

Conclusion This study showed substantial competing interests amongst scientists commenting on the use of antivirals and/or vaccines in H1N1 influenza during the period the UK government was deciding its pharmaceutical policy. Since commentaries in the media provide an alternative route for external pressure on health policy decisions, scientists should declare any potential competing interests for media interviews as for journal articles.

OP79 YOUTH EXPOSURE TO TELEVISION ALCOHOL ADVERTISING IN THE UK

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Background Increasing evidence suggests that exposure to alcohol marketing increases the likelihood that adolescents will start to drink alcohol and that among those who already consume alcohol exposure to alcohol advertising is likely to increase its use. Existing research in Europe has tended to focus on the content of alcohol marketing and advertising but our understanding of the actual levels of exposure remains inadequate. This study aims to contribute to filling this gap by analysing youth exposure to television alcohol advertising in the UK.

Methods We obtained data on viewership and on alcohol advertising volume for the top ten television channels with the highest number of viewers in the UK by age (4–9, 10–15, 16–24, 25 plus) for December 2010 to May 2011. Data were analysed descriptively to characterise youth viewership by channel, month and time of the day ('daypart') and alcohol advertising exposure. We then used a negative binomial regression model to measure incidental youth exposure to alcohol advertising relative to adults over 25 years of age. We applied sensitivity analyses to test robustness of the model.

Results Viewership and alcohol advertising volume varied substantially across the 10 channels, months and dayparts. Children and adolescents (10–15 years) constituted about 4% of the total audience and young people (16–24 years) 8%, yet their exposure to alcohol commercials was 5% and 50%, respectively. Relative to adults 25 years of age and older, the regression analysis found advert intensity was higher where children and adolescents constituted a greater proportion of the viewership (incident rate ratio (IRR) 1.09, 95% CI 1.02, 1.17, $p=0.013$). This relationship was particularly strong for commercials of beer and cider (IRR =1.14, 95% CI 1.06, 1.23, $p=0.000$), super market brands (IRR =1.16, 95% CI 1.07, 1.28, $p=0.000$), and ready-mix drinks (IRR =1.51, 95% CI 1.27, 1.78, $p=0.000$). In contrast, although the IRR for those aged 16 to 24 years also differed significantly from that observed for older adults, the difference was small (1.02, 95% CI 1.01, 1.04, $p=0.003$). There were no statistically significant associations for wine and spirit advert incidence and viewership for any of the younger population groups.

Conclusion Our findings suggest that young people in the UK have a disproportionately higher exposure to television alcohol (except wine and spirits) advertising than would be expected from general viewership patterns. Alcohol advertising practices should be modified to limit exposure of underage viewers.

OP80 MINIMUM UNIT PRICING FOR ALCOHOL: A DOCUMENT ANALYSIS OF EVIDENCE SUBMISSIONS TO THE SCOTTISH PARLIAMENT

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Background Minimum unit pricing (MUP) of alcohol is a novel policy intervention aimed at increasing the price of the cheapest forms of alcohol to reduce alcohol consumption and associated harms. In Scotland, alcohol-related harms have increased exponentially during the past few decades and Scotland currently experiences the greatest level of alcohol-related mortality within the UK. Scotland would be the first country in the world to introduce the measure and therefore both advocates and critics have seized the opportunity to put forward the different arguments in the case of MUP. This study examines the evidence submitted to the Scottish Parliament with the aim of examining how arguments for and against MUP have been framed and to consider what forms of evidence have been drawn upon by different policy stakeholders to debate MUP.

Methods The Scottish Parliament received evidence submissions from a wide variety of stakeholders in its first consideration of MUP as part of the Stage 1 scrutiny process for the Alcohol (etc.) Bill 2010. Sixty-five documents submitted by 47 different stakeholders (including politicians, health professionals, industry representatives, supermarkets and researchers) considered within meetings of the Select Committee were analysed. Data management was assisted using Nvivo 9, framework matrices, and thematically analysed using constant comparative methods.

Results Arguments around alcohol policy have been actively constructed as a health issue by advocates for MUP in comparison to critics who highlight economic, ideological, and social aspects. Constructions of alcohol overconsumption as a population health issue, rather than an individual-level health problem, were contested. Alcohol epidemiology was drawn upon by advocates (to support a whole population approach) but also by critics (to argue alcohol harms are reducing). Issues raised in opposition include important potential secondary impacts such as exacerbating inequalities, increasing cross-border and illicit trade and perverse incentives (such as increases in profitability driving retailers to encourage increased sales).

Conclusion Framing of alcohol policy as a health (rather than, for example, trade or justice) issue that requires a whole population approach has been important in creating conditions amenable to MUP being seriously considered by policymakers. The initial framing of an issue in different ways can lead to similar sources of evidence, such as routine epidemiological data, being used to suggest different actions are appropriate. Public health researchers and practitioners should be aware of the active construction process occurring in policy definition and adapt research and advocacy accordingly.

Public Health Interventions: Diet

OP81 ESTIMATING THE POTENTIAL OF POPULATION LEVEL CHANGES IN CHOLESTEROL AND BLOOD PRESSURE FOR REDUCING UK CORONARY HEART DISEASE MORTALITY RATES: A NOVEL MODELLING APPROACH

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Background Coronary heart disease (CHD) mortality is declining. However, population ageing and increasing obesity and diabetes might reverse this trend. Strategies to reduce salt and saturated fat intake could substantially decrease population-wide cholesterol and blood pressure levels and consequently reduce CHD events. Our aim was to explore the potential reduction in CHD mortality

burden that might be achieved by population shifts in these risk factors.

Methods The novel Stock of Health (SoH) modelling approach integrates demographic and risk factor data from the Office for National Statistics and the Health Survey for England, and risk factor effects from the US Cardiovascular Lifetime Risk Pooling Project. The SoH approach estimates the latent “stock” of CHD-related health for each individual within the entire population of England and Wales (51 million). It then computes failure times for CHD mortality, allowing for multiplicative risk factor effects and competing mortality risks.

We first simulated CHD deaths for England and Wales over the period 2000–2010. We then extended the simulations to 2030, and compared “FEASIBLE” and “IDEAL” population intervention scenarios, targeted to systolic blood pressure (SBP) and cholesterol under two future trend assumptions: I) assuming mortality rates in 2010 remain stable through to 2030, or II) assuming CHD mortality continue falling.

Results The mean simulated failure times closely mirrored those actually observed (1993–2004: men=72 vs. 71 years; women=74 vs. 75 years). In 2030, about 81200 CHD deaths are expected to occur under trend assumption I (+14% compared to 2010, reflecting population ageing) and 47600 under trend assumption II (–18% compared to 2010). SBP: For trend I, a FEASIBLE SBP reduction of 1mmHg and IDEAL reduction of –5mmHg could result in approximately 77300 (+9%, baseline: 2010) and 64500 (–9%, baseline: 2010) deaths respectively in 2030. Assuming falling trends (II), about 45500 (–22%, baseline: 2010) and 38300 (–34%, baseline: 2010) deaths would result in 2030 under the feasible and ideal scenarios respectively. Total cholesterol (TC): Under trend I, a FEASIBLE TC reduction of 0.1 mmol/l and IDEAL reduction of 0.5 mmol/l could result in about 74800 and 57000 deaths (5% and –20%) by 2030. Assuming trend II, the resulting deaths would be approximately 43900 and 33400 (–25% and –43%, baseline: 2010) respectively.

Conclusion Under both trend assumptions, the adoption of evidence-based dietary policies to reduce salt and saturated fat intake, resulting in population-wide decreases in blood pressure and cholesterol could result in substantial declines in forecasted CHD mortality.

OP82

AN EVALUATION OF THE EFFECT OF THE NEW SCHOOL FOOD POLICY ON CHILDREN'S NUTRITIONAL INTAKE AND SOCIO-ECONOMIC CONSEQUENCES IN NORTH EAST ENGLAND

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Background After 20 years with no regulation of school food and a plethora of evidence on the state of children's diets, new food and nutrient-based standards were re-introduced in 2006 to schools in England. As a major policy change receiving financial and legislative support from Government, our objectives were to evaluate the effect of this policy on children's nutritional intake, and its wider consequences including the added costs.

Methods A cross-sectional study was undertaken in primary (n=13) and middle (n=5) schools in North East England. Dietary, anthropometric and socio-economic data were collected from children aged 4–7y and 11–12y using identical quantitative methods pre, and post-implementation. In the 4–7y olds a four day food diary was completed using an observational method, the 11–12y olds completed 2x3 day food diaries followed by an interview. Economic analysis was conducted in the form of cost-consequence analysis, comparing the differences in costs with all of its possible consequences in a tabular format.

Results The effect of lunch type (school or packed) and year had a significant effect on total dietary intake in the 4–7y olds (n=1,017). Children having school lunches post-implementation had a slightly higher mean daily intake of energy (93 kJals, p=0.004), but lower mean daily % energy from fat (3%, p<0.001) and saturated fat (1%, p<0.001). Mean daily intakes of micronutrients such as vitamin C, and iron were higher in children consuming school lunches. In contrast, there was limited evidence of the effect of lunch type post-implementation on the total diet in 11–12y olds (n=883). The exception was % energy from fat. In 1999–2000 children consuming a school lunch had a higher % energy from fat than those consuming a packed lunch, post-implementation this difference was no longer apparent. The cost per school meal following implementation of the school food policy is higher than pre-implementation, ranging from £29 to £55 per child per year depending on how differences in prices of food pre and post-implementation were adjusted for inflation. Wider social consequences, for example, a reduction in socio-economic inequality, educational benefits and change in health behaviour were also set against the increased cost.

Conclusion These findings demonstrate that the introduction of the school food policy has the potential to have a positive impact not only on food eaten at school but also on children's total diet. Economic analysis highlights the trade-offs between significant improvement of nutrient intakes of children and the increased cost.

OP83

DOES LUNCH TYPE HAVE AN IMPACT ON DIETARY QUALITY OVER THE WHOLE DAY IN ENGLISH PRIMARY SCHOOL CHILDREN?

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Background Nutrient standards were introduced by the Government to all English primary schools in 2008. By restricting some products and increasing the quantity and quality of others, the standards resulted in a healthier school meal profile. Despite attention to improve the quality of school meals, packed lunches have changed little in recent years and are not covered by similar regulations. There are few published studies that compare weight, body mass index (BMI), energy and nutrient intake over the whole day according to lunch type.

Methods A dietary assessment tool named CADET was used to assess the diet of 2355 children aged 6 to 8 years attending primary schools across England. Regression analysis which took into account the clustering of children within schools was used to report anthropometric, dietary and nutritional characteristics over one 24 hour period. Nutrient and anthropometric results from children having a packed lunch were compared with children having a school meal. Results were also compared to the reference nutrient intakes (RNI) and the National Diet and Nutrition Survey (NDNS) in children.

Results No significant differences in weight, standardised BMI, or daily energy consumption were seen between children in the packed lunch group compared to the school meal group. However, there were nutritional differences, reported here as mean difference and 95% confidence interval (95% CI). The packed lunch group consumed higher daily amounts of carbohydrates (8.1 g, 95% CI 2.2 to 14.0g, P<0.01), sugar (9.8g, 95% CI 5.4 to 14.3, P<0.01) and sodium (92.1mg, 95% CI 22 to 162mg, P<0.01). Conversely, the school meal group consumed higher intakes of protein (3.3g, 95% CI 1.6 to 5g, P<0.01), fibre (0.8g, 95% CI 0.3 to 1.3g, P<0.01) and zinc (0.2mg, 95% CI 0.05 to 0.5mg, P<0.01). Neither group met the recommended amounts for zinc, fibre or starch and indicated lower levels of sodium and higher levels of fat than the NDNS. Differences