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“Considering health equity in the GRADE guideline development process”: Part 1: Guideline developers should consider health equity at different stages of the guideline development process

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Abstract

Objective—to provide guidance for guideline developers on how to consider health equity at key stages of the guideline development process.

Study Design and Setting—literature review followed by group discussions and consensus building.

Results—The key stages at which guideline developers could consider equity include setting priorities, guideline group membership, identifying the target audience(s), generating the guideline questions, considering the importance of outcomes and interventions, deciding what evidence to include and searching for evidence, summarizing the evidence and considering additional information, wording of recommendations, and evaluation and use. We provide examples of how guidelines have actually considered equity at each of these stages.

Conclusion—Guideline projects should consider the above suggestions for recommendations that are equity-sensitive.

Keywords

Health Equity; disadvantaged; underserved; special populations; GRADE; guidelines

Background

Given the potential for recommendations to have differential impact on different social groups, it is important to consider equity in the process of health guideline development [1]. A systematic evaluation of clinical practice guidelines addressing patients with multiple chronic conditions found a complete absence of incorporating socio-personal context in 39% of the guidelines [2]. In spite of its importance, considering equity in the guideline development process is methodologically challenging. Indeed, a recent content analysis of the methodological literature identified eight challenges when addressing equity in clinical

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practice guidelines[3]. These range from determining the scoping of the guideline questions to monitoring implementation.

While detailed published guidance has addressed equity in the process of conducting a systematic review[4], we have not identified such a guidance for guidelines. Moreover, existing guidance does not address equity in the context of guidelines developed following the Grading of Recommendations Assessment, Development and Evaluation (GRADE) methodology[5].

The objective of this paper is to provide guidance for guideline developers on how to consider equity at key stages of the guideline development process. This article is the first in a series of three papers describing GRADE guidance for considering equity in guideline development.

Existing guidance

Guidance on how to address health equity in guideline development is limited to a few publications. Oxman et al. reviewed the literature on the subject for the World Health Organization (WHO) Advisory Committee on Health Research[6]. Although the authors found little empirical research on the subject, they presented a number of considerations for guideline developers. These considerations address a number of issues relevant to equity (e.g., differences in baseline risk, effect modifiers, availability of resources), but they do not offer a comprehensive framework that includes specific equity considerations in the guideline development process. As a result, their equity considerations do not address process stages such as guideline group membership, priority setting, identifying the target audience, and evaluation.

Dans et al. proposed an “equity lens” consisting of five criteria to evaluate how well guidelines address equity (see box) [7]. The equity lens is meant to identify issues in formulating, implementing and evaluating the impact of recommendations. However, the five criteria are not comprehensive and may not be specific enough for guideline developers.

The National Institute for Health and Care Excellence (NICE) has published ‘Positively Equal’, as a tool to help consider equality issues as a systematic and integrated part of the clinical guideline development process.[8] The document helps in considering many of the issues related to inequity. Health inequity has been defined as differences in health that are not only unnecessary and avoidable but also unfair or unjust[9].

The WHO Handbook for Guideline Development includes an informative section on incorporating equity into the steps of guidelines development[10]. The section is relatively short and addresses other factors besides equity, such as human rights, gender and social determinants.

We have identified additional documents that provide equity guidance for guideline developers, all of which have only a narrow scope. Aldrich et al. proposed a framework to incorporate socioeconomic evidence in clinical practice guidelines [11]. Eslava-Schmalbach et al. proposed a number of equity-related factors to consider when developing guidelines

[1]. Keuken et al. proposed recommendations to highlight the importance of considering sex-related factors in guideline development [12]. Although these approaches complement one another in important ways, none is comprehensive enough in addressing all relevant equity issues in guideline development.

Methods

Composition of the team

the team that developed this guidance was composed of a diverse set of individuals with different backgrounds and expertise, including clinicians, healthcare professionals, systematic reviewers and guideline methodologists.

Process

in order to identify the topics where equity could play an integral role, we considered the different steps of the Guideline 2.0 checklist. [13] Then the team had a series of conference calls and email exchanges on the specific steps to cover, and selected those steps using informal consensus.

Literature search and summarizing information

We conducted a comprehensive but not systematic search of the literature. In addition, members of the team suggested illustrative examples. The primary authors reviewed relevant papers and integrated them in the text as appropriate.

Validating the guidelines

all members of the team reviewed and commented on successive drafts of the guidelines. This was followed by review by and discussions with members of the GRADE working group, both during an in-person meeting as well as through email.

Proposed guidance

This guidance is based on stages of the guideline development process described in the comprehensive checklist suggested by Schünemann et al[13]. The checklist includes 18 stages of the guideline development process, from the organizational aspects, to the development of recommendations, to their implementation, evaluation and update. Although equity could potentially be taken into consideration at each of these stages, we provide specific suggestions on how to consider equity for the following most relevant stages (the number in parenthesis indicates the position of each step within the sequence suggested by Schünemann et al., with order not reflecting relative importance):

- Setting priorities (step 2)
- Guideline group membership (step 3)
- Identifying the target audience(s) (step 5)
- Generating the guideline questions (step 8)
- Considering the importance of outcomes and interventions (step 9)

- Deciding what evidence to include and searching for evidence (step 10)
- Summarizing the evidence and considering additional information (step 11)
- Wording of recommendations (step 14)
- Evaluation and use (step 17)

We then provide, when available, examples of how guidelines have actually considered equity for those specific stages. Papers 2 and 3 of the series address respectively two key stages of the process, not listed above: Evidence synthesis and rating the confidence in a body of evidence (Welch et al, paper 2 of the series) and developing recommendations and determining their strength (Pottie et al, paper 3 of the series). Therefore, we do not address these stages in this paper.

Setting priorities

Given the amount of resources, effort, and time required to develop guidelines, there is a need to set priorities for identifying the health area(s) and relevant questions to address. According to the first criterion of the “equity lens” described by Dans et al [7], a problem with a higher prevalence and/or burden of disease among disadvantaged populations should be classified as a priority topic. The PROGRESS-Plus an acronym can help guideline panels when considering health equity issues: Place of residence, Race/ethnicity/culture/language, Occupation, Gender/sex, Religion, Education, Socioeconomic status, or Social capital. “Plus” refers to other relevant characteristics such as age, disability, sexual orientation, time-dependent situations and relationships need[14].

Guideline-developing organizations should thus prioritize equity-sensitive questions, or create a full guideline focusing on a disadvantaged population, using one of the published approaches to priority setting[15].

Specific suggestion:

- Consider dedicating part of or a whole guideline (as opposed to no part) to the care of disadvantaged populations

For example, population-based epidemiological studies have provided evidence on a higher prevalence of obesity in individuals living with intellectual disabilities[9]. This would justify developing guidelines on obesity for the population of people living with intellectual disabilities[16]. Similarly, the new cases of cancer and cancer-related deaths in low-income and middle-income countries (LMICs) accounts for more than half of the global cancer burden. Specific guidelines would be crucial to address resource constraints in these settings[17].

Guideline developers should also keep in mind the potential for stigma when developing guidelines for specific disadvantaged populations[18]. ‘Proportionate universalism’ describes the concept that the scale and intensity of allocation of universal ‘universal’ services may actually benefit those who are disadvantaged the most (i.e. they are proportionate to need)[19].

Guideline group membership

The guideline development process may include a number of groups, such as a coordinating group, a literature review group, a voting panel, a peer-review group, and an oversight group. Guideline group membership refers to who is involved, in what capacity, and how members are selected. The greater and more diverse the representation from disadvantaged populations [20], the more likely subsequent steps of the process will adequately account for equity considerations. Evidence suggests that patient and public engagement in guideline development is feasible as they can provide consultation, participate in seminars and meetings, help formulate recommendations and revise guideline drafts[21].

Specific suggestions:

- Include representatives of the disadvantaged populations in the different guideline groups, particularly the voting panel;
- Ensure the method for recruitment of group members considers representatives of all relevant disadvantaged populations;
- Recruit a methodologist who is familiar with and mindful of equity issues
- Ensure the chair of the voting panel is familiar with equity issues.

An example comes from the WHO guidelines on health sector interventions and services for HIV prevention and treatment in men who have sex with men (MSM) and transgender persons in LMICs [22]. This project involved representatives of the MSM community in the core working group and the final meeting consensus panel. The latter group included 14 individuals representing 13 civil society organizations. In addition, a community member from a LMIC and another from a high-income country (HIC) were involved in the review of final drafts.

Identifying the target audience(s)

The target audience of a guideline consists of the potential users or consumers, such as health care providers or other community or civil society organizations, who might be concerned with a specific disadvantaged population. Identifying that target audience may help keep the guidelines process - including selecting questions, deciding what evidence to include, and developing recommendations – focused on reducing health inequities.

Specific suggestions:

- Specify relevant disadvantaged populations when identifying the target audience(s);
- Involve representatives of disadvantaged populations when identifying the target audience(s).

For example, the 2013 WHO HIV guidelines addressing the general population[23] recognized the inequity related to the higher HIV prevalence and poorer HIV-related outcomes in LMICs compared with HICs [24]. In order to enhance the uptake of the guidelines in LMICs, the target audience was defined as “national HIV program managers, especially in low- and middle-income countries”[23].

Two other HIV guidelines, one addressing MSM and transgender people, and another involving sex workers, explicitly specify as their target audiences “community and civil society organizations” that typically represent the disadvantaged populations. [22, 25].

Generating the guideline questions

The guideline development process should include defining the key questions that the recommendations would address. This is typically done by following the PICO (population, intervention, control, outcomes) framework[26].

Specific suggestions:

- Consider equity when specifying elements of the PICO questions;
- Consider ‘good-practice statements’ that could help address equity issues.

Specific components of PICO questions can capture key equity issues, such as when specifying the population (e.g., disadvantaged populations as subpopulations if one anticipates differential relative effects), the setting (e.g., LMICs), the intervention (e.g., low cost interventions), and the outcome (e.g., access to health services).

A good-practice statement is an appropriate alternative when the benefits of an intervention unequivocally outweigh undesirable consequences, but the available evidence is only indirect, and summarizing that evidence would be a poor use of the guideline panel’s limited time and resources [27]. For example, the WHO HIV guidelines addressing MSM and transgender people included two good-practice statements on (1) establishing and enforcing antidiscrimination and protective laws respectively, (2) ensuring safe and inclusive public services. The aim of these statements was to reduce the impact of stigma, discrimination and violence faced by MSM and transgender people.

Considering the importance of outcomes and interventions

In this stage of the process, equity considerations refer to how those who might be affected by its recommendations value the possible desirable and undesirable outcomes of those recommendations, and their preferences for the alternative interventions. Indeed, balancing desirable and undesirable outcomes always involve value judgments on their relative importance. These values and preference may well differ according to the subgroups considered as well as the composition of the guideline panel.

Specific suggestions:

- Involve representatives of disadvantaged populations in rating the importance of interventions and outcomes;
- Search selected databases (e.g. UK DUETs[28], COMET[29]) for outcomes rated as important by disadvantaged populations;
- Consider separate recommendations for disadvantaged populations if their values and preferences are thought to differ substantively to the point of affecting the strength and/or direction of recommendation.

In a guideline for patients with sickle cell disease or thalassemia, the panel might need to choose between oral iron chelation medication (e.g. deferasirox) and subcutaneous iron chelation pump. One could assume that for people who have to work physically, wearing a subcutaneous pump might be difficult and less preferred. On the other hand, people who have a desk job might actually prefer the pump to medication that has a number of adverse effects. Taking these considerations into account might affect the final recommendation. In another example, racial and ethnic disparities had an important role in end-of-life decisions: non-Latino white patients were more likely than Latino or black patients to express preferences against life-prolonging care [30].

The balance of the benefits and harms of an intervention may vary for a disadvantaged population if its values attached to the outcomes of interest differ from those of the general population. For example, a higher value assigned by a disadvantaged population to the ability to quickly return to work might tip the balance between the benefits and harms for that population, and result in different recommendations.

Deciding what evidence to include and searching for evidence

The development of guidelines requires a synthesis of the available and relevant evidence, ideally conducted in the form of a systematic review[31]. However, the populations studied in published research may exclude or under-represent some disadvantaged populations [32].

Specific suggestions:

- Seek evidence specific to disadvantaged populations, e.g., baseline risks specific to those groups;
- Consider including evidence derived from fields other than health (e.g., social science) that address disadvantaged populations.
- Search literature published in the language relevant to the disadvantaged population

Disadvantaged populations (e.g., sex workers, drug users, migrant workers) typically have higher baseline risk of experiencing adverse health outcomes (e.g., higher incidence of HIV morbidity and mortality)[33]. As a consequence, their balance of benefits and harms, a key determinant of strength of recommendation, may differ from the general population.

For example, the Euro-GBD (Global Burden of Disease) project found that equity-policies aiming to reduce inequalities between educational levels in risk factors for mortality (e.g., equity-oriented tobacco control policies) would lead to a reduction in inequalities in mortality.[34]

The information sources for equity-sensitive evidence may include grey literature (e.g., from unpublished reports of organizations involved with disadvantaged populations), and health and welfare statistics in countries that have national registries. These also include literature from fields other than health of specific relevance to the recommendation of interest (e.g., social science, economics) [35].

The review group should consider special search filters for guideline questions related to specific geographic locations (e.g. LMICs) [36] or “ harder-to-reach populations”[37]. Also, research conducted amongst disadvantaged populations may be published in non-English languages warranting the inclusion of those languages in the search strategy.

Summarizing the evidence and considering additional information

Systematic reviews are typically conducted to summarize evidence on the relative effects of options on desirable and undesirable outcomes. In the setting of guideline development, ideally systematic reviews are also conducted to summarize evidence on factors such as effect on equity, resource use, cost, feasibility and acceptability relative to disadvantaged populations[4].

Specific suggestions when conducting and reporting systematic reviews on equity-sensitive questions:

- Consider the PROGRESS-Plus elements when synthesizing the evidence;[38]
- Follow the PRISMA-Equity statement when reporting the systematic reviews;[36]
- Consider information on resource use, cost, effect on equity, feasibility and acceptability from the perspective of disadvantaged populations.

The second paper of this series addresses in more detail health equity considerations in evidence synthesis and confidence rating (reference to second paper in the series).

Wording of recommendations

A recommendation should be worded as a clear and actionable statements[39]. This means clear description of the population (or groups) for which the recommendation is intended, the recommended intervention being and the alternative options considered. It may also include ‘remarks’ or ‘key considerations’ to clarify the ‘conditions’ needed to balance desirable and undesirable consequence of adopting the recommendation.

Specific suggestions:

- Be as specific as possible in defining the population in order to maximize the understanding that it applies to a disadvantaged populations (when applicable);
- Include the necessary remarks following the recommendation to ensure its appropriate implementation in disadvantaged populations;
- Ensure that language is used carefully so that the recommendation does not stigmatize already disadvantaged populations.

One good example is the NICE guideline on recognition of and response to acute illness in adults in hospital.[40] The guideline included a recommendation addressing the care of patients with communication difficulties. The recommendation included the following statement: “The formal structured handover of care should include…physical and rehabilitation needs; psychological and emotional needs; specific communication or language needs”

Evaluation and use

Following publication of guidelines, the developers may evaluate the implementation of the guideline, and monitor its use by the intended audience.

Specific suggestions:

- Produce tools to facilitate implementation and use among disadvantaged populations;
- Monitor and audit implementation and use among disadvantaged populations.

For example, in its interim guidance on the use of bedaquiline to treat multidrug-resistant tuberculosis (MDR-TB),[41] the WHO called for establishing active pharmacovigilance among patient groups treated with the drug.

Methodological challenges

The extent to which a guideline project should consider the above suggestions will depend on how many of the included recommendations are equity-sensitive.

There are logistical challenges to implementing the above suggestions. The implementation will require specific expertise in addressing health equity in systematic reviews and guideline development. Incorporating health equity considerations in guideline development will most likely also require additional time and financial resources.

A potential challenge to engaging representatives of a disadvantaged population in the process of the guideline development is that such engagement can become tokenistic. Indeed, investigations on patients' engagement in research found that they might be quiet, non-participatory or intimidated by experts and researchers[3]. Potential solutions include: using expertise in engaging representatives; training representatives in both the content and the process; using a structured format to facilitate active participation and the provision of valuable feedback.

Another major challenge for guideline developers is the extent to which the relevant additional required evidence (e.g., baseline risks, impact on equity, feasibility, acceptability) is available for integration in the guideline process. Highlighting the importance of this information in guideline development may improve reporting of primary studies and greater inclusion of disadvantaged populations. Similarly, reports of equity sensitive guidelines should include a section that details a lack of evidence relating to relevant disadvantaged populations.

Key to this process is maintaining the necessary transparency and systematic approaches to guideline development.

Research agenda

Future research should assess the extent to which guideline development projects, particularly those addressing equity-sensitive questions, are considering equity at the different stages in their processes.

More importantly, studies should examine the extent that equity considerations during guideline development actually impacts health equity at the population level.

Conclusion

We have provided guidance for guideline developers on how to consider equity at key stages of the guideline development process. Guideline developers will need to consider which of the suggestions to adopt depending on the extent to which equity is relevant to the guidelines under consideration. This paper, along with the other papers in the series, clarifies the GRADE guidance in the area of health equity.

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Box

The five criteria of the “equity lens” by Dans et al [7].

1) Do public health recommendations detailed in the guidelines address a priority problem for disadvantaged populations?

2) Is there a reason to anticipate different effects of interventions in disadvantaged and privileged populations?

3) Are the effects of the intervention valued differently by disadvantaged populations compared to privileged populations?

4) Is specific attention given to minimizing barriers to implementation in disadvantaged populations?

5) Do plans for assessing the impact of the recommendations include disadvantaged populations?