UPDATE ON WORK TO ACHIEVE HEAT TARGET 3:
CHILD HEALTHY WEIGHT

Recommendation/action required

The Board is asked to note and comment on progress.

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UPDATE ON WORK TO ACHIEVE HEAT TARGET 3: CHILD HEALTHY WEIGHT

Purpose

1. This paper will update on progress of NHS Health Scotland in supporting the delivery of the HEAT 3, Child Healthy Weight target.

The Target

2. HEAT 3 target is for NHS Scotland to deliver healthy weight interventions to 19,493 children aged 5-15 years and defined as overweight (including obese, but not morbidly obese) cumulatively over the period 2008/9 – 2010/11. Based on the Scotland level prevalence of obesity from the Scottish Health Survey 2003, this target represents an estimated 13.5% of all Scotland’s overweight children within that age-range. All the interventions completed from April 2008 will contribute to the cumulative total. Appendix 1 outlines the HEAT 3 process and how the target aligns with intermediate and high level government outcomes.

3. The Scottish Government used detailed results from the Scottish Health Survey (SHeS) 2003 to calculate the number of interventions to be delivered by each Board. This was based on a 22.1% prevalence level for age 5-15 from the SHeS 2003 and the 2006 mid-year population estimates. This gave a planned level of delivery of 19,493 interventions.

4. The target has been revised and formally categorized by Scottish Government as a developmental target. Evidence for effective interventions is still emerging and there is expected to be considerable learning.

Background

**Why does child healthy weight matter?**

5. Overweight in childhood is a strong predictor of overweight in adulthood.

“Obesity and its consequences cost the NHS in Scotland an estimated £171 million in 2001. Obesity is linked to an increased risk of coronary heart disease, diabetes, cancer, kidney failure, arthritis, back pain and psychological damage, and decreases life expectancy. For example, type 2 diabetes is almost 13 times more likely to occur in obese women than in women of normal weight. Obesity in Scotland is linked to nearly 500,000 cases of high blood pressure, 30,000 cases of type 2 diabetes, and similar numbers of cases of osteoarthritis and gout. It is estimated that obese people in Scotland are 18% more likely to be hospitalised than those of normal weight.”

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Footnote:

1. Reference to source or study.

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What is the current policy context?

6. The original HEAT 3 target was announced in Better Health Better Care (2007). The report on obesity produced by the Foresight group has been influential in subsequent thinking and policy. Currently there are 3 national policies containing a specific focus on healthy weight: Healthy Eating, Active Living (2008), Let’s Make Scotland More Active (2003) and the Review of the Diet Action Plan (2006). A 5 year review of Lets make Scotland More Active is expected to be finalized in autumn 2009 and a Scottish obesity strategy is forthcoming.  

What is the scale of the problem in Scotland?

7. “The prevalence of obesity (BMI>30kg/m2) in Scotland has increased over the past two decades... Obesity in children is now common. In Scotland, nearly one in five (18%) boys and over one in ten (14%) girls aged 2–15 years are obese. Scotland has one of the highest levels of obesity among OECD countries, second only to the United States of America.”

8. There is a range of routinely collected data on the prevalence of obesity in children. There is a strong relationship between social deprivation and overweight in children in Scotland. (See appendix 2 for illustrations).

What are the key influences on child healthy weight?

9. The influential Foresight report states that: ‘The most significant predictor of childhood obesity is parental obesity (obesity in a parent increases the risk of childhood obesity by 10%)’. The report characterises the influences as a complex interaction between individual biology (genes, breastfeeding and growth in childhood), health behaviours (diet and physical activity) and the environmental and economic influences on biology and behaviour.

What are the effective interventions for the health service?

10. It is clear that the problem requires a broad and co-ordinated response and HEAT 3 is a key driver for the NHS role in this. NHS Health Scotland provided guidance on effective interventions in line with NHS Health Scotland commentary on NICE guidance and SIGN clinical guidance. The NICE guidance recommends:

- There should be a range of components within a healthy weight programme (eg not diet or physical activity alone and including behaviour change).
- Programmes should not rely on parental education alone.
- Tailored programmes should be considered for children over 91st centile for weight.
- After measurement has been carried out a broad assessment should be undertaken.
- Programmes may aim for either weight maintenance or weight loss.
- Overweight parents should be supported to lose weight.
11. Individual health boards are delivering a variety of interventions ranging from evidence based programmes such as MEND (Mind, Exercise, Nutrition..Do It!) and SCOTT (Scottish Childhood Overweight Treatment Trial), to locally developed programmes. The majority of health boards are utilising a group based intervention, however some boards are delivering one to one interventions and two health boards are using a whole class and whole school approach. \(^{11,12}\)

**WHAT IS NHS HEALTH SCOTLAND DOING?**

**Epidemiology**

12. The SCOTPHO website on obesity is accessed just under 1000 times a month and the epidemiology briefing on obesity with its chapter on childhood obesity was downloaded 5000 times last year.

**Guidance**

13. NHS Health Scotland led on the development of the guidance to support the implementation of H3 at board level. This was published by Scottish government and NHS Health Scotland in April 2008 to support the delivery of HEAT 3. Key themes in the guidance were:

- The goal of an intervention should be to achieve a sustainable improvement in diet and physical activity rather than an ideal weight.
- The programme should incorporate and be underpinned by behaviour change theory, through setting of short, medium and long-term goals, recognising the benefits of health-enhancing behaviour and planning coping strategies for challenging situations.
- To use a family-centered approach to ensure families could incorporate the changes into their daily routines to achieve long-term benefits.
- The intervention should include components of food and nutrition, aiming to achieve a reduction in total energy intake incorporating dietary modifications in keeping with other healthy eating advice and physical activity.
- The intervention should also aim to increase physical activity and reduce sedentary behaviour.

**Commissioned research**

14. Research has been undertaken in response to discussion with professionals working on HEAT 3. A report on research to examine the knowledge, attitudes and awareness of parents, young people and health professionals on child healthy weight is being finalised for publication. This will help to inform resource development and to support boards with help in engaging with families. Further work is due to be commissioned on health behaviour change (HBC) models and approaches for families and young people to support HEAT 3. This work will help clarify the most appropriate HBC models, techniques and training for the range of professionals working on HEAT3.
Dissemination

15. NHS Health Scotland staff are actively disseminating the work done in Scotland to date through a range of presentations at key events including:
   - 5th European Youth Heart Study Symposium in Iceland in October 08
   - Faculty of Public Health Conference in November 08
   - Two poster abstracts have been accepted for the NHS conference in June 09
   - A HEAT 3 workshop will be run at the Learning and Teaching Scotland event in September 09.
   - Presentations on HEAT 3 have also been given to the Health Promotion Manager’s Group and at the Partnership Management Programme events.

Partnership and workforce development

Network events

16. Two national events were run in June and December 2008, the former with 70 participants. In December the smaller attendance of about 30 represented the core group of HEAT 3 leads in local Boards. Along with attendance by Scottish Government colleagues, the events have enabled sharing of good practice and workshops on key themes which have guided both local and national work.

Networking site

17. The networking site is hosted on NHS Health Scotland’s Virtual Learning Environment. It was set up in late 2008 and has 110 members, including representation from 13 Health Boards, local authority and community and voluntary sector partners. The site has been restructured and is currently being evaluated through a member’s survey. Results so far suggest that members are finding the change positive. The restructure aimed to highlight the ‘members interactive’ area of the site which has seen the first forum discussions between members.

Network surgeries

18. The first live online surgery on the topic ‘evaluation’ was well attended by network members, with 9 of the 14 Health Boards logged on to the site during the hour and 400 ‘hits’ over the next few days from members who were not able to attend, indicating the report is being referred to after a members first access. A tool to enable live structured discussions will be commissioned to support future live surgeries. Future surgery topics include Health Behaviour Change and Partnership Working.
Visits to health boards

19. Visits to all health boards are taking place in the first quarter of 2009/10. These are attended by both service design and delivery staff within the boards. Findings around resource development, communication and LWD needs will inform the Health Scotland HEAT 3 action plan for 2009/10 and beyond.

Learning and workforce development

20. A rapid scoping of existing training and workforce development opportunities has been conducted and shared with Scottish Government and Health Boards.

21. As each Health Board is providing a unique service delivered through different members of the workforce (eg Dieticians, Physical Activity Specialists, Health Promotion professionals or sessional coaches) it would be inappropriate to deliver a universal training programme. Instead our role has been to facilitate networking and sharing of practice to enable Boards to identify areas of common interest or challenge. Specific workforce development workshops at the two face to face H3 events and the networking site (see 17 above) have contributed to our understanding the needs of the workforce. NHS Health Scotland’s generic training programme has been made available to key staff at local level to deliver tailored training for their own staff. This has included Health Behaviour Change Training for Trainers, Creating Imaginative Learning (generic training skills course) and Let’s Make Scotland More Active-e (online training on Physical Activity recommendations).

22. We are currently working with Skills Active to develop National Occupational Standards for Physical Activity and Nutrition which will provide a benchmark of competences, skills, knowledge and behaviour for those delivering H3 interventions.

23. Through regular consultation with our NHS customers, a number of key and common needs are now emerging which we will seek to take forward during the rest of the year. It is likely these will include:
   - Identification and recruitment support (including improving confidence and communication skills in raising the issue and engaging with parents and children sensitively).
   - Developing skills in how to identify what overweight and obesity in children looks like (challenging the attitudes of professionals and the normalisation of obesity).
   - Health behaviour change training specific to working with children and families (this will follow the results of commissioned research14 above).
Communications and marketing

24. These areas will be developed following the recent research findings (14 above). A communications sub group has been established which will use this evidence in combination with feedback from board visits to develop a communications strategy for HEAT 3 including the development of resources.

25. A needs assessment of resources was conducted with Health Board HEAT 3 leads. A catalogue of resources which are currently available to meet these needs has been compiled and was made available on the network at the end of May. It received 105 hits within the first week. This is an interim measure before specific HEAT 3 resources can be produced.

Linked and supporting work

26. Broader healthy weight work in NHS Health Scotland supports the focused work on HEAT 3 and examples would be:
   - Beyond the School Gates- developing case studies of good practice
   - Active Scotland database linking to facilities for physical activity across Scotland
   - Guidance to support the implementation of the Schools (Health Promotion and Nutrition) (Scotland) Act 2007 \(^{13}\)
   - Development of a Healthy Weight Workforce Development Plan.

Monitoring and evaluation

27. Health Board programmes vary greatly, by for example, population (a subset of the 5-15 year old population), means of contact and engagement, and by length or content of interventions. This presents challenges, but also opportunities for significant learning.

Monitoring framework

28. The basic requirement for HEAT3 monitoring asks Health Boards to report on their performance against the target, that is the number of completed child healthy weight interventions. The Scottish Government has suggested a core data set for Boards to collect for monitoring purposes. This information set is based on NHS Health Scotland guidance and is still under development.

Evaluation framework

29. An evaluation framework is in development which will aim to:
   - Consider what works at both an individual and a population level.
   - Measure success in meeting the HEAT target objective of engagement and completion of programmes, 
   - Assess the impact on positively affecting the weight of patients
   - Assess other health or health related outcomes.

30. Developing the framework has involved identifying the range of different interventions planned, the key components of interventions and the process,
output and outcome measures. From this work a preliminary, flexible model, has been identified. Further work will refine this model which will be presented to the monitoring and evaluation steering group and local boards in December 2009.

Commissioned evaluation

31. Two qualitative studies are being commissioned by NHS Health Scotland: to be conducted during 2009-11. The first study explores why parents and children choose to or do not choose to engage with H3 programmes, from the perspective of parents and H3 staff. The second will examine the impacts of H3 interventions on participating children and parents. A third will be commissioned later to look at the impact of the development of the service.

KEY POINTS FOR COMMENT AND DISCUSSION

Is this target going to be met?

32. Research and discussion indicate that cultural understanding of healthy weight and overweight or obesity is poor, including amongst health professionals. This may be one of the contributing factors in the difficulty in recruiting of children and families to programmes. As a result some Health Boards are renegotiating their local targets and there is general concern about the achievability of the target.

Immediate tasks that NHS Health Scotland will be working on

33. Work in 2009-10 is continuing and building on the work to date. The network site is being developed to provide an opportunity to include resource banks of activities, job descriptions and local strategies. Network events will continue to be developed in response to feedback. Workforce training relevant across a number of other health behaviour change targets as well as HEAT 3 will be strategically planned and a programme of specific publications will be set up.

Issues for further consideration

34. NHS Health Scotland has faced considerable challenges in developing the infrastructure to support HEAT3 at the same time as the Boards have had to start delivery. The developmental nature of the target has meant that the resources, research and staff skills were not clearly identified in advance. There was no current information about public understanding of issues around healthy weight for children in Scotland; the research now carried out indicates that social marketing and staff training in key areas should be put in place. Work on all of these has had to take place in parallel with Health Board activity. Whilst this has led to good working relationships, a short initial start up phase could be valuable in future.

35. The variety of approaches now underway across Scotland should give rich information about what may or may not be effective. The role of evaluation
and monitoring is therefore critical, as is maintaining good networks to ensure the learning is taken forward.
Appendix 1
HEAT 3 process and how the target aligns with intermediate and high level government outcomes

- **High level Outcomes**: Improved mental wellbeing, Reduced inequalities in HLE, Reduced inequalities in CHD mortality

- **Intermediate Outcomes**: Reduced increase in children with BMI outwith healthy range

- **Short-term Outcomes**: % of children maintained healthy weight at later follow-up, % participating children of healthy weight at initial follow-up

- **Reach**: Overweight children aged 7-13 and their families

- **Outputs**: Child healthy weight intervention – completion rate

- **Activities**: What the NHS has to do to reach the target group and deliver effective child healthy weight interventions

- **Inputs**: Funding, trained workforce, evidence-based guidance, data to manage and monitor the delivery of interventions

- **National indicators**: Revised HEAT target

- **H3: Child Healthy Weight**
Appendix 2

Examples of routinely collected data in Scotland

a) Overweight in children in primary 1 by geographical area (community Health partnership)
b) Overweight and obesity in secondary school children by Scottish index of Multiple Deprivation

Source: Information and Statistics Division (ISD)

www.isdscotland.org/isd/3640.html
2a) Overweight in children in primary 1 by geographical area (Community Health partnership)

**Figure B3.1 - Percentage Overweight: Primary 1 School Children by Community Health Partnership, School Year 2007/08**

Percentage % Overweight (>=85th centile)

Average for all participating Boards (20.0%)

Source: ISD Scotland CHSP-S August 2008
2b) Overweight and obesity in secondary school children by Scottish Index of Multiple Deprivation

Figure D4
High BMI Distribution in Secondary 3 School Children by SIMD* Quintile
School Year 2004/05

Source: ISD Scotland CHSP-S August 2006
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