

## WHI Race and Ethnicity Language and Data Interpretation Guide

*drafted by: The WHI Race and Ethnicity Task Force (see end of document)*

**Intended purpose:** This Guide provides information for WHI Publications & Presentations (P&P) reviewers and presenters and authors of WHI presentations and manuscripts on the **language and analytic approach and interpretation of WHI Race and Ethnicity data.**

- *This guide replaces the 1/27/20 WHI P&P Working Group's report: Diversity in WHI: Guidance for Authors and Investigators on How to Address in Manuscripts and Proposals.*

- A. WHI Race and Ethnicity Variables: Baseline Form 2 (1993-1998) and Form 41(2003)
- B. Overarching Principles
- C. Specific Considerations for including Race and Ethnicity in WHI Analyses
- D. Current Definitions and Terminology for Race and Ethnicity

**Introduction.** This Guide is based on published material from several sources, including: a February 22, 2021 Journal of the American Medical Association (JAMA) editorial on reporting of race and ethnicity in medical and science journals (AMA Manual of Style subsection on Race/Ethnicity, Section 11.12.3)<sup>1</sup>; the November 2020 American Heart Association (AHA) Structural Racism and Health Equity Language Guide<sup>2</sup> and Presidential Advisory on structural racism<sup>3</sup>, and a July 2, 2020 Health Affairs blog by Rhea Boyd et al on a new standard for publishing on racism.<sup>4</sup>

### **A. WHI Race and Ethnicity Variables: Baseline Form 2 [link] and Form 41 [link]**

- 1. Baseline (1993-1998) WHI Form 2, Question #15** asked participants to “describe your **race or ethnic group.**” [“If of mixed blood, which group do identify with most?”]. 6 categories: (1) American Indian or Alaskan Native; (2) Asian or Pacific Islander (*ancestry is Chinese, Indo-Chinese, Korean, Japanese, Pacific Islander, Vietnamese*); (3) Black or African-American (*not of Hispanic origin*); (4) Hispanic/Latino (*ancestry is Mexican, Cuban, Puerto Rican, Central American, or South American*); (5) White (*not of Hispanic origin*); and, (“8”) Other (*Specify*). [Notes: “Other” was checked by 1849 participants; 413 participants left the question blank.]
- 2. Form 41** was developed by the *Special Populations Advisory Board (Chair: Electra Paskett)*, based on 2000 Census, was assessed in **2003** in all WHI participants still active at that time.
  - Q 1. (Ethnicity)** asked: Are you Spanish/Hispanic/Latino? Mark “No” box if not Spanish/Hispanic/ Latino. (0) No, not Spanish/Hispanic/Latino; (1) Yes, Puerto Rican; (2) Yes, Mexican, Mexican American, or Chicano; (3) Yes, Cuban; (4) Yes, other Spanish/Hispanic/Latino. Please specify what group.
  - Q 2. (Race)** asked: “What is your race? Mark **one of more races** to indicate what you consider yourself to be: (1) White; (2) Black, African American, or Negro; (3) American Indian or Alaska Native (*Please specify enrolled or principal tribe*); (4) Asian Indian; (5) Chinese; (6) Filipino; (7) Japanese; (8) Korean; (9) Vietnamese; (10) Other Asian (*Please specify race*); (11) Native Hawaiian; (12) Guamanian or Chamorro; (13) Samoan; (14) Other Pacific Islander (*Please specify race*); (15) Some other race (*Please specify race*). [Notes: F41 has missing data on 959 participants for Q1. (ethnicity) and 1016 participants for Q2. (race).]  
**Note:** *The TF recognizes that the Asian heritage groups (4-10) and Pacific Islander heritage groups (11-14) are not generally acknowledged as separate races; however, this is how the categories were presented to the participants, based on Census 2000 text.*
- 3. In Fall 2020/Winter2021, the WHI-CCC created F41-imputed race and ethnicity variables** (from F2 variables) which are now posted on the WHI website and **should be used in all future WHI analyses and papers.** The following appendices can be found at the end of this document:
  - **Appendix A1:** WHI-CCC Race-Ethnicity Coding Consort diagram and imputation algorithm
  - **Appendix A2:** Table of Race and Ethnicity Frequencies
  - **Appendix A3:** NIH Race and Ethnicity tables for the WHI baseline cohort

## **B. Overarching principles:**

1. **Race** is a socio-political construct that often serves as a proxy for both historical and ongoing disadvantage in social, economic, environmental, and structural factors, arising from racism. It is **not** rooted in **biology**; in fact, a “biological” basis for race has been debunked in the scientific literature.<sup>4-13</sup> *It is important to think carefully about why race variables are being used, i.e. what is represented by “race”,<sup>5</sup> and how it is contributing to the scientific question being addressed.*
2. **Ethnicity** is a socio-political construct **not** rooted in **biology** that refers to the social characteristics people may have in common, such as language, religion, regional background, traditions and culture. *Our ability to analyze “ethnicity” in WHI is restricted to “non-Hispanic” versus “Hispanic,” who can be of any race, and what appears on **Form 41** (per Census 2000).*
3. **Ancestry** is the appropriate term for genetic analyses and is **not** interchangeable with “race,” which cannot be determined by the geographic origin of a person’s ancestry.
4. When describing **race or ethnicity**, it is best to be specific and refer to people by terms and categorization as they self-identify (if known), but it is understood that individuals have been forced to choose among limited categories (influenced by current socio-political biases) when reporting their race or ethnicity. *This is true for race and ethnicity data collected using the WHI forms as well as U.S. Census reporting.*
5. The **dynamic and contextual nature of race and ethnicity** requires periodic reconceptualization. *We recommend routine review and possible revision of this Guide, recognizing that these factors are grounded in conceptual models and structural racism and are likely to change as we become more enlightened on these issues with time.*

Note: Greater detail, including country of origin, religion, immigration status and acculturation measures, combined with other social determinants of health, including everyday discrimination, would be required to enhance the rigor of research across each WHI race and ethnic category.

## **C. Specific Considerations for Including Race and Ethnicity in WHI Analyses:**

- Develop Questions and Methodological Strategies Informed by Conceptual Frameworks<sup>14</sup>  
In the study design and data interpretation stages of race- and ethnicity-focused research, identify conceptual models to target interpretation of the structural factors and racism underlying race and ethnic disparities. For example:
  - Public Health Critical Race Methodology (PHCR)<sup>5,6</sup> offers conceptual guidance for distinguishing racism and health inequities from race as a risk factor.
  - “Scientists can consider using frameworks such as the National Institute of Minority Health and Health Disparities Research Framework<sup>16</sup> to develop study questions that consider domains of influence (e.g., behavioral, sociocultural/environmental) with levels of influence (e.g., individual, interpersonal, societal).”<sup>14</sup>
- Collection and reporting of demographic data on race and ethnicity
  - The Methods section should include an explanation of who identified participant race and ethnicity and the source of the classifications used (e.g. self-report)
  - Rationale for use of race as a key variable within WHI: For papers and ancillary studies where race is the **primary exposure** of interest or where analyses are **stratified by race** and/or **ethnicity**, authors should provide a clear, written definition and rationale for why race is being used (e.g., what it is serving as a proxy for).
  - **Race and ethnicity of the study population should be reported in the Results section.**
- Characterization of racial and ethnic identity is not fixed; available options using national surveys (e.g., census) have changed over time. WHI participants self-identified their race and ethnicity per Census 2000 categories in 2003 (Form 41). We acknowledge WHI limitations due to F2/F41 categories (Census 2000), but Form 41 is not available on all participants from Baseline. (*Current Census 2020 classifications are not available in WHI.*)

- Data Interpretation & Reporting
  - Authors are encouraged to **address generalizability** compared to U.S. data for context when interpreting analytical results. When evaluating the context of results from WHI that includes a range of race and ethnic, socioeconomic, and/or educational subgroups, it is important to consider generalizability along with relevant confounders and mediators, noting that *comparisons of WHI participants to the U.S. population should be **both age- and race and ethnicity specific**, i.e. based on the proportion of older women within each race and ethnic group.* Discussion sections should address implications for analyses examining racial/ethnic inequities, which may be underestimated compared to those observed in the general U.S. (older) female population.
    - **Appendix B1:** Race and ethnicity (Form 2) by age groups of WHI Participants at Baseline (1993-1998) compared with the U.S. Census 1995 population estimates for women.
    - **Appendix B2:** Race and ethnicity of WHI Extension Study Participants (using Form 2 for comparability) as of September 2019 compared with the U.S. 2019 population estimates for women age 70 and over.
- **Statistical power for race and ethnicity heritage group analyses:** If conducted, heritage group analyses, as is the case for all subgroup analyses, should be sufficiently powered to detect differences by that group. Results from analyses with insufficient power based on smaller sample size should be reported with caution. When describing WHI results across race and ethnicity groups, it is **essential that authors provide a clear context for interpretation and for applicability to heritage groups.** The discussion should clearly acknowledge that sample selection limits interpretation of findings to the overall U.S. population or heritage groups identified in the manuscript. We have an ethical responsibility to present data on all race and ethnic sub-groups, but appropriate interpretation is important.
- Over time, the **WHI sample composition has been influenced by selective drop-out** that can be investigated through the use of inverse probability weighting and other methods. Although there is inequality across all variables, the WHI participants have similarities compared to other women in their age range. [See **Appendix B1** (Baseline) and **Appendix B2** (September 2019)]
- It is preferable that research questions examine associations **within select historically marginalized race and ethnic groups rather than compare race and ethnic groups to Non-Hispanic Whites.** Further, comparisons of race and ethnic groups to Non-Hispanic Whites should not be required of studies within WHI. (Some journals might require this.) Within group analyses serve to highlight the heterogeneity and resilience available within racial and ethnic groups.
- **Limitation:** Define and interpret race within a socio-political framework as a proxy for both historical and ongoing disadvantage arising from racism in social determinants of health, such as education, income, resilience and stressful life events (see WHI psychosocial constructs- [\[link\]](#)). Other structural factors may be important for the data interpretation of racially disparate outcomes, such as discrimination, racial capitalism, adverse childhood experiences, and inheritance of wealth, but are not available in WHI.

#### D. Definitions/Terminology

“Inclusive language supports diversity and conveys respect. Language that imparts bias toward or against persons or groups on characteristics or demographics must be avoided.”<sup>1</sup>

- see the Flanagan A, Frey T, Christiansen SL, JAMA February 2021 editorial<sup>1</sup> and the AHA health equity language guide<sup>2</sup> for more detailed definitions.

As noted above, WHI participants’ options for defining their race and ethnicity were restricted to the categories in Forms 2 and 41 and selected write-in options. Terms considered as “standard” in the

past may be regarded as unacceptable by a large proportion of the public, including scientists, today, particularly those of younger generations. Census 2020<sup>15</sup> also requires a person to choose a category that may not be how one self-identifies. Nonetheless, we cannot assume that a WHI participant would have preferred a different term from what she chose on Form 41 (or what was imputed from Form 2).

- For example, “American Indian or Alaskan Native” was offered in both Form 2 and 41; therefore, substituting “Native American” (or “Indigenous People”) is not appropriate.
- On the other hand, Form 41 offered multiple “Asian” heritage groups. Grouping all “Asians” requires a line in the text or a footnote that spells out the number of participants who chose each Asian group. Similarly, “Pacific Islander,” separated from “Asian” in Form 41, includes multiple heritage groups, thus grouping them also requires a line in the text or a footnote.

1. **Race.** The U.S. Census Bureau defines race as a person’s self-identification with one or more social groups: The names of races should be capitalized. Racial and ethnic terms should not be used in noun form; the adjectival form is preferred, e.g. Black participants, White participants.

- **White:** use uppercase *White* to describe people and populations in professional copy, e.g. AMA; use lowercase *white* in consumer copy, e.g. AP Stylebook (*per AHA*). Do not use “Caucasian.”
- **Black or African American:** “Black” is only acceptable as an adjective, e.g. Black women - not Blacks; capitalize when referring to people, communities, populations or culture. African American is acceptable for Black Americans of African descent; if preference is unknown, use Black. Also use Black in racial, ethnic, cultural differences outside the U.S. Avoid dated or offensive terms, e.g. “Negro” and “colored,” *unless part of formal name of an organization or a quotation. Note: “Negro” was dropped from Census 2020.*
- **Asian:** When possible, refer to person’s country of origin. Southeast Asian: region south of China, east of Indian subcontinent, northwest of Australia. “Oriental,” “Asiatic.” Note: Form 41 collected data on six specific countries of origin and for “other Asian (please specify).”
- **American Indian and Alaska Native:** a person having origins in any of the original peoples of North and South America, including Central America. Do not use “Indian.” Avoid “Eskimo.” If available, people should be identified by tribal affiliations. Notes: Although the AHA guide considers **Native American** and **Indigenous American** to also be acceptable; WHI Forms did not offer these options. *In Census 2020, “American Indian or Alaska Native” includes all individuals who identify with any of the original peoples of North and South America (including Central America) and who maintain tribal affiliation or community attachment.*
- **Native Hawaiian and “Other Pacific Islander”:** **Form 41** distinguishes Guamanian or Chamorro and Samoan from “Other Pacific Islander (Please specify race).”

2. **Ethnicity.** The Office of Management and Budget defines **ethnicity** as either “Hispanic or Latino” or “Not Hispanic or Latino.” OMB defines “Hispanic or Latino” as a person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin regardless of **race**. People who identify as Hispanic, Latino, or Spanish **may be of any race and may or may not describe themselves by race, follow their preference.**

- **Latina** (women) is acceptable, as WHI participants checked “Latino”; can use Non-Hispanic (*an adjective, not a noun*) for professional audiences, to distinguish from Hispanic White women, Hispanic Black women, etc. Note: although the AHA guide considers “**Latinx**” to be acceptable, it should not be used to describe WHI participants who did not have this option.
  - Use *Chicano, Chicana* only if it’s a person’s preference.

**Note:** WHI descriptive tables should **separate Ethnicity** (i.e. “Hispanic”, yes/no) **from Race.**

- We do not (currently) have intersectional WHI race-ethnicity categories.

3. **Geographic Origin and Regionalization Considerations**

- Awareness of the relevance of geographic origin and regionalization associated with racial and ethnic designations is important.
  - For example, sickle cell anemia, should be thought of connected not to race but to geographic ancestry, as it arose where malaria is or was present, including sub-Saharan Africa, the Mediterranean, and the Indian subcontinent.
  - When a study includes individuals of African ancestry in the diaspora the term African American may not be suitable because it may obscure cultural and linguistic nuances and national origins, such as Dominican, Haitian, and those of African sovereign states (e.g. Nigerian, Kenyan, Sudanese).

#### 4. Considerations regarding terms for various racial and ethnic groups

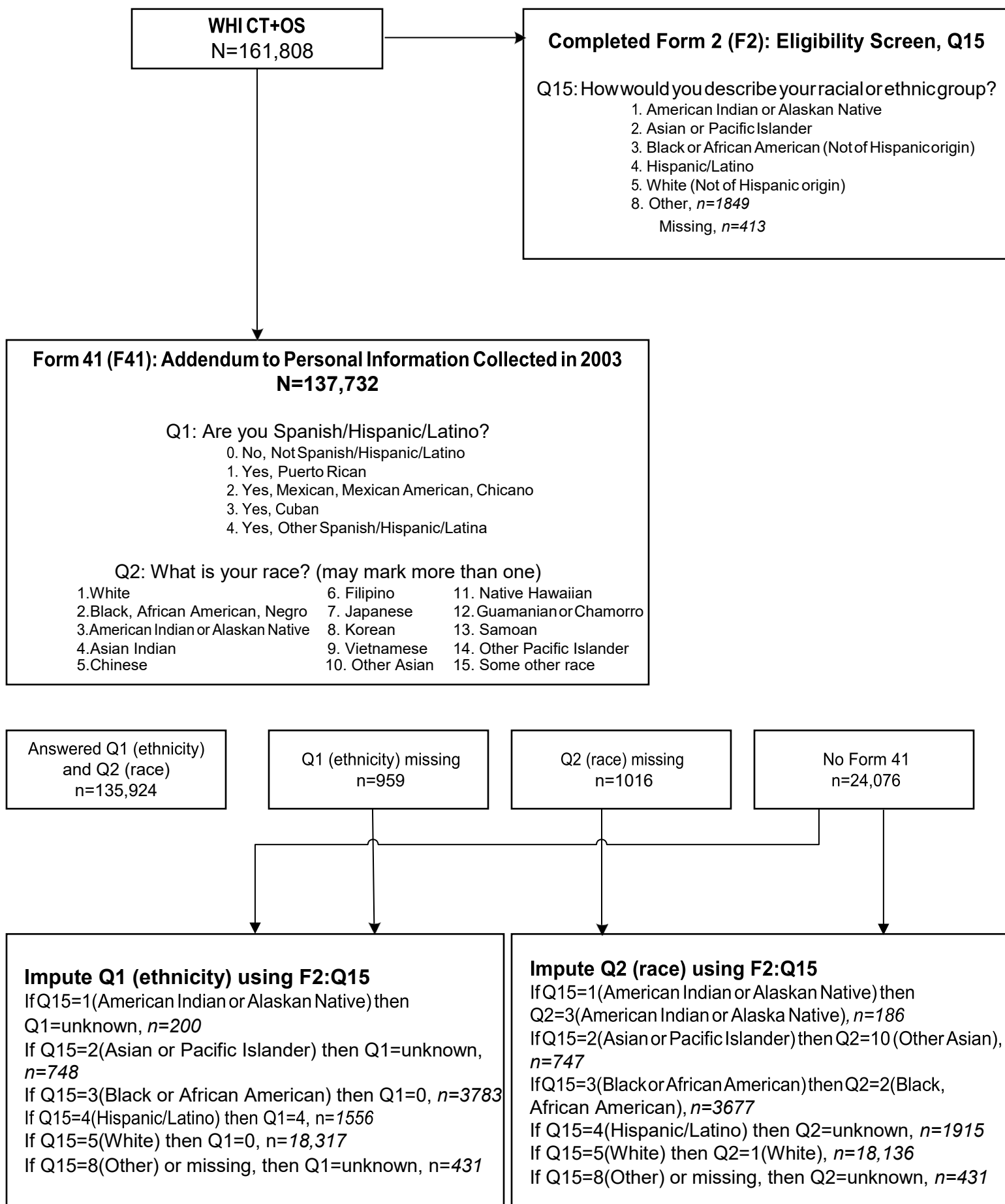
- The nonspecific group label “other” should be avoided unless it was a prespecified form category; in such cases, the categories included in “other” groups should be defined and reported. Authors are advised to be as specific as possible when reporting on racial and ethnic categories (even if these categories contain small percentages).
- The terms “multiracial, mixed race, and multiethnic” are acceptable in reports of studies if the specific categories the terms comprise are defined. If the criteria for data quality and confidentiality are met, at a minimum, the number of individuals identifying with more than one race should be reported.
- The following points are made by the AMA<sup>1</sup> and/or AHA<sup>2</sup> sources cited in this Guide; however, language is changing rapidly as more diverse perspectives and opinions are heard. *The TF plans to review the Guide within three months and make appropriate revisions as needed:*
  - The general term “**minorities**” and “**non-white**” should be avoided; instead specify with terms such as racial or ethnic minority groups. Other terms such as “**underserved groups**” or “**underrepresented populations**” may be used. “**Historically marginalized populations or racial and ethnic groups**” can be suitable in certain contexts if the rationale for this designation is provided
  - As noted above, people should be referred to by their self-identified race and ethnicity. “**People of Color**” and “**brown**” may be used colloquially, i.e. within an opinion article) but these terms should not be used in research reports unless the terms are included in a database on which a study is based or specified in the research collection instrument. Avoid using “POC.”
  - “**Black, Indigenous and other people of color**”: use only if accurate in specific situations; Avoid as general term for people of color because Hispanic/Latinx people may not see themselves in this phrase.
  - “**Vulnerable**” can imply some people need someone to save them; however, this term may be necessary and appropriate in context.

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## References/Resources

1. Flanagan A, Frey T, Christiansen SL, Bauchner H. The Reporting of Race and Ethnicity in Medical and Science Journals. *JAMA*. 2021 Feb 22. [\[link\]](#)
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15. U.S. National Census 2020 [\[link\]](#)
16. NIMHD Minority Health and Health Disparities Research Framework. 2018. [\[link\]](#)

## Appendix A1: Race-Ethnicity Coding Consort Diagram



**Appendix A2. Frequency of race and ethnicity categories before and after application of above algorithm (N=161,808)**

	As collected on Form 41 N	Imputed value after algorithm application N
Ethnicity: Spanish/Hispanic/Latino		
No, Not Spanish/Hispanic/Latino	131,017	153,117
Yes, Puerto Rican	779	779
Yes, Mexican, Mexican American, Chicano	2693	2693
Yes, Cuban	396	396
Yes, Other Spanish/Hispanic/Latina	1888	3444
Unknown	25,035	1379
Race:		
White	120,967	139,103
Black, African American, or Negro	4073	14,750
American Indian or Alaska Native	1346	1532
Asian Indian	102	102
Chinese	958	958
Filipino	411	411
Japanese	2049	2049
Korean	111	111
Vietnamese	11	11
Other/unknown Asian	91	838
Native Hawaiian	298	298
Guamanian or Chamorro	14	14
Samoan	6	6
Other Pacific Islander	52	52
Some other race	1416	1416
Unknown	25,092	2346



**Appendix A3. NIH Enrollment Table based on above imputed Form 41 data**

**WHI Cohort Ethnic and Racial Distribution**

Racial Categories	Ethnic Categories									Total
	Not Hispanic or Latino			Hispanic or Latino			Unknown/Not Reported Ethnicity			
	Female	Male	Unknown/ Not Reported	Female	Male	Unknown/ Not Reported	Female	Male	Unknown/ Not Reported	
American Indian/ Alaskan Native	292	0	0	53	0	0	195	0	0	540
Asian	3216	0	0	60	0	0	749	0	0	4025
Native Hawaiian or Other Pacific Islander	119	0	0	18	0	0	0	0	0	137
Black or African American	14166	0	0	160	0	0	1	0	0	14327
White	133321	0	0	4300	0	0	7	0	0	137628
More than one Race	1662	0	0	211	0	0	7	0	0	1880
Unknown or Not reported	341	0	0	2510	0	0	420	0	0	3271
<b>Total</b>	153117	0	0	7312	0	0	1379	0	0	161808

Coding instructions

- 1) Column categories: use Form 41 imputed Question 1 (Ethnicity); combine 'Yes, Puerto Rican', 'Yes, Mexican, Mexican American, or Chicano', 'Yes, Cuban' and 'Yes, other Spanish/Hispanic/Latino' into 'Hispanic/Latino'.
- 2) Row categories: count the number of race categories marked in Question 2 (Race); If number of race categories is greater than one, category = 'More than one race'; else if number of race categories equals one, use categories for American Indian/Alaskan Native, White, Black or African American as is, and create aggregated categories for Asian = Asian Indian or Chinese or Filipino or Japanese or Korean or Vietnamese or Other Asian, and Native Hawaiian or Pacific Islander = Native Hawaiian or Guamanian/Chamorro or Samoan or Other Pacific Islander.

## WHI Race and Ethnicity Language and Data Interpretation Guide

**Appendix B1.** Race and ethnicity (Form 41 imputed) by age groups of WHI Participants at Baseline (1993-1998) compared with the US Census 1995 population estimates for women.

US 1995 <sup>4</sup>	<i><b>Ethnicity</b></i>	<i><b>Race</b></i>						
	<i>Spanish/ Hispanic/ Latino</i>	<i>Black/African American</i>	<i>American Indian/Alaska Native</i>	<i>Asian/ Pacific Islander</i>		<i>White</i>		
Total, %	5.9%	9.9%	0.6%	2.7%		86.8%		
Age, %								
50 to 54 years	7.1%	10.9%	0.7%	3.3%		85.2%		
55 to 59 year	7.0%	11.1%	0.7%	3.1%		85.2%		
60 to 64 years	6.4%	10.6%	0.6%	2.9%		85.9%		
65 to 69 years	5.6%	9.7%	0.5%	2.6%		87.3%		
70 to 74 years	4.6%	8.3%	0.4%	2.1%		89.2%		
75 to 79 year	3.9%	8.0%	0.4%	1.6%		90.0%		
WHI Baseline	<i><b>Ethnicity<sup>1</sup></b></i>	<i><b>Race</b></i>						
<b>N = 161,808</b>	<i>Spanish/ Hispanic/ Latino</i>	<i>Black/African American</i>	<i>American Indian/Alaska Native</i>	<i>Asian<sup>2</sup></i>	<i>Pacific Islander<sup>3</sup></i>	<i>White</i>	<i>Unknown</i>	<i>Some Other Race</i>
Total, N (%)	7312 (4.5%)	14,750 (9.1%)	1,532 (1.0%)	4,382 (2.7%)	360 (0.2%)	139,103 (86.0%)	2,346 (1.4%)	1,416 (0.9%)
Age, %								
50 to 54 years	7.8%	13.0%	1.5%	3.3%	0.4%	82.1%	2.4%	1.5%
55 to 59 year	5.9%	10.8%	1.1%	2.6%	0.3%	85.6%	1.7%	1.1%
60 to 64 years	4.5%	10.1%	1.0%	2.5%	0.2%	86.7%	1.5%	0.8%
65 to 69 years	3.4%	7.4%	0.8%	2.6%	0.2%	89.4%	1.0%	0.7%
70 to 74 years	2.6%	6.5%	0.7%	2.7%	0.1%	90.3%	1.1%	0.6%
75 to 79 year	2.2%	6.8%	0.7%	2.9%	0.1%	90.0%	1.1%	0.6%

1. Includes Puerto Rican, Mexican, Mexican American, or Chicano, Cuban and other Spanish/Hispanic/Latino

2. Includes Asian Indian or Chinese or Filipino or Japanese or Korean or Vietnamese or Other Asian

3. Includes Native Hawaiian or Guamanian/Chamorro or Samoan or Other Pacific Islander

4. Source: Day, Jennifer Cheeseman, Population Projections of the United States by Age, Sex, Race, and Hispanic Origin: 1995 to 2050, U.S. Bureau of the Census, Current Population Reports, P25-1130, U.S. Government Printing Office, Washington, DC, 1996.

**Appendix B2.** Race and ethnicity (Form 41 imputed) of WHI Extension Study Participants in 2019 compared with the US Census 2019 population estimates for women.

<b>US 2019<sup>4</sup></b>	<b><i>Ethnicity</i></b>	<b><i>Race</i></b>						
	<i>Spanish/ Hispanic/ Latino</i>	<i>Black/African American</i>	<i>American Indian/Alaska Native</i>	<i>Asian</i>	<i>Pacific Islander</i>	<i>White</i>	<i>Two or more races</i>	
Total, %	8.4%	9.7%	0.7%	4.6%	0.1%	84.0%	0.9%	
Age, %								
70 to 74 years	8.6%	10.2%	0.8%	4.9%	0.1%	83.0%	1.0%	
75 to 79 year	8.4%	9.7%	0.7%	4.5%	0.1%	84.1%	0.9%	
80 to 84 years	8.6%	9.6%	0.6%	4.5%	0.1%	84.3%	0.8%	
85 and over	7.7%	8.7%	0.5%	4.4%	0.1%	85.6%	0.7%	
<b>WHI 2019</b>	<b><i>Ethnicity<sup>1</sup></i></b>	<b><i>Race</i></b>						
	<i>Spanish/ Hispanic/ Latino</i>	<i>Black/African American</i>	<i>American Indian/Alaska Native</i>	<i>Asian<sup>2</sup></i>	<i>Pacific Islander<sup>3</sup></i>	<i>White</i>	<i>Unknown</i>	<i>Some Other Race</i>
<b>N = 67,140</b>								
Total, N (%)	2,302 (3.4%)	4,413 (6.6%)	606 (0.9%)	1,572 (2.3%)	138 (0.2%)	60,491 (90.5%)	284 (0.4%)	559 (0.8%)
Age, %								
70 to 74 years	244 (6.6%)	410 (11.1%)	51 (1.4%)	150 (4.0%)	18 (0.5%)	3,075 (83.2%)	31 (.8%)	64 (1.7%)
75 to 79 year	733 (4.3%)	1,324 (7.8%)	214 (1.3%)	423 (2.5%)	39 (0.2%)	15,134 (88.9%)	97 (0.6%)	166 (1.0%)
80 to 84 years	660 (3.3%)	1,353 (6.8%)	175 (0.9%)	435 (2.2%)	39 (0.2%)	18,125 (90.6%)	82 (0.4%)	159 (0.8%)
85 to 89 years	426 (2.8%)	849 (5.6%)	109 (0.7%)	348 (2.3%)	32 (0.2%)	13,982 (91.8%)	55 (0.4%)	99 (0.7%)
90 to 94 years	198 (2.3%)	388 (4.5%)	48 (0.6%)	169 (2.0%)	10 (0.1%)	8,002 (93.2%)	16 (0.2%)	56 (0.7%)
Over 95 years	41 (1.8%)	89 (3.8%)	9 (0.4%)	47 (2.0%)	0	2,173 (93.7%)	3 (0.1%)	15 (0.7%)

1. Includes Puerto Rican, Mexican, Mexican American, or Chicano, Cuban and other Spanish/Hispanic/Latino

2. Includes Asian Indian or Chinese or Filipino or Japanese or Korean or Vietnamese or Other Asian

3. Includes Native Hawaiian or Guamanian/Chamorro or Samoan or Other Pacific Islander

4. Source: US Census Bureau, Population Division. Annual Estimates of the Resident Population by Sex, Age, Race, and Hispanic Origin for the United States: April 1, 2010 to July 1, 2019 (NC-EST2019-ASR6H)