

compared with participants who had died, for the three psychosocial measures, were: CASP-19 (3.75 and 6.02 respectively,  $p < 0.001$ ); GHQ-12 (1.24 and 2.12 respectively,  $p < 0.001$ ); and CES-D (1.53 and 2.44 respectively,  $p < 0.001$ ). Logistic regression analyses revealed that, after controlling for demographic, health, and lifestyle factors, CASP-19 (odds ratio (OR) = 1.10, 95% CI 1.07 to 1.13), GHQ-12 (OR 1.09, 95% CI 1.05 to 1.12), and CES-D (OR 1.13, 95% CI 1.09 to 1.18) all remained significant predictors of death by December 2006. Similar results were obtained using the latent construct.

**Conclusion:** ELSA offers a unique opportunity to investigate how demographic, health and lifestyle factors influence the ageing process within England. This analysis has established that there is an association between mood and mortality in older adults and suggests that an intervention trial mediating mood is worthwhile.

#### 072 HEALTH AND DISEASE IN A UK COHORT OF 85-YEAR-OLDS: THE NEWCASTLE 85+ STUDY

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**Background:** Worldwide, the oldest old are the fastest growing section of the population yet there is little up-to-date information about their health or factors which maintain health and independence. The Newcastle 85+ Study is exploring the spectrum of health within an inception cohort of 85 year-olds and examining health trajectories and outcomes as the cohort ages. Health status at baseline will be presented.

**Methods:** Members of the 1921 birth cohort were recruited from general practices in Newcastle and North Tyneside, UK during 2006–7. Participation entailed a detailed multi-dimensional health assessment (questionnaires, measurements and fasting blood sample), conducted in the home by a research nurse, together with review of general practice medical records. Undiagnosed disease was estimated by comparing assessment findings with the presence or absence of a recorded diagnosis in the general practice records.

**Findings:** Of the 1409 individuals contacted, 73.9% (1041) were recruited; 60.3% (850) to “face-to-face” assessment plus review of general practice records, 13.3% (188) to review of general practice records only and 0.2% (3) to “face-to-face” assessment only. Of the 853 assessed, 62.1% were female and 10.4% were living in institutional care. Socio-demographically, the sample was broadly representative of 85-year-olds in Newcastle and North Tyneside and, apart from ethnic diversity, in England and Wales. The most prevalent diseases were hypertension (57.5%) and osteoarthritis (51.8%). With regard to undiagnosed disease, 81.5% of those with a GDS-15 score suggestive of severe depression had not consulted their GP with depression in the previous year; 53.3% of those classified as moderately or severely cognitively impaired did not have a diagnosis of dementia and 27.5% of those with recorded atrial fibrillation were unknown to the GP. A quarter of those without a diagnosis of hypertension had a measured blood pressure in the hypertensive range. Sixty percent reported hearing impairment and over a third visual impairment; 38.3% reported at least one fall in the previous year; a quarter reported severe or profound urinary incontinence and 8.6% faecal incontinence. Almost a fifth were fully independent in all 17 activities of daily living and over three-quarters rated their health, compared to others of the same age, as good, very good or excellent with only 3.5% rating it as poor.

**Interpretation:** The results revealed good overall levels of function and self-rated health in spite of high levels of disease and impairment. Depression, dementia, atrial fibrillation and hypertension appeared to be significantly under-diagnosed.

## Parallel session D

### Inequalities II

#### 073 CONTEXT OR COMPOSITION? EXPLORING THE ADULT HEALTH AND WELL-BEING OF BRITISH CHILDREN BORN IN DIFFERENT REGIONS

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**Background and Aim:** The aim of the research is to explore how multiple social and *spatial* disadvantage at birth and in early childhood may combine to affect health and well-being in adulthood at age 30 using the British Cohort Study (BCS70). Traditionally researchers examining the geography of poverty or disadvantage have bridged only two disciplines: sociology and geography, or have focused on single outcomes such as mortality or morbidity rates (Dorling, 1997; Tunstall *et al*, 2007). However this research takes a deeper view of “context”, based on Bronfenbrenner’s *ecological systems theory*, where the development of a child depends on the interaction of complex *layers* in their environment (physical, familial, peers, neighbourhood, wider society). This research therefore crosses several disciplinary boundaries by utilising indicators of early health, cognitive ability and behaviour in the modelling process as well as socioeconomic ones. Some of the variables explored include: birth trauma, breastfeeding, maternal “malaise”, antisocial/hyperactive behaviour at age 5, an index of early adverse events and child health problems.

**Adult Outcomes:** Three adult outcomes at age 29–30 were modelled taking into account individual/household socioeconomic and spatial variables. These are 1. Satisfaction with Life so far; 2. Self-reported health; 3. Presence of a limiting long-term illness.

**Method:** Multilevel Modelling: Data were nested by region and the social rating of the neighbourhood at the higher levels and household/individual characteristics at birth and age 5 at the lower level. Spatial level variables such as *regional* poverty rates at the relevant time (1975) were also included in the models. Multilevel logistic regression and multinomial category response models with MCMC estimation were used to fit the data using MLwiN.

**Results:** The presence of a *limiting long-term illness* in adulthood was found to be associated with being female, and low birthweight (linked to socioeconomic position at birth, maternal smoking during pregnancy). The association between low birthweight and having more health problems in childhood was significant. Interaction was found among maternal mental state, living in a poor neighbourhood and child antisocial behaviour. *Lower life satisfaction* in adulthood was found to be linked to the presence of a congenital abnormality and (socioeconomic position, smoking and) low birthweight, antisocial behaviour in: boys and children from large families, and being poor in a poor neighbourhood. There were interactions between socioeconomic position, cognitive ability and birthweight across the subgroups. Further investigation of *Self-reported health* at 30 is currently underway.

#### 074 COMPARISON OF LIFE COURSE SOCIOECONOMIC MODELS FOR CARDIOVASCULAR RISK FACTORS: 1946 BIRTH COHORT

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**Background:** Different approaches have been used to test life course models of socioeconomic position (SEP) in relation to cardiovascular disease (CVD) but have generally only tested one model.

**Objective:** We describe a series of nested life course models that correspond to the critical period, accumulation, and social mobility models and test them simultaneously, on multiple CVD risk factors in, a large cohort study.

**Design:** Prospective birth cohort study.

**Setting:** England, Scotland, and Wales.

**Participants:** 5362 singleton births in the MRC National Survey of Health and Development, followed up since their birth in 1946.

**Main Outcomes:** CVD risk factors at 53 years: body mass index (BMI), systolic and diastolic blood pressure, total cholesterol, low-density lipoprotein, high-density lipoprotein, triglycerides, glycated haemoglobin (HBA1c).

**Results:** Social class, according to the Registrar General's classifications, at 3 time points were utilised: childhood (father's occupation when cohort member was age 4), early adulthood (own occupation at age 26 years), and later adulthood (own occupation at 43 years). Partial F-tests comparing a saturated model with each simpler life course model were used to identify the most appropriate model for each risk factor. For women, SEP generally affected the CVD risk factors in a cumulative manner; while SEP in childhood was the prominent model for men. For example, in women BMI increased by 1.11 kg/m<sup>2</sup> (95% CI 0.76 to 1.46) per unit increase in SEP accumulation score. In men BMI was 0.42 kg/m<sup>2</sup> (0.17 to 0.68) higher in those from a manual social class in childhood. In both genders, a late adulthood critical period for HBA1c was the best fitting model. BMI at age 53 reduced the associations for all outcomes but whereas BMI at age 53 captured women's lifetime BMI trajectory, it was men's BMI at earlier ages that explained more of the association than BMI at older ages. Exercise, total energy and fat intake, and menopausal status (women only) attenuated the SEP/BMI association in both genders, while lifetime smoking pattern increased the association in women (regression coefficients final model: women 0.77 kg/m<sup>2</sup> (0.39 to 1.15) and men 0.75 kg/m<sup>2</sup> (0.16 to 1.35)).

**Conclusion:** SEP across life influences CVD risk factors differently in men and women. Health behaviours may influence BMI and subsequently the other CVD risk factors, but at different points in the life course depending on gender. Gender difference in health behaviours, reproductive characteristics, and social roles across life may explain the differential effects of SEP on CVD risk factors.

#### 075 SOCIAL INFLUENCES ON TRAJECTORIES OF SELF-RATED HEALTH: A COMPARATIVE STUDY OF FOUR OECD COUNTRIES

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**Objective:** To describe average national trajectories of self-rated health over a 7-year period, identify social determinants of cross-sectional and longitudinal health; and compare cross-national patterns.

**Design:** Prospective nationally representative household panel studies (the US Panel Study of Income Dynamics; British Household Panel Survey; the German Socio-Economic Panel Survey; the Danish panel from the European Community Household Panel Survey).

**Setting:** The US, Britain, Germany and Denmark.

**Participants:** Household heads and their partners of working age throughout follow-up (US: 4855; Britain: 4365; Germany: 4694; Denmark: 3252).

**Main Outcome Measure:** Repeated measures of self-rated health (1995–2001). Social indicators include education, occupational class, employment status, income, age, gender, minority status and marital status, all measured in 1994.

**Methods:** Latent growth curve models describe average national trajectories of self-rated health and individual differences in these trajectories. Latent factors representing intercept and slope components are extracted from seven annual observations across time for self-rated health, and are conditioned on predictors measured one year prior to baseline. Aging-vector graphs are used to visualise trajectories of self-rated health.

**Results:** The vector graphs for the US and Germany show that self-rated health remained relatively stable for young adults, declined as adults became middle aged and then became more stable again. The graphs for Britain and Denmark indicate a steady decline throughout working life. The Danish model indicates an unfavourable trend in self-rated health during a period that experienced a move to monetarism: ratings were lower for persons of a given age in 2001 than for persons of the same age in 1995. Social covariates predicted baseline health in all four countries, with the strength of association consistent with theories of welfare regime typologies. The strongest social gradients were seen in the US, while the weakest were seen in Denmark and Germany. Britain occupied a position between these two extremes. Once inequalities in baseline health had been accounted for, there were few determinants of mean health decline. There was little difference in the aging trajectories for those with advantaged and average social profiles. By contrast, disadvantage had a strong effect on aging trajectories. Differences were already apparent at 25 years of age in the US and Britain and gaps widened with age in all four countries.

**Conclusion:** National differences in self-rated health trajectories and their social correlates may be attributed, in part, to welfare policies.

## Health service research and evidence based practice

### 076 MIND THE GAP: USE OF EVIDENCE IN COMMENTARIES ON MMR IN PROFESSIONAL JOURNALS (1988–2007)

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**Objective:** To examine how journals and magazines disseminate research evidence and guidance on best practice to health professionals by analysing the alignment between commentaries on MMR evidence in journals, and key events in the MMR controversy.

**Design:** Content analysis of published commentaries on MMR (1988–2007).

**Data Sources:** Commentaries and articles in six commonly-read UK publications aimed at community health practitioners, identified through interviews with health visitors, practice nurses, GPs and medical librarians (n = 20), and through a survey conducted at the Community Practitioners and Health Visiting Association Annual Conference in 2007.

**Main Outcome Measures:** Number of comment pieces by publication, year and article type; trends in the focus, and tone (positive, neutral, negative, mixed) and whether recommendations on MMR were included.

**Results:** 860 articles met the inclusion criteria (British Medical Journal n = 104, Community Practitioner n = 45, Health Visitor n = 24, Practice Nurse n = 61, Nursing Standard n = 61 and Pulse n = 565). Of these, 264 (31%) made some reference to evidence endorsing the safety of MMR. Around one in ten were rated as negative (10.9%, n = 29) or neutral (11.3%, n = 30) in relation to