ever working night shifts (p=7.3 × 10^{-8}). There was nominal evidence for an inverse association between current shift and rotating work with accelerated ageing (EAA) (mean difference=-0.98 (-1.93, -0.39); p=0.041 and −1.11 (−2.19,–0.04); p=0.041, respectively).

Conclusion Shift work was associated with differential methylation in blood, including a CpG site in *PPARG*. This CpG site is specific to the Illumina EPIC array, not being present on the predecessor 450 K array, and represents a potentially novel finding. PPAR-gamma has been implicated in the pathology of obesity, diabetes and cancer, although further work is required to appraise the causal effect of methylation on health outcomes. Furthermore, there was some evidence that current shift workers had decelerated methylation age compared with non-shift workers. However, the number of shift workers in this study was relatively small and further validation of findings is required.

P9 DOES CHILDHOOD SOCIO-ECONOMIC DISADVANTAGE MODERATE HEALTH BEHAVIOURS AND OCCUPATIONAL AND ENVIRONMENTAL HAZARDS ASSOCIATION'S WITH ADULT LUNG FUNCTION; A CROSS SECTIONAL ANALYSIS USING THE UK HOUSEHOLD LONGITUDINAL STUDY

[1,2]C Carney*, [1]M Benzeval. [1]*The Institute for Social and Economic Research (ISER), University of Essex, Colchester, UK; [2]The Department of Health Policy, London School of Economics and Political Science, London, UK*

Background Lung function is lower in people with disadvantaged socio-economic position (SEP) and is associated with certain health behaviours and exposures. The effects are likely to be interactive, for example socially patterned environmental tobacco smoke (ETS) in childhood is associated with an increased effect of smoking in adulthood. We hypothesise that disadvantaged childhood SEP increases susceptibility to the effect of hazards for lung function in adulthood. We test whether disadvantaged childhood SEP moderates smoking, physical activity, obesity, occupational exposures, ETS and air pollution's associations with lung function.

Methods Data are from the Nurse Health Assessment (NHA) in waves two and three of United Kingdom Household Longitudinal Study (UKHLS). The NHA is drawn from the UKHLS General Population Sample, a stratified, clustered, equal probability sample, and from the British Household Panel Survey sample which began in 1991 as a stratified random sample. Analysis is restricted to English residents aged at least 20 for women and 25 for men; an analytical sample of 16 328. Lung function is measured with forced expiratory volume in the first second (FEV$_1$) and standardised to the percentage of expected FEV$_1$ for a healthy non-smoker of equivalent age, gender, height and ethnicity (FEV$_1$%). A multilevel approach was used with individuals nested in households in neighbourhoods. Using STATA14, a mixed linear model was fitted with interaction terms between childhood SEP and health behaviours and occupational exposures. Cross level interactions tested whether childhood SEP moderated household ETS and neighbourhood air pollution's associations with FEV$_1$%.

Results SEP, smoking, physical activity, obesity, occupational exposures and air pollution were associated with lung function. Interaction terms indicated a stronger association between disadvantaged childhood SEP and currently smoking (coefficient (_b) −6.506%, 95% confidence intervals (95% CI): −9.561%, −3.451%), formerly smoking (_b −2.331% 95% CI −3.674%, −0.988%) and occupational exposures, (_b −1.436% 95% CI −2.725%, −0.147%). Significant interactions were not found with physical activity, obesity, ETS and air pollution.

Conclusion The findings suggest that disadvantaged SEP in childhood may make people more susceptible to the negative effect of smoking and occupational exposures in adulthood. This is important as those most likely to encounter these exposures are at greater risk to their effects. Policy to alleviate this inequality requires intervention in health behaviours and via health and safety legislation.

P10 LONG TERM HEALTH EFFECTS OF NEET EXPERIENCES: EVIDENCE FROM SCOTLAND

[1]Z Feng*, [2]K Ralston, [1]D Everington, [1]C Dibben. [1]*School of Geosciences, University of Edinburgh, Edinburgh, UK; [2]School of Psychological and Social Sciences, York St John University, York, UK*

Background Reducing the number of young people not in employment, education or training (NEET) is high in political agenda in many countries. The Europe 2020 flagship initiative Youth on the Move introduce a number of programmes that tackle this problem. Although NEET young people have been identified as one of the most vulnerable groups since the 1990s, little is known about the long-term effect of NEET experiences, especially the health consequences. This paper investigates whether experiences of NEET young people are associated with poor health.

Methods We used the Scottish Longitudinal Study (SLS), which collates information from the 1991, 2001, and 2011 censuses as well as from vital events, for a 5.3% representative sample of the Scottish population. Linked health data such as hospital admissions and prescribing in general practice are also available. We followed around 14 000 young people who were aged 16–19 in 1991 up to 2010. We explored whether NEET young people in 1991 displayed higher risks of poor physical and mental health in the follow-up period. Three health outcomes are used in the analysis: mortality, hospitalisation and prescription of anti-depressant and anti-anxiety medication. We used logistic regression to model the probability of hospitalisation and poor mental health. We fitted a Cox proportional hazards model to model time to death. Covariates include a number of individual socioeconomic characteristics and local area characteristics.

Results Over 40% of the cohort members have been admitted into hospital, while over 15% have been prescribed with anti-depressant and anti-anxiety drugs, and 1% died in the follow-up period. The NEET status in 1991 appears to be associated with hospitalisation with adjusted odds ratio (OR) of 1.24 (95% Confidence Intervals (CIs): 1.08–1.42). Also the NEET experiences are associated with poor mental health with OR of 1.47 (95% CI 1.27 to 1.71). The hazard ratio of death for NEETs is more than twice that for non-