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Review Article

FAIRSTEPS study - Framework Addressing Inequities in pRimary care using STakEholder PerspectiveS: Integrative evidence review and Delphi consensus

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ABSTRACT

Objectives: Health inequities are unjust and avoidable differences in health outcomes across populations and between population groups. Though these arise predominantly from social determinants of health, healthcare is estimated to contribute around 20 % and primary healthcare reduces inequities in healthcare outcomes. As each provider works in their local context, we sought to provide an evidence-informed framework for designing, implementing, and evaluating local health inequity interventions in primary care.

Study design: Mixed methods approach: an integrative evidence review, a multidisciplinary Delphi consensus study and collaborative patient and public participation.

Methods: We searched published and grey literature for examples of primary care health inequity interventions. Our Delphi survey then asked primary care professionals how feasible and useful similar interventions would be in their local contexts. We incorporated an ongoing dialogue people with lived experience of health inequity in our design, implementation, and analysis.

Results: Sixty-nine published papers and 19 grey literature papers were included. Interventions included multiple objectives (e.g., tailored provision, practitioner training) or focus (e.g., medical care, screening). Theory underpinning intervention design was rarely explicit but some specific tools and theory was identified for the framework. Practitioners and our patient group prioritised 28 example interventions to aid the design of local contextually sensitive interventions.

Conclusions: We combined evidence synthesis, practitioner consultation and dialogue with people with lived experience produced an evidence-informed framework for the design, implementation and evaluation of local primary care health inequity interventions. The public and practitioner voice increases the credibility of our framework as a useful tool for service development.

Introduction

Health inequities are unjust and avoidable inequalities in health outcomes across populations and between specific population groups.[1,2] These differences arise predominantly from social determinants of health: inequities in access to good quality housing, education, healthcare and living environments rooted in differences in income, wealth and power.[3] Healthcare is estimated to contribute up to 20 % of health inequities.[4] Within healthcare systems, high quality primary healthcare is recognised to reduce inequities in healthcare outcomes through specific features, including comprehensiveness, care coordination, care continuity and a community focus.[5] This has been reflected in recent NHS policy documents such as the NHS Long Term Plan and GP contract which place an onus on primary healthcare to be a driving force in reducing health inequities.[6]

In 2010, the 'Marmot Review', Fair Society Healthy Lives[7] argued for a need for a national guiding strategy regarding tackling health inequity. It emphasised that local practitioners should be guided by principles for action rather than specific recommendations and needed freedom to develop local, targeted and contextually sensitive plans to address health inequities.[8,9] This is because each practice, or network of practices has its own unique setting or contexts.[10] A decade later, a follow-up review of the report recommended that progress could be accelerated if local communities were involved in the design and implementation of actions to reduce inequities.[11] To have the greatest likelihood of success, the principles informing these local actions should be derived from

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empirical and theoretical evidence about how interventions lead to desired outcomes. These principles can then be applied in local contexts to inform the co-design of local innovation.

Our preliminary work and a recent realist review[12] found insufficient large randomised controlled trials to permit generalizable conclusions. Rather, reports of innovations in primary care to address health inequities typically describe processes (what they did), barriers (what made it difficult) and sometimes, outcomes (the differences they made). Strikingly, while individual studies often featured patient and public involvement there was little evidence that the views of people with lived experience of health inequities were involved in making choices or recommendations between different interventions.

The aim of this study was to provide a practical, principles-based framework to address health inequities through local primary care interventions informed by both evidence and lived experience. To do this, we synthesised the relevant literature on primary care interventions to reduce health inequities and worked with people with lived experience to implement a Delphi process involving front-line practitioners to establish what types of interventions were considered most useful and practical.

Methods

The FAIRSTEPS project used a mixed methods approach with three work streams: an integrative evidence review, a multidisciplinary Delphi consensus study and simultaneous patient and public participation. The research was carried out between January 2021 and December 2022. Research ethics approval was obtained from University of Sheffield (ref. 042362). People with lived experience of health inequities were recruited from the Deep End Yorkshire & Humber patient and public involvement group (DE-PPI).[13]

Integrative review

We conducted an integrative narrative review.[14] The review focused on local primary care service interventions to reduce inequities in health outcomes delivered by (or interactively with) general practice providers (or networks of practices) for underserved populations. We adopted the NIHR INCLUDE description of underserved populations.[15] This describes potentially underserved groups in relation to demographic factors (e.g., age, sex, ethnicity and education); social and economic factors (e.g., lack of employment, socio-economic disadvangage, migrants, traveller communities, digitally disadvantaged) and health status (e.g., mental health conditions, learning disabilities) whilst suggesting that particular underserved groups will be contextually sensitive. We therefore included medical and social interventions provided they were pertinent to the local population. We excluded studies that addressed medical conditions without specifically focusing on the population context, public health approaches without involvement of primary care and occupational health interventions. In order to focus on models of primary care comparable with the UK, we restricted the review to broadly similar healthcare systems (Northwestern Europe, Canada, Australia, and New Zealand). Our literature review protocol was registered with PROSPERO (CRD42021262149). Detailed inclusion and exclusion criteria are listed in supplementary data A.

Literature search

We searched databases and grey literature. We searched the following databases: MEDLINE and Embase (via Ovid); and CINAHL (via EBSCO) on May 26, 2021 for studies published since 2010 in English. The search was structured around the following Boolean operators: ((Inequality) OR (specific underserved populations)) AND (primary care) AND (interventions)). A detailed search specification is included in supplementary data B. Grey literature was obtained through searching statutory and policy organisations (e.g., The Kings Fund; Public Health England; European Health Portal) and through contacting practitioners with interest and experience in the field via the international 'Deep End General Practice' network for additional examples of interventions.

Titles were screened (BJ, SA, CB, JC, ME and AC) and extraction conducted to a custom spreadsheet (BJ, AC, ME and JC). We included qualitative, quantitative and mixed study designs. We also included case studies where there were rich descriptions of interventions. Opinion pieces and protocols for evaluations of interventions not yet carried out were excluded. Published reviews were searched for additional eligible interventions.

Data evaluation

Studies and reports were evaluated against criteria of richness and relevance, with each being reported as high, moderate or low. Richness was assessed in terms of theory about how an intervention should, or did, work. Relevance was assessed in relation to UK or comparable primary health care settings. These criteria were not used to exclude studies but instead to inform subsequent components of the research and outputs.

Data analysis

Analysis began with extraction of key data elements and themes from all papers to NVivo Version 14 (2023). The key elements of each intervention were then coded deductively using extracted data from each document, and by referring to source documents for further details and clarifications. Codes were iteratively combined, split, categorised, and differentiated during and after the coding process to generate higher level and subordinate themes (SA) and discussed in regular analysis meetings with BJ, JC, JR, CB, CM & TL. In addition to a descriptive analysis of interventions and outcomes, we examined theory behind intervention design both in terms of intended "active ingredients", such as a particular process, and mid-range theory which had been used to frame the intervention.

Analysis continued until all the elements of descriptions of interventions could be allocated to the high-level themes. Several of these high-level themes included multiple sub-themes, which showed both individual characteristics and intersectionality. Our analysis therefore resulted in a set of themes that could be used to structure our framework for intervention design as well as represent key findings.

In parallel with this analysis into descriptive themes, we combined summaries of interventions with similar characteristics to produce an initial set of example intervention vignettes for inclusion in the Delphi phase of the study.

Presentation

The presentation stage of the integrative review involved two outputs. The first was a set of example vignettes describing possible interventions to discuss with our patient and public participation group and present to frontline practitioners the following Delphi Study (supplementary data C). The second was a practical framework, co-designed with our PPI group, to guide the design, implementation and evaluation of contextually relevant interventions to address health inequities in primary care.

Delphi Study

Design

We used a three round Delphi study to rank the series of possible intervention vignettes derived from the review (BJ, JC). We followed the RAND Delphi approach.[16] We recruited an expert advisory group comprising nine primary care clinicians from across the UK (with expertise in health equity from roles of policy, commissioning, and service delivery) to critically inform the analysis, final synthesis and outputs. Using a novel approach, we augmented this with the simultaneous involvement of people with lived experience in an iterative participant co-design process. To do this we convened a lived experience advisory panel, which helped design the intervention vignettes and met before and after each round of the Delphi to critically review materials and comment on interpretation.

Delphi participants

We purposively recruited primary care professionals with experience of working in GP practices serving deprived communities from the UK. This included medical and non-medical members of the primary care team (e.g., Practice Nurses, Physician Associates, Practice Managers). Recruitment was facilitated by the Deep End General Practice Clinical and Research networks (which includes practices working with underserved populations in 5 areas of England and in Northern Ireland)[17] and through collaboration with Health Education England and the Royal College of General Practitioners Health Inequalities group. The study used a GP Clinical Champion (TL) to maximise awareness, knowledge and engagement with the research. Additional invitations were sent to known experts from clinical practice outside of these networks.

Delphi lived experience advisory panel

While the Delphi method is designed to harness expert opinion there are challenges to meaningful patient and public participation in Delphi research.[18] In order to appropriately incorporate patient and public input we involved people with experience of living in areas of high socioeconomic deprivation and/or from a minority ethnic community[13] in co-design and analysis of the Delphi process. This is described in more detail in the patient and public participation section, below.

Design and delivery of the Delphi surveys

The survey was developed using the interventions identified in the integrative review (see Analysis above). Example intervention vignettes were refined over several iterations to reduce duplication and ensure they were relevant to the context of primary care (BJ, JC, JR, CB, and TL). This process actively involved members the patient and public advisory group along with the research team. The survey grouped these vignettes into common themes and for each vignette, participants were asked to rate the vignette on a scale of 1–9 in terms of three criteria: usefulness, feasibility, and importance. Usefulness and feasibility referred to the participants' own practice or network of practices (participants were advised to assume that resources for effective delivery were available). Importance referred to the wider provision of equitable primary care.

Delphi surveys were delivered online using the Qualtrics XM (2022) platform for enrolment, consent, collection of participant characteristics, and survey completion. We used regular updates with participants and recruitment facilitation organisations to maximise retention.[19]

Analysis

All vignettes were included in round one and two (with categories re-ordered to mitigate response bias from participant fatigue). In round two, a free text box was added to allow additional comments on feasibility scores (to capture contextual granularity). After discussion with our DE-PPI group on how to present the data, interventions were ranked and presented by their mean scores for each criterion to illustrate which vignettes were considered most useful, feasible and important. A mean score of seven or above as indicating a high level of consensus that a particular intervention should be prioritised.[20]

Selection of vignettes for round 3 was via two paths: (i) Vignettes with mean scores for *usefulness* of ≥7 went directly into round three. (ii) Vignettes with mean scores for *usefulness* of ≥6 *and* mean scores for *importance* or *feasibility* of ≥7 were discussed with the patient and public advisory group to decide on inclusion in round three.

Patient and public participation

Patient participation was embedded into the study design from the start and maintained throughout the research process.[15] This is a particular innovation to the Delphi method, which is usually characterised by an emphasis on a narrow interpretation of 'expert' opinion. We chose this approach mindful of challenges to meaningful patient and public participation in Delphi research previously reported.[18] Having this plurality of views (from a diverse group with various socioeconomic, ethnic and formal educational attainment differences) within the study team was vital to ensure our study outputs are relevant and practical for the various patient groups targeted by the interventions and increases the credibility of the Delphi results. This was achieved through collaboration with the established Sheffield Deep End patient and public involvement (DE-PPI) group. DE-PPI is a lay 'expert' group composed of members of the public drawn from diverse and disadvantaged communities (including members strongly connected to community groups), with experience of contributing to healthcare development and research.

We held five facilitated group discussions with six to eight DE-PPI members and two to four members of the study team (BJ, JC, TL, JR, and CM). In the initial meeting, the DE-PPI group altered the language used in the vignettes and contributed to decisions about whether various vignettes should be amalgamated or left as separate entities. They also suggested adding similar target groups to some interventions and brought experience of interventions not seen the literature. Their suggestions were added to the first round of the Delphi.

In the subsequent, three sessions (2-h) the group gave their opinions about the relative merits of each of the intervention vignettes included in the Delphi survey. Their rich, qualitative insights were captured through contemporaneous reflective field notes and recording. These insights incorporated important lay perspectives into prioritizing particular interventions in terms of the three Delphi criteria.[21]

In the final session, the group reflected on their own previous comments when set against the Delphi results from the initial two rounds, which enabled them to offer further insights into why we may have seen the range and variation in the scores from practitioners completing the Delphi practitioner panel. These comments were fed directly into revisions of the framework and other outputs so practitioners could understand which aspects of an intervention were considered most important to a representative group of patients and why.

Results

Integrative review

Literature search

Literatures searching identified 1485 titles for screening after duplicates were removed. This resulted in full text review of 291 papers and inclusion of 69 papers. Three of these were review papers; citation checking of these did not identify further eligible interventions. Grey literature search identified 106 items, of which 19 described twenty interventions (two from one study); 11 of these were linked to studies identified in the literature search and nine were new.

All included published papers underwent data extraction for intervention characteristics and underlying theories. However, grey literature interventions that were not linked to published papers contained insufficient information about theory and so this was not extracted. Published and grey literature items were then used to co-create the Delphi vignettes with the DE-PPI group; forty-four vignettes were created for the first round of the Delphi contained components of interventions from 53 published papers and 17 grey literature items. These review stages are summarised in the PRISMA flow chart (Fig. 1), and example vignettes included in the first round of the Delphi can be found in supplementary data C.

Data evaluation

Design. Study designs comprised 18 randomised controlled trials;[22–39] 21 qualitative studies;[40–60] 23 with mixed methods;[61–83] and two

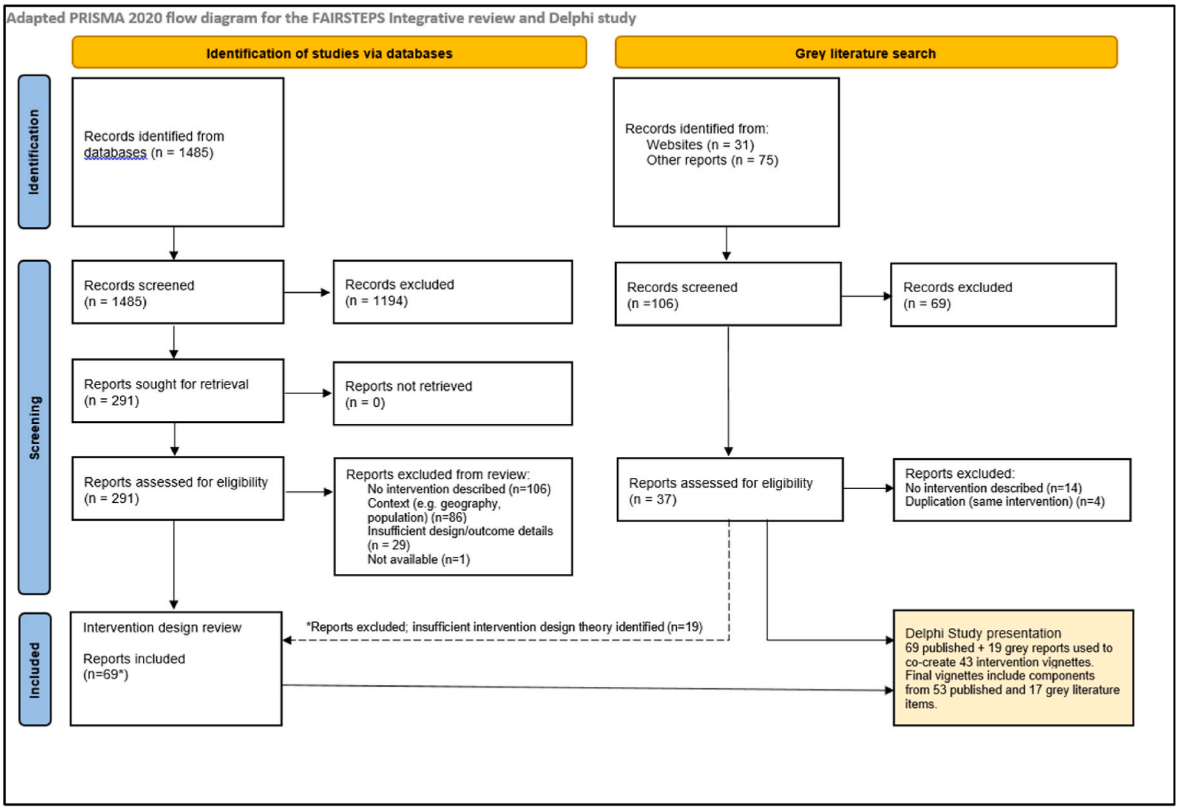
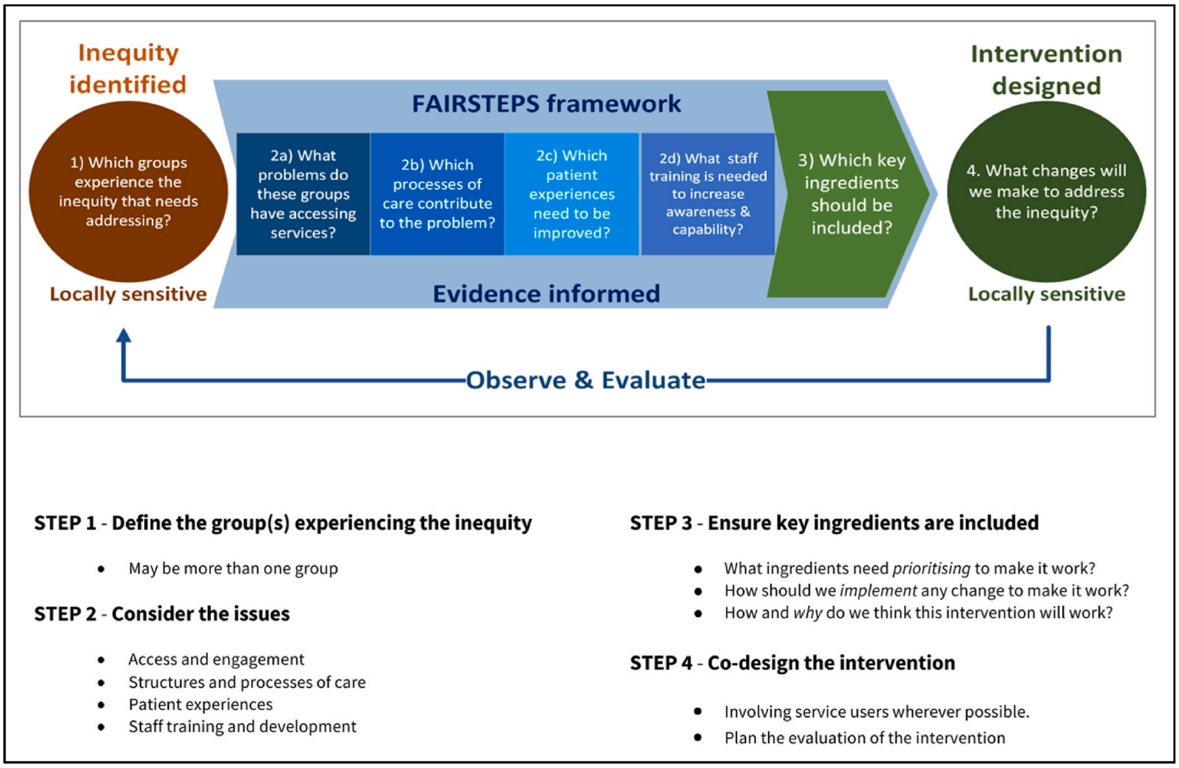


Fig. 1. Adapted PRISMA diagram illustrated the published and grey literature searches.

quantitative non-randomised studies.[84,85] 27 studies were from the UK,[25,26,29–32,34,36,40–42,44,45,47,49–51,55,56,60,66,71,78,80,82,84] 17 from Canada,[24,38,39,54,57,59,61–64,67–70,72,75,83] 7 from Australia,[28,46,48,52,65,76,81] 3 from Ireland,[22,58,74] 2 from Netherlands[23,37] and Norway[33,79] and 1 each from Belgium,[77] Denmark,[27] Germany,[73] New Zealand[53] and Sweden.[35] One study was carried out in multiple countries.[85]



STEP 1 - **Define the group(s) experiencing the inequity**

- May be more than one group

STEP 2 - **Consider the issues**

- Access and engagement
- Structures and processes of care
- Patient experiences
- Staff training and development

STEP 3 - **Ensure key ingredients are included**

- What ingredients need *prioritising* to make it work?
- How should we *implement* any change to make it work?
- How and *why* do we think this intervention will work?

STEP 4 - **Co-design the intervention**

- Involving service users wherever possible.
- Plan the evaluation of the intervention

Fig. 2. The FAIRSTEPS framework for developing contextually sensitive interventions to address health inequities.

Richness and relevance

Relevance of studies to the UK or equivalent primary care context was graded as high, 39; moderate, 21; and low, 4. Theoretical richness was graded as high, 11; moderate, 46; and low, 7. Only nine studies were graded as high for both relevance and richness, comprising 2 randomised controlled trials[31,33] and 7 qualitative studies.[41,43–45,47,55–57]

Analysis

Study population. The underserved population was principally described in terms of socioeconomic deprivation, (N = 21);[22,23,26,27,31,32,38,40,41,43,44,49,55,57,59,66,67,74,80,82,84] refugee or recent migrants (14);[33,35,47,53,62,64,65,72,73,77-79,81,85] homelessness (7);[39,42,50,56,58,69,71] mental illness (6);[29,34,45,51,68,75] mixed (5);[30,46,52,63,76] learning disability (3);[28,36,61] families (2);[24,83] older persons (2);[25,54] ethnic minorities (2);[37,70] remote (1);[48] and disability[60] (1). The inequity characteristics reported are broadly comparable with existing frameworks of health inequities.[2] However, it was common for the literature to describe interventions aimed at more than one single group or aimed at people experiencing intersectional health inequity characteristics e.g., homelessness and substance use issues.

Interventions. We categorised interventions according to both their objective (what the intervention aimed to do differently in order to reduce inequities) and their focus (what the intervention sought to change). Intervention objectives were tailored provision (creating different services to better meet needs) (N = 23);[22,28-31,35,37,38,42,47,50,52-55,59,62,63,66,71,75,77,84] targeted access (specifically improving access to existing services) (19);[23–25,27,32,34,36,46,56,58,64,65,69,70,72,73,76,79,80] practitioner training (10);[33,40,43,48,60,61,68,74,78,85] advocacy or financial advice (7);[26,39,44,51,57,67,82] and increased overall provision (4).[41,45,81,83] Only one study described explicit community engagement.[49] Interventions focused on medical care (33);[22,25,32,36,39,42–44,46,48,50,53,54,56–58,60,61,63–65,69,71–76,78,79,81,85] health behaviours (10);[24,29,31,34,35,37,38,45,59,84] screening or case-finding (7);[23,27,33,41,62,70,77] addressing social or socioeconomic factors (7);[26,28,51,55,66,67,82,83] and mental health (6).[30,40,47,49,52,68] While we developed these discrete categories to describe interventions, and have summarised the dominant ones, in practice many interventions included multiple objectives and/or focus. Supplementary data D summarises the studies in terms of design, population and focus of intervention.

Theories and logic models underpinning interventions. While many descriptions of interventions had little explicit theory, even among those which stated a theoretical basis there was little consensus. Theories and models included both specific techniques (e.g., motivational interviewing) and mid-range sociological theories such as candidacy and health-belief models. The higher order and subordinate theoretical themes identified in the review are shown in supplementary data E. Through iterative co-design with our patient and public participation group, these were developed into the four components of our framework to aid the design, implementation and evaluation of primary care interventions to address health inequities.

FAIRSTEPS framework

Through the process of extracting data, iterative analysis and discussion with our DE-PPI patient and public group, we co-created a framework to aid the design, implementation and evaluation of contextually sensitive interventions for a particular patient group or locally identified health inequity (Fig. 2). This has four components: Access and engagement; structures and processes of care; patient experience; and staff training and development. These components are described in further detail in supplementary data F.

Delphi study

Initial selection of vignettes

The process of summarising papers and grey literature generated 63 initial example intervention vignettes. These were then merged to bring similar examples together, modified to maximise relevance and edited for clarity. The final set of 44 vignettes featured elements derived from 53 scientific publications and 17 grey literature documents. For the first round of the Delphi, these 44 were grouped in four categories: staff capacity and capability; targeting and adapting services; new or additional services; and other.

Participation and outcomes of the Delphi process

Following invitations, both directly and via social media, expressions of interest were received from 76 people. Of these, the 59 individuals who consented to take part were sent the round 1 study pack containing 44 vignettes. We received 40 completed responses with comments. Round 2 used the same set of 44 vignettes as round 1 (in different order) but included comments on feasibility. We received 31 completed responses in round 2. The scores for each vignette from round 1 and round 2 with the rank from round 2 are in supplementary data G.

28 vignettes were included in round 3. This was sent to all 31 responders to round 2 and 21 completed responses were returned. Table 1 shows a summary of the characteristics of people completing all three rounds. Table 2 shows a summary of vignettes included in round 3, with

Table 1
Characteristics of Delphi participants and practices who completed all three rounds.

Participant characteristics (n = 21)	Categories	N (%)
Role in practice:	GP	16 (76)
	Practice manager	4 (19)
	Practice nurse	1 (5)
Ethnic group:	White	20 (95)
	Black/African/Caribbean	1 (5)
	Another ethnic group	0 (0)
Age:	<40	7 (33)
	40–50	8 (38)
	51–60	6 (29)
Gender:	Male	6 (29)
	Female	15 (71)
Declared special interests:	Substance misuse	2 (10)
	Homeless medicine	5 (24)
	Prison medicine	0 (0)
	Refugees/Migrants	4 (19)
	Other	4 (19)
	None	6 (29)
Local geography:	Major City	10 (48)
	Large town	9 (43)
	Small town	2 (9)
	Village or smaller	0 (0)
Index of multiple deprivation (national quintile)	Highest quintile	15 (71)
	Second highest quintile	1 (5)
	Third highest quintile	2 (9)
	Not known	3 (14)
Approximate practice list size:	>6000	4 (19)
	6000–12000	11 (52)
	>12000	6 (29)
General practitioners: (Working time equivalent)	>3	3 (14)
	3–5	11 (52)
	6–8	5 (24)
	>8	1 (5)
	Not Known	1 (5)
Proportion of consultations requiring interpreter:	<5 %	9 (43)
	5%–10 %	3 (14)
	11%–30 %	5 (24)
	>30 %	4 (19)

Table 2
Round 3 Delphi vignettes ranked according to usefulness and feasibility with mapped sources from integrated review.

ID	Vignette Summary	Source	Rank	
			Use	Feas_
1h	Practices resourced to hold regular multi-disciplinary team meetings and extended care-planning consults	88	1	9
2f	Practices resourced to provide extended consultations for refugees and asylum seekers.	32,53	2	26
2b	Programme to integrate homeless adults into mainstream healthcare services.	56	3	21
1e	GP speciality training, in practices with high levels of socioeconomic deprivation and works with community organisation(s).	48,74	4	3
3e	Intensive multi-disciplinary case management for homeless and low-income people, including mental health, housing and social care input.	39,59,69	5	24
2l	Trained welfare benefits advisers located within the practice to support individuals and their carers.	26,67,89	6	14
2q	Practices take a series of measures to create a ’safe surgery’ for migrants in vulnerable situations.	90	7	1
2j	Easy referral pathways (including self-referral) to mental health support for individuals at high risk e.g., homelessness, socially isolated, adolescents).	52	8	11
3c	GP & nurse "street" service for rough sleepers, sex workers and/or vulnerable migrants.	42,46,50, 58	9	22
2e	Promote uptake of cervical screening in people whose first language is not English.	33	10	4
3n	Targeted support for domestic violence victims and their families from health and wellbeing workers	91	11	13
4f	Local community health champion working with community groups to develop culturally appropriate resources in collaboration with local practices.	49,70,92	12	8
4c	A community-led buddying service to support people with difficulty accessing care in making and attending appointments.	44	13	19
1a	Staff education programme … equity-oriented care, cultural safety and trauma-informed care	63,93	14	15
1g	A community-based placement for medical students focused on healthcare for people with disabilities.	60	15	7
1f	GP training placements with non-statutory groups regarding migrant/refugee health	78	16	5
2m	Group sessions in the community to educate women on cancer screening and prevention, with targeted invitations to those that had missed screening from underserved groups.	94	17	20
2n	Flagging records of trans-patients in the practice during cancer screening recall programmes to ensure personally appropriate recall.	92	18	2
4a	Supporting access for health-care appointments for those with transport difficulties; identification and signposting to community transport etc.	25	19	12
3m	Case finding ’healthcare’ with blood testing and/or mobile x-ray and ultrasound equipment to carry out testing for TB and other conditions in homeless populations.	95	20	27
2h	Group weight-loss programme targeted at people with low incomes. Initial course + prolonged maintenance phase	31	21	23
4b	A targeted service to increase access for older patients from deprived groups providing transport for appointments, satellite clinics, nursing services and links to food and housing support.	54	22	10
3d	Special primary care centre to deliver integrated care for at-risk young people, sex workers and intravenous drug users with anonymous registration and non-NHS notes.	76	23	28
3l	Trained ’Lifestyle Change Facilitators’ providing 1:1 behaviour change counselling - up to 6 sessions per person.	84	24	17
3g	Student-doctor delivered screening or clinics for new refugees/asylum seekers to provide links with primary health care, community and settlement support.	64,65,72	25	18
1c	Blended training programme for primary care teams on supporting the health of people with learning difficulties.	61	26	25
3a	Health intervention for adolescents or adults with learning difficulties to increase individuals’ enablement in attending health care appointments.	28,36	27	16
1b	E-training package for primary care practitioners about primary health care for refugees and other migrants.	43	28	6

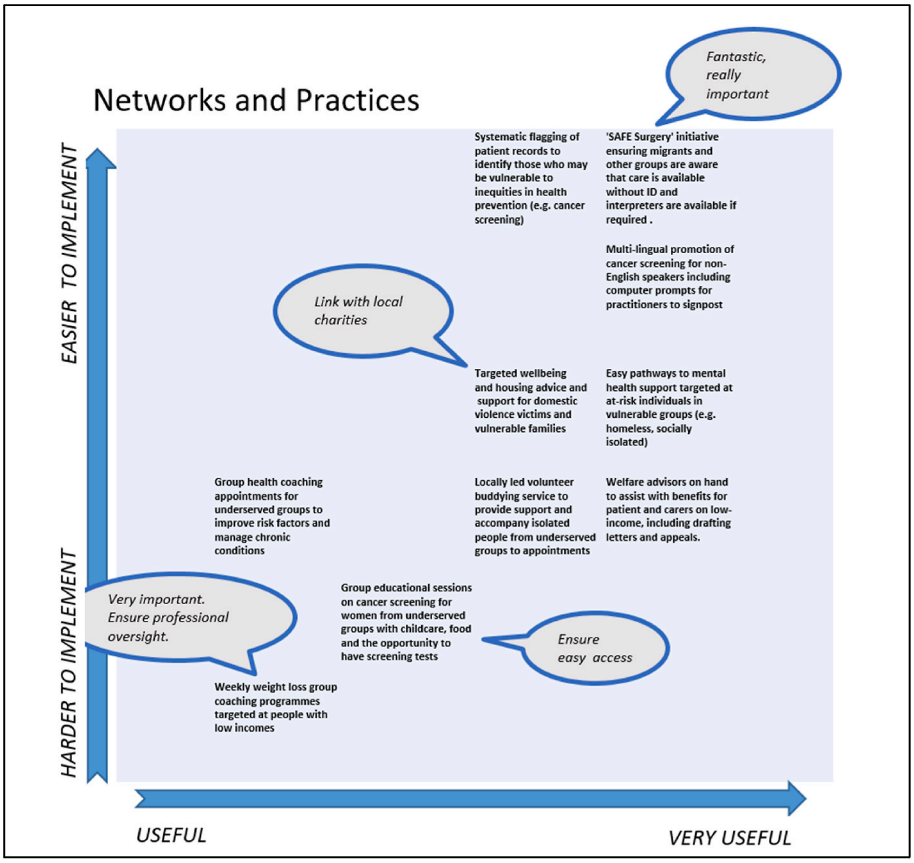


Fig. 3. Prioritised example interventions for providers of primary care with relative usefulness and feasibility and patient comments.

their ranks for usefulness and feasibility from participants. Our DE-PPI group then provided additional feedback on the relevance of these vignettes and considerations for implementation. Supplementary data H shows the round 3 vignettes in full, with key points from patient feedback and the mean score for each vignette for usefulness.

We produced visual summaries of the round 3 Delphi, with interventions arranged along two axes (usefulness and ease of implementation). These were divided into three categories according to the most likely target group that might action them: primary care providers, primary care commissioners and education and training providers. The visual summary for primary care providers is shown in Fig. 3 and the full set is available in supplementary data I. Illustrative text boxes indicate DE-PPI comments for several prioritised intervention.

Discussion

Summary of main findings

This study provides two new resources in relation to primary care interventions to reduce health inequity. The first is a principles-based framework to aid the design, implementation or evaluation of local, contextually sensitive primary care interventions to address health inequity. The second is a priority set of intervention examples (derived through a rigorous review and Delphi process with simultaneous patient and public participation) for adaptation to local contexts using the framework. In addition, we have demonstrated the successful use of people with lived experience in a Delphi approach to service improvement.

Strengths and limitations

The study used an integrative review process that was able to include a wide range of evidence types. Many of the interventions we found included some evidence of effectiveness. Where this was accompanied by clear description of plausible ways that the intervention should work, we extracted key components that can be included and contextualised when implementing a local intervention to reduce health inequities.

The Delphi process drew upon a large expert knowledge base and, importantly, had substantial input from people with lived experience of health inequities in its co-design and analysis through simultaneous involvement of our PPI group. As few of the interventions identified from the review had been tested in rigorous randomised controlled clinical trials, it was appropriate to use this enhanced Delphi process to strengthen the findings. In this way, a ‘golden thread’ of patient and public participation was embedded throughout the research from the outset, rather than in discrete separate phases (i.e., review, then PPI, then Delphi). This is important because the Delphi survey would otherwise reflect a narrower view of ‘topic expertise’, as represented by the literature, and academic and practitioner’s views of what is important or interesting. Instead, we have integrated systemic evidence with the views of people with lived experience to ensure our framework has real-world credibility.

We limited inclusion of studies to Northwestern Europe, Canada, Australia and New Zealand in order to have data from relatively similar healthcare systems to the UK. We took an inclusive approach to evidence, assessing richness and relevance of studies rather than applying metrics of quality or reliability. This was because few studies were designed to produce generalizable evidence of a specific intervention.

Relationship to existing research

Our work builds on recent research that aims to understand how best to address health inequities through primary care. Through a typological analysis of primary care interventions found in a scoping review, Smithman et al. created a set of ‘building blocks’ for components of interventions aimed at improving access to primary care services for vulnerable populations.[86] Their patient-centred accessibility framework includes these components along with some potential mechanisms for how they might work. A recent realist review of interventions influencing inequities in general practice (GP) identified that interventions should be informed by five principles; connection, intersectionality, flexibility, inclusivity and community-centredness.[12] An action framework includes aspects of intervention design where these principles should be applied. The components and principles found in these studies are similar to those found in our review and reflect the impact of contextual features and intersectionality on the complexity of interventions. Our study is the first we are aware of that allows practitioners and patients to have dialogue with this complexity and give their views on which types of interventions to prioritise at different levels of the healthcare system. The comments from patients with lived experience in supplementary data H provide valuable insight into considerations when adapting a prioritised interventions for a local context.

Implications for practice, policy and research

We found that interventions were designed for specific setting, patient groups, or types of service. Rather than recommending that these be used in settings different from those for which they were designed, we recommend that the principles that inform them should be used within a structured framework, to build contextually sensitive interventions which reflect local needs and local circumstances.[87] Our framework provides a practical method for practitioners, commissioners and educators to pull together evidence-informed principles and components when designing, implementing and evaluating interventions.

In addition, the prioritised intervention templates (Supplementary data I) give some guidance on where to start, and on what sorts of interventions practitioners and people with lived experience think will be most valuable and feasible to implement. These are described according to the level of healthcare system where their use for adaptation is most feasible - primary care provider, primary care commissioner and health education provider. The prioritised interventions therefore provide a useful set of intervention descriptions which, if adapted using the principles described in our framework, would be considered most valuable by practitioners and members of the public. They help provide those that wish to address health inequities through primary care healthcare interventions a place to start.

Conclusion

This study builds on evidence for primary care interventions that address health inequity by providing a practical, rigorously derived framework for the design, implementation and evaluation of local contextually sensitive interventions that address health inequity, along with a set of prioritised examples that could be adapted for local contexts.

In addition to capturing the types of interventions that have been tried, the review also captures important principles about how things should be done. The Delphi study allows practitioners and peoples with lived experience to prioritise what sorts of things will be most effective. It incorporates views from people with lived experience in a way that has not previously been achieved, adding credibility to the findings. To support action to be taken at different levels in the system, the prioritised examples are presented according to those that could be organised at practice/network level, those that require commissioning on a wider scale and those that target education and training. Our framework provides an evidence-informed practical method for primary care providers, primary care commissioners, and education and training providers to use when designing, implementing and evaluating interventions to address health inequities. Our prioritised intervention templates, shaped by practitioners and members of the public, provide those that seek to address health inequities through primary care some guidance of where to start.

Author statements

Ethical approval

Research ethics approval was obtained from University of Sheffield (reference number 042362) on March 16, 2022.

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Competing interests

No authors have any conflicts of interest to declare.

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Appendix A. Supplementary data

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