healthy (OR 1.9, p=0.02), going "on the road" at least twice in the last year (OR 2.3, p=0.03) and a brisk walk at least once in the last week (OR 2.4, p=0.000). Good SRH was inversely associated with increasing age-group (p=0.000), smoking (OR 0.6, p=0.03), activity-limiting ill health for ≥1 day in the last month (OR 0.4, p=0.001), chronic health condition diagnosed by the GP (OR 0.4, p=0.002), and having been screened for hypertension, high cholesterol or diabetes (OR 0.6, p=0.03).

Conclusion There is a clear relationship between established health determinants and SRH in the Traveller community, suggesting the importance of both material and psychosocial factors. The directionality of the relationship between cultural factors and lifestyle cannot be inferred in these models.

| 057 | ALL IRELAND TRAVELLER HEALTH STUDY: INCREASING GAP IN MORTALITY BETWEEN TRAVELLER AND GENERAL POPULATIONS IN THE REPUBLIC OF IRELAND OVER TWO DECADES |

S Abdalla, B Quirke, L Daly, P Fitzpatrick, C Kelleher. *UCD School of Public Health, Physiotherapy and Population Science, Dublin, Republic of Ireland*

Background Irish Travellers are a distinct minority group characterised by a nomadic lifestyle, specific culture and substantial socio-economic and health disadvantage. When examined in 1987 the Traveller community in the Republic of Ireland (ROI) were shown to have a higher mortality than the general population. Updated information was needed to inform policy action in this area.

Objective To examine the current mortality experience of Irish Travellers in the ROI and to contrast it with that of the general population.

Design, setting and participants We conducted a retrospective mortality count as part of a wider Traveller Census (The All Ireland Traveller Health Study). In ROI 9056 Traveller families were surveyed. Census respondents were asked to identify all immediate and extended family members who died over an exact 12 month period preceding the census date. Information obtained was corroborated with and supplemented by reports from the Traveller health networks, Public Health Nurses and General Registrar death records.

Main outcome measures Standardised mortality ratios (SMR) with 95% CI using the 2008 ROI general population mortality rates as standard.

Results There were 188 Traveller deaths in the year preceding the census date of October 14th 2008. Traveller mortality in ROI is nearly three and a half times higher than that of the general population (SMR 348; 95% CI 298 to 397). This compares with a corresponding SMR of 254 calculated in 1987. Though general population mortality (age-adjusted) has declined by 35% over the past 20 years, Traveller mortality has only dropped by 13%, thus widening the mortality gap. Males have a significantly higher mortality than females with an SMR of 469 (95% CI 387 to 552) compared to a female SMR of 232 (95% CI 175 to 289). With a standard set of general population mortality rates in those aged 15 years and over, Travellers had an SMR of 277 (95% CI 235 to 319) compared to an SMR of 232 (95% CI 227 to 237) in the lower socio-economic group of the general population.

Conclusion Mortality among Irish Travellers has declined over the past 20 years but at a slower rate than that of the general population; the gap between Travellers and the general population has widened, particularly in males. The current gap is larger than that between the lower socio-economic group and the general ROI population. The results highlight the value of mortality measurement in uncovering health trends and health inequalities.

Pregnancy and/or smoking

| 058 | JUST LOOK FOR AN ASHTRAY: PRAGMATIC FACTORS ASSOCIATED WITH SMOKING RELAPSE POSTPARTUM |

[1]S Prady, [2]K Keirnan, [1]K Bloor, [1]K Pickett. [1]*Department of Health Sciences, University of York, UK;* [2]*Department of Social Policy and Social Work, University of York, UK*

Objective Most women who stop smoking during their pregnancy will relapse within the first 6 months after birth, with health risks to the mother and family. There have been few UK-specific studies identifying factors associated with relapse. Such information would help health care providers identify those most at risk so that extra support and resources can be targeted. We examined whether a small set of factors that are potentially readily measured or observable in routine health care settings were associated with women at risk for relapse postpartum.

Design and setting Analysis of the first wave of the Millennium Cohort Study. Variables in the final model were selected using backwards logistic regression weighted to account for the complex survey design.

Participants 2353 natural mothers who reported quitting smoking during their pregnancy.

Main outcome measure Postpartum smoking relapse.

Results 58% of mothers who quit during pregnancy were smoking again at 9 months. Only 16.2% of smoking couples quit together. The strongest risk factors were related to postnatal partner smoking status and single parenthood. Compared to mothers with a non-smoking partner, the risk of relapse was higher for those with a partner who smoked at 9 months (OR 3.2, 95% CI 2.6 to 3.9), a partner who smoked antenatally (1.2, 1.4 to 2.1), and those who had no live-in partner postnatally (3.2, 2.2 to 4.8) or antenatally (2.3, 1.5 to 3.4). Other significant risk factors remaining in the models were the mother having no-one to share her feelings with, drinking 1–2 times a month or 1–2 times a week, having fewer educational qualifications and more children in the household. Factors that did not appear to be influential in the final models were age, ethnicity, change in marital status from birth to 9 months, depression history, financial status, timing of entry into ante-natal care, feelings about the pregnancy or breastfeeding.

Conclusion Pragmatic variables can be used to identify women at higher risk for relapse. The validity of these findings are potentially limited by the inability to measure antenatal intent to relapse, the smoking cessation and relapse prevention interventions actually received, and timing/sequence of relapse for partner-mother pairs in this data set. Both partner smoking habits and single marital status are strongly associated with relapse and can be readily identified both antenatally and postnatally by healthcare providers.

| 059 | MATERNAL AND PATERNAL SMOKING DURING PREGNANCY AND TRAJECTORIES OF GROWTH AND ADIPOSITY IN THE OFFSPRING |

[1,2]L D Howe, [3]A Matijasevich, [1]K Tilling, [1,2]D A Lawlor. [1]*Department of Social Medicine, University of Bristol, Bristol, UK;* [2]*MRC Centre for Causal Analyses in Translational Epidemiology, University of Bristol, Bristol, UK;* [3]*Post-graduate Programme in Epidemiology, Federal University of Pelotas, Pelotas, Brazil*

Objective To explore the associations of maternal smoking during pregnancy with offspring trajectories of height, weight and adiposity and to compare these with associations with paternal smoking to determine whether any associations are driven by intrauterine mechanisms.

Design Individual trajectories of height, weight and adiposity were modelled from birth to 10 years using random-effects linear-spline models. Adiposity was modelled as ponderal index (PI, kg/m^3) from birth to 2 years and body mass index (kg/m^2) from 2 to 10 years. Interactions between self-reported maternal and paternal smoking during pregnancy (any vs none) with trajectories of height, weight, and adiposity were examined with and without adjustment for potential confounders and mutual adjustment for maternal/paternal smoking.

Setting South-West England.

Participants N=12 684 children for height models, 12 773 for weight models, 12 531 for PI models, and 11 588 for body mass index models.

Results Maternal smoking during pregnancy had a strong impact on birth length and weight (eg, reduction in birth length in boys 0.70 cm, SE 0.07). These effects reduced only slightly with adjustment for confounders and paternal smoking during pregnancy. Paternal smoking was associated with much smaller reductions in birth length and weight (eg, reduction of birth length in boys 0.21 cm, SE 0.07), and associations were completely attenuated by adjustment for confounders and maternal smoking in pregnancy. There was some evidence that parental smoking during pregnancy affected height growth in later infancy (3–10 months) and weight gain in early and later infancy (0–4 and 4–11 months), with offspring of parents who smoked growing and gaining weight faster than offspring of non-smokers. Associations were stronger for maternal than paternal smoking. Height growth and weight gain in later childhood was not associated with smoking in pregnancy. The offspring of parents who smoked had lower PI at birth (eg, reduction in PI at birth for maternal smoking in pregnancy among boys −0.25 kg/m3, SE 0.08), with maternal smoking having a stronger association than paternal smoking. However, associations of both maternal and paternal smoking during pregnancy on PI at birth were completely removed by adjustment for confounders. Neither maternal nor paternal smoking was associated with adiposity trajectories.

Conclusion There is evidence of an intrauterine effect of maternal smoking on birthweight and length and on height and weight growth in infancy (but not later childhood). Maternal smoking in pregnancy does not seem to affect adiposity at birth or change in this during infancy or childhood through intrauterine mechanisms.

| 060 | **AN ANALYSIS OF THE EFFECT OF INTRAUTERINE GROWTH RETARDATION ON SPIROMETRIC LUNG FUNCTION MEASURES OF 8-YEAR-OLD CHILDREN** |

[1]S Kotecha, [2]W J Watkins, [3]J Heron, [4]J Henderson, [2]F D Dunstan, [1]S Kotecha. [1]*Department of Child Health, School of Medicine, Cardiff University, Cardiff, UK;* [2]*Department of Primary Care and Public Health, School of Medicine, Cardiff University, Cardiff, UK;* [3]*Avon Longitudinal Study of Parents and Children, Department of Social Medicine, University of Bristol, Bristol, UK;* [4]*Department of Community-Based Medicine, University of Bristol, Bristol, UK*

Objective Increasing evidence suggests that intrauterine growth retardation (IUGR) is associated with long-term morbidities, including respiratory outcomes. The relationship between IUGR and lung function has been studied in adults, but few studies have investigated childhood respiratory outcomes and it is unclear if catch-up growth in these children influences lung function. We investigated the hypothesis that lung function differs in 8- to 9-year-old children born at term between those that were within normal weight bands and those that had growth retardation. Additionally, in the growth-retarded group, we investigated if lung function differed between those who did and those who did not show weight catch up.

Design The Avon Longitudinal Study of Parents and Children birth cohort.

Participants The 5770 Caucasian singleton births of 37 weeks or longer gestation who had lung function assessed at 8–9 years. We classified 576 infants as IUGR as their gestation-appropriate birth-weight fell below the 10th centile. This group was compared with those 3462 non-IUGR infants whose birthweights fell between the 20th and 80th centiles.

Main outcome measure and results The non-IUGR infants had significantly better lung function at 8–9 years of age than those with IUGR. The differences between the standardised (z) lung function values, adjusted for sex, gestation, maternal smoking during pregnancy, and social class, and 95% CI were FEV1: −0.198 (−0.294 to −0.102); FVC: −0.131 (−0.227 to −0.036); FEF 25–75: −0.149 (−0.246 to −0.053). The groups had similar respiratory symptoms. Catch-up growth for weight was defined as an increase in z score of at least 0.67 between birth and ages 8–9 years. For the IUGR children, 430 caught up and 146 did not. All spirometry measurements were higher in IUGR children who experienced catch-up growth than in those without, although the differences were not statistically significant. Both groups remained significantly lower than control subjects. Growth-retarded asymmetric and symmetric children had similar lung function.

Conclusion We concluded that IUGR is associated with poorer lung function at 8–9 years of age compared with control children. Although the differences were not statistically significant, spirometry was higher in children who showed weight catch-up growth, but remained significantly lower than in the control children.

| 061 | **THE EFFECTS OF PREGNANCY PLANNING, TIME TO CONCEPTION AND ART ON EXPRESSIVE LANGUAGE ABILITY AT YEARS** |

[1]C Carson, [2]Y Kelly, [1]J J Kurinczuk, [3]A Sacker, [1]M Redshaw, [1]M A Quigley. [1]*National Perinatal Epidemiology Unit, University of Oxford, Headington, Oxford, UK;* [2]*Department of Epidemiology and Public Health, University College London, London, UK;* [3]*Institute of Social and Economic Research, University of Essex, Colchester, Essex, UK*

Objective To examine the effects of pregnancy planning, time to conception and assisted reproductive treatment on expressive language ability at 3 years.

Design Population-based cohort (Sweeps 1 and 2 of the UK Millennium Cohort Study).

Setting UK.

Participants 11 790 English-speaking singletons born 2000–2001.

Exposure measure Mothers reported whether the pregnancy was planned, and their feelings when first pregnant. Women who planned their pregnancy provided time to conception (TTC) and details of any assisted reproductive treatment (ART). The population was divided into "unintended" pregnancies (unplanned and unhappy about pregnancy), "unplanned" pregnancies (unplanned but happy), "planned" (planned and TTC≤12 months), "subfertile" (planned and TTC>12 months), "ovulation stimulated (OS)" (received clomiphene citrate) and "ART" (in vitro fertilisation or intracytoplasmic sperm injection).

Outcome measure Expressive language ability was assessed using the Naming Vocabulary component of the British Ability Scale. There is evidence that expressive language skills predict cognitive ability.

Results 15% of pregnancies were unintended and a further 26% were unplanned. 53% were planned; 4% subfertile; 2% used OS and 1% ART to help them conceive. The mean BAS naming vocabulary score was 76.5 in the planned group and was not significantly different in the OS or subfertile groups. In the unadjusted analysis