Some recent links to articles, reports and websites on preventive health

The Australian Prevention Partnership Centre
Ultimo, NSW: Australian Prevention Partnership Centre, based at the Sax Institute; 2018
“The Australian Prevention Partnership Centre is a national collaboration of researchers, policy makers and practitioners who are working together to identify new ways of understanding what works and what doesn’t to prevent lifestyle-related chronic health problems in Australia. Our priority areas are the main lifestyle-related determinants of chronic disease risk: obesity, diet, tobacco, physical activity and alcohol. However, we are not limited in our scope and will draw on relevant research and practice from any field that can advance thinking, such as knowledge and experience gained in the fields of HIV prevention, motor vehicle accidents and Indigenous health. The Prevention Centre aims to provide health decision makers with the best evidence to inform their policies and programs. We want to provide the evidence and tools for a comprehensive systemic approach to preventing chronic health problems, which includes working in the health system as well as in sectors outside of it, such as in schools, food production and retailing, and urban planning.”

Australian Institute of Health and Welfare.

Alcohol
Canberra, ACT: AIHW; 2018
The consumption of alcohol is widespread within Australia and entwined with many social and cultural activities. However, harmful levels of consumption are a major health issue, associated with increased risk of chronic disease, injury and premature death.

Australian Institute of Health and Welfare.

Illicit use of drugs
Canberra, ACT: AIHW; 2018
Illicit use of drugs causes death and disability and is a risk factor for many diseases. It is also associated with risks to users’ family and friends and to the community. Illicit use of drugs includes use of illegal drugs, misuse or non-medical use of pharmaceutical drugs, or inappropriate use of other substances (such as inhalants).

Australian Institute of Health and Welfare.

Physical activity
Canberra, ACT: AIHW; 2018
Regular physical activity and a healthy diet are important factors in maintaining a healthy weight. Ensuring that you get enough exercise is also an important factor in preventing and
managing chronic illnesses, such as type 2 diabetes and cardiovascular disease.  

Australian Institute of Health and Welfare.  
**Social determinants**  
Canberra, ACT: AIHW; 2018  
Determinants of health are factors that influence how likely we are to stay healthy or to become ill or injured. Many of the key drivers of health reside in our everyday living and working conditions—the circumstances in which we grow, live, work and age. These social determinants can strengthen or undermine the health of individuals and communities.  

Australian Institute of Health and Welfare.  
**Overweight and obesity**  
Canberra, ACT: AIHW; 2018  
Excess weight, especially obesity, is a major risk factor for cardiovascular disease, type 2 diabetes, some musculoskeletal conditions and some cancers. As the level of excess weight increases, so does the risk of developing these conditions. In addition, being overweight can hamper the ability to control or manage chronic conditions.  

Australian Institute of Health and Welfare.  
**Smoking**  
Canberra, ACT: AIHW; 2018  
Tobacco smoking is the single most important preventable cause of ill health and death in Australia. Tobacco smoke contains over 7,000 chemicals, of which over 70 cause cancer.  

Baker P, Friel S, Kay A, Baum F, Strazdins L, Mackean T.  
**What Enables and Constrains the Inclusion of the Social Determinants of Health Inequities in Government Policy Agendas? A Narrative Review.** 
Background Despite decades of evidence gathering and calls for action, few countries have systematically attenuated health inequities (HI) through action on the social determinants of health (SDH). This is at least partly because doing so presents a significant political and policy challenge. This paper explores this challenge through a review of the empirical literature, asking: what factors have enabled and constrained the inclusion of the social determinants of health inequities (SDHI) in government policy agendas? Methods A narrative review method was adopted involving three steps: first, drawing upon political science theories on agenda-setting, an integrated theoretical framework was developed to guide the review; second, a systematic search of scholarly databases for relevant literature; and third, qualitative analysis of the data and thematic synthesis of the results. Studies were
included if they were empirical, met specified quality criteria, and identified factors that enabled or constrained the inclusion of the SDHI in government policy agendas. Results A total of 48 studies were included in the final synthesis, with studies spanning a number of country-contexts and jurisdictional settings, and employing a diversity of theoretical frameworks. Influential factors included the ways in which the SDHI were framed in public, media and political discourse; emerging data and evidence describing health inequalities; limited supporting evidence and misalignment of proposed solutions with existing policy and institutional arrangements; institutionalised norms and ideologies (ie, belief systems) that are antithetical to a SDH approach including neoliberalism, the medicalisation of health and racism; civil society mobilization; leadership; and changes in government. Conclusion A complex set of interrelated, context-dependent and dynamic factors influence the inclusion or neglect of the SDHI in government policy agendas. It is better to think about these factors as increasing (or decreasing) the ‘probability’ of health equity reaching a government agenda, rather than in terms of ‘necessity’ or ‘sufficiency.’ Understanding these factors may help advocates develop strategies for generating political priority for attenuating HI in the future.

http://www.ijhpm.com/article_3438_47e332cf5cb2935ed3da952ee66f482d.pdf

Browne GR, Davern M, Giles-Corti B. What evidence is being used to inform municipal strategic planning for health and wellbeing? Victoria, Australia, a case study. Evidence & Policy: A Journal of Research, Debate and Practice. 2017;13(3):401-16. Victorian local governments (LGs) are required to develop evidence-based Municipal Public Health and Wellbeing Plans (MPHWPs) that improve health and wellbeing. This study evaluated the implementation of this requirement across 79 LGs. Evidence in 116 documents was categorised by source, issue, and policy specificity. Over 11,000 evidence-occurrences from 200 sources were recorded. More evidence on social determinants was identified than on epidemiology or health behaviours. Most (96%) evidence was descriptive and only 4% supported MPHWP actions. The results suggest the community is an important source of novel interventions, and proposes three related reasons for the dearth of intervention level evidence.

http://www.ingentaconnect.com/content/tppep/2017/00000013/00000003/art00002
https://doi.org/10.1332/174426416X14655655062000

Colyer S. Bottom line: Sydney’s “lockout laws” reduce assaults. MJA InSight. 2018(7).


**Government response to 'Childhood obesity: follow-up' report**
London: Department of Health and Social Care; 2018
The government’s response to the House of Commons Health Select Committee’s report on childhood obesity.

Australia. Department of Health. Ministerial Drug and Alcohol Forum
**National Drug Strategy 2017-2026**
Canberra: Department of Health; 2017.

Australia. Department of Health. Ministerial Drug and Alcohol Forum
**National Alcohol Strategy 2018-2026**
Canberra: Department of Health; 2018.

Holmes RF, Lung T, Fulde GWO, Fraser CL.
**Fewer orbital fractures treated at St Vincent’s Hospital after lockout laws introduced in Sydney.**

Oliver K, Aicken C, Arai L.
**Making the most of obesity research: developing research and policy objectives through evidence triangulation.**
Drawing lessons from research can help policy makers make better decisions. If a large and methodologically varied body of research exists, as with childhood obesity, this is challenging. We present new research and policy objectives for child obesity developed by triangulating user involvement data with a mapping study of interventions aimed at reducing child obesity. The results suggest that enhancing mental wellbeing should be a policy objective, and greater involvement of peers and parents in the delivery of obesity interventions would be beneficial. We conclude that exploiting the evidence base through triangulation is a useful and valid method.
http://www.ingentaconnect.com/content/tpp/ep/2013/00000009/00000002/art00004
https://doi.org/10.1332/174426413X662617

**E-cigarettes and heated tobacco products: evidence review**
The report covers e-cigarette use among young people and adults, public attitudes, the impact on quitting smoking, an update on risks to health and the role of nicotine. It also reviews heated tobacco products.


London: Public Health England; 2018

Involving and empowering local communities, and particularly disadvantaged groups, is central to local and national strategies in England for both promoting health and wellbeing and reducing health inequalities. This edition of Health matters highlights some of the successful interventions that have been implemented across England.


Washington, DC: The National Academies Press; 2018

Alcohol-impaired driving is an important health and social issue as it remains a major risk to Americans’ health today, surpassing deaths per year of certain cancers, HIV/AIDS, and drownings, among others, and contributing to long-term disabilities from head and spinal injuries. Progress has been made over the past decades towards reducing these trends, but that progress has been incremental and has stagnated more recently. Getting to Zero Alcohol-Impaired Driving Fatalities examines which interventions (programs, systems, and policies) are most promising to prevent injuries and death from alcohol-impaired driving, the barriers to action and approaches to overcome them, and which interventions need to be changed or adopted. This report makes broad-reaching recommendations that will serve as a blueprint for the nation to accelerate the progress in reducing alcohol-impaired driving fatalities.

https://doi.org/10.17226/24951

United States. National Academies of Sciences Engineering and Medicine. **Public Health Consequences of E-Cigarettes.**

Washington, DC: The National Academies Press; 2018

Millions of Americans use e-cigarettes. Despite their popularity, little is known about their health effects. Some suggest that e-cigarettes likely confer lower risk compared to combustible tobacco cigarettes, because they do not expose users to toxicants produced through combustion. Proponents of e-cigarette use also tout the potential benefits of e-cigarettes as devices that could help combustible tobacco cigarette smokers to quit and thereby reduce tobacco-related health risks. Others are concerned about the exposure to potentially toxic substances contained in e-cigarette emissions, especially in individuals who have never used tobacco products such as youth and young adults. Given their relatively
recent introduction, there has been little time for a scientific body of evidence to develop on the health effects of e-cigarettes. Public Health Consequences of E-Cigarettes reviews and critically assesses the state of the emerging evidence about e-cigarettes and health. This report makes recommendations for the improvement of this research and highlights gaps that are a priority for future research.

https://doi.org/10.17226/24952

US Preventive Services Task Force.

Draft Recommendation Statement. Weight Loss to Prevent Obesity-Related Morbidity and Mortality in Adults: Behavioral Interventions. This opportunity for public comment expires on March 19, 2018


Cluster randomised controlled trial and economic and process evaluation to determine the effectiveness and cost-effectiveness of a novel intervention [Healthy Lifestyles Programme (HeLP)] to prevent obesity in school children.
Public Health Research. Volume: 6, Issue: 1, Published in January 2018
Southampton (UK): NIHR Journals Library
https://www.journalslibrary.nihr.ac.uk/phr/phr06010/#/abstract

Yuan CW, Hanrahan BV, Rosson MB, Carroll JM.
Coming of old age: understanding older adults’ engagement and needs in coproduction activities for healthy ageing.
We report an investigation of how older adults engage in social activities and community events in support of their mental, physical, and emotional health. We focus on personal and collaborative agency in a community context, and construe health as an outcome that is coproduced by a person and other engaged community members. Using qualitative methods, we investigated the coproduction of health among members of retirement communities and people who are ageing in place. We found that our participants, irrespective of living arrangements, engaged in a diverse range of coproduction activities, including physical, socialising, service, discussion, and interest-based activities. We also identified desired but less-supported coproduction opportunities, such as opportunistic activities and the need to better appropriate social resources to enable coproductions. We draw from these findings to consider design implications of technological support for facilitating older adults to coproduce.

https://doi.org/10.1080/0144929X.2018.1432686

Bala MM, Strzeszynski L, Topor-Madry R.
Mass media interventions for smoking cessation in adults.
The Cochrane database of systematic reviews. 2017;11:Cd004704.
BACKGROUND: Mass media tobacco control campaigns can reach large numbers of people.
Much of the literature is focused on the effects of tobacco control advertising on young people, but there are also a number of evaluations of campaigns targeting adult smokers, which show mixed results. Campaigns may be local, regional or national, and may be combined with other components of a comprehensive tobacco control policy. OBJECTIVES: To assess the effectiveness of mass media interventions in reducing smoking among adults. SEARCH METHODS: The Cochrane Tobacco Addiction Group search strategy was combined with additional searches for any studies that referred to tobacco/smoking cessation, mass media and adults. We also searched the Cochrane Central Register of Controlled Trials (CENTRAL) and a number of electronic databases. The last search was carried out in November 2016. SELECTION CRITERIA: Controlled trials allocating communities, regions or states to intervention or control conditions; interrupted time series. Adults, 25 years or older, who regularly smoke cigarettes. Studies which cover all adults as defined in studies were included. Mass media are defined here as channels of communication such as television, radio, newspapers, billboards, posters, leaflets or booklets intended to reach large numbers of people, and which are not dependent on person-to-person contact. The purpose of the mass media campaign must be primarily to encourage smokers to quit. They could be carried out alone or in conjunction with tobacco control programmes. The primary outcome was change in smoking behaviour. This could be reported as changes in prevalence, changes in cigarette consumption, quit rates, or odds of being a smoker. DATA COLLECTION AND ANALYSIS: Two authors independently assessed all studies for inclusion criteria and for study quality (MB, LS, RTM). One author (MB) extracted data, and a second author (LS) checked them. Results were not pooled due to heterogeneity of the included studies and are presented narratively and in table form. MAIN RESULTS: Eleven campaigns met the inclusion criteria for this review. Studies differed in design, settings, duration, content and intensity of intervention, length of follow-up, methods of evaluation and also in definitions and measures of smoking behaviour used. Among seven campaigns reporting smoking prevalence, significant decreases were observed in the California and Massachusetts statewide tobacco control campaigns compared with the rest of the USA. Some positive effects on prevalence in the whole population or in the subgroups were observed in three of the remaining seven studies. Three large-scale campaigns of the seven presenting results for tobacco consumption found statistically significant decreases. Among the eight studies presenting abstinence or quit rates, four showed some positive effect, although in one of them the effect was measured for quitting and cutting down combined. Among the three that did not show significant decreases, one demonstrated a significant intervention effect on smokers and ex-smokers combined. AUTHORS’ CONCLUSIONS: There is evidence that comprehensive tobacco control programmes which include mass media campaigns can be effective in changing smoking behaviour in adults, but the evidence comes from a heterogeneous group of studies of variable methodological quality. One state-wide tobacco control programme (Massachusetts) showed positive results up to eight years after the campaign. Another (California) showed positive results during the period of adequate funding and implementation and in final evaluation since the beginning of the programme. Six of nine studies carried out in communities or regions showed some positive effects on smoking behaviour and at least one significant change in smoking prevalence (Sydney). The intensity and duration of mass media campaigns may influence effectiveness, but length of follow-up and concurrent secular trends and events can make this difficult to
quantify. No consistent relationship was observed between campaign effectiveness and age, education, ethnicity or gender.

PMID:29159862

Ballard C, Lang I.
PMID:29475811

BACKGROUND: Many dementia and cardiovascular disease (CVD) cases in older adults are attributable to modifiable vascular and lifestyle-related risk factors, providing opportunities for prevention. In the Healthy Aging Through Internet Counselling in the Elderly (HATICE) randomized controlled trial, an internet-based multidomain intervention is being tested to improve the cardiovascular risk (CVR) profile of older adults. OBJECTIVE: To design a multidomain intervention to improve CVR, based on the guidelines for CVR management, and administered through a coach-supported, interactive, platform to over 2500 community-dwellers aged 65+ in three European countries. METHODS: A comparative analysis of national and European guidelines for primary and secondary CVD prevention was performed. Results were used to define the content of the intervention. RESULTS: The intervention design focused on promoting awareness and self-management of hypertension, dyslipidemia, diabetes mellitus, and overweight, and supporting smoking cessation, physical activity, and healthy diet. Overall, available guidelines lacked specific recommendations for CVR management in older adults. The comparative analysis of the guidelines showed general consistency for lifestyle-related recommendations. Key differences, identified mostly in methods used to assess the overall CVR, did not hamper the intervention design. Minor country-specific adaptations were implemented to maximize the intervention feasibility in each country. CONCLUSION: Despite differences in CVR management within the countries considered, it was possible to design and implement the HATICE multidomain intervention. The study can help define preventative strategies for dementia and CVD that are applicable internationally.
PMID:29480185

Baum F, Friel S.
INTRODUCTION: The development and implementation of multisectoral policy to improve health and reduce health inequities has been slow and uneven. Evidence is largely focused
on the facts of health inequities rather than understanding the political and policy processes. This 5-year funded programme of research investigates how these processes could function more effectively to improve equitable population health. METHODS AND ANALYSIS: The programme of work is organised in four work packages using four themes (macroeconomics and infrastructure, land use and urban environments, health systems and racism) related to the structural drivers shaping the distribution of power, money and resources and daily living conditions. Policy case studies will use publicly available documents (policy documents, published evaluations, media coverage) and interviews with informants (policy-makers, former politicians, civil society, private sector) (~25 per case). NVIVO software will be used to analyse the documents to see how ‘social and health equity’ is included and conceptualised. The interview data will include qualitative descriptive and theory-driven critical discourse analysis. Our quantitative methodological work assessing the impact of public policy on health equity is experimental that is in its infancy but promises to provide the type of evidence demanded by policy-makers. ETHICS AND DISSEMINATION: Our programme is recognising the inherently political nature of the uptake, formulation and implementation of policy. The early stages of our work indicate its feasibility. Our work is aided by a Critical Policy Reference Group. Multiple ethics approvals have been obtained with the foundation approval from the Social and Behavioural Ethics Committee, Flinders University (Project No: 6786). The theoretical, methodological and policy engagement processes established will provide improved evidence for policy-makers who wish to reduce health inequities and inform a new generation of policy savvy knowledge on social determinants. PMID:29273655 https://www.ncbi.nlm.nih.gov/pubmed/?otool=iaufhhslib&term=29273655


BACKGROUND: Children's exposure to other people's tobacco smoke (environmental tobacco smoke, or ETS) is associated with a range of adverse health outcomes for children. Parental smoking is a common source of children's exposure to ETS. Older children in child care or educational settings are also at risk of exposure to ETS. Preventing exposure to ETS during infancy and childhood has significant potential to improve children's health worldwide. OBJECTIVES: To determine the effectiveness of interventions designed to reduce exposure of children to environmental tobacco smoke, or ETS. SEARCH METHODS: We searched the Cochrane Tobacco Addiction Group Specialised Register and conducted additional searches of the Cochrane Central Register of Controlled Trials (CENTRAL), MEDLINE, PsycINFO, Embase, the Cumulative Index to Nursing and Allied Health Literature (CINAHL), the Education Resource Information Center (ERIC), and the Social Science Citation Index & Science Citation Index (Web of Knowledge). We conducted the most recent search in February 2017. SELECTION CRITERIA: We included controlled trials, with or without random allocation, that enrolled participants (parents and other family members, child care workers, and teachers) involved in the care and education of infants and young children (from birth to 12 years of age). All mechanisms for reducing children’s ETS exposure were
eligible, including smoking prevention, cessation, and control programmes. These include
health promotion, social-behavioural therapies, technology, education, and clinical
interventions. DATA COLLECTION AND ANALYSIS: Two review authors independently
assessed studies and extracted data. Due to heterogeneity of methods and outcome
measures, we did not pool results but instead synthesised study findings narratively. MAIN
RESULTS: Seventy-eight studies met the inclusion criteria, and we assessed all evidence to
be of low or very low quality based on GRADE assessment. We judged nine studies to be at
low risk of bias, 35 to have unclear overall risk of bias, and 34 to have high risk of bias.
Twenty-one interventions targeted populations or community settings, 27 studies were
conducted in the well-child healthcare setting and 26 in the ill-child healthcare setting. Two
further studies conducted in paediatric clinics did not make clear whether visits were made
to well- or ill-children, and another included visits to both well- and ill-children. Forty-five
studies were reported from North America, 22 from other high-income countries, and 11
from low- or middle-income countries. Only 26 of the 78 studies reported a beneficial
intervention effect for reduction of child ETS exposure, 24 of which were statistically
significant. Of these 24 studies, 13 used objective measures of children's ETS exposure. We
were unable to pinpoint what made these programmes effective. Studies showing a
significant effect used a range of interventions: nine used in-person counselling or
motivational interviewing; another study used telephone counselling, and one used a
combination of in-person and telephone counselling; three used multi-component
counselling-based interventions; two used multi-component education-based interventions;
one used a school-based strategy; four used educational interventions, including one that
used picture books; one used a smoking cessation intervention; one used a brief
intervention; and another did not describe the intervention. Of the 52 studies that did not
show a significant reduction in child ETS exposure, 19 used more intensive counselling
approaches, including motivational interviewing, education, coaching, and smoking
cessation brief advice. Other interventions consisted of brief advice or counselling (10
studies), feedback of a biological measure of children's ETS exposure (six studies), nicotine
replacement therapy (two studies), feedback of maternal cotinine (one study), computerised
risk assessment (one study), telephone smoking cessation support (two studies), educational
home visits (eight studies), group sessions (one study), educational materials (three studies),
and school-based policy and health promotion (one study). Some studies employed more
than one intervention. 35 of the 78 studies reported a reduction in ETS exposure for
children, irrespective of assignment to intervention and comparison groups. One study did
not aim to reduce children's tobacco smoke exposure but rather sought to reduce
symptoms of asthma, and found a significant reduction in symptoms among the group
exposed to motivational interviewing. We found little evidence of difference in effectiveness
of interventions between the well infant, child respiratory illness, and other child illness
settings as contexts for parental smoking cessation interventions. AUTHORS'
CONCLUSIONS: A minority of interventions have been shown to reduce children's exposure
to environmental tobacco smoke and improve children's health, but the features that
differentiate the effective interventions from those without clear evidence of effectiveness
remain unclear. The evidence was judged to be of low or very low quality, as many of the
trials are at a high risk of bias, are small and inadequately powered, with heterogeneous
interventions and populations.
**The Mastery Matrix for Integration Praxis: The development of a rubric for integration practice in addressing weight-related public health problems.**  
*Preventive medicine*. 2018. 
In response to the limitations of siloed weight-related intervention approaches, scholars have called for greater integration that is intentional, strategic, and thoughtful between researchers, health care clinicians, community members, and policy makers as a way to more effectively address weight and weight-related (e.g., obesity, diabetes, cardiovascular disease, cancer) public health problems. The Mastery Matrix for Integration Praxis was developed by the Healthy Eating and Activity across the Lifespan (HEALI team in 2017 to advance the science and praxis of integration across the domains of research, clinical practice, community, and policy to address weight-related public health problems. Integrator functions were identified and developmental stages were created to generate a rubric for measuring mastery of integration. Creating a means to systematically define and evaluate integration praxis and expertise will allow for more individuals and teams to master integration in order to work towards promoting a culture of health.

Bertram M, Loncarevic N, Radl-Karimi C, Thogersen M, Skovgaard T, Aro AR.  
**Contextually tailored interventions can increase evidence-informed policy-making on health-enhancing physical activity: the experiences of two Danish municipalities.**  
**BACKGROUND:** The present study aims to test out contextually tailored interventions to increase evidence-informed health-enhancing physical activity policy-making in two Danish municipalities. **METHODS:** The study was performed as experiments in natural settings. Based on results from a pre-intervention study defining the needs and contexts of the two settings, the interventions were developed based on logical models. The interventions aimed at increasing the use of knowledge in policy-making, primarily via strengthening intersectoral collaboration. The interventions were evaluated via pre-, post- and 12-month follow-up questionnaires and qualitative interviews were carried out prior to the intervention start. **RESULTS:** The use of knowledge changed in several ways. In one municipality, the use of stakeholder and target group knowledge increased whereas, in the other municipality, the use of research knowledge increased. In both municipalities, the ability to translate knowledge to local context, the political request and the organisational procedures for use of knowledge increased during the interventions. There was some variation between the two settings, which shows the importance of tailoring to context. Most of the changes were diminished at the 12-month follow-up. **CONCLUSION:** Contextually tailored interventions have the potential to increase evidence-informed policy-making on health-enhancing physical activity. However, this finding needs to be tested in larger samples and its sustainability must be strengthened.

PMID:29466998  
Boekhout JM, Berendsen BAJ, Peels DA, Bolman CAW, Lechner L.  
**Evaluation of a Computer-Tailored Healthy Ageing Intervention to Promote Physical Activity among Single Older Adults with a Chronic Disease.**  
This study explores the effectiveness of the Active Plus65 intervention designed to stimulate physical activity among single older adults with a chronic physical impairment. A quasi-experimental pre-test post-test study was performed. The intervention group (n = 411; mean age = 76.75; SD = 7.75) was assessed at baseline, three months, and six months. Data of comparable older adults who completed the original Active Plus intervention served as reference group (n = 87; mean age = 74.36; SD = 6.26). Multilevel regression analyses were applied: outcome measures were weekly minutes of moderate to vigorous physical activity (MVPA) and days per week with at least 30 minutes of MVPA. Although Active Plus65 did not outperform the original intervention, in itself Active Plus65 effectuated a significant increase in the weekly minutes of MVPA (B = 208.26; p < 0.001; Effect Size (ES) = 0.45) and in the days per week with sufficient MVPA (B = 1.20; p < 0.001; ES = 0.61) after three months. After six months, it effectuated a significant increase in the days per week with sufficient MVPA (B = 0.67; p = 0.001; ES = 0.34) but not for the weekly minutes of MVPA (p = 0.745). As Active Plus65 increased MVPA at three months with a higher ES than average interventions for this vulnerable target group, it potentially makes an interesting intervention. Further development should focus on long-term maintenance of effects.  
PMID:29462862

Boniface S, Scannell JW, Marlow S.  
**Evidence for the effectiveness of minimum pricing of alcohol: a systematic review and assessment using the Bradford Hill criteria for causality.**  
OBJECTIVES: To assess the evidence for price-based alcohol policy interventions to determine whether minimum unit pricing (MUP) is likely to be effective. DESIGN: Systematic review and assessment of studies according to Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines, against the Bradford Hill criteria for causality. Three electronic databases were searched from inception to February 2017. Additional articles were found through hand searching and grey literature searches. CRITERIA FOR SELECTING STUDIES: We included any study design that reported on the effect of price-based interventions on alcohol consumption or alcohol-related morbidity, mortality and wider harms. Studies reporting on the effects of taxation or affordability and studies that only investigated price elasticity of demand were beyond the scope of this review. Studies with any conflict of interest were excluded. All studies were appraised for methodological quality. RESULTS: Of 517 studies assessed, 33 studies were included: 26 peer-reviewed research studies and seven from the grey literature. All nine of the Bradford Hill criteria were met, although different types of study satisfied different criteria. For example, modelling studies complied with the consistency and specificity criteria, time series analyses demonstrated the temporality and experiment criteria, and the analogy criterion...
was fulfilled by comparing the findings with the wider literature on taxation and affordability. CONCLUSIONS: Overall, the Bradford Hill criteria for causality were satisfied. There was very little evidence that minimum alcohol prices are not associated with consumption or subsequent harms. However the overall quality of the evidence was variable, a large proportion of the evidence base has been produced by a small number of research teams, and the quantitative uncertainty in many estimates or forecasts is often poorly communicated outside the academic literature. Nonetheless, price-based alcohol policy interventions such as MUP are likely to reduce alcohol consumption, alcohol-related morbidity and mortality.


OBJECTIVE: To evaluate the associations of four individual lifestyle factors with frailty. METHODS: We used cross-sectional data from 11,539 participants of the Rotterdam Study, a population-based cohort, running from 1990 till now. A frailty index was used with a range from 0 to 100 (higher values indicating increasing frailty). We examined physical activity, dietary quality, alcohol intake, and smoking and calculated a sum-score of these, with a range from 0 (lowest) to 8 (highest). The associations between each lifestyle factor and the lifestyle score with frailty were evaluated. RESULTS: Each lifestyle factor was independently associated with frailty. Participants with high physical activity levels had lower frailty scores than participants with low physical activity (beta=-4.70, 95%CI=-5.10, -4.30). High diet quality, compared to low diet quality was associated with less frailty (beta=-0.88, 95%CI=-1.35, -0.42). Low alcohol intake was associated more frailty (beta=0.84, 95%CI=0.39, 1.29). Never-smokers or former smokers had on average 1.15 (95%CI= -1.60, -0.69) and 1.28 (95%CI= -1.78, -0.79) better frailty scores than smokers. A one-unit increment of the lifestyle score was associated with lower frailty (beta=-0.62; 95%CI= -0.84, -0.53). CONCLUSIONS: The prevention of frailty can lead to lower health care costs and a higher quality of life among the growing group of elderly people. Our results emphasize that there is an urgent need for preventions that combine several lifestyle factors to improve healthy ageing.


The Community Preventive Services Task Force provides evidence-based practice interventions and related practical tools to assist in achieving health-promotion and disease-prevention goals.

PMID:28188313


A considerable proportion of European adults report little or no interest in physical activity. Identifying individual-level and environmental-level characteristics of these individuals can help designing effective interventions and policies to promote physical activity. This cross-sectional study additionally explored associations between level of interest and physical activity, after controlling for other individual and environmental variables. Measures of objective and perceived features of the physical environment of residence, self-reported physical activity and other lifestyle behaviors, barriers towards physical activity, general health, and demographics were obtained from 5205 European adults participating in the 2014 online SPOTLIGHT survey. t-Tests, chi-square tests, and generalized estimating equations with negative binomial log-link function were conducted. Adults not interested in physical activity reported a higher BMI and a lower self-rated health, were less educated, and to a smaller extent female and less frequently employed. They were more prone to have less healthy eating habits, and to perceive more barriers towards physical activity. Only minor differences were observed in environmental attributes: the non-interested were slightly more likely to live in neighborhoods objectively characterized as less aesthetic and containing more destinations, and perceived as less functional, safe, and aesthetic. Even after controlling for other individual and environmental factors, interest in physical activity remained a significant correlate of physical activity, supporting the importance of this association. This study is among the first to describe characteristics of individuals with reduced interest in physical activity, suggesting that (lack of) interest is a robust correlate of physical activity in several personal and environmental conditions.

PMID: 29474850

PMID: 29472289


High sugar intake is associated with an increased risk of overweight. For parents, as their children’s nutritional gatekeepers, knowledge about sugar is a prerequisite for regulating sugar consumption. Yet little is known about parental ability to estimate the sugar content of foods and beverages and how this ability is associated with children’s body mass index (BMI). In 305 parent-child pairs, we investigated to what extent parents systematically under- or overestimate the sugar content of foods and beverages commonly found in children’s diets as well as potential associations with children’s z-BMI. Parents considerably
underestimated the sugar content of most foods and beverages (e.g., 92% of parents underestimated the sugar content of yogurt by, on average, seven sugar cubes). After controlling for parental education and BMI, parental sugar underestimation was significantly associated with a higher risk of their child being overweight or obese (odds ratio = 2.01). There was a small dose-response relationship between the degree of underestimation and the child’s z-BMI. These findings suggest that providing easily accessible and practicable knowledge about sugar content through, for instance, nutritional labeling may improve parents’ intuition about sugar. This could help curtail sugar intake in children and thus be a preventive measure for overweight.

PMID: 29467501

Donkin A, Goldblatt P, Allen J, Nathanson V, Marmot M.
Global action on the social determinants of health.
Action on the social determinants of health (SDH) is required to reduce inequities in health. This article summarises global progress, largely in terms of commitments and strategies. It is clear that there is widespread support for a SDH approach across the world, from global political commitment to within country action. Inequities in the conditions in which people are born, live, work and age, are however driven by inequities in power, money and resources. Political, economic and resource distribution decisions made outside the health sector need to consider health as an outcome across the social distribution as opposed to a focus solely on increasing productivity. A health in all policies approach can go some way to ensure this consideration, and we present evidence that some countries are taking this approach, however given entrenched inequalities, there is some way to go. Measuring progress on the SDH globally will be key to future development of successful policies and implementation plans, enabling the identification and sharing of best practice. WHO work to align measures with the sustainable development goals will help to forward progress measurement.
PMID: 29379648

Durant DJ, Lowenfels A, Ren J, Brissette I, Martin EG.
OBJECTIVE: We evaluated the impact of a community-based healthy beverage procurement and serving practices program, and educational media campaign, on residents’ behaviors and beliefs regarding sugary beverages. DESIGN: Repeated cross-sectional population surveys in 2013 and 2014 were conducted, as well as semistructured interviews with key informants. We employed multivariate differences-in-differences regression analysis, adjusting for demographics and weight status, using the survey data. Key informant interviews were reviewed for common themes. SETTING: Three rural counties in upstate New York with high prevalence of children living in poverty and childhood obesity.
PARTICIPANTS: Residents of Broome, Cattaraugus, and Chautauqua, with Chemung as a control, reached through cross-sectional random-digit-dial landline and cellular telephones, and practitioners involved in intervention implementation. INTERVENTION: Community organizations were encouraged through presentations to leadership to adopt healthier vending policies, providing more low- and no-sugar options, and were provided assistance with implementation. In addition, a media campaign supported by presentations to the public aimed to educate residents regarding the health consequences of sugary beverage consumption. OUTCOME MEASURES: The survey measured population demographics and sugary beverage consumption frequency, availability, beliefs about harmfulness, and support for regulation, pre- and postintervention. Key informant interviews elicited perceived program challenges and successes. RESULTS: Compared with temporal trends in the control county, availability of regular soda in the intervention counties decreased (differences-in-differences estimator: beta = -.341, P = .04) and support for regulation increased (differences-in-differences estimator: beta = .162, P = .02). However, there were no differences regarding beliefs about harmfulness or consumption. Practitioners confirmed that the intervention increased awareness but was insufficient to spur action. CONCLUSION: Although public education on the harmfulness of sugary beverages and provision of healthier options in some vending machines successfully impacted soda availability and support for regulation, it did not reduce consumption. This intervention seems promising but should be paired with other community-based interventions for a more comprehensive approach.

PMID:29481547


BACKGROUND AND AIMS: Emergency department (ED) alcohol-related presentation data are not routinely collected in Australia and New Zealand. It is likely that previous research has underestimated the numbers of patients presenting with alcohol-related conditions. This study aimed to quantify the level of alcohol harm presenting to EDs in Australia and New Zealand [Correction added on 23 Jan 2018, after first online publication: The ‘aims’ section was missing and is updated in this version]. DESIGN: Multi-centre, prospective study. Patients were screened prospectively for alcohol-related presentations during a 7-day period in December 2014. Part 1 involved screening to determine alcohol-positive ED presentations and data collection of patient demographic and clinical information. Part 2 involved a consent-based survey conducted with patients aged >/= 14 years to perform Alcohol Use Disorders Identification Test (AUDIT) scores. SETTING: Eight EDs in Australia and New Zealand, representing differing hospital role delineations. PARTICIPANTS: A total of 8652 patients aged >/= 14 years attended and 8435 (97.5%) were screened. MEASUREMENTS: The main outcome measure was the proportion of patients who had an alcohol-related presentation termed ‘alcohol-positive’, using pre-defined criteria. It included injuries, intoxication, medical conditions and injuries caused by an alcohol-affected third party. Secondary outcomes included demographic and clinical information, the type of alcohol-related presentations and AUDIT scores. FINDINGS: A total of 801 (9.5%; 95%
confidence interval (CI) = 8.9-10.1%] presentations were identified as alcohol-positive, ranging between 4.9 and 15.2% throughout sites. Compared with alcohol-negative patients, alcohol-positive patients were more likely to be male [odds ratio (OR) = 1.90, 95% CI = 1.63-2.21], younger (median age 37 versus 46 years, P < 0.0001), arrive by ambulance (OR = 1.94, 95% CI = 1.68-2.25) or police/correctional vehicle (OR = 4.56, 95% CI = 3.05-6.81) and require immediate treatment (OR = 3.20, 95% CI = 2.03-0.506). The median AUDIT score was 16 (interquartile range = 10-24). CONCLUSIONS: Almost one in 10 presentations to emergency departments in Australia and New Zealand are alcohol related.

PMID:29155471

Evans C.
How successful will the sugar levy be in improving diet and reducing inequalities in health?
PMID:29465014

Fanshawe TR, Halliwell W, Lindson N, Aveyard P, Livingstone-Banks J, Hartmann-Boyce J.
Tobacco cessation interventions for young people.
*The Cochrane database of systematic reviews.* 2017;11:Cd003289.
BACKGROUND: Most tobacco control programmes for adolescents are based around prevention of uptake, but teenage smoking is still common. It is unclear if interventions that are effective for adults can also help adolescents to quit. This is the update of a Cochrane Review first published in 2006. OBJECTIVES: To evaluate the effectiveness of strategies that help young people to stop smoking tobacco. SEARCH METHODS: We searched the Cochrane Tobacco Addiction Group's Specialized Register in June 2017. This includes reports for trials identified in CENTRAL, MEDLINE, Embase and PsyclINFO. SELECTION CRITERIA: We included individually and cluster-randomized controlled trials recruiting young people, aged under 20 years, who were regular tobacco smokers. We included any interventions for smoking cessation; these could include pharmacotherapy, psycho-social interventions and complex programmes targeting families, schools or communities. We excluded programmes primarily aimed at prevention of uptake. The primary outcome was smoking status after at least six months’ follow-up among those who smoked at baseline. DATA COLLECTION AND ANALYSIS: Two review authors independently assessed the eligibility of candidate trials and extracted data. We evaluated included studies for risk of bias using standard Cochrane methodology and grouped them by intervention type and by the theoretical basis of the intervention. Where meta-analysis was appropriate, we estimated pooled risk ratios using a Mantel-Haenszel fixed-effect method, based on the quit rates at six months' follow-up. MAIN RESULTS: Forty-one trials involving more than 13,000 young people met our inclusion criteria (26 individually randomized controlled trials and 15 cluster-randomized trials). We judged the majority of studies to be at high or unclear risk of bias in at least one domain. Interventions were varied, with the majority adopting forms of individual or group counselling, with or without additional self-help materials to form complex interventions. Eight studies used primarily computer or messaging interventions,
and four small studies used pharmacological interventions (nicotine patch or gum, or bupropion). There was evidence of an intervention effect for group counselling (9 studies, risk ratio (RR) 1.35, 95% confidence interval (CI) 1.03 to 1.77), but not for individual counselling (7 studies, RR 1.07, 95% CI 0.83 to 1.39), mixed delivery methods (8 studies, RR 1.26, 95% CI 0.95 to 1.66) or the computer or messaging interventions (pooled RRs between 0.79 and 1.18, 9 studies in total). There was no clear evidence for the effectiveness of pharmacological interventions, although confidence intervals were wide (nicotine replacement therapy 3 studies, RR 1.11, 95% CI 0.48 to 2.58; bupropion 1 study RR 1.49, 95% CI 0.55 to 4.02). No subgroup precluded the possibility of a clinically important effect. Studies of pharmacotherapies reported some adverse events considered related to study treatment, though most were mild, whereas no adverse events were reported in studies of behavioural interventions. Our certainty in the findings for all comparisons is low or very low, mainly because of the clinical heterogeneity of the interventions, imprecision in the effect size estimates, and issues with risk of bias. AUTHORS’ CONCLUSIONS: There is limited evidence that either behavioural support or smoking cessation medication increases the proportion of young people that stop smoking in the long-term. Findings are most promising for group-based behavioural interventions, but evidence remains limited for all intervention types. There continues to be a need for well-designed, adequately powered, randomized controlled trials of interventions for this population of smokers.

PMID:29148565


Fitzpatrick SL, Appel LJ, Bray B, Brooks N, Stevens VJ.
Predictors of Long-Term Adherence to Multiple Health Behavior Recommendations for Weight Management.

BACKGROUND: We have demonstrated previously that patterns of behavioral adherence in the first 6 months of behavioral lifestyle interventions were associated with significant weight loss at 18 months. In this article, we extend this work to examine patterns of behavioral adherence over 18 months and to explore baseline demographic and psychosocial predictors. METHOD: Latent class analysis was applied separately to the Weight Loss Maintenance and PREMIER trials data to examine patterns of adherence to the following recommendations: (1) consuming >/=9 servings of fruits and vegetables per day, (2) </=25% of energy from total fat, (3) </=7% energy from saturated fat, and (4) >/=180 minutes of moderate-to-vigorous physical activity per week. Multinomial logistic regression was used to test demographic and psychosocial predictors of latent class membership. RESULTS: Four distinct subgroups with common patterns of behavioral adherence were identified in each trial including, Behavioral Maintainers, who maintained adherence to all behavioral recommendations for 1 year, Nonresponders, who did not adhere to the recommendations at any time point, and latent classes that reflected patterns of adherence to one or two behaviors or behavioral relapse. A significantly higher proportion of Behavioral Maintainers sustained >/=5% weight loss for 1 year compared with Nonresponders. Participants with higher vitality scores at baseline were more likely to belong to a latent class with long-term adherence to one or more recommendations than...
the Nonresponders class. CONCLUSIONS: Regular assessment of health behaviors and psychosocial measures such as vitality may help identify nonresponders and inform treatment tailoring to improve long-term behavioral and weight outcomes.

PMID:29478353  

Freeman T, Javanparast S, Baum F, Ziersch A, Mackean T.  
A framework for regional primary health care to organise actions to address health inequities.  

OBJECTIVES: Regional primary health-care organisations plan, co-ordinate, and fund some primary health-care services in a designated region. This article presents a framework for examining the equity performance of regional primary health-care organisations, and applies it to Australian Medicare Locals (funded from 2011 to 2015). METHODS: The framework was developed based on theory, literature, and researcher deliberation. Data were drawn from Medicare Local documents, an online survey of 210 senior Medicare Local staff, and interviews with 50 survey respondents. RESULTS: The framework encompassed equity in planning, collection of equity data, community engagement, and strategies to address equity in access, health outcomes, and social determinants of health. When the framework was applied to Medicare Locals, their inclusion of equity as a goal, collection of equity data, community engagement, and actions improving equity of access were strong, but there were gaps in broader advocacy, and strategies to address social determinants of health, and equity in quality of care. CONCLUSIONS: The equity framework allows a platform for advancing knowledge and international comparison of the health equity efforts of regional primary health-care organisations.

PMID:29453557  

Fukuoka Y, Zhou M, Vittinghoff E, Haskell W, Goldberg K, Aswani A.  
Objectively Measured Baseline Physical Activity Patterns in Women in the mPED Trial: Cluster Analysis.  

BACKGROUND: Determining patterns of physical activity throughout the day could assist in developing more personalized interventions or physical activity guidelines in general and, in particular, for women who are less likely to be physically active than men. OBJECTIVE: The aims of this report are to identify clusters of women based on accelerometer-measured baseline raw metabolic equivalent of task (MET) values and a normalized version of the METs >/=3 data, and to compare sociodemographic and cardiometabolic risks among these identified clusters. METHODS: A total of 215 women who were enrolled in the Mobile Phone Based Physical Activity Education (mPED) trial and wore an accelerometer for at least 8 hours per day for the 7 days prior to the randomization visit were analyzed. The k-means clustering method and the Lloyd algorithm were used on the data. We used the elbow method to choose the number of clusters, looking at the percentage of variance explained as a function of the number of clusters. RESULTS: The results of the k-means cluster analyses of raw METs revealed three different clusters. The unengaged group (n=102) had the
highest depressive symptoms score compared with the afternoon engaged (n=65) and morning engaged (n=48) groups (overall P<.001). Based on a normalized version of the METs >/=3 data, the moderate-to-vigorous physical activity (MVPA) evening peak group (n=108) had a higher body mass index (P=.03), waist circumference (P=.02), and hip circumference (P=.03) than the MVPA noon peak group (n=61). CONCLUSIONS: Categorizing physically inactive individuals into more specific activity patterns could aid in creating timing, frequency, duration, and intensity of physical activity interventions for women. Further research is needed to confirm these cluster groups using a large national dataset. TRIAL REGISTRATION: ClinicalTrials.gov NCT01280812; https://clinicaltrials.gov/ct2/show/NCT01280812 (Archived by WebCite at http://www.webcitation.org/6vVyLzwft).

CONCLUSIONS: Categorizing physically inactive individuals into more specific activity patterns could aid in creating timing, frequency, duration, and intensity of physical activity interventions for women. Further research is needed to confirm these cluster groups using a large national dataset. TRIAL REGISTRATION: ClinicalTrials.gov NCT01280812; https://clinicaltrials.gov/ct2/show/NCT01280812 (Archived by WebCite at http://www.webcitation.org/6vVyLzwft).

Godin KM, Chaurasia A, Hammond D, Leatherdale ST.

**Food Purchasing Behaviors and Sugar-Sweetened Beverage Consumption among Canadian Secondary School Students in the COMPASS Study.**

*Journal of nutrition education and behavior. 2018.*

**OBJECTIVES:** To examine whether several food purchasing behaviors (ie, sources of meals or snacks) are associated with adolescents' sugar-sweetened beverage (SSB) consumption and whether these associations vary by province. **DESIGN:** Cross-sectional observational study. **SETTING:** Alberta and Ontario, Canada. **PARTICIPANTS:** Secondary school students from Alberta (n = 3,300) and Ontario (n = 37,999) participating in year 2 (2013-2014) of the Cannabis Use, Obesity, Mental Health, Physical Activity, Alcohol Use, Smoking, Sedentary Behavior (COMPASS) study. **MAIN OUTCOME MEASURES:** Participants’ self-reported frequency of consuming 3 SSB types (soft drinks, sweetened coffees/teas, and energy drinks) in a typical week. **ANALYSIS:** Hierarchical Poisson regression analyses. **RESULTS:** Participants from Alberta had a significantly (P < .05) higher rate of consuming SSBs and purchasing meals or snacks from school food outlets compared with their Ontario counterparts. Most of the food purchasing behaviors were significantly (P < .05) and positively associated with greater rates of SSB consumption. Meal or snack purchases on weekends (vs weekdays) and from food outlets off school property (vs on school property) had a greater association with SSB consumption. Eating a home-packed lunch was protective against SSB consumption across models. **CONCLUSIONS AND IMPLICATIONS:** Adolescents' food purchasing behaviors have a significant impact on their propensity for SSB consumption. These data demonstrate potentially important contexts for SSB consumption and have implications for possible settings and strategies for future interventions to reduce adolescents' SSB intake.

PMID:29478952


Goncalves J, Gomes MI, Fonseca M, Teodoro T, Barros PP, Botelho MA.

**Selfie Aging Index: An Index for the Self-assessment of Healthy and Active Aging.**


Introduction: Governments across Europe want to promote healthy and active aging, as a
matter of both public health and economic sustainability. Designing policies focused on the most vulnerable groups requires information at the individual level. However, a measure of healthy and active aging at the individual level does not yet exist. Objectives: This paper develops the Selfie Aging Index (SAI), an individual-level index of healthy and active aging. The SAI is developed thinking about a tool that would allow each person to take a selfie of her aging status. Therefore, it is based entirely on self-assessed indicators. This paper also illustrates how the SAI may look like in practice. Methods: The SAI is based on the Biopsychosocial Assessment Model (MAB), a tool for the multidimensional assessment of older adults along three domains: biological, psychological, and social. Indicators are selected and their weights determined based on an ordered probit model that relates the MAB indicators to self-assessed health, which proxies healthy and active aging. The ordered probit model predicts the SAI based on the estimated parameters. Finally, predictions are rescaled to the 0-1 interval. Data for the SAI development come from the Study of the Aging Profiles of the Portuguese Population and the Survey of Health, Aging, and Retirement in Europe. Results: The selected indicators are BMI, having difficulties moving around indoors and performing the activities of daily living, feeling depressed, feeling nervous, lacking energy, time awareness score, marital status, having someone to confide in, education, type of job, exercise, and smoking status. The model also determines their weights. Conclusion: Results shed light on various factors that contribute significantly to healthy and active aging. Two examples are mental health and exercise, which deserve more attention from individuals themselves, health-care professionals, and public health policy. The SAI has the potential to put the individual at the center of the healthy and active aging discussion, contribute to patient empowerment, and promote patient-centered care. It can become a useful instrument to monitor healthy and active aging for different actors, including individuals themselves, health-care professionals, and policy makers. PMID:29312944

Han KT, Wang PC.

Green exercise can be classified into three levels based on engagement with nature. Although this classification was proposed more than a decade ago, few studies have investigated it since. The present study examined the effects of green exercise levels on engagement with nature and physical activity (PA) through a field experiment. A questionnaire was distributed to 95 students from a technology university in Central Taiwan to measure their level of engagement with nature in people-environment transactions, while their PA was measured using three instruments. In addition, because social interaction may distract individual attention from activities or their environments, the present study incorporated the presence of partners as a control variable. The results revealed that (1) engagement with nature and PA significantly differed between the levels of green exercise, and the higher the level of green exercise participated in, the greater the level of engagement with nature; and (2) although the presence of partners did not influence the level of engagement with nature, it significantly affected the level of PA.
Hefler M, Liberato SC, Thomas DP.

**Incentives for preventing smoking in children and adolescents.**

*The Cochrane database of systematic reviews. 2017;6:Cd008645.*

**BACKGROUND:** Adult smoking usually has its roots in adolescence. If individuals do not take up smoking during this period it is unlikely that they ever will. Further, once smoking becomes established, cessation is challenging; the probability of subsequently quitting is inversely proportional to the age of initiation. One novel approach to reducing the prevalence of youth smoking is the use of incentives. **OBJECTIVES:** To assess the effect of incentives on preventing children and adolescents (aged 5 to 18 years) from starting to smoke. It was also our intention to assess, where possible, the dose-response of incentives, the costs of incentive programmes, whether incentives are more or less effective in combination with other interventions to prevent smoking initiation, and any unintended consequences arising from the use of incentives. **SEARCH METHODS:** For the original review (published 2012) we searched the Cochrane Tobacco Addiction Group Specialized Register, with additional searches of MEDLINE, Embase, CINAHL, CSA databases and PsycINFO for terms relating to incentives, in combination with terms for smoking and tobacco use, and children and adolescents. The most recent searches were of the Cochrane Tobacco Addiction Group Specialized Register, and were carried out in December 2016. **SELECTION CRITERIA:** We considered randomized controlled trials (RCTs) allocating children and adolescents (aged 5 to 18 years) as individuals, groups or communities to intervention or control conditions, where the intervention included an incentive aimed at preventing smoking uptake. We also considered controlled trials (CTs) with baseline measures and post-intervention outcomes. **DATA COLLECTION AND ANALYSIS:** Two review authors extracted and independently assessed the data. The primary outcome was the smoking status of children or adolescents at follow-up who reported no smoking at baseline. We required a minimum follow-up of six months from baseline and assessed each included study for risks of bias. We used the most rigorous definition of abstinence in each trial; we did not require biochemical validation of self-reported tobacco use for study inclusion. Where possible we combined eligible studies to calculate pooled estimates at the longest follow-up, using the Mantel-Haenszel fixed-effect method, grouping studies by study design. **MAIN RESULTS:** We identified three eligible RCTs and five CTs, including participants aged 11 to 14 years, who were non-smokers at baseline. Of the eight trials identified, six had analyzable data relevant for this review, which contributed to meta-analyses (7275 participants in total: 4003 intervention; 3272 control; 2484 participants after adjusting for clustering). All except one of the studies tested the 'Smokefree Class Competition' (SFC), which has been widely implemented throughout Europe. In this competition, classes with youth generally between the ages of 11 and 14 years commit to being smoke-free for a six-month period, and report their smoking status regularly. If 90% or more of the class are non-smokers at the end of the six months, the class goes into a competition to win prizes. The one study that was not a trial of the SFC was a controlled trial in which schools in two communities were assigned to the intervention, with schools in a third community acting as controls. Students in the intervention community with lower smoking rates at the end of the
project (one school year) received rewards. Most studies resulted in statistically non-significant results. Only one study of the SFC reported a significant effect of the competition on the prevention of smoking at the longest follow-up. However, this study was at risk of multiple biases, and when we calculated the adjusted risk ratio (RR) we no longer detected a statistically significant difference. The pooled RR for the more robust RCTs (3 studies, n = 3056 participants/1107 adjusted for clustering) suggests that there is no statistically significant effect of incentives, in the form of the SFC, to prevent smoking initiation among children and adolescents in the long term (RR 1.00, 95% confidence interval (CI) 0.84 to 1.19). Pooled results from the non-randomized trials also did not detect a significant effect of the SFC, and we were unable to extract data on our outcome of interest from the one trial that did not study the SFC. There is little robust evidence to suggest that unintended consequences (such as making false claims about their smoking status and bullying of smoking students) are consistently associated with such interventions, although this has not been the focus of much research. There was insufficient information to assess the dose-response relationship or to report costs of incentives for preventing smoking uptake. We judged the included RCTs to be at unclear risk of bias, and the non-RCTs to be at high risk of bias. Using GRADE, we rated the overall quality of the evidence for our primary outcome as 'low' (for RCTs) and 'very low' (for non-RCTs), because of imprecision (all studies had wide confidence intervals), and for the risks of bias identified. We further downgraded the non-RCT evidence, due to issues with the non-RCT study design, likely to introduce further bias. AUTHORS’ CONCLUSIONS: The very limited evidence currently available suggests that incentive programmes do not prevent smoking initiation among youth. However, there are relatively few published studies and these are of variable quality. In addition, trials included in the meta-analyses were all studies of the SFC, which distributed small to moderately-sized prizes to whole classes, usually through a lottery system. It is therefore possible that other incentive programmes could be more successful at preventing smoking uptake in young people. Future studies might investigate the efficacy of a wider range of incentives, including those given to individual participants to prevent smoking uptake, whilst considering both the effect of incentives on smoking initiation and the progression to smoking. It would be useful if incentives were evaluated in varying populations from different socioeconomic and ethnic backgrounds, and if intervention components were described in detail.

PMID:28585288


Public health interventions have unique characteristics compared to health technologies, which present additional challenges for economic evaluation (EE). High quality EEs that are able to address the particular methodological challenges are important for public health decision-makers. In England, they are even more pertinent given the transition of public health responsibilities in 2013 from the National Health Service to local government authorities where new agents are shaping policy decisions. Addressing alcohol misuse is a
globally prioritised public health issue. This article provides a systematic review of EE and priority-setting studies for interventions to prevent and reduce alcohol misuse published internationally over the past decade (2006-2016). This review appraises the EE and priority-setting evidence to establish whether it is sufficient to meet the informational needs of public health decision-makers. 619 studies were identified via database searches. 7 additional studies were identified via hand searching journals, grey literature and reference lists. 27 met inclusion criteria. Methods identified included cost-utility analysis (18), cost-effectiveness analysis (6), cost-benefit analysis (CBA) (1), cost-consequence analysis (CCA) (1) and return-on-investment (1). The review identified a lack of consideration of methodological challenges associated with evaluating public health interventions and limited use of methods such as CBA and CCA which have been recommended as potentially useful for EE in public health. No studies using other specific priority-setting tools were identified.
PMID:29100609

Finding the optimal treatment model: A systematic review of treatment for co-occurring alcohol misuse and depression.
OBJECTIVES: Alcohol misuse and depression are commonly co-occurring conditions. To date, no review has examined the most efficacious treatment model for psychosocial treatment of co-occurring alcohol misuse and depression. This systematic review determined the: (i) methodological quality of publications examining psychosocial treatment of co-occurring alcohol misuse and depression using a sequential, parallel or integrated treatment model; and (ii) effectiveness of each dual treatment model compared to single treatment for those with co-occurring alcohol misuse and depression. METHODS: PubMed, Medline and PsycInfo databases were searched for studies which were included if they involved treatment for alcohol misuse and depression and could be classified into one of the three treatment models. Included studies were assessed using the Cochrane’s Effective Practice and Organisation of Care risk of bias criteria. Relevant study characteristics and outcomes were extracted and are presented in a narrative review format. RESULTS: Seven studies met inclusion criteria. None were categorised as low risk on the risk of bias criteria. No studies examined a sequential model of treatment, three examined a parallel model and four examined an integrated model of dual-focussed treatment. The studies examining the parallel model and two out of four studies examining the effectiveness of an integrated model demonstrated greater improvement for alcohol or depression outcomes compared to control conditions. CONCLUSION: Evidence for the psychosocial treatment of co-occurring alcohol misuse and depression is limited to a handful of studies. The evidence has several methodological limitations, which impact the interpretation of the findings. Therefore, while international guidelines recommend integrated dual-focussed treatment for co-occurring conditions, there is little evidence supporting the superiority of this treatment format for co-occurring alcohol misuse and depression. High-quality research demonstrating improvements in patient outcomes is required to ensure recommendations for clinical practice are based on strong empirical evidence.
Hodge AM, Bassett JK, Milne RL, English DR, Giles GG.

**Consumption of sugar-sweetened and artificially sweetened soft drinks and risk of obesity-related cancers.**


**OBJECTIVE:** To test the hypothesis that more frequent consumption of sugar-sweetened soft drinks would be associated with increased risk of obesity-related cancers. Associations for artificially sweetened soft drinks were assessed for comparison. **DESIGN:** Prospective cohort study with cancers identified by linkage to cancer registries. At baseline, participants completed a 121-item FFQ including separate questions about the number of times in the past year they had consumed sugar-sweetened or artificially sweetened soft drinks. Anthropometric measurements, including waist circumference, were taken and questions about smoking, leisure-time physical activity and intake of alcoholic beverages were completed. **SETTING:** The Melbourne Collaborative Cohort Study (MCCS) is a prospective cohort study which recruited 41,514 men and women aged 40-69 years between 1990 and 1994. A second wave of data collection occurred in 2003-2007. **SUBJECTS:** Data for 35,593 participants who developed 3283 incident obesity-related cancers were included in the main analysis. **RESULTS:** Increasing frequency of consumption of both sugar-sweetened and artificially sweetened soft drinks was associated with greater waist circumference at baseline. For sugar-sweetened soft drinks, the hazard ratio (HR) for obesity-related cancers increased as frequency of consumption increased (HR for consumption >1/d v. 1/d v. <1/month=1.00; 95 % CI 0.79, 1.27; P-trend=0.61). **CONCLUSIONS:** Our results add to the justification to minimise intake of sugar-sweetened soft drinks.

PMID:29463332

Holmes J, Meier PS, Angus C, Brennan A.

**Scotland's policy on minimum unit pricing for alcohol: the legal barriers are gone, so what are the implications for implementation and evaluation?**


PMID:29314407

Howard R, Fry S, Chan A, Ryan B, Bonomo Y.

**A feasible model for early intervention for high-risk substance use in the emergency department setting.**

*Australian health review : a publication of the Australian Hospital Association. 2018.*

Objective In response to escalating alcohol and other drug (AOD)-related emergency department (ED) presentations, a tertiary Melbourne hospital embedded experienced AOD clinical nurse consultants in the ED on weekends to trial a model for screening, assessment and brief intervention (BI). The aim of the present study was to evaluate the relative contributions of AOD to ED presentations and to pilot a BI model. **Methods** Using a customised AOD screening tool and a framework for proactive case finding, screened
participants were offered a comprehensive AOD assessment and BI in the ED. Immediate effects of the intervention were evaluated via the engagement of eligible individuals and a self-administered ‘intention to change’ survey.

Results Over the 32-month pilot, 1100 patients completed a comprehensive AOD assessment, and 95% of these patients received a BI. The most commonly misused substances were, in order, alcohol, tobacco, amphetamine-type stimulants, gamma-hydroxybutyrate and cannabis. Thirty-two per cent of patients were found to be at risk of dependence from alcohol and 25% were found to be at risk of dependence from other substances. Forty per cent of the people assessed reported no previous AOD support or intervention. On leaving the ED, 78% of participants reported an intention to contact community support services and 65% stated they would change the way they used AOD in the future.

Conclusion This study of a pilot program quantifies the relative contribution of AOD to ED presentations and demonstrates that hospital EDs can implement a feasible, proactive BI model with high participation rates for people presenting with AOD-related health consequences.

What is known about the topic? Clinician-led BI for high-risk consumption of alcohol has been demonstrated to be effective in primary care and ED settings. However, hospital EDs are increasingly receiving people with high-risk AOD-related harms. The relative contribution of other drugs in relation to ED presentations has not been widely documented. In addition, the optimal model and effects of AOD screening and BI programs in the Australian ED setting are unknown.

What does this paper add? This paper describes a ‘real-life’ pilot project embedding AOD-specific staff in a metropolitan Melbourne ED at peak times to screen and provide BI to patients presenting with AOD-related risk and/or harms. The study quantifies the relative contribution of other drugs in addition to alcohol to ED presentations and reports on this model’s much higher levels of patient engagement in receiving BI than has been reported previously.

What are the implications for practitioners? This study demonstrates the relative contribution of drugs, in addition to alcohol, to ED presentations at peak weekend times. Although BI has been well proven, the pilot project evaluated herein has demonstrated that by embedding AOD-specific staff in the ED, much higher rates of patient engagement, screening and BI can be achieved.

PMID:29298737


AIM: The aim of this study is to compare the effect of exercise training on physical capacity and alcohol consumption in alcohol use disorder (AUD) patients.

METHODS: One hundred and five AUD patients were randomly assigned to treatment as usual combined with running and brisk walking for 30-45 min twice a week, either in small supervised groups (GR) or individually (IND), or to a control group with no running (C). Assessments were made after 6 and 12 months of training.

RESULTS: Training volume was estimated as 36 min per training bout at an intensity of 78% of HRmax with no differences between GR and IND (p>.05). A highly significant reduction in training frequency was seen in both training groups after the first month (p<.0001). Only IND increased VO2max, by 5.7% (p<.05), while no
differences were seen between GR, IND and C. Alcohol intake decreased from 219 to 41 units per 30 days as the average for the entire sample with no significant difference of drinking outcomes between groups ( p < .0001). CONCLUSIONS: We saw an effect on drinking habits after running in both groups. However, no additional effect was seen when compared with the control group. A drop in the training frequency during the intervention might have resulted in an insignificant training stimulus.

PMID:29480087

Johns DM, Oppenheimer GM.
Was there ever really a "sugar conspiracy"?
PMID:29449481

Kelly S, Olanrewaju O, Cowan A, Brayne C, Lafortune L.
Interventions to prevent and reduce excessive alcohol consumption in older people: a systematic review and meta-analysis.
Age and ageing. 2018;47(2):175-84.
Background: harmful alcohol consumption is reported to be increasing in older people. To intervene and reduce associated risks, evidence currently available needs to be identified.
Methods: two systematic reviews in older populations (55+ years): (1) Interventions to prevent or reduce excessive alcohol consumption; (2) Interventions as (1) also reporting cognitive and dementia outcomes. Comprehensive database searches from 2000 to November 2016 for studies in English, from OECD countries. Alcohol dependence treatment excluded. Data were synthesised narratively and using meta-analysis. Risk of bias was assessed using NICE methodology. Reviews are reported according to PRISMA. Results: thirteen studies were identified, but none with cognition or dementia outcomes. Three related to primary prevention; 10 targeted harmful or hazardous older drinkers. A complex range of interventions, intensity and delivery was found. There was an overall intervention effect for 3- and 6-month outcomes combined (8 studies; 3,591 participants; pooled standard mean difference (SMD) -0.18 (95% CI -0.28, -0.07) and 12 months (6 studies; 2,788 participants SMD -0.16 (95% CI -0.32, -0.01) but risk of bias for most studies was unclear with significant heterogeneity. Limited evidence (three studies) suggested more intensive interventions with personalised feedback, physician advice, educational materials, follow-up could be most effective. However, simple interventions including brief interventions, leaflets, alcohol assessments with advice to reduce drinking could also have a positive effect.
Conclusions: alcohol interventions in older people may be effective but studies were at unclear or high risk of bias. Evidence gaps include primary prevention, cost-effectiveness, impact on cognitive and dementia outcomes.
PMID:28985250

Socioeconomic status, health inequalities and non-communicable diseases: a
systematic review.
Aim: A comprehensive approach to health highlights its close relationship with the social and economic conditions, physical environment and individual lifestyles. However, this relationship is not exempt from methodological problems that may bias the establishment of direct effects between the variables studied. Thus, further research is necessary to investigate the role of socioeconomic variables, their composition and distribution according to health status, particularly on non-communicable diseases. Subjects and methods: To shed light on this field, here a systematic review is performed using PubMed, the Cochrane Library and Web of Science. A 7-year retrospective horizon was considered until 21 July 2017. Results: Twenty-six papers were obtained from the database search. Additionally, results from "hand searching" were also included, where a wider horizon was considered. Five of the 26 studies analyzed used aggregated data compared to 21 using individual data. Eleven considered income as a study variable, while 17 analyzed the effect of income inequality on health status (2 of the studies considered both the absolute level and distribution of income). The most used indicator of inequality in the literature was the Gini index. Conclusion: Although different types of analysis produce very different results concerning the role of health determinants, the general conclusion is that income distribution is related to health where it represents a measure of the differences in social class in the society. The effect of income inequality is to increase the gap between social classes or to widen differences in status.
PMID:29416959

LoConte NK, Brewster AM, Kaur JS, Merrill JK, Alberg AJ.
Alcohol and Cancer: A Statement of the American Society of Clinical Oncology.
Alcohol drinking is an established risk factor for several malignancies, and it is a potentially modifiable risk factor for cancer. The Cancer Prevention Committee of the American Society of Clinical Oncology (ASCO) believes that a proactive stance by the Society to minimize excessive exposure to alcohol has important implications for cancer prevention. In addition, the role of alcohol drinking on outcomes in patients with cancer is in its formative stages, and ASCO can play a key role by generating a research agenda. Also, ASCO could provide needed leadership in the cancer community on this issue. In the issuance of this statement, ASCO joins a growing number of international organizations by establishing a platform to support effective public health strategies in this area. The goals of this statement are to: * Promote public education about the risks between alcohol abuse and certain types of cancer; * Support policy efforts to reduce the risk of cancer through evidence-based strategies that prevent excessive use of alcohol; * Provide education to oncology providers about the influence of excessive alcohol use and cancer risks and treatment complications, including clarification of conflicting evidence; and * Identify areas of needed research regarding the relationship between alcohol use and cancer risk and outcomes.
PMID:29112463

Library  28 February 2018

Inclusion health is a service, research, and policy agenda that aims to prevent and redress health and social inequities among the most vulnerable and excluded populations. We did an evidence synthesis of health and social interventions for inclusion health target populations, including people with experiences of homelessness, drug use, imprisonment, and sex work. These populations often have multiple overlapping risk factors and extreme levels of morbidity and mortality. We identified numerous interventions to improve physical and mental health, and substance use; however, evidence is scarce for structural interventions, including housing, employment, and legal support that can prevent exclusion and promote recovery. Dedicated resources and better collaboration with the affected populations are needed to realise the benefits of existing interventions. Research must inform the benefits of early intervention and implementation of policies to address the upstream causes of exclusion, such as adverse childhood experiences and poverty.

PMID:29137868

Macaulay B, Mazzei M, Roy MJ, Teasdale S, Donaldson C. Differentiating the effect of social enterprise activities on health. 

An emerging stream of literature has focused on the ways in which social enterprises might act on the social determinants of health. However, this previous work has not taken a sufficiently broad account of the wide range of stakeholders involved in social enterprises and has also tended to reduce and simplify a complex and heterogeneous set of organisations to a relatively homogenous social enterprise concept. In an attempt to address these gaps, we conducted an empirical investigation between August 2014 and October 2015 consisting of qualitative case studies involving in-depth semi-structured interviews and a focus group with a wide variety of stakeholders from three social enterprises in different regions of Scotland. We found that different forms of social enterprise impact on different dimensions of health in different ways, including through: engendering a feeling of ownership and control; improving environmental conditions (both physical and social); and providing or facilitating meaningful employment. In conclusion, we highlight areas for future research.

PMID:29421468

Martin A, Booth JN, Laird Y, Sproule J, Reilly JJ, Saunders DH. Physical activity, diet and other behavioural interventions for improving cognition and school achievement in children and adolescents with obesity or overweight. 
*The Cochrane database of systematic reviews.* 2018;1:Cd009728.

BACKGROUND: The global prevalence of childhood and adolescent obesity is high. Lifestyle changes towards a healthy diet, increased physical activity and reduced sedentary activities
are recommended to prevent and treat obesity. Evidence suggests that changing these health behaviours can benefit cognitive function and school achievement in children and adolescents in general. There are various theoretical mechanisms that suggest that children and adolescents with excessive body fat may benefit particularly from these interventions.

OBJECTIVES: To assess whether lifestyle interventions (in the areas of diet, physical activity, sedentary behaviour and behavioural therapy) improve school achievement, cognitive function (e.g. executive functions) and/or future success in children and adolescents with obesity or overweight, compared with standard care, waiting-list control, no treatment, or an attention placebo control group.

SEARCH METHODS: In February 2017, we searched CENTRAL, MEDLINE and 15 other databases. We also searched two trials registries, reference lists, and handsearched one journal from inception. We also contacted researchers in the field to obtain unpublished data.

SELECTION CRITERIA: We included randomised and quasi-randomised controlled trials (RCTs) of behavioural interventions for weight management in children and adolescents with obesity or overweight. We excluded studies in children and adolescents with medical conditions known to affect weight status, school achievement and cognitive function. We also excluded self- and parent-reported outcomes.

DATA COLLECTION AND ANALYSIS: Four review authors independently selected studies for inclusion. Two review authors extracted data, assessed quality and risks of bias, and evaluated the quality of the evidence using the GRADE approach. We contacted study authors to obtain additional information. We used standard methodological procedures expected by Cochrane. Where the same outcome was assessed across different intervention types, we reported standardised effect sizes for findings from single-study and multiple-study analyses to allow comparison of intervention effects across intervention types. To ease interpretation of the effect size, we also reported the mean difference of effect sizes for single-study outcomes.

MAIN RESULTS: We included 18 studies (59 records) of 2384 children and adolescents with obesity or overweight. Eight studies delivered physical activity interventions, seven studies combined physical activity programmes with healthy lifestyle education, and three studies delivered dietary interventions. We included five RCTs and 13 cluster-RCTs. The studies took place in 10 different countries. Two were carried out in children attending preschool, 11 were conducted in primary/elementary school-aged children, four studies were aimed at adolescents attending secondary/high school and one study included primary/elementary and secondary/high school-aged children. The number of studies included for each outcome was low, with up to only three studies per outcome. The quality of evidence ranged from high to very low and 17 studies had a high risk of bias for at least one item. None of the studies reported data on additional educational support needs and adverse events.

Compared to standard practice, analyses of physical activity-only interventions suggested high-quality evidence for improved mean cognitive executive function scores. The mean difference (MD) was 5.00 scale points higher in an after-school exercise group compared to standard practice (95% confidence interval (CI) 0.68 to 9.32; scale mean 100, standard deviation 15; 116 children, 1 study). There was no statistically significant beneficial effect in favour of the intervention for mathematics, reading, or inhibition control. The standardised mean difference (SMD) for mathematics was 0.49 (95% CI -0.04 to 1.01; 2 studies, 255 children, moderate-quality evidence) and for reading was 0.10 (95% CI -0.30 to 0.49; 2 studies, 308 children, moderate-quality evidence). The MD for inhibition control was -1.55 scale points (95% CI -5.85 to 2.75; scale range 0 to
There was no evidence of a beneficial effect of physical activity interventions combined with healthy lifestyle education on average achievement across subjects taught at school, mathematics achievement, reading achievement or inhibition control. The MD for average achievement across subjects taught at school was 6.37 points lower in the intervention group compared to standard practice (95% CI -36.83 to 24.09; scale mean 500, scale SD 70; SMD -0.18, 95% CI -0.93 to 0.58; 1 study, 31 children, low-quality evidence). The effect estimate for mathematics achievement was SMD 0.02 (95% CI -0.19 to 0.22; 3 studies, 384 children, very low-quality evidence), for reading achievement SMD 0.00 (95% CI -0.24 to 0.24; 2 studies, 284 children, low-quality evidence), and for inhibition control SMD -0.67 (95% CI -1.50 to 0.16; 2 studies, 110 children, very low-quality evidence). No data were available for the effect of combined physical activity and healthy lifestyle education on cognitive executive functions.

There was a moderate difference in the average achievement across subjects taught at school favouring interventions targeting the improvement of the school food environment compared to standard practice in adolescents with obesity (SMD 0.46, 95% CI 0.25 to 0.66; 2 studies, 382 adolescents, low-quality evidence), but not with overweight. Replacing packed school lunch with a nutrient-rich diet in addition to nutrition education did not improve mathematics (MD -2.18, 95% CI -5.83 to 1.47; scale range 0 to 69; SMD -0.26, 95% CI -0.72 to 0.20; 1 study, 76 children, low-quality evidence) and reading achievement (MD 1.17, 95% CI -4.40 to 6.73; scale range 0 to 108; SMD 0.13, 95% CI -0.35 to 0.61; 1 study, 67 children, low-quality evidence).

AUTHORS' CONCLUSIONS: Despite the large number of childhood and adolescent obesity treatment trials, we were only able to partially assess the impact of obesity treatment interventions on school achievement and cognitive abilities. School and community-based physical activity interventions as part of an obesity prevention or treatment programme can benefit executive functions of children with obesity or overweight specifically. Similarly, school-based dietary interventions may benefit general school achievement in children with obesity. These findings might assist health and education practitioners to make decisions related to promoting physical activity and healthy eating in schools. Future obesity treatment and prevention studies in clinical, school and community settings should consider assessing academic and cognitive as well as physical outcomes.

PMID:29376563

Masic I.


Why did I recall the details about public health aspects of global population and well-being in the 21(st) century regarding the determinants of health? Most of all because today, at the end of 2017, we are talking about the same principles from the "Declaration on Primary Health Care" from 1978, and the same goals as those in "Health for all" which are still current or perhaps even more current than when they were published for the first time in scientific and professional literature. This is a notorious fact, even though we are talking
about “Global Health” and its determinants, in all countries of the world, regardless of their social wealth, and all existing resources, especially those, intended to organize health care. In the field of practice, public health has advanced in knowledge and methodology. Biomedical scientists have identified many causes of infectious diseases and developed methods to put them under control. Epidemiologists have identified risk factors that favor many chronic illnesses and information that can be used to reduce the risk of disease. Efforts to cleanse the environment have resulted in air and water that are far safer than half a century ago. Intensive educational efforts have convinced the health-care organizers to improve their health behavior that is to quit tobacco use, and a combination of drinking and driving. The ability to assess the populations’ health behaviors and assess the share of health interventions has also significantly improved the availability of health-care databases and computer software capable of analyzing them. However, much of the targets from the World Health Organization declarations are not improved or in some countries provided by official institutions responsible for public health activities.

PMID:29441181

OBJECTIVE: To quantify and describe alcohol-related presentations to our ED, as part of the binational Alcohol Harm in Emergency Departments study. METHODS: A prospective observational study at Royal Perth Hospital of every patient attending ED for the 168-h period commencing 08.00 hours Monday 1 December 2014. Patient presentations were classified as alcohol-related (alcohol-positive) using predefined criteria. These patients were compared to alcohol-negative patients on a range of demographic and clinical descriptors. RESULTS: Two hundred and thirteen (15.2%) of 1403 patients screened were alcohol-positive. Compared with alcohol-negative patients, alcohol-positive patients were more likely to be male (148/213, 69.5% vs 636/1190, 53.4%, P < 0.001) and younger (mean 38 years vs 48 years, P < 0.001). They were more likely to arrive in police custody (OR 3.7, 95% CI 1.3-9.5, P = 0.005), and be admitted to the State Adult Major Trauma Unit (OR 4.2, 95% CI 2.1-8.3, P < 0.001). Forty-two (19.7%) of 213 patients had injuries suspected to be caused by an alcohol-affected third party. The ED length of stay and admission rate were not significantly different between the groups. CONCLUSIONS: 15.2% of patient presentations over the study week were alcohol-related. These patients were more likely to present with injury; one in five having injuries suspected to be caused by a third party affected by alcohol. This is a significant public health problem.
PMID:28845913

Background: The negative health effect of excessive intake of free sugars has been gaining
increasing public awareness. Objective: This secondary analysis aimed to evaluate the impact of free-sugar intake on micronutrient dilution, and estimate a threshold level of free-sugar intake at which a decrease in micronutrient intake becomes evident, based on data from the Australian Health Survey 2011-2012. Design: Dietary data from adult respondents (weighted n = 6150) who had completed two 24-h recalls were analyzed. A published 10-step methodology was adopted and used to estimate the free-sugar intake of the respondents. Six modified cut-offs for percentage of energy of free sugars (%EFS) were created based on recommendations from the WHO and the Institute of Medicine to examine the association between %EFS on micronutrient intakes. Estimated marginal means and SEs were calculated using ANCOVA. Logistic regression was used to calculate the ORs of not meeting the nutrient reference values for Australia and New Zealand for each micronutrient with an increase in free-sugar intake. Analyses were adjusted for age, sex, socioeconomic status, country of birth, whether dieting, smoking status, and remoteness of living area. Results: Peak intake for most micronutrients was observed at %EFS between 5% and <15%. A significant reduction in most micronutrient intakes was observed at >25%EFS. At <5%EFS, some micronutrient intakes were reduced. Only small variations in micronutrient consumptions were observed when %EFS was between 5% and 25%. Core food intake decreased and discretionary food increased with an increase in free-sugar intake. Conclusion: A high free-sugar intake, particularly >25%EFS, was found to have a significant diluting effect on most nutrients. However, a free-sugar intake <5%EFS may increase the risk of undesirably low micronutrient consumption related to inadequate total energy intake. This secondary analysis was registered at anzctr.org.au as ACTRN12617000917336. PMID:29381794


Identifying Financially Sustainable Pricing Interventions to Promote Healthier Beverage Purchases in Small Neighborhood Stores.


INTRODUCTION: Residents of low-income communities often purchase sugar-sweetened beverages (SSBs) at small, neighborhood "corner" stores. Lowering water prices and increasing SSB prices are potentially complementary public health strategies to promote more healthful beverage purchasing patterns in these stores. Sustainability, however, depends on financial feasibility. Because in-store pricing experiments are complex and require retailers to take business risks, we used a simulation approach to identify profitable pricing combinations for corner stores. METHODS: The analytic approach was based on inventory models, which are suitable for modeling business operations. We used discrete-event simulation to build inventory models that use data representing beverage inventory, wholesale costs, changes in retail prices, and consumer demand for 2 corner stores in Baltimore, Maryland. Model outputs yielded ranges for water and SSB prices that increased water demand without loss of profit from combined water and SSB sales. RESULTS: A 20% SSB price increase allowed lowering water prices by up to 20% while maintaining profit and increased water demand by 9% and 14%, for stores selling SSBs in 12-oz cans and 16- to 20-oz bottles, respectively. Without changing water prices, profits could increase by 4% and 6%, respectively. Sensitivity analysis showed that stores with a
higher volume of SSB sales could reduce water prices the most without loss of profit.
CONCLUSION: Various combinations of SSB and water prices could encourage water consumption while maintaining or increasing store owners' profits. This model is a first step in designing and implementing profitable pricing strategies in collaboration with store owners.
PMID:29369758

Nortoft E, Chubb B, Borglykke A. 
Obesity and healthcare resource utilization: comparative results from the UK and the USA. 
Objectives: To estimate the differences between individuals with and without obesity on healthcare resource utilization using two large electronic medical record databases. 
Methods: Data from the UK Clinical Practice Research Datalink and US General Electric Centricity database of adults (≥18 years) with registration date before 01/01/2010. Differences between individuals with and without obesity on 5-year rates of Primary Care Physician (PCP) contacts, prescriptions and hospitalizations were analysed. Results: The study contained 1,878,017 UK and 4,414,883 US individuals. Compared with body mass index (BMI) (18.5-24.9 kg m\(^{-2}\)), significant (p < 0.0001) increases in healthcare usage were observed with increasing BMI. Individuals with BMI 30-34.9 kg m\(^{-2}\) had higher PCP contact rate (rate ratios [RR] 1.27 and 1.28 for UK and USA, respectively), higher prescription rate (RR 1.61 and 1.51) and higher hospitalization rate (RR 1.10 and 1.13) than individuals with BMI 18.5-24.9 kg m\(^{-2}\). Individuals with BMI >40 kg m\(^{-2}\) also had higher PCP contact rate (RR 1.56 and 1.64), prescription rate (RR 2.48 and 2.14) and hospitalization rate (RR 1.27 and 1.30) than individuals with BMI 18.5-24.9 kg m\(^{-2}\). Conclusions: The utilization of healthcare resources is significantly higher in individuals with obesity. A similar trend was observed in both the UK and US cohorts.
PMID:29479463

BACKGROUND: Analysis of lower limb exercises is traditionally completed with four distinct methods: (1) 3D motion capture; (2) depth-camera-based systems; (3) visual analysis from a qualified exercise professional; and (4) self-assessment. Each method is associated with a number of limitations. OBJECTIVE: The aim of this systematic review is to synthesise and evaluate studies which have investigated the capacity for inertial measurement unit (IMU) technologies to assess movement quality in lower limb exercises. DATA SOURCES: A systematic review of studies identified through the databases of PubMed, ScienceDirect and Scopus was conducted. STUDY ELIGIBILITY CRITERIA: Articles written in English and published in the last 10 years which investigated an IMU system for the analysis of repetition-based targeted lower limb exercises were included. STUDY APPRAISAL AND
SYNTHESIS METHODS: The quality of included studies was measured using an adapted version of the STROBE assessment criteria for cross-sectional studies. The studies were categorised into three groupings: exercise detection, movement classification or measurement validation. Each study was then qualitatively summarised. RESULTS: From the 2452 articles that were identified with the search strategies, 47 papers are included in this review. Twenty-six of the 47 included studies were deemed as being of high quality. CONCLUSIONS: Wearable inertial sensor systems for analysing lower limb exercises is a rapidly growing field of research. Research over the past 10 years has predominantly focused on validating measurements that the systems produce and classifying users’ exercise quality. There have been very few user evaluation studies and no clinical trials in this field to date.

PMID:29476427

Oshio T.  
**Widening disparities in health between educational levels and their determinants in later life: evidence from a nine-year cohort study.**  
BACKGROUND: Education has attracted more attention as a key determinant of health in later life. In this study, the hypothesis that widened educational disparities in health can be observed in later life was investigated, and the factors that mediated the association between education and changes in health were also assessed. METHODS: Using the 9-year (10-wave) longitudinal data of 20,024 individuals (9320 men and 10,704 women) aged 50-59 years at baseline, collected from a nationwide population survey in Japan (2005-2014), the changes in self-rated health, functional limitations, and psychological distress between educational levels were compared. Mediation analysis was further conducted to assess the factors that mediated the association between education and changes in health, with reference to six types of potential mediators (household spending, social participation, leisure-time physical activity, smoking, problem drinking, and regular health check-ups). The analyses were conducted separately for men and women. RESULTS: All three health variables rapidly deteriorated among lower-educated men and women. For men, the six potential mediators mediated 55.2%, 64.3%, and 47.3% of the associations between educational levels and changes in self-rated health, functional limitations, and psychological distress, respectively. The proportions for women were 42.0%, 49.5%, and 58.8%, respectively. Social participation was the primary mediator, followed by physical activity, regular health check-ups, and smoking. In general, no substantial or consistent differences were observed between men and women. CONCLUSIONS: The results suggested that policy measures that encourage social participation and promote healthy behaviors can improve educational disparities in health in later life.

PMID:29471834

**Multimorbidity care model: Recommendations from the consensus meeting of the Joint Action on Chronic Diseases and Promoting Healthy Ageing across the Life Cycle**
Patients with multimorbidity have complex health needs but, due to the current traditional disease-oriented approach, they face a highly fragmented form of care that leads to inefficient, ineffective, and possibly harmful clinical interventions. There is limited evidence on available integrated and multidimensional care pathways for multimorbid patients. An expert consensus meeting was held to develop a framework for care of multimorbid patients that can be applied across Europe, within a project funded by the European Union; the Joint Action on Chronic Diseases and Promoting Healthy Ageing across the Life Cycle (JA-CHRODIS). The experts included a diverse group representing care providers and patients, and included general practitioners, family medicine physicians, neurologists, geriatricians, internists, cardiologists, endocrinologists, diabetologists, epidemiologists, psychologists, and representatives from patient organizations. Sixteen components across five domains were identified (Delivery of Care; Decision Support; Self Management Support; Information Systems and Technology; and Social and Community Resources). The description and aim of each component are described in these guidelines, along with a summary of key characteristics and relevance to multimorbid patients. Due to the lack of evidence-based recommendations specific to multimorbid patients, this care model needs to be assessed and validated in different European settings to examine specifically how multimorbid patients will benefit from this care model, and whether certain components have more importance than others.

PMID: 28967492


Pescheny JV, Pappas Y, Randhawa G.

Facilitators and barriers of implementing and delivering social prescribing services: a systematic review.

BMC health services research. 2018;18(1):86.

BACKGROUND: Social Prescribing is a service in primary care that involves the referral of patients with non-clinical needs to local services and activities provided by the third sector (community, voluntary, and social enterprise sector). Social Prescribing aims to promote partnership working between the health and the social sector to address the wider determinants of health. To date, there is a weak evidence base for Social Prescribing services. The objective of the review was to identify factors that facilitate and hinder the implementation and delivery of SP services based in general practice involving a navigator.

METHODS: We searched eleven databases, the grey literature, and the reference lists of relevant studies to identify the barriers and facilitators to the implementation and delivery of Social Prescribing services in June and July 2016. Searches were limited to literature written in English. No date restrictions were applied. Findings were synthesised narratively, employing thematic analysis. The Mixed Methods Appraisal Tool Version 2011 was used to evaluate the methodological quality of included studies. RESULTS: Eight studies were included in the review. The synthesis identified a range of factors that facilitate and hinder the implementation and delivery of SP services. Facilitators and barriers were related to: the implementation approach, legal agreements, leadership, management and organisation, staff turnover, staff engagement, relationships and communication between partners and
stakeholders, characteristics of general practices, and the local infrastructure. The quality of most included studies was poor and the review identified a lack of published literature on factors that facilitate and hinder the implementation and delivery of Social Prescribing services. CONCLUSION: The review identified a range of factors that facilitate and hinder the implementation and delivery of Social Prescribing services. Findings of this review provide an insight for commissioners, managers, and providers to guide the implementation and delivery of future Social Prescribing services. More high quality research and transparent reporting of findings is needed in this field.

PMID: 29415720

OBJECTIVE: To assess the effectiveness of the self-regulatory Canadian Children's Food and Beverage Advertising Initiative (CAI) in limiting advertising of unhealthy foods and beverages on children's preferred websites in Canada. Design/Setting/Subjects Syndicated Internet advertising exposure data were used to identify the ten most popular websites for children (aged 2-11 years) and determine the frequency of food/beverage banner and pop-up ads on these websites from June 2015 to May 2016. Nutrition information for advertised products was collected and their nutrient content per 100 g was calculated. Nutritional quality of all food/beverage ads was assessed using the Pan American Health Organization (PAHO) and UK Nutrient Profile Models (NPM). Nutritional quality of CAI and non-CAI company ads was compared using chi 2 analyses and independent t tests.
RESULTS: About 54 million food/beverage ads were viewed on children's preferred websites from June 2015 to May 2016. Most (93.4 %) product ads were categorized as excessive in fat, Na or free sugars as per the PAHO NPM and 73.8 % were deemed less healthy according to the UK NPM. CAI-company ads were 2.2 times more likely (OR; 99 % CI) to be excessive in at least one nutrient (2.2; 2.1, 2.2, P<0.001) and 2.5 times more likely to be deemed less healthy (2.5; 2.5, 2.5, P<0.001) than non-CAI ads. On average, CAI-company product ads also contained (mean difference; 99 % CI) more energy (141; 141.1, 141.4 kcal, P<0.001, r=0.55), sugar (18.2; 18.2, 18.2 g, P<0.001, r=0.68) and Na (70.0; 69.7, 70.0 mg, P<0.001, r=0.23) per 100 g serving than non-CAI ads. CONCLUSIONS: The CAI is not limiting unhealthy food and beverage advertising on children's preferred websites in Canada. Mandatory regulations are needed.
PMID: 29433594

BACKGROUND: Taxing soft-drinks may reduce their purchase, but assessing the impact on health demands wider consideration on alternative beverage choices. Effects on alcoholic
drinks are of particular concern, as many contain similar or greater amounts of sugar than soft-drinks and have additional health harms. Changes in consumption of alcoholic drinks may reinforce or negate the intended effect of price changes for soft-drinks. METHODS: A partial demand model, adapted from the Almost Ideal Demand System, was applied to Kantar Worldpanel data from 31 919 households from January 2012 to December 2013, covering drink purchases for home consumption, providing ~6 million purchases aggregated into 11 groups, including three levels of soft-drink, three of other non-alcoholic drinks and five of alcoholic drinks. RESULTS: An increase in the price of high-sugar drinks leads to an increase in the purchase of lager, an increase in the price of medium-sugar drinks reduces purchases of alcoholic drinks, while an increase in the price of diet/low-sugar drinks increases purchases of beer, cider and wines. Overall, the effects of price rises are greatest in the low-income group. CONCLUSION: Increasing the price of soft-drinks may change purchase patterns for alcohol. Increasing the price of medium-sugar drinks has the potential to have a multiplier-effect beneficial to health through reducing alcohol purchases, with the converse for increases in the price of diet-drinks. Although the reasons for such associations cannot be explained from this analysis, requiring further study, the design of fiscal interventions should now consider these wider potential outcomes.

PMID:29363613


INTRODUCTION: Mobile technology, when included within multicomponent interventions, could contribute to more effective weight loss. The objective of this project is to assess the impact of adding the use of the EVIDENT 3 application, designed to promote healthy living habits, to traditional modification strategies employed for weight loss. Other targeted behaviors (walking, caloric-intake, sitting time) and outcomes (quality of life, inflammatory markers, measurements of arterial aging) will also be evaluated. METHODS: Randomized, multicentre clinical trial with 2 parallel groups. The study will be conducted in the primary care setting and will include 700 subjects 20 to 65 years, with a body mass index (27.5-40 kg/m), who are clinically classified as sedentary. The primary outcome will be weight loss. Secondary outcomes will include change in walking (steps/d), sitting time (min/wk), caloric intake (kcal/d), quality of life, arterial aging (augmentation index), and pro-inflammatory marker levels. Outcomes will be measured at baseline, after 3 months, and after 1 year. Participants will be randomly assigned to either the intervention group (IG) or the control group (CG). Both groups will receive the traditional primary care lifestyle counseling prior to randomization. The subjects in the IG will be lent a smartphone and a smartband for a 3-month period, corresponding to the length of the intervention. The EVIDENT 3 application integrates the information collected by the smartband on physical activity and the self-reported information by participants on daily food intake. Using this information, the application generates recommendations and personalized goals for weight loss.
DISCUSSION: There is a great diversity in the applications used obtaining different results on lifestyle improvement and weight loss. The populations studied are not homogeneous and generate different results. The results of this study will help our understanding of the efficacy of new technologies, combined with traditional counseling, towards reducing obesity and enabling healthier lifestyles. ETHICS AND DISSEMINATION: The study was approved by the Clinical Research Ethics Committee of the Health Area of Salamanca ("CREC of Health Area of Salamanca") on April 2016. A SPIRIT checklist is available for this protocol. The trial was registered in ClinicalTrials.gov provided by the US National Library of Medicine-number NCT03175614. PMID:29480874

Rice VH, Heath L, Livingstone-Banks J, Hartmann-Boyce J.

**Nursing interventions for smoking cessation.**

BACKGROUND: Healthcare professionals, including nurses, frequently advise people to improve their health by stopping smoking. Such advice may be brief, or part of more intensive interventions. OBJECTIVES: To determine the effectiveness of nursing-delivered smoking cessation interventions in adults. To establish whether nursing-delivered smoking cessation interventions are more effective than no intervention; are more effective if the intervention is more intensive; differ in effectiveness with health state and setting of the participants; are more effective if they include follow-ups; are more effective if they include aids that demonstrate the pathophysiological effect of smoking. SEARCH METHODS: We searched the Cochrane Tobacco Addiction Group Specialized Register and CINAHL in January 2017. SELECTION CRITERIA: Randomized trials of smoking cessation interventions delivered by nurses or health visitors with follow-up of at least six months. DATA COLLECTION AND ANALYSIS: Two review authors extracted data independently. The main outcome measure was abstinence from smoking after at least six months of follow-up. We used the most rigorous definition of abstinence for each trial, and biochemically-validated rates if available. Where statistically and clinically appropriate, we pooled studies using a Mantel-Haenszel fixed-effect model and reported the outcome as a risk ratio (RR) with a 95% confidence interval (CI). MAIN RESULTS: Fifty-eight studies met the inclusion criteria, nine of which are new for this update. Pooling 44 studies (over 20,000 participants) comparing a nursing intervention to a control or to usual care, we found the intervention increased the likelihood of quitting (RR 1.29, 95% CI 1.21 to 1.38); however, statistical heterogeneity was moderate (I(2) = 50%) and not explained by subgroup analysis. Because of this, we judged the quality of evidence to be moderate. Despite most studies being at unclear risk of bias in at least one domain, we did not downgrade the quality of evidence further, as restricting the main analysis to only those studies at low risk of bias did not significantly alter the effect estimate. Subgroup analyses found no evidence that high-intensity interventions, interventions with additional follow-up or interventions including aids that demonstrate the pathophysiological effect of smoking are more effective than lower intensity interventions, or interventions without additional follow-up or aids. There was no evidence that the effect of support differed by patient group or across healthcare settings. AUTHORS' CONCLUSIONS: There is moderate quality evidence that
behavioural support to motivate and sustain smoking cessation delivered by nurses can lead to a modest increase in the number of people who achieve prolonged abstinence. There is insufficient evidence to assess whether more intensive interventions, those incorporating additional follow-up, or those incorporating pathophysiological feedback are more effective than one-off support. There was no evidence that the effect of support differed by patient group or across healthcare settings.

PMID:29243221


Individuals participate in politics to influence the politicians that prescribe the policies and programs that distribute the public goods and services that shape the social determinants of health. But the opportunity to participate in politics is conditional on survival, and in the U.S., the haves enjoy a significant survival advantage over the have-nots. This process can be detected looking at the relationship between age and participation: It is inflated by the fact that, as time progresses, a higher proportion of low-SES, low-level participation individuals die and are therefore excluded from the available pool of participants faster than high-SES, high-level participation individuals. We analyze this mechanism applying propensity scores matching and multivariate regressions on data from MIDUS I (Midlife in the United States: A National Study of Health and Well-being) and its 10-year mortality follow-up. Results show that health differences between 10-year survivors and non-survivors explain 56% of their differences in socio-political participation. Survivors participate at higher levels than non-survivors across all age groups and SES levels; without detrimental differences in health, individuals would participate 28% more as they age. The same disadvantaged individuals whose increased participation would pressure for redistributive policies are those who die off from the available pool of participants at much higher rates than socioeconomically advantaged individuals. The proposed conceptual model helps to explain how, through the early disappearance of the poor, continuing socio-political participation of high-SES survivors helps to perpetuate inequality in the status quo.

PMID:29421470


OBJECTIVE: Physical activity (PA) levels and dietary habits are considered some of the most important factors associated with obesity. The present study aimed to examine the association between PA level and food and beverage consumption in European children (2-10 years old). Design/Setting/Subjects A sample of 7229 children (49.0 % girls) from eight European countries participating in the IDEFICS (Identification and prevention of Dietary and
lifestyle induced health effects in children and infants study was included. Moderate-to-vigorous PA (MVPA) was assessed objectively with accelerometers. FFQ was used to register dietary habits. ANCOVA and binary logistic regression were applied.

RESULTS: Boys who spent less time in MVPA reported lower consumption of vegetables, fruits, cereals, yoghurt, milk, bread, pasta, candies and sugar-sweetened beverages (SSB) than boys who spent more time in MVPA (P<0.05). Moreover, boys who spent less time in MVPA were more likely to consume fast foods and water than those in the highest MVPA tertile (P<0.05). Girls who spent less time in MVPA reported lower consumption frequencies of vegetables, pasta, bread, yoghurt, candies, jam/honey and SSB than girls in the highest MVPA tertile (P<0.05). Also, girls in the lowest MVPA tertile were more likely to consume fast foods and water than those with high levels of MVPA (P<0.05). CONCLUSIONS: Food intake among European children varied with different levels of daily MVPA. Low time spent in MVPA was associated with lowest consumption of both high- and low-energy-dense foods and high fast-food consumption.

PMID:29457580

Sartorius K, Sartorius B, Madiba TE, Stefan C.
Does high-carbohydrate intake lead to increased risk of obesity? A systematic review and meta-analysis.

OBJECTIVES: The present study aimed to test the association between high and low carbohydrate diets and obesity, and second, to test the link between total carbohydrate intake (as a percentage of total energy intake) and obesity. SETTING, PARTICIPANTS AND OUTCOME MEASURES: We sought MEDLINE, PubMed and Google Scholar for observation studies published between January 1990 and December 2016 assessing an association between obesity and high-carbohydrate intake. Two independent reviewers selected candidate studies, extracted data and assessed study quality. RESULTS: The study identified 22 articles that fulfilled the inclusion and exclusion criteria and quantified an association between carbohydrate intake and obesity. The first pooled strata (high-carbohydrate versus low-carbohydrate intake) suggested a weak increased risk of obesity. The second pooled strata (increasing percentage of total carbohydrate intake in daily diet) showed a weak decreased risk of obesity. Both these pooled strata estimates were, however, not statistically significant. CONCLUSIONS: On the basis of the current study, it cannot be concluded that a high-carbohydrate diet or increased percentage of total energy intake in the form of carbohydrates increases the odds of obesity. A central limitation of the study was the non-standard classification of dietary intake across the studies, as well as confounders like total energy intake, activity levels, age and gender. Further studies are needed that specifically classify refined versus unrefined carbohydrate intake, as well as studies that investigate the relationship between high fat, high unrefined carbohydrate-sugar diets.

PROSPERO REGISTRATION NUMBER: CRD42015023257.
PMID:29439068

Saunders J.
Reducing sugar in our processed foods and beverages - will it make enough difference?
*Perspectives in public health.* 2018;138(2):78.
PMID:29465012

Schwarzinger M, Pollock BG, Hasan OSM, Dufouil C, Rehm J.
**Contribution of alcohol use disorders to the burden of dementia in France 2008-13: a nationwide retrospective cohort study.**

BACKGROUND: Dementia is a prevalent condition, affecting 5-7% of people aged 60 years and older, and a leading cause of disability in people aged 60 years and older globally. We aimed to examine the association between alcohol use disorders and dementia risk, with an emphasis on early-onset dementia (<65 years).

METHODS: We analysed a nationwide retrospective cohort of all adult (> =20 years) patients admitted to hospital in metropolitan France between 2008 and 2013. The primary exposure was alcohol use disorders and the main outcome was dementia, both defined by International Classification of Diseases, tenth revision discharge diagnosis codes. Characteristics of early-onset dementia were studied among prevalent cases in 2008-13. Associations of alcohol use disorders and other risk factors with dementia onset were analysed in multivariate Cox models among patients admitted to hospital in 2011-13 with no record of dementia in 2008-10.

FINDINGS: Of 31 624 156 adults discharged from French hospitals between 2008 and 2013, 1 109 343 were diagnosed with dementia and were included in the analyses. Of the 57 353 (5.2%) cases of early-onset dementia, most were either alcohol-related by definition (22 338 [38.9%]) or had an additional diagnosis of alcohol use disorders (10 115 [17.6%]). Alcohol use disorders were the strongest modifiable risk factor for dementia onset, with an adjusted hazard ratio of 3.34 (95% CI 3.28-3.41) for women and 3.36 (3.31-3.41) for men. Alcohol use disorders remained associated with dementia onset for both sexes (adjusted hazard ratios >1.7) in sensitivity analyses on dementia case definition (including Alzheimer’s disease) or older study populations. Also, alcohol use disorders were significantly associated with all other risk factors for dementia onset (all p<0.0001).

INTERPRETATION: Alcohol use disorders were a major risk factor for onset of all types of dementia, and especially early-onset dementia. Thus, screening for heavy drinking should be part of regular medical care, with intervention or treatment being offered when necessary. Additionally, other alcohol policies should be considered to reduce heavy drinking in the general population.

FUNDING: None.
PMID:29475810

Taylor GMJ, Dalili MN, Semwal M, Civljak M, Sheikh A, Car J.
**Internet-based interventions for smoking cessation.**

BACKGROUND: Tobacco use is estimated to kill 7 million people a year. Nicotine is highly addictive, but surveys indicate that almost 70% of US and UK smokers would like to stop smoking. Although many smokers attempt to give up on their own, advice from a health professional increases the chances of quitting. As of 2016 there were 3.5 billion Internet
users worldwide, making the Internet a potential platform to help people quit smoking. OBJECTIVES: To determine the effectiveness of Internet-based interventions for smoking cessation, whether intervention effectiveness is altered by tailoring or interactive features, and if there is a difference in effectiveness between adolescents, young adults, and adults. SEARCH METHODS: We searched the Cochrane Tobacco Addiction Group Specialised Register, which included searches of MEDLINE, Embase and PsycINFO (through OVID). There were no restrictions placed on language, publication status or publication date. The most recent search was conducted in August 2016. SELECTION CRITERIA: We included randomised controlled trials (RCTs). Participants were people who smoked, with no exclusions based on age, gender, ethnicity, language or health status. Any type of Internet intervention was eligible. The comparison condition could be a no-intervention control, a different Internet intervention, or a non-Internet intervention. To be included, studies must have measured smoking cessation at four weeks or longer. DATA COLLECTION AND ANALYSIS: Two review authors independently assessed and extracted data. We extracted and, where appropriate, pooled smoking cessation outcomes of six-month follow-up or more, reporting short-term outcomes narratively where longer-term outcomes were not available. We reported study effects as a risk ratio (RR) with a 95% confidence interval (CI). We grouped studies according to whether they (1) compared an Internet intervention with a non-active control arm (e.g. printed self-help guides), (2) compared an Internet intervention with an active control arm (e.g. face-to-face counselling), (3) evaluated the addition of behavioural support to an Internet programme, or (4) compared one Internet intervention with another. Where appropriate we grouped studies by age. MAIN RESULTS: We identified 67 RCTs, including data from over 110,000 participants. We pooled data from 35,969 participants. There were only four RCTs conducted in adolescence or young adults that were eligible for meta-analysis. Results for trials in adults: Eight trials compared a tailored and interactive Internet intervention to a non-active control. Pooled results demonstrated an effect in favour of the intervention (RR 1.15, 95% CI 1.01 to 1.30, n = 6786). However, statistical heterogeneity was high (I(2) = 58%) and was unexplained, and the overall quality of evidence was low according to GRADE. Five trials compared an Internet intervention to an active control. The pooled effect estimate favoured the control group, but crossed the null (RR 0.92, 95% CI 0.78 to 1.09, n = 3806, I(2) = 0%); GRADE quality rating was moderate. Five studies evaluated an Internet programme plus behavioural support compared to a non-active control (n = 2334). Pooled, these studies indicated a positive effect of the intervention (RR 1.69, 95% CI 1.30 to 2.18). Although statistical heterogeneity was substantial (I(2) = 60%) and was unexplained, the GRADE rating was moderate. Four studies evaluated the Internet plus behavioural support compared to active control. None of the studies detected a difference between trial arms (RR 1.00, 95% CI 0.84 to 1.18, n = 2769, I(2) = 0%); GRADE rating was moderate. Seven studies compared an interactive or tailored Internet intervention, or both, to an Internet intervention that was not tailored/interactive. Pooled results favoured the interactive or tailored programme, but the estimate crossed the null (RR 1.10, 95% CI 0.99 to 1.22, n = 14,623, I(2) = 0%); GRADE rating was moderate. Three studies compared tailored with non-tailored Internet-based messages, compared to non-tailored messages. The tailored messages produced higher cessation rates compared to control, but the estimate was not precise (RR 1.17, 95% CI 0.97 to 1.41, n = 4040), and there was evidence of unexplained substantial statistical heterogeneity (I(2) = 57%); GRADE
rating was low. Results should be interpreted with caution as we judged some of the included studies to be at high risk of bias. AUTHORS’ CONCLUSIONS: The evidence from trials in adults suggests that interactive and tailored Internet-based interventions with or without additional behavioural support are moderately more effective than non-active controls at six months or longer, but there was no evidence that these interventions were better than other active smoking treatments. However, some of the studies were at high risk of bias, and there was evidence of substantial statistical heterogeneity. Treatment effectiveness in younger people is unknown.

PMID:28869775

Thompson K, Stockwell T, Wettlaufer A, Giesbrecht N, Thomas G.

Minimum alcohol pricing policies in practice: A critical examination of implementation in Canada.
There is an interest globally in using Minimum Unit Pricing (MUP) of alcohol to promote public health. Canada is the only country to have both implemented and evaluated some forms of minimum alcohol prices, albeit in ways that fall short of MUP. To inform these international debates, we describe the degree to which minimum alcohol prices in Canada meet recommended criteria for being an effective public health policy. We collected data on the implementation of minimum pricing with respect to (1) breadth of application, (2) indexation to inflation and (3) adjustments for alcohol content. Some jurisdictions have implemented recommended practices with respect to minimum prices; however, the full harm reduction potential of minimum pricing is not fully realised due to incomplete implementation. Key concerns include the following: (1) the exclusion of minimum prices for several beverage categories, (2) minimum prices below the recommended minima and (3) prices are not regularly adjusted for inflation or alcohol content. We provide recommendations for best practices when implementing minimum pricing policy.

PMID:28275253


Healthcare financing systems for increasing the use of tobacco dependence treatment.
The Cochrane database of systematic reviews. 2017;9:Cd004305.
BACKGROUND: Tobacco smoking is the leading preventable cause of death worldwide, which makes it essential to stimulate smoking cessation. The financial cost of smoking cessation treatment can act as a barrier to those seeking support. We hypothesised that provision of financial assistance for people trying to quit smoking, or reimbursement of their care providers, could lead to an increased rate of successful quit attempts. This is an update of the original 2005 review. OBJECTIVES: The primary objective of this review was to assess the impact of reducing the costs for tobacco smokers or healthcare providers for using or providing smoking cessation treatment through healthcare financing interventions on abstinence from smoking. The secondary objectives were to examine the effects of different levels of financial support on the use or prescription of smoking cessation treatment, or both, and on the number of smokers making a quit attempt (quitting smoking for at least
24 hours). We also assessed the cost effectiveness of different financial interventions, and analysed the costs per additional quitter, or per quality-adjusted life year (QALY) gained.

SEARCH METHODS: We searched the Cochrane Tobacco Addiction Group Specialised Register in September 2016. SELECTION CRITERIA: We considered randomised controlled trials (RCTs), controlled trials and interrupted time series studies involving financial benefit interventions to smokers or their healthcare providers, or both. DATA COLLECTION AND ANALYSIS: Two reviewers independently extracted data and assessed the quality of the included studies. We calculated risk ratios (RR) for individual studies on an intention-to-treat basis and performed meta-analysis using a random-effects model. MAIN RESULTS: In the current update, we have added six new relevant studies, resulting in a total of 17 studies included in this review involving financial interventions directed at smokers or healthcare providers, or both. Full financial interventions directed at smokers had a favourable effect on abstinence at six months or longer when compared to no intervention (RR 1.77, 95% CI 1.37 to 2.28, I² = 33%, 9333 participants). There was no evidence that full coverage interventions increased smoking abstinence compared to partial coverage interventions (RR 1.02, 95% CI 0.71 to 1.48, I² = 64%, 5914 participants), but partial coverage interventions were more effective in increasing abstinence than no intervention (RR 1.27 95% CI 1.02 to 1.59, I² = 21%, 7108 participants). The economic evaluation showed costs per additional quitter ranging from USD 97 to USD 7646 for the comparison of full coverage with partial or no coverage. There was no clear evidence of an effect on smoking cessation when we pooled two trials of financial incentives directed at healthcare providers (RR 1.16, CI 0.98 to 1.37, I² = 0%, 2311 participants). Full financial interventions increased the number of participants making a quit attempt when compared to no interventions (RR 1.11, 95% CI 1.04 to 1.17, I² = 15%, 9065 participants). There was insufficient evidence to show whether partial financial interventions increased quit attempts compared to no interventions (RR 1.13, 95% CI 0.98 to 1.31, I² = 88%, 6944 participants). Full financial interventions increased the use of smoking cessation treatment compared to no interventions with regard to various pharmacological and behavioural treatments: nicotine replacement therapy (NRT): RR 1.79, 95% CI 1.54 to 2.09, I² = 35%, 9455 participants; bupropion: RR 3.22, 95% CI 1.41 to 7.34, I² = 71%, 6321 participants; behavioural therapy: RR 1.77, 95% CI 1.19 to 2.65, I² = 75%, 9215 participants. There was evidence that partial coverage compared to no coverage reported a small positive effect on the use of bupropion (RR 1.15, 95% CI 1.03 to 1.29, I² = 0%, 6765 participants). Interventions directed at healthcare providers increased the use of behavioural therapy (RR 1.69, 95% CI 1.01 to 2.86, I² = 85%, 25820 participants), but not the use of NRT and/or bupropion (RR 0.94, 95% CI 0.76 to 1.18, I² = 6%, 2311 participants). We assessed the quality of the evidence for the main outcome, abstinence from smoking, as moderate. In most studies participants were not blinded to the different study arms and researchers were not blinded to the allocated interventions. Furthermore, there was not always sufficient information on attrition rates. We detected some imprecision but we judged this to be of minor consequence on the outcomes of this study. AUTHORS' CONCLUSIONS: Full financial interventions directed at smokers when compared to no financial interventions increase the proportion of smokers who attempt to quit, use smoking cessation treatments, and succeed in quitting. There was no clear and consistent evidence of an effect on smoking cessation from financial incentives directed at healthcare providers. We are only moderately confident in the effect estimate because there was some risk of bias.
due to a lack of blinding in participants and researchers, and insufficient information on attrition rates.
PMID:28898403

Physical activity after commitment lotteries: examining long-term results in a cluster randomized trial.
To overcome self-control difficulties, people can commit to their health goals by voluntarily accepting deadlines with consequences. In a commitment lottery, the winners are drawn from all participants, but can only claim their prize if they also attained their gym-attendance goals. In a 52-week, three-arm trial across six company gyms, we tested if commitment lotteries with behavioral economic underpinnings would promote physical activity among overweight adults. In previous work, we presented an effective 26-week intervention. In the present paper we analyzed maintenance of goal attainment at 52-week follow-up and the development of weight over time. We compared weight and goal attainment (gym attendance ≥ 2 per week) between three arms that-in the intervention period- consisted of (I) weekly short-term lotteries for 13 weeks; (II) the same short-term lotteries in combination with an additional long-term lottery after 26 weeks; and (III) a control arm without lottery-deadlines. After a successful 26-week intervention, goal attainment declined between weeks 27 and 52 in the long-term lottery arm, but remained higher than in the control group. Goal attainment did not differ between the short-term lottery arm and control arm. Weight declined slightly in all arms in the first 13 weeks of the trial and remained stable from there on. Commitment lotteries can support regular gym attendance up to 52 weeks, but more research is needed to achieve higher levels of maintenance and weight loss.
PMID:29480440

An approach to addressing subpopulation considerations in systematic reviews: the experience of reviewers supporting the U.S. Preventive Services Task Force.
BACKGROUND: Guideline developers and other users of systematic reviews need information about whether a medical or preventive intervention is likely to benefit or harm some patients more (or less) than the average in order to make clinical practice recommendations tailored to these populations. However, guidance is lacking on how to include patient subpopulation considerations into the systematic reviews upon which guidelines are often based. In this article, we describe methods developed to consistently consider the evidence for relevant subpopulations in systematic reviews conducted to support primary care clinical preventive service recommendations made by the U.S. Preventive Services Task Force (USPSTF). PROPOSED APPROACH: Our approach is grounded in our experience conducting systematic reviews for the USPSTF and informed by a review
of existing guidance on subgroup analysis and subpopulation issues. We developed and refined our approach based on feedback from the Subpopulation Workgroup of the USPSTF and pilot testing on reviews being conducted for the USPSTF. This paper provides processes and tools for incorporating evidence-based identification of important sources of potential heterogeneity of intervention effects into all phases of systematic reviews. Key components of our proposed approach include targeted literature searches and key informant interviews to identify the most important subpopulations a priori during topic scoping, a framework for assessing the credibility of subgroup analyses reported in studies, and structured investigation of sources of heterogeneity of intervention effects. CONCLUSIONS: Further testing and evaluation are necessary to refine this proposed approach and demonstrate its utility to the producers and users of systematic reviews beyond the context of the USPSTF. Gaps in the evidence on important subpopulations identified by routinely applying this process in systematic reviews will also inform future research needs.

PMID:28253915

Wise J.

Large study is "robust" evidence of link between chronic heavy drinking and dementia.
PMID:29467159

Wutzke S, Morrice E, Benton M, Wilson A.

What will it take to improve prevention of chronic diseases in Australia? A case study of two national approaches.

Objective Despite being a healthy country by international standards, Australia has a growing and serious burden from chronic diseases. There have been several national efforts to tackle this problem, but despite some important advances much more needs to be done. From the viewpoint of diverse stakeholders, the present study examined two approaches to controlling chronic disease in Australia: (1) the 2005 National Chronic Disease Strategy (NCDS); and (2) the 2008 National Partnership Agreement on Preventive Health (NPAPH).

Methods Individual and small group semistructured interviews were undertaken with 29 leaders across Australia, reflecting a diverse cross-section of senior public health managers and program implementation staff from state and territory health departments, as well as academics, thought leaders and public health advocates. A grounded theory approach was used to generate themes relevant to the research. Results There is general support for national approaches to the prevention of chronic disease. The NCDS was viewed as necessary and useful for national coordination, setting a common agenda and serving as an anchor to align jurisdictional priorities and action. However, without funding or other infrastructure commitments or implementation plans, any expectations as to what could be meaningfully achieved were limited. In contrast, although jurisdictions welcomed the NPAPH, its associated funding and the opportunity to tailor strategy to their unique needs
and populations, there were calls for greater national leadership as well as guidance on the evidence base to inform decision making. Key aspects of successful national action were strong Australian Government leadership and coordination, setting a common agenda, national alignment on priorities, evidence-informed implementation strategies, partnerships within and across governments, as well as with other sectors, and funding and infrastructure to support implementation. Conclusions Both the NCDS and NPAPH were seen to have overlapping strengths and weaknesses. A key need identified was for future approaches to focus on generating more sustainable, system-wide change. What is known about the topic? Despite some important advances, chronic diseases remain Australia’s greatest health challenge. In efforts to tackle this increasing burden from chronic diseases, several large-scale, national initiatives have been released in Australia over recent years, including the 2005 NCDS and the 2008 NPAPH. What does this paper add? From the viewpoint of practitioners, policy makers, advocates, researchers and public health thought leaders, this paper examines the usefulness and significance of the NCDS and NPAPH as national initiatives for achieving improvements to the prevention of chronic disease. What are the implications for practitioners? By better understanding how previous countrywide chronic disease initiatives were viewed and used at national, state and local levels, this research is well placed to inform current, planned and future large-scale, population-level health initiatives.

PMID:27305656


Setting strategy for system change: using concept mapping to prioritise national action for chronic disease prevention.


BACKGROUND: Chronic diseases are a serious and urgent problem, requiring at-scale, multi-component, multi-stakeholder action and cooperation. Despite numerous national frameworks and agenda-setting documents to coordinate prevention efforts, Australia, like many countries internationally, is yet to substantively impact the burden from chronic disease. Improved evidence on effective strategies for the prevention of chronic disease is required. This research sought to articulate a priority set of important and feasible action domains to inform future discussion and debate regarding priority areas for chronic disease prevention policy and strategy. METHODS: Using concept mapping, a mixed-methods approach to making use of the best available tacit knowledge of recognised, diverse and well-experienced actors, and national actions to improve the prevention of chronic disease in Australia were identified and then mapped. Participants (ranging from 58 to 78 in the various stages of the research) included a national sample of academics, policymakers and practitioners. Data collection involved the generation and sorting of statements by participants. A series of visual representations of the data were then developed. RESULTS: A total of 95 statements were distilled into 12 clusters for action, namely Inter-Sectoral Partnerships; Systems Perspective/Action; Governance; Roles and Responsibilities; Evidence, Feedback and Learning; Funding and Incentive; Creating Demand; Primary Prevention; Social Determinants and Equity; Healthy Environments; Food and Nutrition; and Regulation and Policy. Specific areas for more immediate national action included refocusing the health
system to prevention over cure, raising the profile of public health with health
decision-makers, funding policy- and practice-relevant research, improving communication
about prevention, learning from both global best-practice and domestic successes and
failures, increasing the focus on primary prevention, and developing a long-term prevention
strategy with an explicit funding commitment. CONCLUSIONS: Preventing chronic diseases
and their risk factors will require at-scale, multi-component, multi-stakeholder action and
cooperation. The concept mapping procedures used in this research have enabled the
synthesis of views across different stakeholders, bringing both divergent and convergent
perspectives to light, and collectively creating signals for where to prioritise national action.
Previous national strategies for chronic disease prevention have not collated the tacit
knowledge of diverse actors in the prevention of chronic disease in this structured way.
PMID:28784177

Arpino B, Bordone V.
**Active Ageing Typologies: A Latent Class Analysis of the Older Europeans.**
This chapter focuses on the social participation domain of the active ageing framework and
considers participation in different care (e.g., to grandchildren) and non-care (e.g., voluntary
work) activities. By using data from the Survey of Health, Ageing and Retirement in Europe
and by applying Latent Class Analysis, the analyses identify three clusters of older people
with similar patterns of social participation that vary by the type of activities in which they
engage and the intensity of engagement. It is found that women are considerably more
likely than men to belong to the group engaged in high intensive care. It is also found that
people older than 76 years show high probabilities of not being engaged in social activities.
https://doi.org/10.1007/978-981-10-6017-5_14

Bacigalupe A, González-Rábago Y, Martín U, Murillo S, Unceta A.
**The Active Ageing Index in a Southern European Region (Biscay): Main Results and
Potentials for Policymaking.**
This chapter presents the experience of the calculation of the Active Ageing Index (AAI) at
the subnational level in Southern Europe and discusses its role as a useful tool to support
political decision-making. The index for Biscay was calculated for the period 2012–2014,
following the internationally agreed methodology, but at the same time it took into account
the specificities of the region and the availability of data sources. It was based on secondary
data, as well as on primary data as a result of a specific survey among people 55 years and
older. The Biscay’s experience shows that the AAI can be a good tool for monitoring active
ageing and it could be well used as an advisory tool for policymaking at the regional level in
the EU.
https://doi.org/10.1007/978-981-10-6017-5_6
Dykstra PA, Fleischmann M.  
**Are Societies with a High Value on the Active Ageing Index More Age Integrated?**  
Combining round four data from the European Social Survey (ESS) with indicators of Active Ageing, Dykstra and Fleischmann examine conditions conducive to age integration. It uses both a behavioural and an attitudinal measure of age integration: the prevalence of cross-age friendships and low levels of ageism. The analyses focus on both “young” (ages 18–30) and “old” (ages 70–90). Interestingly, high levels of independence, health and security in late life, and greater capacity to actively age rather than high levels of working, volunteering, caring and political engagement among the old create the greatest opportunities for meaningful cross-age interactions. Contrary to public belief, “productive ageing” will, in and of itself, not lead to greater age integration.  
[https://doi.org/10.1007/978-981-10-6017-5_2](https://doi.org/10.1007/978-981-10-6017-5_2)

Joshua J.  
**Economic Remedies to Reduce Alcohol Abuse.**  
The Economics of Addictive Behaviours Volume II: The Private and Social Costs of the Abuse of Alcohol and Their Remedies.  
Cham: Springer International Publishing; 2017. p. 73-92.  
This chapter will analyse the economic remedies to reduce alcohol abuse. The effectiveness of taxation policies depends to a large extent on the demand elasticities, such as own-price elasticity of demand, cross-price elasticity and aggregate price elasticity. The effect of minimum price policies on the abuse of alcohol will also be addressed. It is argued that a Pigovian tax on alcohol is justified because of the substantial costs such activities impose on society. A Pigovian tax can reduce the negative externalities which are created by such consumption and so can reduce market failure. A Pigovian tax on the consumption of alcohol may be regarded as being part of a public health policy to reduce the abuse of alcohol.  
[https://doi.org/10.1007/978-3-319-54425-0_8](https://doi.org/10.1007/978-3-319-54425-0_8)

Olivera J.  
**A Cross-country and Cohort Analysis of Active Ageing Differences Among the Elderly in Europe.**  
This chapter studies the differences in active ageing across cohorts and countries in Europe. This is done with the replication of the Active Ageing Index for cohorts formed by age group, sex and country for 2012. The analysis is performed with different model regressions at the cohort level and introducing macro variables at the country level. In general, there is a gap in active ageing in detriment of females which is larger in older cohorts. Further, wealth, equity and pension settings of the country are important predictors for better active ageing.
Finally, in line with the original AAI results, it is found that the Social-Democratic welfare regime (Nordic countries), with its set of strong redistributive policies, is the most favourable setting for active ageing.

Petrová Kafková M.
The Active Ageing Index (AAI) and its Relation to the Quality of Life of Older Adults.
The goal of Active Ageing Index (AAI) is to improve the quality of life (QoL) of older adults; therefore, this chapter analyses the relation between activity and QoL, specifically on testing the connection between the AAI, its indicators and subjective well-being, both at a general level and at the level of individual EU countries. The results of correlation coefficients and PCA showed a significant correlation but also some problematic indicators. Employment has been identified as the exception among other dimensions having a significant position in the index, but the results cast doubts on its relationship with QoL. Putting significance on employment leads to overestimation of the position of countries which despite considerable employment rate are behind other countries in other indicators and leading to a number of unintended consequences.

Piñeiro Vázquez C, Méndez Magán JM, Marsillas Rascado S, Rial Boubeta A, Braña Tobío T, Varela Mallou J.
Study on Active Ageing at Individual Level Based on Active Ageing Index.
Active Ageing Index (AAI) evaluates the strategies developed throughout the European Union. Its indicators are mostly addressed from a macro level, making difficult the obtaining of regional and individual scores. This study aims to calculate the value of AAI for Galicia (Spain) and to complement it with its individual equivalent, for deeper segment the results and create personal profiles. For this, a representative sample of 404 Galician community-dwelling older adults (aged 60 and over) is interviewed. AAI and AAI-adapted global and domain-specific scores are calculated. This study also provides policy makers and practitioners with an individualized tool which quantifies and monitors the personal level of active ageing. Its implementation could improve the adaptation of programmes to older people’s needs and the assessment of its effectiveness.