Consultation to collect views about whether a Public Health Bill is needed in Wales

Response from:

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The Centre for the Development and Evaluation of Complex Interventions for Public Health Improvement (DECIPHer) is a UKCRC Public Health Research Centre of Excellence. DECIPHer brings together leading experts from a range of disciplines to tackle public health issues such as diet and nutrition; physical activity; and alcohol, tobacco and drugs, with a particular focus on developing and evaluating multi-level interventions that will have an impact on the health and wellbeing of children and young people. The Centre, based at Cardiff University, Swansea University and the University of Bristol, engages strongly with policy, practice and public user communities as our stakeholders, to translate the research results into practical outcomes.

Key points

- A 'Health of the People' (HOTP) Bill represents an opportunity for Wales to become a world leader in public health. To address the social determinants of health requires bold actions – a HOTP Bill which promoted "Health in All Policies" through law would be a bold policy.
- Legislation is a powerful tool in public health. Legislation based on evidence is even more powerful.
- The function of the HOTP Bill should be to improve health in its widest definition at the population level *and* to reduce health inequalities.
- Sufficient consideration must be given not only to the legislation it will contain but how this will be implemented. This will require the development of a valid and reliable health impact assessment methodology, a culture where the rigorous evaluation of policies is the norm and the development of evidence based policy and practice
- To be effective, the HOTP Bill should be implemented in the context of a synergistic public health strategy that addresses the socio ecological influences on health
- The HOTP Bill should be implemented in a phased approach; be piloted, monitored and evaluated before it is fully applicable to all government departments and statutory bodies.

Q1. If the Welsh Government were to introduce a health of the people Bill, what do you consider the most important and appropriate areas for further consideration to be?

DECIPHer believes that a 'Health of the People' (HOTP) Bill represents an opportunity for Wales to become a world leader in public health and to address the social determinants of health (SDH), which are the conditions in which people are born, grow up, learn, work and age.[1] Wales' first Public Health Bill could rise to the World Health Organisation's radical challenge for a "Health in All Policies" approach to address social determinants and health inequalities if requites Welsh government ministers to consider health by law when formulating policies in the future.[2]

We believe that to achieve good public health, synergistic actions need to be taken at multiple levels to address the complex socio-ecological influences on health. Indeed, individuals cannot create minimum levels of health on their own; they need a supportive legislative and physical environment. For example, 80 per cent of the salt consumed is added by the food industry either in processed, canteen or restaurant food.[3] Reducing salt intake and therefore improving health, requires coherent and joined-up government actions at the policy level as well as individual behaviour change.

Legislation is therefore 'an essential tool for public health practice and the use of a systematic legal framework can assist with preventing chronic diseases'.[4] A HOTP Bill will actively demonstrate the Welsh Government's commitment to public health and improve its ability to address chronic diseases that are rooted in cross government policy areas such as transport, education and housing. In this way, a HOTP Bill is likely to be a cost effective policy mechanism, potentially delivering significant improvements to population-level health through a shift in the distribution of risk.[5] This is therefore an opportunity for Wales to create and implement innovative public health legislation, building on its strong track record of implementing radical legislation to improve health since devolution.[6,7]

The following are what we believe to be the most important areas to consider before introducing a HOTP Bill:

Aims and scope

One of the most important issues to consider is to clearly identify the aim and scope of the HOTP Bill. We feel the Green paper would be strengthened by a clearer definition of 'health' and clarification of whether the aim of the HOTP Bill is to improve health or reduce inequalities or both. Health has been defined as "a state of complete physical, mental and social well being and not merely the absence of disease or infirmity".[8] However, others argue health and happiness should be defined and dealt with as independent factors as,

although physical health can be associated with happiness, it is possible to be physically healthy and yet unhappy.[9]

Addressing health generally is also a very different aim to reducing inequalities.[10] For example, programmes or policies which are explicitly designed to reduce health inequalities will aim to reduce the gap between the health status of the rich and the poor whereas other programmes may improve health overall in a non-discriminatory manner, without distinguishing between socio-economic status and other social factors relating to health inequalities.[11] By defining the aim of the HOTP Bill more explicitly, evaluation and implementation would be facilitated. DECIPHer believes that the function of the HOTP Bill should be to improve health in its widest definition at the population level *and* to reduce health inequalities. We believe that a HOTP Bill would be an effective way of achieving both these aims.[12]

In addition, devolution has provided opportunities for national-level policy innovation and we are concerned that there may be different rules for those working in Wales and living in England, where they will be governed under UK laws. Moreover, any positive health effects arising from the HOTP Bill may be counteracted by policies which are controlled by central UK government and implemented in Wales, as the HOTP Bill does not apply to Westminster laws. For example, Wales is under English criminal and civil law, meaning that drug policies are controlled by central government – the legality of cannabis is not under control of the Welsh Government and this could possibly contradict or limit the effectiveness of the Welsh Government's 10-year substance misuse strategy, 'working together to reduce harm'.[13] Any health assessment of policy should therefore be made within the context of UK policies and their relationship to Wales.

Implementation

If the HOTP Bill is introduced, sufficient consideration must be given not only to the legislation it will contain but *how this will be implemented*. It is clear that the effectiveness of well-intentioned national legislation may be significantly 'undermined by lack of attention to lower level factors' that may impede or facilitate implementation and hence effectiveness.[14] For example, DECIPHer's evaluation of the implementation of nutritional guidelines in schools found application was: "influenced by multiple, competing interests at other socio-ecological levels. These included pupils' food preferences, organisational objectives such as protecting school meal uptake and the practices of school meal staff."[15]

This is particularly pertinent in public health, where 'wicked issues' are embedded across policy areas and require multiple partners at both the national and local levels to address them.[16] For example, there is evidence that the emotional health of students in schools could be addressed via education as well as health policies and the Welsh school inspectorate identified several factors that characterised schools that successfully promoted

emotional health: a caring ethos, teacher training in how to promote emotional health, and good communication with external agencies and parents. Yet despite national policy and the availability of evidence-based interventions, very few secondary schools adequately supported emotional health.[17]

As such, we support a HOTP Bill which would require all government departments and public bodies to consider evidence regarding health impacts when developing policies but this would also require an implementation strategy and health assessment methodology. We believe this should be based on evidence from implementation science that assesses and promotes high levels of fidelity, reach, acceptability and maintenance.[18] Without this, there is a risk of a resource-intensive ineffective industry developing to create work for consultants. The capacity to carry out such assessments effectively and efficiently should be built within Wales, thus helping to ensure that the HOTP Bill is cost-effective by reducing and limiting the associated costs.

Public support and normative change

Evidence has shown that the most effective forms of legislation are those that work alongside interventions at other socio-ecological levels and that achieve normative support and compliance.[19,20] Any proposed Bill should therefore assess the synergistic effect of policy at multiple ecological levels and recognise the need to secure policy, practice and public support for such measures to facilitate compliance and effective implementation.

Monitoring and evaluation of impact – building an evidence base

Central to successful implementation of a HOTP Bill is an evidence base to inform the assessment of policy. To effectively improve health and reduce inequalities, the HOTP Bill should incorporate mandatory evaluation of the impact of policies on health and inequalities. How monitoring and evaluation will be carried should therefore be considered. Monitoring and evaluation already exists to a certain extent in the form of Health Impact Assessments (HIAs) but, as will be discussed in further detail in our response to Question 5, they are not always the most effective method of evaluating policies' impact on health and inequalities.

DECIPHer research consistently finds that "properly designed and conducted randomised controlled trials (RCTs) represent the most internally valid means of estimating the effectiveness of complex interventions."[21] Some academics and policy-makers argue that RCTs ignore the complexity of causation and fail to ask which interventions work, for whom and when. We disagree; we believe RCTs examine for whom and when interventions work. RCTs examine mechanisms of change and how intervention effects vary with context. "Realist" RCTs can examine the validity of intervention theory to better inform policy and practice in the long term.[22] This means that RCTs are more likely to incorporate sufficient information regarding implementation, potential for replication and representativeness of

study participants than other study designs, providing key information for policy-makers to make informed decisions[23] and have been successfully utilised to inform policy in Wales.[24]

Q2. In what ways do you think making consideration of the impact of policies on health a mandatory legal requirement would be an effective way of meeting our main health challenge?

We believe that the impact of policies should not only concern health, but it is essential that reducing health inequalities is made equally important. Therefore, we believe this question should be "In what ways do you think making consideration of the impact of policies on health and reducing inequalities a mandatory legal requirement would be an effective way of meeting our main health challenge?"

It is necessary to clarify what the 'main health challenge' is – to improve health or to reduce inequalities or to do both. Some policies will improve health but maintain inequalities; if this is the case, it needs to be made clear whether or not this is acceptable. For example, if a policy improves overall health (such as an increasing active transport) but maintains inequalities – the HOTP Bill will need to be clear whether or not this would be acceptable.

Legislation improves health

Legislation is a powerful tool in public health.[25] Legislation based on evidence is an even more powerful tool. Legislation is one of the tools that governments use to create the conditions in which people can lead healthy lives. In 1999 the Centre for Disease Control[26] listed the ten greatest Public Health Achievements in the USA in the Twentieth Century, of these, seven were based on legislative reform:

- Vaccination
- Motor-vehicle safety
- Control of infectious diseases
- Fluoridation of drinking water
- Recognition of tobacco use as a health hazard
- Safer workplaces
- Safer and healthier foods (including food-fortification programs)

The remaining three were based on changing behaviour (decline in deaths from coronary heart disease and stroke, healthier mothers and babies and family planning). In addition, there are many other examples where legislation has been an effective tool to improve health and reduce inequalities:

- Smoking ban – reducing heart disease and exposure to secondhand smoke[27]
- Banning trans fats in food – leading to a reduction in trans fats in food[28]
- Seat belts – estimated to have saved at least 60,000 lives and stopped 600,000 serious injuries in 25 years[29]

- Cycling helmets – reducing the risk of head and brain and severe brain injury by 63 to 88 per cent[30]

Despite this evidence that legislative powers lead to improvements in health outcomes, the power public health authorities possess is 'often not the power they need'.[31] A HOTP Bill could provide the Welsh Government with the power and tools needed to improve health and reduce inequalities. Consider for example, one of the main health challenges in the Twenty-First Century; obesity. Currently, Departments of Health are primarily responsible for addressing the rise in obesity yet many departments influences the rise and fall in obesity, including:

- Education – school meals and exercise
- Local government – planning and zoning fast food outlets, supermarkets
- Communications – food marketing, advertising
- Transportation – active commuting programmes, improving cycling rates
- Culture – through the promotion of sport at a societal level

Instead of only being able to encourage these departments to consider health, a HOTP Bill which made health in all policies a statutory commitment would be more effective than, for example, in reducing obesity, or improving health and reducing inequalities.

Legislation is more effective than guidance

The strength of the HOTP Bill is that it could introduce a mandatory legal requirement, removing the temptation to 'cut corners' or ignore guidance/recommendations that may (potentially) impede the success of an organisation or contradict the aims of another department (such as maintaining a balanced budget). For example, if the smoking ban was not a mandatory policy, many bars and restaurants would have been less likely to enforce it in order to keep business from smoking customers. Controversial policies such as the smoking ban need to be mandatory; issuing guidance does not provide robust enough measures to enforce a policy. For example, New York City introduced a voluntary initiative to reduce Trans Fats in food however this did not result in measurable changes; the voluntary effort was insufficient to eliminate the health risk and eventually legislation was introduced.[32]

Q3. If we were to explore placing a statutory duty on bodies to consider health when developing new policies, which bodies should such a duty apply to?

DECIPHer believes the proposed Bill should be applicable to all statutory bodies, although not immediately. We would recommend a phased approach be piloted, monitored and evaluated before it is fully applicable to all government departments and statutory bodies. This would promote uptake, reach, and acceptability and facilitate effective implementation. Part of the success of New York City's ban on Trans Fats is attributed to implementing it in two phases.[33] We feel that statutory bodies would be more accepting of the HOTP Bill if it were first piloted and shown to be effective; helping to avoid these bodies and other stakeholders regarding the HOTP Bill as simply another box ticking exercise.

Q4. Do you think it would be reasonable to limit any legislative requirements to 'major' policies, which would need to be defined by a new Bill?

We do not believe the HOTP Bill should necessarily be restricted only to major policies. However, we accept the proposed Bill may have a substantial impact on resources if every policy was subject to it. As such, we believe that a phased pilot and its evaluation would help to build in acceptance of the policy (See response to Question 3). If a phased approach is used, we suggest developing and piloting new policies and powers in one key area (e.g. transport, planning, etc.) first, in order to evaluate both the process of implementation and the potential effects of such legislation across all policy domains.

Q5. In what ways do you think that using legislation to make Health Impact Assessment a mandatory requirement would be an effective way of ensuring that the impact of policies on health is assessed in a consistent and effective way in Wales?

To ensure any HIA is valid or reliable requires an established and rigorous methodology. Unfortunately there is little experience and evidence of HIAs being applied prospectively to national policies.[34] Retrospective assessments have limited scope for either national-level health improvement or policy reform.[35] It will therefore be important to incorporate assessments into policy development at the earliest stage, not post-hoc when policies are already developed. It is also important to develop an adequate methodology and evidence base to inform HIA.

Any HIA is only as good as the evidence base that it is based on. The Public Health Improvement Research Network in Wales (PHIRN) and the work of DECIPHer has increasingly been recognised internationally for facilitating a number of innovative policy trials to provide such evidence. Wales is also fortunate in having one of the most extensive and integrated systems to track the impact of policies which influence the distribution of interventions and exposures on health and a wide variety of social outcomes in the form of the Secure Anonymised Information Linkage (SAIL) system.[36]

Epidemiologic and surveillance data is widely utilised within the UK government. The Health Protection Agency (HPA) was set up by the UK Government in 2003. Whilst it is an independent organisation, it provides important data to the government, thus it is one of many organisations that help to inform and increase the effectiveness of policies passed by the UK Government. For example, the HPA conducts an annual review on Blood-Bourne Virus testing (SBV) in England.[37] This details information on who is being tested, how they are accessing testing services and trends in positive test results. This type of empirical data is invaluable for informing policy and analysing the effect of existing policies. Although policy-making is an inherently political process, evidence may be considered if academic evidence is readily available, meaning that evidence should be provided at optimal opportunities to become part of the fluid decision-making process.[38]

Once evidence is available to researchers in and outside of the Welsh Government, we will then be able to more accurately to assess the impact of policy and better equipped to prevent, treat, and eliminate disease and health gaps.[39] Greater use should therefore be made of DECIPHer / PHIRN systems and structures to facilitate policy trials across government and of the SAIL system to measure the impact of government and single or multi-sectoral initiatives on inequalities.

Q6. If we were to consider making Health Impact Assessment a mandatory requirement, which bodies do you think should be required to use it and in what circumstances?

All Statutory bodies should be required to adhere to the HOTP Bill. As we have mentioned in previous answers, we believe that in order for the proposed Bill to be most effective, it should introduce new powers using a phased approach and pilot and evaluate the implementation and health impact prior to more extensive roll-out.

In addition, the Consultation states 'Everyone has a stake in achieving good health for the population'. However, we feel that 'responsibility' would be a more appropriate word than 'stake'. DECIPHer is concerned that this Bill is only applicable to government policies and bodies. The responsibility of everyone in achieving good health could be applied to the private and voluntary sectors, which are not considered in the proposed Bill. These groups have a role at a national and local level to address inequalities.[40] We are not stating that this should be included in the proposed Bill, but something for the Welsh Government to consider in the future or as an adjunct.

Q7. Do you think a new Bill could provide an effective platform for reducing health inequalities in Wales, and if so how?

The proposed Bill is largely about shifting the distribution of risk at a population level[41] to improve health across Wales, which should be welcomed, although we are concerned the focus on health inequalities isn't clearly articulated in the current proposal. The language in the HOTP Bill itself more often discusses improving population-level health (e.g. increasing life expectancy in general) than reducing inequity. It should also be noted that complementary, multi-level behavioural interventions will continue to be relevant alongside greater policy-level action, especially for vulnerable populations who may benefit most marginally from healthy public policy reforms. In this way, the proposed Bill will act as platform for synergistic multilevel prevention.

We recommend following The Marmot Review's idea of '*Proportionate Universalism'*.[42] Proportionate (or progressive) universalism includes interventions that are applicable across all populations, but a greater focus proportionate to the level of disadvantage. Specific legislation will be required to reduce inequalities. The HOTP Bill should be assessed for its implementation to examine the uptake of different policies on different groups. Pilots may be useful in identifying which policies improve health but do not reduce inequalities. In order to adequately target programmes and implement proportionate universalism, publically available data will be required at Lower Layer Super Output Areas. DECIPHer therefore recommends the Welsh Government make the HOTP Bill an effective platform to reduce inequalities and to overtly stated this as an aim in the proposed Bill.

Q8. In what ways do you think a new Bill could be an effective way of promoting the importance of preventative action to overall health and wellbeing in Wales?

The effects of preventative policy are often only known in the long-term and impact on future costs and benefits and preventing future ill-health. There is a danger that if prevention and *long term* prevention isn't explicitly discussed in the HOTP Bill, the true impact of policies will not be considered. Unfortunately, the political cycle and short term priorities of political careers means that the true long term cost of action or inaction is frequently not addressed. For example, interventions treating childhood obesity are potentially cost-effective but these cost savings and health benefits may not appear until the sixth or seventh decade of life.[43] In the last decade, health inequalities policies in the UK have consequently focussed on 'quick wins' that ignore the long-term outcomes/effects.[44] The bill may therefore provide a vehicle to break the five year horizon planning cycles.

However, the proposed Bill is **only** likely to be effective in promoting prevention if it is integrated within a wider public health agenda that involves:

- evidence generation as outlined in our response to Question 5;
- a culture that promotes and values evidence based policy and practice; and,
- the development of a broader public health strategy that addresses multi-level socio-ecological influences on health to support a legislative approach.

Q9. How do you think an increased focus on empowering local people to influence their health and wellbeing would best be achieved through legislation?

The principle of empowering local populations as a process to bring local perspectives of community health problems into policy making is a good one since it has the potential to make policy more relevant and effective. However, it is difficult to get right, not least because participation is often interpreted as a set of technical aspects of programmes, sometimes as an 'add on', rather than a more fundamental political approach of redistributing power in decision-making processes. There is a significant social science literature, largely in the Community Development field, critiquing empowerment and participation.[45] Two systematic reviews have found no evidence that participation improves public health outcomes, although this largely reflects a low number of participatory initiatives and related evaluations in the health field.[46]

The concept of 'community' in 'community participation' is often idealised and masks the diversity and internal conflict that can occur in local areas. For example, community representation may exclude sub-community minorities (e.g. older people, ethnic minorities). Ideas of community also tend to be used in a slightly contradictory way to target 'deficient' local populations; populations who lack resources and have poor health but they are regarded at the same time as having the ability to somehow solve a myriad of social problems. Targeting communities to become 'more active' and 'more empowered' should be seen in a wider context of structural inequalities, which may have disempowered communities in the first place.

In addition, creating a partnership between local people and public bodies does not automatically 'put people at the centre of public services'. The unequal power relationships between local residents and public officials are a key challenge when empowering local populations. Participatory initiatives usually leave financial and staffing matters in the hands of public officials; agendas and the key areas of interest are often determined beforehand, sometimes expressed indirectly in the form of expected outputs or targets; local people are usually invited at the *local rather than strategic level* where the more important decisions are made.

Training can be provided to help local people adapt to public policy processes, such as how to participate in public meetings and understand public sector language, but it is rare for the reverse (training for public officials to adapt to local community cultures and ways of doing things) to occur. DECIPHer would recommend better training, at appropriate intervals, *for both the public and officials*. Individuals who can act as brokers between public

organisations and local communities can be key to improving communication and working across boundaries.

Involving people in decision-making and community action requires an investment of time, training, intellectual labour and emotional labour for participants. Those asked for their participation are often in low-income groups/living in areas of deprivation; any participation initiative should question whether there is equity across different socio-economic groups in the requirement for participation in order to receive the same standard of local services or quality of life. Otherwise requiring participation from some communities but not others could be regarded as disempowering.

Health literacy should not be the main focus of a community action/participation initiative for public health improvement as this is not a significant driver of health inequalities. Initiatives should not evaluate the change in participants themselves rather than changes in public policy as a result of participation. Participation should be relevant to local concerns and participants should be able to set their own agendas. Participatory initiatives need to maintain a focus, through monitoring and evaluation, on the impact of participation on the policy decisions made.

Participants should receive feedback about what difference their input made. Without feedback, this can lead to apathy or cynicism about participation and reduce participation levels in future initiatives, and is one reason why community participation rates tend to be low.[47]

Two characteristics that are frequently present in health improvement efforts that focus on community participation is the tendency to see community-led activities as alternatives to and/or undermined by evidence based action, and the short-term focus of projects with limited duration funding. These both undermine the effectiveness and value of community-led health improvement, with more successful models being where communities are mobilised around needs assessment, prioritisation and policy/intervention decision-making which is supported by coalitions of communities working with relevant experts, agencies and the evidence. Supporting enduring community led partnerships which select, implement and sustain evidence-based actions could be facilitated by legislative action and a move away from project focused funding.

This critique, rather than dismissing participation as a desirable goal, highlights areas and pitfalls that need to be considered in order to implement participation well and effectively in order to improve public health policy. Legislation could be used to require public services to give real control to local communities to influence public health services in their area, avoiding the pitfalls commented on above and providing robust participatory opportunities

for local people, such as control over funding for local health improvement projects for example.

Q10.Do you think it is preferable for us to progress our efforts to improve the health of people in Wales in a way other than introducing a new Bill? If so, why?

A new Bill could be a part of a more effective (and cost-effective) approach to improving population health and reducing inequalities. The HOTP Bill opens the door to a far more radical approach than the nudge-inspired English public health strategy.[48] It is important to have overarching legislation to address health inequalities as they are caused by persistent, 'wicked' issues. [49] Inequalities are therefore rarely, if ever, addressed by discrete pieces of individual legislation.

We support the Welsh Government's efforts to move beyond gestures and to commit itself to improving the nation's health. To address the social determinants of health requires bold actions – a HOTP Bill which promoted "Health in All Policies" through law would be a bold policy.

Q11. If you think we should do something different to introducing a new Bill, what do you think would be a more effective approach?

A HOTP Bill needs to be located within a comprehensive public health strategy which addresses the other dimensions of socio-ecological influences on health that interact with the legislative and policy context. To be highly effective the proposed Bill is also highly dependent on the development of an adequate and rigorous evidence base analysing what works for whom, in what circumstances and at what cost – all necessary to inform any HIA. Synergistic partnerships with the NISCHR infrastructure and with DECIPHer and the Public Health Improvement Research Network (PHIRN) in particular will be required to ensure this happens.

We approve of this document being made available to the public.

References

[1] CSDH (2008) *Closing the gap in a generation: Health equity through action on the social determinants of health. Final Report of the Commission on Social Determinants of Health.* Geneva; World Health Organization.
[2] 62nd World Health Assembly (2009) *Reducing health inequities through action on the social determinants of health.* Geneva: World Health Organisation.
[3] He FJ, MacGregor GA (2008) A Comprehensive Review on Salt and Health and Current Experience of Worldwide Salt Reduction Programmes. *Journal of Human Hypertension* 1-22.
[4] Gostin LO, Pomeranz JL, Jacobson PD, Gottfried RN (2009) Assessing Laws and Legal Authorities for Obesity Prevention and Control. *Jrl Med. & Ethics* Suppl 1:28-36.
[5] Michels KB (2008) The Promise and Challenges of Population Strategies of Prevention. *Int. J Epidemiol* 37(5): 914-916.
[6]Holliday JC, Moore GF, Moore LAR (2009) Changes in child exposure to secondhand smoke after implementation of smoke-free legislation in Wales: A repeated cross-sectional study. *BMC Public Health* 9:430 doi:10.1186/1471-2458-9-430
[7] Griffiths J (2012) 'Written Statement - An update on the single use carrier bags charge in Wales' Welsh Government website, 4 July. http://wales.gov.uk/topics/environmentcountryside/epq/waste_recycling/substance/carrierbags/attituderesearch/?lang=en; Poortinga W, Whitmarsh L, Suffolk C (2012) *Evaluation Of The Introduction Of The Single-Use Carrier Bag Charge In Wales: Attitude Change And Behavioural Spillover.* (Page 41) http://wales.gov.uk/topics/environmentcountryside/epq/waste_recycling/substance/carrierbags/attituderesearch/?lang=en
[8] World Health Organisation (1992) *Basic documents*. 39th ed. Geneva: World Health Organisation.
[9] Sarracci R (1997) The World Health Organisation needs to reconsider its definition of health. *British Medical Journal* 314:1409-1410.
[10] Exworthy M, Blane D, Marmot M (2003) Tackling health inequalities in the United Kingdom: The progress and pitfalls of policy. *Health Services Research* 38(6):1905-1922.
[11] Ibid.
[12] Murphy S, Raisanen L, Moore G, Tudor Edwards R, Linck P, Hounsome N, et al. (2010) The evaluation of the national exercise referral scheme in Wales. Welsh Assembly Government. http://wales.gov.uk/docs/caecd/research/101104nationalexerciseschemeen.pdf; Murphy S, Moore GF, Tapper K, Lynch R, Clarke R, Raisanen L, et al. (2011) Free healthy breakfasts in primary schools: A cluster randomised controlled trial of a policy intervention in Wales, UK. *Public Health Nutrition* 14(2):219-226.; CSDH op cit.
[13] http://wales.gov.uk/topics/housingandcommunity/safety/publications/strategy0818/?lang=en
[14] Moore L, Moore G (2011) Public health evaluation: what designs work, for whom and under what circumstances? *Journal of Epidemiology and Community Health* 65:596-7.
[15] Moore SN, Murphy S, Moore L (2011) Health improvement, nutrition-related behaviour and the role of school meals: the usefulness of a socio-ecological perspective to inform policy design, implementation and evaluation. *Critical Public Health* 21(4): 441-454.
[16] Longley M, Riley N, Davies P, Hernández-Quevedo C (2012) Health systems in transition: United Kingdom (Wales) health system review. *European Observatory on Health Systems and Policies* 14(11).
[17] Kidger J, Donovan JL, Biddle L, Campbell R, Gunnell D (2009) Supporting adolescent emotional health in schools: a mixed methods study of student and staff views in England. *BMC Public Health* 9:403 doi:10.1186/1471-2458-9-403
[18] Green LW, Glasgow RE (2006) Evaluating the Relevance, Generalization, and Applicability of Research

Issues in External Validation and Translation Methodology. *Eval Health Prof* 29(1):126-153.
[19] Avineri E, Goodwin P (Eds.) (2010) *Individual Behaviour Change: Evidence in transport and public health.* The Department for Transport, London, UK.
[20] Callinan JE, Clarke A, Doherty K, Kelleher C (2010) Legislative smoking bans for reducing secondhand smoke exposure, smoking prevalence and tobacco consumption. *Cochrane Database of Systematic Reviews* Issue 4. Art No: CD005992.
[21] Moore L, Moore GF (2011) Public health evaluation: Which designs work for whom, under what circumstances? *Journal of Epidemiology & Community Health* 65:596-597.
[22] Bonell C, Fletcher A, Morton M, Lorenc L, Moore L (2012) Realist randomised controlled trials: A new approach to evaluating complex public health interventions. *Social Science & Medicine* 75(12):2299-2306.
[23] Dzewaltowski DA, Estabrooks PA, Klesges LM, Bull S, Glasgow RE (2004) Behaviour change intervention in community settings: how generalisable are the results? *Health Promotion International*. 19:235-245.
[24] Moore L, Moore GF, Tapper K, Lynch R, Desousa C, Hale J, Roberts C, Murphy S (2007) Free breakfasts in schools: Design and conduct of a cluster randomised controlled trial of the Primary School Free Breakfast Initiative in Wales. *BMC Public Health* 7:258; Murphy S, Moore GF, Tapper K, Lynch R, Clarke R, Raisanen L, Desousa C, Moore L (2010) Free healthy breakfasts in primary schools: A cluster randomised controlled trial of a policy intervention in Wales, UK. *Public Health Nutrition* 14(2):219-226.
[25] Gostin L, Burris S, Lazzarini Z (1999) The Law and the Public's Health: A Study of Infectious Disease Law in the United States. *Columbia Law Review* 99(1):59-128.
[26] Centers for Disease Control and Prevention (1999) Ten great public health achievements–United States, 1900-1999. *MMWR Morb Mortal Wkly Rep* 48:241–243.
[27] Callinan et al. op cit.
[28] Angell SY, Cobb LK, Curtis CJ, Konty KJ, Silver LD (2012) Change in trans fatty acid content of fast-food purchases associated with New York City's restaurant regulation: A pre-post study. *Annals of International Medicine* 17;157(2):81-6.
[29] Avineri and Goodwin op cit.
[30] Thompson DC, Rivara F, Thompson R (1999) Helmets for preventing head and facial injuries in bicyclists. *Cochrane Database of Systematic Reviews*. Issue 4, Art No.: CD001855; Spaite DW, Murphy M, Criss EA et al. (1991) A Prospective Analysis of Injury Severity Among Helmeted and Non-helmeted promotion in Victoria, Australia – an Evaluation. *Accid Anal Prev* 31:1510-16.
[31] Gostin L (ND) *Public Health*
http://www.thehastingscenter.org/Publications/BriefingBook/Detail.aspx?id=2246
[32] Angell SY, Silver LD, Goldstein GP, Johnson CM, Deitcher DR, Frieden TR, Bassett MT (2009) Cholesterol Control Beyond the Clinic: New York City's Trans Fat Restriction. *Ann Intern Med* 151:129-134.
[33] Lichtenstein AH (2012) New York City Trans Fat Ban: Improving the Default Option When Purchasing Foods Prepared Outside of the Home. *Ann Intern Med.* 157: 144-5.
[34] Davenport C, Mathers J, Parry J (2006) Use of health impact assessment in incorporating health considerations in decision making. *J Epidemiol Community Health* 60(3): 196–201.
[35] Fletcher A (2013) Working Towards "Health in All Policies" at National Level *BMJ* 346:f1096
[36] Lyons RA, Jones KH, John G, Brooks CJ, Verplancke JP, Ford DV, Brown G, Leake K (2009) The SAIL databank: linking multiple health and social care datasets. *BMC Med Inform Decis Mak*. 16;9:3. http://www.biomedcentral.com/1472-6947/9/3; Lyons RA, Hutchings H, Rodgers SE, Hyatt MA, Demmler J, Gabbe BJ, et al. (2012) Development and use of a privacy protecting total population record linkage system to support observational, interventional and policy relevant research: the Secure Anonymised Information Linkage (SAIL) system. *The Lancet.*

http://download.thelancet.com/flatcontentassets/pdfs/public-health/Public_Health_Abstracts_ALL_Part4.pdf

[37] Health Protection Agency (2013) *Targeting Testing in England: Health Protection Services Sentinel Surveillance of Blood-Bourne Virus testing (SBV) in England, Annual review 2011.* http://www.hpa.org.uk/webc/HPAwebFile/HPAweb_C/1317137796884

[38] Nutbeam D (2004) Getting evidence into policy and practice to address health inequalities. *Health Promotion International* 19(2):137-140.

[39] Colbert SJ, McDavid HK (2011) Reflections from the CDC 2010 health equity symposium. *Public Health Reports* 126(3):38-40.

[40] Macintyre S, Ellaway A, Cummins S (2002) Place effects on health: How can we conceptualise, operationalise and measure them? *Social Sciences and Medicine* 55:125-139.

[41] Rose G (1981) Strategy of prevention: lessons from cardiovascular disease. *British Medical Journal* 282(6279):1847-1851.

[42] The Marmot Team (2010) *Fair Society, Healthy Lives.* The Marmot Review: London.

[43] Hollingworth W, Hawkins J, Lawlor D, Brown M, Marsh T, Kipping R (2012) Economic evaluation of lifestyle interventions to treat overweight or obesity in children. *Int J Obesity* 36(4):559-566.

[44] Blackman T, Elliott E, Greene A, Harrington B, Hunter D, Marks L, McKee L, Smith K, Williams G (2009) Tackling health inequalities in post-devolution Britain: Do targets matter? *Public Administration* 87(4): 762-778.

[45] Eversole R (2012) Remaking participation: Challenges for community development practice. *Community Development Journal* 47(1):29–41.

[46] Evans D, Pilkington P, McEachran M (2010) Rhetoric or reality? A systematic review of the impact of participatory approaches by UK public health units on health and social outcomes. *Journal of Public Health* 32(3):418–426.; Milton B, Attree P, French B. Povall S., Whitehead M, Popay J (2011) The impact of community engagement on health and social outcomes: A systematic review. *Community Development Journal* 47(3):316-334.

[47] Attree PP, French B, Milton B, Povall S, Whitehead M, Popay J (2011) The experience of community engagement for individuals: A rapid review of evidence. *Health and Social Care in the Community* 19(3):250–260.

[48] Fletcher op cit.

[49] Longley et al. op cit.