
  - NCHS report
  - Journal article
For more information:

Jacqueline Wilson Lucas  
jbw4@cdc.gov

NHIS Website:  
http://www.cdc.gov/nchs/nhis.htm

THANK YOU!!