

# Reducing health inequalities through general practice

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Although general practice can contribute to reducing health inequalities, existing evidence provides little guidance on how this reduction can be achieved. We reviewed interventions influencing health and care inequalities in general practice and developed an action framework for health professionals and decision makers. We conducted a realist review by searching MEDLINE, Embase, CINAHL, PsycINFO, Web of Science, and Cochrane Library for systematic reviews of interventions into health inequality in general practice. We then screened the studies in the included systematic reviews for those that reported their outcomes by socioeconomic status or other PROGRESS-Plus (Cochrane Equity Methods Group) categories. 159 studies were included in the evidence synthesis. Robust evidence on the effect of general practice on health inequalities is scarce. Focusing on common qualities of interventions, we found that to reduce health inequalities, general practice needs to be informed by five key principles: involving coordinated services across the system (ie, connected), accounting for differences within patient groups (ie, intersectional), making allowances for different patient needs and preferences (ie, flexible), integrating patient worldviews and cultural references (ie, inclusive), and engaging communities with service design and delivery (ie, community-centred). Future work should explore how these principles can inform the organisational development of general practice.

## Introduction

Inequalities in health are “systematic differences in health between different socioeconomic groups within a society. As they are socially produced, they are potentially avoidable and widely considered unacceptable in a civilised society.”<sup>1</sup> Although these differences are driven by inequalities in the wider social determinants of health, which shape our circumstances from before our birth and during the life course,<sup>2</sup> health-care services have a substantial role to play.<sup>3</sup> General practitioners especially can mitigate the effect of social determinants of health because they deal with the psychosocial aspects of patients’ health.<sup>4–7</sup> However, inequalities in health and health care are often intertwined.<sup>8,9</sup> For example, in the UK, general practices in the most deprived areas have 2·5 days less general practitioner time per week compared with their counterparts in the least deprived areas.<sup>10</sup> In such practices, patient experience is worse and the identification and management of long-term conditions, such as hypertension, is generally more challenging<sup>11,12</sup> because of increased multimorbidity and risk factors.<sup>13</sup>

Evidence for what is effective at reducing inequalities in health and health care in general practice is inconclusive.<sup>14</sup> A systematic review of the evidence on health-service interventions that can reduce inequalities in health showed that successful interventions include a systematic, intensive, and multidisciplinary approach, enhanced access, the utilisation of services, tailoring to patient needs, and community involvement.<sup>14</sup> Additional evidence indicates that shared decision making in primary care might reduce socioeconomic inequalities by particularly benefiting disadvantaged groups through increased knowledge, informed choice, and participation.<sup>15</sup> On the contrary, primary prevention for cardiovascular disease that is focused only on individuals at high risk has been found to increase socioeconomic inequalities in health and care outcomes.<sup>16</sup>

Studies on general-practice interventions have been unable to establish the differential effect of such interventions across multiple interacting aspects of disadvantage and rarely interrogate the role of structural and systemic factors.<sup>17–20</sup> Most of the evidence comes from controlled trials that do not address the effect of the social determinants of health.<sup>14–16</sup> However, inequalities in health and health care are produced across multiple interacting dimensions beyond socioeconomic status (eg, gender and

## Search strategy and selection criteria

We searched MEDLINE, Embase, CINAHL, PsycINFO, Web of Science, and Cochrane Library for systematic reviews of health inequalities interventions delivered in general practice from 2010 onwards. The search was done on April 7, 2021 and updated on March 23, 2022, with search terms listed in the appendix (pp 29–54).

AG screened the identified titles and abstracts using Rayyan and JF independently screened 20% of the articles to avoid systematic errors. Disagreements were solved through discussion. Next, AG and a research assistant extracted all the primary studies in the included systematic reviews. AG screened all the titles and abstracts and JF screened 5% of the articles to check for systematic errors. The eligibility criteria for the reviews and primary studies are available in the appendix (p 2).

There were two changes from the published protocol. First, the eligibility criteria of the reviews were broadened to include studies targeted at disadvantaged groups rather than just health inequalities. Second, the eligibility criteria for the primary studies were broadened to include non-experimental designs (eg, surveys). We made these changes to increase our possibilities to access data about the driving mechanisms of interventions and interventions targeting the social determinants of health.

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ethnicity) and are contingent on structural factors, such as policies on housing, the labour market, or education.<sup>20</sup> Therefore, there will not be a one-size-fits-all solution. Still, general practitioners are left with little guidance on how to address health inequalities driven by structural factors.<sup>1,6,21</sup>

Researchers and policy makers should prioritise identifying the principles of equitable health-care services that will be achievable, not despite social determinants of health, but rather by addressing them. To identify such principles, we synthesised the evidence on interventions and routine care in general practice that decrease or increase inequalities in health and health care and, on the basis of this evidence, we produced an action framework for health-care professionals and decision makers. The Review was guided by evidence on cardiovascular disease, cancer, diabetes, or chronic obstructive pulmonary disease or their risk factors, as the main drivers of inequalities in life expectancy.<sup>22</sup>

We adopted a definition of health inequalities that includes social inequalities in health outcomes (eg, morbidity) and health care at the patient level (eg, access) and system level (eg, funding).<sup>8</sup> Our conceptual framework put the social determinants of health at the centre of the analysis, allowing us to draw on theories that suggest that health inequalities result from the unequal distribution of social determinants of health, which in turn result from economic and political structures<sup>23</sup> and inequalities in power.<sup>23-25</sup>

Adopting an intersectional understanding of power<sup>20,26-28</sup> enabled us to approach health inequalities as the outcome of multiple disadvantages or privileges that people experience simultaneously according to their socioeconomic position, gender, race, ethnicity, sexuality, disability, and other identities.<sup>20,29</sup> Intersectionality offered us a theoretical tool to capture the ways that interventions and care can increase or decrease inequalities by having a differential effect on individuals according to their circumstances. Because of this approach we were able to interrogate the effect of both universal and targeted interventions on health inequalities within and between groups.<sup>30</sup>

We integrated Collins' framework of power organisation<sup>27,28</sup> to organise inequalities in general practice across four domains: structural (ie, policies and institutional structures), cultural (ie, beliefs about inequalities, their causes, and solutions), disciplinary (ie, organisational practices emerging whenever a policy or programme is implemented), and interpersonal (ie, personal experiences and relationships). Finally, we built on Levitas' theory of utopia as a method<sup>31</sup> and fantasy paradigms in health inequalities<sup>19</sup> to imagine what equitable general practice looks like and identify relevant guiding principles.

## Methods

We conducted a realist review<sup>32</sup> based on Pawson and colleagues'<sup>33</sup> five iterative steps (appendix p 1);

(1) locating existing theories; (2) searching for evidence; (3) selecting articles; (4) extracting and organising data; and (5) narratively synthesising the evidence, combining steps 3 and 4 to increase efficiency. In contrast to systematic reviews that assess the effectiveness of distinct interventions, realist reviews focus on the mechanisms that link contexts with specific outcomes and identify which groups are the most and least likely to be affected by these outcomes and in what circumstances.<sup>32</sup> The logic of a realist review and evidence synthesis is based on the formation of causal statements between contexts, mechanisms, and outcomes (CMOs).<sup>32</sup> The literature review was registered with PROSPERO (CRD42020217871) and the protocol is available elsewhere.<sup>34</sup>

### Locating existing theories

Building on our conceptual framework, we identified key theories about how general practice might increase or decrease health inequalities and integrated them into a broad theoretical explanation known as an initial programme theory.<sup>32</sup> We identified these theories through (1) an exploratory background literature search using informal methods (ie, snowballing and citation tracking);<sup>32</sup> (2) a panel discussion with content experts; and (3) iterative discussions within the project team. The initial programme theory covered a broad range of elements of context (ie, social, geographical, or other features affecting the implementation of interventions and care), mechanisms (ie, forces that cause things to happen), and outcomes (ie, the results of mechanisms). The initial programme theory served as an evaluative framework to guide our formal literature search and evidence collection,<sup>33</sup> with the areas that were then populated with evidence available in the appendix (p 2).

### Article selection

Documents for the evidence synthesis were selected according to the extent to which they contained relevant data for the development and refinement of the programme theory.<sup>32</sup> AG classified studies in groups in this order: (1) studies which focused on inequalities in the UK were deemed of the highest relevance; (2) studies discussing interventions targeted at disadvantaged groups in the UK; (3) studies on interventions in the UK controlling for one or more PROGRESS-Plus (Cochrane Equity Methods Group) criteria<sup>35</sup> in their analysis; (4) studies on inequalities outside the UK; (5) studies on interventions targeted at disadvantaged groups outside the UK; and (6) studies on interventions outside the UK controlling for one or more PROGRESS-Plus criteria in their analysis.

Quality-assessment checklist criteria were not used as is conventionally the case in realist reviews;<sup>33</sup> rather, the rigour of the extracted data was considered during the coding and synthesis phase. Conforming with realist methodology, studies that contributed to the refinement

of the programme theory were used in data synthesis even if they were of poor rigour.<sup>36</sup> To increase efficiency, article selection and data extraction were combined.

### Data extraction and organisation

Characteristics of all the included studies were extracted with an Excel sheet by AG and a research assistant. AG uploaded the included studies in QSR Nvivo (QSR International: Burlington, MA, USA) from most to least relevant and alphabetically by title, and coded relevant data with feedback from the research team. JF independently coded a random sample of approximately 5% of the articles to check for systematic errors. Articles were removed from the Nvivo sources list if they contained no relevant data. Data extraction stopped when no further data contributing to the programme theory were consistently identified (ie, thematic saturation).<sup>32</sup> Relevant text was searched manually in the full text of the included studies. Data were extracted by use of these questions: (1) does the text refer to any of the elements included in the initial programme theory? Or (2) does the text refer to the unequal effectiveness of care services or interventions?

Codes were deductive (ie, created from the initial programme theory and identified with question 1), inductive (ie, created to categorise data reported in included studies and identified with question 2), or retroductive (ie, created on the basis of an interpretation of data to infer to what the hidden causal forces might be for outcomes and identified with both questions).<sup>32</sup> They were refined regularly throughout the data analysis and organised across 14 broader themes: access to care, communication, community engagement, competing priorities, cultural understanding, differences between general practices, interprofessional cooperation, patient education and behaviour change, patient enablement, patient perceived risk, resources distribution, the role of the general practitioner in intervention success, time constraints, and workforce.<sup>33</sup>

### Data synthesis

We formed CMO configurations (CMOCs)<sup>32</sup> within and across themes. When necessary, we used questions about the relevance, rigour, and interpretation of data in line with previous work.<sup>37</sup> Our synthesis aimed to elicit common patterns and generalisable messages across contexts and health conditions. Therefore, we focused on the underlying principles of care and interventions and CMOCs were abstracted to a high degree to reflect the principles of care and interventions that are likely to decrease or increase inequalities in general practice.

### Overview of the evidence

We identified 7998 reviews of which 251 met the inclusion criteria. From the included reviews, we retrieved 6555 primary studies of which we included 325 (figure 1). The included primary studies covered a period from 1989 until 2021 and most were conducted in the USA (n=143)

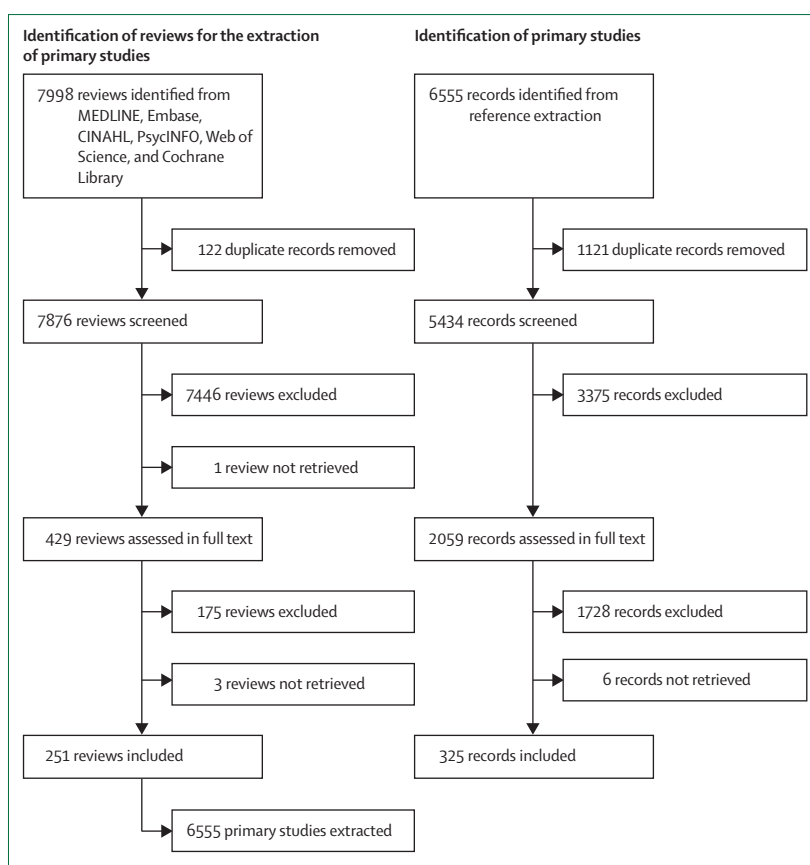


Figure 1: PRISMA diagrams

Our PRISMA diagrams do not report reasons for exclusion of studies because often studies were excluded because of multiple reasons. Our diagrams are consistent with RAMESES publication standards for realist syntheses.<sup>32</sup>

and the UK (n=102). 56 studies focused primarily on inequalities, 137 on an intervention or care targeted at specific disadvantaged groups, and 132 just controlled for at least one PROGRESS-Plus criterion (usually age or sex). More details about the characteristics of the included studies are available in the appendix (p 3). We coded 159 studies (appendix pp 55–80) before reaching thematic saturation.

The evidence on interventions in general practice that address inequalities is disparate as it involves different kinds of interventions, settings, and populations. Moreover, although interventions seem to focus on single aspects of care (eg, invitations to screening programmes), their effectiveness is subject to other aspects (eg, availability of patient contact details). This finding stresses how inequalities are produced through context-specific, inter-related processes. Therefore, producing a list of distinct well defined interventions effective in reducing inequalities in health or care would have been impractical, given the length of such a list, and of little use given that interventions are context-specific. However, there is transferrable evidence about common qualities that inform successful interventions, which was the subject of our focus. We produced 21 CMOCs, which

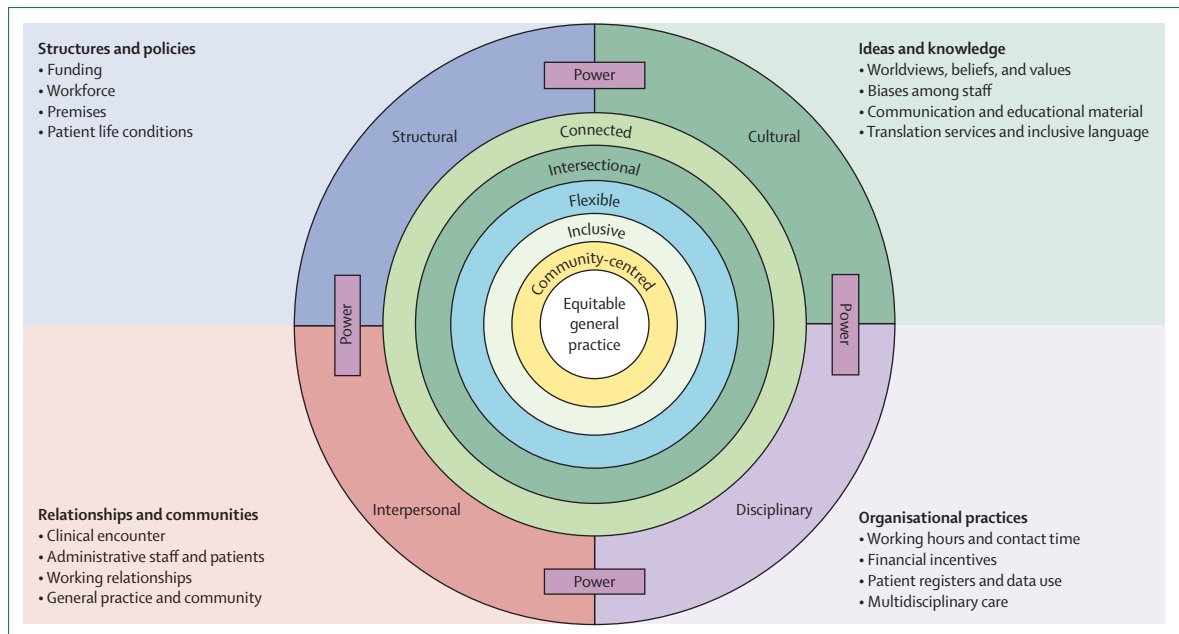


Figure 2: Action framework for equitable general practice

we organised across the four domains of power organisation in line with our conceptual framework. This way, we captured how inequalities are produced across different aspects of care while producing transferrable conclusions, resulting in an action framework for equitable general practice (figure 2). The framework identifies key areas of action for the reduction of health and care inequalities in general practice across the structural, cultural, disciplinary, and interpersonal domains and suggests five principles that should inform relevant action. We discuss the identified action areas with some examples of the CMOCs included in each domain and the meaning of each suggested principle in the context of the reviewed evidence. An elaborated account of the evidence synthesis and CMOCs production from the reviewed evidence is available in the appendix (pp 4–28).

### Key areas of action

In the structural domain, key areas include funding and workforce distributions, which are often unable to account for differences in needs within and between practices (figure 2; appendix p 7).<sup>38–52</sup> For example, CMOC 2 (appendix p 7) shows that incentivising secondary prevention over primary prevention is associated with a disproportionate focus on secondary prevention for those already engaged with general practice, resulting in fewer primary prevention activities for disadvantaged patients. According to CMOC 3 (appendix p 7), increasing funding for general practices, especially in socioeconomically disadvantaged areas, can enable staff increase and improve the capacity of local general practices. This increase in capacity leads to a

series of positive outcomes, including the better identification of disadvantaged patients at risk.<sup>40–44,53,54</sup> Additional areas in this domain include accessibility of service premises<sup>49,55–62</sup> in physical and psychological terms<sup>49,62</sup> (appendix p 7, CMOC 4) and addressing patients' life conditions (eg, housing, working conditions, income, transportation options, and patient autonomy; appendix p 7, CMOC 5).<sup>49,59,60,63–69</sup>

In the cultural domain, key areas include the worldviews, beliefs, and values that inform care and the extent to which they are representative of all the people involved in general practice.<sup>57,60,61,64,69–75</sup> Indicatively, we found that increased cultural understanding between health-care providers and patients improves the alignment of the offered services with patient preferences (appendix p 11, CMOC 6), thereby improving the overall quality of care for minority ethnicities and disadvantaged patients through increased engagement with care.<sup>76–85</sup> Additional areas include communication channels and material (appendix p 11, CMOC 6),<sup>61,78,79</sup> educational interventions (appendix p 11, CMOC 7),<sup>57,63,73,86</sup> language skills and translation services (appendix p 11, CMOCs 6 and 7),<sup>78,79</sup> and biases among general practice staff (appendix p 11, CMOC 8).<sup>53,85,87–89</sup> Regarding staff biases, evidence showed that when practitioners make decisions on the basis of heuristics or stereotypes (eg, men are more susceptible to cardiovascular disease risk), they are likely to contribute to inequalities in effective diagnosis and clinical management due to implicit bias.<sup>53,85,87–89</sup>

In the disciplinary domain, areas of action include the working hours of services<sup>56,90</sup> (appendix p 16, CMOC 13), contact time between health-care providers and patients

(appendix p 18, CMOCs 14 and 15),<sup>48,85,91,92</sup> and collection of patient sociodemographic information and its integration in care,<sup>47,71,84,93,94</sup> especially regarding risk assessment and self-management of chronic conditions (appendix p 16, CMOCs 10–12).<sup>95–97</sup> For example, evidence showed that accurate patient contact details increase the chances of contact, which leads to increased screening uptake among disadvantaged groups.<sup>47,71,84,93,94</sup> Further, the integration of ethnicity and socioeconomic position in cardiovascular risk assessment leads to the identification of disadvantaged patients at risk, improving the targeting of preventive services to these patients.<sup>84,95–98</sup> Additional areas cover the implementation of financial incentives for quality improvement and the unintentional, aggravating effect they might have on inequalities by prioritising some conditions, activities, and patients over others (appendix p 16, CMOC 9).<sup>40–45,99,100</sup> A final area concerns the use of multidisciplinary care teams that include people with different backgrounds, expertise, and professional roles, which can increase the cultural understanding and capacity of teams (appendix p 18, CMOCs 16 and 17).<sup>81,101–107</sup>

The interpersonal domain includes areas of action related to cultivating trusting relationships between health-care providers, administration staff, and patients (appendix p 20, CMOCs 18–21).<sup>64,72,91,92,108–114</sup> CMOC 18 (appendix p 20) shows that when patients perceive their health-care providers as empathetic, they feel supported to ask questions and engage with decision making, leading to effective and person-centred management of long-term conditions.<sup>72,92,111–114</sup> Similarly, action areas include relationships among staff across professional hierarchies (appendix p 20, CMOC 21),<sup>81,101,102,105,109</sup> gender, and ethnicity, because these areas often intersect with the distribution of professional roles.<sup>115</sup> A final area concerns the relationships between general practice at a national and local level and the communities it serves, and the extent to which the community is involved in the service design and delivery (appendix p 20, CMOC 18–21).<sup>65,80–85</sup>

### Five key principles of equitable general practice

Focusing on the common qualities of interventions, we identified five key principles of equitable general practice that should inform initiatives in the action areas.

*Connected: interventions to reduce health inequalities should be understood, designed, and delivered as connected components of coordinated action towards equitable general practice*

The evidence describes a continuous process through which care decisions and interventions across the general practice sector interact in linear and non-linear ways to shape a landscape of inequalities in which disadvantaged groups are affected by multiple forces.<sup>40–45,47,53,71,84,85,87–89,93,94,99,100</sup> For example, in socioeconomically disadvantaged areas, the ineffective collection and use of patient information is associated with ineffective patient risk assessment and screening uptake, which eventually leads to disad-

vantaged patients who have an increased risk of cardiovascular disease or cancer not receiving necessary care (appendix p 16, CMOCs 10–12).<sup>47,71,84,93,94</sup> Often, disadvantaged patients are simultaneously excluded from receiving necessary care because they are disproportionately affected by the implementation of the financial incentives schemes of general practices (appendix p 16, CMOC 9)<sup>40–45,99,100</sup> and by the biased perceptions of some physicians (appendix p 11, CMOC 8).<sup>53,85,87–89</sup> The range of inequalities in receiving appropriate care is the outcome of the synergy between all these procedures across different domains. Therefore, general practice services and interventions should work in connection with each other.

*Intersectional: general practice should adopt an intersectional perspective to account for the different effects of services and interventions among patients according to their circumstances and experience of disadvantage*

The evidence shows that care and interventions do not reduce inequalities when they do not account for differences among patients.<sup>49,57,59,60,63–68,73,78,79,86,116–118</sup> For example, educating patients about their condition and its management can improve self-management behaviour and related health outcomes.<sup>78,113,119</sup> However, this approach is not always effective for patients with complex social circumstances, low income, or limited transport options, for whom practical barriers can interfere with the effectiveness of educational interventions (appendix p 11, CMOC 7).<sup>57,63,73,86</sup> Translating written communication to engage with patients who have limited English language skills without accounting for differences in literacy or dialects used within groups excludes some patients from engaging with information material (appendix p 11, CMOC 6).<sup>78,79</sup> Similarly, physical activity interventions targeted to patients of minority ethnicities can sustain inequalities across ethnicity and even increase these inequalities among women if they do not account for gender differences (appendix p 7, CMOCs 4 and 5; p 11, CMOCs 6 and 8).<sup>74</sup>

*Flexible: care delivery in general practice should be flexible enough to make allowances for different patient needs and preferences in terms of time, communication, and provided support*

The evidence shows that socially disadvantaged individuals might need more encouragement to get involved in decision making<sup>60,65,109</sup> or practical assistance with visiting their practice (appendix p 7, CMOC 5).<sup>68,69</sup> When telehealth programmes are implemented, patients might also need additional training<sup>106</sup> or translation services.<sup>79</sup> If services are designed with rigid pathways, patients who do not fit into a standard pattern of care are likely to be excluded by health-care staff due to the additional effort required to meet the service requirements (appendix p 11, CMOC 6).<sup>48,56,85,90–92</sup> To decrease inequalities, care providers need to aim for standard high-quality care<sup>38,39</sup> while making allowances for differences in patient needs.<sup>68,69,106</sup>

**Panel: Key recommendations for national policy makers, local health systems, and primary care organisations**

- 1 National policy makers should keep the reduction of health inequalities high in their agenda and plan solutions building on intersectionality, a long-term perspective, integration of different services and policy domains, and the engagement of general practice front-line workers and disadvantaged groups.
- 2 Workforce and education organisations and local general practices should make effective use of diversity including in senior positions, involving working closely with equality, diversity, and inclusion bodies to tackle structural racism and sexism, and cultivating an inclusive organisational culture.
- 3 Workforce and education organisations should develop schemes to promote the recruitment and retention of local staff in disadvantaged areas. These schemes would promote community building and could involve financial or training incentives, especially to less experienced employees, and medical school placements.
- 4 National general practice policy makers should distribute funding to better account for differences in the needs of served populations. Building on intersectionality and flexibility, equity-focused funding distribution can involve integrating the socioeconomic status and ethnicity of the patient in health-care funding formulas and higher weighted patient lists for practices in disadvantaged areas.
- 5 Local general practices should strengthen the continuity and diversity of services building on community. Achieving this goal could involve long-term relationships between care teams and local communities, services (co)-located close to community landmarks (eg, schools, libraries), community transport options, and targeted home visits.
- 6 Local general practices should collect and integrate patient sociodemographic information into care and care evaluation. Such initiatives involve inclusive risk calculation algorithms, information technology resources, up-to-date patient registers, allocating data collection to specific staff members, and training on data collection tools and data sharing policies.

*Inclusive: general practice needs to cultivate an organisational culture that is less normative to ensure that people are not excluded due to assumptions about who they are, what they need, and how they should behave*

The included studies underline that cultural understanding between practitioners and their patients is a fundamental quality of equitable care (appendix p 11, CMOCs 6–8).<sup>57,60,61,64,69–75</sup> Beyond language, culture influences how we understand disease, health, healthy behaviour, the role of family, and gender roles.<sup>60,74,78,120,121</sup> Cultural tailoring or adjustment should cover all these components. Moreover, although not extensively discussed, the literature hints at the fact that the decisions of practitioners are affected by their perceptions of their patients.<sup>53,85,87–89</sup> For example, they might exclude women from optimal cardiovascular risk assessment because they consider that women are not at as high a risk of cardiovascular disease as men (appendix p 11, CMOC 8).<sup>53,85,87–89</sup> Similarly, if practitioners think that disadvantaged patients are less able to reach care goals, they might exclude those patients from quality assessments and services (appendix p 16, CMOC 9).<sup>40–45,99,100</sup> Inclusive care is designed and delivered in a way that does not exclude people on the basis of assumptions.

*Community-centred: everybody involved in general practice should have a say in how care is conceived, (re)designed, and delivered, including clinical and non-clinical members of staff, patients, and their networks*

The included studies suggest that building long-lasting relationships of trust with communities and tailoring services to local needs improves care for disadvantaged patients (appendix p 11, CMOCs 6 and 7; p 20, CMOCs 18–21).<sup>65,80–85</sup> Cultivating a sense of community concerns a broad range of elements, including familiar premises for the delivery of interventions,<sup>68,78,81,112</sup> uninterrupted communication,<sup>47,58,118,122,123</sup> and the integration of patient worldviews into the design and delivery of services.<sup>57,60,61,64,69–75</sup> These elements can be integrated or added into care delivery in supportive roles (eg, patient navigators and peer coaches),<sup>79,91,109,113,124</sup> increasing ethnicity and language concordance between patients and practice staff,<sup>65,80–85</sup> and enabling practice nurses to operate as communication bridges between patients, clinical, and non-clinical staff within surgeries.<sup>79,81,91,101,102,105,109,113,124</sup>

## Discussion

The evidence base for general practice interventions that can reduce health inequalities is scarce. Studies mostly describe inequalities rather than investigating the mechanisms that drive them. Focusing on the transferrable principles of interventions, we found that to reduce health inequalities, general practice should be connected, intersectional, flexible, inclusive, and community-centred. These principles should inform action taken in areas covering funding and workforce distribution, patient living conditions, cultural understandings of health and illness, communication, and organisational culture. Additional areas cover working hours and contact time, the collection and use of patient information, multidisciplinary care, the implementation of financial incentives, and relationships between patients, practice staff, and communities.

Our report echoes previous work<sup>14,17,18</sup> highlighting the importance of general practice in relation to access to services, especially preventive services, which also link with inequalities in service utilisation and care outcomes. Our findings add that inequalities in preventive services can decrease through accurate data collection and maintenance of patient records,<sup>47,71,84,93,94</sup> appropriate communication material,<sup>56,118,120,123,125,126</sup> service convenience,<sup>49,55–62</sup> addressing patient living conditions,<sup>49,62</sup> and engaging disadvantaged patients in primary prevention. Further, our findings highlight the need for continuous assessment of the effect of quality-improvement strategies on disadvantaged groups<sup>38,39,127,128</sup> and the assessment of the effectiveness of interventions across the different and interacting dimensions of social and economic disadvantage.

A key strength of our work is that we reviewed a broad range of international studies with different designs.<sup>49,59,60,63–68</sup> By organising our findings across the

structural, cultural, disciplinary, and interpersonal domains,<sup>27</sup> we identified specific areas of action and suggested key principles for equitable general practice. With feedback from a diverse research team and partners, we produced robust and transferrable evidence. The main limitation is that the reviewed evidence does not contain sufficient detail to quantify the effect of interventions on inequalities. Therefore, we focused on common underlying principles of care and interventions associated with inequalities and formed CMOCs abstracted to a high degree.

In future work, researchers should ensure that inequalities are considered in impact evaluations, systematise evidence on health inequalities, and make the evidence easily accessible to other researchers and general practice teams. Researchers should integrate and operationalise intersectionality and use qualitative and mixed-methods designs to provide detailed information about transferable evidence-based principles of interventions. They should also prioritise producing evidence on conditions that are intrinsically associated with disadvantage, such as chronic obstructive pulmonary disease. Researchers should also explore the effect of initiatives on health inequalities in general practice and evaluate how they can be effectively integrated in general practice models.

Our action framework proposes a vision for equitable general practice and has multiple implications for practice and policy. We present six key recommendations (panel) for national policy makers, local health systems, and primary care organisations that concern action areas identified in the framework and are informed by and contribute to the five guiding principles for equitable general practice.

#### Contributors

AG carried out the review, contributed to the interpretation of the results, prepared the results for publication, led patient and public involvement activity, co-organised and cofacilitated research expert panel meetings and the deliberative workshop, and wrote the draft of the manuscript. GW was coprincipal investigator, contributed to the study design, provided methodological guidance in the approach to the realist review, overviewed the research process, co-organised and cofacilitated research expert panel meetings and the deliberative workshop, and contributed to and edited the manuscript. SS, RS, SM, and RH contributed to the study design, initial programme theory, interpretation of results, and editing of the manuscript. CB contributed to the study design and editing of the manuscript. AM contributed to the study design, initial programme theory, interpretation of the results, deliberative workshop, and editing of the manuscript. IK contributed to the study design, initial programme theory, and interpretation of results, and conducted the literature searches and commented on the manuscript. JF conceived the idea and drafted the initial funding application, was coprincipal investigator, contributed to the study design and review process, co-organised and cofacilitated research expert panel meetings and the deliberative workshop, and contributed to and edited the manuscript.

#### Declaration of interests

GW was Deputy Chair of the UK's National Institute for Health Research (NIHR) Health Technology Assessment (HTA) Prioritisation Committee: Integrated Community Health and Social Care (A), HTA Remit and Competitiveness Group, HTA Prioritisation Committee A methods group, and HTA Post-Funding Committee. SS was a member of Public Health Research's Research Funding Board. RH was a member

of HTA Prioritisation Committee C (mental health, women, and children's health) and HTA Commissioning Committee. All other authors declare no competing interests.

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