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Self-Reported versus Published Data on Racial Classification in North Carolina Birth Records

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ABSTRACT

***Objectives*:** To compare race as reported by the mother on North Carolina birth certificates with the data on race in the officially reported statistics.

***Methods*:** Text entries of race by the mother, collected through the electronic birth registration system, are described as well as the coding rules whereby these entries are converted to standard racial categories for the reporting of birth statistics.

***Results*:** Out of nearly 118,000 live births in North Carolina, mothers reported more than 600 different versions of race on the birth certificates. These entries are collapsed into ten standard racial categories according to federal coding rules. Approximately two-thirds of mothers of Hispanic ethnicity report their race with a label that can be categorized as "Other" race, but nearly all of these births are re-coded to "White" for the official birth statistics.

***Conclusions*:** This study shows that, given the opportunity to report their own race, North Carolinians describe their race with a wide variety of terms and concepts. In contrast, health statistics are usually reported using a few standardized racial categories defined by federal policy.

Introduction

North Carolina health statistics are often tabulated by race as a means of measuring health disparities. Many of North Carolina's racial minority groups have worse outcomes than the majority white population on a number of health measures, such as low birth weight and infant mortality. This descriptive information on disparities can be used to target health programs to populations in need.

Published health data give the impression that racial categories are distinct and well-defined. However, there is a growing consensus in the scientific community that distinct human races do not exist.[1] But because of the historical social stratification role of race, particularly in the United States, categorization of people by race continues. Federal policy defines a limited number of discrete racial categories which must be used in reporting data for all federal programs.[2] These categories are used in North Carolina for tabulating health data by race. Our experience in North Carolina shows that self-reported race on birth certificates is quite different from the standard federal categories used to publish the data by race.

Methods

In this report, we describe how data on race are collected, coded, and tabulated in live birth certificates, death certificates, the Behavioral Risk Factor Surveillance System (BRFSS) telephone survey, and records of new cases of cancer in North Carolina. Race as reported by the mother on the birth certificate is compared to racial tabulations used in the official published birth statistics. The information presented here on self-reported race is for all live births occurring in North Carolina in 2002 (nearly 118,000), in contrast to other studies based on small-scale samples.

Results

Data on race from North Carolina death and live birth certificates are collected through a fill-in-the-blank box on the certificates. On the death certificates, the box is labeled at the top "RACE – American Indian, Black, White, etc. (Specify)". The instructions for the death certificate say "Enter the race of the decedent as stated by the informant…. For Asians and Pacific Islanders the national origin may be entered, such as Chinese, Japanese, Korean, or Vietnamese. Two races may be shown for persons of mixed racial heritage."

For birth certificates, the mother usually fills out a worksheet before delivery, which includes a blank space to record her race and another blank space to record the race of the father ("Specify White, Black, American Indian, etc."). One race is usually entered, though multiple races are sometimes written in. This text, supplied by the mother, is then entered into the Electronic Birth Certificate (EBC) system by hospital staff. The instructions say "Enter the color or race… of both parents as furnished by the mother or other informant. For Asians and Pacific Islanders, the national origin may be entered (e.g., Chinese, Japanese, Korean, Hawaiian, Vietnamese, etc.)."

These open-ended questions on race result in a variety of responses. The actual text of what the mothers fill out for mother's race is captured in the EBC system. For the 117,949 live births occurring in 2002 in North Carolina hospitals reporting through the EBC system, there were more than 600 different text versions of "race" of the mother reported (counting different spellings and capitalizations). The most common text entries for race were White (74,789 or 63%), Black (27,142 or 23%), Hispanic (9,746 or 8%), Asian (1,586 or 1%), and American Indian (1,512 or 1%). Specific nationalities were often reported as the race (e.g., Cambodian, Dominican, Guatemalan, Hmong, Mexican, British). Also, in many cases racial combinations were reported (e.g., White/Mexican,

Hispanic/Black, Egyptian/Canadian, Mixed Indian-Italian, Biracial, and Multi Racial).

North Carolina submits its vital records data to the National Center for Health Statistics (NCHS) as part of the National Vital Statistics System. Under a contract where the NCHS provides funding for these data, states are required to incorporate NCHS coding specifications for demographic and other items on the vital records, including race. As of 2004, North Carolina had not adopted the new national model vital certificates, which allow for checking one or more racial categories, so North Carolina vital records are still coded to a single racial group. For birth and death certificates, all text entries for race are converted into one of the following ten categories: White, Black, Indian, Chinese, Japanese, Hawaiian, Filipino, Other Asian or Pacific Islander, Other Entries, and Not Reported. Some of the NCHS rules[3] for this conversion are:

- If Hawaiian is reported with any other race, code Hawaiian.
- If more than one race is reported (except Hawaiian), code the first race listed.
- If more than one race is reported with percentages or fractions given (except Hawaiian), code the race having the higher percentage or fraction.
- If entry is Col., N, Negro, Color(ed), B, Brown, A.A., Afro-American, or African American, code Black.
- States not mandated by law to code multi-racial as a separate category [North Carolina is not] may code entries such as multiracial, biracial, mixed, or other synonymous terms as Other Entries.

In addition, there is an Appendix in the NCHS Coding Instructions that lists hundreds of terms that might be written in the race box on the vital certificates, with an indication of which of the ten fixed race categories should be assigned to them. For example, Hispanic, Mexican, Puerto Rican, Egyptian, Cuban, Moroccan, Persian, Syrian, Turk, and Yugoslavian should be coded to White. African, Dominican, Jamaican, Liberian, Mulatto, Octaroon, Quadroon, and West Indies should be coded to Black. Aleut, Eskimoan, Mexican Indian, Red, and Ute should be coded to Indian. Ameriasian, Asian Indian, Burmese, Cambodian, Dutch East Indian, Eurasian, Hindu, Pakistani, Polynesian, Sikh, Thai, and Tibetan should be coded to Other Asian or Pacific Islander. Clearly, a lot of detail is lost in the conversion of these self-reported racial labels to the standard NCHS categories.

Following are the percentages of 2002 live births received through the North Carolina EBC system that fall into broad racial groupings, comparing what is self-reported by the mother to what is coded for NCHS purposes.

	Self-reported	NCHS coding
White	63.4%	72.7%
Black	23.0%	23.4%
Indian	1.3%	1.4%
All Other Categories and Combinations	12.3%	2.4%

A major reason for the difference in self-reported race and the NCHS racial coding is that many mothers in North Carolina list their "race" as "Hispanic" in the blank on the birth certificate worksheet (which would be counted in the "All Other" category in the first column above). However, NCHS considers Hispanic to be an ethnic group rather than a racial group and includes a separate variable for capturing Hispanic origin on the vital statistics files. According to NCHS coding specifications, if "Hispanic" is listed as a race on the birth certificate, then race should be recorded as "White." Among the 2002 live birth records received through the North Carolina EBC system,

15,074 had a designation by the mother that she was of Hispanic ethnic origin. However, among these 15,074 live births, 10,361 (or 69 percent) had an "Other" race written in by the mother (with 9,445 of these listing "Hispanic" as their race). By contrast, in the official North Carolina live birth statistics, among the 2002 live births occurring in North Carolina where a Hispanic ethnic origin was indicated, 98.5 percent were recorded as White, according to NCHS coding rules.

On North Carolina death certificates, we do not capture electronically the text written in for race, but the NCHS coding rules mentioned above also apply to death certificates. A variety of racial labels are reported, most often elicited from family or friends of the decedent, but race is sometimes assigned by the funeral director based on physical appearance.[4] These racial labels are converted into the ten fixed racial categories. All tabulated and published North Carolina mortality data are based on these ten categories. For 2002 deaths occurring in North Carolina, 77.7 percent were coded as White, 21.2 percent as Black, 0.9 percent as Indian, and 0.2 percent in the other seven categories combined.

North Carolina telephone survey data reveal a pattern similar to what we found with the birth certificates. The BRFSS is a random telephone survey of persons age 18 and older. In 2002, approximately 6,700 interviews were completed. In addition to a variety of health-related questions, respondents are asked two separate questions about their ethnicity and race. They are asked "Are you Hispanic or Latino?" (Yes/No) Then they are asked "Which one of these groups would you say best represents your race?" and the following list is read over the phone: White, Black or African American, Asian, Native Hawaiian or Other Pacific Islander, American Indian or Alaskan Native, Other. Of the 300 respondents in 2002 who indicated that they were Hispanic/Latino, more than two-thirds chose "Other" as their racial group. This is similar to data from a national survey of adolescents, where 46 percent of those who said that they were Latino or Hispanic chose "Other" as their only race.[5]

The federal policy on racial and ethnic classification[2] recommends that the question on Hispanic ethnicity be asked *before* the question on racial identity, in part to reduce the "Other" race responses for Hispanics. The BRFSS adheres to this recommended ordering of the ethnicity and race questions, but still two-thirds of Hispanics identify themselves as "Other" race.

The 2002 North Carolina BRFSS included the question "How do OTHER PEOPLE usually classify you in this country? Would you say White, Black or African American, Hispanic or Latino, Asian, Native Hawaiian or Other Pacific Islander, American Indian or Alaska Native, Multiracial, or some other group?" This question was preceded by the introductory statement: "Earlier you told me about your race. Now I will ask some questions about reactions to your race." Of the survey respondents who reported themselves as Hispanic and speaking Spanish only, 93 percent reported that they were classified by others as being Hispanic or Latino and only 0.5 percent reported that they were classified by others as being White. Of the survey respondents who were Hispanic and speak English, 39 percent reported that they were classified by others as being Hispanic or Latino and 43 percent reported that they were classified by others as being White. These results suggest that racial classification is, to some extent, in the "eye of the beholder." How other people classify you may affect how you are treated by those people.

Records of new cases of cancer from the Central Cancer Registry show a different picture of race for Hispanics. Of the 929 cancer cases from 1996 through 2000 where the patient was indicated to be of Hispanic ethnic origin, the race was coded as White for 83.5 percent. However, unlike the BRFSS survey and the mother's birth certificate worksheet where race is self-reported, race on the cancer records is usually based on visual criteria by the hospital clerk in the admissions office.

Discussion

The new national model birth certificate, scheduled to be adopted by most states in the next few years, presents 15 discrete racial groups with a check-box next to each and the instructions are to "check one or more races to indicate what the mother considers herself to be." Only those checking "Other Asian," "Other Pacific Islander," or "Other" race are allowed to write in an entry for race. So, in the future, there will be much less opportunity to collect self-reported, open-ended designations of race on the birth certificates, as was done for the present study using 2002 North Carolina data.

Hispanics in North Carolina are predominantly recent immigrants from Mexico and so their reporting of race on birth certificates, as described above, may be different from that in states with more established Hispanic populations like California, Texas, and Florida. Also, the pattern of reporting race by Hispanics in North Carolina may change over time as they become more acculturated and as they begin to represent a wider variety of national backgrounds.

This study shows that, given the opportunity to report their own race, North Carolinians describe their race with a wide variety of terms and concepts. This is indicative of the racial and ethnic diversity within the state. In contrast, health statistics are usually reported using a few forced-choice racial categories defined by federal policy. For statistical purposes, a limited number of standard racial categories are desirable for at least two reasons: a) aggregating detailed racial groups makes the numbers of health events in each racial category larger, which promotes statistically reliable rates and measures, and b) analyses done across diverse geographic areas and by different agencies will be more comparable.

However, it should be recognized that a great deal of detail is lost in the process of aggregation. As stated by Moscou, et al.: "The commonly used racial/ethnic categories are at best approximations of broad and overlapping groups defined by society according to shifting criteria."[6] In addition, some of the standard racial categories may be so heterogeneous as to have little meaning. For example, the umbrella term "Asian" includes a wide variety of nationalities, cultures, ancestries, and backgrounds.[7]

The findings of this study are not surprising considering the frequent confusion of the terms "race" and "ethnicity." Many immigrants come from countries that do not use racial classifications and they find it hard to fit into one of the prescribed racial categories used in the United States. New immigrants may identify with their country of origin or tribal affiliation rather than a particular "race." These ethnic identities based on nation of origin may be more meaningful than a limited number of official racial groups.

Ultimately, "*people are who they say they are*. This requires a recognition that such definitions change over time, and that they may not correspond to any of the set of choices that researchers have fixed in advance."[8] Even the federal policy that establishes the fixed racial categories recognizes that "respect for individual dignity should guide the processes and methods for collecting data on race and ethnicity; ideally, respondent self-identification should be facilitated to the greatest extent possible."[2]

Due to the different methods of collecting racial data in various types of health records, comparisons of racial tabulations across various data sources is problematic. For example, race in the birth and BRFSS data are self-reported (although the birth data get reclassified into the standard federal categories), while race on the death and cancer case records is often determined by third-party observation.

Reclassifying some health records into a standard racial category that is different from what the

respondent self-reported may affect measures of racial disparities in health. For example, Hispanics as a whole have a relatively low infant mortality rate. Counting them predominantly in the White (majority) racial category may result in larger measures of racial disparity in infant mortality than if they were counted in a minority racial group (with which many Hispanics identify).

"Race" in the mind of an individual may be quite different from fixed statistical categories determined by governmental agencies. Some people do not understand the concept of race,[6] and others do not want to be categorized by race. A broadly defined racial group is at best a crude marker for particular health problems, and certainly not a risk factor or cause.[1,9] Racial discrimination, however, may account for part of the observed differences between racial groups in some health indicators.[10-13]

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