Results The results show that people who lived in the most deprived area were less likely to participate in arts activities (ATT=-0.42, 95%CI=-0.55,-0.29, p<0.001), attend cultural events (ATT=-0.36, 95%CI=-0.46,-0.27, p<0.001) or visit museums and heritage sites (ATT=-0.39, 95%CI=-0.49,-0.29, p<0.001). Sensitivity analyses testing on different sub-samples yield similar results. This indicates that our model successfully predicts low engagement in arts activities, cultural events and museums and heritage sites amongst those who lived in a deprived area across various populations.
Conclusion This study show that people who live in the most deprived area are less likely to participate in arts activities, attend cultural events or visit museums and heritage sites, independent of identified demographic and socioeconomic characteristics. Our findings suggest that addressing potential structural or neighbourhood factors may help increase individual motivation and capacity to engage in cultural activities.

P63 THE SOCIAL AND PHYSICAL WORKPLACE ENVIRONMENT AND COMMUTE MODE: A NATURAL EXPERIMENTAL STUDY

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Background Despite strong evidence for health benefits from active travel, levels in the UK remain low. Changes to the physical and social workplace environment might encourage active travel but there is little high quality evidence for this.
Methods Data come from 419 participants in the Commuting and Health in Cambridge study, who completed postal questionnaires in 2011 and 2012. Participants lived and worked in the Cambridge area and were predominantly recruited through their workplaces. Each participant's workplace environment was summarised using the number of physical characteristics from eight potential options (e.g. bicycle parking, shower facilities) and their level of agreement with five statements about workplace social norms around commuting (e.g. colleagues walk to work). We used a natural experimental approach to explore associations between changes in the physical and social workplace environment over time and changes in the proportion of commute trips i) exclusively by private motor vehicle, ii) exclusively by active modes and iii) including active modes, using fractional response logit regression in Stata 15, StataCorp. We additionally examined whether these associations differed between men and women.
Results In adjusted analyses, an increase of one physical characteristic was associated with a 2% (95% confidence interval 0 to 4) reduction in the proportion of commute trips by private motor vehicle and a 2% (95% CI 0 to 4) increase in the proportion of commute trips which included active modes. In sex stratified analyses these associations were only seen in males, with a 3% (95% CI 1 to 6) reduction in commute trips by private motor vehicle and an increase in commute trips including active travel of 5% (95% CI 3 to 8).

A change to more favourable social norms for walking or cycling among workplace management was associated with an increased percentage of commutes including active modes in women (4%, 95% CI 1 to 7) but not men. However, in both genders a change to more favourable social norms around colleagues' cycling was associated with reduced commuting by exclusively active modes (-3%, 95% CI -5 to -1).
Conclusion This study provides robust longitudinal evidence for sex differences in the associations between workplace environment and commute mode. Physical factors were associated with more active commuting in men, while the social environment appeared to have more complex associations that were stronger among women. Although this study was small and geographically circumscribed, its findings propound larger studies in more diverse contexts.

P64 UNDERSTANDING PARADOXICALLY LOW RATES OF SELF-HARM IN A DEPRIVED, ETHNICALLY DIVERSE URBAN COMMUNITY IN THE UK: A THEMATIC ANALYSIS OF QUALITATIVE INTERVIEWS AND FOCUS GROUPS

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Background Epidemiological studies show rates of self-harm through injury or poisoning vary substantially between different social contexts. Socio-economic deprivation predicts risk at individual and community level. However, despite high poverty rates, London has low rates of self-harm overall and contains highly deprived areas with paradoxically low rates. Using the stress process model as a theoretical framework, we explore why one such community exposed to multiple, chronic stressors, might nonetheless appear to have low rates of self-harm.
Methods This study forms part of a wider mixed methods project which used clinical data on service use following self-harm to calculate age standardised incidence rates by small-area in South East London, 2009–2016. These were combined with the Index of Multiple Deprivation to identify a case study area that was persistently deprived with below average self-harm rates. Semi-structured interviews were conducted with fourteen people working, paid or as volunteers, within community organisations serving the area. Two focus groups were conducted with 12 people currently resident in the area. Topic guides covered aspects of the area that impacted mental health positively and negatively, how people locally responded to distress and attitudes and responses to self-harm. A thematic analysis was conducted, with themes generated following discussion between two independent coders.
Results The case-study area was ethnically diverse, with a large Black population, which was reflected in the study sample. Participants reported that people in the community were exposed to multiple, chronic stressors related to marginalised social statuses and the social environment, with significant impacts on mental health. These were partly buffered by social resources related to community solidarity and an understanding of stressors as communal challenges, as well as a culture of self-reliance amongst individuals. However, identifying oneself as mentally ill, especially through being known to

have intentionally harmed oneself or attempted suicide, was described as highly risky. Doing so would diminish a person's social status in this context, exposing them to additional stressors during interactions within their community and with services. Consequently, people tended to hide mental distress and respond with behaviours less obviously linked to mental illness than self-harm.

Conclusion The stressors experienced by this deprived, ethnically diverse urban community acted to both make self-harm less common and reduce help-seeking following it, despite mental distress being common. When measuring mental health need in a population the influence of social context on reported outcomes needs to be considered to avoid reinforcing existing health inequalities.

P65 HOW ARE OCCUPATIONAL HISTORIES ASSOCIATED WITH SELF-RATED HEALTH IN MIDDLE-AGED ADULTS? A CROSS-SECTIONAL ANALYSIS OF RETROSPECTIVE UK BIOBANK DATA

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Background Employment and occupation can greatly influence one's life course, identity, resilience, health and health inequalities. At the same time, the working environment is rapidly changing, with flexible and agile working conditions and extended working lives, often resulting in 'non-traditional' career trajectories. We aimed to explore and identify common occupational history patterns and assess the associations between these patterns and self-rated health.

Methods We analysed baseline UK Biobank data to construct participants occupational histories using employment start/end dates to identify patterns of employment status during working life, with each year being categorised into different employment or employment gap states. We used sequence analysis, followed by optimal matching and cluster analysis methods to classify respondents' occupational history patterns. We produced Sequence Index Plots (SIPs) by gender and age groups. Theoretically derived occupational history patterns based on the SIPs were compared to the data-driven ones, to determine final patterns. Logistic regression models were run using occupational histories as explanatory variables for the health outcome of self-rated health (dichotomised: 'excellent/good' versus 'fair/poor').

Results There was good agreement between the SIPs and cluster analysis; resulting in 3–5 different occupational history patterns per age/gender group, including continuous employment, employed then retired and employed with breaks for education and caring responsibilities as examples. Women aged 40–49 had better overall self-rated health if continuously employed compared with those with a pattern that included employed/in education/caring responsibilities (OR=0.80; CI:0.69, 0.93), or those off work at some point due to ill health (OR: 0.68; CI: 0.59, 0.79). Men aged 40–49 reported worse self-rated health if employed and retired (OR=0.64; CI:0.53, 0.78)) or were off work at some point due to ill health (OR=0.42; CI: 0.31, 0.57). Women aged 50–59 and 60–69 tended to have better self-rated health if retired, even if their employment histories involved multiple gaps due to caring responsibilities or short-term employment. This was not the case for men; being continuously employed or continuously employed and then retired was generally associated with better self-rated health compared to groups with non-continuous employment.

Conclusion Continuous employment appeared to be associated with better self-rated health in men but not always for women. Our study is limited by the retrospective nature of the data and the limited representativeness of the study population. The modern working environment is rapidly changing, increasingly giving rise to 'non-traditional' career trajectories which might result in future adverse health impacts.

P66 ESTIMATING INEQUALITIES IN MODERATE-VIGOROUS PHYSICAL ACTIVITY AMONG ADOLESCENTS IN ENGLAND AND THE US USING HURDLE MODELS

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Background Evidence is unclear on whether inequalities in average levels of moderate-vigorous physical activity (MVPA) reflect differences in participation, differences in the amount of time spent active, or both. Using self-reported data from n=4874 adolescents aged 11–15 in England (Health Survey for England: 2008, 2012, 2015) and n=3065 adolescents aged 12–15 in the US (NHANES: 2007–16), we examined inequalities in these separate aspects for overall- and domain-specific MVPA.

Methods Socioeconomic position (SEP) was indexed by tertiles of equivalised household income (England) and the family income-to-poverty ratio (FIPR, US). Hurdle modelling is a novel way of analysing MVPA data with: (1) excessive zeros (non-participation), and (2) a continuous positively-skewed part (the amount of time active participants spend being active). We applied gender- and country-specific models to estimate inequalities in three aspects: (1) the probability of doing any MVPA, (2) the average hours-per-week (hpw) spent engaged in MVPA, and (3) the average hpw MVPA conditional on participation (MVPA-active). Using complete-case analyses adjusted for the complex survey design, absolute differences in MVPA (e.g. hpw) between adolescents in the highest versus lowest SEP were summarised using average marginal effects (AMEs) with 95% Confidence Intervals (95% CIs) after confounder adjustment (body mass index).

Results Inequalities in overall MVPA were observed in the US, but not in England. For example, the AMEs for girls in the US in the highest versus lowest SEP were 3.2 hpw (95% CI: 1.9 to 4.6 hpw) and 3.0 hpw (1.7 to 4.4 hpw) respectively for MVPA and MVPA-active. Inequalities in sports participation were evident for girls in both countries (AMEs for sports MVPA-active: England: 0.7 hpw (0.1 to 1.4 hpw); US: 2.5 hpw (1.4 to 3.6 hpw), and for boys in the US (AME: 2.0 hpw; 0.6 to 3.5 hpw). In contrast, boys in the highest versus lowest SEP spent less time on average in active travel (AME for MVPA: England: -0.3 hpw (-0.6 to 0.1 hpw); US: -0.6 hpw (-1.2 to 0.1 hpw)); this finding mainly reflected the difference between SEP groups in the probability of doing any active travel. Girls in the US in the highest versus lowest SEP