Fertility and SRH: Determinants of low fertility

Delayed fertility, selection and permanent childlessness
Eva Beaujouan - University of Vienna, Karel Neels - University of Antwerp

As childbearing is increasingly postponed across many countries, the time available to have children is shrinking for a growing share of individuals. This study investigates whether delayed entry into parenthood is associated with higher levels of permanent childlessness in populations with late fertility timing.

We apply a life-table approach to micro-level cohort data from Belgian registers and estimate the likelihood of a first birth conditional on remaining childless up to a given age. We complement this with hazard and microsimulation models incorporating frailty to quantify the impact of selection on first birth probabilities at older ages.

In earlier cohorts, most women had their first child at relatively young ages, leaving a small and highly selective group childless by their early thirties. In more recent cohorts, postponement has increased the proportion remaining childless into their late twenties and early thirties, thereby reducing selectivity. This shift initially coincided with rising probabilities of first birth among women still childless in their early thirties.

In the most recent cohorts with completed fertility, however, childlessness by the mid-thirties continues to rise, while progression to first birth at ages 35 and above has ceased to increase in countries with late fertility schedules, but probabilities appear to have plateaued after age 35. At these ages, adjustments for selection through modelling do not substantially alter these low progression rates.

Taken together, the stagnation of late-age first birth rates and the limited role of selectivity suggest that continued postponement is likely to lead to further increases in permanent childlessness.

Hidden heterogeneities, bifurcation of fertility: Age-parity decomposition and typology of fertility change in 21 High-Income Countries, 2010-2020
Aijie Zhang - Max Planck Institute for Demographic Research & University of St Andrews, Mikko Myrskylä - Max Planck Institute for Demographic Research, University of Helsinki, Hill Kulu - University of St Andrews, Henrik-Alexander Schubert - Max Planck Institute for Demographic Research, Sarah Christison, University of St Andrews
Zafer Büyükkeçeci, Koç University

Since the 2008 financial crisis, most high-income countries have experienced sustained fertility decline, widely attributed to the postponement of childbearing. Yet the TFR hides substantial details regarding age and parity, and it remains unclear whether changes in age and parity fertility were similar or different across countries. This study applies a conditional age-parity decomposition to TFR changes in 21 high-income countries over 2010–2020, followed by hierarchical clustering (Ward D2) on parity-specific age-contribution profiles to identify distinct fertility trajectories. Across countries, fertility decline is predominantly driven by falling first-birth rates at younger and prime reproductive ages. The clustering algorithm reveals two distinct regimes. The first — Postponement-Recuperation (11 countries, including the US, Japan, Portugal and several Central-Eastern European countries) — though exhibits heterogeneous TFR paths, with declining first births partially offset by later recovery and contributions from higher-order parities (P2+). The second — Reduced Parenthood Entry (10 countries, including the Nordic states, England&Wales, the Republic of Korea, and several Western European countries) — shows first-birth decline with little compensating contribution from later recovery or higher-order parities, indicating a higher probability of permanent forgone parenthood. A third stage of analysis examines macro-level correlates of cluster membership to identify factors associated with these divergent fertility patterns.

Partners' political homogamy and fertility in the United Kingdom
Alessandro Di Nallo - Universitat Pompeu Fabra, Bruno Arpino - Università di Padova

Does political compatibility between partners shape fertility decisions? This paper examines whether couple-level political concordance — sharing the same party preference — is associated with reproductive outcomes in the United Kingdom. Using three decades of longitudinal data from the British Household Panel Survey and the UK Household Longitudinal Study (1991–2021), we analyse 79,165 couple-year observations nested

within 13,265 couples. Political preferences are measured through a backward-looking majority rule capturing each partner's stable partisan identity, minimising measurement error and reverse causation. We estimate random-effects logit and Poisson models for the probability of a birth within one year and the cumulative number of births within three and five years, with a comprehensive set of sociodemographic controls.

The results challenge the cultural distance hypothesis. Politically heterogamous couples — partners supporting different parties — show birth rates statistically indistinguishable from same-party couples across all outcomes. What predicts lower fertility, and strongly so, is political disengagement. Couples where one or both partners report no stable party attachment have systematically fewer births. Among couples where neither partner ever expressed a political preference, the expected number of births within five years is less than half that of comparable same-party couples (IRR = 0.42). These patterns hold across both broad and party-specific concordance specifications and are robust to alternative modelling choices.

The findings suggest that party affiliation functions as a marker of social embeddedness: it is civic disengagement — not ideological disagreement — that shapes fertility in the British context.

Defensive fertility under structural uncertainty: A socio-ecological fertility trap model of persistent low fertility in post-industrial cities
Kaicheng Zhang - University of Sheffield

Post-industrial cities across East Asia, Eastern Europe, and the United States show some of the lowest total fertility rates ever recorded. Existing frameworks have not fully explained this pattern. Jilin City in Northeast China is a clear example of this situation. Its total fertility rate has fallen below 1.0. This happened even after decades of pro-natalist policies. As a result, Jilin is now one of the cities with the lowest fertility in China. Leading theories of below-replacement fertility include the second demographic transition, the quantity-quality trade-off, and earlier low-fertility trap models. These theories explain income pressures, changes in social norms, and self-reinforcing socialisation. However, none of them treats the physical legacy of industrial production as a separate structural driver of reproductive decisions. This gap is important. In cities like Jilin, ecological degradation, lack of space, and institutional vacuum interact with social uncertainty. Together, they suppress fertility in ways that current frameworks cannot fully capture.This paper proposes a new Socio-Ecological Fertility Trap (SEFT) model. The model is based on 35 semi-structured in-depth interviews. These interviews were conducted across three ecologically different subdistricts in Jilin City. The findings show that ecological uncertainty works through a mechanism called embodied perceptual risk assessment. Previous theories have no category for this mechanism. It creates health anxiety. This anxiety suppresses fertility independently of income levels. The study also finds that the resulting fertility strategies are defensive, not post-materialist. These strategies come from structural insecurity rather than material abundance. They are marked by conditionality instead of fixed preferences. Taken together, these findings show the following: individual defensive responses combine to form a self-reinforcing cycle. This cycle normalises low fertility. At the same time, it makes the structural conditions that sustain low fertility even worse. This creates a trap. Permissive pro-natalist policies only intervene at one point in a five-stage system. Therefore, they cannot break this trap.

Fertility and SRH: Determinants of reproductive outcomes

Causal Links of abortion among Women Living with HIV in sub-Saharan Africa: A pseudo-panel analysis
Enoch Jesugbemi Kolawole, Monica Magadi, Pensee Wu, Thomas Shepherd, Eva Fiks - Keele University

HIV is a major global epidemiological challenge, contributing substantially to mortality, with approximately 40.8 million people currently living with HIV/AIDS. The burden is uneven across regions, with Sub-Saharan Africa (SSA) accounting for about two-thirds of the cases. In SSA, restrictive abortion laws limit access to safe sexual and reproductive health services, especially for women living with HIV (WLHIV). Unsafe abortion is a significant contributor to maternal mortality in the region. There is also a limited application of longitudinal methods to demographic trends in SSA.

This study answers the research question on the causal links between HIV status and pregnancy termination among WLHIV in SSA. It used pooled Demographic and Health Surveys (DHS) data from the 19 countries with

more than one cross-sectional HIV dataset in SSA, applying a repeated cross-sectional design to construct a pseudo-panel based on age groups and country cohorts, addressing the scarcity of longitudinal data in SSA. Repeated-measures multilevel logistic regression and fractional regression using Generalised Estimating Equations were used for analysis.

Findings reveal a significant association between HIV status and pregnancy termination among WLHIV. Key determinants include the age of women and parity, reproductive behaviours such as early sexual exposure, multiple lifetime sexual partners, and reduced fertility intentions.

The study established a robust causal relationship between HIV status and pregnancy termination, shaped by sociodemographic, behavioural, community, and country-level factors. These findings contribute to a deeper understanding of the epidemiology of HIV, reproductive health of the women, maternal mortality in Sub-Saharan Africa, and its methodological approaches.

Birth and maternity care outcomes during and after the COVID-19 pandemic: A population-level cohort study

Lucy Stone - Swansea University

During the COVID 19 pandemic, substantial changes were made to maternity services in the UK, some of which persisted beyond the pandemic. Evidence suggests these changes, alongside mitigation measures, affected maternal and perinatal outcomes. Data were linked to create a cohort of 205,739 live births to women aged 15–49 in Wales between April 2016 and December 2023 using the Secure Anonymised Information Linkage (SAIL) databank. Multilevel logistic regression assessed the impact of the COVID 19 pandemic on birth and maternity care outcomes. The pandemic period was defined as March 2020 to July 2021; August 2021 to December 2023 represented the post pandemic period. Adjusted models included maternal covariates. Compared to pre pandemic, there was a significant increase in home births (aOR 1.64, 95% CI 1.54–1.77) and emergency caesarean sections (aOR 1.17, 95% CI 1.13–1.21) during the pandemic, with a smaller rise in induction of labour (aOR 1.04, 95% CI 1.01–1.07). The odds of a late initial assessment (>10 weeks gestation) were lower during (aOR 0.73, 95% CI 0.71–0.76) and after the pandemic (aOR 0.76, 95% CI 0.75–0.79). Post pandemic, induction of labour remained slightly higher than pre pandemic (aOR 1.03, 95% CI 1.01–1.05), while emergency caesarean sections were substantially higher (aOR 1.45, 95% CI 1.41–1.49). Changes to maternity services had a significant impact on outcomes during and in many cases after the pandemic. While some outcomes improved, notably late initial assessments, others showed sustained disruption, such as higher emergency caesarean rates. These findings demonstrate that rapid system changes can have lasting clinical effects.

Determinants of rising c-section rates: Results from Turkey, 1988 -2018

Sinem Esengen - The Ohio State University, Selin Köksal - London School of Hygiene and Tropical Medicine

Birth is one of the most rapid and highly medicalized operations in healthcare, with C-sections being the most common surgery globally. Despite globally rising C-section rates, research has focused more on low-prevalence settings than on high-prevalence settings. Yet, limited research on high C-section contexts shows that their elevated use may be associated with health disparities, including racial and geographic inequalities, physician overuse, and strain on healthcare systems. We examine the drivers of rising C-section rates in Turkey, where rates have reached 60%, ranking the country among the highest globally. Using the Turkish Demographic and Health Survey (1993–2018), we show trends in C-section rates by age, delivery setting, and region, and conduct a decomposition analysis to assess the contribution of maternal age and delivery setting. Trends show substantial regional disparities, where women in predominantly Kurdish eastern regions are about 10% less likely than those in western regions to have C-sections. Our decomposition results show an overall increase in C-section rates of 42 percentage points, with 58% driven by rate effects. This suggests that even if the distribution of maternal age and delivery setting had remained unchanged, C-section rates would still have risen substantially, pointing to technological improvements and changing clinical practices. The remaining 42% is explained by rising private hospital births and older maternal age. We discuss these findings in the context of the rapid medicalization and privatization of healthcare in Turkey. Our findings have implications for conditions shaping birth experiences and for debates on C-section overuse in high-growth settings.

Social and ethnic inequalities in miscarriage risk across reproductive trajectories in the UK
Jairo Loja-Torres - University of St Andrews, Katherine Keenan - University of St Andrews, Heini Väisänen - Institut national d'études démographiques (INED)

Epidemiological research has traditionally framed pregnancy outcomes largely in terms of individual risk factors and health behaviours, implicitly locating responsibility at the individual level. However, growing evidence suggests that reproductive health outcomes are also shaped by broader social and structural conditions. In the United Kingdom, approximately one in four pregnancies ends in miscarriage, yet the role of social inequalities in shaping this risk remains insufficiently understood. Socioeconomic factors, educational attainment, and race or ethnicity may act as fundamental social determinants of reproductive health at various scales by shaping access to healthcare, exposure to stressors, and opportunities for prevention, diagnosis, and treatment.

This study investigates the relationship between social inequalities and miscarriage risk using longitudinal data from the 1970 British Cohort Study. The analysis draws on sweeps 1 to 11, which include detailed information on health, family formation, and socioeconomic circumstances collected when cohort members were aged 0, 5, 10, 16, 26, 30, 34, 38, 42, 46, and 51 Adopting a life-course perspective, the study examines how early-life and adult social conditions shape the risk of miscarriage during women's reproductive years.

A novelty of the study is the exploration of a range of factors beyond the individual females: encompassing partner-, household- and parental-level social indicators. We also explore ethnic inequalities and the experiences of women from non-White backgrounds. The study combines a life-course perspective with the analysis of social stratification in order to contribute to a better understanding of how structural inequities shape reproductive health outcomes in the UK.

Fertility and SRH: Fertility intentions, desires and decision-making

Social and ethnic inequalities in miscarriage risk across reproductive trajectories in the UK
Yan Zhang & Ann Berrington - University of Southampton

Social fathers, defined as childless men who are romantically partnered and reside with a mother who has at least one dependent child, occupy a theoretically significant yet empirically neglected position in family demography. Research suggests that social parenthood has important implications for fertility behaviour among childless individuals, yet little is known about what social fatherhood means for long-term reproductive outcomes. Drawing on the British Cohort Study 1970, this paper identifies childless men who are social fathers at age 42 and compares them to partnered childless men without stepchildren observed at the same age. We examine how these two groups differ in terms of socioeconomic characteristics and fertility intentions at age 42, before tracing fertility outcomes to age 51. Descriptive findings indicate that social fathers at 42 constitute a socioeconomically distinct group, disproportionately concentrated among men with lower levels of education, more disadvantaged parental backgrounds, and a higher likelihood of having experienced parental separation and stepparent exposure in childhood. Fertility intentions differ markedly between the two groups, with social fathers reporting substantially lower intentions to have biological children compared to their partnered childless peers without stepchildren. Multivariate analyses assess the extent to which differences in fertility intentions are attenuated after accounting for socioeconomic and health-related factors, including indicators of infertility. We further examine whether being a social father at age 42 is associated with biological childlessness by age 51, contributing to broader debates on the demography of childlessness and stepfamily dynamics.

'Polycrisis' and fertility intentions in a high fertility context
Orsola Torrisi - McGill University & LSE, Maia Sieverding - World Bank

A growing body of research emphasises the role of specific crises, adverse events, and the social uncertainty they generate, in shaping fertility outcomes. In low-income, high-fertility settings, everyday unpredictability has also been linked to uncertainty in how individuals articulate their fertility goals, particularly through "non-numeric" responses.

Expanding these literatures, this study examines how multiple sources of social and demographic uncertainty relate to fertility intentions in Sudan, where fertility remains high (4.9 children per woman) and households face a “polycrisis” of interconnected and simultaneous forms of instability. Using data from the first nationally representative survey conducted in the country in nearly a decade, we test whether macro-level sources of uncertainty, such as child mortality levels, and past-year household-level exposure to violent, health, environmental, and economic adversities, jointly and separately, predict (un)certainty in fertility intentions.

Results show that uncertainty related to child mortality is associated with fewer “non-numeric” answers and instead linked to greater decisiveness in intending a birth. While cumulative exposure to disruptive events is generally not linked to fertility intentions, specific experiences, particularly violent and health-related adversities (illness/death of an adult family member), also increase the likelihood of wanting a child in the near future. These patterns are especially pronounced among the less-educated and rural women.

The findings provide new evidence on the roles of macro- and micro-level uncertainty in influencing fertility intentions. They also underscore the importance of examining multiple adversities together and individually to better understand demographic behaviour in a global landscape increasingly characterised by polycrisi

How personality relates to desired and actual fertility among Finnish men and women
Erik Carlsson & Marika Jalovaara - University of Turku

During the recent Finnish fertility decline, childlessness has become increasingly prevalent, while second- and third-birth rates have remained relatively stable. This growing polarization in reproductive preferences and outcomes suggests that fertility decisions may increasingly reflect individual orientations, values, and dispositions, pointing to a potentially larger role for personality traits in shaping contemporary fertility behavior. Yet the association between personality and fertility remains underexplored.

Using Finnish survey data from 2019–2022, this study examines how personality traits are associated with desired and actual fertility. Personality is measured using the HEXACO model, which distinguishes between six primary dimensions of personality (called factors), each composed of four subdimensions (called facets). Whereas previous research has focused on factor-level associations, we make a novel contribution by analyzing how both factors and the more specific facets relate to fertility.

Among women, the factors emotionality, extraversion, agreeableness, and conscientiousness are associated with lower likelihood of desired childlessness, whereas honesty-humility and openness to experience show positive associations. Among men, extraversion is negatively associated and honesty-humility positively associated with desired childlessness. Associations with the desired number of children show similar patterns in the opposite direction. Relationships between personality and actual fertility largely mirror those observed for fertility desires but are generally weaker. Importantly, facet-level analyses reveal substantial heterogeneity within factors, demonstrating that reliance on broad personality dimensions can obscure important associations between personality traits and fertility.

Overall, the findings underscore the importance of incorporating personality, particularly its multidimensional structure, into explanations of contemporary low fertility and rising childlessness.

Gender equality and fertility intentions to have another child in Chinese couples
Shu Li, Ann Berrington, Jason Hilton - University of Southampton

China is experiencing very low fertility. We apply the new home economic theory, the gender equity theory and the gender revolution theory to the Chinese context, arguing that gender equality can be conceptualised in two dimensions (employment and housework) and is associated with fertility intentions. Further, fertility decisions are inherently dualistic; few studies consider the dyadic nature of fertility. Additionally, couples' social media exposure may shape their gender role attitudes. We explore how couples' employment status and division of housework are related to couple-level fertility intentions and how couples' social media exposure moderates the association. The study, using data from the China Family Panel Studies (CFPS) 2020 and 2022, analyses a dyadic sample of 3,546 couples and carries out estimates with descriptive statistics, chi-square tests, and multinomial logistic regression models. The results show that most couples consistently report not intending to have a child in the next two years. Dual-earner couples are the most common labour division model, followed by male-breadwinner households; in contrast, female-breadwinner couples are very

few. There is a pronounced gender gap in couples' housework division, with men spending around 8 hours per week compared to 15 hours for women. We expect that results show that male-breadwinner couples are more likely to consistently agree on the intention to have another child; in contrast, dual-earner couples are more likely to consistently disagree on it; a higher share of males' housework is associated with couples' agreement on fertility intentions; social media exposure may not moderate the relationship.

Small families, conditional choices: Cohort shifts and the persistence of son preference in India
Paramita Majumdar - International Institute for Population Sciences

This study examines how fertility decline in India intersects with son preference, focusing on whether the spread of small family norms is associated with more gender-neutral preferences or remains shaped by children's sex composition. Using data from the fifth round of the National Family Health Survey (2019-21), it constructs age-based cohorts of ever-married women aged 20-49 to analyse cohort shifts in fertility norms and assess how these relate to fertility intentions. The analysis links stated fertility ideals with the desire for additional childbearing using descriptive statistics, OLS models, and logistic regression while controlling for relevant characteristics.

Results indicate a clear shift in mean ideal family size, which declined from 2.37 among women aged 40-49 to 2.12 among those aged 20-29. While son preference in stated ideals has declined modestly, it remains evident across cohorts. Fertility intentions vary sharply by sex composition: 58% of women with only daughters want another child, compared to 32% of those with at least one son. At parity two, women with only daughters have over six times the odds of desiring another child compared to those with at least one son. Even among women with small family ideals, 56% with only daughters want another child, compared to 34% with at least one son.

These findings suggest that fertility transition in India reflects a conditional adaptation, where small family norms are widely adopted but applied selectively. The study highlights the need for policies that address underlying gender preferences alongside fertility decline.

Fertility and SRH: Predicting and understanding sexual and reproductive health needs

Psycho-social and structural drivers of contraceptive profiles among partnered refugee women in Ethiopia
Dagim Habteyesus, Adrien Allorant, Kristine Nilsen, Sarah Neal - University of Southampton

There is a critical lack of analytical framework that disaggregates family planning (FP) nonuse to reveal internal and interpersonal barriers. Using integrated framework of Socio-Ecologic Model (SEM) and Theory of Planned Behaviour (TPB), we introduce an innovative analytical approach by constructing contraceptive behaviour profiles– being in Attitude-Behaviour Gap (the "Gap"-support the use of FP but do not use), being Consistent Non-Users (oppose the use of FP and do not use), and FP Users, among married or cohabiting refugee women in Ethiopia. Data were from cross-sectional baseline of a prospective survey in four refugee camps in Ethiopia. Participants included 1,751 married or cohabiting refugee women aged 15-45 years living in these camps. Using descriptive statistics and multinomial logistic regression, we found that the majority of participants fell into the gap (45%), with equal proportions in the consistent non-user and user groups (27%). Compared with current users, women with a partner who supports FP use were far less likely to fall into the gap group (aOR = 0.35, 95% CI: 0.20-0.60, $p<0.001$) and had a 98% reduction in the odds of being a consistent non-user (aOR = 0.02, 95% CI: 0.01-0.05, $p<0.001$). Women who reported that their religion supports FP use had significantly reduced odds of being consistent nonusers (aOR=0.13, 95% CI: 0.05-0.32, $p<0.001$). Our results demonstrate that FP nonusers are not a homogenous group. To close the gap between FP awareness and actual use, demand-side interventions must address the relational and normative barriers that prevent women from acting on their own reproductive choices, particularly through sustained male engagement and the active involvement of religious leaders who shape community norms.

Examining trends in modern contraceptive use among unmarried adolescents in Sub-Saharan Africa
Chifuniro Somanje - University of Southampton, Amos Channon - University of Southampton, Michael Chipeta - AFIDEP, Sarah Neal - University of Southampton

Adolescents in sub Saharan Africa (SSA) continue to face major barriers to realising their sexual and reproductive health and rights (SRHR). Unmarried adolescents in particular encounter restrictive social norms, stigma, and provider biases that limit access to contraceptive information and services. Despite global commitments to expand equitable contraceptive access, the region maintains high adolescent birth rates and persistent gaps in modern contraceptive use. Understanding long term patterns is essential for informing responsive policies and programmes.

This study analysed pooled Demographic and Health Survey (DHS) data from 22 SSA countries (2000–2024), focusing on unmarried adolescents aged 15–19. Modern contraceptive indicators were harmonised across survey rounds. Descriptive trend analyses compared contraceptive use across marital status and age cohorts, and a dual axis typology assessed compound annual growth rate (CAGR) in modern contraceptive prevalence (mCPR) alongside changes in the proportion of unmarried adolescents who had a first birth before age 19.

Trends in modern contraceptive use among unmarried adolescents varied widely. Some countries, such as Sierra Leone and Mali, recorded substantial increases, while others showed stagnation or decline. Unmarried young women aged 20–24 consistently reported higher mCPR than adolescents, and married adolescents had the lowest use across most settings. The typology revealed four distinct trajectories, including countries with rising mCPR and declining adolescent fertility, and others where contraceptive gains did not correspond with reductions in early first births.

Progress in modern contraceptive use among unmarried adolescents in SSA remains uneven and does not consistently align with declines in adolescent fertility. These divergent trajectories underscore the need for context specific strategies that address structural, social, and policy barriers, strengthen adolescent responsive services, and challenge restrictive norms to advance SRHR and reduce early childbearing.

“I was just fobbed off!” How Black women must “play the game” as to maintain reproductive autonomy
Annabel Sowemimo - KCL

Data across the United Kingdom (UK) shows that the uptake of Long-Acting Reversible Contraception (LARCs) among Black contraceptive users remains lower as compared to their white counterparts whilst, rates of abortion among Black communities remains comparatively higher. These statistics are consistently framed as a problem by clinicians, policymakers and those working with public health.

Meanwhile, Black women in Britain have consistently expressed concern on the disportionate use of contraception and abortion by health providers within their communities compared to the lack of provision that they receive when accessing wider reproductive healthcare including maternity services since the late 1970s (Bryan et al., 1984, Douglas, 2019). A report (TAP Project, 2022) examining the experience of Black women with wider reproductive health care including menstrual conditions echoed similar themes of reproductive coercion, medical silencing and medical racism. Black women may avoid complaining about their negative healthcare experiences due to fears of reinforcing the trope of the angry or aggressive Black women (Carby, 1987, Collins, 1991, Gilkes,1983). The trope of the aggressive Black matriarch, who is unable to keep a man nor successfully raise her offspring has been used to control the narrative of Black womanhood.

Whilst the terms reproductive coercion or contraceptive coercion have no singular definition, it is most often used in relation to abuse within relationships; ‘it is most often used to refer to the actions that a person’s partner or family member in preventing or promoting pregnancy, irrespective of the person’s wishes’ (Lowe, 2023, Rowlands, 2022, Rowlands et al., 2022). This may include contraceptive sabotage, non-consensual use of condoms or even the forced use of abortifacients (Rowlands et al., 2022). Some groups have been identified as being at increased risk of reproductive coercion including those experiencing intimate partner violence, those engaged in transactional sex (Willie et al., 2021), those from racially marginalised backgrounds (Tarzia and Hegarty, 2021) and those living in a country where they do not speak the main language spoken (Shreeran et al., 2022). Whilst the study of reproductive coercion presents many challenges due to the lack of reporting, there is a growing body of academic evidence (Moulton et al., 2021, Holliday et al., 2018).

In this paper, I will share the preliminary findings from my doctoral thesis including my archival research from the Black Cultural Archives (BCA) in Brixton, my interviews with contraception users and healthcare providers. BCA documents reveal how Black women have built movements to resist dominant, negative narratives about themselves and their reproductive lives, using community to help maintain their reproductive autonomy.

Preliminary interview findings reveal a willingness to use LARCs to prevent pregnancy and manage menstrual conditions. Several Black women interviewees expressed concern that they encounter discrimination from providers and feel their pain is more likely to be trivialised. Others felt that societal stereotypes such as the "the Angry Black" women still impact their provider interactions.

Many of the participants remarked that such treatment from providers has led them to have to put on act to either appear more respectable or, amplify their health symptoms so that they can successfully navigate health care and have their concerns taken more seriously.

A district-level maternal vulnerability index: Linking maternal risk to severe maternal morbidity and neonatal outcomes

Bhanupriya Pareek & Ramna Thakur - Indian Institute of Technology Mandi

Adverse pregnancy outcomes often lead to poor neonatal health and maternal morbidity, which plays a vital role in shaping health as well as survival. Despite its importance, region wise evidence on the factors underlying adverse maternal outcomes in India remains limited. Existing studies focused on hospital-based causes of adverse pregnancy outcomes, maternal morbidity severity scores and MCH-based indices identifying districts with poor healthcare utilization. At the same time, less attention has been given to the broader set of structural, socioeconomic, and healthcare-related risk factors that shape women's underlying maternal health conditions.

This study develops a Maternal Vulnerability Index (MVI) to examine district-level disparities in maternal health across India and to assess its association with severe maternal morbidity (SMM) and adverse neonatal outcomes. The National Family Health Survey (NFHS-5) includes 175,887 women whose most recent birth occurred within five years preceding the indicators were generated and normalized with higher values representing higher vulnerabilities across the districts. Domain-wise latent scores have been derived by applying the exploratory factor analysis. Later, scores were standardized and aggregated to form the composite MVI.

Findings suggest the district with the highest vulnerability is concentrated towards the northeastern and tribal regions, whereas the least vulnerable districts are located in more developed regions with stronger health systems. The MVI provides a robust policy tool for identifying high-risk districts and guiding targeted evidence-based maternal and neonatal health interventions.

Furthermore, the study applies global and local Moran's I to identify spatial clustering and hotspot regions of maternal vulnerability. It then uses Spatial Bayesian Conditional Autoregressive (BCAR) Poisson regression models to examine the association of MVI with severe maternal morbidity (SMM) and adverse neonatal outcomes, providing a policy-relevant tool for targeted interventions.