

Summary Report

Mapping existing policy interventions to tackle ethnic health inequalities in maternal and neonatal health in England:

A systematic scoping review with stakeholder engagement

Oluwaseun B Esan, Nicholas K Adjei, Samira Saberian, Lara Christianson, Philip McHale, Andy Pennington, Rebecca Geary, and Abimbola Ayorinde

Executive summary

There are substantial ethnic inequalities in maternal and neonatal outcomes. For example, women from a Black ethnic group have a four times higher rate of maternal mortality when compared to their White counterparts in the United Kingdom (UK). These inequalities remain after accounting for socioeconomic differences across ethnic groups, suggesting the role of institutional racism in perpetuating these inequalities despite national policies in the UK to redress these inequalities.

This review aimed to identify existing policy interventions designed to tackle ethnic health inequalities in maternal and neonatal health in England. We mapped the literature using a conceptual framework that incorporates maternal and neonatal patient pathways and identify areas amenable to intervention. To achieve this, we conducted a systematic scoping review of the academic and grey literature. In March 2022, we searched five electronic databases (CINAHL, PubMed, Medline, PsycINFO and Social Care Online) for studies which evaluated interventions that aimed to tackle ethnic inequalities in maternal and neonatal outcomes. Additionally, we searched the Journal of Health Visiting and conducted backwards and forward citation searches of reference lists using the Web of Science. We hand-searched reference lists of key reports, and websites of relevant organisations and contacted experts to identify grey literature. We then mapped the identified interventions to the conceptual framework, grouping interventions into six levels (patient, provider, organisation, microsystem, community, and policy). We conducted two stakeholder engagement events to ensure all relevant literature was captured and to refine recommendations. The quality of the included studies was assessed using the Mixed Methods Appraisal Tool (MMAT).

Nineteen studies which evaluated interventions to tackle ethnic inequalities were included in the review. The studies were of diverse designs, including randomised control trials (RCT) (3), cohort (5), case-control (1), cross-sectional (2), qualitative (5), and mixed methods (3). Of the included 19 studies, three had an MMAT score of 5/5, seven had a score of 4/5, four had a score of 3/5, three had a score of 2/5 and two had a score of 1/5. One of the cross-sectional studies (a national audit) could not be appraised by the MMAT as there was no clear research question. The interventions covered all the levels of the framework. Specific interventions, and the corresponding level of the framework they mapped into, are shown in Figure E1. The number of interventions which mapped into each level varied with most of the interventions targeting patients and providers while fewer interventions targeted other levels, particularly the policy level (Figure E1).

The quality of the evidence on the effectiveness of the included interventions in reducing ethnic inequalities was variable. The Albany Midwifery Practice model, caseload midwifery, migrants, asylum-seekers and refugee model of care, Fetal Medicine Foundation (FMF) first-trimester screening, vitamin D supplementation, health advocacy, and culturally adapted cognitive behaviour therapy (CBT) for South Asian women provided evidence of potential effectiveness, whereas there was inconsistent evidence that link workers were able to reduce ethnic health inequalities. An identified area of good practice from stakeholder engagements included the role of a Specialist Cultural Liaison Midwife to improve trust with pregnant women and provide cultural competency training. However, this role has not been evaluated.

Figure E1 Map of identified interventions and levels of the conceptual framework

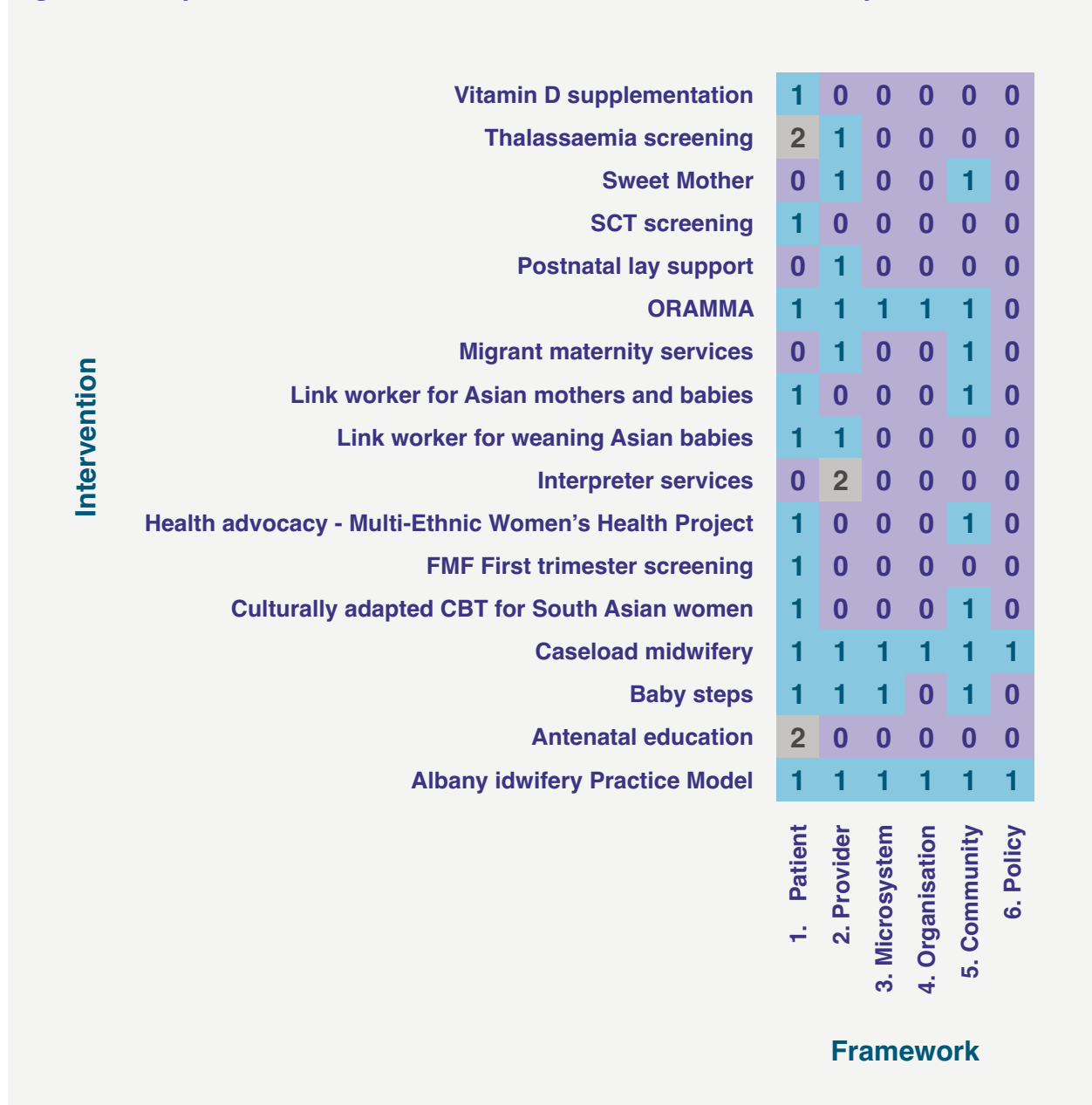


Figure E1 shows the number of interventions mapped to each level of the conceptual framework (numbers in the grid indicate the number of times an intervention was

mapped to the corresponding level). Abbreviations: CBT – Cognitive Behaviour Therapy; FMF- Fetal Medicine Foundation; ORAMMA – Operational Refugee And Migrant Mothers Approach; SCT – Sickle Cell and Thalassaemia

This review has highlighted several research gaps. Firstly, most of the evaluations were conducted in London (n=10), as such there is a lack of evidence on the effectiveness of national interventions such as the midwifery continuity of care model from other cities/regions of England which limits the generalisability of the findings. Also, we did not identify any evaluation of interventions which aimed to tackle institutional or interpersonal racism, such as tackling ethnic stereotyping and supporting people with previous experiences of discrimination in healthcare. Furthermore, most of the interventions were evaluated in single studies and were mostly observational studies or qualitative studies which are not gold standard methods for evaluating interventions. This makes it difficult to conclude whether the interventions were effective.

Finally, we identified 17 other interventions for which some have had feasibility studies conducted and some are currently being evaluated in multi-site RCTs. These include group antenatal care (Pregnancy Circles), for continuity of care during the antenatal period, and serial prophylactic exchange blood transfusion in pregnant women with sickle cell disease. Others are mostly local interventions, targeting ethnic inequalities relating to maternal and neonatal outcomes, such as continuity of care models for Roma/Gypsy Travellers in Cornwall, Chatworks Hackney, London who offer perinatal mental health for Black African or Black Caribbean pregnant women, Doctors of the World maternity care for migrants, asylum seekers and refugees. However, these interventions have not been evaluated. Studies are needed to evaluate these interventions and effective interventions should be implemented.

We have separated the recommendations from the review into two: recommendations for policy and practice, and recommendations for research.

Recommendations for policy and practice

Although this review found limited evidence on the effectiveness of specific interventions to reduce ethnic inequalities in maternal and neonatal health outcomes, our findings highlighted specific areas that should be actioned by stakeholders to reduce these inequalities. These recommendations are presented in Table E1 below. We have used a mix of the evidence base and stakeholder views to identify potential organisations which are ideally placed to action the recommendations. It should be noted that this list is not exhaustive.

Table E1. Recommendations for policy and practice

Findings from the review	Recommendations	Action
<p>We identified 19 evaluated interventions from published articles. Through our grey literature searches and contact with experts, we were able to identify 17 additional interventions which have not been evaluated. It is possible that we have not captured all the interventions that exist. More so, reporting bias may mean that some interventions that were not successful may not have been reported.</p>	<p>An interactive portal on the NHS Improvement Maternity Transformation website for relevant teams and organisations to register their interventions from the feasibility/pilot stage using an appropriate framework is urgently required to capture what is ongoing across different parts of the country. This will avoid duplication of efforts and allow examples of good practice to be spread across the entire maternal and neonatal health system.</p>	<p>NHS England and NHS Improvement, Integrated Care System Leaders, NHS Race and Health Observatory</p>
<p>The quality of reporting of interventions varied across studies.</p>	<p>Intervention reporting should follow the appropriate checklist (such as the TIDier framework) for improved quality of reporting. This will improve evidence-based policymaking and commissioning of services</p>	<p>Researchers and peer-reviewed journal editors</p>
<p>Some interventions were designed and implemented with no consideration for how such interventions could be evaluated, making it difficult to establish whether the interventions were effective.</p>	<p>Evaluation of local interventions should be built into the design (such as adequate data recording), and targets should be specific, measurable, achievable, realistic, and time-bound.</p>	<p>Integrated care systems leaders, local maternity systems NHS England and NHS Improvement</p>
<p>Not all evaluated interventions were designed to reduce ethnic health inequalities as inequalities were not always measured at baseline.</p>	<p>A consensus on baseline measures of risk factors for inequalities in adverse perinatal outcomes as agreed by the Maternal Medicine Networks should be adopted when designing and evaluating interventions. This will permit clear evidence of the effectiveness of interventions in the reduction of ethnic health inequalities if these data are collected and measured at baseline and during the evaluation of interventions.</p>	<p>Research funders such as NIHR and MRC, Research groups in implementation science, Maternal Medicine Networks</p>
<p>There is a lack of detailed policy to tackle ethnic health inequalities. Most relevant is the implementation of Better Births by Local Maternity Systems in 2019. Ethnicity is not often recorded accurately.</p>	<p>Detailed policy analysis is urgently required to ensure a specific policy targeted at reducing ethnic health inequalities is co-developed and rolled out to all stakeholders. Ethnicity recording in health records should be improved and consistent.</p>	<p>NHS England and NHS Improvement NHS Digital</p>

Recommendations for research

Increased investment in research designed to reduce ethnic health inequalities in maternal and neonatal health is urgently required as this review highlights the limited peer-reviewed evaluation of interventions. Below are the main research gaps that can frame the future research agenda in this field:

Table E2. Recommendations for research

Findings from the review	Recommendations	Action
<p>We identified 19 evaluated interventions from published articles. Through our grey literature searches and contact with experts, we were able to identify 17 additional interventions which have not been evaluated. It is possible that we have not captured all the interventions that exist. More so, reporting bias may mean that some interventions that were not successful may not have been reported.</p>	<p>Investment in research to reduce ethnic health inequalities in maternal and neonatal health is urgently required. Complex interventions that incorporate a patient's socio-economic context are urgently needed to move the focus away from the patient and towards the community where they live and the institutions they navigate in accessing care.</p> <p>Researchers seeking to address improvements in maternal and neonatal outcomes should conduct health inequality impact assessments.</p> <p>Researchers should be encouraged to publish negative findings of interventions.</p>	<p>Research funders Peer-reviewed journal editors</p>

Findings from the review	Recommendations	Action
<p>Not all evaluated interventions were necessarily designed to reduce ethnic health inequalities as these inequalities were not always measured at baseline.</p>	<p>Interventions aimed at reducing ethnic health inequalities should clearly state this in the aims and objectives of the evaluation.</p> <p>When designing and evaluating interventions that may impact ethnic health inequalities, baseline data on ethnic health inequalities should be collected. This will permit clear evidence of the effectiveness of interventions in the reduction of ethnic health inequalities.</p> <p>Beyond the reduction of ethnic health inequalities, it is also important to assess if interventions do not worsen ethnic inequalities if any exist at baseline.</p>	<p>Researchers, healthcare professionals and policymakers in the design and evaluation of interventions. Implementation Science Research Teams, Research Funders</p>
<p>Few of the studies included complete evaluation findings. There was limited evidence of the links between the evaluated interventions, implementation, and changes in practice.</p>	<p>Taking an implementation science perspective could be valuable to bridge the “know-do gap” i.e. the gap between what we know through research and what is implemented. Implementation science aims to bridge this gap by getting evidence-based findings out into practice promptly.</p>	<p>Implementation science research teams, Research funders</p>
<p>Interventions at the organisational level targeting structural and institutional processes which perpetuate racism and ethnic health inequalities are lacking.</p>	<p>Interventions targeting institutional and interpersonal racism at the organisational level are urgently needed. Using Hassen and colleagues’ conceptual framework for strategies in developing and implementing anti-racism interventions, a multi-level, long-term approach going beyond one-off cultural competency training with buy-in from senior leadership with evaluation embedded is the first step.</p>	<p>Implementation science research teams, Research funders</p>

Findings from the review	Recommendations	Action
Limited specific interventions for Black African and Black Caribbean, Roma and Gypsy and Mixed ethnic groups, Migrants, Refugees and Asylum seekers were identified.	Co-production of interventions and research with women from ethnic minority groups, in particular Black African and Black Caribbean, Roma and Gypsy ethnic groups who are underrepresented in targeted interventions are required. These can include the adaption of known effective interventions such as the culturally adapted CBT for postnatal depression for South Asian women if feasibility results are replicated in the recently concluded multisite trial.	Funders, research teams, VCSE groups, Maternity Voices Partnership, NHS England and NHS Improvement
There is a lack of detailed policy to tackle ethnic health inequalities. Most relevant is the implementation of Better Births by Local Maternity Systems in 2019	Detailed policy analysis is urgently required to ensure a specific policy targeted at reducing ethnic health inequalities is co-developed and rolled out to all stakeholders.	Implementation Science research teams, research funders
Quality of reporting of interventions varied across studies. Small sample sizes limited further stratification of outcomes by ethnicity.	Where the data permits, disaggregated ethnic groups should be adopted using the 2021 ONS census classifications to understand if only certain ethnic groups benefit from evaluated interventions.	Implementation science research teams and research funders
Quality of reporting of interventions varied across studies. We found some use of acronyms such as BME and BAME and the use of non-specific groupings such as non-White	Improving ethnicity reporting where the data permits with the use of appropriate language (such as the NHS Race and Health Observatory language principles) is needed for future studies to appreciate the different social and complex needs of these groups.	Implementation science research teams, Research funders
Quality of reporting of interventions varied across studies, reporting, and adjustment for confounders	Adjustment for appropriate confounding variables in quantitative research is vital to ensure robust findings.	Implementation science research teams, Research funders
Studies of evaluated national policy interventions such as midwifery continuity of care were predominantly from South London.	Evaluation of national policy-driven interventions from regions beyond London is needed to improve the generalisability of the findings to different populations.	Implementation science research teams, Research funders, NHS England and NHS Improvement

Findings from the review	Recommendations	Action
Lack of population health-based interventions	The recent 'Family Hubs' which will target 75 local authorities with high levels of deprivation can serve as a platform for population-level interventions to improve pre-conception health by addressing structural level barriers such as access to services. ¹ It also provides a platform for linking up local maternity systems and the integrated care systems to target specific population needs.	Integrated care system leaders, Local maternity system leaders and Research funders

In conclusion, this review highlights the paucity of evidence on interventions aimed at reducing ethnic health inequalities in maternal and neonatal outcomes. The long-standing unexplained and unjustified racial disparities of Black, Asian and minority ethnic pregnant women, mothers, and babies require urgent attention. This review provides the evidence base for key actions in achieving equity for these population groups.



nhsrho.org



[@nhs_rho](https://twitter.com/nhs_rho)