

England's preconception health report: convenient and valuable data

Schnoenaker et al provide a snapshot of preconception health in England, proposing a set of measures for ongoing annual surveillance. Their cross-sectional 'report card' reflects over 650,000 pregnant women booked in NHS England in one year from 2018-19. In total 9 in 10 women had at least one risk indicator for adverse pregnancy outcome or long-term health problems for mother or baby. Nearly three quarters of women did not take folic acid supplements before pregnancy, half were living with overweight or obesity, and around a quarter entered pregnancy with a previous obstetric complication or a pre-existing physical and/or mental health condition.

The authors' step-wise approach to identifying priority preconception indicators began with a review of guidelines, recommendations, position statements, policy reports and data sources for potential indicators that met pre-specified criteria (potentially modifiable, population prevalence of at least 5%, less than 30% missing data). This was followed by a ranking exercise among 27 multi-stakeholder members of the established UK Preconception Partnership to prioritise 10 measures for ongoing surveillance. These include: 1) not taking folic acid supplementation pre-pregnancy 2) obesity 3) complex social factors 4) living in a most deprived area 5) smoking around the time of conception 6) overweight 7) pre-existing mental health condition 8) pre-existing physical health condition 9) previous pregnancy loss 10) previous obstetric complication.

The relevance of such an annual report card is clear when considering the population attributable fraction of these risk factors to key adverse pregnancy outcomes in England including stillbirth and maternal death. Reports in the past decade suggest that socioeconomic factors contribute to over 11% of stillbirths (Jardine et al, *Lancet*, 2021, vol 398, p1905-1912), obesity contributes to around 30% of diabetes in pregnancy and 1 in 6 caesarean births (Oteng-Ntim, *Plos One*, 2014, 8(1): e53749), while medical comorbidities and previous pregnancy problems contribute to 66% and 19% of UK maternal deaths respectively (Nair, *BJOG*, 2016, vol 123, p1654-1652).

Of the ten indicators included in the set for annual reporting, one is of direct relevance to the NHS England Saving Babies' Lives Bundle Version 2 (SBLCBv2, NHS England, 2019) - reducing smoking - and thus will help with efforts to monitor success of the bundle. The remaining 4 elements of the bundle reflect care provided during pregnancy rather than preconception health per se.

NHS digital receives the data to be included in the report card from each NHS Trust in England. In terms of completeness, the report card reflects 100% capture of area-based level of deprivation and over 92% of data on smoking history in pregnancy. Less certain are the indicators related to obstetric history, pre-existing physical and mental health conditions, which were assumed to be absent if not recorded as 'yes'. The final 10 indicators thus reflect a mix of convenient (relatively complete) data and that which has real potential to be modified by public health interventions.

Overall this contemporary snapshot of preconception health in England provides a baseline from which future initiatives need to build in order to improve pregnancy outcomes and the health of women and children in later life.

Declaration of interest: Mairead Black receives funding from the Medical Research Council, UKRI and the NIHR as a co-investigator on a grant titled 'Multimorbid Pregnancy: Determinants, Clusters, Consequences and Trajectories (MuM-PreDiCCT)' led by University of Birmingham. 2021-2024.