

CI: 1.56–3.07; OR=2.63, 95% CI: 1.81–3.81, respectively), after full-adjustment. In the BRHS, periodontal pocket depth greater >3.5 mm was associated with increased risk of being in the bottom quintile of grip strength (OR=1.59, 95%CI: 1.14–2.20). Moreover, dry mouth was associated with the top quintile of gait speed in the BRHS, and bottom quintile of grip strength in the HABC Study (OR=1.75, 95% CI: 1.22, 2.50; OR=2.43, 95%CI=1.47–4.01, respectively).

Conclusion Markers of poor oral health, particularly dry mouth, poor self-rated oral health and having more than one oral health problems were associated with higher risks of disability and impaired physical function in older populations. Investigations to assess these associations prospectively and the underlying pathways are needed.

Pregnancy/Maternal Health 2

OP98

EFFECTS OF DIFFERENT SMOKING PATTERNS DURING PREGNANCY ON PERINATAL OUTCOMES: AN ANALYSIS OF MATERNAL SMOKERS IN THE SOUTHAMPTON WOMEN'S SURVEY

¹MM O'Donnell*, ^{2,3}J Baird, ^{2,3}C Cooper, ²SR Crozier, ^{2,3}KM Godfrey, ⁴MP Geary, ^{2,3}HM Inskip, ⁵CB Hayes. ¹Academic Internship, Mater Misericordiae University Hospital, Dublin, Ireland; ²MRC Lifecourse Epidemiology Unit, University of Southampton, Southampton General Hospital, Southampton, UK; ³NIHR Southampton Biomedical Research Centre, University of Southampton and University Hospital Southampton NHS Foundation, Southampton, UK; ⁴Department of Obstetrics and Gynaecology, The Rotunda Hospital, Dublin, Ireland; ⁵Discipline of Public Health and Primary Care, Trinity College Dublin, Dublin, Ireland

10.1136/jech-2019-SSMabstracts.101

Background Maternal smoking during pregnancy has an established causal relationship with poor perinatal outcomes including low birthweight and preterm birth. Nonetheless, a significant minority of women, especially those in lower socio-economic groups, continue to smoke throughout their pregnancy despite current interventions to quit. In this group, it has been suggested that harm-reduction may be a more attainable goal. A previous study of low-income pregnant women in a Dublin maternity hospital (The Rotunda) showed that quitting smoking for even a part of pregnancy (partial quitting) resulted in higher birthweight than those who continued to smoke throughout. Further support for this strategy for harm-reduction is required. Our objective was to determine whether the relationship between different smoking patterns among pregnant smokers and perinatal outcomes could be replicated in the UK Southampton Women's Survey (SWS) cohort.

Methods Women who were smoking at the time of conception (taken as last menstrual period) were categorised according to their smoking status across pregnancy into sustained quitters, partial quitters (who quit smoking in either the first or third trimester alone) or sustained smokers (who continued to smoke throughout pregnancy). Linear regression analyses with birthweight and gestational age as the dependent variables, and smoking status as the exposure were performed. The choice of confounders (child sex, parity, maternal weight and prudent diet score) was guided by a Directed Acyclic Graph (DAG).

Results Of the 3,158 women who became pregnant, 768 were smokers at conception. Of these, 697 (91%) had complete smoking data with 355 (51%) being sustained smokers, 81

(12%) partial quitters and 261 (37%) sustained quitters. Compared with infants born to sustained smokers, infants born to sustained quitters and partial quitters were heavier at birth by 361 g (95% CI: 284 g, 438 g) and 203 g (92 g, 315 g), respectively, adjusted for confounders. Sustained quitters had a longer gestation by 3.5 days (1.7 days, 5.2 days) compared with sustained smokers, adjusted for confounders, but no difference was seen for partial quitters.

Conclusion These results from the SWS, after adjusting for a wide range of available confounders, closely replicated the findings in Dublin, providing further support for partial quitting by pregnant smokers as a harm-reduction strategy for offspring. While sustained quitting is clearly most desired, for women who cannot quit for the duration of their pregnancy, partial quitting should be encouraged as a strategy to reduce some of the harmful effects of smoking on offspring.

OP99

HYPERTENSIVE DISORDERS IN PREGNANCY AND CHILDHOOD DIAGNOSIS OF ASTHMA

¹L Kelly, ^{1,2}P Barrett, ^{2,3}F McCarthy, ^{1,2}AS Khashan*. ¹School of Public Health, University College Cork, Cork, Ireland; ²The Irish Centre for Fetal and Neonatal Translational Research (INFANT), University College Cork, Cork, Ireland; ³Department of Obstetrics and Gynaecology, University College Cork, Cork, Ireland

10.1136/jech-2019-SSMabstracts.102

Background Hypertensive disorders of pregnancy (HDP), the most common pregnancy complication, have been linked to childhood morbidity. Few studies have investigated the relationship between HDP and asthma in the offspring, with existing research showing conflicting results. The primary aim of this study was to explore the association between HDP and the development of asthma at or before the age of seven years using the UK Millennium Cohort Study (MCS).

Methods Participants were born between 2000–2001 and recruited at 9 months, the first wave of the MCS, and subsequently participated in waves 2, 3 and 4 when they were three, five and seven years respectively. The study cohort consisted of singleton children, where the mother was the main respondent at the first wave and participated in the fourth wave at age seven years. HDP were self-reported by mothers at the first wave, where women were asked whether they had gestational hypertension, chronic hypertension, pre-eclampsia or eclampsia. The primary outcome was parent-reported diagnosis of asthma, based on responses to the International Study of Asthma and Allergies in Childhood (ISAAC) core questionnaire at age seven years. Crude and adjusted logistic regression models were used for data analysis. We adjusted for a range of potential confounders including socio-demographics (e.g. ethnicity, maternal age), obstetric factors (e.g. preterm delivery, parity), and established risk factors for asthma (e.g. parental smoking, family history of asthma, exposure to pollution). Moreover, we examined the risk of asthma among small for gestational age (SGA) children who were exposed to HDP compared to children not exposed to HDP.

Results At the first wave, 18,818 children were recruited and 13,061 (69%) participated in the fourth wave at age seven years and were included in the analysis. 984 women (8%) reported having HDP and 2151 (16%) of the children had developed asthma by age seven years. In the crude logistic model HDP was significantly associated with asthma (OR=1.37; (95% CI: 1.17–1.61)) and the association was almost unchanged in the adjusted model (OR=1.39; (95% CI: