Enhancing health equity considerations in guidelines: health equity extension of the GIN-McMaster Guideline Development Checklist

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Summary

Background Practice guidelines may reduce health inequities by addressing preventable and unjust differences in health. However, health equity considerations are often inadequately integrated into the guideline planning and development process. This article describes a pragmatic approach to enhancing health equity considerations within guidelines by introducing an extension to the GIN-McMaster Guideline Development Checklist (GDC).

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Methods We reviewed the latest guidance on enhancing health equity considerations in guideline development to draft the checklist and deployed a global online survey from March 27th, 2024, to May 13th, 2024 to gather consensus. We conducted a methodological review of guideline development handbooks to identify best practices in health equity considerations. An advisory board comprised of diverse interest-holders informed the development of the checklist. We made revisions based on the survey feedback and review findings.

Findings We present 21 extension items spanning 16 of the 18 guideline development topics from the GIN-McMaster GDC. Key additions include planning for engagement with individuals experiencing inequities in guideline development activities, applying an equity lens, and considering health equity in recommendation formulation, dissemination and implementation strategies. This checklist gives value to lived experiences to enrich health equity assessments, complementing empirical evidence to inform guideline recommendations. Guideline developers should assess guideline sensitivity to health equity to determine resource prioritization for optimal implementation of the extension items.

Interpretation The GIN-McMaster health equity extension provides guidance for the streamlined integration of health equity considerations throughout the guideline development process. Using this tool alongside the original GIN-McMaster GDC may lead to more equitable and impactful guidelines.

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Keywords: Guidelines; Health equity; Diversity and inclusion; GIN-McMaster guideline checklist

Research in context

Evidence before this study

Practice guidelines have the potential to promote health equity by addressing disparities in healthcare access and outcomes. Yet, empirical evidence reveals that health equity considerations are rarely integrated within guideline development. This gap may be due to the lack of practical tools to support guideline developers in systematically integrating health equity considerations throughout the development process. To address this, we reviewed the available guidance on integrating health equity considerations in guidelines to draft an initial checklist and conducted a global online survey of interest-holders to identify agreement for inclusion. We also conducted a methodological review of guideline handbooks to identify and validate candidate items. We convened an advisory board including diverse interest-holders (previously referred to as "stakeholders") to provide a draft checklist. We then prospectively pilot tested the checklist within the Canadian Guidelines for Post-COVID Condition (CAN-PCC), a large national effort involving more than 500 contributors, and reported how we implemented each item.

Added value of this study

This is the first rigorously developed tool for integrating health equity considerations in practice guidelines. We report strategies for implementing each item. Broadly, guideline developers should articulate what health equity is as it pertains to their context and setting. We provide directions for planning for the engagement of interest-holders with lived experiences of inequities in the guideline development process, including recommendation formulation and identifying dissemination barriers and strategies to overcome them. Applying an equity lens in the evidence synthesis facilitates using empirical evidence on guiding equity considerations. Our experience from the CAN-PCC indicates that the checklist is feasible and valid for guidelines addressing general populations.

Implications of all the available evidence

The use of this GDC extension will help turn health equity into action. We invite guideline developers to consider using the provided definitions for health equity and associated terminologies when applying the checklist. Users should document their experiences and strategies when implementing the checklist to identify areas for improvement and key considerations that should be prioritized. The checklist requires additional testing in different types of guidelines addressing different topics and settings.

Introduction

Practice guidelines are systematic statements developed to guide healthcare decisions for specific health circumstances.[1] Various organizations use these tools to offer recommendations that guide healthcare practices on a wide range of topics, aiming to reach diverse audiences such as policymakers, healthcare providers, patients, and the general public.

In 2012, authors of this manuscript created the Guideline Development Checklist (GDC) and which became known, in a partnership with the Guidelines International Network (GIN), as the GIN-McMaster checklist.[2] This checklist comprises 146 items organized into 18 guideline related topics, covering all aspects of guideline creation from planning to implementation and evaluation. Among the topics of the checklist is choosing the wording of recommendations in relation to considerations about implementation, feasibility and equity. Several extensions of the GDC have been developed to address specific scenarios such as rapid guideline development,[3] quality assurance[4,5] and interest-holder (previously referred to as "stakeholders"[6]) engagement.[7] Extensions for guideline adaptation[8,9] and use of artificial intelligence are underway.

Health equity, defined as the absence of unfair or unjust differences that stop people from reaching their optimal health potential,[10] is a significant focus for major organizations such as the World Health Organization (WHO),[11] Centers for Disease Control and Prevention (CDC),[12] and National Institute of Health (NIH).[13] These organizations state that they prioritize promoting health equity by explicitly considering the impact of decisions made by individuals or communities including patients, clinicians, and policymakers on health equity. However, there is often limited integration of health equity considerations in guideline development[14–23]; for instance, two thirds of the WHO guidelines from 2014 to 2020 lacked evidence for health equity judgments.[19] Similarly, only half of COVID-19 recommendations for populations experiencing populations were evidence based in the development of the recommendations.[18]

Recognizing the importance of health equity in guideline development, in 2016/17, the Grading of Recommendations Assessment, Development and Evaluation (GRADE) Equity Project Group formulated guidance for addressing health equity within guidelines following the GRADE methodology.[24–27] This guidance was aligned with the GIN-McMaster GDC, identifying nine of the 18 topics as relevant to health equity based on examples and iterations with the GRADE Working Group.[27] However, implementation of this guidance was deemed challenging given that it lacked operational details and did not account for resource constraints that guideline developers experience.[28] Furthermore, a recent scoping review highlighted best practices for integrating health equity across 12 of 18 GIN-McMaster GDC topics and subsequently identified gaps in guidance regarding the end topics of guideline development, including dissemination and uptake of recommendations.[29] The ongoing evolution of guideline development practices emphasizes the importance of considering health equity in all topics of guideline development, such as involving interest-holders with lived experiences of inequities[7] in the guideline development process. Indeed, groups experiencing inequities can be affected by the recommendations resulting from the guideline project, either negatively or positively (i.e., through the worsening of existing inequities or their mitigation). Subsequently, these groups have legitimate interests in these guideline projects and their output.[30] Their input is important to contextualize evidence and ensure their legitimate non-conflicting interests form judgements throughout the process, particularly those related to equity (e.g., when rating the importance of outcomes).[30] This should be done in a way to prevent any strong or extreme views from biasing the process. Individuals representing groups experiencing inequities can provide expert evidence[31] when empirical evidence is lacking. Additionally, their involvement builds trust, facilitating broader dissemination and increasing the likelihood of uptake in the communities most affected.

Thus, we aimed to rigorously develop the GIN-McMaster GDC extension for health equity, including updating the GRADE-Equity guidance. We describe the elaboration of each item as well as approaches to complete them and illustrate our application from pilot testing test the checklist in the development of the Canadian Guidelines for Post-COVID-19 conditions (CAN-PCC).[32]

Methods

Scope of the extension

The extension aims to expand the perspective of guideline developers on integrating health equity into the guideline development topics and facilitate a streamlined process of considerations throughout. The guidance is intended for use across all types of health practice guidelines (such as standard original guidelines, rapid original guidelines, adapted/adopted guidelines, and updated guidelines[33]) of any health topic, including those focusing on populations experiencing inequities as well as practice guidelines developed for general populations in clinical and public health policy. This equity extension should be used alongside the original GIN-McMaster GDC.

Development process

The equity extension was developed as per the published protocol.[34] The methods used to develop this extension are similar to those used for the GDC extension for rapid guidelines[3] and Quality assurance and improvement.[4] We conducted a methodological review of guideline handbooks and a survey of interest-holders including guideline developers, patients and members of the public and other interest-holders to prioritize items for inclusion in the health equity extension. Fig. 1. Illustrates the development process.

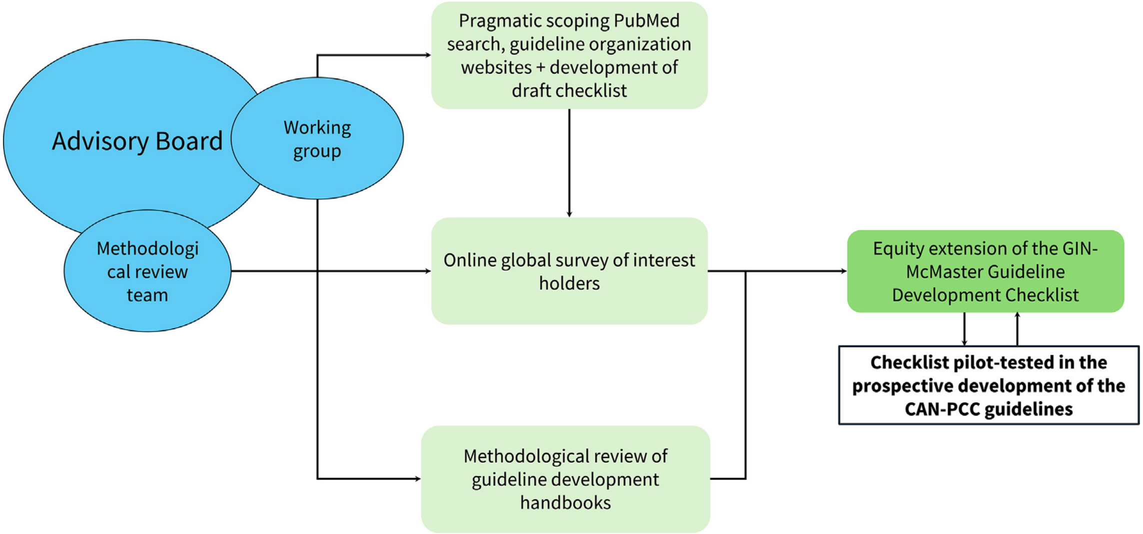

Fig. 1: **Process for developing the health equity extension of the GIN-McMaster Guideline Development Checklist**. CAN-PCC stands for Canadian Guidelines for Post COVID-19 Condition.

Patient engagement

Three patient partners (JT, RC, AB) with lived experiences of health inequities contributed to the development of this checklist as advisory board members. The patient partners were recommended by team members and are both experienced in research methods and have provided guidance and consultation to many professional bodies and institutions. They brought valuable perspectives from diverse equity-related backgrounds, including the Indigenous community. They were engaged in the development of the initial draft of the equity extension and survey. Their input was sought to enhance the survey by refining the extension items. Specifically, they were tasked with assessing the draft checklist extension by reflecting on the significance of the extension items, evaluating the inclusivity and cultural sensitivity of wording, ensuring comprehension of the guidance from a lay perspective, and offering insights into any overlooked recommendations. We also solicited engagement of patients and members of the public with lived experiences through the online global survey on the inclusion and wording of the candidate items and proposing new items. Our partners reviewed the final manuscript and checklist regarding the inclusivity of the wording, and we made changes based on their input.

Development of the initial guidance

We formed a diverse, multidisciplinary advisory board comprised of guideline developers, equity researchers, patients, decision makers, and researchers representing various ethnicities, genders, and career stages. Members of the advisory board were identified based on their expertise in health equity research, involvement in the original GIN-McMaster GDC, prior collaborations with the project team on health equity in guidelines, or demonstrated interest in advancing health equity in research and guideline development. These individuals were invited through direct communication, leveraging existing professional relationships and shared commitments to health equity initiatives, rather than through an open call.

Subsequently, a small working group composed of OD, SS, GCW, JSL, JPP, PT, HJS, VW, EAA, JK to lead the development of the draft guidance. We started with GRADE Equity Project Group's 2017 proposed preliminary equity extension of the GIN-McMaster GDC[27] and then revised and expanded this based on published guidance related to equity considerations in guideline development identified by a pragmatic scoping search of PubMed.[24–27,29,35–39] While drafting the initial version, we focused on identifying items that set a minimum standard for integrating health equity in guideline development. Through a series of four 1-h online meetings, we prepared an initial draft of the checklist and shared it with the advisory group for feedback on candidate checklist items and their wording.

Online survey

We surveyed various interest-holders including guideline developers, researchers, and patients and members of the public experiencing inequities interested in evidence-based practice guidelines through a targeted approach. The aim of the survey was to inform the inclusion of potential equity extension items across the GIN-McMaster GDC topics. The survey link was shared through the Cochrane Equity Methods Group,[40] and we purposefully solicited participation through the channels detailed in Data Supplement 1. Before launching the survey, the questions were piloted internally by ten individuals of the advisory board (including two patient partners) and externally by the board members of the American Association of Women in Rheumatology (facilitated by a member of the working group). During the piloting process, participants critically reviewed the survey questions for comprehension, formatting of the survey, and inclusive language and cultural sensitivity of the demographic questions (from both lived and professional experience). The completed survey is available in Data Supplement 2.

We administered the survey via Survey Monkey (surveymonkey.com) from March 27th, 2024, to May 13th, 2024, presenting each potential checklist extension item for health equity with the aim of obtaining a convenience sample. Participants rated each item on a seven-point Likert scale, ranging from "strongly disagree" to "strongly agree," regarding its suitability for inclusion in the checklist extension. The consensus threshold for inclusion was defined *a priori* as ≥70% of all votes: "Somewhat agree", "Agree" and "Strongly agree".[41–43] Additionally, we gathered open-ended feedback on each checklist extension item to identify potential gaps or omissions and wording suggestions.

Methodological review of guideline development guidance documents

Members of the advisory board led a methodological review of guideline development documents (e.g., handbooks) to identify guidance on considering health equity in guideline development (manuscript in press).[23] As of October 2021, we searched websites of organizations that addressed the development, implementation, updating, or adaptation of guidelines identified from previous similar projects,[2,44–48] the Guidelines International Network (GIN) library,[49] National Guideline Clearinghouse (NGC) (search conducted on archives.gov[50]), Guideline Central library,[51] and suggestions by experts in the field. We supplemented the search with a pragmatic scoping search of PubMed, the TRIP database, and Google using terms related to guideline development handbooks. We utilized the findings of the above review to identify examples from organizations offering guidance that supported our proposed extension items for health equity in guidelines and fill in gaps in our proposed guidance. The findings of this review will be published elsewhere (manuscript in press).

Finalizing the guidance

We analyzed the ratings from the online survey regarding the inclusion of health equity items in the final extension checklist. "Items with 70% or more agreement were incorporated into the checklist". In addition, we conducted a thematic analysis of participants' suggestions and concerns from the open-ended comments and made necessary revisions to the checklist accordingly. We integrated the findings of the methodological review of guideline handbooks into our decision for inclusion of candidate extension items in the final checklist. Drawing on these resources, along with the real-world experiences of Advisory Board members in integrating health equity considerations in guidelines, we iteratively finalized the guidance over five discussion meetings. These discussions allowed us to balance the additional resource burden on guideline developers, minimize overlap between extension items, and streamline the integration of health equity considerations throughout the guideline development process. We used best practices identified from our pragmatic scoping search and methodological review of handbooks to create a list of strategies for implementing each extension item.

Pilot testing the equity extension in the development of the Canadian Guidelines for Post COVID-19 condition (CAN-PCC)

We pilot tested the health equity extension checklist during the prospective development of the CAN-PCC (OD, RN, WW, HJS) (protocol in review).[52] We outlined how the checklist items were integrated into the guideline development process, highlighting their relevance and practical feasibility in real-time, ensuring the systematic incorporation of health equity considerations in public health guidelines.

Ethics board approval

This study was approved by the University of Ottawa Ethics Board (H-03-24-10188) and conducted in accordance with their policies and procedures.

Role of funding source

The funder was not involved in the conceptualization or design, data collection, data analyses, interpretation or reporting of the report.

Results

Characteristics of survey participants

A total of 107 individuals participated in the survey. Characteristics of the participants can be found in Data Supplement 3. Demographic information was provided by 60 (56%) to 77 (72%) participants, depending on the characteristic. There was geographical and ethnic diversity among the participants. Among the participants that reported their demographics, 38 (55%) identified as White, 11 (16%) as Black, and 10 (14%) as Asian or Pacific Islander. Two (4%) identified as Indigenous. The majority of the participants age was between 35 and 54 years. Of those that reported their gender (n = 58), 44 (76%) identified as women, 12 (21%) as men, and 8 (14%) were sexual and gender minorities. Over two-thirds of the participants who reported their past or current involvement in guideline development (52, 87%) had such experience, and eight identified as healthcare workers that use guidelines. Additionally, 17 (16%) participants identified as having a disability. The participants represented all interest-holders except for product developers.

Results of the survey

Survey participants responded to anywhere from 10% to 100% of the survey items, with 85 participants (79%) completed the entire survey. The median response per item was 82%, with an interquartile range of 83%–89%. All 21 proposed items received over 70% agreement, ranging from 79% to 95% (detailed in Data Supplement 4). Four themes emerged from the open-ended comments. First, there was feedback for the need to use inclusive wording for checklist items. We revised ‘different’ to ‘diverse populations’ to avoid stigmatization, and item 4a was rephrased to ‘fostering equitable opportunities that promote meaningful participation’ for clarity and actionability. Second, participants requested definitions for terms used in the checklist items. In turn, we created Box 1 describing the terms used in the checklist, identified in our review of the literature, to assist users in understanding and reflecting on key concepts in the checklist. Third, concerns were raised about resource burden and whether all guidelines required equal resources for integrating health equity considerations which led us to introduce a section addressing this. Fourth, concerns were raised regarding the lack of operationalization and fear of tokenistic application of the checklist. These were also the primary reason for disagreements to proposed checklist items. To address this, we included an elaboration document with practical approaches for each item (Data Supplement 5).

Methodological review of guideline development guidance documents

The review examined 133 guideline development handbooks from various national and international organizations. Approximately half of these guideline-producing organizations incorporated equity considerations into their processes, though typically limited to a few population groups and specific stages of guideline development. The full findings of the review, published elsewhere, include a comprehensive list of the key guidance addressing equity along with a summary of how equity was considered.

Definitions

Box 1 proposes definitions to adopt when implementing the GIN-McMaster health equity extension.

Defining the sensitivity of the guideline to health equity before implementing the checklist

Establishing the dimensions along which inequities may exist at the outset of the guideline development is essential for implementing the GIN-McMaster health equity checklist. Frameworks such as the PROGRESS-Plus framework (outlined in Box 1), can guide this process. Defining populations requires careful consideration informed by disparities in disease burden, barriers to access of healthcare resources, barriers to participation or adherence to interventions, and variations in intervention effectiveness. These factors can help gauge the guideline’s sensitivity to health equity concerns,[25] and in turn, prioritize certain steps over others guide the allocation of resources accordingly. In such cases, guideline developers should consider the lived experience of individuals experiencing health inequities in the guideline, at minimum. We acknowledge that in certain situations, guideline developers may not have a comprehensive understanding of which populations should be studied due to a lack of awareness of existing health inequities. However, taking initial steps and being open to striving for improvement in subsequent efforts is essential.

Health equity extension of the GIN-McMaster guideline development checklist

Table 1 describes the health equity extension of the GIN-McMaster GDC. We extend 16 of the 18 guideline topics except topic seven on conflict-of-interest considerations and topic 14 wording of recommendations. A detailed explanation of each extension item, along with examples from guideline handbooks supporting their inclusion, and operational guidance for implementing each extension item can be found in Data Supplement 5.

Pilot testing the equity extension in the development of the CAN-PCC guidelines

We evaluated the equity extension in the prospective development of the CAN-PCC.[61] The CAN-PCC addressed the general population with PCC and health equity as well as the development of the checklist extension was a priority from the outset. Thus, the executive committee established an equity oversight committee, and several populations experiencing inequities were prioritized early on due to the known impact of COVID-19 on these groups. Data Supplement 6 describes how we operationalized the guidance to integrate health equity considerations in the guideline development process resulting in considerations in every recommendation. Given that the guidelines are ongoing, our experiences with impact evaluation and updating are incomplete. We have reported the ongoing efforts for planned strategies for evaluation and updates as specified in the protocol. As a result of the pilot testing, we made iterative changes to the wording of the checklist items, enhanced the description of the items in Data Supplement 5 and added potential approaches to achieve them. No items were removed or added.

Box 1.

Important definitions for integrating health equity considerations in guideline development

Health equity: Health equity is a fundamental principle that drives efforts to reduce and, ultimately, eliminate disparities in health outcomes that are considered unfair or unjust. It encompasses not only health itself but also the underlying social determinants of health, such as poverty and discrimination. These causes are avoidable and reversible. Pursuing health equity involves striving for the highest possible level of health for all individuals, with particular attention to those who face the greatest risk of poor health due to social conditions.[53]

Social determinants of health: The social determinants of health encompass the environments in which individuals are born, raised, work, reside, and age, as well as the structures established to address health issues, and the broader array of influences and systems that shape everyday living conditions.[54] These influences and systems encompass several aspects such as economic policies, development initiatives, societal norms, social policies, and political structures. These determinants are the root causes of health inequities.

Commercial determinants of health: The commercial determinants of health represent a key social determinant and pertain to the circumstances, behaviors, and decisions made by commercial entities that impact health outcomes.[55] These determinants emerge within the process of providing goods or services in exchange for payment and encompass various commercial endeavors, as well as the surrounding business environment. They can have beneficial or detrimental impacts on health.

Populations or individuals experiencing inequities: These are populations or individuals that are impacted by unjust or avoidable differences in health status[10] because of socially stratifying factors. There is a lack of agreement regarding the terminology used to refer to these populations or individuals, and terms include "underrepresented," "underserved," "disadvantaged," "marginalized," "oppressed," "equity-seeking" and "equity-deserving". None of these terms completely encompass the harms, obstacles, and injustices faced by individuals within these communities. However, when using this terminology, it is essential to consider both current and historical experiences of inequities, as these inequities are fluid and evolving. Certain populations, such as neonates and people with dementia or psychiatric conditions, may have limited decision-making capacity. In such cases, their caregivers or alternative decision-makers should be involved in the guideline development process.

Operational tool to identify populations or individuals experiencing inequities: An acronym that can guide the identification of these populations is the PROGRESS-Plus framework[56] which stands for: Place of residence (including people unhoused), Race or ethnicity or culture or language, Occupation (including unemployed), Gender or sex, Religion, Education, Socioeconomic status and Social capital. These socially stratifying factors drive variations in health outcomes.

'Plus' represents additional factors that could result in a population to experience inequities in context-specific situations. These factors are categorized as follows: 1) personal characteristics associated with discrimination (e.g., age, disability), 2) features of relationships (e.g., smoking parents, exclusion from school), 3) time-dependent relationships (e.g., leaving the hospital, respite care, other instances where a person may be temporarily at a disadvantage).

This tool can facilitate the adoption of an intersectionality lens, which acknowledges the overlapping systems of discrimination and disadvantage, that both amplifies and masks health inequities.

Interest-holders (alternative to stakeholders): These are groups with legitimate interests in the health issue under consideration. The interests arise and draw their legitimacy from the fact that people from these groups are responsible for or affected by health-related decisions that can be informed by research evidence. Interest-holder groups include: patients, health research funders, healthcare service purchasers, peer-reviewed journal editors, policymakers, research leaders, review creators and commissioners, product developers, program overseers, care providers, and the general public.[7] The term interest-holder provides an alternative "stakeholders" given its colonial roots and extensive consultation with the MuSE Consortium to find a favoured replacement.[6]

Engagement: Engagement entails an active partnership among individuals or groups who hold an interest in or impacted by the generation of new healthcare knowledge and evidence.[57]

Health equity considerations: Interventions and strategies identified in a practice guideline that have the potential to reduce health inequities and improve care in individuals and among populations experiencing inequities.[29] These may include independent recommendations tailored to specific patient groups and populations experiencing inequities, or modifications to general recommendations via remarks, subgroup considerations, implementation strategies, research priorities, or monitoring and evaluation considerations.

Health equity lens: A health equity lens involves intentionally looking at how decisions about guideline activities may bring to light or address sources of health inequities such as the social and commercial determinants of health.[58]

Contextual factors: Contextual factors refer to various elements that influence the offering of options, interventions, pharmacological, and nonpharmacological treatments that can act as moderators or mediators of therapeutic mechanisms, that shape the response to interventions or treatments, and ultimately influencing overall outcomes.[59] Examples of these factors include the following dimensions: patient and provider personal characteristics (e.g., race/ethnicity, expectations, values and preference), historical factors (e.g., clinical history, prior experiences), cultural influences (e.g., social norms, spirituality/religion and power differentials), environmental conditions (e.g., settings and rituals), physical aspects (e.g., sensorial perception, and clinical examination), and rhetorical elements (e.g., verbal and nonverbal communication).[60]

Evidence from individuals with lived experiences of inequities (expert evidence): Individuals with lived experiences of inequities can contribute expert evidence and unique perspectives that shape judgments and decisions through the lens of those experiencing inequities. Expert evidence encompasses insights provided by individuals with deep knowledge or skills in a specific area.[31] In the context of health equity, this involves patients and patient representatives who offer expertise through their firsthand experiences of health inequities while managing a condition or accessing, or being denied, an intervention. A description of expert evidence should minimise interpretation of the extent to which the evidence does or does not support a conclusion. The evidence can be treated, if appropriately summarised, in the same way as case reports or case series. When an opinion or judgment is based on evidence or experience that is not available to other members of the panel, the expert should be asked to present that evidence. Other panel members can then make judgments based on that evidence rather than on the expert's views and judgments.

Guideline Development Checklist for standard guidelines		**Additional considerations**
Topic	Description	Extension items for health equity
1. Organisation, Budget, Planning and Training	*Organisation, budget, planning and training* involves laying out a general but detailed plan describing what is feasible, how it will be achieved and what resources are required to produce and use the guideline. The plan should refer to a specific time period, and be expressed in formal, measurable terms.	1. a Plan for recruiting and training people from diverse populations experiencing inequities relevant to the guideline effort. 1. b Budget for financial (e.g., compensation), human (e.g., patient engagement coordinator) and research (e.g., equity focused review) resources that would ensure health equity is considered throughout the guideline development process.
2. Priority-setting	*Priority-setting* is the identification, balancing and ranking of priorities by interested groups. It ensures that resources and attention are devoted to those general areas (e.g., chronic obstructive pulmonary disease, diabetes, cardiovascular disease, cancer, prevention) where healthcare recommendations will provide the greatest benefit to the population, a jurisdiction or a country. A priority-setting approach needs to contribute to future plans while responding to existing potentially difficult circumstances.	2. a Examine any health issue through a human rights and health equity lens, including an understanding of the impact of social and commercial determinants. 2. b Involve people experiencing inequities and consider their evidence relating to inequities in the priority setting process and guideline topic selection.
3. Guideline Group Membership	*Guideline group membership* defines who is involved, in what capacity, and how the members are selected for the guideline development and at other steps of the guideline enterprise.	3. a Adopt a health equity lens when deciding on guideline group membership in the guideline effort. 3. b Include people experiencing inequities in the guideline development group.
4. Establishing Guideline Group Processes	*Establishing guideline group processes* defines the steps to be followed, how those involved will interact, and how decisions will be made.	4. a Facilitate processes, structures, and methods that are designed to address the specific needs of those experiencing inequities participating in the guideline development process, thereby fostering equitable opportunities that promote meaningful engagement.
5. Identifying Target Audience and Topic Selection	*Identifying target audience* involves describing the potential users or consumers of the guideline. *Topic selection* defines the topics to be covered in the guideline (e.g., diagnosis of chronic obstructive pulmonary disease).	5. a Involve individuals experiencing inequities in establishing the criteria used to generate and prioritize the list of topics to be addressed within the guideline.
6. Consumer and interested group Involvement	*Consumer and interested group involvement* describes how relevant people or groups who are not necessarily members of the panel but affected by the guideline, e.g., as target audience or users, will be engaged.	6. a Establish a process to engage people experiencing inequities outside of the guideline development group in the development of the guideline effort (e.g., equity oversight committee).
7. Conflict of Interest Considerations	*Conflict of interest considerations* focus on defining and managing potential divergence between an individual's interests and their professional obligations that could lead to questioning of whether the actions or decisions are motivated by gain such as financial, academic advancement, clinical revenue streams or community standing. Financial or intellectual or other relationships that may impact an individual or organisation's ability to approach a scientific question with an open mind are included.	7. a Ensure that financial or non-financial conflicting interests of individuals representing the groups experiencing inequities should be managed according to the organization's or other relevant COI policies, which should be universally applied to all participants in the guideline development project. 7.b Avoid confusing the personal or institutional conflicts of interests of the individuals representing groups experiencing inequities with the non-conflicting (legitimate) interests of these groups in developing equitable guidelines.
8. PICO Question Generation	*PICO question generation* focuses on defining key questions the recommendations should address, including the detailed population, intervention (including diagnostic tests and strategies) and outcomes that will be relevant for decision-making (e.g., should test A be used, or should treatments B, C, D or E be used in chronic obstructive pulmonary disease).	8. a Consider equity in the prioritization and generation of the guideline questions.
9. Considering Importance of Outcomes and Interventions, Values, Preferences and Utilities	*Considering importance of outcomes and interventions, values, preferences and utilities* includes integrating in the process of developing the guidelines, how those affected by its recommendations assess the possible consequences. These include patient and carer knowledge, attitudes, expectations, moral and ethical values, and beliefs; patient goals for life and health; prior experience with the intervention and the condition; symptom experience (for example, breathlessness, pain, dyspnoea, weight loss); preferences for and importance of desirable and undesirable outcomes; perceived impact of the condition or interventions on quality of life, well-being or satisfaction and interactions between the work of implementing the intervention, the intervention itself, and other contexts the patient may be experiencing; preferences for alternative courses of action; and preferences relating to communication content and styles, information and involvement in decision-making and care. This can be related to what in the economic literature is considered 'utilities'. An intervention itself can be considered a consequence of a recommendation (e.g., the burden of taking a medication or undergoing surgery) and a level of importance or value is associated with that.	9. a Seek and meaningfully consider the views and values of individuals experiencing inequities when rating the importance of outcomes.

(Table 1 continues on next page)

Guideline Development Checklist for standard guidelines		Additional considerations
Topic	Description	Extension items for health equity
(Continued from previous page)		
10. Deciding what Evidence to Include and Searching for Evidence	*Deciding what evidence to include and searching for evidence* focuses on laying out inclusion and exclusion criteria based on types of evidence (e.g., rigorous research, informally collected), study designs, characteristics of the population, interventions and comparators, and deciding how the evidence will be identified and obtained. It also includes but is not limited to evidence about values and preferences, local data and resources.	10. a Apply methods for identifying equity-relevant evidence when conducting systematic reviews.
11. Summarising Evidence and Considering Additional Information	*Summarising evidence and considering additional information* focuses on presenting evidence in a synthetic format (e.g., tables or brief narratives) to facilitate the development and understanding of recommendations. It also involves identifying and considering additional information relevant to the question under consideration.	11. a Describe the evidence for populations experiencing inequities separately. 11. b Integrate an equity lens and inclusive practices when identifying and considering additional information relevant to the question under consideration.
12. Judging Quality, Strength or Certainty of a Body of Evidence	*Judging quality, strength or certainty of a body of evidence* includes assessing the confidence one can place in the obtained evidence by transparently evaluating the obtained research (individual studies and across studies) and other evidence applying structured approaches. This may include, but is not limited to, evidence about baseline risk or burden of disease, the values and preferences, resource use (cost), estimates of effects and diagnostic test accuracy.	12. a Assess how the inclusion of equity evidence warrants adjustments for the evidence to decision criteria.
13. Developing Recommendations and Determining their Strength	*Developing recommendations* focuses on integrating the factors that influence a recommendation using a structured analytic framework, and a transparent and systematic process. *Determining the strength of the recommendations* refers to judgments about how confident a guideline panel is that the implementation of a recommendation exerts more desirable than undesirable consequences.	13. a Consider and decide if there is sufficient evidence to support the development of separate recommendations for prespecified populations experiencing inequities. 13. b Assess the need for a separate remark for prespecified populations experiencing inequities.
14. Wording of Recommendations and of Considerations of Implementation, Feasibility and Equity	*Wording of recommendations* refers to choosing syntax and formulations that facilitate understanding and implementation of the recommendations. Such wording is connected to *considerations of implementation, feasibility and equity*, which refer to the guideline panel's considerations about how the recommendation will be used and what impact it may have on the factors described.	**No extension item** recommended given that equity is considered in topic 14 of the original GIN-McMaster guideline development checklist.
15. Reporting and Peer Review	*Reporting* refers to how a guideline will be made public (e.g., print, online). *Peer review* refers to how the guidelines document will be reviewed and how it can be assessed (e.g., for errors), both internally and externally, prior to its publication by interested groups who were not members of the guideline development group.	15. a Promote reporting and peer review of the guidelines to communicate recommendations clearly and accessibly for populations experiencing inequities.
16. Dissemination and Implementation	*Dissemination and implementation* focuses on strategies to make relevant groups aware of the guidelines and to enhance their uptake (e.g., publications and tools such as mobile applications).	16. a Identify barriers to understanding, access to, and uptake of the guideline recommendations for populations experiencing inequities and implement strategies to address them.
17. Evaluation and Use	*Evaluation and use* refers to formal and informal strategies that allow judgments about evaluation of the guidelines as a process and product; evaluation of the use and/or uptake; and evaluation of impact and whether or not the guideline leads to improvement in patient or population health or other consequences.	17. a Use systematic evaluation approach to assess the impact of health equity considerations on the guideline development process, and the impact of implementing these considerations on populations experiencing inequities.
18. Updating	*Updating* refers to how and when a guideline requires revision because of changes in the evidence or other factors that influence recommendations.	18. a Plan the collection of data and indicators that determine when a partial or a full update of the guideline is required to implement cycles of improvement for health equity considerations and address emerging issues in health of populations experiencing inequities.

Table 1: **Health equity extension of the GIN-McMaster Guideline Development Checklist.**

Discussion

We have expanded the GIN-McMaster GDC to propose items for enhancing health equity in guideline development and provide operational guidance for implementing each item (Data supplement 5). The purpose of this extension is to streamline the integration of health equity in all topics of the guideline development process.

Only the CAN-PCC were used for pilot testing the GIN-McMaster health equity extension. These government funded guidelines are intended for general populations. While the health equity guidance shows initial face and content validity, further prospective and retrospective evaluation is needed across various guideline topics, population groups and resource levels to refine its applicability. Given that the guidelines are ongoing, our experiences for certain stages of guideline development are inconclusive and will have room for improvements. Dissemination strategies are ongoing and involve the use of trial-proven plain language recommendations.[62] Our experiences of impact assessment and guideline update are yet to be evaluated. Thus, a more comprehensive evaluation and validation will be conducted when the full development effort is completed.

We acknowledge the possibility that we may have missed the perspectives of certain groups experiencing inequities in the development of this checklist. Although the working group mostly involved individuals based in North America, it was diverse across several dimensions including sex and gender, ethnicity, religion, and occupation. We convened the international advisory board to address the geographical limitation and sought broader input through the global dissemination of the survey that yielded diverse participation.

Additionally, there may be variability in how developers interpret and apply the checklist. However, the checklist allows users to indicate which steps they prioritize and provide rationale for their decisions which would give the users of the guideline the opportunity to evaluate how health equity was integrated in the guideline development process and judge the credibility of the health equity considerations.

This GDC extension is intended for guideline developers and should be used alongside the original GIN-McMaster checklist by guideline developers who are interested in incorporating health equity in the guideline development process. Specifically, guideline developers should identify populations experiencing inequities relevant to their guideline topic and follow the recommended terminology outlined in this manuscript. As health equity methods are still in their early stages, sharing efforts to implement the checklist items, as demonstrated in Data Supplement 6, could inspire innovative approaches (e.g., establishing an equity oversight committee) and contribute to refining the guidance over time. We hope the guidance we have developed will be practical and useful for guideline developers and others seeking to enhance equity in clinical practice, public health and policymaking. It is also important to recognize that at times, the empirical evidence may not be readily available. Thus, expert evidence[31] from individuals with lived experiences of health inequities could serve as the basis for decision-making.

Addressing conflict of interest (COI)s in guideline development requires universal application of clear policies and procedures, including for individuals representing groups experiencing inequities.[63] COIs relate to financial or non-financial interests, whether individual or institutional, that may influence judgements, decisions, or actions.[63–65] It is important to recognize that populations experiencing inequities are impacted by guideline recommendations. As such, they have a legitimate interest in the output of the guideline projects. Therefore, their legitimate (non-conflicting) interests need to be well represented in the guideline process to ensure that the guideline recommendations address their priorities. However, caution is needed to prevent any strong or extreme views from biassing the evidence-based process of guideline development. In the case that individuals experiencing inequities have financial or non-financial conflicting interests, these interests should be managed according to the organization's or other relevant COI policy. Importantly, the non-conflicting (legitimate) interests of the groups experiencing inequities should not be confused with the conflicting interests of the individuals representing them.

We encourage the prospective evaluation of the checklist extension across guidelines of various topics focused on populations experiencing inequities, as well as general populations. Additionally, testing the checklist in settings with differing resource levels will be important to inform future updates. We anticipate this work will inspire further research into methods for integrating health equity considerations into the guideline development process.

We have developed an equity extension of the GIN-McMaster GDC. The extension items outline a minimum set of conduct standards that are intended to facilitate the comprehensive integration of health equity throughout the guideline development process. We will update the checklist on our interactive website (https://macgrade.mcmaster.ca/resources/checklist-extension-for-health-equity/) and continue to add practical approaches for implementing each extension item as new strategies emerge. Future research should assess the resource demands of implementing these items across different guideline types and scopes, as well as evaluate their impact on enhancing health equity in practice guidelines.

Contributors

OD, HJS and PT conceptualized the study. HJS secured funding for the project. OD, JKhawandi, JK and EAA conducted the methodological review. OD and SS carried out the online survey. OD, SS, JPP, VW, GCW, EAA, JK and JSL composed the working group which designed the initial draft of the checklist, the survey and finalizing the checklist. JS and PT supervised the project and reviewed the final checklist. HJS and PT reviewed it. OD analyzed the data prepared the first draft of the manuscript. SS and JPP verified the underlying data. All team members were engaged in the design of the study, conduct and the interpretation of the findings. OD, PT and HJS were responsible for the decision to submit the manuscript. All the authors reviewed the manuscript, provided edits and approved the final version.

Data sharing statement

The results of the survey are summarized in the Data Supplement 4. The authors cannot make the dataset publicly available for ethical reasons.

Declaration of interests

Omar Dewidar, Vivian Welch, Elie Akl, Kevin Pottie and Peter Tugwell are the leads of the GRADE-Equity Project Group and have authored some of the health equity guidance cited in this manuscript. Jordi Pardo Pardo has authored some of the guidance cited in this manuscript. All remaining authors have no other conflicts of interest. Holger J. Schünemann is chair of the GRADE Working Group and lead author and initiator of the original Guideline Development Checklist. Jennifer S. Lin has received AHRQ contracts for funded work for health equity related work to support the US Preventive Services Task Force and the

EPC Program, and nonpaid consultant work and lectures on health equity and racial health equity in systematic reviews and clinical practice guidelines. Robby Nieuwlaat and Holger J. Schünemann have received financial contribution for CAN-PCC project from Public Health Agency of Canada from Jan-2023 to Mar-2025; payments made to institution. Vivian Welch holds an applied public health chair award from CIHR and PHAC (2024–2029). Kevin Pottie has a patent pending for patient engagement and a patient for an education system. Reem A. Mustafa has received a contract from AAP to conduct a review of existing frameworks to consider equity in developing guidance documents.

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Appendix A. Supplementary data
Supplementary data related to this article can be found at https://doi.org/10.1016/j.eclinm.2025.103135.

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