Assessing the Health Status of Multiracial Persons: Data from the National Health Interview Survey

Jacqueline Wilson Lucas
Division of Health Interview Statistics

Centers for Disease Control and Prevention
National Center for Health Statistics

SAFER • HEALTHIER • PEOPLE™
Overview of the National Health Interview Survey (NHIS)

• Annual survey conducted by the Census Bureau for the National Center for Health Statistics (NCHS)
• Nationally representative sample of the non-institutionalized civilian population
• Complex sample design
• Approximately 40,000 households with 100,000 persons each year
NHIS race and ethnicity questions

• NHIS allowed respondents to report more than one race beginning in 1976 for adults; since 1982 for all household members
• NHIS has asked 2-part race question consistently since 1982
• Hispanic origin has preceded race since 1992
• New OMB standards fully implemented in the 1999 NHIS
Race questions in the NHIS

1982-1996 NHIS

• What is the number of the group or groups that best represents _______'s race?

(if more than one given):
• Which of those groups, that is (entries above) BEST represents _______'s race?

1998-Present

• What race or races {do/does} {you/name} consider {yourself/himself/herself} to be? Please select 1 or more of these categories.

(if more than one given):
• Which one of these groups, that is (READ GROUPS) would you say BEST represents {your/name’s} race?
Primary race selection in NHIS

• Second race question asks multiple race respondents to indicate the race that best describes them (REF, DK allowed)
• Used to bridge back to old OMB standards to maintain trends in data
• Provides substantive information about identity of multiple race survey respondents
How data will be tabulated in DHIS reports

White only
Black or African American only
American Indian and Alaska Native only*
Asian only*
Native Hawaiian and Other Pacific Islander only*
2 or more races

Black or African American; White*
American Indian and Alaska Native; White*

* If data confidentiality and reliability permit
Data sources and methods

• 1997, 1998 and 1999 NHIS data

• Weighted estimates (SAS, SUDAAN)

• Bivariate analyses:
  • *Health variables examined*: private health insurance coverage, respondent-assessed health status
  • *Sociodemographic characteristics examined*: age, region of residence
Distribution of racial groups in the NHIS, 1997-1999

SOURCE: CDC/NCHS: National Health Interview Survey; weighted estimates.
Comparison of age distributions for single and multiple race groups

SOURCE: CDC/NCHS, 1997-1999 NHIS (weighted data)
Comparison of age distributions for single and multiple race groups

SOURCE: CDC/NCHS, 1997-1999 NHIS (weighted data)
Comparison of age distributions for single and multiple race groups

SOURCE: CDC/NCHS, 1997-1999 NHIS (weighted data)
95% confidence intervals for respondent-assessed health status rated as excellent/very good

SOURCE: CDC/NCHS, 1997-1999 NHIS (weighted data)
95% confidence intervals for respondent-assessed health status rated as excellent/very good

SOURCE: CDC/NCHS, 1997-1999 NHIS (weighted data)
Summary of findings

• Single and multiple race groups differ significantly from one another on both demographic and health measures:
  • *multiple race groups are different from one another and from their single race counterparts*

• Patterns of association among single and multiple race groups are not necessarily intuitively obvious

• Further analysis needed to better understand relationships between multiple race and health outcomes.
Issues related to analyzing data on multiracial populations

• Samples sizes for multiple race groups are small; at least 3 years of data must be combined to do major analyses

• Proxy reporting of race information, such as parents reporting race for their children, should be kept in mind when interpreting data on multiracial populations

• Racial identity is fluid, and may change over time – will complicate the ability to understand relationships between race and health
Availability of multiple race data for analysis

- NHIS Public Use Files (on CD-ROM, data tape, web) do not contain detailed information on multiple race groups
  - confidentiality and data reliability issues
  - patterns in the data that might pose confidentiality risks
- Accessing non-public use data
  - in-house data files containing suppressed information are available through Research Data Center
  - a proposal outlining the use of the data in analysis should be submitted
Published articles on multiple race issues from the NHIS


• Parker JD, Makuc D. Methodologic Implications of Allocating Multiple Race Data to Single Race Categories. *Health Services Research*, 2002 Feb:
Ongoing research on single/multiple race groups using NHIS data

- Consistency of race and ethnicity reporting in the linked NHIS-NSFG (Lucas, Madans)

- Predictors of health status in single and multiple race populations (Lucas, Parker, Arias)

- Demographic and contextual determinants of primary race selection (Arias, Lucas)

- Use of imputation methods bridge the transition from single race to multiple race reporting (Schenker, Parker)
Web site information

National Health Interview Survey information:

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

(Special section on race and ethnicity data in the survey)

Office of Management and Budget Guidelines for the Collection of Data on Race and Ethnicity:

http://www.whitehouse.gov/OMB/inforeg

(Statistical Policy Section, Data on Race and Ethnicity)