Methods Among 652,880 women with their first antenatal (booking) appointment recorded in the national Maternity Services Dataset between April 2018 and March 2019, 514,227 (78.8%) had valid data on all relevant variables and were included in analysis. Women reported their smoking status (including prior cessation), age, and ethnicity. Level of deprivation was based on postcode and expressed as the Index of Multiple Deprivation. Descriptive analyses examined differences in smoking status by age, ethnicity and level of deprivation (deciles). Proportions were mutually adjusted for socio-demographic characteristics, and chi-square tests determined statistical significance.

Results Women had a mean age of 29.8y (SD 5.7), a median gestational age of 9.7 weeks at booking (interquartile range 8.4–11.4) and 35.6% were pregnant for the first time. Almost 1 in 4 women (23.5%) smoked 12 months before conception, 20.8% smoked around conception and 13.1% at booking. Smoking 12 months before conception was highly prevalent in women aged <20y (45.3%) and decreased to 16.5% in those aged ≥35y. The proportion who smoked before conception also decreased across level of deprivation, from 36.1% (most deprived areas) to 15.5% (least deprived area). Smoking uptake and/or increase cessation support, particularly among women in England, and socio-demographic differences in smoking cessation are most pronounced before pregnancy. This suggests targeted efforts are needed to reduce smoking uptake and/or increase cessation support, particularly for younger women of reproductive age, those living in the most deprived areas, and women of white and mixed ethnicity.

Results In total, across all paired comparisons, N=3284 participants were asked about the level of their prior knowledge on public understanding across a range of harmful products. The difference in groups was predominantly due to the topic before responding, along with age, gender and education level. We ran logistic regression models within each set of argument topics to examine the binary outcome of ‘uncertain/certain it doesn’t increase risk’ vs ‘certain it does increase risk’ in industry vs non-industry texts. We then pooled the results together in a random-effects meta-analysis.

Conclusion Smoking before and during pregnancy remains common among women in England, and socio-demographic differences in smoking cessation are most pronounced before pregnancy. This suggests targeted efforts are needed to reduce smoking uptake and/or increase cessation support, particularly for younger women of reproductive age, those living in the most deprived areas, and women of white and mixed ethnicity.
Abstracts

THE ROLE OF SOCIOECONOMIC DISPARITIES IN COGNITIVE AGEING: A CROSS-COUNTRY COMPARISON BETWEEN ENGLAND AND CHINA

Background In the context of rapidly ageing populations worldwide, this study aims to investigate a cross-country comparison of the relationship between various socioeconomic markers such as education, household wealth, and urbanicity with cognitive decline over 8 years in England and China.

Methods We used data from 7,200 adults aged 50+ from the English Longitudinal Study of Ageing (ELSA) and Chinese Health and Retirement Longitudinal Study (CHARLS), national representative samples of English and Chinese populations. ELSA and CHARLS are similar in their study design and have comparable measures at each wave. For these analyses, we used the available data spanning over 8 years across ELSA wave 5 (2010/11) to wave 9 (2018/19); and CHARLS waves 1 (2011) to 4 (2018). The outcome was the change in memory assessed over time using immediate and delayed 10-word recall tests (max score 20) over 4 waves at every two-year follow-up within each of the two cohorts. We measured socioeconomic status at baseline, including individual-level (education and wealth) and area-based characteristics (urban/rural) with similar comparable measures within each cohort. Educational attainment was similarly classified into three categories: below A-level, A-levels or equivalent, and university degree. Total household wealth was classified into quintiles. The associations between each SES marker and cognitive decline over an 8-year follow-up were examined by linear mixed models assessed comparatively within each country.

Results In English adults, we found a significant protective association between higher levels of education and baseline memory (intercept beta (β) =7.8, standard errors (SE)=0.15) with a β =1.9, SE=0.9 higher memory scores for those with vocational training and β =2.9, SE=0.2 for those with a degree. A slower decline in memory over time was observed for those with intermediary education β =0.6, SE=0.2 independent of all covariates. These associations were similar across countries but with more robust protections for those with intermediate levels of education in the Chinese population compared to England. Lastly, there was a significant positive association between living in an urban area and higher baseline memory with β =0.9, SE=0.6 and slower memory decline over time β =0.6, SE=0.1, particularly in China, but not in England. No associations were found with the level of wealth.

Conclusion These results imply that a socioeconomic advantage in terms of higher education at the individual level was associated with a slower memory decline over almost a decade both in England and China, with a most pronounced difference in participants living in rural China. Public health strategies for preventing cognitive decline should target socioeconomic gaps to reduce health disparities and protect those particularly disadvantaged.

Friday 17 September

Inequalities, 13.00 - 15.30

LOCAL HOUSING SERVICES SPENDING AND PREMATURE MORTALITY IN ENGLAND: A LONGITUDINAL ECOLOGICAL STUDY*

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Background The UK 2008 financial crisis led to austerity measures being introduced in the UK, severely affecting local government. Cuts to central government funding have led to reduced income for spending on local services that potentially promote health, such as housing services. Housing services include a variety of critical services targeted at providing homelessness prevention and relief. There is an extensive body of evidence demonstrating an association between housing, homelessness and poor health. We investigate whether those areas that experienced a greater decline in housing services