Frequent SMU enabled young people to maintain and expand their social networks but a need to be constantly available was sometimes overwhelming, suggesting an 'over-stimulation' effect.

Conclusion Caregivers and teachers should take a nuanced approach to addressing young people's SMU rather than following the dominant alarmist discourse. A measured approach should be taken, providing clear, reasonable guidance and boundary-setting but also promoting trust and responsible time management, and acknowledging the role of social media in making connections. Understanding and sharing in online experiences is likely to promote social connectedness. Supporting young people to negotiate breathing space in online interactions and prioritising trust over availability in peer relationships may optimise the role of social media in promoting peer connectedness in particular.

P09 ESTIMATION OF THE CAUSAL EFFECT OF CHURCH ATTENDANCE ON RISK OF *MYCOBACTERIUM TUBERCULOSIS* INFECTION IN YOUNG CHILDREN IN RURAL MALAWI USING TARGETED MAXIMUM LIKELIHOOD ESTIMATION

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Background Important gaps exist in our understanding of *Mycobacterium tuberculosis* transmission, especially in high HIV prevalence settings. There is significant uncertainty about where most transmission takes place in the community, impeding control efforts. *M. tuberculosis* infection in young children is a sensitive indicator of recent transmission and may provide a means of identifying locales of community transmission. We estimate the causal effect of church attendance on incident *M. tuberculosis* infection in young children.

Methods Children aged under six years residing within a demographic surveillance site in Malawi were recruited. Tuberculin skin testing (TST) was performed at baseline and repeated after 1–2 years. At the time of the 2nd TST, structured guardian interviews were undertaken to ascertain any known contact with tuberculosis within the previous 12–18 months. Detailed household socioeconomic and demographic data were available. Very few children had never attended church in the previous year (<4%) so the unexposed group was combined with the next category (1–3 attendances) to form the baseline. Incident infection was defined as an increase in TST induration of ≥13mm from 1st TST to 2nd TST among those with indurations of <10mm at baseline (based on mixture analysis). We used hierarchical targeted maximum likelihood estimation (TMLE) to estimate the causal effect of church attendance on infection incidence accounting for clustering at the community-level. Confounders included age, sex, household socioeconomic status and time between TSTs.

Results 2349 children were eligible for inclusion, of whom 2019 (86%) had a 2nd TST placed and data on church attendance. 66 (3.2%: 95% CI 2.5–4.1) children had evidence of TST-conversion; 3/1795 (1.4%: 95% CI 0.3 – 4.0) among those with <4 attendances and 633.3%: 95% CI 2.5–4.2) in those with ≥ 4 attendances. The estimated adjusted risk ratio was 2.8 (95%CI 1.2 – 6.7; p-value 0.023) for church attendance compared to baseline group.

Conclusion High levels of church attendance (≥ 4 per year) increased the risk of incident infection by 2.8-fold compared to church attendance of less than 4 attendances per year in young children in rural Malawi. Simple infection control practices, such as opening windows or even holding congregations in outdoor spaces, may be highly beneficial in mitigating the risk of community *M. tuberculosis* transmission and other respiratory/airborne pathogens.

P10 REALIST REVIEW LINKING POLITICAL EXPOSURES TO CHILD AND MATERNAL HEALTH OUTCOMES

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Background There are longstanding conceptual and theoretical links between political exposures and population health. Systematic reviews have demonstrated that the welfare state, political tradition, democracy and globalisation exert an important influence on population health outcomes. However, there has been no systematic analysis of the mechanisms by which these effects may operate. Therefore, taking a focus on child and maternal health outcomes, a realist re-synthesis of the dataset from an existing systematic review is presented.

Methods In order to systematically evaluate the mechanisms by which political effects on child and maternal health operate using realist methods, searches from an existing systematic review up to November 2017 were used. Ten databases were searched, and supplementary web searches and citation chasing were conducted. Included studies quantitatively investigated the link between the welfare state, political tradition, democracy or globalisation and child or maternal health outcomes in at least two countries. Following standardised duplicate screening and data extraction, initial realist theory generation took place, followed by theory adjudication to determine final theories. As realist methods were used, there was no standardised assessment of risk of bias.

Results 35,333 unique records were identified, of which 255 proceeded to full-text review, 176 to inclusion in the original systematic review, and 67 were included in this realist review on child and maternal health outcomes. Sixty-three of these studies were ecological and included data from 1950–2014. Six initial theories were generated. Following theory adjudication, three theories in revised form were supported and formed the final programme theories. These related to a more generous welfare state leading to better child and maternal health especially in developed countries through progressive social welfare policies, left-of-centre political tradition leading to lower child mortality and low birth weight especially in developed countries through greater focus on welfare measures, and increased globalisation leading to greater child and infant mortality and youth smoking rates in LMECs through