

Health equity considerations in guideline development: a rapid scoping review

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Abstract

Background: Systematic guidance for considering health equity in guidelines is lacking. This scoping review aims to synthesize current best practices for integrating health equity into guideline development and the benefits or drawbacks of these practices.

Methods: We searched Ovid MEDLINE ALL and Embase Classic+Embase on the Ovid platform, CINAHL on EBSCO, and Web of Science (Core Collection) from 2010 to 2022. We searched grey literature from 2015 to 2022, using the Canadian Agency for Drugs and Technologies in Health Grey Matters checklist and searches of potentially relevant websites. Articles were screened independently by 1 reviewer. Proposed best practices, advantages and disadvantages, and tools were extracted independently by 1 reviewer and qualitatively synthesized based on the relevant steps of a comprehensive checklist covering the stages of guideline development.

Results: We included 26 articles that proposed best practices for incorporating health equity within the guideline development process. These practices were organized under different stages of the development process, including guideline planning, evidence review, guideline development and dissemination. Included studies provided best practices from guideline producers, articles discussing health equity in current guidelines, articles addressing strategies to increase equity in the guideline implementation process, and literature reviews of promising health equity practices.

Interpretation: Our scoping review identified best practices to incorporate health equity considerations at each phase of guideline development. Identified practices may be used to inform equity-promoting strategies with the guideline development process; however, guideline producers should carefully consider the advantages and disadvantages of best practices when integrating health equity.

The attainment of the highest possible standard of health for all is a fundamental human right.¹ Over the past 2 decades, many countries and global organizations have undertaken measures to reduce health inequities,²⁻⁴ which are defined as avoidable differences in health that are considered unfair and unjust but modifiable.^{5,6} Factors that contribute to unfair and avoidable differences in health are diverse, complex and interdependent.⁷ Populations that are marginalized owing to social, economic or environmental factors may face a higher burden of disease or poorer health outcomes due to structural inequities that result in an unequal allocation of power and resources.^{7,8} These issues may be further compounded because of a differential ability (or opportunity) to access or use the full spectrum of health care.⁹ For these reasons, health equity has been increasingly recognized as a vital consideration in clinical practice, public health and policy-making.^{2,10-13} These issues have been thrown into prominence by the COVID-19 pandemic.¹⁴

Evidence-based clinical practice guidelines have the potential to reduce health inequities and improve care among

disadvantaged populations.¹⁵⁻¹⁷ Guidelines can also unintentionally create or exacerbate existing health inequities between populations.^{15,17-20} For example, guidelines may recommend a treatment that is inaccessible to the socioeconomically disadvantaged. This could increase the health of those who are more socioeconomically advantaged more readily than those who are disadvantaged, thus widening health disparities.²¹ Indeed, guidelines that solely consider evidence of effectiveness

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of clinical options as a foundation for the recommendations without consideration of the evidence related to their implementation, acceptability, feasibility and capacity to mitigate disparities do not meet international standards of quality.²² Incorporating health equity into clinical practice guidelines remains a challenge because there is no widely accepted guidance or standard for reporting quality and the few available tools or checklists for evaluating guideline quality do not include health equity.^{16,23} The impact of the pandemic on health care systems is likely to create an urgent demand for guidelines to address the accumulated need for health care decisions, and a need for these decisions to consider health equity.^{24–26}

In 2014, a content analysis was performed to outline methodological themes and processes on how to address health equity in guideline development.²⁷ Since 2014, several guideline developers (e.g., the National Institute for Health and Care Excellence in the United Kingdom, the National Health and Medical Research Council in Australia²⁸ and the World Health Organization²⁹) have updated their guidance for considering health equity in guidelines. Notably, in 2017 the Grading of Recommendations Assessment, Development and Evaluation (GRADE) Working Group released a series of papers providing guidance on how to explicitly address health equity in the GRADE guideline development process.¹⁷ Whereas evidence has accumulated over recent years, no reviews, to our knowledge, have synthesized contemporary strategies to incorporate health equity into guideline development or compared differences across proposed strategies. Therefore, the objective of this scoping review is to identify current best practices to integrate health equity into guideline development and the benefits or drawbacks of these practices.

Methods

The protocol for this scoping review was made available on the Open Science Framework before the start of the project (<https://osf.io/skvnx/>). The complete report is also available on the Open Science Framework. Levac and colleagues' update of the Arksey and O'Malley methodological framework for scoping reviews guided this review.^{30,31} We also followed the methodology manual published by the Joanna Briggs Institute for scoping reviews,^{32,33} where applicable. Given budgetary and timeline restraints, we selected a rapid review methodology whereby components of the scoping review are simplified or omitted (e.g., 1 reviewer) to produce results in a timely manner.^{34,35}

Literature search

An experienced medical information specialist (B.S.) developed and tested the search strategies through an iterative process in consultation with the review team. Another senior information specialist peer reviewed the strategies before execution using the Peer Review of Electronic Search Strategies checklist (Appendix 1, available at www.cmajopen.ca/content/11/2/E357/suppl/DC1).³⁶ Using the multifile option in Ovid, we searched Ovid MEDLINE ALL and Embase Classic+Embase. We also searched CINAHL

(EBSCO) and the Web of Science (Core Collection). All searches were conducted on Nov. 23, 2020, and updated on July 30, 2022. Strategies used a combination of controlled vocabulary (e.g., "Guidelines as Topic") and guideline-related keywords in proximity to terms representing either processes (e.g., develop, framework, process) or disadvantaged populations (e.g., disparity, inequity, underserved). Vocabulary and syntax were adjusted across databases. Where possible, animal-only and opinion pieces were removed from our searches using filters. There were no language restrictions applied to our search strategy, but search results were limited to publication dates from 2010 onwards for feasibility purposes (e.g., time and budget constraints). An initial scan of the published literature showed that sources of interest were published after 2010. Results were downloaded and deduplicated using EndNote version 9.3.3 (Clarivate Analytics). The full strategies can be found in Appendix 2, available at www.cmajopen.ca/content/11/2/E357/suppl/DC1.

We conducted a targeted search of the grey literature to identify relevant nonindexed and unpublished literature using the Canadian Agency for Drugs and Technologies in Health Grey Matters checklist³⁷ and thorough searches of potentially relevant websites (Appendix 3, available at www.cmajopen.ca/content/11/2/E357/suppl/DC1). Grey literature searches were limited to English language documents published from 2015 to 2022. A more recent cut-off (2015) was selected for grey literature to limit the amount of grey literature to be screened and conduct a more comprehensive search of materials issued in recent years.

Study eligibility criteria

Table 1 outlines the study inclusion and exclusion criteria. Relevant studies were included if they described procedures or processes that address health equity in the guideline development process. Articles that described equity promotion practices in primary research studies (e.g., promoting health equity when conducting randomized clinical trials) or systematic reviews (only) were excluded. Only studies published in English or French were included. Eligible study designs included primary research designs, reviews or guidelines. Commentaries, editorials, responses, opinion pieces, protocol registrations and animal-only studies were excluded.

Study selection

The article selection process consisted of 2 phases of screening: title and abstract review and full-text review. After the removal of duplicates, the titles and abstracts of all references identified in our search were uploaded into Covidence software (Covidence) for screening.³⁸ A pilot screening exercise occurred before each phase of screening to ensure interrater reliability and determine the adequacy of the screening criteria. For both phases, articles were screened by a single reviewer (N.S. or A. Bennett) using the eligibility criteria described above. An additional second reviewer (N.S., A. Bennett or A. Beck) verified included references and performed a secondary review of any references that the first reviewer was unsure met the inclusion criteria.

Table 1: Eligibility criteria

Criterion	Inclusion	Exclusion
Population	<ul style="list-style-type: none"> • Clinical practice guideline organizations • Public health organizations • Governmental organizations • Other relevant health care and public health nongovernmental organizations or associations 	<ul style="list-style-type: none"> • Animal-only studies
Concept	<ul style="list-style-type: none"> • Best practices and processes for addressing health equity in guideline development using the PROGRESS-Plus framework • Benefits or drawbacks of these best practices to address health equity in guideline development • Best practices and processes for addressing health equity relevant to health organizations and primary care 	<ul style="list-style-type: none"> • Best practices and processes for addressing health equity in primary research • Best practices and processes for addressing health equity in systematic reviews
Context	<ul style="list-style-type: none"> • Peer-reviewed studies published since 2010* • Primary research (e.g., randomized controlled trials, case-control, cohort, case studies), reviews (systematic, meta-analyses, scoping, evidence maps, rapid reviews, literature, evidence syntheses, reviews of reviews, narrative, critical) or guidelines (recommendations, procedural manuals) • Grey literature sources published since 2015* • Studies in English or French • No country-based restrictions 	<ul style="list-style-type: none"> • Commentaries, editorials, responses, opinion pieces, protocol registrations
Other		<ul style="list-style-type: none"> • Unavailable full text • Out-of-date publications that have an updated version of the same publication available

Note: PROGRESS = Place of residence, Race/ethnicity/culture/language, Occupation, Gender/sex, Religion, Education, Socioeconomic status, Social capital.

*Time cut-offs have been selected owing to timelines and budget restraints.

Charting the data

All included full-text articles were reviewed and charted by 1 reviewer using a pilot-tested data extraction form. Data extraction was completed using NVivo Software released in March 2020 (QSR International).³⁹ The data extraction template is available in Appendix 4 (www.cmajopen.ca/content/11/2/E357/suppl/DC1). We captured data items related to study characteristics, including author and organization, study design, the article's aim, and a description of the population and setting. When articles provided equity recommendations specifically for guidelines, we extracted best practices and mapped them to the stages of the guideline development process, as outlined by a comprehensive guideline development checklist.⁴⁰ The benefits and drawbacks of these approaches, as described by the authors, were also extracted if available. We did not formally appraise the methodological quality of included articles, as our primary goal was to map any available evidence, either from the peer-reviewed or grey literature, rather than identify the highest-quality evidence to answer a specific key question related to policy or practice.³²

Data analysis

Identified best practices are mapped against a comprehensive guideline development checklist that outlines 18 topics for guideline development.⁴⁰ Tables are included to summarize included study characteristics, practices for incorporating equity in guideline development, advantages or disadvantages of these practices, and relevant frameworks and tools.

Ethics approval

We did not require ethics approval for this study.

Results

A total of 26 articles proposed best practices for incorporating health equity within guideline development. Study characteristics are presented in Table 2. Full texts were excluded because they did not address the guideline development process ($n = 114$) or describe practices for the promotion of health equity ($n = 19$); other reasons were ineligible study designs ($n = 19$), ineligible language of publication ($n = 8$), unavailable full texts ($n = 10$) or duplicate articles ($n = 6$). The screening process is summarized in our PRISMA flowchart (Figure 1), and the list of excluded studies at full-text screening can be found in Appendix 5 (available at www.cmajopen.ca/content/11/2/E357/suppl/DC1).

Five articles focused on a specific population or subgroup including indigenous populations,⁵⁰ individuals with intellectual disabilities,²⁰ minority ethnic groups,⁴⁸ individuals with lived experience of homelessness,⁵⁸ and gender groups.⁵⁷ Key sources included the GRADE equity guideline series published in 2017, which provided guidance and examples on considering equity at key stages of the guideline development process.^{17,41-43} Shi and colleagues conducted a review (published in 2014) synthesizing methods for incorporating equity in clinical practice guidelines.²⁷ Other articles included

Table 2 (part 1 of 4): Characteristics and summary of included articles, grouped by organization

Author (yr), country	Title	Organization	Aim	Population	Setting	Article type (study design)
Welch et al. (2017) ¹⁷ International	GRADE equity guidelines 1: considering health equity in GRADE guideline development: introduction and rationale	GRADE Working Group	The aim of this article is to introduce “the rationale and methods for explicitly considering health equity in the Grading of Recommendations Assessment, Development and Evaluation (GRADE) methodology for development of clinical, public health, and health system guidelines.”	Not specified	Not specified	Journal article (literature review/expert consensus)
Akl et al. (2017) ⁴¹ International	GRADE equity guidelines 2: considering health equity in GRADE guideline development: equity extension of the guideline development checklist	GRADE Working Group	The objective of this article was to “provide guidance for guideline developers on how to consider equity at key stages of the guideline development process.”	Not specified	Not specified	Journal article (literature review/expert consensus)
Welch et al. (2017) ⁴² International	GRADE equity guidelines 3: considering health equity in GRADE guideline development: rating the certainty of synthesized evidence	GRADE Working Group	The aim of this paper is to “provide guidance to address health equity when rating the certainty in synthesized evidence using the Grading Recommendations Assessment and Development Evidence (GRADE) approach.”	Not specified	Not specified	Journal article (literature review/expert consensus)
Pottie et al. (2017) ⁴³ International	GRADE equity guidelines 4: guidance on how to assess and address health equity within the evidence to decision process	GRADE Working Group	“The aim of this paper is to provide detailed guidance on how to incorporate health equity within the GRADE (Grading Recommendations Assessment and Development Evidence) evidence to decision process.”	Not specified	Not specified	Journal article (literature review/expert consensus)
Eslava-Schmalbach et al. (2017) ⁴⁴ International	Considering health equity when moving from evidence-based guideline recommendations to implementation: a case study from an upper-middle income country on the GRADE approach	GRADE Working Group	The aim of this article is to “provide guidance for consideration of equity during guideline implementation,” illustrated through a Columbian case study on the development of the clinical practice guideline for pregnancy, childbirth or puerperium complications.	Not specified	Not specified	Journal article (literature review/expert consensus/case study)
Dewidar et al. (2020) ² International	Over half of the WHO guidelines published from 2014 to 2019 explicitly considered health equity issues: a cross-sectional survey	World Health Organization (WHO) Guideline Review Committee	The aim of this article is “to evaluate how and to what extent health equity considerations are assessed in World Health Organization (WHO) guidelines.”	Not specified	Not specified	Journal article (cross-sectional survey)
Pottie et al. (2021) ⁴⁵ International	GRADE Concept Paper 1: Validating the “F.A.C.E.” instrument using stakeholder perceptions of feasibility, acceptability, cost, and equity in guideline implement	GRADE Equity and Stakeholder Engagement Project Groups	“This article introduces a structured decision and dissemination support approach entitled GRADE feasibility, acceptability, cost, and equity (FACE) to improve implementation and dissemination of guidelines after their development.”	Not specified	Not specified	Journal article (expert consensus)

Table 2 (part 2 of 4): Characteristics and summary of included articles, grouped by organization

Author (yr), country	Title	Organization	Aim	Population	Setting	Article type (study design)
Rehfuess et al. (2019) ²⁹ International	The WHO-INTEGRATE evidence to decision framework version 1.0: integrating WHO norms and values and a complexity perspective	The World Health Organization	This paper “reports on the development of an evidence to decision (EtD) framework that is rooted in WHO norms and values, reflective of the changing global health landscape, and suitable for a range of interventions and complexity features. We also sought to assess the value of this framework to decision-makers at global and national levels, and to facilitate uptake through suggestions on how to prioritize criteria and methods to collect evidence.”	Not specified	Not specified	Journal article (critical appraisal of literature/ expert consensus)
World Health Organization (2014) ⁴⁶	Handbook for Guideline Development Extract chapter 5: Incorporating equity, gender, human rights and social determinants into guidelines	The World Health Organization	The aim of this handbook is to describe how important considerations of equity, human rights principles, gender, and other social determinants of health can be “integrated into each step of the guideline development process and suggest eight entry points for doing so.”	Not specified	Not specified	Report (handbook)
Liburd et al. (2020) ⁴⁷ United States	Addressing health equity in public health practice: frameworks, promising strategies, and measurement considerations	The Centers for Disease Control and Prevention	The review “describes the context of health equity and options for integrating health equity into public health practice.” Examples of conceptual frameworks and approaches to assessing progress are discussed.	Not specified	Public health	Journal article (literature review)
National Health and Medical Research Council (2018) ²⁸ Australia	Guidelines for guidelines: equity	National Health and Medical Research Council (NHMRC)	The aim of the Guidelines for Guidelines Handbook is to help NHMRC guideline developers produce high quality guidelines that meet the NHMRC Standards for Guidelines. The equity section of the handbook provides “practical steps that can be taken to consider equity in the development of guidelines.”	Not specified	Not specified	Report (handbook)
National Institute for Health and Care Excellence (2018) ⁴⁸ United Kingdom	Promoting health and preventing premature mortality in black, Asian and other minority ethnic groups	The National Institute for Health and Care Excellence (NICE)	NICE quality statements provide guidance and quality standards on specific areas in which people from black, Asian, and other minority ethnic groups experience health inequalities.	Minority ethnic groups	Public health	Report (quality standard guidance)
National Institute for Health and Care Excellence (2018) ⁴⁹ United Kingdom	NICE’s equality objectives and equality program 2020–2024	The National Institute for Health and Care Excellence (NICE)	“This document summarises NICE’s legal and other obligations and describes NICE’s approach to meeting them, particularly its process of equality analysis, and how it will report its impact on equality.”	Not specified	Public health	Report (guidance document)

Table 2 (part 3 of 4): Characteristics and summary of included articles, grouped by organization

Author (yr), country	Title	Organization	Aim	Population	Setting	Article type (study design)
Berentson-Shaw (2012) ⁵⁰ New Zealand	Reducing inequality in health through evidence-based clinical guidance: Is it feasible? The New Zealand experience	New Zealand Guidelines Group	The aim of the article is to present “a multifaceted framework, which has been developed in New Zealand to ensure health inequalities experienced by Māori (the indigenous population within New Zealand) are addressed when developing evidence-based guidance.”	Indigenous population (Māori)	Public health	Journal article (framework)
Scottish Intercollegiate Guidelines Network (2019) ⁵¹ United Kingdom	SIGN 50: a guideline developer’s handbook	Scottish Intercollegiate Guidelines Network (SIGN)	The main aim of this report is to “provide a reference tool that may be used by individual members of guideline development groups as they work through the development process.” The paper outlines the key elements of the development process common to all SIGN guidelines, including the consideration of issues of equity.	Not specified	Public health	Report (guideline manual)
Prescott et al. (2020) ⁵² Canada	Applying a health equity tool to assess a public health nursing guideline for practice in sexually transmitted infection assessment in British Columbia	Equity Lens in Public Health Research Team	“As part of the Equity Lens in Public Health (ELPH) research project, an assessment of the nursing guideline, Sexually Transmitted Infection (STI) Assessment Decision Support Tool, was undertaken using the Assessing Equity in Clinical Practice Guidelines health equity assessment tool.”	Not specified	Public health and community health nursing	Journal article (review and critical guideline appraisal)
Razon et al. (2020) ⁵³ United States	Clinical hypertension guidelines and social determinants of health: a systematic scoping review	University of California San Francisco	The aim of the review is to conduct “a scoping review of published guidelines on adult hypertension to explore how existing guidelines direct clinicians to address patients’ social conditions as part of hypertension management.”	Not specified	Not specified	Journal article [preprint] (scoping review)
Barnabe et al. (2021) ⁵⁴ Canada	Informing the GRADE evidence to decision process with health equity considerations: demonstration from the Canadian rheumatoid arthritis care context	NA	The aim of this study was to demonstrate how each step of the Evidence to Decision (EtD) Framework was approached for 6 priority population groups for an upcoming Canadian Rheumatoid Arthritis treatment guideline.	Rural and remote residents, Indigenous Peoples, elderly persons with frailty, minority populations of first-generation immigrants and refugees, persons with low socioeconomic status or who are vulnerably housed, and sex and gender populations	Public health	Journal article (literature review/expert consensus)
Engl et al. (2022) ⁵⁵ International	Children living with disabilities are neglected in severe malnutrition protocols: a guideline review	NA	The aim of the study is to evaluate the “current status of recommendations for children living with disabilities in national and international severe acute malnutrition guidelines.”	Children living with disabilities	Not specified	Journal article (guideline review)

Table 2 (part 4 of 4): Characteristics and summary of included articles, grouped by organization

Author (yr), country	Title	Organization	Aim	Population	Setting	Article type (study design)
Eslava-Schmalbach et al. (2016) ⁵⁶ International	Incorporating equity issues into the development of Colombian clinical practice guidelines: suggestions for the GRADE approach	NA	“To propose how to incorporate equity issues, using the GRADE approach, into the development and implementation of Colombian Clinical Practice Guidelines.”	Not specified	Not specified	Journal article (literature review/survey/expert consensus)
Eslava-Schmalbach et al. (2011) ¹⁵ Colombia	Incorporating equity into developing and implementing for evidence-based clinical practice guidelines	NA	The main purpose “of this analysis is to argue why it is necessary to consider the incorporation of equity considerations in the development and implementation of clinical practice guidelines based on the evidence.”	Not specified	Not specified	Journal article (narrative synthesis)
Machluf et al. (2020) ⁵⁷ Israel	Gender medicine: lessons from COVID-19 and other medical conditions for designing health policy	NA	The paper presents a “literature review on the extent to which research in gender-specific differences in medical conditions has developed over the years and reveals gaps in gender-sensitive awareness between the clinical portrayal and the translation into gender-specific treatment regimens, guidelines and into gender-oriented preventive strategies and health policies.”	Gender differences	Not specified	Journal article (literature review)
Magwood et al. (2020) ⁵⁸ Canada	Determinants of implementation of a clinical practice guideline for homeless health	NA	“The aim of this study is to identify determinants of guideline implementation from the perspective of patients and practitioner stakeholders for a homeless health guideline.”	Persons who experienced homelessness	Community health	Journal article (survey/framework analysis)
Mizen et al. (2012) ²⁰ United Kingdom	Clinical guidelines contribute to the health inequities experienced by individuals with intellectual disabilities	NA	“This study uses an equity lens developed by the International Clinical Epidemiology Network (INCLIN) to examine how well clinical guidelines address inequities experienced by individuals with intellectual disabilities.”	Individuals with intellectual disabilities	Not specified	Journal article (critical guideline appraisal)
Rai et al. (2022) ⁵⁹ International	Gender differences in international cardiology guideline authorship: a comparison of the US, Canadian, and European cardiology guidelines from 2006 to 2020	NA	The aim of this article was to explore “trends and gender differences in the guideline writing groups of the American College of Cardiology/ American Heart Association, Canadian Cardiovascular Society, and European Society of Cardiology guidelines from 2006 to 2020.”	Women in cardiology	Cardiology guideline authorship	Journal article (guideline review)
Shi et al. (2014) ²⁷ International	How equity is addressed in clinical practice guidelines: a content analysis	NA	“This study aims to qualitatively synthesize the methods for incorporating equity in clinical practice guidelines.”	Not specified	Not specified	Journal article (literature review/content analysis)

Note: GRADE = Grading of Recommendations Assessment, Development and Evaluation; NA = not applicable; WHO = World Health Organization.

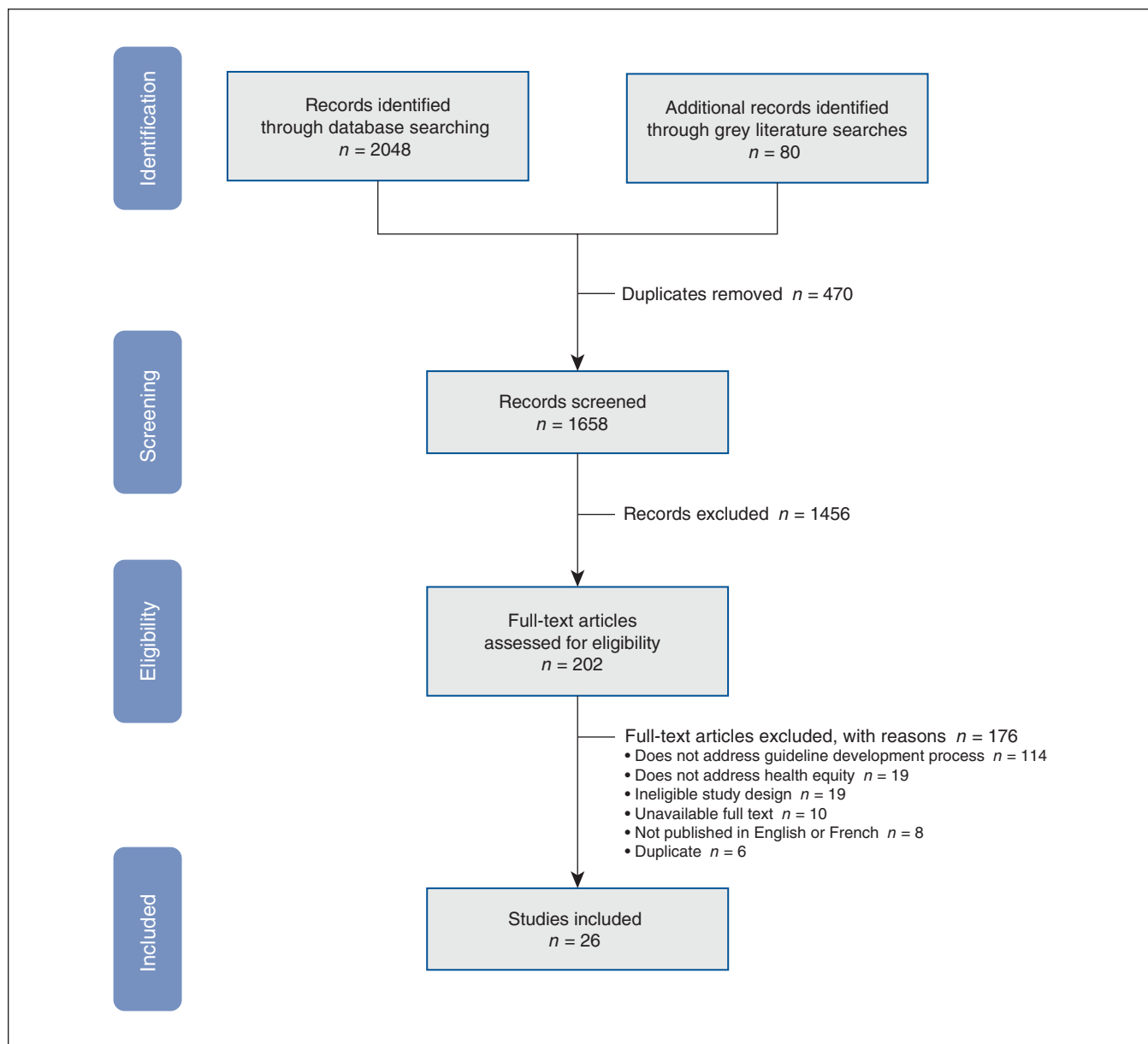


Figure 1: PRISMA flow diagram and list of excluded full-text studies with reasons.

sources that provided best practices from guideline producers,^{28,29,46,48,50,51} articles discussing health equity in current guidelines,^{2,20,52,53,56} articles addressing strategies to increase equity in the guideline implementation process,^{15,44,58} and literature reviews of health equity practices.^{47,57}

Table 3 provides a detailed summary of best practices, their advantages and disadvantages, and any relevant tools for health equity promotion. We structured the results using the relevant topics of a comprehensive checklist covering the stages of guideline development⁴⁰ and further organized topics under 4 phases: guideline planning, evidence review, guideline development and dissemination. Of the 18 topics outlined in the comprehensive checklist for guideline development, we identified 12 topics where proposed best practices

for incorporating health equity can be considered. “Assessing equity within guidelines” was an additional topic under guideline development we identified through our synthesis.

In some cases, similar strategies and tools for health equity promotion were identified by several different included sources. For example, 4 unique articles noted that PROGRESS-Plus⁶⁰ may help guideline developers systematically consider and prioritize populations for whom the health care topic is relevant.^{27,28,41,56} Six sources suggested including representatives and stakeholders from disadvantaged groups who are involved throughout the entire guideline development process.^{20,28,41,44,50,51}

We detected no incompatibility among the identified unique strategies for each guideline topic. However, for some guideline topics where multiple strategies were suggested, only

Table 3 (part 1 of 4): Summary of proposed best practices within each of the 4 stages of guideline development

Stage of guideline development	Proposed best practices summary	Advantages and disadvantages	Tools identified
1. Guideline planning			
a) Priority setting	<ul style="list-style-type: none"> • Prioritize key questions that are of the greatest concern and interest to disadvantaged groups^{41,50} • PROGRESS-Plus⁶⁰ may help developers systematically consider and prioritize populations for whom the health care topic is particularly relevant^{27,28,41,56} • Consider dedicating a part of or a whole guideline to the care of disadvantaged groups⁴¹ • Examine any health issue through the lens of equity, human rights, gender and the influence of social determinants if adapting or adopting an existing guideline^{28,46} • Consider other variables that might constitute potential barriers to the desired outcomes, such as legal and policy frameworks that could marginalize or exclude certain populations⁴⁶ 	<p>Practice: Examine any health issue through the lens of equity, human rights, gender and the influence of social determinants</p> <p>Advantages:⁴⁶</p> <ul style="list-style-type: none"> • May help to better understand the needs and gaps to be addressed and may lead to interventions that are more effective in the longer term and that will evoke a feeling of “ownership” in the targeted group or community 	<ul style="list-style-type: none"> • PROGRESS-Plus⁶⁰ • INCLEN equity lens¹⁸
b) Identifying target audience and topic selection	<ul style="list-style-type: none"> • Disadvantaged groups should be considered when identifying the target audience of a proposed guideline⁵⁵ • Planned guidelines should not only focus on the average level of health, but how health is distributed within populations and across groups⁴⁶ • Representatives of disadvantaged groups may help to identify target audiences for guidelines⁴¹ 	None identified	None identified
c) Guideline group membership	<ul style="list-style-type: none"> • Include representatives of disadvantaged population groups in the guideline group^{20,41,44,49,50} • Include representatives throughout the entire guideline development process, from selecting topics to implementation⁴⁴ • Listen to challenges experienced by guideline members from disadvantaged population groups and create and implement an action plan to eliminate identified challenges⁴⁹ • Consider creating an independent subgroup for disadvantaged populations⁵⁰ • Promote transparency and objective criteria for the guideline group selection process^{49,59} • Recruit and select individuals who understand how to take health equity, human rights, gender and social determinants into account in efforts to promote better health^{41,46} • Ensure that the chair of the voting panel is familiar with health equity⁴¹ • Include EDI considerations in leadership and chair appointments^{49,59} • Give explicit attention to conflicts of interest that can lead to a weakened stance on equity, human rights, gender and social determinants in the final guideline⁴⁶ 	<p>Practice: Include representatives of disadvantaged population groups in the guideline group</p> <p>Advantages:⁵⁰</p> <ul style="list-style-type: none"> • May lend a clear voice to discussions • Not resource intensive • Representatives from professional organizations may help bring the weight of their organizations with them <p>Disadvantages:⁵⁰</p> <ul style="list-style-type: none"> • One individual may feel pressure to represent the views of the population • A single voice may not be heard by the group • A health professional from a disadvantaged population may have extra demands, making it difficult for them to commit the time necessary for guideline development • Only hearing 1 individual perspective <p>Practice: Create an independent subgroup</p> <p>Advantages:²⁴</p> <ul style="list-style-type: none"> • Safe and open environment to discuss culturally specific needs related to the guideline • May ensure more equitable participation • Outcomes may be more relevant to the community that they represent <p>Disadvantages:⁵⁰</p> <ul style="list-style-type: none"> • Resource intensive • No guarantee that subgroup will lead to any additional recommendations • A subgroup separate from the rest of the guideline team may appear exclusionary 	None identified

Table 3 (part 2 of 4): Summary of proposed best practices within each of the 4 stages of guideline development

Stage of guideline development	Proposed best practices summary	Advantages and disadvantages	Tools identified
d) Stakeholder involvement	<ul style="list-style-type: none"> • Create a plan to recruit, involve and support representatives of disadvantaged populations^{15,20,28,51} • Consult experts in engaging representatives and stakeholders⁴¹ • Train stakeholders in the guideline content and development process⁴¹ • Use a structured format to facilitate active participation and feedback⁴¹ • Conduct systematic reviews of qualitative studies, conduct electronic surveys, or conduct in-person semistructured interviews to collect guideline perspectives from underserved or disadvantaged populations⁴⁵ • Use existing tools (e.g., GRADE-FACE) to create an interview guide with language appropriate to specific disadvantaged populations⁴⁵ • Supply a feedback form when writing to stakeholders⁵¹ 	<p>Practice: Conduct in-person semistructured interviews to collect guideline perspectives from underserved or disadvantaged populations⁴⁵</p> <p>Advantages:</p> <ul style="list-style-type: none"> • In-person interviews may be better suited to collect perspectives from some underserved populations than electronic surveys <p>Practice: Consult disadvantaged populations or stakeholders</p> <p>Advantages:</p> <ul style="list-style-type: none"> • May reveal previously unknown priorities for certain subgroups⁴⁵ <p>Disadvantages:</p> <ul style="list-style-type: none"> • Consultation may become tokenistic if stakeholders are unable to fully participate⁴¹ • Additional resources, planning and effort may be required^{15,28} <p>Practice: Use the GRADE-FACE approach to collect stakeholder feedback⁴⁵</p> <p>Advantages:</p> <ul style="list-style-type: none"> • Provides a transparent and evidence-informed strategy that is supported by validity and reliability measures, user reported usability, and rating scales 	<ul style="list-style-type: none"> • GRADE-FACE^{45,58}
e) Scoping questions	<ul style="list-style-type: none"> • Conduct a literature review to inform the scope of the guideline and question development^{50,51,56} • Create a report combining results of formal searches and stakeholder discussions⁵⁰ • Develop a logic model to assess relations between interventions, outcomes, effect modifiers and the social determinants of health⁵⁶ • Evaluate health equity at each stage of the PICO framework⁴¹ • Consider population subgroups who are likely to be particularly affected by changes in health care related to the guideline topic^{28,41,51} • Create a key question to seek interventions that may reduce disparities in health outcomes^{50,56} • Include health equity as an outcome in the PICO questions, analytic framework and SoF table⁴² • Address human rights in questions and other issues related to laws, policies, standards, protocols and guidelines⁴⁶ 	<p>Practice: Conduct a literature review</p> <p>Advantages:</p> <ul style="list-style-type: none"> • Provides an opportunity to discuss equity related actions regarding previous gaps in evidence⁵⁰ <p>Disadvantages:</p> <ul style="list-style-type: none"> • Potential difficulty finding data relevant to disadvantaged populations/health equity⁵⁰ <p>Practice: Include health equity as an outcome in the PICO questions, analytic framework and SoF table</p> <p>Disadvantages:</p> <ul style="list-style-type: none"> • May need to exclude other important patient outcomes, as the recommended number of outcomes in a GRADE table is seven⁴² 	<ul style="list-style-type: none"> • Kunst and Mackenbach inequality evaluation⁵¹ • Oxman prompts to consider equity in key questions¹⁶
f) Considering the importance of outcomes and interventions, values, preferences and utilities	<ul style="list-style-type: none"> • Involve representatives of disadvantaged populations to rate interventions and outcomes^{28,41,42} • Search relevant databases for outcomes or interventions rated important by disadvantaged populations⁴¹ 	<p>Practice: Involve representatives to rate interventions and outcomes</p> <p>Disadvantages:</p> <ul style="list-style-type: none"> • It may be challenging to balance the benefits and harms for recommendations when care provider values differ from stakeholder values²⁸ 	<ul style="list-style-type: none"> • Databases for information on patient views: UK DUETs and COMET⁴¹

1 strategy was recommended to be selected for implementation. For example, the New Zealand Guideline Group’s framework⁵⁰ presented 2 alternative approaches to promoting indigenous (Māori) representation in guideline group membership. One approach was to include representatives of disadvantaged pop-

ulation groups in the guideline group and the other was to create an independent subgroup of representatives within the larger guideline group. Either of these approaches were suggested to promote indigenous representation, and each had associated advantages and disadvantages (Table 3).

Table 3 (part 3 of 4): Summary of proposed best practices within each of the 4 stages of guideline development

Stage of guideline development	Proposed best practices summary	Advantages and disadvantages	Tools identified
2. Evidence review			
a) Searching for relevant evidence	<ul style="list-style-type: none"> • Include non-English studies in the search strategy⁴¹ • Use special filters for guideline questions related to specific geographic locations (e.g., LMIC)⁴¹ • Consider including qualitative and observational studies^{28,50} • Consider evidence from fields outside of health (e.g., social science, economics)⁴¹ 	None identified	<ul style="list-style-type: none"> • NHMRC Guidelines for Guidelines Handbook⁶² • Informit Indigenous Collection⁶³ • Aboriginal and Torres Strait Islander Health Bibliography⁶⁴ • The Cochrane Health Equity Checklist for Systematic Reviews⁶⁵
b) Summarizing the evidence	<ul style="list-style-type: none"> • Include health equity within the PICO question as an outcome in the SoF table⁴² • Present the baseline risks and risk differences for each relevant population group with supporting evidence in a SoF table¹⁷ • Assess differences in the magnitude of effect in relative terms between disadvantaged and more advantaged populations⁴² • Assess subgroup effects and the credibility of the apparent effect⁴² • Lack of evidence surrounding a critical health equity outcome should not be a reason to omit from the SoF table⁴¹ 	<p>Practice: Include health equity as an outcome in the SoF table</p> <p>Advantages:</p> <ul style="list-style-type: none"> • Easier for guideline panels to find the information on health equity during the EtD process⁴² <p>Disadvantages:</p> <ul style="list-style-type: none"> • May need to exclude other important patient outcomes, as the recommended number of outcomes in a GRADE table is seven⁴² 	<ul style="list-style-type: none"> • Checklist for assessing credibility of subgroup analyses⁶⁶ • PRISMA-Equity extension⁶⁷
c) Quality appraisal	<ul style="list-style-type: none"> • Consider any potential sources of bias that may relate to disadvantaged groups because the quality appraisal of RCTs tend to be generalized across different population groups⁵⁰ • Assess indirectness of evidence using the GRADE approach to disadvantaged groups and/or settings^{42,43,68} • Provide higher quality ratings for outcomes in the equity analysis under certain conditions, using the GRADE approach⁵⁶ 	<p>Practice: Consider indirectness when evaluating evidence for disadvantaged groups using the GRADE approach</p> <p>Disadvantages:</p> <ul style="list-style-type: none"> • There may be limitations in the evidence base making it difficult to assess indirectness and rate the overall certainty of evidence^{41,42} 	<ul style="list-style-type: none"> • The Cochrane Health Equity Checklist for Systematic Reviews⁶⁵
3. Guideline development			
a) Formulating recommendations	<ul style="list-style-type: none"> • Balance the harms and benefits of interventions for disadvantaged populations^{27,43} • Formulate equitable recommendations by, for example, considering barriers and facilitators of interventions^{50–52,55} • Develop an “equity-strategy” that aims to overcome identified barriers for disadvantaged populations⁴⁴ • Consider the 6 criteria of the WHO-INTEGRATE framework that are relevant to health decision-making and the formulation of recommendations: balance of health benefits and harms, human rights and sociocultural acceptability, health equity, equality and nondiscrimination, societal implications, financial and economic considerations, and feasibility and health system considerations²⁹ • Consider using an equity EtD framework when formulating recommendations⁵⁴ 	<p>Practice: Develop an equity strategy to overcome identified barriers</p> <p>Disadvantages:</p> <ul style="list-style-type: none"> • There may not be one approach to mitigate harms on health equity due to the heterogeneity of disadvantaged populations⁴³ <p>Practice: Consider the 6 criteria of the WHO-INTEGRATE framework</p> <p>Advantages:</p> <ul style="list-style-type: none"> • A comprehensive EtD framework that key informants found value in adding the criterion assessing societal implications, as well as human rights and sociocultural acceptability, health equity, equality and nondiscrimination <p>Disadvantages:</p> <ul style="list-style-type: none"> • Key informants expressed concerns with the workload that the use of the framework might add to the guideline development process 	<ul style="list-style-type: none"> • Health Equity Assessment Tool⁵⁰ • WHO-INTEGRATE framework²⁹

Table 3 (part 4 of 4): Summary of proposed best practices within each of the 4 stages of guideline development

Stage of guideline development	Proposed best practices summary	Advantages and disadvantages	Tools identified
b) Wording of recommendations	<ul style="list-style-type: none"> • Recommendations should be worded as clear and actionable statements with respect to equity, human rights, gender and social determinants^{41,46} • Be specific when defining disadvantaged populations⁴¹ • Use language carefully so as to not further stigmatize disadvantaged populations⁴⁴ 	None identified	None identified
c) Assessing equity within guidelines	<ul style="list-style-type: none"> • To determine how well guidelines address equity, use the INCLen equity lens¹⁸ • Use the EEFA framework when creating and evaluating equity in vaccine guidelines⁶⁹ • Evaluation and monitoring of the impact of recommendations that potentially affect inequities are also critically important and should be articulated in the guideline document⁴⁶ 	<p>Practice: Use the INCLen equity lens to assess equity in guidelines</p> <p>Advantages:</p> <ul style="list-style-type: none"> • Transparent and reproducible evaluation²⁰ • Reflects the care provider perspective⁵² • Broadly applicable to many guidelines⁵² • Can be used during development or retrospectively⁵² <p>Disadvantages:</p> <ul style="list-style-type: none"> • Focuses on biomedical considerations and may miss population-level inequities related to broader sociocultural factors⁵² <p>Practice: Use the EEFA framework when creating and evaluating equity in vaccine guidelines</p> <p>Advantages:</p> <ul style="list-style-type: none"> • Ensures that recommendations are appropriate and comprehensive • Will help committees to balance the benefits and harms of evidence when creating recommendations 	<ul style="list-style-type: none"> • INCLen equity lens¹⁸ • EEFA Framework⁶⁹
d) Review and reporting	<ul style="list-style-type: none"> • Develop methods to ensure the rigorous and systematic reporting of evidence related to equity-based recommendations² 	None identified	None identified
4. Dissemination			
a) Monitoring implementation and evaluating use	<ul style="list-style-type: none"> • Monitor the guideline impact and uptake in subgroups^{27,41,44,56} • Decide on implementation strategies and indicators before guideline publication⁵⁶ • Use indicators that are stratified by equity factors to monitor disparities⁴⁴ or measure implementation within subgroups⁴¹ • Obtain surveillance data to monitor relevant health outcomes or indicators⁴¹ • Consult relevant community advisory committees and stakeholders for disadvantaged populations to obtain implementation feedback^{47,52} 	None identified	
b) Updating	<ul style="list-style-type: none"> • Consider the impact of the guideline recommendations on disadvantaged populations to help inform decisions on guideline revisions⁵¹ 	None identified	None identified
<p>Note: COMET = Core Outcome Measures in Effectiveness Trials; DUET = Database of Uncertainties about the Effects of Treatments; EEFA = Ethics, Equity, Feasibility, Acceptability; EtD = Evidence to Decision; GRADE-FACE = Grading of Recommendations Assessment, Development and Evaluation—Feasibility, Acceptability, Cost, and Equity Survey; INCLen = International Clinical Epidemiology Network; INTEGRATE = Integrate Evidence; LMIC = low- and middle-income countries; NHMRC = National Health and Medical Research Council; PICO = Population, Intervention, Comparator, Outcomes; PROGRESS = Place of residence, Race/ethnicity/culture/language, Occupation, Gender/sex, Religion, Education, Socioeconomic status, and Social capital; SoF = summary of findings; WHO = World Health Organization.</p>			

Interpretation

Our scoping review found substantive recommendations on best practices to incorporate health equity during the 4 phases of guideline development (Table 3). Of the 18 topics outlined by the comprehensive checklist for guideline development, we identified 12 topics where incorporating health equity can be considered. We identified an additional topic under guideline development for “assessing equity within guidelines.” We included 26 articles from peer-reviewed and grey literature sources, including reports from federal and provincial agencies, community health centres and international guideline producers.

Since the systematic review by Shi and colleagues published in 2014,²⁷ several articles have been published, including the GRADE equity series, which provided comprehensive guidance and real-world examples regarding equity promotion. Our review captured new articles and additional sources related to health equity promotion, including health equity toolkits, interventions to increase equity in primary care delivery and organizational health equity plans. One article, published in 2020, highlighted the importance of increasing awareness of gender-specific medicine in tailored guidelines to properly address characteristics and needs of certain populations within each gender.⁵⁷ Gender differences of diseases is a neglected dimension of medicine and not included in most guidelines.^{57,70} Additionally, improving the care for marginalized populations, including individuals experiencing homelessness, can be achieved through identifying determinants of guideline implementation.⁵⁸ One study identified a number of specific knowledge translation strategies in the context of individuals experiencing homelessness, through a qualitative survey, that may affect the implementation of guidelines, including homeless-specific training for health professionals, feasibility of permanent supportive housing and discrimination faced by those with lived experience of homelessness.⁵⁸ These practical examples illustrate considerations guideline developers can acknowledge when looking to promote health equity in guideline development.

Although equity-related guidance was captured for most stages of guideline development,⁴⁰ some gaps in the knowledge base remain. No equity-related guidance was captured to identify or report on conflicts of interest, an important consideration for clinical guideline producers because of potential vulnerability from industry influence.⁷¹ We identified few strategies and tools relating to equity promotion in guideline reporting, peer review, monitoring guideline uptake and updating. Additionally, there was no discussion on the advantages or disadvantages of best practices for the final stages, dissemination and uptake of recommendations. Future research may need to explore whether special considerations related to equity are required for these steps in the guideline process.

Some of the identified strategies have become more commonplace in evidence reviews and the guideline process, in general. For example, some of the guidance we found related to “searching for relevant evidence” were applied in our own

scoping review search strategy. This included not adding language filters to our search strategy, considering evidence from qualitative and observational studies, and screening evidence outside of traditional health sources in our grey literature search strategy. However, despite the evidence base on health equity in guideline development existing since 2011,⁷² the uptake of health-equity promoting practices is slow. A review of WHO guidelines published between 2014 and 2019 found that only 54% of guidelines used the Evidence to Decision framework to consider health equity and that only 28% of recommendations from these guidelines related to health equity were supported by research evidence.⁷³

Guideline producers should consider the use of guideline checklists and tools to implement health-equity promoting practices throughout guideline development. The strategies synthesized in this scoping review may help in supporting guideline organizations to develop their own health equity framework or plan. However, the selection of equity-promoting strategies must be tailored to the goals of a particular guideline organization. For example, some equity practices targeted toward WHO clinical guidelines may be less relevant for clinical practice guidelines for primary care practitioners. Additionally, we limited our discussion of advantages and disadvantages to those that had been identified in the original articles. There may be additional benefits or limitations to practices when considering implementation. For example, one strategy when identifying a guideline’s target audience was to involve representatives of disadvantaged groups.⁴¹ Whereas no drawbacks were discussed in the article, implementing such a practice would likely have cost and resource implications for the guideline organization, from additional time needed to contact and secure appropriate representatives and to compensate representatives for their time. Finally, developers should remain conscious of important systemic health and social inequities in our health care system when implementing practices. Clinical and epidemiologic research has highlighted the dangers of “othering” certain patient groups. The provision of separate medical care or recommendations for population subgroups, such as in race-based medicine, may further exacerbate health disparities rather than mitigate them.^{74,75} Any equity framework or plan should be developed in partnership with experts in the field of health equity, as well as health system stakeholders and community organizations.

Limitations

Given the urgency of the need for a map of equity considerations in guideline development and resource restraints, a rapid scoping review methodology was selected as the best available approach to answer our research question; however, limitations to our methodology should be acknowledged. Although our search strategy was comprehensive, we may have failed to capture articles on equity-promoting strategies using a single reviewer, especially if these studies did not explicitly define these strategies (e.g., tools to facilitate patient engagement). To mitigate this concern and validate our search strategy, we consulted an external content expert in

health equity to review our excluded studies list. Although this is a limitation and may have resulted in relevant practices being missed, it is unlikely to bias our results, as our goal was to provide a summary of best practices. Finally, a narrative synthesis was used to analyze and summarize our results. Efforts were made to be systematic in our use of qualitative data synthesis methods; however, we did not follow a formal thematic content analysis process, which may reduce our review's reproducibility.

Conclusion

Overall, our scoping review found considerable evidence on proposed best practices to promote health equity. Identified practices may be used to inform equity-promoting strategies within the guideline development process and within the guideline organization itself. Whereas health equity is a complex issue and guideline organizations must carefully balance the pros and cons of best practices, our review provides an overview of available strategies and resources to aid guideline producers in creating a plan to integrate health equity in a timely way.

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