Oral Programme

Parallel Session A

Wednesday 12 September 2012

Socioeconomic Inequalities I

OP01 DID HEALTH INEQUALITY INCREASE IN ENGLISH CHILDREN AND YOUNG PEOPLE BETWEEN 1999 AND 2009? EVIDENCE FROM TWO CROSS-SECTIONAL SURVEYS AND INPATIENT ACTIVITY DATA

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Background From 1999, the English government pursued a systematic strategy to reduce health inequalities. For interventions affecting children and young people, intermediate indicators may be more useful for evaluating short/medium term impact than the mortality targets chosen. This article investigates trends in inequalities for self/parent-reported health and use of health services by children and young people between 1999 and 2009.

Methods Through the UK Data Archive (http://www.data-archive.ac.uk/), data were accessed for the Health Survey for England 1999 (SN4365) (N=2638(0–12 years), 874(13–16), 1148(17–24), 5573(25+)) and the Health Survey for England 2009 (SN6732) (N=3022(0–12), 969(13–16), 451(17–24), 4160(25+)). Self-reported health and General Health Questionnaire data (participants aged 13+) and parent/carer report of health (participants aged 0–12) were used, with appropriate binary outcomes created. Using logistic regression in SPSS (v19), adjusted odds ratios (AORs) of poor health were calculated between the highest and lowest socio-economic tertiles, defined by occupation of household members. Analyses were stratified by age, adjusted for sex and weighted to be nationally representative. Hospital Episode Statistics on Finished Consultant Episodes were analysed by Index of Multiple Deprivation decile, derived from the patient's postcode. Concentration indices of inpatient activity were calculated for those aged 0–12 and 13–19 in 1999/2000 (N=1843862) and 2009/2010 (N=1774139).

Results Compared to those in the highest occupations, parents/carers in the lowest tertile were more likely to report poor health in their children. The difference increased significantly from 1999 (AOR 1.7, 95% CI 1.2–2.4) to 2009 (AOR 4.1, 95% CI 2.5 to 6.7). Among adolescents, there was a non-significant increase in poor self-reported health over this time (AOR 2.3(1.2–4.3) vs. 3.2(1.6–6.4)). For young adults, there was a persistently weaker association between low socio-economic status and poor health (AOR 1.3(0.8–2.2) and 1.3(0.7–2.4)) than for older adults (AOR 3.1(2.6–3.6) and 3.2(2.6–3.9)). AORs for high General Health Questionnaire scores by age group showed a similar pattern.

The concentration index for inpatient activity in adolescents (13–19) decreased from –0.102 in 1999 to –0.082 in 2009 (Males) and –0.247 to –0.189 (Females). The changes in the concentration index for 0-12s were much smaller (Male –0.136 vs. –0.139; Female –0.136 vs. –0.142).

Conclusion Despite the policy importance given to tackling health inequalities, this decade saw inequality in parents' reports of their children's health widen significantly. Adolescent findings were mixed, with a non-significant increase in inequality for self-reported health but a reduction in inequality related to inpatient activity.

OP02 SOCIOECONOMIC PATTERNING OF FAT AND LEAN MASS IN LATER LIFE: FINDINGS FROM A BRITISH BIRTH COHORT STUDY

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Background Fat and lean mass have important implications for health and physical functioning. Studies have reported associations between low socioeconomic position (SEP) and high body mass index (BMI) in adulthood, but few have examined associations with fat and lean mass which BMI does not completely distinguish. We examined the associations between multiple indicators of SEP across life and objective measures of fat and lean mass in later adulthood.

Methods Data were from 1350 men and women in England, Scotland and Wales participating in the MRC National Survey of Health and Development who underwent dual-energy X-ray absorptiometry scans at age 60–64 years and had valid data for all indicators of SEP were included in analyses. Whole body fat and appendicular lean mass were ascertained and, to account for differences in height across SEP groups, height-adjusted indices were created. Associations of prospectively ascertained childhood SEP (paternal occupational class at 4 years), educational attainment (at 26 years) and adult SEP (household income at 60–64 years) with these outcomes were examined using the slope index of inequality (SII). Since high fat mass may increase muscle loading and lead to higher lean mass, associations with lean mass were adjusted for fat mass.

Results Low SEP was consistently associated with high fat mass index: childhood SEP (mean difference in fat mass index comparing the lowest with the highest SEP (SII) in males: 0.92kg/m$^{1.2}$, 95% CI –0.04 to 1.89; females: 2.49, 1.17 to 3.82), education (males: 1.61, 0.69 to 2.53; females: 2.20, 0.88 to 3.53), and adult SEP (males: 1.42, 0.47 to 2.38; females: 2.20, 0.88 to 3.53). In males, after adjustment for fat mass childhood SEP (0.16kg/m^2, –0.07 to 0.38) and education (0.09, –0.13 to 0.30) were not associated with lean mass index, however, low adult SEP was associated with low lean mass index (–0.21, –0.44 to 0.01). Low SEP was consistently associated with low lean mass index in females after adjustment for fat mass: childhood SEP (–0.24, –0.42 to –0.07), education (–0.36, –0.55 to –0.17) and adult SEP (–0.20, –0.38, –0.03).

Conclusion Low SEP across life was associated with high fat mass in early old age. In contrast, low SEP in adulthood in males and across life in females was associated with low lean mass (after adjustment for fat mass). Although further research is required to better understand the pathways underlying these associations, the socioeconomic patterning of these measures is likely to have important public health implications.

OP03 SPATIAL SEGREGATION AND SOCIOECONOMIC INEQUALITIES IN HEALTH IN BRAZILIAN CITIES: COMBINING SPATIAL AND SOCIAL EPIDEMIOLOGY

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Background Spatial and socioeconomic inequalities in health are well-documented across the world, with poorer people, areas and regions experiencing poorer health and higher mortality risks than richer people, areas and regions. Furthermore, greater income inequality has also been linked to higher mortality rates. However, there has been less work on the spatial dimension of such socioeconomic inequalities in relation to inequalities in health. The UN-Habitat 2010–11 report on the state of the world's cities identified