## Impact of Revised OMB Standards for the Classification of Race and Ethnicity in the National Immunization Survey

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## Abt



## Data on Race and Ethnicity

$>$ One of the most commonly used demographic variables in analysis of health and epidemiological data
$>$ Disparities by race in many health outcomes of interest - e.g., hypertension, diabetes, cancer morbidity, immunization and mortality
$>$ DHHS Disparities Initiatives - Longevity and Healthy People 2010 objectives
> Important to know whether changes in health outcomes by race over time are due to changes in behavior or changes in the way we collect information on race/ethnicity

## New OMB Standards for Race and Ethnicity

 Data Collection$>$ Revised Race Categories
$>$ White, Black/African American, Asian, American Indian or Alaska Native (AIAN), and Native Hawaiian or Other Pacific Islander (NHOPI)
$>$ Other race
$>$ Hispanic origin (Hispanic/Latino)
$>$ Ask prior to and separately from race

## Revised Guidelines

## $>$ Data collection and tabulation

>Interviewing systems (e.g., CAPI,CATI, or PAPI) must allow respondents to select more than one race
$>$ Data systems must tabulate and report information on multiple race persons, provided data meet agency's standards

## How Do the New OMB Standards Affect Population-Based Surveys?

- Allow respondents to select more than one race
$>$ Single and "multiple race" groups must be tabulated, reported as a minimum (and detailed groups should be shown) where data standards are met
$>$ During the transitional period (through 2003), a "Bridge" to the old categories of collecting and tabulating data by single race is permitted
- Generally, official tabulations are based on single race question


## National Immunization Survey (NIS)

$>$ List-Assisted Random-Digit-Dialing Telephone Survey
$>$ Eligible Households Contain Children Aged 19-35 Months
$>$ 34,000 Telephone Interviews Per Year Based on Quarterly RDD Samples
$>$ Collects Socio-Demographic Information, Vaccination History, and a Consent to contact the Child's Provider
> Mail Survey to Collect Vaccination Histories from the Child's Health Providers
> Monitor Vaccination Coverage Levels in the U.S.
$>50$ States and 28 Urban Areas (78 IAP area)
$>$ New OMB Standards Implemented in Q3/1999
> Results for 2000-2001 NIS

## Current Hispanic Origin Question used in the NIS (Q3 1999+)

C2. Is [FILL VAR: NAME OF CHILD] of Spanish, Hispanic, or Latino origin, that is Mexican, Mexican-American, Central American, South American, Chicano, or Puerto Rican, Cuban, or other Spanish-Caribbean? [CHECK ALL THAT APPLY]
NO, NOT SPANISH/HISPANIC ..... 1YES, MEXICAN/MEXICANO2
YES, MEXICAN-AMIERICANYES, CENTRAL AMERICAN3
YES, CENTRAL AMERICAN ..... 4
YES, SOUTH AMERICAN ..... 5
YES, CHICANO ..... 6
YES, PUERTO RICAN ..... 7
YES, CUBAN/CUBAN AMERICAN ..... 8
YES, SPANISH-CARIBBEAN ..... 9
YES, OTHER SPANISH/HISPANIC (SPECIFY) ..... 10
DON'T KNOW ..... 96
REFUSED ..... 97

## Current Race Question used in the NIS (Q3 1999+)

C3. Please choose one or more of the following categories to describe [FILL VAR: NAME OF CHILD]'s race. Is [FILL VAR: NAME OF CHILD] White, Black or African American, American Indian, Alaska Native, Asian, or Native Hawaiian or Other Pacific Islander? [CHECK ALL THAT APPLY]
WHITE ..... 1
BLACK/AFRICAN AMERICAN2 AMIERICAN INDIAN ..... 3
ALASKA NATIVE ..... 4
ASIAN ..... 5
NATIVE HAWAIIN ..... 6
PACIFIC ISLANDER ..... 7
OTHER (SPECIFY) ..... 8
DON'T KNOW ..... 96
REFUSED ..... 97

## Current Primary Race Question, NIS (Q3 1999+)

## C4. Which do you feel best describes [FILL VAR:

 NAME OF FIRST/SECOND.../NINTH CHILD, FROM S3.5]'s race?$\begin{array}{ll}\text { WHITE } & 1 \\ \text { BLACK/AFRICAN AMIERICAN2 } & \\ \text { AMERICAN INDIAN } & \mathbf{3} \\ \text { ALASKA NATIVE } & \mathbf{4} \\ \text { ASIAN } & 5 \\ \text { NATIVE HAWAIIN } & 6 \\ \text { PACIFIC ISLANDER } & 7 \\ \text { OTHER (SPECIFY) } & \mathbf{8} \\ \text { DON'T KNOW } & 96\end{array}$
REFUSED

## Categories for Reporting Race in the NIS

1994-1999 Categories

- White
- Black
- American Indian
- Asian
- Other race - Specify
$\underline{2000+\text { Categories }}$
- White
- Black/African American
- AIAN
- American Indian
- Alaska Native
- Asian
- NHOPI
- Native Hawaiian
- Other Pacific Islander
-Other race - Specify


## Procedure to Recode Single and Multiple Race Groups, 2000-2001 NIS

$>$ Up to 5 races retained for a multiple race respondent (child or mother)
$>$ Composite race categories were created by combining six single race categories
$>$ Single and multiple race groups were created following an algorithm developed at the NCHS
$>$ For weighting and tabulation, multiple race groups were recoded to a single race group using the child's primary race or mother's race

Item Nonresponse for Current Hispanic Origin and Race Questions, 2000-2001 NIS

|  | 2000 <br> $(\mathrm{n}=34,087)$ | 2001 <br> $(\mathrm{n}=33,437)$ | $2000-2001$ <br> $(\mathrm{n}=67,524)$ |
| :--- | :--- | :--- | :--- |
| Hispanic Origin | $0.75 \%$ | $0.83 \%$ | $0.79 \%$ |
| Race | $9.15 \%$ | $7.99 \%$ | $8.57 \%$ |
| Race/Ethnicity | $1.58 \%$ | $1.32 \%$ | $1.45 \%$ |


| Distribution of Race/Ethnicity of Child Using Old and New OMB Race Categories, 2000- |  |  |  |
| :---: | :---: | :---: | :---: |
| Old and | New ON | $\begin{aligned} & \text { Race Ca } \\ & 1 \text { NIS } \end{aligned}$ | egories, 2000- |
| Old Race | Percent in | New Race | Percent in |
| Category | Population | Category | Population |
| Non- |  | Non- |  |
| Hispanic |  | Hispanic |  |
| White | 55.54 | White | 54.51 |
| Black | 14.75 | Black | 13.98 |
| American | 0.88 | AIAN | 0.80 |
| Indian |  | Asian | 3.20 |
| Asian | 3.75 | NHOPI | 0.28 |
| Other | 0.02 | Other | 0.01 |
| Unknown | 2.61 | Multiple | 3.23 |
| Note: 22.45\% Hispanics |  | Race |  |
|  |  | Unknown | 1.54 |

## Distribution of Children with Multiple Race Groups, 2000-2001 NIS

| New Race | Percent | Multiple Race | Percent |
| :---: | :---: | :---: | :---: |
| Category: | ( $\mathrm{n}=66,908$ ) | Category: | ( $\mathrm{n}=2,238$ ) |
| Non- |  | Non-Hispanic |  |
| Hispanic |  |  |  |
| Single | 72.78 |  |  |
| Race |  | White/Black | 43.93 |
| Two Races | 3.04 | White/ AIAN | 16.85 |
| Three or | 0.19 | White/Asian | 18.74 |
| More |  | Other | 20.49 |
| Races |  | Combination |  |


| Distribution of Mother's Race for Children with Single Race, 2000-2001 NIS |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Child's <br> Race, |  | Mother' | Race, (\%) | n-Hispar |  |
| NonHispanic | White | Black | AIAN | Asian | NHOPI |
| White | 97.5 |  |  |  |  |
| Black | 3.6 | 93.2 |  |  |  |
| AIAN | 22.8 |  | 69.9 |  |  |
| Asian | 6.9 |  |  | 90.3 |  |
| NHOPI | 10.0 |  |  | 7.8 | 70.0 |

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Distribution of Mother's Race for Children
    with Multiple Race, 2000-2001 NIS
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Child's Race:
Non-Hispanic

AIAN 58.8
Asian 37.4
Other 22.5
Combinations

White and White Black AIAN Asian NHOPI Multiple

| Black | 75.6 | 13.3 | 9.0 |
| :--- | :--- | :--- | :--- |

Mother's Race: Non-Hispanic
(\%)
13.3
27.5
49.4
11.4
10.7
3.4
15.5
12.0
34.0

## Distribution of Primary Race for Children

 with Multiple Race, 2000-2001 NIS| Child's Race: <br> Non-Hispanic |  | Primary Race: Non-Hispanic (\%) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| White and | White | Black | American Indian | Asian | Not Given |
| Black | 16.8 | 42.9 |  |  | 40.4 |
| AIAN | 76.8 |  | 11.4 |  | 11.8 |
| Asian | 45.8 |  |  | 25.7 | 28.4 |
| Other <br> Combination | 23.4 | 26.0 | 3.3 | 20.7 | 26.8 |


\section*{Comparison of Vaccination Coverage Rates by New and Old Classification of Race/Ethnicity, 2000-2001 NIS <br> | New Classification | 4:3:1:3 | Old Classification | 4:3:1:3 |
| :--- | :--- | :--- | :--- |
|  | UTD |  | UTD |
| Hispanic | $74.97(0.73)$ | Hispanic | $74.97(0.73)$ |
| Non-Hispanic White | $79.23(0.39)$ | Non-Hispanic White | $79.19(0.38)$ |
| Non-Hispanic Black | $70.69(0.96)$ | Non-Hispanic Black | $70.76(0.93)$ |
| Non-Hispanic American <br> Indian or Alaska Native | $73.62(3.01)$ | Non-Hispanic American <br> Indian | $72.50(2.93)$ |
| Non-Hispanic Asian | $75.16(2.06)$ | Non-Hispanic Asian | $75.60(1.83)$ |
| Non-Hispanic Native <br> Hawaiian or Other Pacific | $70.44(5.36)$ |  |  |
| Islander <br> Non-Hispanic Multiple <br> Race | $75.32(1.72)$ |  |  |}

## >Multiple Race

$>$ Non-Hispanic Children
$>2000$ NIS, 19-35 months-------------------------- $3.23 \%$
> Mother's Race of children with Multiple Race
> White/Black: mostly White
> White/Asian: Asian followed by White
$>$ Primary Race of children with Multiple Race
> White/Black: more likely to be Black
> White/Asian: more likely to be White
> Item nonresponse on primary race question highest for children who are White/Black
$>$ Most weighting control totals still use single-race categories

## Summary

$>$ Need single-race categories to monitor trends over time
$>$ Methods
> Impute single-race categories for children with multiple races

- Use primary race
$>$ Use mother's race
4:3:1:3 Vaccination Coverage Rates
$>$ No significant differences were observed in the coverage rates between old and new race/ethnic groups
$>$ With new race/ethnic classification vaccination rates are available for additional groups NHOPI and children with multiple race

