Background One-third of the burden of cancer is associated with four health-harming behaviours – tobacco use, alcohol consumption, poor diet and physical inactivity. These individual behaviours are influenced by a complex array of socio-political factors, including industry interests. The growing evidence base supporting the use of price-related policies to curb over consumption of unhealthy products is of interest to governments around the world. However, the implementation of such policies requires public and policy-maker support. The aim of this study is to enhance our understanding of the features of message framing that influence public support in relation to four price-related policies (1-tax, 2-mitigation fee, 3-discounting ban and 4-minimum pricing); across three products (tobacco, alcohol and sugar); and two countries (USA and UK).

Methods We conducted 18 semi-structured interviews exploring knowledge, attitudes, and beliefs of the four pricing policies in relation to tobacco, alcohol and sugar products in 2018. Nine in the USA and nine in the UK. Interviewees included cancer policy advocates, cancer survivors and members of the general public. NVivo 12 was used to organise the data for inductive and deductive thematic analysis.

Results Common supportive features across all four policies included (i) highlighting the health benefit (including reduced cancer risk), particularly for young people and those on low income, arising from impact on purchasing behaviour and (ii) making the cost of consumption in terms of health harm clear. Common unsupportive features across policies included (i) that effectiveness will depend on size of the financial penalty and consumer response and (ii) such policies are unfair on sensible consumers and potentially regressive. Interviewees were more supportive of price-related policies for tobacco containing products where they perceived a strong association between tobacco use and cancer risk. Some differences in views arose between products, particularly around the addictive nature of alcohol and tobacco that did not apply to sugar consumption.

Conclusion This study reveals important differences in levels of persuasiveness arising from the framing of messages designed to promote price-related policies as a health promotion strategy. The results have informed the identification of four frames to be tested in a multi-factorial quantitative study, currently under way. These frames can be characterised as: F1 - To reduce the financial strain on the health care system; F2 - For the protection of children and young people; F3 - To reduce cancer risk; and F4 - To reduce the risk of other non-communicable diseases.
in addressing harmful consumption, whilst enabling the maintenance of social support.

P09 RANDOMISED CONTROLLED TRIALS OF COMMUNITY-BASED PHYSICAL ACTIVITY INTERVENTIONS IN ADULTS WITH LONG-TERM FOLLOW-UP AND OBJECTIVE PHYSICAL ACTIVITY MEASUREMENTS: A SYSTEMATIC REVIEW AND META-ANALYSIS

1C Wahlich, 1U Chaudhry, 1R Normansell, 1D Cook, 5S Hirani, 1R Knightly, 1T Harris.
1Population Health Research Institute, St George’s, University of London, London, UK;
2School of Health Sciences, City, University of London, London, UK;
3University College Cork, Cork, Ireland
4Population Health Research Institute, St George’s, University of London, London, UK;
5National Perinatal Epidemiology Centre, University of Oxford, Oxford, UK

Background Physical inactivity is a global public health concern. Systematic review evidence indicates interventions can increase short-term physical activity (PA) levels. However, long-term health benefits require sustained increases in PA levels, and evidence from interventions with objective PA measures beyond 12-months is lacking. This review aims to:

1. Identify and describe randomised controlled trials (RCTs) in adults with objective PA measures and long-term follow-up (beyond 12-months)
2. Evaluate the extent to which intervention effects are sustained beyond 12-months

Methods We systematically searched seven databases using MeSH headings and keywords to identify RCTs published after 01/01/2000. We included trials reporting long-term effects (≥12-months) on objective PA levels with community-based participants, aged ≥18 years, with no specific medical conditions. We conducted quality assessments and meta-analyses at different follow-up points.

Results Of 17233 unique records identified, 9 studies were included in the review, 5 in the meta-analyses. Long-term follow-up ranged from 12-months to 4-years. We observed increases in PA at 12-months for steps/day (mean difference (md)=554, 95% CI=383 to 724) and weekly minutes of moderate-to-vigorous PA (MVPA) (md=34.9, 95% CI=26.9 to 42.8). This increase was sustained up to 4 years for both steps/day (md=494, 95% CI=251 to 738) and weekly minutes of MVPA (md=25.2, 95% CI=13.3 to 37.1).

Conclusion There are few PA interventions with objective follow-up beyond 12-months. This review provided evidence of sustained PA intervention effects beyond 12-months and up to 4-years for both steps/day and MVPA.

P10 COMMUNICATION IS THE ROOT ISSUE: INFORMING THE DEVELOPMENT OF CYBERBULLYING INTERVENTIONS

1R Dennehy*, 1S Meaney, 1Mary Cronin, 1Ellia Arensman. 1School of Public Health, University College Cork, Cork, Ireland; 2National Perinatal Epidemiology Centre, University College Cork, Cork, Ireland; 3National Suicide Research Foundation, University College Cork, Cork, Ireland

Background Cyberbullying is an international public health concern. The potential cost to the physical and mental health of young people calls for action to address this issue. Guided by the UK Medical Research Council guidance on complex interventions and the Behaviour Change Wheel, an approach for applying behavioural theory to intervention development, the aim of this study was to conceptualise cyberbullying from the perspective of post-primary school students to inform the development of an intervention to address the issue.

Methods A systematic review and meta-ethnographic synthesis of qualitative studies related to young people’s perceptions of cyberbullying was conducted. A young person’s advisory group (aged 16) was established to collaborate with researchers in the design and conduct of a qualitative study across four post-primary schools. 11 focus groups (n=64) were conducted with young people aged 14–17. Data was thematically analysed and the findings were interpreted by the advisory group.

Results The advisory group identified key areas requiring intervention: parental knowledge of the cyber world; parental reaction when approached for help; bodily autonomy (with regard to the sharing of nude images); mental health. They identified ‘communication’ as the ‘root issue’ in tackling these issues: communication between young people and parents; communication among peers; and communication in the delivery of prevention and intervention programmes for young people.

Conclusion This study provides a thorough understanding of cyberbullying from the perspective of young people. The findings will be used to design, implement, and evaluate interventions that are grounded in young people’s experience.

P11 THE ASSOCIATION OF ALCOHOL PRS ON MENTAL HEALTH PHENOTYPES: A PHEWAS IN THE AVON LONGITUDINAL STUDY OF PARENTS AND CHILDREN (ALSPAC)

1,2KE Easey*, 3,4,5,6H Aan, 1,2,3,5,6S Halls, 1,2,3,5,6R Wootton, 1,2,3,5,6MR Munafò, 3NJ Timpson, 3,5,6L Zuccolo. 1School of Psychological Science, University of Bristol, Bristol, UK; 2MRC Integrative Epidemiology Unit, University of Bristol, Bristol, UK; 3Department of Population Health Sciences, University of Bristol, Bristol, UK

Background An emerging technique is a Phenome Wide Association Study (PheWAS), which reverses the phenotype to genotype methods used within a GWAS, instead taking a predetermined set of genetic variants, and testing which of a wide range of phenotypes these genetic variants may be associated with. We can further investigate the genetic architecture of multiple traits and disease outcomes through linking a chosen genetic variant to multiple phenotypes, in varying populations.

In this study we constructed polygenic risk scores (PRS) from single nucleotide polymorphisms (SNPs) shown to be robustly related to alcohol use, to test:

1. These genetic signals within two sub populations of adolescents, and for pregnant women.
2. If there are any associations (other than with alcohol use) of these PRS with many mental health phenotypes.
3. Intrauterine effects of Maternal PRS for alcohol use for associations with offspring phenotypes.

Methods Participants were mothers and offspring from the Avon Longitudinal Study of Parents and Children (ALSPAC). Participants were genotyped and PRS were constructed based on genome-wide significant SNPs for alcohol consumption. Targeted phenotypes were selected from substance use (n=22) and mental health/behavioural variables (n=91) within ALSPAC. Linear and logistic regression analyses were used to investigate if PRS for alcohol use were associated with alcohol use in pregnancy; children and health phenotypes.