Transforming Health Improvement in Wales Programme

Phase 1 Implementation Programme Report

Expert Advisory Groups

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Purpose and Summary of Document:
This report provides an overview of the findings and recommendations of the first phase of the Transforming Health Improvement Implementation Programme, the Expert Advisory Groups. The groups have made recommendations about the current best available evidence of what works in five priority areas. These recommendations will inform the next phase of the Implementation Programme.
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- The Evidence Service of Public Health Wales who designed the evidence review methodology and conducted the searches;

- Our partners from Health Boards, Local Public Health Teams, Local Government and the third sector who participated enthusiastically in the work of the groups. Their input was essential to ensuring that international evidence was considered in a Welsh context;

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1. **BACKGROUND**

In 2011 Professor Sir Mansel Aylward conducted a review of national health improvement programmes in Wales. His review recommended that consideration should be given more fully to the future direction for health improvement and the associated programmes. The then Minister for Health and Social Services consequently asked Public Health Wales to undertake a full review. *Transforming Health Improvement in Wales* (1) was the product of this review and was published in the summer of 2013.

The current Minister for Health and Social Services has now asked Public Health Wales to oversee the implementation of the report’s recommendations. One element of these recommendations relates to the existing portfolio of national health improvement programmes, responsibility for which transferred to Public Health Wales from Welsh Government in 2011/12. The first Stage of the Implementation Programme relates to these programmes.

The Implementation Programme is overseen by a Programme Board reporting to the Public Health Wales Board.

1.1 **Transforming Health Improvement: implementation programme**

The purpose of the Implementation Programme is to:

- deliver transformational change to the way national health improvement action is planned and delivered for the population of Wales
- ensure that opportunities to increase focus, capacity and resources to improve population health and reduce inequalities in Wales are maximised
- mainstream and embed Health Improvement activity across all sectors where to ensure sustainable prevention and early intervention is the norm

In order to implement the recommendations from the review report - *Transforming Health Improvement in Wales, Working together to build a healthier, happier future* (1)- Public Health Wales has initiated a Health Improvement Implementation programme that is overseen by a Programme Board.

Further details about the first Stage of the Implementation Programme are described in the *Transforming Health Improvement in Wales Programme Definition Document*. (2)
1.2 Programme scope and objectives

Public Health Wales recognises that improvements to the health of the people of Wales require action at all levels and across all sectors. As one organisation we can achieve little in isolation. However, as the national body with responsibility for public health we can act in number of ways to contribute to this goal. This includes the development and implementation of work at a national level that supports wider action, for example the Welsh Network of Healthy Schools Schemes or direct delivery of public health programmes such as Stop Smoking Wales.

The Transforming Health Improvement Review highlighted a number of strengths and weaknesses in the current portfolio of programmes, in that it was unlikely, regardless of how well each individual component was delivered, that these would contribute to the scale of change required at a national level. The review also concluded that it was likely that there were interventions and ways of working, which if adopted as alternatives could achieve greater reach and impact.

The original review considered the existing portfolio of programmes in some detail taking account of the scientific evidence of their impact and effectiveness; cost effectiveness; impact on inequalities; feedback from stakeholders and the public. This information was considered by a stakeholder panel using a programme budgeting and marginal analysis (PBMA) approach.

The timescales of the original review did not permit work to identify what else we could do that might more effectively achieve our aims. The first stage of this implementation programme therefore, will address this question.

A key component of the first phase of the Health Improvement Implementation programme was the establishment of five Expert Advisory Groups that were time limited task and finish groups.
2. EXPERT ADVISORY GROUPS

The purpose of the Expert Advisory Groups was to review public health interventions\(^1\) from across the UK and other parts of the world, which have a proven track record of effectiveness. Expert Advisory Groups were asked to make recommendations about those interventions that could have the greatest impact in Wales. Terms of Reference for the group are enclosed as Appendix 1.

Expert Advisory Groups were composed of Core Members and External Reference Members. External Reference Members provided advice and assistance to the process, reviewed the recommendations made by the Core Members of the Expert Advisory Groups, and undertook a quality assurance role.

The recommendations of the Expert Advisory Groups are presented to the Transforming Health Improvement Implementation Programme Board in this report to form the basis for the next phase of the implementation programme.

The Expert Advisory Groups considered public health action, consistent with the recommendations of the Health Improvement Review. This includes interventions that:

- focus on primary prevention, that is they focus on maximising health and keeping healthy people healthy for as long as possible;
- have a population approach, rather than working directly with individuals or groups;
- can be delivered at scale to reach those who are likely to benefit;
- can readily be incorporated into existing services and programmes, taking account of community assets and resources in other agencies;
- have potential to reduce inequity in outcomes.

2.1 Approach

Public Health Wales has taken a number of underlying principles and theories into account in shaping the work of this Implementation Programme.

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\(^1\) For the purpose of this report, programmes, initiatives, models and interventions will collectively be referred to as interventions throughout this document.
Firstly, we are taking a social ecological approach to health. This recognises that population health is influenced by interconnected factors at the levels of the individual; relationship; community; and society. This first Stage of the Programme is focused primarily at the community level and considers action that can be taken in a range of settings to improve health.

Secondly, we have taken a life course approach to health which emphasises a temporal and social perspective, looking back across an individual’s or a cohort’s life experiences, or across generations for factors which influence current patterns of health and disease, whilst recognising that both past and present experiences are shaped by the wider social, economic and cultural context. There is a growing evidence base relating to the physical and social hazards during gestation, childhood, adolescence, young adulthood, and midlife that affect chronic disease risk and health outcomes in later life. It aims to identify the underlying biological, behavioural and psychosocial processes that operate across the life span (3).

2.2 Objectives

The objectives established for the Expert Advisory Groups were to:

- refine the scope of the work, identifying priority outcomes of interest, taking a life course approach
- undertake a focused review of the evidence on health improvement interventions to identify those that have demonstrated significant outcomes in the UK and elsewhere
- appraise interventions and their applicability in a Welsh context
- make recommendations to the Health Improvement Implementation Programme Board about the health improvement interventions that could have greatest impact in Wales

2.3 Priority areas

In deciding on the areas for the Expert Advisory Groups to consider, the main causes of premature death and premature disability in the population were taken into consideration, informed by the Global Burden of Disease Study2. Figure 1 below illustrates the main causes of lost years of life and years lost to disability in

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2 http://www.who.int/topics/global_burden_of_disease/en/
the United Kingdom\(^3\) along the top row. The bottom row identifies some of the causes of these conditions, commonly known as risk and protective factors. The diagram illustrates that these risk and protective factors impact on several of the diseases and conditions, and across mental and physical health.

The Global Burden of Disease study does not highlight the risk and protective factors for mental health outcomes specifically. After consideration of the literature we highlighted emotional literacy, stress, and coping and resilience as common underpinning risk/protective factors that might be amenable to intervention. It does however highlight occupational risks and air pollution as areas for attention. These have not been included in this work as Public Health Wales would not be a lead agency for action in these areas, although it clearly has a role in providing specialist public health advice in this area.

*Figure 1*
*Risk and protective factors*

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As a result we prioritised the following areas for Expert Advisory Groups:

- Tobacco
- Obesity and Diet
- Alcohol and Substance Misuse
- Physical Activity
- Mental Health (emotional literacy/resilience/stress and coping skills\(^4\))

### 2.4 Membership

Membership of the five Expert Advisory Groups was sought from a variety of sectors and specialists relevant to the priority areas above. Invitations were extended to representatives from key areas including local government; local public health teams; clinical specialists; third sector organisations and higher education institutions. Membership of the EAGs is included as Appendix 2.

A small number of UK and international experts with a broad knowledge and understanding of public health policy and health improvement interventions was invited to provide assistance to the programme via External Reference Groups established to support the EAG process. There was an External Reference Group for each priority area.

External Reference Members were asked to:

- provide independent opinion
- advise on sources of evidence and best practice
- act as a ‘critical friend’ to the process providing a commentary on the conclusions and recommendations from each group

Membership of the relevant External Reference Groups is included in Appendix 2.

### 2.5 Process

A pragmatic approach was adopted for this phase of the programme because of the limited timescale. The Expert Advisory Groups followed the schedule below:

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\(^4\) The focus on these factors was identified after the Mental Health Expert Advisory Group had spent some time considering the breadth of mental health outcomes and was designed to provide a focus to the recommendations in line with the original terms of reference. A separate report comprising the advice of the group with respect to areas outside of the scope of the project is being prepared.
2.5.1 At the first meeting the scope of the work was discussed and a set of outcomes was agreed for each of the five priority areas in order to narrow down the search for evidence.

2.5.2 Support Teams aided by the Public Health Wales Evidence Service identified existing evidence about interventions from a range of credible international sources for consideration by the group. Members could also identify other potential sources of evidence, particularly from emerging studies that were not yet published. The methodology for this element of the work is described in more detail in Section 3.

2.5.3 The Support Team collated and summarised information on potentially effective interventions for consideration by the EAG utilising the Reach, Effectiveness, Adoption, Implementation and Maintenance (RE-AIM) framework.

2.5.4 At the second meeting the evidence was presented, further work identified, for example where the evidence presented was considered inadequate or needed updating, and the short listing of interventions commenced.

2.5.5 At the third meeting, each Expert Advisory Group agreed the interventions to be recommended to the Health Improvement Implementation Programme Board.

The groups met between April and August 2014.

3. EVIDENCE REVIEW

It is a guiding principle within public health and health care that decisions about how to allocate resources should be informed by the best available evidence about which actions provide the best option in terms of the required level of impact and ‘value for money’. Within the THIW Programme, this required assessment of the cost-effectiveness of interventions aimed at primary prevention of major causes of ill-health and poor well-being, at a population level, which might form the core of Public Health Wales’ health improvement action.

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The EAG element of the programme therefore required an examination of research into the effectiveness of interventions in achieving the specified outcomes. Research which has investigated how effective different interventions are will have been conducted in different contexts and the details of interventions will vary, so this assessment can only give an indication of the ‘potential effectiveness’ of interventions when implemented in Wales. As described above, the process developed for the EAGs therefore included three main stages:

- identification of the key population level outcomes required for each priority area;
- review of the research evidence about interventions designed to achieve these outcomes;
- assessment of what it would take to affect the same level of change within our local, Welsh context.

This following section of the report describes the second and third parts of this process.

### 3.1 Research evidence review

Where evidence reviews are intended to inform decisions about use of scarce resources, it is important that the totality of the research evidence is considered, not just that which supports the views of those making decisions. It is vital that such evidence is reviewed in a transparent fashion that seeks to be objective, minimising bias in how the evidence is collected and interpreted. Within public health the methodology of ‘systematic review’ is considered a good way of achieving this. The core components of a systematic review are: searching as widely as possible to find all the relevant research studies (‘evidence’); being transparent and objective about which pieces of evidence are selected for inclusion in the review; checking how that evidence was produced – the type of study undertaken and how carefully the study was done (‘critical appraisal’ of the study); extracting the key pieces of information for each study; pulling all this together to provide a summary of what the totality of the evidence is telling us (so we are not choosing to rely on the results of some studies and ignoring others). Systematic reviews therefore provide a useful source of information about the effectiveness of interventions. For the EAGs the approach used for assessing the evidence was to conduct a ‘review of reviews’, thus the process followed the same steps as for a systematic review but the sources of evidence used were systematic reviews rather than individual research studies.

The key steps in the evidence review process were:
i. Construction of an evidence review question relating to each of the outcomes identified by the EAGs (for example, “What interventions are effective in preventing overweight and obesity in children aged 4 to 5 years?”).

ii. Drafting of a ‘protocol’ for each review question which specified how the key steps of the review process would be undertaken:
   
   a) Searching for relevant systematic reviews
   
   b) Deciding which systematic reviews should be included in the review (‘inclusion/exclusion’ process)
   
   c) Assessing the reliability of each systematic review (‘critical appraisal’ process)
   
   d) Summarising the ‘evidence’ provided by the included systematic reviews

iv. Agreement of the draft protocol with the members of the EAG.

v. Conduct of the review following the process set out in the protocol.

vi. Identification of interventions with sufficient evidence of effectiveness for them to be taken forward for the next step in the process (see section 3.2 below).

Each evidence review was undertaken by at least one person and checks were made at each key step in the process to ensure that it had been done according to the protocol. A more detailed description of the process followed is given in Appendix 3. Protocols for each of the evidence review questions and other items of supplementary information are included in Appendix 5.

Whilst systematic and objective, this approach does have limitations however:

Systematic reviews may only consider particular types of research ie randomised control trials (RCTs), which may not always be suitable for investigating more complex population level interventions and thus it may appear that evidence about these is lacking. Some systematic reviews included in the evidence reviews did however recognise this and did include other types of research as well as RCTs.

Research about new and emerging interventions may not be captured as sufficient studies will not have been published to include in a systematic review. Where insufficient evidence was

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6 Judged to be of grade A-E in the evidence grading schedule.
identified using the approach above, the EAG had the option of requesting a more specific and detailed search for individual (primary research) studies. Further, the External Reference Group members were asked to advise the EAG on any important emerging evidence which should be considered.

For some of the specified outcomes, evidence of potentially effective interventions was not found and thus it may be that in these cases, innovation is required to develop new approaches. However, it has been beyond the scope of this work to undertake an appraisal of innovative approaches; what the work undertaken has highlighted however, is where this may be beneficial as the implementation programme continues.

### 3.2 The RE-AIM framework

For each intervention considered to have sufficient evidence of effectiveness, this step in the process involved drawing out, using the RE-AIM framework, information from the research evidence about how the intervention was delivered and what the effect was. This information was then summarised into Intervention Summaries for consideration by the EAG and these are included in Appendix 4. They included a grading of the evidence used; the evidence grading scheme is described in Appendix 8.

The RE-AIM framework was developed to help researchers and practitioners gather and present information on health promotion interventions in a way that would help others identify whether the intervention and the context would apply in their community of setting. It has a number of components, summarised below.

<table>
<thead>
<tr>
<th>Reach</th>
<th>The extent to which the intervention was taken up by the population it was targeted at including information about the context in which this was achieved e.g. geography (urban/rural) and whether the intervention reached the most disadvantaged groups.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Efficacy/Effectiveness</td>
<td>Whether or not, when ALL the evidence is considered, this appears to be an effective intervention and the apparent size of effect (i.e. the amount of change observed in the population studied).</td>
</tr>
<tr>
<td>Adoption</td>
<td>Who needs to adopt the intervention for it to be</td>
</tr>
</tbody>
</table>
effective, for example schools or workplaces? What proportion of the settings, or individuals within a setting, adopted the intervention e.g. schools; primary healthcare teams and within these teachers/practice nurses?

| Implementation | A brief description of the implementation requirements for the intervention e.g.  
|----------------|--------------------------------------------------------------------------------|
|                | • Training/skills  
|                | • Materials/equipment/facilities  
|                | • Specially recruited staff  
|                | • Key advocates/change agents in local system  
|                | • Monitoring requirements  

| Maintenance    | A brief description of the resources needed to ensure the intervention continues to be delivered e.g.  
|----------------|--------------------------------------------------------------------------------|
|                | • Ongoing delivery team as at implementation  
|                | • Local champions  
|                | • Monitoring and feedback etc.  

| Evidence summary | A summary statement about the overall strength and reliability of the evidence about the effectiveness of this intervention.  
|------------------|--------------------------------------------------------------------------------------------------|

4. **RECOMMENDATIONS AND KEY THEMES**

The EAGs were asked to consider the Intervention Summaries produced for each priority area and to make recommendations, taking account of the EAG Terms of Reference, in relation to:

- interventions which, in the opinion of the EAG, had sufficient evidence of potential effectiveness and could be implemented in a Welsh context, for consideration by the Collaborative Groups
- interventions for which the evidence is inconclusive or inconsistent but, in the opinion of the EAG, appeared promising or addressed a clearly identified area for action (taking a theory of change approach), which should be considered for development and implementation with rigorous research and evaluation.
- existing programmes or interventions being delivered or commissioned by Public Health Wales which had the potential
to contribute to achievement of outcomes and were consistent with the outcomes identified by the EAG.

A report on the recommendations of each of the EAGs is included in the following sections of this report.

The recommendations of the EAGs are only one step in this process. The next stage will be consideration of these recommendations by three life course Collaborative groups who will consider the evidence in the context of different population groups rather than from a topic perspective.

Following consideration by the Collaborative Panels, recommendations for action will be developed for consideration by the THIW Programme Board. This will include costed proposals, with a clear delivery plan and timetable. The intention remains to begin implementation of the revised programme of work from April 2015.

Recommendation for consideration by the EAG is not therefore an indication that the intervention will be taken forward at this stage.

The reports are relatively short, the detail on the interventions having been included in the Intervention Summaries in Appendix 4. Each report describes the recommendations for each outcome and in relation to the different population groups. An emerging logic model has been provided in each case which links the intervention to the relevant health and behavioural outcomes and suggests intermediate measures which would be relevant. These typically relate to changes in knowledge, environment, policy or practice.

The EAGs have also made observations regarding the wider context in which this work is taken forward. This may include issues relating to data to track change; gaps in current policy; and opportunities for joint working.

### 4.1 Prioritisation of outcomes

Each of the EAGs considered the areas which should be the focus for the group’s work within the overall priority outcomes. The approach to this varied to some extent but included:

- consideration of whether there was greater potential for action or need in particular population age groups
- a focus on a particular sub priority, this was particularly the case for the Obesity and Nutrition Group which was faced with a wide variety of possible areas for action
The Mental Health Expert Advisory Group had a particularly difficult task and with hindsight should have been given a clearer focus at an earlier stage in keeping with the risk and protective factor approach taken in the other groups. This group considered a much wider range of actions, much of which would fall outside the remit of Public Health Wales, a separate report of those recommendations which are outside the scope of the project will be provided for the Programme Board.

4.2 Availability of evidence

Inevitably when looking at evidence, information about ‘what works’ is defined by the research undertaken and published. It is easier to undertake work in some settings compared to others; this is reflected in the evidence where interventions in ‘closed’ settings such as schools predominate compared to community settings which may be more difficult to define.

In general the available evidence was limited across the priority areas and reflects perhaps the relatively low priority given to evaluation by public health practitioners and also the challenges of evaluating more complex interventions with multiple components.

Generally there was more evidence and higher quality evidence relating to Tobacco and Substance Use compared to Physical Activity and Mental Wellbeing. This no doubt reflects the relatively recent growth in prominence of physical activity as an important risk factor (independent of obesity) and particularly mental wellbeing and the opportunities to improve mental health and prevent mental illness which have traditionally been a neglected area.

4.3 Age groups

In some cases the EAG prioritised by age group, and in these cases there may not be recommendations for all of the age groups. As might be anticipated when the focus is primary prevention and consistent with a life course approach, there is an inevitable focus on children and working age adults. Recommendations relating to older people therefore may be limited in some of the priority areas. Where no specific recommendations have been made, consideration has been given to applying the recommendations made in relation to the working age adults age group to older people. In line with the scope of the work, this would focus on those older people who do not have any significant disability or health problem which would significantly affect their needs.
4.4 Emerging themes

Looking across the findings of the five groups it is possible to identify emerging themes which suggest the direction of travel moving forward. It is possible to draw conclusions about the actions which appear to have the most promise. It is also possible, in a developmental context, to apply this to other priority areas. For example, the evidence relating to the use of social marketing/mass media approaches is most strongly developed in the field of tobacco, however, other groups noted that the experience gained in this field could be applied to others where work is less well developed.

Taking this approach, the following appear to be associated with effective action at a population level:

- social marketing/mass media programmes as an integral component of work to create a climate for change, clearly linked to other actions and informed by international best practice;
- interventions based in the settings that people spend their time e.g. at work; in schools and other educational settings; communities;
- interventions which work on several levels in these settings, for example interventions in schools which include curriculum elements; the school environment; policy developments and link to other settings such as the home or community;
- settings such as workplaces and schools provide social support, the opportunity to change behaviour alongside others;
- the use of relatively simple cues to action at the point of choice e.g. when buying food in a canteen or when deciding to use the lift in a workplace

The following sections of the report summarise the findings and recommendations of each Expert Advisory Group.
5. **PHYSICAL ACTIVITY EXPERT ADVISORY GROUP**

The membership (Appendix 2) of the Expert Advisory Group (EAG) was drawn from those working across Wales in the field of Physical Activity. The group met on three occasions and has considered the available scientific evidence to identify those interventions which have the potential to be delivered as national programmes of work, by Public Health Wales working with others, consistent with the Terms of Reference for the project (Appendix 1).

The group undertook a prioritisation exercise taking account of the *Creating an Active Wales Action Plan* (4) and *Climbing Higher* (5) as the key policy documents in this area. The group considered a range of potential outcomes across the life course, taking account of the Chief Medical Officer Guidelines for Physical Activity for different population groups. The group acknowledged that within these guidelines there would be a need to consider the nature of the physical activity undertaken, for example the emphasis on strength and balance exercise for older people, however in relation to the evidence search the focus has been on physical activity (self-reported or objectively measured) rather than the type of activity. Interventions which considered a weight related outcome were considered by the Obesity, Diet and Nutrition Group. The group prioritised the following outcomes for consideration:

- **Outcome 1**: Increasing intensity and duration of physical activity in children and young people aged 3 to 18 years.
- **Outcome 2**: Increasing intensity and duration of physical activity in working age adults.
- **Outcome 3**: Increasing intensity and duration of physical activity in older adults.

5.1 **Gathering the evidence**

Protocols were developed to search for evidence relating to the outcomes identified above using the methods outlined elsewhere (Section 3). The outputs of this process are available including: protocol and PRISMA diagram; inclusion and exclusion table; and critical appraisals (Appendices 5, 6 and 7).

Taking account of the outcomes prioritised, the Terms of Reference, the scope of the work and the findings of the evidence review, the Support Team presented information on interventions to address three outcomes. There was limited specific information on older people although a number of the studies included older people in the target group within the systematic reviews. Much of
the literature relating to older people was found to focus on those with specific health needs and was therefore out of scope.

Intervention summaries relating to the interventions presented to the EAG are attached as Appendix 4.

5.2 Recommendations

Children and Young People

The group identified seven potential areas for action in relation to Outcome 1, three of which were considered to have a sufficiently robust evidence base for implementation and a further four which would require varying degrees of research and evaluation. These are summarised in Figure 2.

The group ranked work associated with the school setting as the highest priority in this group including multi-component school intervention and enhanced physical education, although active travel to school was considered to be a development action.

Figure 2
Outcome 1: Increase in intensity and duration of physical activity among children aged 3 to 18 years

<table>
<thead>
<tr>
<th>INTERVENTION</th>
<th>POTENTIAL IMPACT</th>
<th>OUTCOMES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multi-component school-based programmes</td>
<td>Children and young people walk or cycle to school</td>
<td>Increase in young people who are active in line with guidance</td>
</tr>
<tr>
<td>Enhanced physical education lessons in school</td>
<td>Children and young people play out of doors on most days</td>
<td></td>
</tr>
<tr>
<td>Multi-component interventions in pre-school settings</td>
<td>Children and young people take part in sport at school at a level beneficial to health</td>
<td>Reduction in time spent in sedentary activity</td>
</tr>
<tr>
<td>Multi-component community interventions</td>
<td>Schools have policies and practices in place which support active lifestyles</td>
<td>Reduction in morbidity and mortality from physical activity related diseases and reduction in inequalities</td>
</tr>
<tr>
<td>Multi-component cycling interventions</td>
<td>The local environment supports active lifestyles</td>
<td></td>
</tr>
<tr>
<td>Active travel to school</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social marketing/mass media campaigns</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Interventions with broken outline lack sufficient evidence for widespread implementation at the current time and are proposed for research and development.
Intervention in pre-school settings was ranked lower than in school settings. The group felt that the multi-component action in communities and specifically for cycling had potential. However, the evidence base is not strong for this area currently and in relation to the scope of the project Public Health Wales would have a supportive rather than leadership role – deliverability therefore was felt to be a potential weakness for these actions but that they offered among the greatest potential for change. The implementation of the Active Travel Act in Wales provides a potential platform for further co-ordinated work in this area. The third area identified related to social marketing programmes utilising the best available evidence and including new forms of media i.e. social media, in addition to traditional mass media approaches. The group acknowledged the challenge in finding funding for these interventions on a sustained basis and the limited evidence base in relation to physical activity compared to some other lifestyle areas.

Working Age Adults and Older People

In relation to Outcome 2, the group made seven recommendations (Figure 3). The greatest priority for action was given to relatively low impact but deliverable actions relating to brief interventions and point of choice prompts. They also noted the difficulties in health professionals prioritising this work alongside routine care and that data collection and monitoring systems linked to routine patient systems would be essential to support action. The need to integrate this work within wider programmes such as Making Every Contact Count is essential.
**Figure 3**  
*Outcome 2: Increase in duration and intensity of physical activity among adults of working age*

<table>
<thead>
<tr>
<th>INTERVENTION</th>
<th>POTENTIAL IMPACT</th>
<th>OUTCOMES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Point-of-choice prompts</td>
<td>People walk or cycle to work and leisure activities</td>
<td>Increase in people who are active in line with a reduction in sedentary lifestyles</td>
</tr>
<tr>
<td>Multi-component workplace interventions including active travel to work</td>
<td>People understand the benefits of active lives and the risks of inactivity</td>
<td>Reduction in morbidity and mortality from physical activity related diseases and reduction in inequalities</td>
</tr>
<tr>
<td>Social support and group interventions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technological/remote interventions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brief interventions in primary care</td>
<td>Adults report being advised about the benefits of activity by health professionals</td>
<td></td>
</tr>
<tr>
<td>Social marketing/mass media campaign</td>
<td>The local environment supports active lifestyles</td>
<td></td>
</tr>
<tr>
<td>Multi-component community interventions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multi-component cycling interventions</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Interventions with broken outline lack sufficient evidence for widespread implementation at the current time and are proposed for research and development.

Although lacking robust evidence currently and presenting challenges in relation to the funding and joint working required for delivery, the development areas of multi-component community interventions and cycling interventions along with social media/mass media marketing were prioritised first. Interventions in the workplace (including active travel to work), social support and primary care interventions (including use of technology and other remote support) were given lower priority. It should be noted however, that the differences between the rankings of the interventions was very small.

The final area for action related to the provision of brief interventions through routine health and social care service delivery and the necessary training and support to deliver this. The group noted that relatively short sessions of training (45 minutes) showed evidence of effect.

In relation to Outcome 3 (Figure 4), similar interventions were considered with the exception of interventions in the workplace and multi-component cycling interventions. The prioritisation was
slightly different with greater emphasis placed on social support and group interventions among older people, reflecting the strong evidence base for benefits to other aspects of health and wellbeing such as mental health. The existing National Exercise Referral Programme works largely with this target age group with chronic conditions and includes a social support element through group delivery.

Figure 4
Outcome 3:  Increase in intensity and duration of physical activity among older adults

<table>
<thead>
<tr>
<th>INTERVENTION</th>
<th>POTENTIAL IMPACT</th>
<th>OUTCOMES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social support and group interventions</td>
<td>People walk or cycle to work and leisure activities</td>
<td>Increase in people who are active in line with a reduction in sedentary lifestyles</td>
</tr>
<tr>
<td>Brief interventions in primary care</td>
<td>People understand the benefits of active lives and the risks of inactivity</td>
<td>Reduction in time spent in sedentary activity</td>
</tr>
<tr>
<td>Point-of-choice prompt</td>
<td>Adults report being advised about the benefits of activity by health professionals</td>
<td>Reduction in morbidity and mortality from physical activity related diseases and reduction in inequalities</td>
</tr>
<tr>
<td>Technological/remote interventions</td>
<td>The local community supports active lifestyles</td>
<td>Reduction in morbidity and mortality from physical activity related diseases and reduction in inequalities</td>
</tr>
<tr>
<td>Social marketing/mass media campaign</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multi-component community interventions</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Interventions with broken outline lack sufficient evidence for widespread implementation at the current time and are proposed for research and development.

5.3 Enabling factors

The group noted during their discussions a series of enabling actions or factors that would support more effective delivery and greater population impact in this area. The current action plans were considered to provide a clear strategic framework but that greater emphasis was needed in relation to monitoring of outcomes and outputs at a population level. The alignment of the two plans into a single delivery plan across Government policy areas would be advantageous.

The group considered that while there are good examples of joint working, there was considerable potential for this to increase in all
areas. This would enable the best and most effective utilisation of available resources across sectors. The lack of a forum or mechanism to facilitate joint delivery was highlighted.

The group was aware of the rapidly changing environment in relation to technology and social media and that this needed to be harnessed appropriately but with rigorous evaluation.

The group felt that work was needed to agree robust indicators for physical activity across policy areas and to realign current survey and monitoring work to provide routine data of high quality.

The group felt that in most of the areas identified there was existing work in Wales on which further action could be built. The challenge remains in ensuring that action takes place at scale and in a consistent manner.

The development of a shared all-Wales brand to support physical activity work was identified as a potential benefit and could be used as the overarching programme within which this work is delivered. The group felt that work to establish current awareness and understanding of the physical activity messages was urgently required. This would support the development of social marketing programmes. The group noted that while the recommendations were based on the best available scientific evidence there was a need to translate these into easily disseminated messages for the different population groups. The emerging evidence in relation to the risk of sedentary lifestyles has the potential to confuse further.

The group felt that Physical Activity and its importance to health and wellbeing was not sufficiently understood, including among health professionals and that ongoing work is needed to address this. This should include physical inactivity as an independent risk factor separate from its contribution to the obesity agenda.
6. **TOBACCO CONTROL EXPERT ADVISORY GROUP**

The membership (Appendix 2) of the Expert Advisory Group (EAG) was drawn from those working across Wales in the field of Tobacco Control. The group met on three occasions and has considered the available scientific evidence to identify those interventions which have the potential to be delivered as national programmes of work, by Public Health Wales working with others, consistent with the Terms of Reference for the project (Appendix 1).

The group undertook a prioritisation exercise taking account of the Tobacco Control Action Plan for Wales (6) as the key policy document in this area. The group did not consider direct face to face service provision for individuals who wish to stop smoking as work on developing specialist smoking cessation services in Wales is being taken forward elsewhere. The group did consider low intensity/indirect interventions which would support one to one or group provision. The group prioritised the following outcomes for consideration:

- **Outcome 1**: Preventing smoking uptake (including experimentation and initiation of tobacco use) in children aged 8 to 16 years, leading to a decline in smoking prevalence in this age group.
- **Outcome 2**: Increasing smoking cessation among working age adults who smoke leading to a decline in smoking prevalence in this group.
- **Outcome 3**: Reducing exposure to environmental tobacco smoke (ETS) for infants and children aged 0 to 16 years.

6.1 **Gathering the evidence**

Protocols were developed to search for evidence relating to the outcomes identified above using the methods outlined previously (Section 3). The outputs of this process are available including: protocol and PRISMA diagram; inclusion and exclusion table; and critical appraisals (Appendices 5, 6 and 7).

Taking account of the outcomes prioritised, the Terms of Reference, the scope of the work and the findings of the evidence review, the Support Team presented information on interventions to address two of the three outcomes. The search relating to the third outcome on exposure to ETS did not produce any interventions with good evidence of potential effect, consistent with the scope of the project. This has therefore been highlighted as an area for further development.
Following the initial consideration of the evidence the group identified that the systematic reviews relating to interventions to reduce availability of tobacco for children and young people were dated and a further search was undertaken of primary studies in this area (Appendix 5).

Intervention summaries relating to the interventions presented to the EAG are attached as Appendix 4.

## 6.2 Recommendations

### Children and Young People

The group identified four potential areas for action in relation to Outcome 1 and only one development area for Outcome 3 based on the limited evidence base in this area, particularly for action at population rather than individual level. These are summarised in Figure 5.

**Figure 5**

**Outcome 1:** Preparing smoking uptake (including experimentation and initiation of tobacco use) in children aged 8 to 16 years

**Outcome 3:** Reducing exposure to environmental tobacco smoke (ETS) for infants and children aged 0 to 16 years

<table>
<thead>
<tr>
<th>INTERVENTION</th>
<th>POTENTIAL IMPACT</th>
<th>OUTCOMES</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASSIST intervention in high prevalence communities to reinforce tobacco free norms</td>
<td>Children and young people find it more difficult to access cigarettes and other tobacco products</td>
<td>Increase in age of smoking initiation/experimentation</td>
</tr>
<tr>
<td>Multi-component interventions that reduce young people’s access to tobacco</td>
<td>Children and young people do not see smoking as desirable, normal behaviour</td>
<td>Reduction in regular weekly smokers at 15 years of age</td>
</tr>
<tr>
<td>Social marketing/mass media campaigns to reinforce smoke free norms</td>
<td>Young people have the knowledge and skills to make informed choices and refuse offers of tobacco</td>
<td>Reduction in proportion of children and young people regularly exposed to tobacco smoke</td>
</tr>
<tr>
<td>Universal school smoking education based on the best available evidence</td>
<td>Young people are not routinely exposed to tobacco smoke</td>
<td>Reduction in morbidity and mortality from tobacco related diseases and reduction in inequalities</td>
</tr>
<tr>
<td>Interventions to reduce exposure to tobacco in the home</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Interventions with broken outline lack sufficient evidence for widespread implementation at the current time and are proposed for research and development.
The group ranked continued delivery of the ASSIST programme, but utilising a revised delivery model, as the priority area for continued action and investment. The programme should be viewed as a support to universal programmes targeted at those areas where children are at greatest risk of becoming smokers and delivered to these schools on an annual basis to influence local social norms.

Action to support enforcement and reduce access to tobacco was considered to be the second priority area for action, to take account of the changing legislative agenda and growing concerns about access to tobacco from illicit sources. The potential introduction of a Tobacco Retailers Register was identified as offering an opportunity for co-ordinated action. The available evidence suggests that enforcement is important in achieving maximum impact and that passing legislation in itself may not be sufficient. There is potential for further co-ordinated work across agencies in this field supported by awareness-raising among retailers and the public.

The third area identified related to social marketing programmes utilising the best available evidence and including new forms of media i.e. social media, in addition to traditional mass media approaches. The group acknowledged the challenge in finding funding for these interventions on a sustained basis.

The group did not feel that the evidence on school programmes was sufficiently current or appropriate for routine delivery in schools in Wales. However, they did acknowledge that there is currently a lack of a co-ordinated approach and that much work in schools does not take account of the available evidence or is not subject to robust evaluation. This was therefore identified as an area for further development work.

**Working Age Adults**

In relation to Outcome 2, the group made three recommendations (Figure 6). The greatest priority for action was given to social marketing programmes utilising mass media and social media taking account of the international evidence. There was recognition of the need to ensure these were based on best practice and that finding adequate resources for implementation would be challenging.

The second area for action related to the development of alternative cessation support, specifically quitlines, although the group acknowledged the potential for further development of other technology driven interventions through web or mobile technology.
The group considered that telephone support had a place alongside existing service provision and had the potential to be developed with minimal additional investment. The potential for these services to support those who are unable to attend face to face services, particularly in rural communities was noted or to make available services through the medium of Welsh in areas where this may not currently be possible. The services were also seen to have a role in conjunction with social marketing and mass media initiatives.

The final area for action related to the provision of brief interventions through routine health and social care service delivery and the necessary training and support to deliver this. The group noted that relatively short sessions of training (45 minutes) showed evidence of effect. They also noted the difficulties in health professionals prioritising this work alongside routine care and that data collection and monitoring systems linked to routine patient systems would be essential to support action. The need to integrate this work within wider programmes such as Making Every Contact Count is essential.

**Figure 6**

Outcomes 2: Increasing smoking cessation among working age adults who smoke leading to a decline in smoking prevalence in this group.

### Table: Potential impact and outcomes

<table>
<thead>
<tr>
<th>INTERVENTION</th>
<th>POTENTIAL IMPACT</th>
<th>OUTCOMES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social marketing/mass media campaigns to reduce prevalence</td>
<td>Increase in adults who make a quit attempt</td>
<td>Reduction in regular smokers active</td>
</tr>
<tr>
<td>Telephone quitlines</td>
<td>Increase in adults who access help to quit</td>
<td>Increase in smokers making a quit attempt per year</td>
</tr>
<tr>
<td>Brief interventions for smoking cessation delivered by health professionals</td>
<td>Increase in smokers who report being advised on smoking at healthcare contacts</td>
<td>Reduction in morbidity and mortality from tobacco related diseases and reduction in inequalities</td>
</tr>
</tbody>
</table>

Note: Interventions in yellow lack sufficient evidence for widespread implementation at the current time and are proposed for research and development.
6.3 Enabling factors

The group noted during their discussions a series of enabling actions or factors that would support more effective delivery and greater population impact in this area. The Tobacco Action Plan was considered to provide a clear strategic framework but that greater emphasis was needed in relation to monitoring of outcomes and outputs at a population level.

The group considered that while there are good examples of joint working, there was considerable potential for this to increase in all areas. This would enable the best and most effective utilisation of available resources across sectors.

The group was aware of the rapidly changing environment in relation to technology and social media and that this needed to be harnessed appropriately but with rigorous evaluation.

Although not addressed directly by the outcomes prioritised, the group highlighted an urgent need for a coherent approach to harm reduction that considers appropriately the potential and impact of e-cigarettes at an all-Wales level.

The group felt that in most of the areas identified there was existing work in Wales on which further action could be built. The challenge remains in ensuring that action takes place at scale and in a consistent manner.

The development of a shared all-Wales brand to support tobacco control work was identified as a potential benefit and could be used as the overarching programme within which this work is delivered.

The group also noted the risks to current service provision, particularly within local government where enforcement services are increasingly unable to prioritise this work.
7. **OBESITY, DIET AND NUTRITION EXPERT ADVISORY GROUP**

The membership (Appendix 2) of the Expert Advisory Group (EAG) was drawn from those working across Wales in the field of Nutrition or Diet. The group met on three occasions and has considered the available scientific evidence to identify those interventions which have the potential to be delivered as national programmes of work, by Public Health Wales working with others, consistent with the Terms of Reference for the project (Appendix 1).

The group undertook a prioritisation exercise taking account of the current policy in this area. The group considered a range of potential outcomes across the life course, taking account of the current dietary guidelines for different population groups in the UK.

The group considered a very wide range of outcomes including the promotion of breastfeeding; specific nutrient deficiencies e.g. iron or vitamin D; outcomes relating to food choice and food groups e.g. fruit and vegetables and health outcomes such as dental caries or obesity. The group recognised that the issues not being prioritised far exceeded those that were included, but decided on this approach of focusing on a small range of outcomes in the context of the scope of the task and limited resources available. The group also noted that the outcomes selected did not relate to all population groups, particularly older people. However recognising the heterogeneous nature of this age group the group took the view that for healthy and active older people without pre-existing disease, for which a specific therapeutic diet has been recommended, the recommendations for working age adults would equally apply. The group prioritised the following outcomes for consideration:

- Outcome 1: Prevention of obesity in children aged 0 to 7 years.
- Outcome 2: Prevention of obesity in children aged 8 to 16 years.
- Outcome 3: Achievement of dietary guidelines for adults of working age.

7.1 **Gathering the evidence**

Protocols were developed to search for evidence relating to the outcomes identified above using the methods outlined elsewhere (Section 3). The outputs of this process are available including: protocol and PRISMA diagram; inclusion and exclusion table; and critical appraisals (Appendices 5, 6 and 7).

Taking account of the outcomes prioritised, the Terms of Reference, scope of the work and the findings of the evidence review, the
Support Team presented information on interventions to address three outcomes. The available evidence for Outcome 3 was very limited, taking account of the scope and Terms of Reference for the work looking at population level interventions. Additional searches were undertaken using a wider theoretical framework to identify interventions which could be considered for research and development.

Intervention summaries relating to the interventions presented to the EAG are attached as Appendix 4.

### 7.2 Recommendations

**Children and Young People**

The group identified three potential areas for action in relation to Outcome 1 and 2, only one of which was considered to have a sufficiently robust evidence base for implementation and two of which would require varying degrees of research and development. These are summarised in Figure 7.

The group ranked work associated with the school setting as the highest priority in this group including multi-component school interventions. The group felt that the multi-component action in communities (system wide approaches) had potential. However, the evidence base is not strong for this area and in relation to the scope of the project Public Health Wales would have an enabling and supportive role rather than leadership role – deliverability therefore was felt to be a potential weakness for these actions but that they offered among the greatest potential for change. The group also noted the evidence base included programmes such as the EPODE programme originally developed in France and Shape Up Somerville from the US, both of which included significant local political leadership as a core component. The challenge of engaging commitment and support at this level in Wales, particularly against the background of pending local government reorganisation, may limit this as the preferred option at this time. Engaging one or more areas as demonstration areas may be more appropriate.

A third area was identified relating to social marketing programmes utilising the best available evidence and including new forms of media i.e. social media, in addition to traditional mass media approaches. The group acknowledged the challenge in finding funding for these interventions on a sustained basis and the limited evidence base in relation to obesity compared to some other lifestyle areas. Although the importance of setting the agenda with professionals and parents was highlighted as a key
enabling action by the group, the evidence was not considered strong enough to include it as a recommendation for development.

Figure 7
Outcomes 1 and 2: Prevention of obesity in children aged 0 to 16 years

<table>
<thead>
<tr>
<th>INTERVENTION</th>
<th>POTENTIAL IMPACT</th>
<th>OUTCOMES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multi-component school based interventions on diet and physical activity</td>
<td>Increase in parent and carer ability to recognise a healthy weight</td>
<td>Increase in proportion of children who are a healthy weight at key ages</td>
</tr>
<tr>
<td>Whole system or multiple setting programmes to prevent childhood obesity</td>
<td>Increase in professionals who understand the importance of healthy weight and intervene</td>
<td>Reduction in morbidity and mortality from obesity</td>
</tr>
<tr>
<td></td>
<td>Increase in children who achieve dietary and physical activity recommendations</td>
<td>Reduction in gap between most disadvantaged and least disadvantaged groups in obesity rates</td>
</tr>
<tr>
<td></td>
<td>Increase in proportion of schools who adopt policy and practices consistent with healthy weight</td>
<td></td>
</tr>
</tbody>
</table>

Note: Interventions with broken outlines lack sufficient evidence for widespread implementation at the current time and are proposed for research and development

Working Age Adults

In relation to Outcome 3, the group made five recommendations (Figure 8). The weak evidence of effect for interventions in this area was noted by the group. Initial searches identified only two areas for action, interventions in primary care including brief interventions and tailored advice and multi-component interventions in the workplace. In relation to Primary Care interventions, the group noted the difficulties in health professionals prioritising this work alongside routine care and that data collection and monitoring systems linked to routine patient systems would be essential to support action. The need to integrate this work within wider programmes such as Making Every Contact Count is essential. The availability of training to support this work through the Nutrition Skills Training Programmes was also highlighted.

Further searches were undertaken to identify promising areas of work relating to key settings, these included social marketing/mass media; food retail settings; prepared food settings. These were all
identified as areas for development, supported by rigorous evaluation and research. The potential role of interventions drawing on the behavioural economics theories were identified as having potential in this area e.g. use of price and promotion methods at point of purchase to influence food choice in key settings.

Figure 8
Outcome 3: Achievement of dietary guidelines among adults of working age

<table>
<thead>
<tr>
<th>INTERVENTION</th>
<th>POTENTIAL IMPACT</th>
<th>OUTCOMES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary care brief interventions including tailored advice</td>
<td>Increase in proportion of health professionals who give dietary advice</td>
<td>Increase in proportion of adults who meet dietary guidelines</td>
</tr>
<tr>
<td>Multi-component workplace interventions on diet</td>
<td>Increase in proportion of workplaces which have policy and practices consistent with best practice</td>
<td>Reduction in gap between most disadvantaged and least disadvantaged groups in diet</td>
</tr>
<tr>
<td>Social marketing/mass media campaigns</td>
<td>Increase in availability of healthy food choices in retail and catering environments</td>
<td>Reduction in morbidity and mortality from diet-related diseases and reduction in inequalities</td>
</tr>
<tr>
<td>Food retail and catering environment interventions</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Interventions in yellow lack sufficient evidence for widespread implementation at the current time and are proposed for research and development

7.3 Enabling factors

The group noted during their discussions a series of enabling actions or factors that would support more effective delivery and greater population impact in this area. The generally poor evidence base for population interventions was highlighted as a key issue. Robust partnerships with academic partners will be essential to support ongoing programme development.

The absence of a Wales Action Plan relating to Nutrition and Health was seen to be a major barrier to effective co-ordinated action across Wales. Current plans relating to food were felt to prioritise
the economic benefits of food production rather than the nutritional requirements of the population and there is a need to recognise that these two goals are not always compatible.

The group considered that while there are good examples of joint working, there was considerable potential for this to increase in all areas. This would enable the best and most effective utilisation of available resources across sectors. The lack of a forum or mechanism to facilitate joint delivery was highlighted.

The group was aware of the rapidly changing environment in relation to technology and social media and that this needed to be harnessed appropriately but with rigorous evaluation.

The group felt that work was needed to agree robust indicators for diet related outcomes at a population level to provide routine data of high quality.

The group felt that in most of the areas identified there was existing work in Wales on which further action could be built. The challenge remains in ensuring that action takes place at scale and in a consistent manner.

The development of a shared all-Wales brand to support nutrition and health work was identified as a potential benefit and could be used as the overarching programme within which this work is delivered. This would support the development of social marketing programmes. The group considered that these programmes need to be developed in a Welsh context to ensure that they are truly integrated and support wider programmes of work.
8. **ALCOHOL AND SUBSTANCE MISUSE EXPERT ADVISORY GROUP**

The membership (Appendix 2) of the Expert Advisory Group (EAG) was drawn from those working across Wales in the field of Alcohol and Substance Misuse. The group met on three occasions and considered the available scientific evidence to identify those interventions which have the potential to be delivered as a national programme of work by Public Health Wales working with others, consistent with the Terms of Reference for the project (Appendix 1).

The group undertook a prioritisation exercise taking account of the strategy document *Working Together to Reduce Harm – the substance misuse strategy for Wales* (7). The group prioritised the following outcomes for consideration:

- **Outcome 1:** A reduction in the number of adults drinking above the guidelines and/or binge drinking in Wales.
- **Outcome 2:** The prevention and reduction of alcohol consumption in young people (aged 15 and younger).
- **Outcome 3:** A reduction in the number of problematic drug users in Wales.

### 8.1 Gathering the evidence

Protocols were developed to search for evidence relating to the outcomes identified above using the methods outlined in (Section 3). The results of this process are available including: protocol and PRISMA diagram; inclusion and exclusion table; and critical appraisals (Appendices 5, 6 and 7).

Taking account of the outcomes prioritised, the Terms of Reference, scope of the work and the findings of the evidence review, the Support Team presented information on interventions to address all three outcomes. Intervention summaries for each of the interventions presented to the EAG are attached as Appendix 4.

### 8.2 Recommendations

*Children and Young People*

One intervention was identified by the group that met Outcome 2 (curriculum based interventions in schools to reduce substance use), although the strength of the evidence is not compelling. The group also considered that there was sufficient evidence to support the inclusion of social marketing/mass media campaigns for development and research (Figure 9).
**Figure 9**

**Outcome 2:** The prevention and reduction of alcohol consumption in young people aged 15 and younger

<table>
<thead>
<tr>
<th>INTERVENTION</th>
<th>POTENTIAL IMPACT</th>
<th>OUTCOMES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curriculum-based interventions in schools to reduce substance misuse</td>
<td>Increase in knowledge and skills related to alcohol use</td>
<td>Reduction in proportion of young people who drink above recommended levels</td>
</tr>
<tr>
<td>Social marketing/mass media campaigns to change alcohol consumption or behaviour</td>
<td>Increase in proportion of schools delivering evidence based alcohol education programmes</td>
<td>Reduction in violence and crime reported and attributed to alcohol</td>
</tr>
<tr>
<td>Multi-component community interventions to prevent alcohol related harm</td>
<td>Increase in awareness of sensible drinking messages</td>
<td>Reduction in morbidity and mortality from alcohol related diseases and reduction in inequalities</td>
</tr>
<tr>
<td></td>
<td>Reduction in alcohol consumed</td>
<td></td>
</tr>
</tbody>
</table>

Note: Interventions with broken outline lack sufficient evidence for widespread implementation at the current time and are proposed for research and development.

**Working Age Adults**

The group identified two potential areas for action in relation to Outcome 1 and five areas for further research and development based on the limited evidence base in this area, particularly for action at population rather than individual level. These are summarised in Figure 10.

The strongest evidence currently exists for alcohol brief interventions in primary care. In addition interventions in the workplace were identified as promising alongside interventions in licensed settings involving server training.

The potential role of online or technology driven interventions for self assessment were also identified for further exploration.
There is potential for greater use of social marketing and mass media campaigns as part of wider programmes of work. Finally there is some emerging evidence of the effectiveness of community-based interventions delivered through inter-agency partnerships and addressing the availability and supply of alcohol as key components.

*Figure 10*
Outcome 1: A reduction in the number of adults drinking above the guidelines and/or binge drinking in Wales

<table>
<thead>
<tr>
<th>INTERVENTION</th>
<th>POTENTIAL IMPACT</th>
<th>OUTCOMES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brief interventions for alcohol</td>
<td>Increase in routine healthcare consultations which include alcohol assessment and brief intervention</td>
<td>Reduction in proportion of adults who drink above recommended levels</td>
</tr>
<tr>
<td>Workplace interventions to reduce alcohol consumption</td>
<td>Increase in proportion of workplaces that have policy and practices consistent with best practice</td>
<td>Reduction in admissions to hospital attributed to alcohol</td>
</tr>
<tr>
<td>Server training interventions on licensed premises</td>
<td>Increase in awareness of sensible drinking messages</td>
<td>Reduction in violence and crime reported and attributed to alcohol</td>
</tr>
<tr>
<td>Online and technology based interventions</td>
<td>Increase in number of employees in alcohol licensed premises who have achieved minimum level of training</td>
<td>Reduction in morbidity and mortality from alcohol related diseases and reduction in inequalities</td>
</tr>
<tr>
<td>Social marketing/mass media campaigns to change alcohol consumption or behaviour</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multi-component community interventions to prevent alcohol related harm</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Interventions with broken outline lack sufficient evidence for widespread implementation at the current time and are proposed for research and development.

Drug Use

None of the interventions considered by the group was sufficiently well-evidenced to indicate suitability for action without further investigation.
9. **MENTAL HEALTH EXPERT ADVISORY GROUP**

The membership (Appendix 2) of the Expert Advisory Group (EAG) was drawn from those working across Wales and beyond in the field of Mental Health.

The group met on three occasions and considered the available scientific evidence to identify those interventions which have the potential to be delivered as a national programme of work by Public Health Wales working with others, consistent with the Terms of Reference for the project (Appendix 1). *Together for Mental Health* (8) was acknowledged by the group as the overarching policy document to guide this work.

Core members of the group undertook an exercise to determine the outcomes that they considered should be the objective of the Transforming Health Improvement programme. This exercise proved very challenging and highlighted the lack of development and focus in this important area of health compared to others. The group initially addressed a very wide range of potential outcomes relating to mental health and mental illness, many of which were outside of the scope and Terms of Reference of this project. Additional work was undertaken to consider the evidence for risk and protective factors for mental health and mental illness prevention. Resilience including coping skills and emotional literacy were identified as two potential areas of focus.

As a result it was agreed that this report would consider the outcomes appropriate to the Terms of Reference for the EAGs as outlined below:

- **Outcome 1:** Increase in reported mental health (wellbeing) of adults and older people
- **Outcome 2:** Increase in reported mental health (wellbeing) of children and young people

In recognition of the work done by the group that was outside of the project scope it was agreed that a separate report would be produced for consideration by the Programme Board and Public Health Wales as a whole.

9.1 **Gathering the evidence**

Protocols were developed to search for evidence relating to the four outcomes identified above using the methods outlined in (Section 3). The results of this process are available including:
protocol and PRISMA diagram; inclusion and exclusion table; and critical appraisals (Appendices 5, 6 and 7).

From the findings of the evidence review, the Support Team presented information on interventions aligned to the two agreed outcomes.

Following a review of the information retrieved in the initial search the group met to consider the need for a further search focused on emotional literacy and resilience as known protective factors for good mental health and wellbeing. This search produced little additional evidence at review level and has been identified for further work.

Intervention summaries relating to the interventions presented to the EAG are attached as Appendix 4.

9.2 Recommendations

*Children and Young People*

The group identified two interventions which relate to Outcome 2 (Figure 11), improved mental health in children and young people, one of which was considered to have sufficient evidence for immediate implementation. The group found evidence to support programmes of work in the school setting which address curriculum activity to build skills and understanding for mental wellbeing and coping; access to pupil support including external agencies; policies relating to promote inclusive environments and active management of behaviour.

The group also found evidence to support work in the classroom to develop emotional literacy skills and resilience among children and young people.
Figure 11
Outcomes 1 & 2: Increase in reported mental health (wellbeing) of adults and older people, children and young people

<table>
<thead>
<tr>
<th>INTERVENTION</th>
<th>POTENTIAL IMPACT</th>
<th>OUTCOMES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multi-component schools-based programme including curriculum; student/pupil support; links with services; home component; emotional literacy and resilience</td>
<td>Increase in reported confidence in managing stress</td>
<td>Increase in reported mental health measures for adults</td>
</tr>
<tr>
<td>Multi-component workplace programme including supportive policy; staff counselling and assistance programmes; active management of sickness absence</td>
<td>Increase in reported connectedness to school; community; workplace</td>
<td>Reduction in long term sickness absence as a result of stress/anxiety</td>
</tr>
<tr>
<td>Community interventions to embed the ‘Five Ways to Wellbeing’</td>
<td>Increase in population who practice the ‘Five Ways to Wellbeing’</td>
<td>Increase in self reported wellbeing measures for children and young people</td>
</tr>
</tbody>
</table>

Note: Interventions with broken outline lack sufficient evidence for widespread implementation at the current time and are proposed for research and development

**Working Age Adults and Older People**

The group identified two interventions which should be considered for this age group, one of which was considered to have sufficient evidence for immediate implementation i.e. multi-component interventions in the workplace. The area for development relates to the ‘Five Ways to Wellbeing’ which is felt to offer a positive framework for action but for which the evidence of interventions to deliver these at population level is currently lacking.

**9.3 Enabling Factors**

The EAG members made the following observations in respect of the wider context within which this work is taking place:

The work highlighted the relatively limited evidence to support work in this field at a population level. The need to ensure that ongoing work is accompanied by appropriately rigorous evaluation to support the development of the evidence base was highlighted.
There is an opportunity within this review to bridge the gap, make connections, work in partnership and undertake a multi-agency approach. The need to develop mechanisms for co-ordinated action across agencies and sectors in improving population mental health was noted.

The developing legislative context in Wales was also identified as offering opportunities in this area, particularly the *Well-being of Future Generations Bill*. 
10. REFERENCES