



Tackling racism in maternal health

Approaches are needed that tackle the root causes, including the structural drivers of health, argue **Raquel Catalao and colleagues**

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Inequalities in maternal health outcomes for ethnic minority and Indigenous populations across the globe are driven by cultural, structural, and interpersonal racism. Strategies to mitigate this racial injustice require government commitment, structural policy changes, and community led solutions. Biomedically driven interventions alone will not fix this, and novel systemic approaches are required to tackle the social determinants.

Maternity care provides a unique setting for understanding the links between social determinants and health inequity through its focus on the experiences at a critical transitional period of life. We focus here on high income countries, where our experiences mostly lie and where data tend to be more widely available. In this context, there is a clear and alarming pattern of people from racialised groups (that is, those who are disadvantaged based on their skin colour or indigeneity through the normalisation and legitimisation of an array of dynamics that favour white people¹) experiencing worse maternal outcomes.²

Inequities in maternal mortality show how disparities in social determinants are shaped by racism and colonial legacies and give rise to inequalities in social conditions and health risk factors that cost women's lives. Maternal mortality is a barometer of more widespread inequalities experienced by racialised and Indigenous populations, including adverse birth outcomes, morbidity, access to care, and experience of the services.^{3,4} Data driven technologies are increasingly used to identify inequalities in access, experience, and allocation of resources, but current health datasets lack consistency and completeness of ethnicity recording.⁵ In most high income countries the gulf of inequity is not decreasing, and it has been exacerbated by the covid-19 pandemic.^{6,7}

Importance of structural determinants

Evidence shows that different pathways link racism to inequities in society and health,⁷ but the extensive

role of colonialism is often neglected.⁸ The denial of Indigenous peoples' sovereignty during European colonisation was anchored in persistent and racist beliefs of cultural, economic, and political inferiority.⁸ The social implications of white supremacist foundations of colonialism persist today in widespread stereotypes and biased attitudes that devalue, ostracise, and subordinate non-white populations. Discrimination is a type of stressor that, in addition to creating obstacles to equitable and high quality care, is related to a broad range of adverse physical and mental health outcomes.

Another major pathway for inequity is structural racism.⁹ Racism is deeply embedded in the policies and practices of societal systems, including educational, health, and economic systems, to empower the dominant group and differentially allocate desirable opportunities and resources (fig 1). Not only does racism directly affect health, it intersects with other structural determinants of health such as socioeconomic status, including its components (eg, education and income).⁸ Current inequalities in income for Indigenous peoples in well-resourced settler colonial countries such as Canada, Australia, and New Zealand can be traced back to dispossession of their traditional lands and livelihoods and exclusion from political and economic power.¹⁰ In the US, the over-representation of black women in low income jobs is a considerable legacy of slavery and post-slavery occupational restriction to manual and lower prestige occupations.¹¹ Income inequality within states is significantly associated with maternal mortality among black people but not white and contributes to increasing racial inequity.¹² A black-white gap in educational attainment, where black students perform worse in national exams and are more likely to be excluded from school, remains in the US and UK.¹³ Furthermore, the negative relation between maternal educational attainment and infant mortality varies considerably by maternal ethnicity.¹⁴

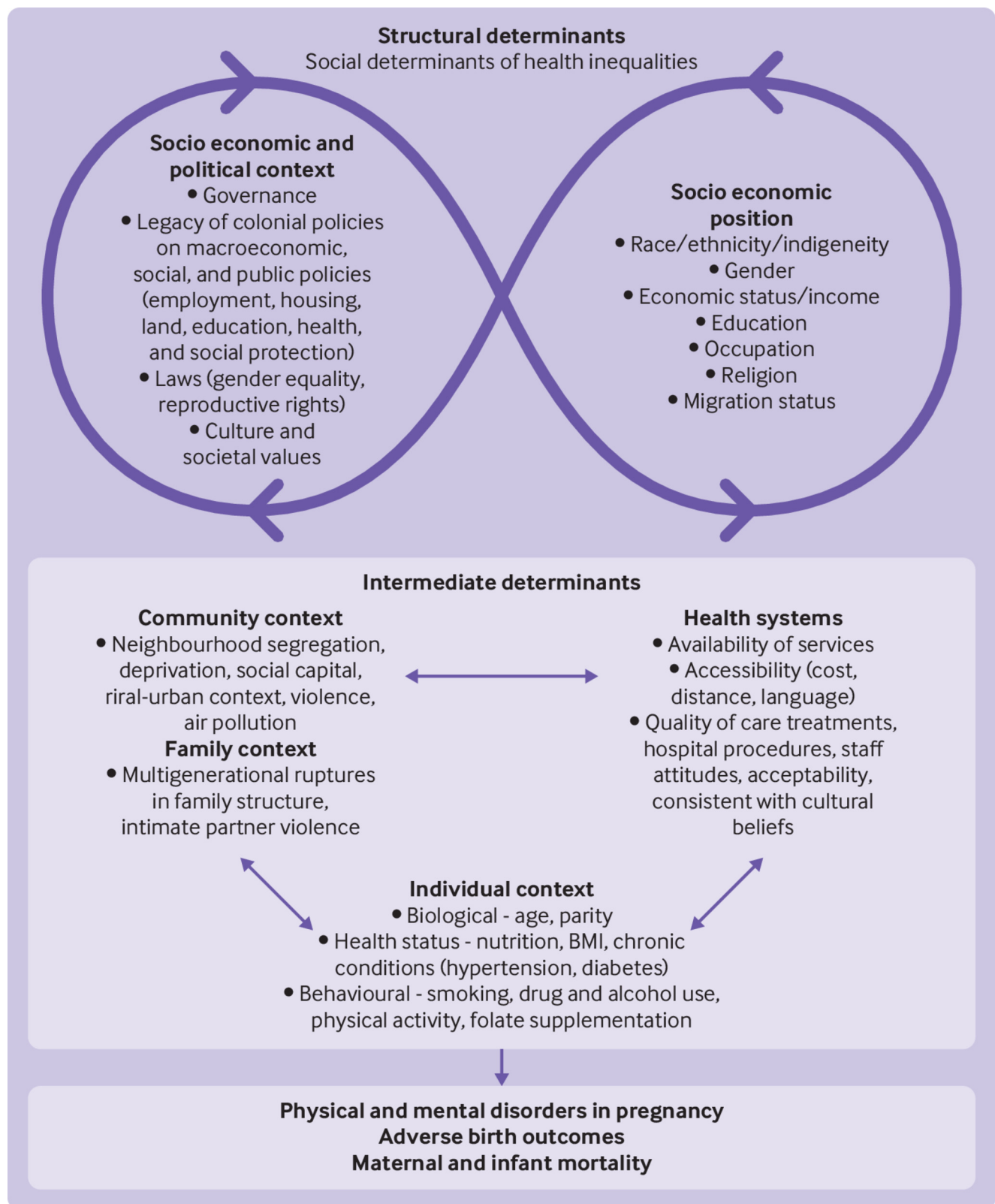


Fig 1 | Structural determinants of health and ethnic inequities in maternal health outcomes

Women from racialised groups experience numerous intersectional disadvantages. Unequal gender norms in most societies mean women receive or are employed in labour forces with lower pay, partly driven by a “motherhood penalty.” Furthermore, women

disproportionately carry the burden of unpaid caring responsibilities, and this burden is unequally distributed among women from racialised groups; an important manifestation of structural racism is differential access to paid parental leave. The

reasons behind these inequalities are complex and include occupational segregation to jobs with less eligibility to paid leave but also differential information sharing, which prevents women from racialised groups from benefiting from entitled leave.¹⁵

Limitations in reproductive rights further intersect with racism to propagate inequities. Black people in the US disproportionately experienced adverse birth outcomes associated with restrictive abortion policies.¹⁶ In Canada, Indigenous women face the prospect of imposed sterilisations during obstetric care, a form of colonial violence that persists to this day.¹⁷

Intermediary determinants

Adverse social conditions driven by structural racism and colonisation, including poverty, forced relocation, and dispossession from traditional homelands, force many women from racialised groups to live in poor and segregated neighbourhoods with low quality housing, high crime rates, lack of health resources, and harmful environmental exposures.¹⁸ Water insecurity for Indigenous populations living on Indigenous reserves and racialised groups living in segregated areas in North America is a current example of environmental racism negatively affecting maternal health.^{19 20} Beyond deprivation in material resources, employment opportunities, transportation, and access to services, these neighbourhoods have higher exposure to environmental pollutants. People from racialised groups disproportionately experience adverse birth outcomes due to air pollution.^{21 22} Additionally, rates of preterm birth, decreased gestational age, and low birth weight remain significantly higher in areas once classified as hazardous for investment under the historical US redlining policy, whereby people in neighbourhoods with high numbers of residents from racialised groups were denied financial services.²³ Similar disparities in adverse birth outcomes have been associated with inequalities in neighbourhood social capital and ethnic minority density in some European countries.²⁴

Women from racialised populations are also much more likely to be exposed to neighbourhood crime in pregnancy, leading to increased levels of prenatal maternal stress and mortality from obstetric related causes.²⁵ Intimate partner violence is also more likely to occur in areas with high rates of community violence and socioeconomic deprivation, and it disproportionately affects people from racialised groups.²⁶ Structural inequalities have toxic consequences for family structures. Systemic social devaluing and undermining of mothers from racialised groups is commonly multigenerational and rooted in colonial policies.²⁷ For over 100 years, from the mid-19th century to the 1990s, Indigenous children in Canada and the US were involuntarily taken from their parents and sent to residential and boarding schools, where they endured forced acculturation and abuse.²⁸ This cycle of externally imposed Indigenous family disruption persists today through removal of Indigenous children by child protection agencies. There are currently more Indigenous children in foster care in Canada than were removed from parents at any one time during the residential school era.²⁸

A hypothesised mechanism by which structural factors affect pregnancy outcomes is related to the direct, biological adverse effects of psychological distress created by “unsafe environments.”²⁹ Biological mediators of psychological distress trigger neuroimmunological and endocrine pathways that can affect fetal growth. The “weathering hypothesis,” first proposed by Geronimus, highlights that the health of women from racialised groups begins deteriorating in early adulthood as a physical consequence of cumulative socioeconomic disadvantage and racism³⁰ with

important implications for maternal and infant health. Indigenous people in countries with colonial histories also have disproportionate burdens of disease, including gestational diabetes, compared with non-Indigenous people.³¹

Access to care

For women and birthing people from racialised populations who experience higher rates of physical and mental multimorbidity, access to high quality integrated care should be a priority. Lack of universal free healthcare accentuates the effects of social deprivation, and black women in the US are more likely than white women to be uninsured and face greater financial barriers in accessing services.³² Even in countries with free healthcare at point of access barriers to admittance to antenatal care exist for racialised groups.³³ Migrant women in high income countries generally experience worse maternal health outcomes than the host populations, with those without legal permits and recent newcomers experiencing language barriers being the most vulnerable.³⁴ Indigenous women face further structural barriers to accessing services, including fear of racism and linked mistreatment, including involuntary procedures such as forced sterilisation,³⁵ lack of community participation in the design and delivery of maternity services, and lack of nearby birthing facilities.³⁶

Experience of services

Racial bias manifests in healthcare delivery at both institutional and interpersonal levels through the alienation and stigmatising of patients from racialised groups, perpetuating racial fault lines.³⁷ For those accessing services, poor quality and discriminatory care are too common.³⁸ Clinicians often undertreat pain during labour and in the postpartum period in women from racialised groups.³⁹ Racial discrimination often intersects with transphobia to create further inequities,³⁸ and trans and non-binary birthing people from racialised groups experience poorer outcomes than those who are white and than racialised cis women. Discriminatory and culturally inappropriate care perpetuates a cycle of mistrust that contributes to reluctance to seek further help for physical and mental health problems.

How can systems change and transform?

Key to addressing mistrust is providing disenfranchised communities with equitable, high quality, and respectful care and ensuring community voices are heard and drive change. We need more accurate data systems for healthcare records with valid and inclusive identification of ethnicity. Data inform services, which is why organisations such as the UK's NHS Race and Health Observatory are calling for investment in translational maternal health research to reduce inequities. The research should include health inequality impact assessments and more comprehensive analysis of available linked electronic health records data within maternal and neonatal services to pinpoint differential access, experience, and outcomes along the care pathway and across systems.⁴⁰ Furthermore, the needs of local populations and community assets can be better understood through increasing peer and lay representation within local health and wellbeing programmes as part of maternity voice partnerships. These approaches are highlighted in the NHS England Patient and Carers Race Equality Framework, which emphasises co-developing culturally appropriate advocacy programmes and providing patient and carer feedback mechanisms to fully embed ethnic minority voices in service planning, implementation, and learning cycles.⁴¹ In the US, the Centers for Disease Control and Prevention set out the Enhancing Reviews and Surveillance to Eliminate Maternal

Mortality (ERASE MM) programme to facilitate an understanding of the drivers of maternal mortality and pregnancy complications across states as well as perinatal quality collaboratives to improve the quality of maternity care.⁴²

Internationally, a coalition of researchers from Australia, New Zealand (Aotearoa), the US, and Canada have made an urgent call for adequately funded, Indigenous led solutions to perinatal health inequities for Indigenous families in these settler colonial countries, citing strong evidence that Indigenous leadership in service design and implementation improves Indigenous maternal and child wellbeing and supports use of health, education, and support services.⁴³ The core pillars of successful Indigenous models align with recommendations in the Race and Health Observatory maternal health report and are applicable to other racialised populations. These include favouring co-produced knowledge and solutions, a culturally appropriate and skilled workforce representative of the community, self-determination and empowerment, continuity of midwifery care, and focusing on family wellbeing.⁴³

What more needs to be done?

In the UK, as part of the covid-19 response, NHS England issued guidance setting urgent priorities to tackle health inequalities,⁴⁴ including ensuring all providers accurately record ethnicity in maternity information systems; integrating maternity, psychology, and reproductive health services; and improving staff experience through the NHS Workforce Race Equality Standard.⁴⁰ Current efforts, although welcomed, do not target more upstream structural determinants and place the onus to change outcomes on health systems. Complex interventions that incorporate local socioeconomic and environmental contexts are urgently required to move the focus away from the individual and towards the communities where they live and the institutions and health systems they navigate in accessing care.

For real change to occur, sustained government funding for national programmes to reduce inequities, such as ERASE-MM, and detailed national policy analysis is required to ensure specific policies targeted at reducing structural inequalities in maternal health are co-developed and consider the different effects on people from racialised groups,⁴⁰ prioritising a life course and intersectional approach. Laws restricting reproductive rights are likely to perpetuate inequities, and their reversal is a matter of racial justice.⁴⁵ Local governments need to invest in community led solutions to make neighbourhoods with a high density of ethnic minority people healthier and support solutions that strengthen economic infrastructure and education. Greater availability of public supported affordable housing⁴⁶ and access to paid maternity pay⁴⁷ improve maternal health.

In tandem with efforts to improve recording of ethnicity in health and social care systems, research funding bodies should strive to include diverse and representative perspectives into research governance and development of interventions. There is evidence that building a diverse workforce that represents the community and supports community led models of care, including doulas and midwives, improves outcomes.⁴⁸ Racial discrimination affects staff retention and morale; organisations need to promote inclusive environments and offer training and support for all staff.⁴⁹ Investment in high quality pre-pregnancy and postpartum care is also essential but requires ongoing commitment to positive and open organisational cultures where racism can be challenged.

To undo racism and its toxic consequences on maternal health we need strong advocacy, including from the medical profession, alongside the structural and policy changes. Multiple forms of

oppression must be named as major contributors to health vulnerability and susceptibility to premature death. Babies and their mothers having a poorer chance of survival based on where they are born, the colour of their skin, or their indigeneity should be a serious concern for us all. The onus is on all of us regardless of background, skin colour, or ethnicity to take immediate and corrective evidence based action to start the process of improving the situation for mothers and babies, wherever they are in the world.

Key messages

- Ethnic minority and Indigenous populations experience large inequities in maternal health outcomes across the globe
- These inequities are globally driven by larger structured social disparities in health determinants (including systemic, institutional, interpersonal racism, historical, and current colonial policies) and health service access
- Interventions must be designed and led by the communities they are designed to serve and ensure the voices of racialised populations are heard and acted on

Contributors and sources: SLH has over 25 years of experience delivering interdisciplinary health inequalities research with an emphasis on race at the intersection of other social identities. YC trained as a nurse and has held various operational and strategic leadership posts in the NHS, including, the director for the workforce race equality implementation team in NHS England/Improvement. JS's research focuses on addressing Indigenous health inequities in partnership with Indigenous communities in Canada. LZ led the Commonwealth Fund's work promoting payment and policy reform in primary healthcare and maternal healthcare through Medicaid and delivery system transformation. LR's interests include community development, analysing social determinants of health, sexual health education, and advocacy (particularly for women of colour and youth), and participatory action research. RC is higher specialty trainee in medical psychotherapy and general adult psychiatry and is researching inequalities in multimorbidity in women of reproductive age. RC drafted the manuscript under the supervision of SLH and JS with extensive input from all other authors, who reviewed and approved the publication. SLH and JS contributed equally and are joint senior authors and guarantors.

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- 1 Powell RA, Njoku C, Elangovan R, et al. Tackling racism in UK health research. *BMJ* 2022;376:e065574. doi: 10.1136/bmj-2021-065574 pmid: 35042720
- 2 Small MJ, Allen TK, Brown HL. Global disparities in maternal morbidity and mortality. *Semin Perinatol* 2017;41:22. doi: 10.1053/j.semper.2017.04.009 pmid: 28669415
- 3 Knight M, Bunch K, Vousden N, et al. MBRACE-UK. A national cohort study and confidential enquiry to investigate ethnic disparities in maternal mortality. *EclinicalMedicine* 2021;43:101237. doi: 10.1016/j.eclim.2021.101237 pmid: 34977514
- 4 Smylie J, Crengle S, Freemantle J, Tauaii M. Indigenous birth outcomes in Australia, Canada, New Zealand and the United States—an overview. *Open Womens Health J* 2010;4:17. doi: 10.2174/1874291201004020007 pmid: 23390467
- 5 Race Equality Foundation. Recording of ethnicity project. 2022. <https://raceequalityfoundation.org.uk/health-and-care/recording-of-ethnicity-project/>
- 6 Knight M, Bunch K, Vousden N, et al. UK Obstetric Surveillance System SARS-CoV-2 Infection in Pregnancy Collaborative Group. Characteristics and outcomes of pregnant women admitted to hospital with confirmed SARS-CoV-2 infection in UK: national population based cohort study. *BMJ* 2020;369. doi: 10.1136/bmj.m2107 pmid: 32513659
- 7 Commonwealth Fund. 2023 scorecard state health system performance. 2023. <https://www.commonwealthfund.org/publications/scorecard/2023/jun/2023-scorecard-state-health-system-performance>
- 8 Smylie J, Harris R, Paine SJ, Velásquez IA, Nimatuv Lovett R. Beyond shame, sorrow, and apologies-action to address indigenous health inequities. *BMJ* 2022;378. doi: 10.1136/bmj.o1688 pmid: 35803599
- 9 Williams DR, Lawrence JA, Davis BA, Vu C. Understanding how discrimination can affect health. *Health Serv Res* 2019;54(Suppl 2):88. doi: 10.1111/1475-6773.13222 pmid: 31663121
- 10 United Nations. State of the world's indigenous peoples. 2009. https://www.un.org/esa/socdev/unpfi/documents/SOWIP/en/SOWIP_web.pdf

- 11 Women's Fund of the Greater Cincinnati Foundation's Research Committee. Analysis of Black women's historical labour trends and systemic barriers to economic mobility. 2019. https://www.womensfundingnetwork.org/wp-content/uploads/2020/10/Final_Hist_Black_Women_Report_Design_reduced.pdf
- 12 Vilda D, Wallace M, Dyer L, Harville E, Theall K. Income inequality and racial disparities in pregnancy-related mortality in the US. *SSM Popul Health* 2019;9:100477. doi: 10.1016/j.ssmph.2019.100477 PMID: 31517017
- 13 Gillborn D, Rollock N, Warmington P, et al. Race, racism and education: inequality, resilience and reform in policy & practice a two-year research project funded by the Society for Educational Studies (SES) National Award 2013. 2016. <https://www.birmingham.ac.uk/research/activity/education/cree/index.aspx>
- 14 Fishman SH, Hummer RA, Sierra G, Hargrove T, Powers DA, Rogers RG. Race/ethnicity, maternal educational attainment, and infant mortality in the United States. *Biodemography Soc Biol* 2020;66:-26. doi: 10.1080/19485565.2020.1793659 PMID: 33682572
- 15 Goodman JM, Williams C, Dow WH. Racial/ethnic inequities in paid parental leave access. *Health Equity* 2021;5:-49. doi: 10.1089/heq.2021.0001 PMID: 34909544
- 16 Redd SK, Rice WS, Aswani MS, et al. Racial/ethnic and educational inequities in restrictive abortion policy variation and adverse birth outcomes in the United States. *BMC Health Serv Res* 2021;21:. doi: 10.1186/s12913-021-07165-x PMID: 34686197
- 17 Basile S, Bouchard P. Free and informed consent and imposed sterilizations among First Nations and Inuit women in Quebec. 2022. <https://files.ccsspnq.com/s/CGKiNtNdTykGF>
- 18 Bailey ZD, Krieger N, Agénor M, Graves J, Linos N, Bassett MT. Structural racism and health inequities in the USA: evidence and interventions. *Lancet* 2017;389:-63. doi: 10.1016/S0140-6736(17)30569-X PMID: 28402827
- 19 Sultana A, Wilson J, Martin-Hill D, et al. Assessing the impact of water insecurity on maternal mental health at Six Nations of the Grand River. *Frontiers in Water* 2022;4:. doi: 10.3389/frwa.2022.834080
- 20 Brown J, Acey CS, Anthonj C, et al. The effects of racism, social exclusion, and discrimination on achieving universal safe water and sanitation in high-income countries. *Lancet Glob Health* 2023;11:-14. doi: 10.1016/S2214-109X(23)00006-2 PMID: 36925180
- 21 Dzekem BS, Aschebrook-Kilfoy B, Olopade CO. Air pollution and racial disparities in pregnancy outcomes in the United States: a systematic review. [Preprint.] Research Square 2021 doi: 10.21203/rs.3.rs-208924/v1.
- 22 Bekkar B, Pacheco S, Basu R, DeNicola N. Association of air pollution and heat exposure with preterm birth, low birth weight, and stillbirth in the US. *JAMA Netw Open* 2020;3:e208243. doi: 10.1001/jamanetworkopen.2020.8243 PMID: 32556259
- 23 Nardone AL, Casey JA, Rudolph KE, Karasek D, Mujahid M, Morello-Frosch R. Associations between historical redlining and birth outcomes from 2006 through 2015 in California. *PLoS One* 2020;15:e0237241. doi: 10.1371/journal.pone.0237241 PMID: 32764800
- 24 Schölermerich VLN, Erdem Ö, Borsboom G, et al. The association of neighborhood social capital and ethnic (minority) density with pregnancy outcomes in the Netherlands. *PLoS One* 2014;9:e95873. doi: 10.1371/journal.pone.0095873 PMID: 24806505
- 25 Wallace ME, Friar N, Herwehe J, Theall KP. Violence as a direct cause of and indirect contributor to maternal death. *J Womens Health (Larchmt)* 2020;29:-8. doi: 10.1089/jwh.2019.8072 PMID: 32202951
- 26 Stockman JK, Hayashi H, Campbell JC. Intimate partner violence and its health impact on ethnic minority women. *J Womens Health (Larchmt)* 2015;24:. doi: 10.1089/jwh.2014.4879 PMID: 25551432
- 27 O'Neill L, Fraser T, Kitchenham A, McDonald V. Hidden burdens: a review of intergenerational, historical and complex trauma, implications for Indigenous families. *J Child Adolesc Trauma* 2018;11:-86. doi: 10.1007/s40653-016-0117-9
- 28 Truth and Reconciliation Commission of Canada. Honouring the truth, reconciling for the future: summary of the final report of the truth and reconciliation. 2015. <https://nctr.ca/records/reports/>
- 29 Simoncic V, Deguen S, Enaux C, Vandentorren S, Kihal-Talantikite W. A comprehensive review on social inequalities and pregnancy outcome: identification of relevant pathways and mechanisms. *Int J Environ Res Public Health* 2022;19:-2022. doi: 10.3390/ijerph192416592 PMID: 36554473
- 30 Geronimus AT. Understanding and eliminating racial inequalities in women's health in the United States: the role of the weathering conceptual framework. *J Am Med Womens Assoc (1972)* 2001;56:-6, 149-50. PMID: 11759779
- 31 Voaklander B, Rowe S, Sanni O, Campbell S, Eurich D, Ospina MB. Prevalence of diabetes in pregnancy among Indigenous women in Australia, Canada, New Zealand, and the USA: a systematic review and meta-analysis. *Lancet Glob Health* 2020;8:-98. doi: 10.1016/S2214-109X(20)30046-2 PMID: 32353316
- 32 CDC. Medicaid and women's health coverage. 2022. <https://www.cdc.gov/nchs/data/hus/hus15.pdf>
- 33 Alderliesten ME, Vrijkotte TGM, van der Wal MF, Bonsel GJ. Late start of antenatal care among ethnic minorities in a large cohort of pregnant women. *BJOG* 2007;114:-9. doi: 10.1111/j.1471-0528.2007.01438.x PMID: 17655734
- 34 Van den Akker T, van Roosmalen J. Maternal mortality and severe morbidity in a migration perspective. *Best Pract Res Clin Obstet Gynaecol* 2016;32:-38. doi: 10.1016/j.bpobgyn.2015.08.016 PMID: 26427550
- 35 Shaheen-Hussain S, Lombard A, Basile S. Confronting medical colonialism and obstetric violence in Canada. *Lancet* 2023;401:-5. doi: 10.1016/S0140-6736(23)01007-3 PMID: 37244682
- 36 Smylie J, Kirst M, McShane K, Firestone M, Wolfe S, O'Campo P. Understanding the role of Indigenous community participation in Indigenous prenatal and infant-toddler health promotion programs in Canada: A realist review. *Soc Sci Med* 2016;150:-43. doi: 10.1016/j.socscimed.2015.12.019 PMID: 26745867
- 37 Sim W, Lim WH, Ng CH, et al. The perspectives of health professionals and patients on racism in healthcare: A qualitative systematic review. *PLoS One* 2021;16:e0255936. doi: 10.1371/journal.pone.0255936 PMID: 34464395
- 38 Birthrights. Systemic racism, not broken bodies. An inquiry into racial injustice and human rights in UK maternity care. 2022. https://www.birthrights.org.uk/wp-content/uploads/2022/05/Birthrights-inquiry-systemic-racism_exec-summary_May-22-web.pdf
- 39 Johnson JD, Asiodu IV, McKenzie CP, et al. Racial and ethnic inequities in postpartum pain evaluation and management. *Obstet Gynecol* 2019;134:-62. doi: 10.1097/AOG.0000000000003505 PMID: 31764724
- 40 NHS Race and Health Observatory. Mapping existing policy interventions to tackle ethnic health inequalities in maternal and neonatal health in England: a systematic scoping review with stakeholder engagement. 2022. https://www.nhs.uk/wp-content/uploads/2022/12/RHO-Mapping-existing-policy-interventions_December-2022.pdf
- 41 NHS England. Advancing mental health equalities. <https://www.england.nhs.uk/mental-health/advancing-mental-health-equalities/>
- 42 CDC. Working together to reduce black maternal mortality. 2023. <https://www.cdc.gov/health-equity/features/maternal-mortality/index.html>
- 43 Hickey S, Roe Y, Ireland S, et al. BOOSt study teams. A call for action that cannot go to voicemail: research activism to urgently improve Indigenous perinatal health and wellbeing. *Women Birth* 2021;34:-5. doi: 10.1016/j.wombi.2021.03.011 PMID: 33935005
- 44 NHS England. Equity and equality: guidance for local maternity systems. <https://www.england.nhs.uk/publication/equity-and-equality-guidance-for-local-maternity-systems/>
- 45 Kozhimannil KB, Hassan A, Hardeman RR. Abortion access as a racial justice issue. *N Engl J Med* 2022;387:-9. doi: 10.1056/NEJMp2209737 PMID: 36069823
- 46 Muchomba FM, Teitler J, Reichman NE. Association between housing affordability and severe maternal morbidity. *JAMA Netw Open* 2022;5:e2243225. doi: 10.1001/jamanetworkopen.2022.43225 PMID: 36413368
- 47 Van Niel MS, Bhatia R, Riano NS, et al. The impact of paid maternity leave on the mental and physical health of mothers and children: a review of the literature and policy implications. *Harv Rev Psychiatry* 2020;28:-26. doi: 10.1097/HRP.0000000000000246 PMID: 32134836
- 48 Commonwealth Fund. Community-based models improve maternal outcomes and equity. 2021. <https://www.commonwealthfund.org/publications/issue-briefs/2021/mar/community-models-improve-maternal-outcomes-equity>
- 49 NHS England. Combatting racial discrimination against minority ethnic nurses, midwives and nursing associates. 2023. <https://www.england.nhs.uk/long-read/combating-racial-discrimination-against-minority-ethnic-nurses-midwives-and-nursing-associates/>