

TOPICAL FEATURE

Updated Guidance on the Reporting of Race and Ethnicity in Medical and Science Journals

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ABSTRACT

The language used to describe study participants in the medical literature is of paramount importance. The objective is to use the terms that people use to describe themselves while also being sensitive and consistent, supporting diversity, and conveying respect. It is also important to medical editors that a style guide reflects their responsibilities and need for clear guidance. To this end, the *AMA Manual of Style* committee reassessed our guidance on race and ethnicity soon after its release in February 2020 because we realized that our guidance already needed to be updated. We started with some small steps, like deciding to capitalize all racial and ethnic categories including *Black* and *White*, and then ended up dismantling the entire section in our quest to develop more robust, comprehensive, and thoughtful guidance. After almost a year of research, updates, external review, and further revision, we published our efforts to garner public feedback, which was successful and led to further revision and review. When we were confident that our guidance met our objectives, we published our revision in August 2021. Our updates include definitions of commonly used terms associated with race and ethnicity, concerns and controversies in health care and research, racial and ethnic collective term usage, alphabetization of racial and ethnic categories, and geographic origin and regionalization considerations, and we provide examples to help guide authors and editors. Our current guidance is more reflective and complete, and we plan to make further revisions as the language and culture evolve.

The 11th edition of the *AMA Manual of Style* was published in February 2020, but we made a major update to the section on race and ethnicity a year and a half later because we realized that our guidance needed to be updated to reflect ongoing understanding and the need to report sociodemographic information more accurately, sensitively, and consistently. Our goal was to provide recommendations and

suggestions that encourage fairness, equity, consistency, and clarity in reporting of race and ethnicity in medical and science journals. “Terminology, usage, and word choice are critically important, especially when describing people and when discussing race and ethnicity. Inclusive language supports diversity and conveys respect. Language that imparts bias toward or against persons or groups based on characteristics or demographics must be avoided.”¹

PROCESS

As we have done with all *AMA Manual of Style* revisions, we looked at the current guidance on reporting race and ethnicity to determine what was missing and what we wanted to add or change. The *AMA Manual of Style* committee began reassessment in the spring of 2020 and talked about what the plan would be.

After an 8-month process of research, updates, external review, and more revision, we published our initial guidance in February 2021 as an editorial in *JAMA*¹ with an invitation for wider public review and feedback, hoping to capture the expertise of people we did not seek out initially. This was a first for us and successful because we had dozens of individuals in academia, publishing, and government with expertise in reporting race and ethnicity and diversity, equity, and inclusion reach out with suggestions and advice. It was a lot to sift through, and we encountered several topics for which people outright contradicted one another, but the feedback was invaluable and helped us to build a stronger, more comprehensive section. We sought review once more, and then [the final version](#) was published in *JAMA* on August 17, 2021.² A week later, the content was live and freely available in the online *AMA Manual of Style*.³

KEY PRINCIPLES IN THE UPDATED GUIDANCE

Our revised guidance followed 5 key principles. First, we acknowledge that race and ethnicity are social constructs. Race is a created concept, not a biological category defined by genetic traits or biological differences. Racial and ethnic

categories are social constructs with limited utility in understanding medical research, practice, and policy. However, the terms may be useful as a lens through which to study and view racism and disparities and inequities in health, health care, and medical practice, education, and research. The indistinct construct of racial and ethnic categories has been increasingly acknowledged, and concerns about use of these terms in medical and health research, education, and practice have been progressively recognized.

Second, we knew there would be historical sensitivities and controversies related to the language used to describe race and ethnicity and associated nomenclature in medical and health research, education, and practice, including the intersectionality of ancestry and heritage, social determinants of health, and other socioeconomic, structural, institutional, cultural, and demographic factors.

Third, race and racism do not exist in isolation, and therefore, racial and ethnic descriptors should not be reported alone. Other sociodemographic factors and context should be included as much as feasible, if reporting race assists in the study of disparities and inequities in health, health care, and medical practice, education, and research. Language and terminology must be accurate, clear, and precise, and must reflect fairness, equity, and consistency in use and reporting of race and ethnicity.

Fourth, it should be abundantly clear, particularly in research, what the origin of the categories is. Who classified individuals, what categories were available, and how these determinations were made should be clearly described (eg, self-report or selection, investigator observed, database, electronic health record, survey instrument). Reporting of race and ethnicity should not be considered in isolation and should be accompanied by other sociodemographic factors, social determinants, and the intersectionality of race and ethnicity with these other factors.

Finally, and most important, the guidance we have put forth in the manual is not final. The dialogue continues, and we will collect feedback and experience with implementing our guidance, which will allow us to make further updates to it. Continual review of the terms and language used in the reporting of race and ethnicity is critically important as societal norms continue to evolve.

GUIDANCE COMPONENTS

The revised guidance includes definitions of commonly used terms associated with race and ethnicity and acknowledges that these terms and definitions have changed, that some are out of date or should not be used, and that the nomenclature will continue to evolve.

We address concerns, sensitivities, and controversies in health care and research and provide guidance on the reporting of race and ethnicity in research articles, with the understanding that editors are working with the data that researchers collected. We also provide guidance for capitalization; adjectival, punctuation, and abbreviation usage; and what order to present categories, as well as examples of collective or umbrella terms for racial and ethnic groups.

Examples are included to help guide authors and editors, and we will continue to collect feedback and more examples to help. In addition, a quiz has been developed on race and ethnicity at the *AMA Manual of Style* website³ to help editors identify potential issues in reporting and explain the rationale for the correct quiz answer, of which in some cases there is more than one.

SUMMARY OF APPROPRIATE TERMS WHEN REPORTING RACE AND ETHNICITY

The following is a summary of the preferred terms to use when reporting race and ethnicity in medical and science journals. Complete guidance is available at the online *AMA Manual of Style*,³ and a summary table of appropriate terms is available in the Instructions for Authors for *JAMA* and the *JAMA Network* journals.⁴

1. All racial and ethnic categories, including *Black* and *White*, should have initial capitalization, except when capitalization could be perceived as inflammatory or inappropriate (eg, “white supremacy”). Race and ethnicity categories should be listed in alphabetical order, not in order of proportion, and “other” and “unknown” should be listed last. The categories included in “other” groups should be defined and reported. Authors should be as specific as possible when reporting on racial and ethnic categories (even if these categories contain small numbers). If the numbers in some categories are small enough to potentially identify study participants, the specific numbers and percentages do not need to be reported provided that this is documented. For cases in which the group “other” is used but not defined, the author should be queried for further explanation.
2. Race and ethnicity terms should be used as adjectives, not nouns. They can be modifiers (eg, Asian patient, Black individual, White populations) or predicate adjectives (eg, patients who are Asian, Black, or White).
3. Most combinations of proper adjectives derived from geographic entities are not hyphenated when used as noun or adjective formations, so do not hyphenate these

terms and similar combinations as nouns or compound modifiers (eg, African American patient).

4. Generally, abbreviations of categories for race and ethnicity should be avoided unless necessary because of space constraints (eg, in tables and figures). If used, any abbreviations should be clearly explained parenthetically in the text or in the table/figure footnotes or legends.

5. Authors use many collective terms when describing racial and ethnic minority groups. Many of these terms carry negative connotations, may be inaccurate or stigmatizing, and may be “too inclusive,” to the point that they erase differences among specific groups.⁵⁻⁸ These terms include *mixed race*; *minority* and *minorities* used as nouns; *people of color*; *brown*; and *Black, Indigenous, and people of color* (BIPOC), *Black, Asian, and minority ethnic* (BAME), and *Black and minority ethnic* (BME). These terms should be avoided unless they were specifically used in data collection, and in those cases, the term should be defined, if possible.

a. The terms *multiracial* and *multiethnic* are preferred over *mixed race* in reports of studies if the specific categories these terms comprise are defined or if the terms were predefined in a study or database to which participants self-selected.

b. We recommend using the collective terms *racial and ethnic minority groups* and *racial and ethnic minority individuals*, in which *minority* is used as a modifier and not as a stand-alone term. Terms such as *underserved populations* (eg, when referring to health disparities among groups) or *underrepresented population* (eg, when referring to a disproportionately low number of individuals in a workforce or educational program) may also be used as collective terms provided the categories of individuals included are defined at first mention. The term *minoritized* may be acceptable as an adjective provided that the noun(s) that it modifies is included (eg, “racial and ethnic minoritized group”). *Groups that have been historically marginalized* may also be suitable at times if the rationale for this description is provided. However, preference is for the specific racial or ethnic categories included or intended to be addressed instead of using a collective term.

c. The terms *Hispanic*, *Latino* or *Latina*, *Latinx*, and *Latine* are preferred to the term *Spanish speaking*. Avoid reflexively changing *Latino* and *Latina* to

Latinx or *Latine* or vice versa and follow author preference. Authors of research reports, in turn, should use the terms that were prespecified in their study (eg, via participant self-report or selection, investigator observed, database, electronic health record, survey instrument).

d. Description of people as being of a regional descent (eg, of African, Asian, European, or Middle Eastern or North African descent) is acceptable if those terms were used in data collection. However, it is preferable to identify a specific country or region of origin when known and relevant to the study. It is generally preferable to describe individuals of Asian ancestry according to their specific country or regional area of origin (eg, Cambodian, Chinese, Indian, Japanese, Korean, Sri Lankan, East Asian, Southeast Asian). Similarly, study participants from the Middle Eastern and North African region should be described using their nation of origin (eg, Egyptian, Iranian, Iraqi, Israeli, Lebanese) when possible. For individuals of various ancestries living in the United States, do not reflexively add “American.” However, there are times it is appropriate. For example, individuals of Middle Eastern and North African descent who identify with Arab ancestry and reside in the United States may be referred to as Arab American. Similar construction would be applicable for other groups such as Asian American, Indian American, etc.

e. In reference to persons indigenous to North America, *American Indian* or *Alaska Native* is generally preferred over *Native American*. However, the term *Indigenous* is also acceptable. There also are other specific designations for people from other locations, such as *Native Hawaiian* and *Pacific Islander*, *Indigenous people*, *Indigenous peoples of Canada*, and *Aboriginal people*. If appropriate, specify the nation or peoples (eg, Inuit, Iroquois, Mayan, Navajo, Nez Perce, Samoan).

f. Avoid collective reference to racial and ethnic minority groups as “non-White.” If comparing racial and ethnic groups, indicate the specific groups being compared. Researchers should avoid study designs and statistical comparisons of White groups with “non-White” groups and should specify racial and ethnic groups included and conduct analyses comparing the specific groups. If such a comparison is

justified, authors should explain the rationale and specify what categories are included in the “non-White” group.

- g. There are similar concerns about dichotomized comparisons of only 2 racial or ethnic groups (eg, Black vs White patients). If such a comparison is justified, authors should explain the rationale for this focused comparison limited to only 2 groups.

UPDATE TO JAMA NETWORK JOURNALS' INSTRUCTIONS FOR AUTHORS

In addition to updating the style manual, we also updated the Instructions for Authors for *JAMA* and the JAMA Network journals⁴ with regard to the collection and reporting of demographic data on race and ethnicity. We specify that the Methods section should include an explanation of who identified participant race and ethnicity, the source of the classifications used, and the reasons why race and ethnicity were collected for a study. We clarify that specific racial and ethnic categories are preferred over collective terms, when possible, and that authors should report the specific categories used in their studies and define categories included in groups labeled as “other.” The *Results* section should report the race and ethnicity categories of the study population and categories should be listed in alphabetical order in the text and tables.

FUTURE GUIDANCE

Our next step is to update the sections on sex and gender, sexual orientation, age, socioeconomic status, ability, and persons with diseases, disorders, or disabilities. As with race and ethnicity, we recognize that our guidance in these sections may be dated, inadequate, and sometimes confusing, and we are working to change that. Our revision for sex and gender and sexual orientation is in process, and we will soon have our draft updated guidance reviewed by internal and external experts on diversity, equity, and inclusion to ensure we recommend using clear, concise, consistent, appropriate, and inclusive language.

Some of our interim guidance appears in the Instructions for Authors for *JAMA* and the JAMA Network journals⁴:

The term *sex* should be used when reporting biological factors and *gender* should be used when reporting gender identity or psychosocial/cultural factors. The methods used to obtain information on sex, gender, or both (eg, self-reported, investigator observed or classified, or laboratory test) should be

explained in the Methods section. The distribution of study participants or samples should be reported in the Results section, including for studies of humans, tissues, cells, or animals. All participants should be represented, not just the category that represents the majority of the sample. Studies that address pregnancy should follow these recommendations, and if the gender identity of participants was not assessed, use the terms “pregnant participants,” “pregnant individuals,” “pregnant patients,” etc, as appropriate.

CONCLUSIONS

Our race and ethnicity guidance is freely available on the *JAMA* website,¹ at the online *AMA Manual of Style*,³ and is linked from the *JAMA* and JAMA Network journals' Instructions for Authors.⁴ This guidance is not intended to be final but is presented with the understanding that monitoring will continue, and further updates will be provided as needed. Continual review of the terms and language used in the reporting of race and ethnicity is critically important as societal norms continue to evolve.

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References

1. Flanagan A, Frey T, Christiansen SL, Bauchner H. The reporting of race and ethnicity in medical and science journals: comments invited. *JAMA*. 2021;325(11):1049-1052.
2. Flanagan A, Frey T, Christiansen SL; AMA Manual of Style Committee. Updated guidance on the reporting of race and ethnicity in medical and science journals. *JAMA*. 2021;326(7):621-627.
3. AMA Manual of Style. Accessed August 26, 2022. <https://academic.oup.com/amamanualofstyle>
4. JAMA instructions for authors: reporting demographic information for study participants. JAMA Network. Accessed August 26, 2022. <https://jamanetwork.com/journals/jama/pages/instructions-for-authors#SecReportingRace/Ethnicity>
5. Racial and ethnic identity. APA Style. Accessed August 26, 2022. <https://apastyle.apa.org/style-grammar-guidelines/bias-free-language/racial-ethnic-minorities>
6. Kim TE. The perils of “people of color.” *The New Yorker*. Published July 29, 2020. Accessed August 26, 2022. <https://www.newyorker.com/news/annals-of-activism/the-perils-of-people-of-color>
7. Lamuye A. I am no “person of colour”, I am a black African woman. *The Independent*. Published July 31, 2017. Accessed August 26, 2022. <https://www.independent.co.uk/voices/phrase-people-person-colour-bme-black-woman-women-different-experiences-race-racism-a7868586.html>
8. Falcon A. Latinos and the “of color” problem. *AL DÍA*. Published April 3, 2018. Accessed August 26, 2022. <https://aldianews.com/articles/opinion/latinos-and-color-problem/52221>