regression separately for 1996–2003 and 2004–2013 to account for non-linear trends. Regional person-linked data from the Oxford Region and WA were used to account for the effect of transfers and coronary procedure admissions on trends.

Results From 1996–2013, there were 4.9 million CHD hospitalisations in England and 2.6 million in Australia (67% men). From 1996–2003, there was between-country variation in the direction of trends in acute coronary syndromes (ACS) and chronic CHD hospitalisation rates ($p<0.001$). During 2004–2013, reductions in ACS hospitalisation rates were greater than for chronic CHD hospitalisation rates in both countries, with the largest subgroup declines in unstable angina [England: men -7.1%/year (95% CI -7.2 to -7.0), women -7.5%/year (-7.7 to -7.3); Australia: men -8.5%/year (-8.6 to -8.4), women -8.6%/year (-8.8 to -8.4)]. Age-specific trends generally reflected overall downward trends in each subgroup except for MI rates in women aged 35–54 years in 2004–2013, [England: 0%/year (-0.5 to +0.4); Australia: +1.9%/year (+1.4 to +2.4)]. Rates of 'Other CHD' increased in 75–84 year olds in both countries. Chronic CHD comprised half of all CHD admissions, with the majority involving angiography or revascularisation. Analysis of linked regional data found increasing MI rates in WA from 2004–2013 for men and women. In both regions, an increasing proportion of admissions for other CHD were for coronary procedures (mainly angiogram) in Oxford (71% in 1996; 84% in 2013) and WA (88% in 1996; 91% in 2013).

Conclusion Since 2004, rates of all CHD subgroups have fallen in both countries, with greater declines in acute than chronic presentations. The slower declines and high proportion of chronic CHD admissions involving coronary procedures requires greater focus. Differing MI trends in younger women in both countries warrant further investigation.

P61 INCIDENCE, RISK FACTORS AND PROGNOSE OF ACUTE KIDNEY INJURY IN CRITICALLY ILL PATIENTS: A PROSPECTIVE COHORT STUDY IN BRAZILIAN AMAZON

[1]DMT Zanetta*, [2]EA Burdmann, [3]FAF Melo. *[1]School of Public Health, University of Sao Paulo, Sao Paulo, Brazil; [2]Medical School, University of Sao Paulo, Sao Paulo, Brazil; [3]Medical School, Acre Federal University, Rio Branco, Brazil*

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Background Epidemiological studies, mainly prospective population-based studies, of acute kidney injury (AKI) are still scant, especially in low-income and middle-income countries (>85% of the world's population). This study aimed to identify incidence and factors associated AKI in critically ill patients of Brazilian Amazon, a region with limited health care facilities.

Methods Prospective cohort study of all adult patients without chronic renal disease admitted, and staying >2days, in all Intensive Care Units(ICU) of Rio Branco, the largest city in Acre State, covering approximately 70% of the state population (800,000 inhabitants), from Feb 2014 to Feb 2016. Incidence, risk factors and outcomes of AKI (diagnosed by KDIGO criteria) were evaluated. Patients were followed for up to 7 days, discharge or death. Mortality was assessed 30d after ICU discharge. Factors associated with AKI development and, in those with incident AKI, associated with mortality were evaluated in multiple logistic regression analysis. The proportional multiple Cox analysis evaluated 30-day mortality in non-AKI and AKI patients, using SPSS(v.22.0) software.

Results Of 1,494 patients admitted, 1,073 fulfilled selection criteria. AKI incidence was 52% (Stage 1=62.1%, 2=15.6% and 3=22.2%; 8.2% received dialysis). 60% of patients were admitted due to clinical condition, 25% were hemodynamically unstable, 19% had respiratory failure. Only 2.2% had tropical diseases. Risk factors for AKI were age (adjusted OR (aOR) 1.2[CI95% 1.1–1.3 for 10 years increase]), positive fluid balance >1500 ml/24h (aOR 2.9[2.1–3.9]), APACHE score (aOR 1.06[1.04–1.07 per unit increase]), clinical patients (reference surgical: aOR 1.6[1.2–2.6]). AKI had higher ICU mortality (AKI 43.4% vs non-AKI 13.9%). AKI mortality was associated with age (aOR 1.3[1.1–1.4 for 10 years increase]), mechanical ventilation (aOR 5.2[3.0–9.0]), KDIGO stage 3 (ref 1) (aOR 1.6[1.03–2.5]), vasoactive drugs or shock (aOR 2.6[1.4–4.7]), and sepsis (aOR 2.3[1.6–4.7]). Adjusted AKI hazard for 30 days after ICU discharge mortality was 1.8 (1.1–3.0).

Conclusion AKI incidence was strikingly high in critically ill patients in the Brazilian Amazon. Hospitalizations due to tropical diseases were rare, likely due to particular conditions of the Amazon area, with difficulty access to larger cities and limited health care facilities. AKI etiology and risk factors were similar to those seen in developed countries. However, mortality rates were higher. The follow-up of the cohort was for7 days and data collected may not represent all factors affecting outcomes. Poor social-economic conditions and infrastructure of health services may explain the high incidence and mortality rates for AKI observed. The results may contribute to the care of this group of patients.

P62 HOW MUCH OF THE DISABILITY-RELATED INEQUALITIES IN HEALTH AND WELL-BEING ARE MEDIATED BY BARRIERS TO PARTICIPATION FACED BY PEOPLE WITH DISABILITIES? A CAUSAL MEDIATION ANALYSIS USING LONGITUDINAL DATA FROM WORKING AGE PEOPLE WITH AND WITHOUT DISABILITIES IN GREAT BRITAIN

[1]Z Aitken*, [1]G Disney, [1]L Krnjacki, [1]A Milner, [2]E Emerson, [1]AM Kavanagh. *[1]Melbourne School of Population and Global Health, The University of Melbourne, Melbourne, Australia; [2]Centre for Disability Research, Faculty of Health and Medicine, Lancaster University, Lancaster, UK*

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Background Large health inequalities exist between people with and without disabilities, including many health conditions unrelated to the impairment causing the disability. There is some evidence that these health inequalities are, in part, due to the poor socio-economic circumstances experienced by people with disabilities, and therefore are amenable to public health intervention. In this study, we used a unique dataset to examine the relationship between disability acquisition and subsequent health outcomes using five different measures of health and wellbeing. We quantified the extent to which social barriers to participation explained the health inequalities between people with and without disability.

Methods We used data from three waves of the Life Opportunities Survey, a longitudinal study of disability in Great Britain with a strong focus on barriers to participation in society. We compared health and well-being outcomes between adults who recently acquired an impairment and those who remained disability-free, adjusting for baseline demographic, socio-economic

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and health characteristics. Health and well-being outcomes included: self-rated health measured on a five-point scale, and life satisfaction, feeling that life is worthwhile, happiness, and anxiety, measured on eleven-point Likert scales. We conducted a causal mediation analysis to quantify natural indirect effects representing how much of the effect of disability acquisition on each outcome was explained by barriers to participation including employment, economic life, transport, leisure activities, social contact and accessibility. We used multiple imputation with 50 imputed datasets to account for missing data and conducted analyses in Stata/SE 15.

Results There was evidence that people who had recently acquired a disability had poorer health and well-being compared to people with no disability. Barriers to participation explained 13% (95% CI 11%, 14%) of inequalities in self-rated health, and were higher for all measures of well-being: life satisfaction (43%, 95% CI 39%, 47%), feeling that life is worthwhile (36%, 95% CI 31%, 40%), happiness (46%, 95% CI 39%, 53%) and anxiety (27%, 95% CI 24%, 31%).

Conclusion Despite methodological limitations including strong assumptions about confounding and potential selection bias from missing data, this is the first study to quantify how much of the inequalities in health and well-being between people with and without disabilities are explained by social barriers to participation. We found that a substantial proportion of the inequalities in health and well-being experienced by people with recently acquired disabilities were driven by social barriers to participation. The findings that some of these differences are socially produced have important policy implications, highlighting modifiable factors amenable to public health interventions to target the mechanisms causing the health inequalities.

P63 ADVERSE PREGNANCY OUTCOMES AND LONG-TERM RISK OF MATERNAL RENAL DISEASE: A SYSTEMATIC REVIEW AND META-ANALYSIS

[1,2]PM Barrett*, [2]FP McCarthy, [3]K Kublickiene, [4]S Cormican, [4]C Judge, [3]M Evans, [5]M Kublickas, [1]IJ Perry, [3]P Stenvinkel, [1,2]AS Khashan. [1]*School of Public Health, University College Cork, Cork, Ireland*; [2]*Irish Centre for Fetal and Neonatal Translational Research (INFANT), University College Cork, Cork, Ireland*; [3]*Department of Clinical Science, Intervention and Technology (CLINTEC), Karolinska Institutet, Stockholm, Sweden*; [4]*Department of Nephrology, University Hospital Galway, Galway, Ireland*; [5]*Department of Obstetrics and Gynaecology, Karolinksa Institutet, Stockholm, Sweden*

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Background Adverse pregnancy outcomes, like hypertensive disorders of pregnancy (HDP), gestational diabetes (GDM) and preterm delivery, are associated with increased risk of long-term maternal cardiovascular and cerebrovascular disease. Comparatively little is known about whether adverse pregnancy outcomes increase the risk of maternal renal disease. We aimed to investigate associations between adverse pregnancy outcomes (HDP, GDM, preterm delivery) and long-term maternal chronic kidney disease (CKD) and end-stage kidney disease (ESKD), by synthesising the results of relevant published studies.

Methods A systematic search of PubMed, EMBASE and Web of Science was undertaken from inception of databases to 31 July 2018. Case-control and cohort studies published in English were eligible for inclusion if they provided original effect estimates for associations between adverse pregnancy outcomes (HDP, GDM, preterm delivery) and maternal renal disease (primary outcomes: CKD, ESKD; secondary outcomes: renal hospitalisation, mortality due to renal disease). Two independent reviewers extracted data and assessed risk of bias. Random effects meta-analyses were conducted using RevMan 5.3 to determine the pooled adjusted odds ratio (AOR) and 95% confidence interval (95%CI) for each association between each adverse pregnancy outcome and CKD or ESKD respectively. Subgroup analysis by HDP subtype was performed.

Results Of 5,120 studies retrieved, 21 studies met inclusion criteria (37 adjusted effect estimates in total, including 4,483,847 participants). HDP was associated with significantly increased odds of ESKD (AOR 6.58, 95%CI 4.06–10.65, based on nine effect estimates), CKD (AOR 2.08, 95%CI 1.06–4.10, based on eight estimates), and renal hospitalisation (AOR 2.29, 95%CI 1.42–3.71, based on six estimates). The magnitude of association was dependent on HDP subtype: AOR for preeclampsia and ESKD was 4.87 (95%CI 3.01–7.87); for gestational hypertension and ESKD was 3.65 (95% CI 2.34–5.67); for other HDP (including chronic hypertension ± superimposed preeclampsia) and ESKD was 14.67 (95%CI 3.21–66.97). Preterm delivery was associated with increased odds of ESKD (AOR 2.16, 95%CI 1.64–2.85, based on three estimates). GDM was associated with increased odds of CKD among black women (AOR 1.78, 95%CI 1.18–2.70), but not white/Caucasian women (AOR 0.81, 95%CI 0.58–1.13, based on four estimates).

Conclusion Women who experience adverse pregnancy outcomes have increased odds of long-term renal disease, particularly those exposed to HDP. This study was limited by small numbers of studies in each individual meta-analysis, restricting the ability to assess for publication bias. Long-term follow-up should be optimised for women who experience adverse pregnancy outcomes, and preventive interventions may be warranted to reduce their risk of clinically significant renal disease.

P64 SELF-HARM AMONG THE HOMELESS POPULATION IN IRELAND: A NATIONAL REGISTRY-BASED STUDY OF INCIDENCE AND ASSOCIATED FACTORS

[1]PM Barrett*, [2]E Griffin, [2]P Corcoran, [1]MT O'Mahony, [2]E Arensman. [1]*Department of Public Health, St. Finbarr's Hospital, Cork, Ireland*; [2]*National Suicide Research Foundation, University College Cork, Cork, Ireland*

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Background Suicide rates are higher among the homeless population than the general population, and the homeless are recognised as a priority group for suicide prevention. Self-harm is a strong predictor of future suicide, particularly repetition of self-harm. Little is known about the incidence of self-harm, and its associated predictive factors, among the homeless. The purpose of this study was to quantify the burden of self-harm among the homeless population in Ireland, and to assess factors associated with self-harm and repeated self-harm.

Methods Data on self-harm presentations to all 34 hospital emergency departments in Ireland were collected by the National Self-Harm Registry Ireland (NSHRI). Index and repeat presentations from 2010–2014 were included for the homeless and fixed residence populations. Individuals with no fixed abode, or who lived in recognised accommodation for the homeless, were recorded as being homeless. Age-standardised incidence rates (ASIR) of self-harm were calculated using NSHRI data and national population estimates from the

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