

skilled/unskilled (IV/V)) based on the Registrar General Social Class classification and we looked at absolute and relative differences between I/II and IV/V. To test differences in mean intake by demographic characteristics, we used t-tests and linear regression. All analyses were conducted in StataSE 13.

**Results** Overall FV intake increased by 20% from 1986/87 (2.67 portions, 95% confidence interval [2.59,2.74]) to 2008/12 (3.21 portions [3.10,3.32]), but still fell short of the recommended 5 portions. We found higher FV intake in socioeconomic group I/II compared to IV/V across all years (difference of 0.96–1.28 portions; 26.09%–36.36%). FV intake also differed by age across all surveys, with older respondents eating more than younger respondents (1.03–2.08 portions; 51.76%–129.19%). Men ate significantly more FV than women in 1986/87 (0.18 portions; 6.52%) but there was no significant difference in the latter time points.

**Conclusion** While FV consumption has increased in the UK since 1986, and sex differences in consumption have disappeared, socioeconomic and age-related inequalities persist. Population-level strategies to improve diet and increase FV intake are still needed in the promotion of public health. In order to redress inequalities, it is crucial that these strategies are at least or more effective in lower versus higher socioeconomic groups, and in younger versus older adults.

## Ageing 1

OP49

### ASSOCIATION BETWEEN TEMPERATURE AND DEATH AMONG ELDERLY PEOPLE IN ENGLAND 2012/13–2013/14: A CASE-CROSSOVER DESIGN

<sup>1</sup>P Tammes\*, <sup>2</sup>C Sartini, <sup>3</sup>I Preston, <sup>1</sup>AD Hay, <sup>4</sup>D Lasserson, <sup>1</sup>RW Morris. <sup>1</sup>School of Social and Community Medicine, University of Bristol, Bristol, UK; <sup>2</sup>Department of Primary Care and Population Health, University College London, London, UK; <sup>3</sup>Household Energy Services, Centre for Sustainable Energy, Bristol, UK; <sup>4</sup>Nuffield Department of Medicine, University of Oxford, Oxford, UK

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**Background** Around 24 000 extra deaths occur annually in winter in England and Wales. NICE guidance suggests GPs should identify patients most at risk. We investigated whether socio-demographic and clinical characteristics could predict cold-related mortality.

**Methods** Data on over 5 000 000 patients aged 65+ from the Clinical Practice Research Datalink (CPRD) were linked with ONS death registration, yielding 34 777 patients who died between April 2012 and March 2014. We used daily temperature data from the Met Office to calculate (i) absolute mean temperature and (ii) difference from average monthly temperature (relative temperature) for the date of death and three days previously. In a case-crossover analysis, we also calculated both temperature measures for the 14th day before and the 14th day after the date of death. Patients assumed to live in an institution were identified using the CPRD family number. From linked Hospital Episode Statistics, we determined whether an emergency hospital admission occurred two years before death to indicate previous health status. Deprivation level and house energy efficiency were determined from patient's and practice's Lower Super Output Area respectively: the latter used information from the Centre for Sustainable Energy. Conditional logistic regression models were applied to estimate the odds ratio (OR) of death associated with

temperature and interactions between temperature and socio-demographic, medical and house quality characteristics were expressed as relative odds ratios (RORs).

**Results** Higher absolute temperature was associated with lower risk of death (OR 0.985 per 1°C; 95% CI 0.975–0.992;  $p < 0.001$ ). There was weak evidence of a positive association between risk of death and higher relative temperature (OR 1.008 per 1°C; 95% CI 0.999–1.017;  $p = 0.056$ ). No interactions were found between temperature measures and age, gender, living in urban/rural areas, deprivation level, or house energy efficiency in either bivariable or multivariable analyses. There was some evidence for a stronger effect of higher relative temperature for those living in an institution (ROR 1.025; 95% CI 1.002–1.048;  $p = 0.03$ ), but not in multivariable analysis. Effects of temperature measures differed between those who had none vs at least one previous emergency admission: ORs for absolute temperature were 0.970 and 0.988 per 1°C, with ROR 1.018, 95% CI 0.998–1.039,  $p = 0.079$ . For relative temperature ORs were 1.033 and 1.003, with ROR 0.974, 95% CI 0.951, 0.997,  $p = 0.025$ , suggesting less impact of relative temperature for those with a previous emergency admission.

**Conclusion** Recommendations for GPs to identify those at highest risk during cold weather cannot be supported by these results.

OP50

### INEQUALITIES IN TIME BETWEEN STOPPING WORK AND DEATH: ONS LONGITUDINAL STUDY

ET Murray\*, E Carr, P Zaninotto, J Head, N Shelton. *Epidemiology and Public Health, University College London, London, UK*

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**Background** Due to the financial challenges of increasing life expectancy, many industrialised countries are raising state pension eligibility ages (SPA). However, use of average life expectancy to calculate SPA ignores inequalities in health and life expectancy across socio-economic groups.

**Methods** Data was used from 1 20 552 members of The Office for National Statistics Longitudinal Study (LS) who were aged 50–75 at the 2001 census and had information on work status at the 2011 census, or died between 2001 and 2011. First, multinomial logistic regression was used to examine the odds of being dead or not being in work at the 2011 census date, compared to being in paid work, by Registrar General occupational social classes. Then, right-censored linear regression was used to examine mean social class differences in age of stopping work, age of death, and years of life between stopping work and death before aged 85; separately for each outcome. All models were adjusted for gender and self-rated health status in 2001.

**Results** By the 2011 census date, 12.8% of the sample had died, 66.8% were alive but not working and 20.4% remained in work. Women were less likely to both to die in the next 10 years or to remain in work than men. Gender-adjusted analyses showed that lower social class was associated with earlier mean age of stopping work [unskilled manual vs professional: –2.76 years (95% CI –3.04, –2.48)] and mean age of dying (before aged 85) [–3.92 (–4.56, –3.27)]. Before aged 65, work exit was mostly due to exit from paid employment, rather than mortality; although unskilled workers in this age group were still 1.92 times (1.69, 2.19) more likely to die