

# CMAJ's new guidance on the reporting of race and ethnicity in research articles

Matthew B. Stanbrook MD PhD, Bukola Salami RN PhD

■ Cite as: *CMAJ* 2023 February 13;195:E236-8. doi: 10.1503/cmaj.230144

Health equity cannot be achieved without equitable evidence, but equitable evidence does not exist across racial and ethnic groups. For example, in more than 20 000 clinical trials conducted in the United States between 2000 and 2020, fewer than half compared study outcomes among different racial and ethnic groups, and recruitment within them was poorly representative of population demography.<sup>1</sup> The resulting gap in the medical literature skews structures in health care to privilege White populations while disadvantaging others.

Many high-income countries, including Canada, have a long history of racism, which extends to health care and health research. Examples include the Tuskegee Syphilis Study, in which 600 Black men were misinformed over decades about the treatment they were receiving,<sup>2</sup> and Canadian studies of Indigenous children in residential schools who were left to suffer the effects of malnutrition.<sup>3</sup> Health research continues to perpetuate this history of racial discrimination through under-reporting of racism, race and ethnicity.

*CMAJ* has contributed to inequity by publishing content that ignored race and ethnicity when it was clinically relevant. Recognizing this, we present new guidance for reporting race and ethnicity in research manuscripts submitted to *CMAJ* (Box 1). We now ask authors to follow this guidance when preparing papers for submission.

To create this new guidance, we reviewed sources that inform *CMAJ*'s overall reporting style, including the *International Committee of Medical Journal Editors (ICMJE) Uniform Requirements for Manuscripts*<sup>4</sup> and the *American Medical Association (AMA) Manual of Style*.<sup>5</sup> We also searched published and grey literature and websites of other medical journals to identify recommendations related to the reporting of race and ethnicity in medical publications. Referring to these sources and reflecting on our own experiences with manuscripts submitted to *CMAJ*, we synthesized a guidance statement for authors. We refined it iteratively in group discussions with senior *CMAJ* editors then entered into broad consultation on our draft document from academics with research and policy expertise on the intersection of health, race and ethnicity. At the suggestion of an expert reviewer, we also invited public comment on the draft for a period of 3 months in 2022, by advertisement on our website, in emails to subscribers, in print editions

of *CMAJ* and on *CMAJ*'s social media channels. The feedback we received (which can be accessed, together with our responses to the reviewers, in Appendix 1 [available at [www.cmaj.ca/lookup/doi/10.1503/cmaj.230144/tab-related-content](http://www.cmaj.ca/lookup/doi/10.1503/cmaj.230144/tab-related-content)]) led to major changes in the language, clarity and focus of the guidance and allowed us to create the final version.

The objective of this guidance is not only to improve and standardize the reporting of race and ethnicity in *CMAJ* articles, but also to broaden the evidence base so that clinicians, policy-makers and, most importantly, patients can be confident that it includes all people, even those who traditionally face barriers to accessing optimal care. If its objective is to be met, this guidance must apply to all research submitted to *CMAJ*, not just studies that focus specifically on race and ethnicity. Examination of questions related to diseases and their treatment or health system performance must always consider how data on race and ethnicity are handled. We therefore encourage all researchers to acquire competency in properly evaluating the intersection of race and ethnicity with health. Accordingly, we will encourage authors of research manuscripts to describe, at the time of submission, how their work represents the diversity of racial and ethnic groups affected by the research question being studied and to think beyond race and ethnicity to speak to the impact of racism that may be reflected in their results. Thus, our guidance aspires to be anti-racist, anti-colonial and anti-oppressive. Although the guidance was designed with *CMAJ*'s Research section in mind, we will apply similar principles for articles in other sections where relevant. Our approach is analogous to actions taken by major granting agencies such as the Canadian Institutes of Health Research to ensure appropriate representation of sex and gender in health research.<sup>6</sup>

*CMAJ* will employ the definitions of race and ethnicity used by the Canadian Institute for Health Information,<sup>7</sup> unless stated otherwise. Race is a social construct used to judge and categorize people based on perceived differences in physical appearance in ways that create and maintain power differentials within social hierarchies. Ethnicity is a multidimensional concept referring to community-belonging and a shared cultural group membership, and is related to sociodemographic characteristics,

### Box 1: Guidance for the reporting of race and ethnicity in CMAJ research articles

Articles being considered for publication in *CMAJ*'s Research section should adhere to the following guidelines:

1. *CMAJ* encourages the collection, analysis and reporting of data on the race and ethnicity of research participants, in order to provide evidence regarding health effects, disparities and inequities experienced by different racial and ethnic groups.
2. *CMAJ* strongly encourages representation, as study partners, co-investigators and authors, of people from racial and ethnic groups affected by the health context being studied, especially for studies that explore racism, race and ethnicity as determinants of health.
3. Authors should explain the purpose and relevance of collecting, analyzing and reporting data on race or ethnicity in their study and what race and ethnicity represent in the context of the research question.
4. Authors should report race and ethnicity together with other demographics of the study population.
  - a) Race and ethnicity should be listed together with other variables collected and analyzed in the Methods section.
  - b) Race and ethnicity should be reported together with other demographic variables in a table and summarized at the beginning of the Results section.
5. As race and ethnicity are inherently social constructs, studies that analyze race and ethnicity should endeavour to explore their effects in the context of other sociodemographic variables and structures.
6. In the Methods section, authors should describe how race and ethnicity of study participants was determined and by whom (e.g., "Study participants self-identified their race from 12 categories provided in the 2019 version of the Canadian Community Health Survey ...").
  - a) Authors should explain whether race and ethnicity were self-identified by study participants or identified by others, providing justification if self-identification was not used.
  - b) Authors should state whether options that participants could select to indicate their race or ethnicity were open-ended or based on fixed categories, listing the categories available, if applicable, and whether participants were allowed to identify as belonging to more than 1 racial or ethnic group.
  - c) If race and ethnicity categories were determined or constrained by external factors (e.g., government legislation), or were originally collected for a purpose different from the purpose of the study being reported, authors should explain this.
7. As race and ethnicity are inherently social constructs, they should not be presented as an independent surrogate for biological or genetic variation or genetic ancestry.
  - a) Studies that seek to test genetic hypotheses require collection, analysis and reporting of genetic data.
  - b) Although genetic or biological predispositions to certain diseases may track with specific racial and ethnic groups, researchers should not exclude otherwise eligible participants from other groups capable of developing the disease, as doing so may worsen under-recognition of the disease in such groups.
  - c) Race-based algorithms (e.g., "corrected" creatinine clearance for Black people) should not be used, as such "race corrections" typically oversimplify, creating the potential for inequity and harm.
  - d) Exceptionally, in contexts where genetic characteristics travel very closely with race and ethnicity (e.g., the association between skin pigmentation and vitamin D levels), the rationale and validity of treating race and ethnicity as biological surrogates must be clearly explained and justified.
8. Authors should comment on how their social position and identity, including race and ethnicity and their intersection with other factors, might have influenced data collection, analysis and interpretation, and how the researchers addressed power relations throughout the research process.
9. In the Interpretation section, for studies that highlight associations of race and ethnicity with health outcomes, authors should discuss how their findings illustrate the intersection of race and ethnicity with other sociodemographic factors in the health context being studied, the role of structural racism in this context and how this might be addressed.
10. Authors must use appropriate, precise and respectful language to describe study participants and avoid the use of terminology that might stigmatize participants.
  - a) Terms that imply a hierarchy among races (e.g., "non-White") should be avoided and preferred terms (e.g., "under-served" or "under-represented" populations, "historically marginalized groups") used instead, as contextually appropriate.
  - b) Listing of racial and ethnic groups in tables should be ordered based on an empirical rationale rather than one that implies a hierarchy (e.g., "White" should not automatically be listed first).
  - c) Naming racial and ethnic categories as specifically as is appropriate to the study context is preferred over use of collective categories (e.g., "Indian" would be suitable in the context of some research questions, but in other contexts, "Punjabi" and "Malayali" could be more relevant; "Asian" is usually too generic to be sufficiently informative).
  - d) It is acceptable to pool racial and ethnic groups for analysis when necessary and appropriate, but authors should explain and justify the manner in which this is done and ensure that the individual racial and ethnic groups within each category are identified.
  - e) Racial and ethnic terms should be used in adjective form rather than in noun form (e.g., "Hispanic people," not "Hispanics").
  - f) Names of racial, ethnic or tribal groups should be capitalized.
  - g) Authors should use preferred contemporary names for racial and ethnic groups (e.g., White, not Caucasian).
  - h) As preferred names for racial and ethnic groups may vary and may change over time, authors should be guided as much as possible by the preferences of study participants as to their expressed identity.

including language, religion, geographic origin, nationality, cultural traditions, ancestry and migration history, among others. We chose these definitions as they were designed for use in observational research using large databases, the most common type of research that *CMAJ* publishes. We will accept the use of other definitions of these constructs in *CMAJ* publications if such definitions are explained and justified.

Our guidance is grounded in science. It therefore emphasizes that race and ethnicity are not biological or genetic constructs, but social and cultural ones, and seeks to root out research that would support practices incompatible with this understanding (e.g., use of race “correction” algorithms). Our guidance considers the intersectional dimensions of race, ethnicity and racism, which typically do not exist in isolation but rather interact with other variables to produce and reproduce inequities. Moreover, our guidance emphasizes respect for the autonomy and agency of research participants in articulating their own identity. It seeks to respect authors and recognize the many different contexts that influence research design, analysis and reporting. For example, research questions focused primarily on group or population effects may not be able to analyze results in every racial or ethnic group with which participants identify.

Although we consider that many of the principles expressed in this guidance document would apply to research among Indigenous populations, we recognize that Indigenous identity differs in important ways from the constructs of race and ethnicity. Accordingly, *CMAJ* plans to develop separate guidance for reporting of health research involving Indigenous participants.

Preferred language for referring to racial and ethnic groups evolves over time, and we expect that our concept of optimal reporting style for race and ethnicity will evolve accordingly. We will remain attentive to how our guidance is used and perceived and how it affects what *CMAJ* publishes. We hope that this document may contribute meaningfully to better design and reporting of health research, yielding better information and outcomes for all people.

## References

1. Turner BE, Steinberg JR, Weeks BT, et al. Race/ethnicity reporting and representation in US clinical trials: a cohort study. *Lancet Reg Health Am* 2022;11:100252.
2. Brandt AM. Racism and research: the case of the Tuskegee Syphilis Study. *Hastings Cent Rep* 1978;8:21-9.
3. Hyett S, Marjerrison S, Gabel C. Improving health research among Indigenous Peoples in Canada. *CMAJ* 2018;190:E616-21.
4. *Recommendations for the conduct, reporting, editing, and publication of scholarly work in medical journals*. International Committee of Medical Journal Editors; updated May 2022. Available: <https://www.icmje.org/recommendations> (accessed 2023 Jan. 16).
5. 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;326:621-7.
6. Sex and gender in health research. Ottawa: Canadian Institutes of Health Research; modified 2021 June 8. Available: <https://cihr-irsc.gc.ca/e/50833.html> (accessed 2023 Jan. 16).
7. Guidance on the use of standards for race-based and Indigenous identity data collection and health reporting in Canada. Ottawa: Canadian Institute for Health Information; 2022. Available: <https://www.cihi.ca/sites/default/files/document/guidance-and-standards-for-race-based-and-indigenous-identity-data-en.pdf> (accessed 2023 Jan. 16).

**Competing interests:** [www.cmaj.ca/staff](http://www.cmaj.ca/staff)

**Affiliations:** [www.cmaj.ca/staff](http://www.cmaj.ca/staff)

**Content licence:** This is an Open Access article distributed in accordance with the terms of the Creative Commons Attribution (CC BY-NC-ND 4.0) licence, which permits use, distribution and reproduction in any medium, provided that the original publication is properly cited, the use is noncommercial (i.e., research or educational use), and no modifications or adaptations are made. See: <https://creativecommons.org/licenses/by-nc-nd/4.0/>

**Acknowledgements:** We are indebted to our external reviewers for their invaluable feedback and recommendations that helped create the final version of this guidance: Laura Arbour, Jude Mary Cénat, Barbara Hamilton-Hinch, Régine King, Jeffrey Kwong, Saleem Razack, Baiju Shah and Arjumand Siddiqi. We also thank all our public commentators for their input. We are grateful to the other members of the *CMAJ* team who participated in the development of this guidance, including Wendy Carroll, Josephine Etowa, Diane Kelsall, Andreas Laupacis, Andrew McRae, Kirsten Patrick, Savita Rani, Erin Russell and Meredith Weinhold.

**Correspondence to:** *CMAJ* editor, [editorial@cmaj.ca](mailto:editorial@cmaj.ca)