

CMHP. Reducing child poverty in both lone- and two-parent households also decreased prevalence in CMHP (7.9% [7.0, 8.9]), but resulted in smaller reductions in inequality due to family structure (RR 1.63; RD 4.60). Sensitivity analyses showed that associations between exposure, mediator and outcome were comparable across MCS sweeps.

Conclusion Inequalities in CMHP between lone- and two-parent families in the UK are large, but could be reduced by tackling income inequality.

OP85

PREVALENCE OF PTSD AND COMORBIDITY WITH ANXIETY AND DEPRESSION IN A POPULATION-BASED SURVEY OF WOMEN FOLLOWING CHILDBIRTH

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10.1136/jech-2019-SSMabstracts.88

Background Post-traumatic stress disorder (PTSD) can occur after the experience of real or perceived trauma during childbirth or the postpartum period. Estimates of the prevalence and correlates of PTSD following childbirth vary widely in the literature. The aim of this study was to explore: prevalence of PTSD; comorbidity between PTSD, anxiety and depression; and association between PTSD and sociodemographic characteristics in a large sample of women six months after childbirth.

Methods The study was a cross-sectional population-based questionnaire survey of 16,000 women selected at random from birth registrations. The women had given birth in England during October 2017 and were six months postpartum at the time of the survey. The women received a postal questionnaire, which they could complete on paper, by telephone or online. The questionnaire included validated measures of PTSD (Primary Care PTSD Screen (PC-PTSD)), anxiety (Generalised Anxiety Disorder Scale-2) and depression (Edinburgh Postnatal Depression Scale) in addition to general questions covering health and care during pregnancy, labour and birth, and the postnatal period. Prevalence of PTSD, anxiety and depression was estimated with 95% confidence intervals; association between PTSD and sociodemographic characteristics was explored using logistic regression. Survey weights based on characteristics associated with response were applied to the data.

Results Questionnaires were returned by 4,509 women. The mean age of the women was 32 years (sd=5 years) and the majority were married (64%), born in the UK (77%), and from White British backgrounds (76%). One in ten women (9.4%, 95%CI:8.6–10.3) scored above the cut-off on the PC-PTSD, reporting at least three of the four symptoms of PTSD (re-experiencing, emotional numbing, avoidance, hyperarousal); 2.5% of women indicated that their symptoms were specifically related to their childbirth experience (95%CI:2.1–3.0). The prevalence of anxiety was significantly higher in women with PTSD (score>3) (45.0, 95%CI:40.1–50.0) compared to women without PTSD (score<3) (9.9%, 95%CI:9.0–10.9). Similarly, the prevalence of depression was significantly higher in women with PTSD (59.3%, 95%CI:54.3–64.1) compared to women without PTSD (10.7%, 95%CI:9.8–11.8). Regression analyses indicated that women who were younger, unmarried and born in the UK were more likely to report PTSD.

Conclusion The survey findings indicate a significant proportion of women were experiencing PTSD six months after childbirth. There was high comorbidity between PTSD, anxiety and depression with younger, unmarried, UK-born women being most at risk. Current guidelines recommend screening for anxiety and depression during the postnatal period; a brief screen for PTSD should be included to ensure women with symptoms are identified and offered focused interventions.

OP86

PREVALENCE OF DEPRESSION AMONG PEOPLE WITH DIABETES; A COMPARATIVE ANALYSIS OF ADULTS ACROSS THREE HEALTH SYSTEMS USING NATIONALLY REPRESENTATIVE DATA

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10.1136/jech-2019-SSMabstracts.89

Background Cross country comparison facilitates examination of health-system and country-level similarities and differences on disease burden. Diabetes is a leading global health issue with outcomes influenced by psychological comorbidity. Diabetes is consistently associated with depression in different populations but any association is influenced by variations in prevalence, study design and measure used. We compared depressive symptom prevalence in older adults with and without diabetes across three health systems using a validated measure to examine the causal association between diabetes and depression.

Methods We used data of adults aged 50 years and older, from three nationally representative ageing datasets; The Irish Longitudinal Study on Ageing (TILDA), the English Longitudinal Study on Ageing (ELSA) and the Health and Retirement Study (HRS). Data were collected during 2009–2011 (TILDA), and 2010 (ELSA, HRS). Variables; country, gender, age, education level, marital status and smoking status, were selected a priori using literature and a directed acyclic graph. Variables were self-report, with the exception of ‘country’, which was linked to the original dataset. The 20-item (cut-off-score>16; TILDA) and 8-item CESD (cut-off-score>3; ELSA and HRS) were used to categorise depression. Prevalence was presented as a percentage with corresponding 95% confidence intervals and group-specific differences presented using Pearson’s chi-square test for categorical data and Student’s t-test for continuous data. Binomial logistic regression examined the odds of depression by diabetes status, adjusting for pre-selected variables. Analyses of country-specific factors related to depression is ongoing. Data were analysed using Stata v15.

Results Diabetes prevalence varied across the countries (Ireland; 8% [95%CI:7.5–8.6], England; 11% [95%CI:10.6–12.0], USA; 22% [95%CI:21.7–22.8]; p<0.001) and was consistently higher among males than females (Ireland; 10% [95%CI:8.9–10.8] vs. 6% [95%CI:5.3–6.7], England; 13% [95%CI:12.4–14.5] vs. 10% [95%CI:8.7–10.3], USA; 24% [95%CI:22.9–24.7] vs. 21% [95%CI:20.3–21.8]; p<0.001). Depression prevalence was significantly higher among people with diabetes in all countries (Ireland; 12% [95%CI:9.8–15.1] vs. 10% [95%CI:9.0–10.4], p=0.035], England; 34% [95%CI:31.0–37.0] vs. 22% [95%CI:20.8–22.6]; p<0.001], USA; 20% [95%CI:19.0–21.4] vs. 14% [95%CI:13.6–14.7]; p<0.001], in females (Ireland; 19% [95%CI:14.6–23.9] vs. 12% [95%CI:11.0–12.9]; p=0.001], England; 39% [95%CI:34.2–43.4] vs. 25% [95%

CI:24.0–26.6); $p < 0.001$], USA; 24%(95%CI:21.9–25.3) vs. 16%[(15.4–16.9); $p < 0.001$], and in males (Ireland; 8%[(95% CI:5.3–10.8) vs. 7%[(95%CI:6.1–7.9); $p = 0.644$], England; 30%(95%CI:25.8–33.9) vs. 17%(95%CI:15.7–18.3); $p < 0.001$], USA; 16%(95%CI:14.4–17.7) vs. 11%[(95%CI:10.6–12.2); $p < 0.001$]. After adjusting for all model variables, people with diabetes had 1.5 increased odds of depression compared to people without diabetes [(95%CI:1.4–1.6), $p < 0.001$].

Conclusion In older people in three countries with different health systems, depressive symptom prevalence was (1) consistently higher among men and women with diabetes than non-diabetes counterparts and (2) varied across health systems. While use of self-report data may limit the accuracy of the results, use of the CESD to categorise depression and of large nationally representative datasets strengthens the study. Interrogation of additional country-level factors associated with depression will further explain variation in depressive symptom prevalence across health systems.

OP96

ARE WOMEN WITH CHRONIC POOR MENTAL HEALTH LESS LIKELY TO ATTEND BREAST SCREENING AND DOES THIS EXPLAIN THE SOCIAL AND GEOGRAPHIC VARIATIONS IN UPTAKE? A POPULATION-WIDE RECORD LINKAGE STUDY

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10.1136/jech-2019-SSMabstracts.90

Background Research from the United States (US) provides compelling evidence of disparities in breast screening uptake for women with mental illness, yet few attempts have been made to examine this association in the United Kingdom (U.K) where healthcare is free at the point of use. It is well established that mental illness is not evenly distributed across the population. For example, mental illness is more prevalent in individuals who are unmarried, socially deprived, and residing in urban areas. Interestingly, these attributes are also strong predictors of lower attendance at breast screening, and it is possible that this may be explained by the increased prevalence of mental illness in these individuals. This study aims to examine the impact of self-reported poor mental health on attendance at breast screening in the United Kingdom (UK), and to what extent this explains socio-demographic inequalities in uptake.

Methods Breast screening records were linked to 2011 Census data within the Northern Ireland Longitudinal Study (NILS). This identified a cohort of 57,328 women who were followed through one complete three-year screening cycle of the National Health Service (NHS) breast screening programme. Poor mental health was identified using responses to question 23 of the Northern Ireland 2011 Census which asked, 'Do you have any of the following conditions, which have lasted, or are expected to last, at least 12 months?' to which 'An emotional, psychological or mental health condition (such as depression or schizophrenia)' was a possible response. Information on individual and household-level attributes was also derived from Census records. Logistic regression was employed to calculate odds ratios (ORs) and 95% confidence intervals of attendance at breast screening.

Results 10.7% of women in the cohort reported poor mental health, and in fully-adjusted analyses, these individuals were

23% less likely to attend breast screening (OR 0.77: 0.73–0.82). Although poor mental health was a strong predictor of screening uptake, it only explained a minimal degree of the observed inequalities in uptake by socio-economic status and marital status, and did not explain any of the variation by area of residence. Furthermore, there was no evidence of effect modification between poor mental health and any other socio-demographic determinant of screening uptake.

Conclusion This study provides novel evidence of inequalities in breast screening uptake for women with self-reported poor mental health in the UK. Targeted interventions are required to improve screening uptake in individuals with mental illness to optimise the mortality benefits achieved through population-wide screening.

Friday 6 September

Tobacco Control

OP87

A COMPREHENSIVE EVALUATION OF THE IMPACT OF RECENT ENGLISH TOBACCO CONTROL POLICY USING SECONDARY DATA

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10.1136/jech-2019-SSMabstracts.91

Background Smoking is the biggest avoidable cause of death and disability in England. A range of laws and policies aimed at preventing this harm have been introduced in England to try to prevent young people from becoming smokers, and encourage existing smokers to quit and to protect others from the harmful effects of cigarette smoke. This Study aimed to evaluate the effects of these policies using publically available data.

Methods We developed logic models for each policy that indicated the anticipated causal pathways for each policy and used these to develop hypotheses for our analysis. Interrupted time series analysis was carried out systematically and using a consistent approach across policies, datasets, outcomes and populations. Outcome measures were adult smoking prevalence, quitting behaviour and consumption. Models were adjusted for sociodemographic factors, e-cigarette prevalence and mass media expenditure. Datasets included the Smoking Toolkit Study (STS) and the Health Survey for England (HSE).

Results Following a point of sale display ban in large shops in April 2012, based on the STS data, there was a significantly steeper declining trend in adult smoking prevalence. This finding was supported by results from the HSE. A similar result was found when analysing quit attempts. Following a point of sale ban in small shops in April 2015, there was a significantly steeper decline in trend in adult prevalence. There was also a significant decline in trend in quit attempts. No significant impact of the smoke-free policy on smoking prevalence was found and we found no evidence of a combined impact of three policies that were implemented in October 2015 (proxy purchase ban, minimum age of purchase for e-cigarettes and smoking ban in cars carrying children) on adult prevalence.