ScotPHN report

Scottish Action Obesity Resource

A project by the Scottish Public Health Network (ScotPHN) undertaken by Nutrition Communications

November 2007

Nutrition Communications

Contents

Foreword

The Scottish Public Health Network (ScotPHN) was established by the Directors of Public Health in 2006. One of its key aims is to undertake projects of national importance where there is a clearly identified need. The creation of the Scottish Obesity Action Resource (SOAR) is the first of these projects.

Scotland is facing a huge challenge fighting obesity in the next few years. We are all becoming increasingly aware of the present and future consequences of a rising tide of obesity in Scotland for the whole of our society, but particularly for our children. These are so great that the present generation of young people will be the first in our history with a life expectancy less than their parents' generation.

Great efforts are being made within NHS Boards, local authorities and other local partner organisations to treat and prevent obesity. We know that there are successful services, programmes and initiatives underway and in the pipeline right across Scotland, but we also know that these successful approaches are frequently unknown outside of their immediate geographical area. Consequently, it can be difficult for us to learn from each other, share best practice, replicate effective approaches and avoid unproductive measures. I therefore welcome this report, which acknowledges and maps this work across the country, providing a national resource, which will inform not only local initiatives, but also national strategy. The evidence presented is a compelling and useful springboard for action and this document has the potential to be a powerful catalyst to inform a more coherent structure for tackling obesity at all levels.

As Chair of the ScotPHN Steering Group, I would like to record my personal gratitude, and that of the ScotPHN, to those principally responsible for the production of the report, and to hundreds of others involved in information provision and feedback to the extensive consultation, whose efforts have created a resource from which we will all benefit in the years to come.

Dr Drew Walker
Chair of ScotPHN Steering Group

Acknowledgments

Like many research projects, this piece of work started small but ended up huge. Part of the reason was the tremendous response from Stakeholders across Scotland who, instead of putting a cross in the box as expected, provided reams of additional information about their obesity actions. No doubt, this has increased the value of the SOAR dataset.

I am indebted to a number of people without whose input the SOAR project would have remained a twinkle in our eyes. These include the Project Working Group, chaired with great efficiency and aplomb by Sarah Taylor, the Local Contacts, who were extremely supportive, the Stakeholders, who responded to our numerous telephone calls and emails, my project team, Paula Dennison, Jenny Hynes and Toby Donnelly, Drew Walker for getting me involved in the first place, and Anne Maree Wallace, Ann Conacher and Graeme Scobie for sharing every step of the journey.

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Executive summary

This report represents a mapping project undertaken on behalf of the Scottish Public Health Network (ScotPHN). The aim was to create an online resource, called the Scottish Obesity Action Resource (SOAR), containing information on actions across the Scottish public sector likely to impact on obesity prevention and treatment. These were referred to as 'obesity actions' and represent current practice in 2006-07. The intention was to make the data as complete as possible, however, there may be initiatives that were not captured as part of this exercise including those developed since the mapping exercise.

The project methods included telephone and email surveys in each of the geographical areas covered by the fourteen NHS Boards. Surveys were also used to collect data from primary care staff and community pharmacists. Three regional workshops were held to disseminate the initial findings and to gather views on the interpretation of the data. Additional data were collected on Scotland's Health at Work (SHAW) awards, participation of NHS Boards in the Child Health Surveillance programme, local and national policies, advice given by Managed Clinical Networks and the progress of GP surgeries in achieving the QoF standard relating to obesity databases.

Reports were produced for each geographical area covered by an NHS Board. These were designed to identify good practice, offer comment on the variety, scope and geographical reach of obesity actions, identify potential gaps and suggest how the public sector could improve or build upon existing work. A more formal audit was not attempted due to the lack of agreed 'gold standards' against which to compare findings. Combined data on obesity actions were presented across all areas. This analysis revealed interesting differences and trends in the types of activities being undertaken by the public sector around obesity assessment and monitoring, prevention and treatment.

The GP practice survey delivered an acceptable response rate enabling a full analysis of the data. Key findings were that practices tended to offer one-to-one consultations rather than groups. Most practices recommended that patients use non-NHS slimming groups and were willing to prescribe anti-obesity drugs. A range of referral criteria was used by practices to determine patient access to obesity services, mostly based around BMI >30 plus one or more co-morbidities. A significant proportion of practices reported not having access to training on obesity assessment, behavioural change or diet advice.

The response to the community pharmacist survey was poor, hindering analysis and comparison. Few pharmacists appeared to be offering obesity services, although a proportion was giving nutrition and physical activity advice. As with the GP surgeries, a significant proportion of community pharmacists reported not having access to training for obesity management.

National recommendations are made around prevention and treatment. The most important of these was that a national obesity strategy, which would build on existing national structures, be created to encourage better co-ordination across areas. Other key recommendations include national referral criteria, guidance on raising the issue of child obesity and addressing obesity in pregnant women, exploration of the potential role of non-NHS slimming groups and community pharmacists in obesity management, and an assessment of health professional training needs.

Glossary of terms used in this report

BMI	Body Mass Index (see page 11)
CHP	Community Health Partnership
CHSP	Child Health Surveillance Programme
HSE	Health Survey for England
HfS	Hungry for Success: a policy to implement healthy school food across Scotland
ISD	Information Services Division
NHS	National Health Service
NICE	National Institute for Health and Clinical Excellence
PGD	Patient Group Directive: an agreed legal authority for administration of a medicine to a group of patients under defined conditions
QoF	Quality Outcomes Framework: targets within the GP contract
ScotPHO	Scottish Public Health Observatory collaboration
SIGN	Scottish Intercollegiate Guidelines Network
SOAR	Scottish Obesity Action Resource
ScotPHN	Scottish Public Health Network
SIMD	Scottish Index of Multiple Deprivation
WC	Waist circumference
WHO	World Health Organisation
WHR	Waist Hip Ratio (see page 11)

Background to the project

Introduction

The Scottish Obesity Action Resource (SOAR) project was conceived as a means of stimulating action across Scotland to improve the prevention and treatment of obesity. Obesity affects a considerable proportion of people living in Scotland, and impacts on their risk of chronic disease.

The Scottish Public Health Network (ScotPHN) recognised the complexity of obesity aetiology and that a number of different social and environmental factors, including many of the health-related initiatives currently funded in the public sector, could impact on its prevention and treatment. There are factors about the wider environment that either contribute to or mitigate against the development of obesity eg food industry regulation, access to healthy foods, the provision of exercise facilities. These issues relating to the obesogenic environment were out with the scope of this mapping exercise.

It was agreed that mapping health-related initiatives currently funded by the public sector across the geographical areas covered by the fourteen NHS Boards was a logical first step in stimulating further strategic action. It was intended, in the first instance, that individual maps be used as a basis for local obesity strategies, while the full set of maps would help inform a national obesity strategy.

Aim

Create an online resource containing the following information:

- Maps of obesity action for each of the geographical areas covered by the fourteen Scottish NHS Boards (see methods below)
- Commentary on the national and local pictures, including suggestions for future actions that may help improve obesity assessment, monitoring, prevention and treatment. It was decided by ScotPHN that commentary be informed by the data captured during the mapping process and not a wider understanding of the obesogenic environment
- Examples of good practice
- Links to published evidence-based reports addressing obesity prevalence, aetiology, prevention and treatment
- Links to relevant local, national and international policy resources.

Methods

The purpose of the mapping was to create a picture of existing policies, services, practices and interventions aimed at preventing or treating obesity. The main steps taken to develop a map of obesity action in Scotland were as follows:

1. A Project Working Group (Appendix 1) with representation from NHS Boards was set up by ScotPHN.
2. The Project Working Group identified a Local Contact (Appendix 2) for each NHS Board area. This tended to be a senior health promotion expert.
3. The project consultants, Nutrition Communications[1] worked with the Project Working Group, Local Contacts and the Scottish Public Health Observatory (ScotPHO) to collect international, national and local policies that were relevant to obesity prevention and treatment using a proforma (Appendix 3).
4. Local Contacts were asked to create a contact list for Stakeholders likely to impact on obesity prevention and treatment within their area. Examples of types of Stakeholders are given in Appendix 4 and included many people out with the NHS. The proforma used for collecting data is given in Appendix 5.
5. Local stakeholders were contacted to ask for their co-operation in the SOAR project, e.g. via a letter from the Director of Public Health.
6. Nutrition Communications developed a mapping questionnaire. The questions were designed to discover whether certain 'obesity actions', expected to impact on obesity risk according to evidence and/or experience, were in place, in progress, planned or not planned. An excerpt of the mapping questionnaire is given in Appendix 6.
7. The mapping questionnaires were then used in interviews with local stakeholders to gather information about each area. Interviews took place by email or by telephone.
8. To ensure the best possible response rate, local stakeholders were followed up more than once. However, this did not ensure 100% completion of data.
9. Targeted questionnaires aimed at Primary Care and Community Pharmacists were developed by Nutrition Communications. These were available in various formats, including online.
10. GP surgeries were contacted electronically via group email lists held by their NHS Boards. Contact was normally made via the Practice Manager who was asked to nominate one person within the surgery to complete an online questionnaire. It was requested that the nominated person be someone involved with delivering obesity services.
11. In Greater Glasgow & Clyde and Lothian, the Local Contacts requested that Nutrition Communications send GP surgeries a reminder to maximise the response. A reminder was also sent out in Grampian as IT issues may have affected circulation of the initial contact from the SOAR project.
12. Community Pharmacists were contacted in a number of different ways as many NHS Boards did not hold a group email list, e.g. by fax,

[1] www.nutrition-communications.com

telephone or post. NHS Greater Glasgow & Clyde were conducting an audit of Community Pharmacists and agreed to ask their researchers to complete the SOAR questionnaires at the same time. This resulted in a good response. In Lothian, the Local Contact arranged a postal reminder to maximise the response from pharmacists.

13. Mapping as described above was not conducted in Fife since the Public Health department had commissioned an obesity strategy in 2005 that included a full mapping. The Fife mapping report is available on the ScotPHN SOAR web pages (http://www.healthscotland/scotphn).
14. The mapping data from the other thirteen areas were entered into individual Excel spreadsheets. Data were displayed as text and checklists, while a number of local stakeholders provided interesting examples of good practice. Nutrition Communications evaluated the data as a whole and created a brief report for each geographical area. These are available on the ScotPHN SOAR web pages and a summary of each is given in Annex 1 of this report.
15. The individual reports contained 'Suggestions for the Future' to support future local action. These were created by putting existing obesity actions in context with published evidence about obesity prevention and treatment. Where evidence was lacking, e.g. on the role of the workplace in obesity prevention, a common sense approach was taken to suggest ideas that could maximise opportunities for healthy eating and active living.
16. Results from the Primary Care and Community Pharmacist questionnaires were added to the individual NHS Board reports but were also collated to create Scotland-wide reports. These, too, are available on the ScotPHN SOAR web pages. Low response rates hindered analysis within some areas and prevented comparisons between NHS Board geographical areas.

Regional workshops

Three regional workshops were held to disseminate the initial findings of the SOAR project. Attendance was free and was offered to a wide variety of individuals and organisations. The structure of the event involved a presentation on the mapping data and break-out groups. Comments made by members of the break-out groups were noted by the workshop organisers and were taken into account during the writing of this report, particular when making recommendations. A summary of these comments is provided in Appendix 7.

Preparation of reports

The overall and individual reports were written by Nutrition Communications. The individual reports were peer reviewed by the relevant Local Contact and

at least one Project Working Group member. The overall report was reviewed by Local Contacts and the Project Working Group members.

Creation of web resource

The SOAR data will be distributed as widely as possible. To that end, it will be hosted on the ScotPHN web pages and linked to a number of existing websites, in the first instance to ScotPHO. The intention of the project is that ScotPHN would provide a snapshot of current obesity activity. NHS Boards may wish to take ownership of their data and build on the work created by the SOAR project e.g. by using their map to develop a local obesity strategy, identify good practice, identify gaps or initiatives requiring evaluation and/or roll out or new initiatives that could be piloted.

Obesity in Scotland

Definition

Obesity is a term used to describe an excess accumulation of body fat. Obesity is not a disease in its own right but a warning sign that the risk of disease has increased. This is why it is important for both adults and children to keep body weight within healthy limits. The limits of a healthy weight are quite broad. While it is good to be the correct weight for height, overweight people can benefit from even modest weight losses, if these are sustained.

Obesity is assessed in a number of ways, e.g.:

- Weight or weight for height
- Body mass index (BMI)
- Waist circumference (WC)
- Waist to hip ratio (WHR)
- Percentage body fat

$$\text{BMI} = \frac{\text{body weight (Kg)}}{(\text{height (m)})^2}$$

A BMI of >30 kg/m^2 is considered 'obese'. BMI levels between 25 and 30 are considered `overweight' while BMI over 40 is considered `morbidly obese'.

The higher the BMI, the greater the risk of disease or ill-health.

$$\text{WHR} = \frac{\text{Waist girth (m)}}{\text{Hip girth (m)}}$$

There seems to be no consensus on waist-to-hip ratio, but in the UK a ratio of ≥0.95 is seen as a health risk for men and ≥0.85 as a health risk for women.

Obesity in children is measured by comparing BMI with age- and sex-specific centile charts. Cut-offs help identify whether or not a child is overweight or obese. The Scottish Child Health Surveillance Programme (CHSP) uses the following cut-offs:

- BMI between the 85th and 95th centiles is *overweight*
- BMI between 95th and 98th centiles is *obese*
- BMI over the 98th centile is *severely obese.*

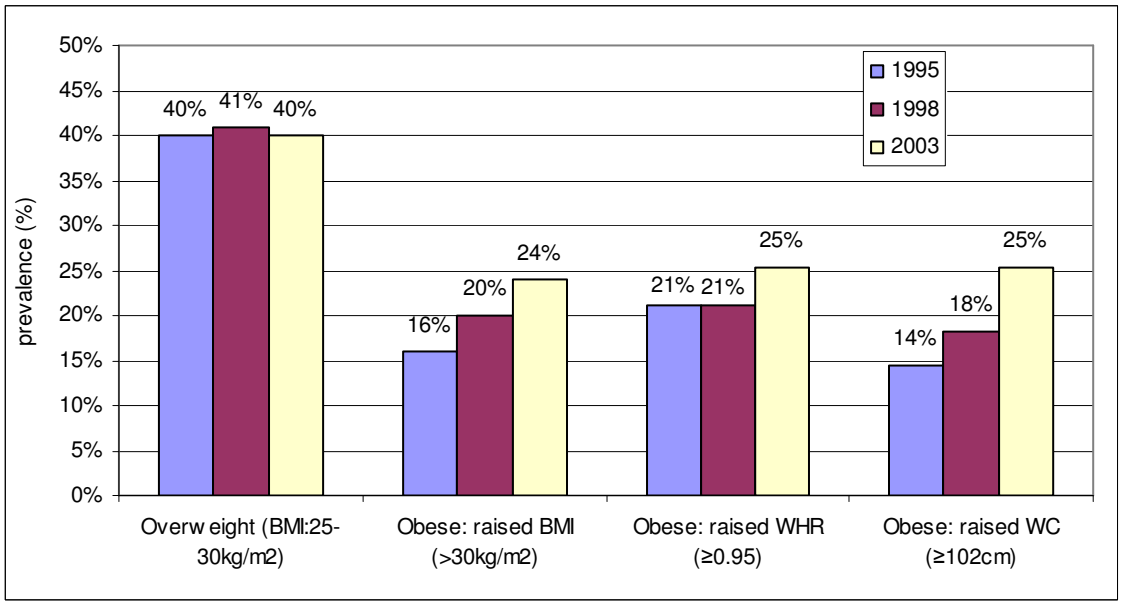
Recommendations for treating childhood obesity have been published by the Scottish Intercollegiate Guidelines Network (SIGN)[2]. This expert group recommended that children should be referred for weight management treatment when their BMI reaches the 98th centile. These guidelines are currently under review.

Prevalence

Most adults in Scotland are now overweight or obese, and the proportion of adults and children affected by obesity continues to rise. This section has been compiled from the comprehensive ScotPHO report "Obesity in Scotland: An epidemiological briefing", which is available on the ScotPHO website[3].

Data on obesity trends in a representative sample of adults aged 16 to 64 years are available from the Scottish Health Survey (SHS), which was published in 1995, 1998 and 2003. While the proportion of people classified as overweight (BMI 25-30 kg/m^2) has remained constant at around 40% since 1995, the prevalence of obesity (BMI>30 kg/m^2) rose from 16% to 24% in the 8-year period between 1995 and 2003. Figures 1 and 2 present these data, plus data on WHR and WC.

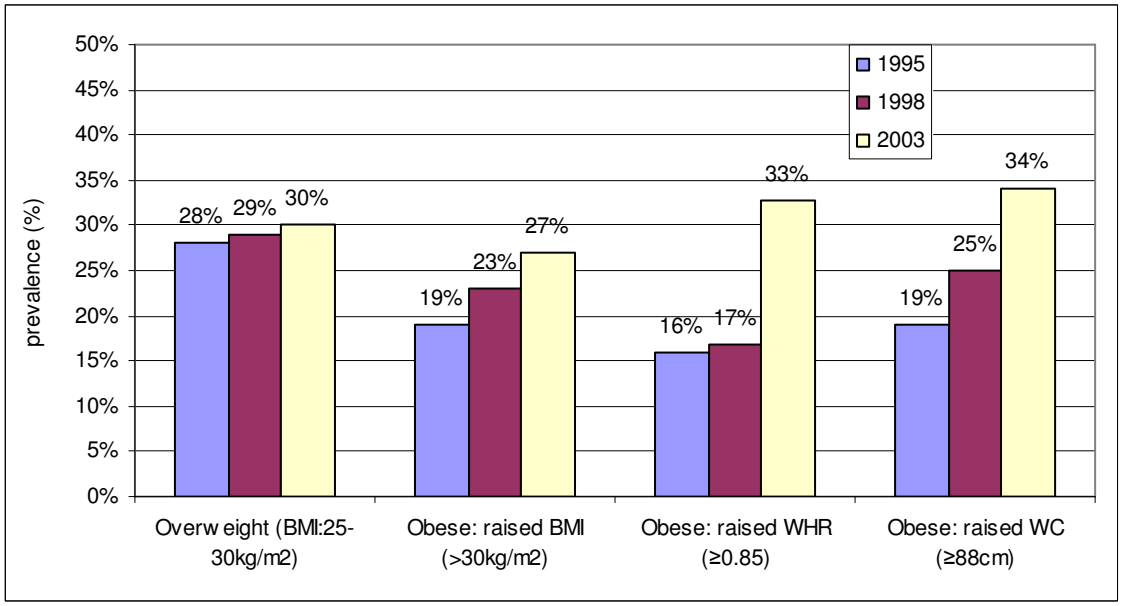
Figure 1: Prevalence of overweight and obesity in men aged 16-64 years



Scottish Health Surveys 1995, 1998, 2003

[2] Scottish Intercollegiate Guidelines Network (SIGN) (2003). *Management of obesity in children and young people: a national clinical guideline*. Edinburgh: SIGN. (Number 69).
[3] www.scotpho.org.uk

Figure 2: Prevalence of overweight and obesity in women aged 16-64 years



Scottish Health Surveys 1995, 1998, 2003

Geographical variation

The prevalence of obesity, whether measured by BMI or WC, varies between areas as demonstrated by the SHS. As Figure 3 compiled from the 2003 Scottish Health Survey shows, men living in Dumfries & Galloway and the Scottish Islands tended to be more overweight or obese than the national average. Figure 4 shows that women living in Lanarkshire tended to be more overweight or obese than the national average. It should be noted, however, that the sample sizes for each NHS Board were small and, thus, cannot be considered to be fully representative. However, confidence intervals are provided to take this into account. It is also worth noting that the Scottish Health Survey combined data for the Scottish Islands for statistical purposes, even though it is believed that obesity prevalence varies considerably across these areas.

Figure 3: Percentage of overweight or obese men by NHS Board

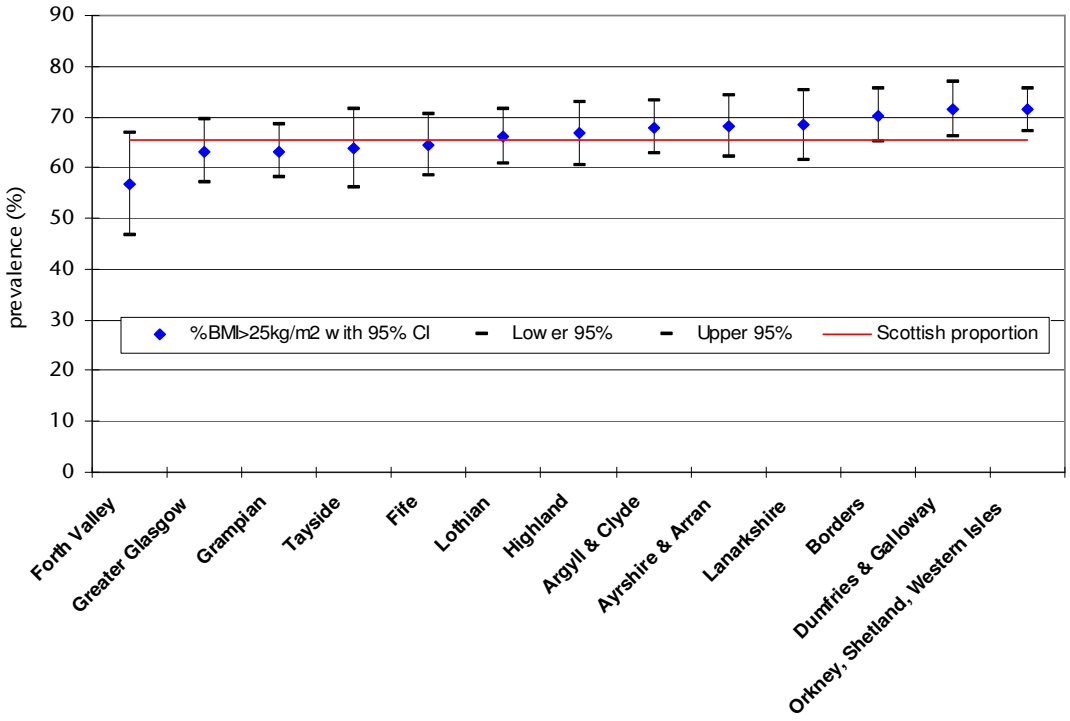
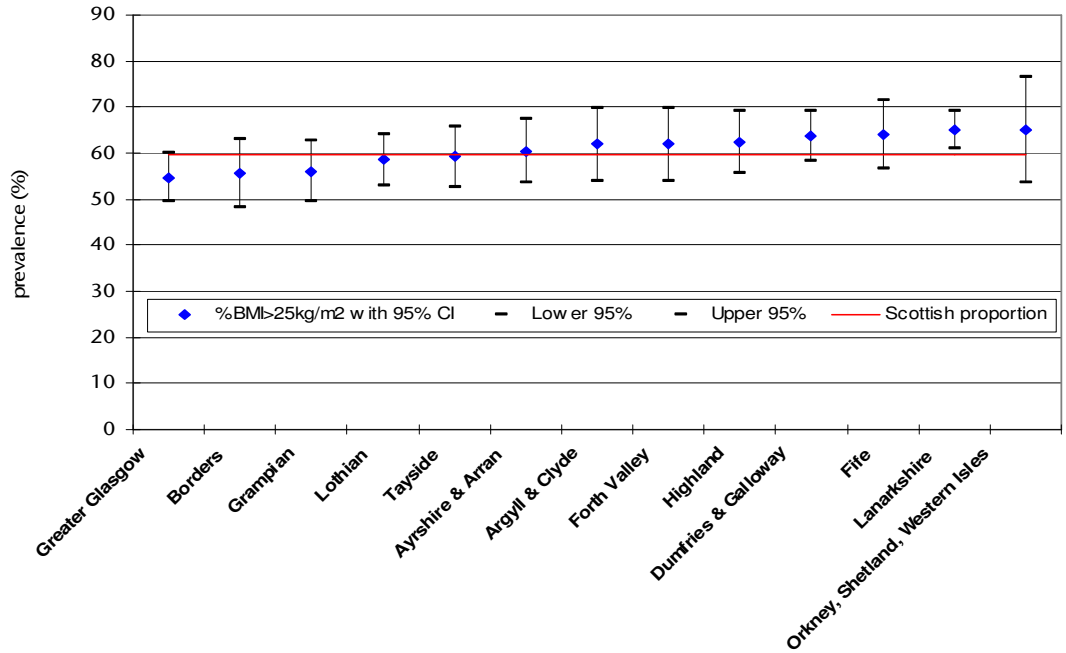


Figure 4: Percentage of overweight or obese women by NHS Board



Obesity and age

Obesity increases with age, whether classified by BMI, WC or WHR. Obesity prevalence, as measured by BMI, peaks in women around 65 to 74 years, and in men around 55 to 64 years before dropping off. The lower prevalence seen in older age groups may be partly due to a selection effect as obese people are known to have higher mortality rates.

The prevalence of obesity (BMI>30 kg/m^2) in both men and women in all age groups has been increasing over the last 10 years. As Figures 5 and 6 from the Scottish Health Surveys 1995-2003 show, men aged 55 to 65 years have seen a marked increase while, among women, the most notable increases have been seen in those aged under 45 years.

Figure 5: Trends in obesity in men by age group

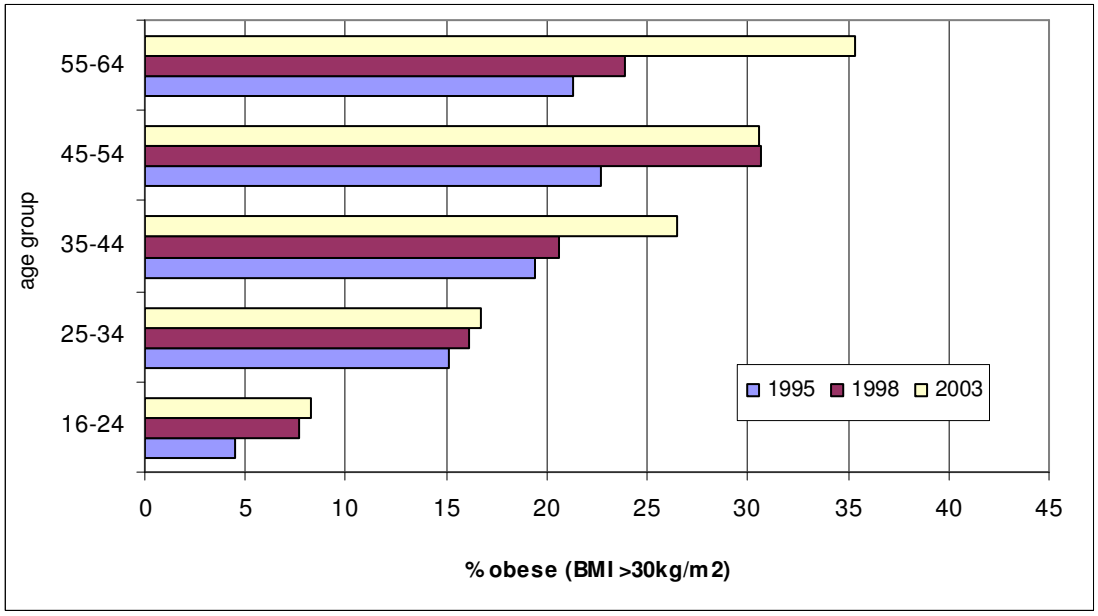
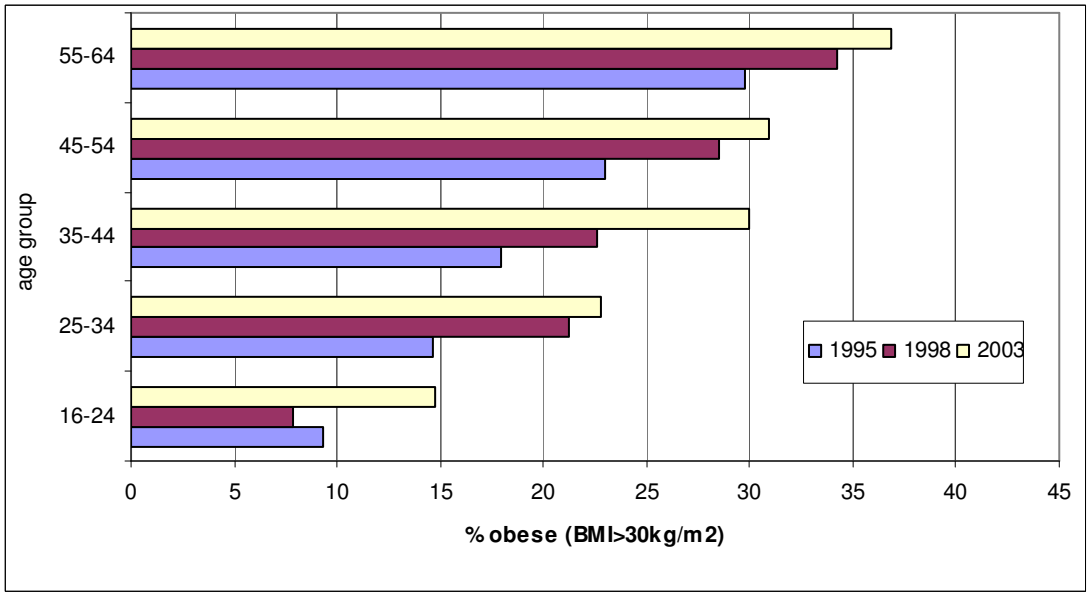


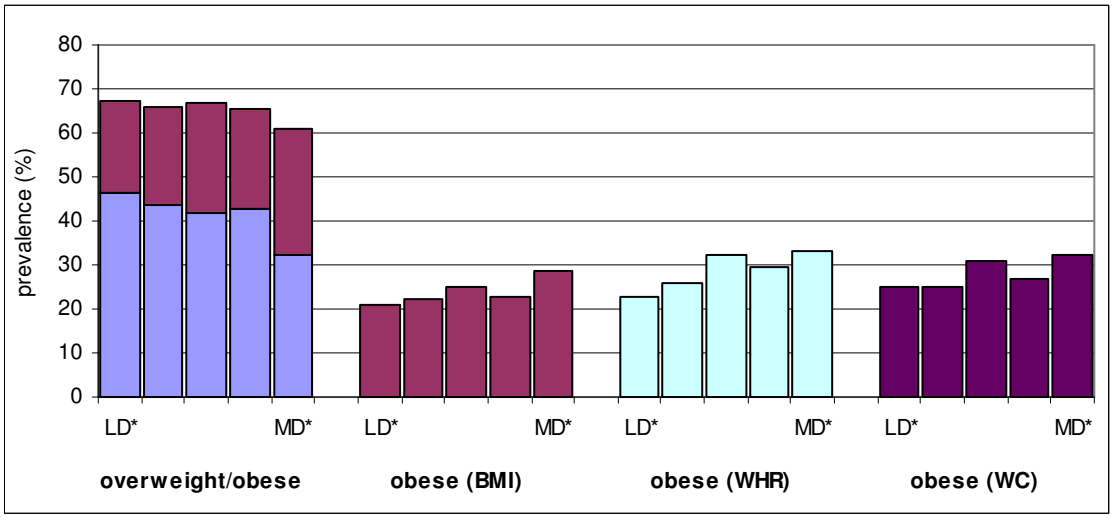
Figure 6: Trends in obesity in women by age group



Obesity and Deprivation

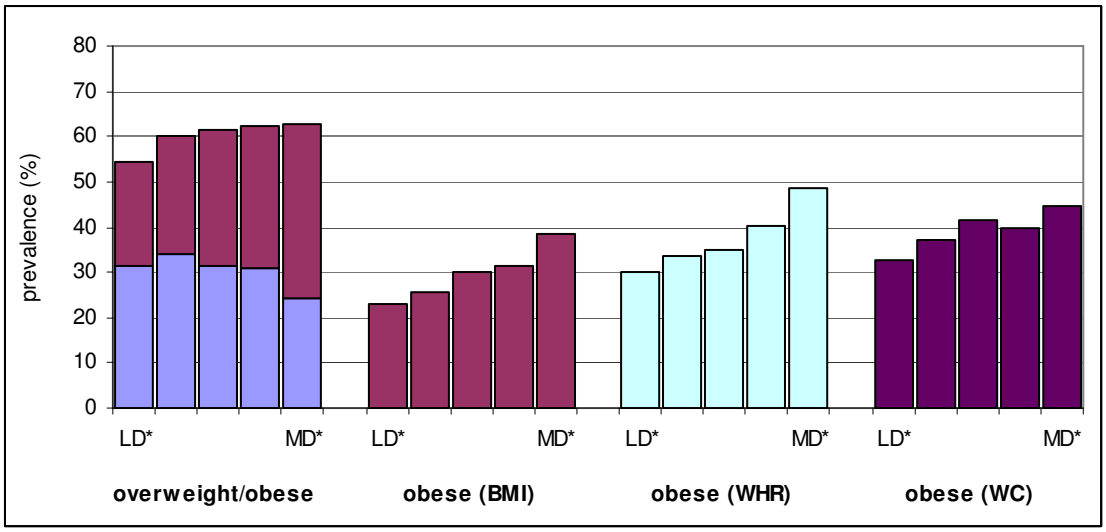
The SHS also provides information on the prevalence of obesity by socioeconomic status, using the Scottish Index of Multiple Deprivation (SIMD), an area-based measure of social deprivation. For BMI and WC, there tends to be an increasing prevalence with increasing deprivation, though the relationship with deprivation is generally stronger in women than in men (see Figures 7 and 8).

Figure 7: Prevalence of obesity in men, by SIMD



Scottish Health Survey 2003

Figure 7: Prevalence of obesity in women, by SIMD



* LD (least deprived quintile), MD (most deprived quintile)

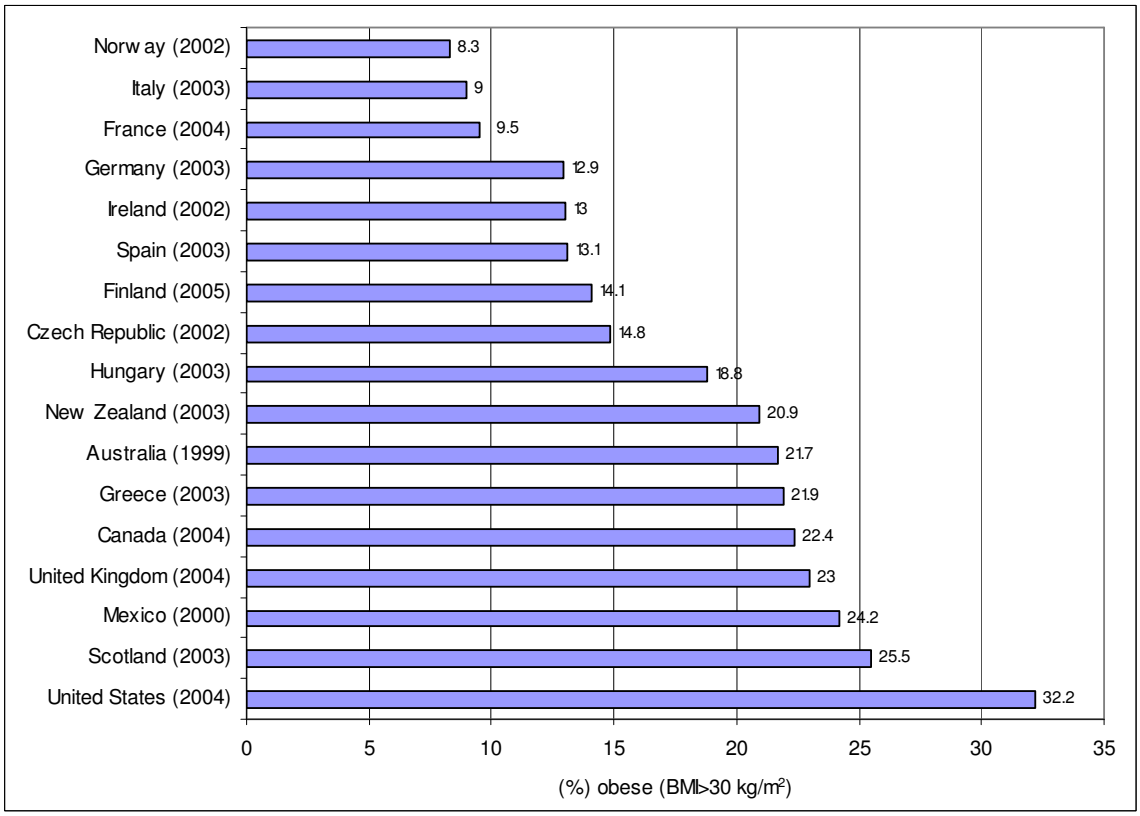
Scottish Health Survey 2003

Comparisons with other countries

Obesity prevalence data from other nations are available. A comparison between the SHS and the Health Survey for England (HSE) shows that Scottish and English men have a similar prevalence of obesity (BMI>30kg/m^2) at 24% and 23.2% respectively. However, Scottish women are more likely to be obese than English women ((29.4% and 25.9% respectively).

The prevalence of obesity in OECD (Organisation for Economic Co-operation and Development) countries varies from one in eight of the adult population in Germany to just under one in three of the adult population in the United States. In Scotland, the prevalence of obesity among adults, 25.5% in 2003, is well above the OECD average. As Figure 8 shows, Scotland has one of the highest obesity rates in the OECD region, although prevalence remains lower than in the USA.

Figure 7: Prevalence of obesity in the OECD region[4]



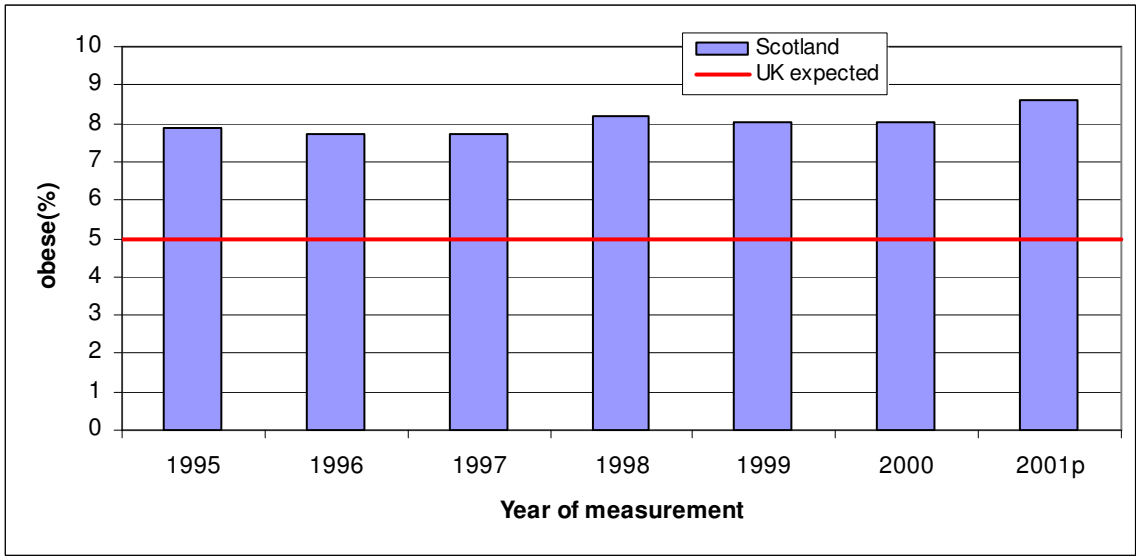
Obesity in children

The increase in obesity prevalence among children is not a particularly recent phenomenon as rising obesity rates have been observed in children of various ages since the 1960s or 1970s. However, data from the 2003 Scottish Health

[4] Organisation for Economic Co-operation and Development Health Data 2006. Available at URL: http://www.oecd.org/document/30/0,2340,en.html

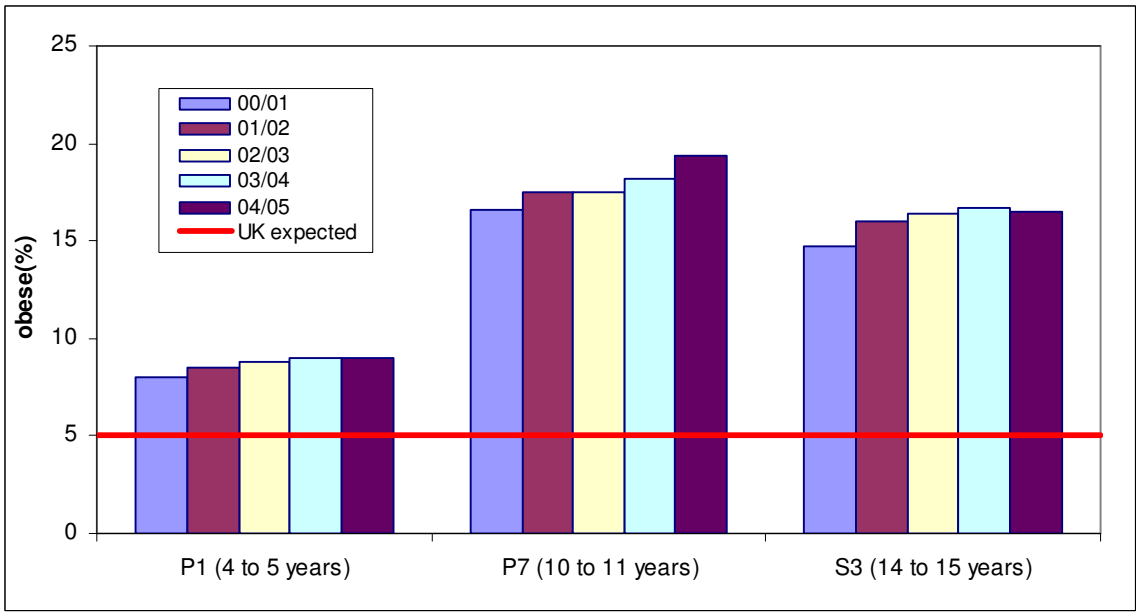
Survey suggest that these trends have continued amongst boys aged 2-15 years, though not amongst girls.
Data from the Child Health Surveillance Programme (CHSP) showed a rising prevalence of obesity among school age children between 2000 and 2004. At all ages, more children were obese than the 5% expected from the UK reference growth standard as Figures 8 and 9 demonstrate.

Figure 8: Percentage of pre-school aged children (average age 3.5 years) estimated to be obese (BMI>=95th centile for age and sex)



Child Health Surveillance Programme

Figure 8: Percentage of school aged children estimated to be obese (BMI>=95th centile for age and sex)



Child Health Surveillance Programme

Children in Primary 7 had the highest levels of obesity, with almost 20% estimated to be obese. There was also some evidence of a relationship between area deprivation and obesity. The 2003 Scottish Health Survey found that for boys and girls, the prevalence of obesity was significantly associated with deprivation, though it did not follow any simple pattern.

Aetiology and risk factors

Body fat stores develop when energy intake (calories) becomes greater than the energy needed for daily living and exercise. This sounds simple, yet there are many reasons for this.

Energy in

Factors that may *increase energy intake* include:

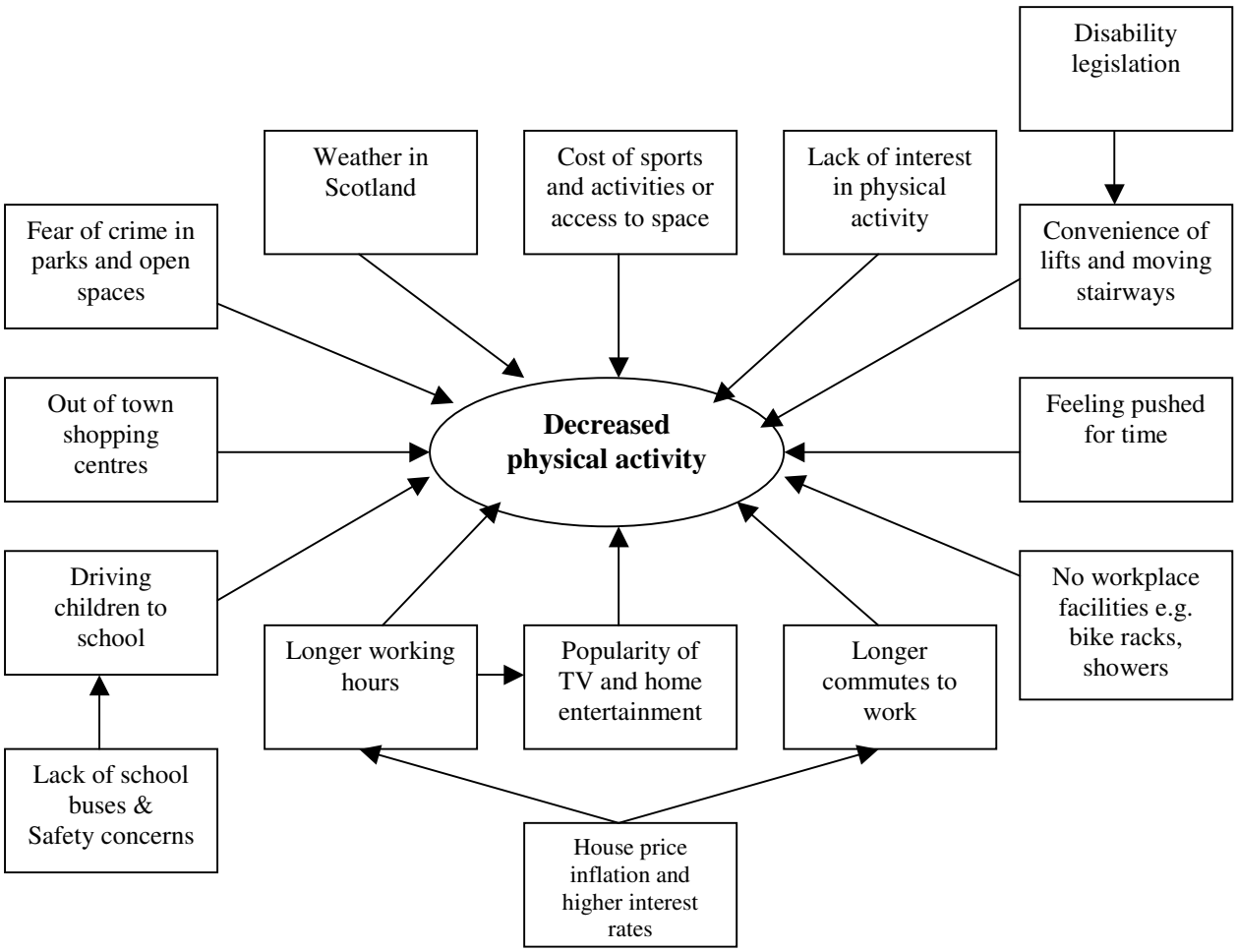
- The low cost of food compared with average incomes.
- The availability of food and drink 24-hours a day.
- Advertising and marketing, e.g. Buy-one-get-one-free (BOGOF).
- Bigger portion sizes of high-energy dense foods, e.g. 10% bigger ready meals or snacks.
- Energy dense meals and snacks (lots of calories in a small portion).
- Preferences for high fat, high sugar foods and drinks which are often high in calories.
- Regular alcohol consumption, especially binge drinking.
- Reliance on takeaway, restaurant and convenience meals that tend to be more energy dense and are in larger portions compared with home-cooked food.
- Lack of healthy options in workplaces, convenience stores, garages, cinemas and other public places.
- People not recognising when they are full.
- Food abuse e.g. binging, secret eating.
- People frequently rewarding themselves or their family with high fat, high calorie treats.
- Bottle-feeding babies and early weaning.

Energy out

Food calories are burnt off through physical activity. This can include walking, using the stairs, gardening, housework, active play, yoga, weights, running and sport.

Factors that may *decrease* physical activity are complex and interlinked. Many of them relate to the way modern lives are organised and how people choose to spend their free time. Figure 9 summarises this:

Figure 9: Factors that may decrease physical activity[5]



It is worth noting that the average adult watches more than four hours of television each day, while the average child watches nearly three hours. Even a small reduction in television viewing or home computer use with the time diverted to more active pursuits would have a worthwhile impact on health and well-being. The Scottish Government recommends that adults take at least 30 minutes of moderate activity on most days of the week. The recommendation for young people is to accumulate at least 60 minutes of moderate physical activity on most days of the week. On at least two of these days, activities that enhance muscular strength, flexibility and bone health should be chosen.

[5] Re-produced from the Fife Healthy Weight Strategy (2006)

Cost of doing nothing

Obesity increases the risk of disease and ill-health. People with a BMI in the *obese* or *morbidly obese* ranges are at greater risk than people with a BMI in the acceptable or overweight range. Overweight and obese people who are mainly sedentary are at greater risk of ill-health than overweight and obese people who are physical active on most days of the week. Research shows a combination of obesity and inactivity is particularly risky. Conditions (co-morbidities) linked to obesity include:

- High blood pressure
- Heart disease
- Stroke
- Type 2 diabetes
- Osteo-arthritis
- Infertility
- Gall bladder disease
- Breathing problems during sleep (sleep apnoea)
- Breast and colo-rectal cancer.

As Table 1 shows, the relative risk of developing certain chronic diseases increases significantly when BMI exceeds 30, particularly in women. Treating Type 2 diabetes alone accounts for around 4% of the Scottish NHS budget. (These figures are based on data from 2001[6], and may not reflect the current status.)

Table 1: Estimated increase in risk of various diseases in obese people[6]

Disease	Relative risk in women	Relative risk in men
Type 2 Diabetes	12.7	5.2
Hypertension	4.2	2.6
Myocardial infarction	3.2	1.5
Colon cancer	2.7	3.0
Angina	1.8	1.8
Gall bladder diseases	1.8	1.8
Ovarian cancer	1.7	-
Osteoarthritis	1.4	1.9
Stroke	1.3	1.3

In the past, health risks associated with obesity were mostly seen in adults. However, now that obesity is affecting people of all ages, conditions such as

[6] National Audit Office (2001). Tackling Obesity in England. Report by the Comptroller and Auditor General. London: The Stationery Office.

Type 2 diabetes, asthma and breathing problems are being diagnosed in Scottish children[7].
Apart from the direct health risks, obesity leads to wider consequences. These can include:

- Low self-esteem and depression
- Negative attitudes about obese people which can influence how they are treated by work colleagues, health professionals, service providers and the public
- Work days lost due to obesity-related illnesses
- The cost of treating obesity-related illnesses – this was reported to be more than £170 million a year in 2003, and is likely to be more in 2007. Only a tiny proportion of the cost was spent treating obesity itself[8].

Summary

- Around a quarter of adults are obese (BMI>30kg/m^2), particularly those aged 55 to 74 years
- Obesity is more common in some geographical areas than others
- Obesity is increasing, particularly in women aged under 45 years
- 10% to 20% of children are obese (BMI>95th centile), with the highest prevalence seen in Primary 7 children
- Obesity rates seem to be highest in areas of deprivation
- Obesity is caused by a chronic imbalance between energy intake and energy expenditure. A range of social and environmental factors influences energy intake and participation in regular physical activity
- Doing nothing is not an option as obesity increases the risk of chronic disease and can impact adversely on physical and mental well-being.

[7] Reilly JJ et al (2003). Health consequences of obesity. *Archives of Disease in Childhood*, 88:748–752.
[8] Walker A (2003). The cost of doing nothing – the economics of obesity in Scotland. National Obesity Forum.

Obesity prevention and treatment

As with any other condition, the prevention and treatment of obesity should be evidence-based. However, while evidence certainly exists for some interventions, e.g. drug treatment and types of weight management diets, data on other interventions are lacking, e.g. workplace slimming groups.

Some key documents have been published that give comprehensive overviews of the available evidence underpinning obesity prevention and treatment. These include the 2006 NICE review[9] and the related 2007 NHS Health Scotland commentary[10], a review on obesity interventions by the Health Development Council[11], Cochrane reviews on obesity prevention[12] and treatment in children[13], the comprehensive review by Avenell et al (2004)[14], and the SIGN guidelines for treating childhood obesity[15]. The Tayside Healthy Weight Strategy contains a useful overview of many of the above[16].

Prevention

The available evidence, as indicated above, suggests a range of obesity actions to address prevention. These include:

- Community-based education linked with financial incentives. These may be effective in preventing overweight in adults, although more research is needed.
- Community-based interventions that involve other family members and incorporate direct contact with food. These seem to be particularly effective in inducing dietary change in adults.

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[9] National Institute for Health and Clinical Excellence (NICE)(2006). Obesity: guidance on the prevention, identification, assessment and management of overweight and obesity in adults and children. NICE clinical guidelines 43. London: NICE. Available at URL: http://www.nice.org.uk/guidance/CG43

[10] Tanahill A (2007). Commentary on NICE Clinical Guideline (Public Health Aspects). NHS Health Scotland.

[11] Mulvihill C. and Quigley R (2003). The management of obesity and overweight: an analysis of reviews of diet, physical activity and behavioural approaches. London: Health Development Agency.

[12] Summerbell CD, Waters E, Edmunds LD, Kelly S, Brown T, Campbell KJ (2005). Interventions for preventing obesity in children. Cochrane Database of Systematic Reviews 2005, Issue 3. Art. No.: CD001871.

[13] Summerbell CD, Kelly S, Waters E, Edmunds L, Ashton V, Campbell K (2003). Interventions for treating obesity in children. Cochrane Database of Systematic Reviews Issue 3. Art. No.: CD001872.

[14] Avenell A, Broom J, Brown TJ, Poobalan A, Aucott L, Stearns SC, Smith WC, Jung RT, Campbell MK, Grant AM (2004). Systematic review of the long-term effects and economic consequences of treatments for obesity and implications for health improvement. Health Technology Assessments, 8(21), iii-iv, 1-182.

[15] SIGN (2003). Management of obesity in children and young people. Guideline 69. Edinburgh: SIGN.

[16] Tayside Healthy Weight Strategy (2005). Available from http://www.thpc.scot.nhs.uk/PDFs/NHS%20Tayside%20Healthy%20Weight%20Strategy%202005.pdf

- Setting healthy eating and physical activity interventions within workplaces, although additional evidence is still needed.
- Encouraging breast-feeding in the first 6 months. This can help reduce the risk of obesity in mothers and their babies. Weaning prior to 6 months of age should be discouraged.
- Targeting children using a multi-faceted programme to increase physical activity, reduce the time spent in sedentary pursuits, increase participation in active travel to school, and encourage adherence to a healthy diet (as per Government guidelines).
- Setting healthy eating interventions within schools or communities, and encouraging family involvement and direct interactions with food.
- Taking a whole-school approach towards increasing physical activity levels in children, and involving pupils in making positive changes to the school environment.

National evidence-based prevention programmes to improve diet and promote physical activity are already running in Scotland, e.g. Hungry for Success, Active Schools, Scottish Healthy Working Lives.

Treatment

There is also published evidence to support the use of a range of obesity treatments. These include:

- Low-fat and reduced calorie diets. These can lead to weight loss in overweight people, though comparisons between the two are inconclusive. Modest energy restriction, i.e. 600 kilocalories per day less than habitual intakes, has been recommended by some influential organisations.
- Increasing physical activity. Although this has only a limited impact on weight when given in isolation, it can assist with disease risk reduction. Exercise on referral has been found to be effective but attrition rates can be high. Barriers to physical activity should be taken into account when planning exercise promotion.
- Combining diet, exercise and behavioural strategies. This appears to be more effective than delivering the components in isolation. Structured interventions that include regular attendance or telephone/email contact with patients appear to be the most successful.
- Offering anti-obesity drugs to patients meeting defined criteria[17]. Orlistat and Sibutramine are currently licensed for use in the UK. NICE recommends that, when drug treatment is prescribed, arrangements

[17] See NICE (2006). Obesity: guidance on the prevention, identification, assessment and management of overweight and obesity in adults and children. NICE clinical guidelines 43. London: NICE.

should be made for healthcare professionals to offer information, support and counselling on diet, physical activity and behavioural strategies.

- Offering bariatric surgery to patients meeting defined clinical and psychological criteria[16]. Regular, specialist postoperative dietetic monitoring should be provided according to NICE.
- Recommending or endorsing commercial or community weight management programmes, according to NICE, where such programmes follow best practice.
- Interventions that include training for health professionals, reminders to GPs to give evidence-based messages around diet and physical activity, and specialist clinics for morbidly obese patients.
- Addressing obesity in children by reducing sedentary behaviours, promoting physical activity and introducing dietary changes. Family-centred programmes are the most effective, although there is evidence that girls can benefit from school-centred programmes.

National evidence-based treatment programmes are already running in certain parts of Scotland, e.g. Prevention 2010 (Keep Well) which includes the weight management programme, Counterweight[18]. Following a series of pilots around Scotland and a major evaluation, Counterweight may be extended more widely in Scotland.

Summary

- While the evidence base is far from complete, there is enough to conclude that increasing physical activity, reducing sedentary behaviour and encouraging the consumption of healthy diets are likely to help prevent obesity in adults and children.
- It is also clear that modest, prolonged energy restriction combined with structured physical activity and supported by behavioural change is an effective core strategy for treating obesity on an individual level.
- Regular patient contact is better than isolated delivery of messages.
- The involvement of the family is crucial to weight management in children.
- NICE (2006) and the associated NHS Health Scotland commentary are useful resources when planning obesity prevention and treatment.

[18] The Counterweight project team (2004). A new evidence-based model for weight management in primary care: the Counterweight Programme. Journal of Human Nutrition & Dietetics, 17, 191-208.

Individual mapping reports

Background to reports

The ScotPHN requested a report on each geographical area's obesity action map. It is worth pointing out that the map extended well beyond the NHS and included many services and initiatives provided by Local Authorities which, nowadays, have a major role in health promotion.

The ScotPHN also requested that the reports comment on actions taken so far and make 'Suggestions for the Future' to help guide future actions on obesity prevention and treatment. However, the lack of 'gold standards' against which to compare obesity actions hampered the reporting process. While the 2006 NICE guidelines and the NHS Health Scotland commentary on aspects of prevention are available, these documents do not cover all of the obesity actions taking place across Scotland. Thus, it was agreed to base the 'Suggestions for the Future' on a combination of published evidence and common sense opinion on the type of actions likely to promote active living and healthy eating.

The objectives of the individual area reports were as follows:

- To identify good practice
- To comment on the variety, scope and geographical reach of initiatives/services likely to address obesity assessment, monitoring, prevention and treatment
- To identify potential gaps in the provision of initiatives/services
- To suggest how the public sector could improve or build upon existing work to address the obesogenic environment.

The individual area reports are presented in Annex 1. It should be noted that a lack of implementation for specific obesity actions should not be interpreted as failure since the populations in different areas have different needs. For example, lack of an active travel policy may be because the workplace or school is in a rural area and public transport is not available. Or lack of a vending policy could reflect the situation that no vending machines are in operation. Where possible, these provisos are recorded in the comments section of the individual reports.

Additional information

Child Health Surveillance Programme (CHSP) participation

The following NHS Boards have submitted data to the CHSP for pre-school children:

Argyll & Clyde, Ayrshire & Arran, Borders, Dumfries & Galloway, Fife, Forth Valley, Greater Glasgow, Lanarkshire, Lothian, Shetland and Tayside have submitted data on BMI to the CHSP for pre-school children.

The following NHS Boards have submitted data to the CHSP for school children:

Argyll & Clyde (partial), Borders, Dumfries & Galloway, Fife, Forth Valley, Grampian, Lanarkshire, Tayside, Lothian and Western Isles.

More details are given in Appendix 8.

General Medical Services (GMS) contract

The GMS contract governs the provision of primary care services in the UK. Under the contract, primary care service provision is measured against a Quality and Outcomes Framework (QoF) and points, up to a maximum of 1000 are given for services that meet QoF targets. Points translate into income for the Practice. In April 2006, the GMS contract awarded 8 points to those GP practices creating a register of patients aged over 16 years with a BMI greater than or equal to 30. The data had to be recorded within a 15-month period. The ISD website records that "*.. there are no directly comparable statistics available for previous years. The QMAS system reports a national prevalence of Obesity as at 14th February 2007 of 7.0%. This appears lower than figures published from other sources due to data recording*"[19].

GP practices are also awarded 3 points for recording BMI in the notes of patients with diabetes.

Advice given by Managed Clinical Networks (MCNs)

MCNs provide guidance and best practice on the management of certain clinical conditions. In Scotland, three MCNs, those for diabetes, stroke and coronary heart disease, were considered to have a potential impact on obesity prevention and treatment. These were surveyed to assess how routine advice on obesity management was viewed. The results are given in Appendix 9.

[19] ISD Website, Quality and Outcomes Framework, 2007, Available at URL - http://www.isdscotland.org/isd/4897.html#Obesity

Scotland's Health at Work (SHAW) awards

Now replaced by Scottish Healthy Working Lives (SHWL), the SHAW programme recognised workplaces that implemented health-promoting policies. Depending upon the level of award, i.e. bronze, silver or gold, these included policies to promote healthy eating, weight management and physical activity. Data from January 2007 given in Appendix 10 show the number of SHAW awards achieved by the various areas.

Summary of actions for all areas

Background to summary

The Project Working Group took the view that a 'Summary of Actions' should be provided by geographical areas covered by NHS Boards. These actions were of all prevention and treatment undertaken and would be grouped under topics instead of being considered individually.

It was agreed to summarise obesity actions for all the areas using the following method:

- Using the mapping questionnaire, calculate the total number of potential obesity actions under 6 topics: Assessment/monitoring, Schools/early years, School physical activity/leisure services, Other community/deprivation, Workplace and Treatment (see Appendix 6 for an excerpt of the mapping questionnaire).
- Calculate the number of obesity actions in place or in progress for each area. Express these figures as a percentage of the total for each topic [20].
- Create a chart for each topic in order to provide a visual representation of the volume of obesity actions per area. Examples of the type of actions summarised under each topic are given at the bottom of the charts.

The summary findings are presented in Appendix 11. The limitations of the above method are acknowledged, i.e. that all obesity actions are given equal weighting for the purposes of this project, and the scope, reach and effectiveness of the actions are not taken into account. However, given the lack of evidence on the effectiveness of individual actions, it was fairer to group all related actions together. The grouping method also showed that areas were achieving a considerable amount under the various topics, even though different actions were being pursued. For example, under Workplace, some areas were putting a lot of effort into increasing opportunities for physical activity in the workplace, while others were focussed on offering healthy eating options. Both of these types of actions would be expected to impact positively on obesity risk in the workplace. It is also acknowledged that the information is more complete in some places compared with others and that NHS Board geographical areas are at different stages in the development of actions to tackle obesity.

[20] Where there was more than one council, a mean was taken. Missing or inadequate data were identified

Primary Care survey results

Individual response rates from GP practices varied widely, with three areas falling below the 40% cut-off agreed by the Project Working Group as a reasonable response. The table below presents the response rates.

NHS Board	No. of practices	Replies	%
Ayrshire & Arran	59	39	66.1
Borders	24	17	70.8
Dumfries & Galloway	35	14	40.0
Fife	58	29	50.0
Forth Valley	58	36	62.1
Grampian	84	23	27.4
Greater Glasgow & Clyde	274	130	47.5
Highland	103	38	36.9
Lanarkshire	99	37	37.4
Lothian	129	68	52.7
Orkney	15	7	46.7
Shetland	10	5	50.0
Tayside	71	29	40.8
Western Isles	14	14	100.0
Scotland-wide	**1033**	**486**	**47.0**

National picture

The overall response rate was an acceptable 47% (n=486) and the results are presented in Appendix 12. The national picture suggested that GP practices are addressing the challenge of obesity. Key findings were that:

- General practices covering both rural and urban areas were represented, and more than half reported employing 2 to 5 GPs.
- 65% of practices said their overweight/obese patients could access Exercise on Referral locally.
- Few general practices ran slimming groups but, if these were in place, they tended to be run by a health professional other than a dietitian.
- 82% of practices offered one-to-one weight management advice. A similar proportion was willing to refer obese patients to the hospital dietetic service, while 29% referred patients to a consultant-led service.
- 82% of practices advised patients to use commercial slimming groups, while 56% advised the use of public sector slimming groups.

- 90% were willing to prescribe anti-obesity medication to appropriate patients, although 10% of these said they did not routinely offer a complementary lifestyle programme (in contrast to NICE guidance which recommends that drugs are most effective when prescribed alongside a lifestyle programme).
- Turning to which referral criteria were used to identify suitable patients for weight management services, 26% of general practices claimed not to use any referral criteria at all. A similar proportion used a combination of BMI and one or more co-morbidities, while 40% used BMI alone.
- When asked which BMI cut-offs were used, 58% of those responding reported BMI>30, while 18% reported BMI>25. Around 16% used a higher cut-off, thus restricting services to very obese patients.
- Some groups of patients were given weight management advice as part of their routine care. These tended to be people with Type 2 diabetes (100%) or those with cardiovascular-related conditions (96%). However, other groups of patients were also given such advice, e.g. people with mental health conditions (37%) or physical disabilities (41%), and pregnant women (41%).
- 49 to 70% of general practices said that they did not have access to training on how to assess obesity in adults and children, while 38% said they had no access to training on giving appropriate diet and physical activity advice. This result often conflicted with mapping data which showed that training was indeed available in some areas.
- Less than 10% of practices said they had no access to patient leaflets suitable for adult obesity. The corresponding figure for child obesity was 58%. Again, some areas reported providing a range of weight management literature free of charge to primary care.

Local picture

The low response rate in some areas hindered comparisons. However, to summarise the GP practice data across all areas, the results from certain questions were expressed as Excel charts. These are presented in Appendix 13. Some interesting trends arising from these charts were that:

- The proportion of practices wiling to offer anti-obesity drug treatment ranged from 58.8% to 100%.
- A number of practices appeared to be unclear about the need to link anti-obesity drug treatment with a lifestyle programme. This could reflect a training need, or it may be that the respondent was not involved in prescribing anti-obesity drugs (practices were asked to have the questionnaire completed by a member of staff who regularly worked with overweight or obese patients).
- Access to Exercise on Referral (EOR) varied considerably from 14% to 95%. Again, in some areas, these results conflicted with the mapping

data which showed that EOR was available. This could reflect a lack of awareness in primary care about how to arrange EOR access, or that EOR was only available in specific localities.

- Comparisons across the NHS Boards for obesity referral criteria demonstrated the wide variety used by practices. In a few areas, most practices reported using no criteria at all while, in the others, BMI alone was the most popular referral criteria.
- It was a similar varied pattern for the BMI cut-offs used by general practices. Most used BMI>30, although 5 to 50% of practices in 9 areas were restricting weight management services to patients with a BMI in excess of 35. This is at odds with NICE criteria which suggest that all patients with a BMI>25 should get at least some advice.

Community Pharmacist survey results

The table below shows the individual response rates, which were very low in some areas.

NHS Board	No. of pharmacies	Replies	%
Ayrshire & Arran	93	13	14.0
Borders	25	13	52.0
Dumfries & Galloway	32	19	59.4
Fife	76	66	86.8
Forth Valley	68	10	14.7
Grampian	128	46	35.9
Greater Glasgow & Clyde	360	111	30.8
Highland	70	7	10.0
Lanarkshire	112	13	11.6
Lothian	178	106	59.6
Orkney	3	3	100.0
Shetland	3	3	100.0
Tayside	89	13	14.6
Western Isles	3	2	66.7
Scotland-wide	**1240**	**425**	**34.3**

National picture

The overall response rate was low at 34% (n=425). Responses varied widely from 10% in Highland to 100% in Orkney and Shetland, where pharmacies were few in number and Local Contacts followed up responses by telephone. The low response rates in other areas, e.g. Ayrshire & Arran, Forth Valley, Tayside and Lanarkshire may have been due to pharmacists viewing obesity management as irrelevant to their practice, or that the method of communication was inconvenient (mainly email/fax). However, without feedback from pharmacists, it is impossible to know. In Lothian, where

pharmacists were sent questionnaires by post and provided with a SAE, the response rate was 60%. A heroic effort by Greater Glasgow & Clyde, which combined face-to-face interviews with faxed surveys generated a sample of size of 111 but, due to the large number of community pharmacists in that area, the response rate unfortunately stayed below the 40% cut-off.

The results are presented in Appendix 14 but key findings were that:

- Community pharmacies covering both rural and urban areas were represented. Over 60% were single-handed.
- 65% of community pharmacies had a private room which, theoretically, could be used for patient consultations.
- Few pharmacists were providing obesity assessment services. Around 20% measured weight or calculated BMI. Fewer measured waist circumference or estimated percentage body fat.
- Half of pharmacists were delivering advice on healthy eating and physical activity to overweight or obese clients. Around 35% were giving advice on low calorie diets, a rather worrying finding when only 20% of pharmacists claimed to have access to appropriate training.
- 34% of pharmacists reviewed patients on anti-obesity drugs, while 29% assessed co-morbidities associated with obesity.
- Only 16% of pharmacists delivered one-to-one consultations, although 7% offered consultations with another member of staff, usually a pharmacy technician.
- Of those providing one-to-one consultations, most said that they had no formal referral criteria in place. Those that did tended to use BMI + co-morbidities with cut-offs at BMI 25 or 30. Few pharmacists answered this question due to the lack of relevance.
- Community pharmacists were active in obesity prevention with 63% offering advice when asked by clients.
- As mentioned already, access to training around obesity treatment was reported to be low. Just under 20% of pharmacists said they could access training on giving advice on diet, nutrition or physical activity, while less than 10% could access training on behavioural change. Only 18% had access to evidence-based literature covering diet and physical activity topics. Clearly, there is a training need given that pharmacists are playing an important role in obesity prevention and may play a greater role in obesity treatment in the future.

Local picture

The low response rate made even a summary of information relatively meaningless. No key findings can be drawn but the summary data are supplied in Appendix 15 for interest.

Suggestions for the future

Comments on results

The mapping data demonstrate the wide array of obesity actions being undertaken. Awareness of the benefits of healthy eating and physical activity appeared to be high with a number of targeted initiatives. It was clear that the national political environment had impacted strongly on local health promotion work. There was plenty of activity across Scotland in relation to school meals and physical activity, most likely because these were funded priorities of the previous Government. There was less activity on adult obesity prevention and on treatment. This could be due to an absence of national targets, training or ring-fenced funding. It could also reflect a lack of evidence on which types of prevention initiatives are most effective for adults. It will be interesting to see how the development of QoF targets around BMI assessment affects the types of obesity services offered by primary care.

As reported in the 'Methods' section, 'Suggestions for the Future' were included in the individual reports. As the choice of these was informed by the mapping data and the primary care/pharmacist surveys, missing data had an impact on the SOAR Project Working Group's ability to make suggestions in some areas, particularly around planning and the workplace. The intention of the 'Suggestions' is simply to flag up areas that could be explored locally as part of strategic action on obesity prevention and treatment. They are not a 'verdict' or an 'audit', since an agreed set of gold standards for obesity action does not exist at present. In addition, as the 'Suggestions' are based on a snap shot of data from 2006/07, it is likely that many areas are already in the process of addressing some of the points mentioned. The 'Suggestions for the Future' are presented at the end of each individual report in Annex 1.

On a nationwide basis, general recommendations were agreed by the Project Working Group and are presented below. These were developed by considering patterns of obesity action and gaps across the fourteen areas and examining policy activity. It was agreed by the ScotPHN that recommendations and commentary be informed solely by the data gathered during the mapping exercise. This means that the recommendations do not cover other social and environmental aspects, e.g. food industry regulation, labelling, food access, that can impact on obesity risk.

Recommendations arising from the SOAR data

<u>Strategic</u>

1. The Scottish Government are currently implementing various policies that impact on obesity. However, there should be a national obesity strategy, which sets out key targets for obesity prevention and treatment, and enables the development of local implementation plans.

2. The strategy should stress evidence-based practice (where available) for adult obesity prevention as the emphasis so far has been on prevention in children.
3. The strategy should include a recommended referral and treatment pathway for primary care, perhaps based on the work of SIGN. This should cover both adult and child obesity and improve access to advice.
4. The strategy should explore the potential role of non-NHS weight management providers in delivering obesity services.
5. A clear national political lead is required to drive forward the necessary changes in direction and to ensure that adequate resources are provided.
6. Additional research funding should be considered to carry out and evaluate obesity interventions.

Prevention

1. The Scottish Government should work with local authorities to explore legal ways to limit school pupil's use of mobile food units, e.g. by restricting trading access around schools or using trading access to promote the use of mobile units that meet criteria based on Hungry for Success. A few local authorities provide useful examples of action that could be more widely disseminated.
2. The Scottish Government should work with local authorities to minimise health and safety barriers to the promotion of workplace physical activity, e.g. barriers affecting provision of pool bicycles, workplace gyms or workplace-endorsed exercise or sport.
3. Local authorities should identify how Planning Departments could contribute more to obesity prevention, e.g. by considering the health implications of planning decisions, especially those that may have an impact on active travel and active living.
4. Public sector workplaces, especially the NHS, should be encouraged to set an example by improving access to healthy food and opportunities to be active within the workplace. NHS Health Scotland should continue to support this through Healthy Working Lives and the Healthy Living Award.

Treatment

1. The growing pressure on NHS resources caused by the year on year increases in obesity prevalence needs urgent recognition. Early planning and resource for expansion of services is required. For example, expansion of weight management services, including bariatric surgery, and staff training.
2. There should be nationally-agreed referral criteria to help health professionals take a consistent, evidence-based approach to assessing and treating obesity in adults and children, which may include BMI, waist circumference, disease risk and readiness to change. Given that

SIGN is currently reviewing its guidance[21], it would make sense for any new SIGN guidance to inform policy making in this area.

3. NHS Health Scotland should consider issuing practical guidance to GPs, Health Visitors, Dietitians, School Nurses and Practice Nurses about how best to raise the issue of child obesity with parents.
4. NHS Health Scotland should consider issuing guidance to GPs, ante-natal services, Health Visitors, Dietitians, and Practice Nurses about assessing obesity risk in pregnant women and delivering appropriate, effective diet and physical activity messages in order to limit any adverse effects of obesity on the health of the mother and infant.
5. The QoF should be developed further to incentivise GPs to address obesity through evidence-based practice and cost-effective options.
6. The Scottish Government should support regional collaborations aiming to create a joined up and consistent approach to managing patients with morbid obesity, including additional provision of bariatric surgery and appropriate pre- and post-surgical support.
7. NHS Education for Scotland (NES) should address the training needs of primary care staff in relation to the assessment and treatment of obesity, especially child obesity. This should be informed by the Health Behaviour Change training being undertaken as part of Keep Well. The Scottish Government should hold discussions with community pharmacy representatives in order to evaluate whether the role of community pharmacists in obesity prevention and treatment could be formalised. If this were to be the case, the training needs of community pharmacists in relation to the assessment and treatment of obesity should be assessed by NES.
8. NHS Health Scotland should promote more widely NHS-funded literature and resources for treating obesity in adults and children, e.g. by introducing internet-based ordering for those working in Primary Care, community pharmacies and Health Promotion departments
9. Taking into account the recommendations of NICE, NHSScotland should consider how to involve high quality non-NHS weight management providers in strategic plans to broaden access to obesity services, e.g. by accrediting or endorsing non-NHS slimming groups, or by facilitating the central purchase of vouchers for commercial groups
10. Following the evaluation of the Exercise on Referral models, NHS Health Scotland should issue national guidance on best practice for content, referral and implementation to support the existing work of NHS boards and local authorities
11. NHS Health Scotland should issue guidance, currently being developed by the Health Promoting Health Service Network, to NHS Boards on how to work with food and beverage franchises operating within NHS premises to ensure that healthy options are available to staff, patients and visitors. This guidance may include how to prevent

[21] published previously in SIGN 8 (adults) and SIGN 69 (children)

franchises promoting marketing campaigns that undermine healthy eating messages.

Recommendations arising from the regional workshops

In addition, some recommendations arose from comments made by participants attending the three regional workshops. A full list of comments is given in Appendix 7. However, a number of oft-repeated comments were worth presenting as formal recommendations of the SOAR project as they touched on challenging areas.

1. Taking into account the recommendations of the 2003 National Strategy for Physical Activity, the Scottish Government should review the minimum standard of 2 hours per week of school PE within the context of obesity prevention, and consider how other components of the school day could be utilised to increase time spent in physical activity and widen participation in physical activity.
2. The Scottish Government should consider whether the implementation of active travel plans should come under those areas reviewed by the Schools Inspectorate.
3. Families should be targeted by obesity prevention, rather than individuals, as they are recognised as a key driver in obesogenic lifestyles and behaviours.
4. Obesity prevalence data should be interrogated in order to determine specific points in the lifecycle where obesity risk is highest, e.g. higher education, pregnancy, middle-age.
5. The Scottish Government should commission at least one large-scale pilot of family therapy for child obesity and evaluate the effectiveness of this with a view to rolling it out across Scotland, at least in areas of deprivation.
6. Evaluation of publicly-funded initiatives to prevent or treat obesity should be done in partnership with academic departments, or suitable independent organisations, in order to introduce objectivity and clear endpoints, and ensure wide dissemination of results.
7. There should be a central repository for 'grey' research in order to ensure that evaluations of health-related initiatives are shared more widely, even if they cannot be published in peer-reviewed journals.
8. The Balance of Good Health should be redrafted to give guidance on portion sizes in relation to weight management.
9. The issue of maintenance of SOAR data was also discussed at the regional workshops. The SOAR project was a snapshot of current obesity actions. A central resource was suggested, however, without the resource to support this, it was thought that updating NHS Board data should lie with individual boards if they wish to do so.

Next steps

The creation of the SOAR and website is only one step in the process of understanding how best to address the issue of obesity. The ScotPHN has undertaken to ensure that the SOAR data will be disseminated widely and are considering publication of the project in one or more journals. A media launch is also planned. The ScotPHN would welcome enquiries from academic departments interested in interrogating the data further.

Making the most of SOAR

The SOAR project has been a unique opportunity to bring together a large amount of quantitative and qualitative data on one of the most important health issues facing Scotland. While gaps and limitations are apparent, the data nevertheless represent a useful resource for a number of different sectors of society. Suggestions for further use are given below:

Scottish Government
SOAR data could be used to:

- Inform a national obesity strategy
- Identify good practice in prevention and treatment
- Locate NHS Boards and local authorities with experiences that could be shared more widely.

NHS Boards and local authorities
SOAR data could be used to:

- Create the basis for local obesity strategies
- Identify good practice in prevention and treatment that could be rolled out more widely
- Identify gaps in treatment, prevention or evaluation
- Identify stakeholders that could contribute to the creation or implementation of local strategies.

Health professionals
SOAR data could be used to:

- Identify gaps in practice or policy, e.g. assessment, referral criteria, treatment options
- Help lobby for more training and resources
- Help plan local treatment by working with other health professionals
- Identify initiatives and practices used by health professionals in other areas.

Researchers
SOAR data could be used:

- To inform the development of policy
- As a resource for further analysis and research
- To help design, and generate funding for, more research into obesity prevention and treatment.

The public

SOAR data could be used to:

- Find out what is happening across Scotland with respect to obesity prevention and treatment
- Find out what is happening in a specific area.

Further information about obesity

Examples of relevant published resources are given in Appendix 16, while a list of useful links is given in Appendix 17. When complete, the ScotPHN SOAR web pages will include virtual filing cabinets containing a range of downloadable material, including national and local policy documents, strategy papers, evaluations, and other reports relating to obesity prevalence, prevention and treatment.

Appendices

1	Project Working Group membership
2	Local Contacts
3	Policy information planner
4	Examples of local Stakeholders
5	Local Stakeholder planner
6	Excerpt from Stakeholder mapping questionnaire
7	Comments from regional workshops
8	Child Health Surveillance Programme (CHSP) participation
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15	Community Pharmacists survey results – summary of information
16	Useful published resources
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Appendix 1: Project Working Group Membership

Sarah Taylor, Director of Public Health, NHS Shetland – Chair

Anne Maree Wallace, ScotPHN Lead Consultant / Consultant in Public Health Medicine, NHS Lothian

Carrie Ruxton, Freelance Dietitian and Consultant, Nutrition Communications

Karen France, Nutrition and Dietetic Manager, NHS Western Isles

Ken Black, Consultant in Public Health Medicine, NHS Orkney

Carolyn Valentine, Project Manager, Dental Public Health, NHS Lothian

Ann Conacher, ScotPHN Co-ordinator

Appendix 2: Local Contacts

Ayrshire & Arran	Elaine Young	Senior Manager, Health Promotion
Borders	Helen Summers	Deputy Manager in Health Promotion and Community Dietitian
Dumfries & Galloway	Linda McFarlane	Health Improvement Programme Lead /Food and Physical Activity
Fife	Graham Ball	Consultant in Dental Public Health /Deputy Director of Public Health
Forth Valley	Oliver Harding	Consultant in Public Health Medicine
Grampian	Caroline Comerford Gillian Lewis	Nutrition Co-ordinator Head of Health Promotion
Greater Glasgow & Clyde	Ann Gow	Nurse Consultant in Public Health
Highland	Jane Groves Fiona Clarke	Acting Health Improvement Manager Health Improvement Specialist
Lanarkshire	Ruth Campbell	Public Health Nutritionist
Lothian	Carolyn Valentine	Project Manager, Dental Public Health
Orkney	Ken Black	Consultant in Public Health Medicine
Shetland	Elizabeth Robinson Elsbeth Clark	Health Promotion Manager Health Improvement Advisor
Tayside	Joyce Thompson	Dietetic Consultant in Public Health Nutrition
Western Isles	Karen France	Nutrition and Dietetic Manager

Appendix 3: Policy information planner (available on ScotPHN SOAR web pages)

Q1	Does your Board area have an obesity strategy? If so, can an electronic copy be obtained? List URL or email PDF If not, is one in progress or planned?	
Q2	Does your Board have any policies that are likely to impact on obesity prevention and treatment? These might include strategies for diet, nutrition, physical activity, inequalities or well-being published by the NHS or local government Can electronic copies be obtained? List URL or email PDF	
Q3	Does your area have a policy addressing the use of vending in schools, leisure centres or community buildings? Can electronic copies be obtained? List URL or email PDF	
Q4	Does your area have a policy or a scheme to ensure that healthy choices are provided in public sector workplace canteens or restaurants?	

Appendix 4: Examples of local stakeholders

- Those working in public Health
- Those working in the voluntary sector
- Leads for large publicly-funded community initiatives e.g. Health Living Centres
- GP practices (via Practice Managers or Practice Nurses)
- Key people in Local Authority departments (e.g. Education, Leisure Services, Transport, Planning)
- Those promoting health in areas of deprivation
- Key people in Community Health Partnerships
- Dietitians
- Those involved in obesity research
- Key people in NHS services (e.g. Managed Networks for Diabetes, and Cardiovascular Disease, consultants with an interest in obesity)
- Leads for Joint Health Improvement Plans
- Providers of commercial slimming groups
- Representatives of Scottish Healthy Working Lives projects in the public sector (previously Scotland's Health at Work)
- Patient representatives
- Local consultation groups
- Health promotion experts working with large workplaces

Appendix 5: Local Stakeholder planner

		Name	Telephone number	Email
Q1	Does anyone in your area have a remit that includes obesity prevention, monitoring or treatment?			
Q2	Who would know if any obesity awareness programmes, roadshows or health shops have been run in your area?			
Q3	Who holds email addresses for primary care staff and could send out a questionnaire by group emails?			
Q4	Who would know about the progress made by GP practices on the QoF BMI registers?			
Q5	Who would know about measuring children in schools and whether a protocol has been developed for school nurses, i.e. in response to Hall4?			
Q6	Who would know whether there is a specialist child obesity service in your area?			
Q7	Who are the key dietetic contacts in your area? These are usually chief dietitians and there may be one or more per Board.			
Q8	Who leads on Education in your area's Local Authority/ies?			
Q9	Who leads on Hungry for Success and will know how this has been implemented in your area? There may be more than one person depending upon the number of local authorities in your Board area.			
Q10	Who leads on Active Schools or physical activity in schools and nurseries? Again, there may be more than one person.			
Q11	Who would know about nutrition standards for nurseries? Again, there may be more than one person.			
Q12	Who leads on Leisure services, or similar, in your area's Local Authority/ies?			

Q13	Who leads on Planning and/or Transport in your area's Local Authority/ies?			
Q14	Who would know about active travel plans relating to school travel or work travel? Try Transport or Education.			
Q15	Who would know if any work been done locally on providing safe, improved play areas, green spaces, walking/cycling routes? Try Planning, Transport or Leisure Services			
Q16	Are there any groups within the Joint Health Improvement Plan that have nutrition, diet, physical activity or obesity within their remit? If so, who are the chairmen of these groups?			
Q17	Is there an umbrella organisation in your area for all voluntary groups, i.e. one that could be used to pass on mapping questionnaires to voluntary bodies or identify voluntary bodies that could be contributing to obesity prevention or treatment?			
Q18	Who would know if there are any publicly-funded slimming groups in your area? These could feature within a Healthy Living initiative or be managed by community dietitians or health visitors.			
Q19	Who else in your area would have an interest in this mapping project? E.g. academics, public health, specific GPs, patient or public representatives, commercial organisations.			

Appendix 6: Excerpt from Stakeholder mapping questionnaire

Thinking about food and nutrition in and around the school environment, are any of the following in place:	*In place*	*In progress*	*Planned*	*No plans*	*n/a*
Menus that meet the guidelines published in Hungry for Success?	X				
Menus analysed for nutritional composition?	X				
Water in schools?	X				
Tuck shop policy? (may be up to individual schools)	X				
Vending policy? (may be up to individual schools)		X			
Bans on confectionery?		X			
Bans on sugar-containing soft drinks?		X			
Mechanisms for pupils to comment on meals?	X				
Free fruit? For which years?	X				
Guidance for parents on packed lunches?	X				
Initiatives to incentivise healthier choices in school? Please describe			X		
Home economics that includes instruction on how to cook healthy meals?	X				
Measures to restrict or discourage pupils' use of mobile food vending units or fast food stores operating in the vicinity of schools?				X	
Other measures to increase intake of healthy food and beverage consumption in school-aged children? Please describe	X				

Space was also provided for comments, e.g. more details on each topic, future plans, whether initiatives/services were limited to particular groups of clients or specific geographical areas etc.

Appendix 7: Participants' comments from regional workshops[22]

Strategy

- We need a national obesity strategy that comes with a toolkit, e.g. template for writing our own local strategy, recommended targets and a means of reporting back after a specified period of time
- Any national strategy should avoid being prescriptive as each area has different needs. What about minimum standards and a guide on what types of activities are evidence-based or effective?
- We should include commercial slimming groups in any national strategy as they are widespread and attended by many people
- We should not forget individual responsibility
- Planning and transport should be included in any national strategy
- Each area needs a local champion to lead obesity action e.g. a politician, Director of Public Health
- There should be national political leadership on obesity
- Any strategy should avoid target setting as this would distort priorities and activities. Monitoring of process and outcomes would be better
- Any strategy should be accompanied by additional resources from the Scottish Government
- We do not need separate strategies for obesity, diabetes and cardiovascular disease when the prevention is the same. These should all be brought together into one strategy
- We need a workplace strategy to ensure that Scottish Healthy Working Lives is doing as much as it can to reduce the impact of certain workplaces on obesity risk. Glasgow is already doing this.
- Local CHPs should be responsible for implementing obesity strategies.

Prioritisation

- Obesity resources are scarce so we should focus on the family rather than individuals. Obesogenic habits are shared
- We should focus on people on low income as they are more likely to be overweight and develop co-morbidities, although this does not rule out tackling the causes that affect everyone
- We should carry out a national needs assessment to find out where to target scarce obesity treatment resources
- Target men as they have a big influence on the rest of the family. There should be more men only weight management groups along the lines of the Coatbridge model (see Lanarkshire report)
- Prevention should be targeted at children, while treatment should be targeted at adults.

[22] These have been edited and similar comments were combined rephrased

Evaluation

- More people should evaluate their nutrition and physical activity initiatives. This information should be shared nationally to avoid duplication and to improve effectiveness
- There is too much evaluation. We should do it the first time and, if the initiative works, roll it out more widely. Evaluation should be short and brief and focus on clear endpoints?
- NHS health promotion projects should work with local academics to evaluate the work. This will save NHS resources and put evaluation into the hands of those who are independent, experienced and with the capacity to disseminate the findings more widely
- There should be a central repository for 'grey research' in health promotion and obesity prevention/treatment, i.e. written evaluations that are not scientific enough to be published in peer-reviewed journals. A web site containing downloadable files would be good and it would help others plan better health promotion initiatives
- There is too much health-related data collection in Scotland and many perceive that the data are not being analysed properly or used to improve practice.

Physical activity

- Disclosure Scotland is a barrier to parents/grandparents getting involved in sport or cooking skills for children as you need a separate disclosure for each activity. How can this be addressed as we need more lay volunteers to increase capacity?
- We need to look again at how the Physical Activity strategy is being rolled out locally as I do not think it is working
- The short-term funding and policy focus on Active Schools has prevented development of non-school physical activity.

Diet and nutrition

- We need to rethink our approach to diet and nutrition as the Diet Action Plan has not worked
- The Balance of Good Health says nothing about portion size and should be re-written
- The cost of fruit and vegetables in rural areas is a barrier to healthy eating
- Healthy foods are not always available in areas of deprivation and this is a barrier to change
- The role of alcohol as an obesity promoter should be highlighted
- The Borders Healthy Award recognises food outlets that have healthy children's menus. Maybe this could be rolled out nationally
- Weight loss diets are ineffective long term. We need a radical rethink about how to treat obesity.

Prevention

- Public sector workplaces, especially the NHS, should set an example by improving access to healthy food and opportunities to be active
- There are mixed messages about obesity in pregnancy. We are told it is harmful to the mother and baby. Yet there are no clear guidelines about what diet and physical messages, or weight gain are appropriate
- Maternity leave is too short in order to implement official advice to breast feed until babies are 6 months of age, and delay weaning
- Community pharmacists are an underused prevention resource
- The link between mental health and obesity should be recognised so we can direct prevention at those at risk
- We should confront the Scottish culture of reward where it relates to alcohol, unhealthy food, sedentary behaviour
- Prevention should not just focus on diet but say more about the negative effects of TV viewing/home entertainment on energy balance
- There is not enough prevention aimed at adults
- Many clients have issues with literacy and language so we should explore new ways of communication e.g. CDs, videos, iPods
- Prevention should target students and older people as these groups may have a greater risk of obesity.

Treatment

- There should be information points so overweight and obese people know where to find help locally
- A postcode lottery is fine as long as there are clear local referral and management pathways
- There should be transparency about obesity referral so that the public understand why there might be local differences
- Dietetic referral criteria should be standardised across Scotland as they vary widely at present. SIGN should design a template clinical pathway that can be adapted for local use
- There is not enough funding to treat every overweight person through their GP so we have to accept that better off people should pay something towards their treatment
- There should be national negotiations to strengthen the GMS contract to enable the monitoring and management of obesity in primary care
- What are GPs doing with the BMI data collected for QoF? The GMS awards no extra points for weight management
- The GMS contract should include obesity treatment but what would be the target, given that much of the success is down to patient compliance and motivation?
- We need to think beyond what the NHS can provide in the way of treatment and work with local commercial slimming groups and services provided by the voluntary sector, as long as these are of the right quality
- All obesity treatments need to include a behavioural element and training should be provided to health professionals to enable them to deliver this

- We need to move weight management away from the medical model and towards the social/community model, perhaps involving psychologists
- Additional training on weight management is needed for practice nurses, midwives, health visitors, pharmacists, and voluntary workers
- Treatment should not just focus on weight but be within the context of a healthy lifestyle as this is what lowers disease risk
- We need regional treatment centres for the more specialist treatments e.g. morbid obesity, bariatric surgery
- Role of psychologists.

Child obesity

- There should be a national campaign to highlight child obesity
- The Scottish Government should fund a best practice model of child obesity treatment
- School nurses need guidance on how to raise the issue of child obesity with parents. We are afraid of offending parents and need advice on how best to tackle this
- GPs are trusted by the public. Could they write to parents instead of school nurses in cases where children are assessed as obese?
- There should be a link between Active Schools and GPs. Schools would like to target obesity but are discouraged. Perhaps a link with GPs would help us do this
- Any treatment of obese children should be outwith the school to prevent bullying and stigmatisation
- Councils should share information on how to tackle chip vans outside schools. If more legislation is needed, this should be addressed by the Scottish Government
- South Lanarkshire is already reducing the use of chip vans by providing a council-sponsored van selling healthy food outside schools
- School children should be kept in at lunchtimes. This will prevent use of chip shops/vans and reduce road accidents.

SOAR

- The SOAR website needs maximum exposure so there should be links on as many other websites as possible
- We need to keep up the momentum by developing a network of stakeholders. The mapping data should be maintained, either nationally or locally, but be made available on a central portal
- SOAR should feed into a larger piece to work, bringing together the Scottish Diet Action Plan, the Physical Activity strategy, food retailers and industry to combat obesity
- The mapping is simply a snapshot of where areas are at this point in time and not a strong benchmark for future activity
- Each area is grappling with the many challenges around obesity. Comparisons and judgemental statements are therefore unhelpful and not constructive.

Appendix 8: Child Health Surveillance Programme (CHSP) participation

CHSP Pre-school

NHS Board	Implementation Date	Comments
Argyll & Clyde	1991	
Ayrshire & Arran	1993	
Borders	1995	
Dumfries & Galloway	Dec 2000	These data were collected until April 2006 through the CHSP system. After that, D&G implemented 'Health for All Children' as per Scottish Government guidance. This means that after 6-8 weeks, children are no longer included in CHSP and, thus, height and weight are not routinely measured.
Fife	1994	
Forth Valley	Dec 1997	
Greater Glasgow	1995	
Lanarkshire	1992	
Lothian	1994	
Shetland		It is the intention to submit data to the Pre-School Surveillance System in the near future.
Tayside	1995	

CHSP School

NHS Board	Implementation Date	Comments
Argyll & Clyde (partial)	2001	
Borders	1995	There are local concerns that this data will be incomplete after the implementation of Hall4.
Dumfries & Galloway	2004	This is done in Primary 1 by school nurses.
Fife	2000	
Forth Valley	2005	
Grampian	2005	
Lanarkshire	1999	
Tayside	2002	
Lothian[23]	1997/2004	
Western Isles	2003	

[23] West Lothian NHS Trust from 1997, Lothian Health Board from 2004

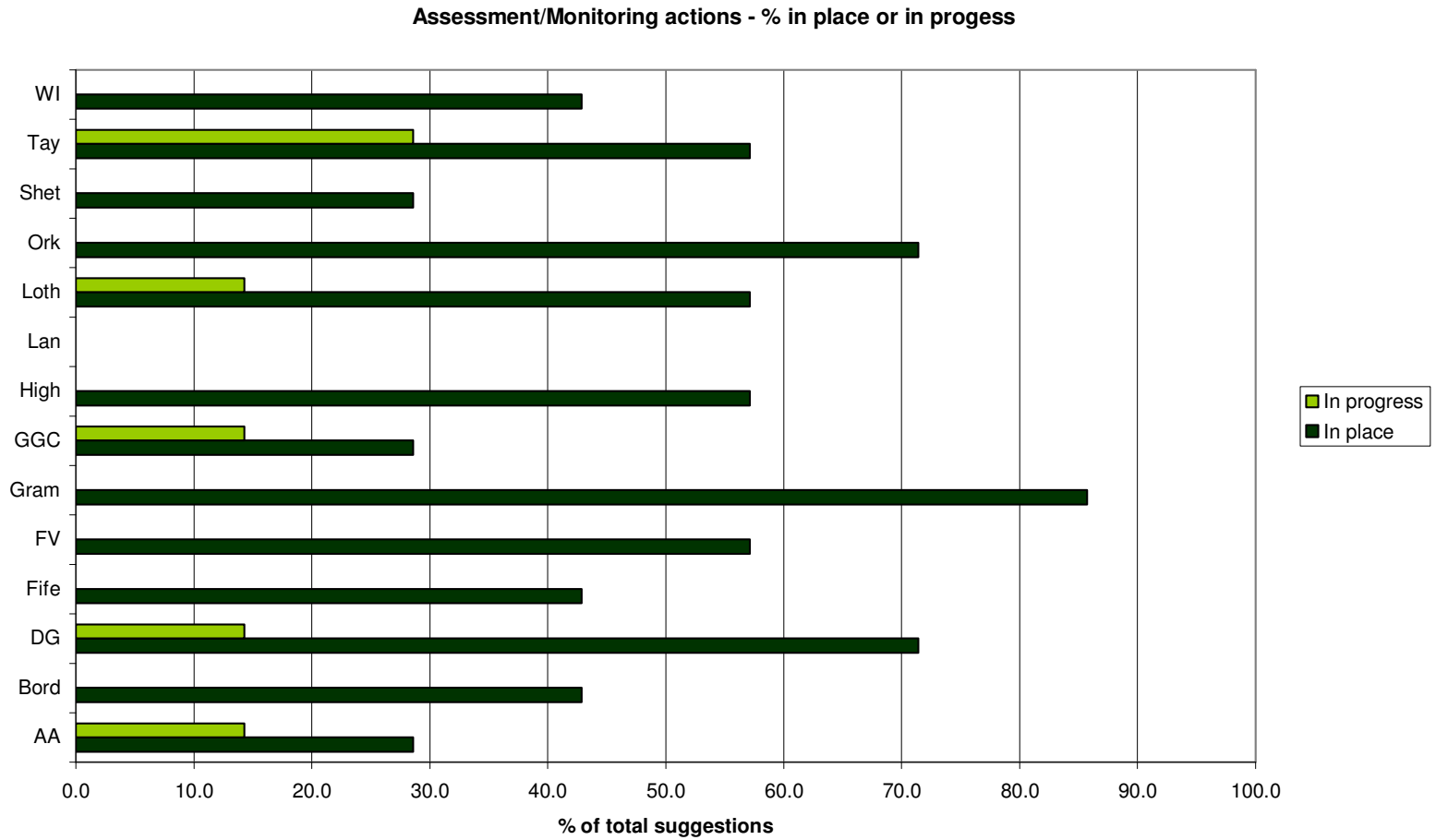
Appendix 9: Advice given by Managed Clinical Networks (MCN)

	Yes	*No*	**Comments on response**
Do the managed clinical networks for coronary heart disease recommend routine weight management for patients with a BMI > 25?	X		A number of MCN advise that patients at risk from coronary heart disease be given weight management advice
Do the managed clinical networks for diabetes recommend routine weight management for type 2 diabetic patients with a BMI > 25?	X		Weight reduction is advised as part of the routine care of any patient with diabetes who is overweight. It is recommended that patients follow a calorie-restricted diet. The ability of people to lose weight is variable with often poor results. One barrier is the lack of dietetic resource.
Does the managed clinical network for stroke recommend routine weight management for patients with a BMI > 25?	X		It is recommended that patients with a BMI>25 or a waist circumference >35 ins for women and >40ins for men should be offered weight reduction advice

Appendix 10: Scotland's Health at Work (SHAW) awards

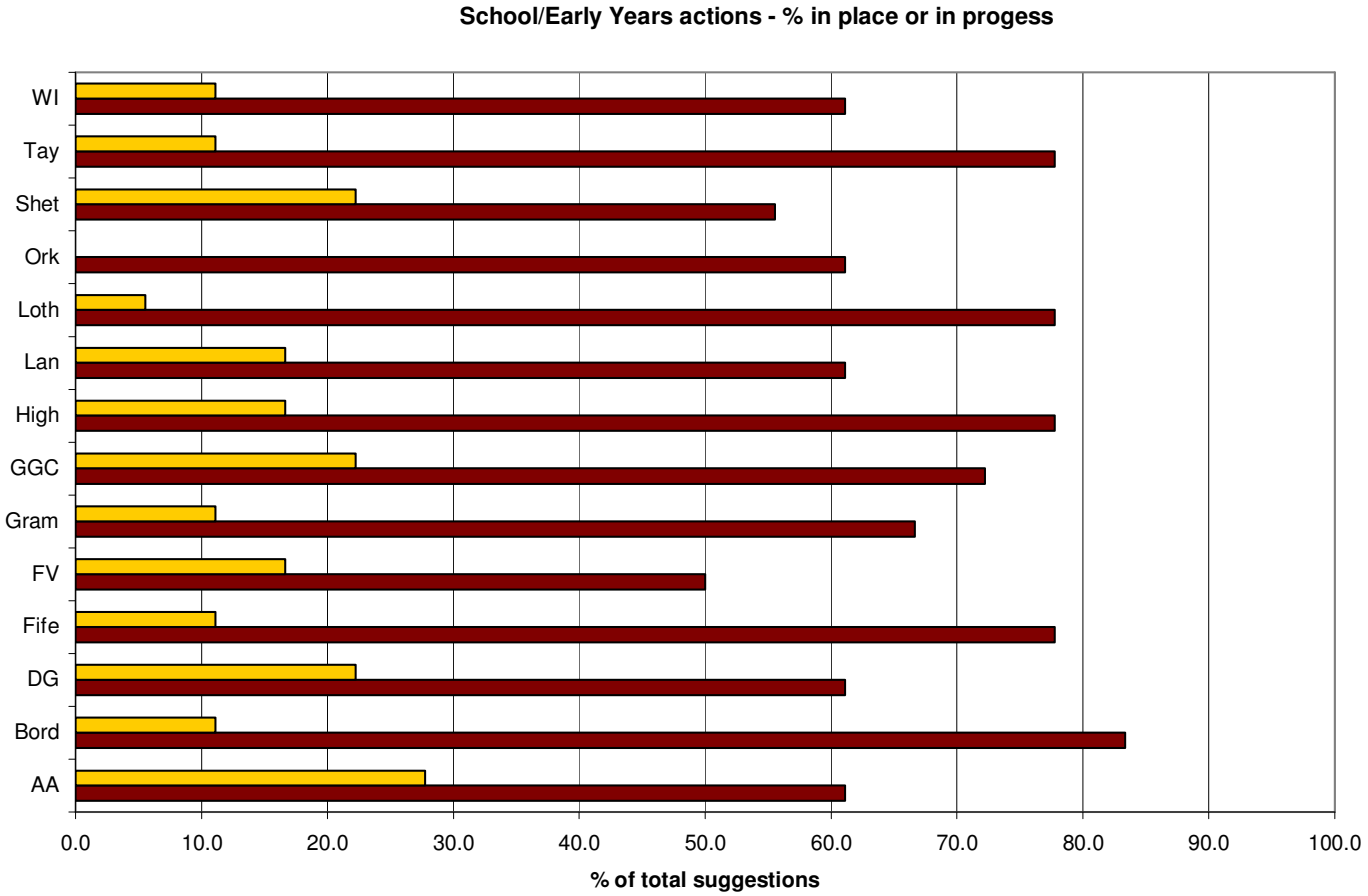
NHS Board Area	**Bronze**	**Silver**	**Gold**
Argyll and Clyde	50	25	14
Ayrshire & Arran	37	14	10
Borders	18	6	3
Dumfries & Galloway	9	5	2
Fife	30	17	8
Forth Valley	67	17	9
Grampian	185	88	38
Greater Glasgow	113	44	20
Highland	55	16	6
Lanarkshire	76	22	6
Lothian	126	39	15
Orkney	13	2	0
Shetland	7	7	2
Tayside	96	26	4
Western Isles	28	3	0
TOTALS	**910**	**331**	**137**

Appendix 11: Summary of obesity actions for all areas



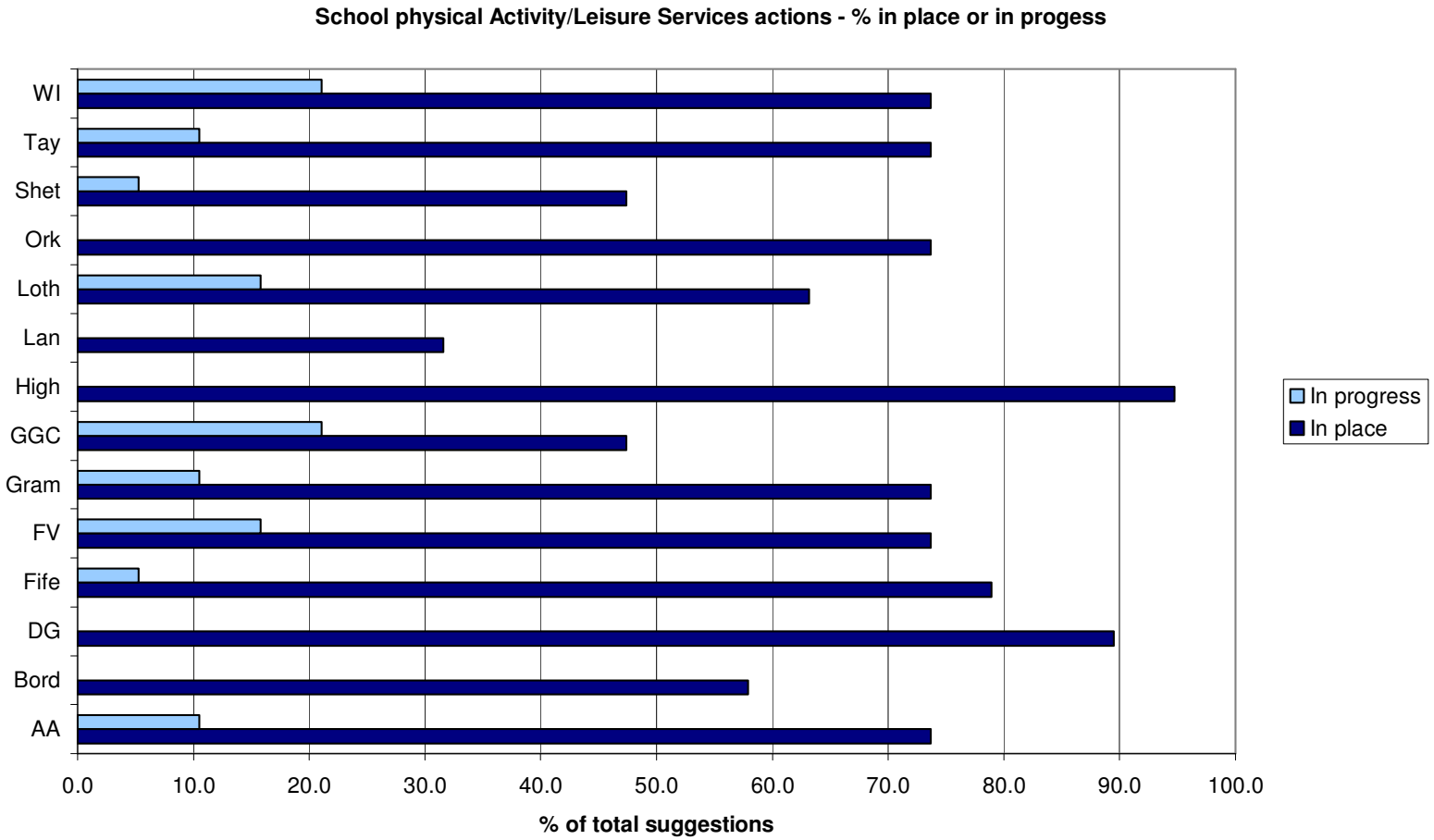
AA = Ayrshire & Arran; Bord = Borders; DG = Dumfries & Galloway; FV = Forth Valley; Gram = Grampian; GGC= Greater Glasgow & Clyde; High = Highland; Lan = Lanarkshire; Loth = Lothian; Ork = Orkney; Shet = Shetland; Tay = Tayside; WI = Western Isles

Examples of actions included leaflets, pedometers, roadshows, health shops, surveys, school nurse assessment protocol.



AA = Ayrshire & Arran; Bord = Borders; DG = Dumfries & Galloway; FV = Forth Valley; Gram = Grampian; GGC= Greater Glasgow & Clyde; High = Highland; Lan = Lanarkshire (*limited data*); Loth = Lothian (*limited data*); Ork = Orkney; Shet = Shetland; Tay = Tayside; WI = Western Isles

Examples of actions included implementation of Hungry for Success and Free Fruit, training on diet and physical activity for early years providers.



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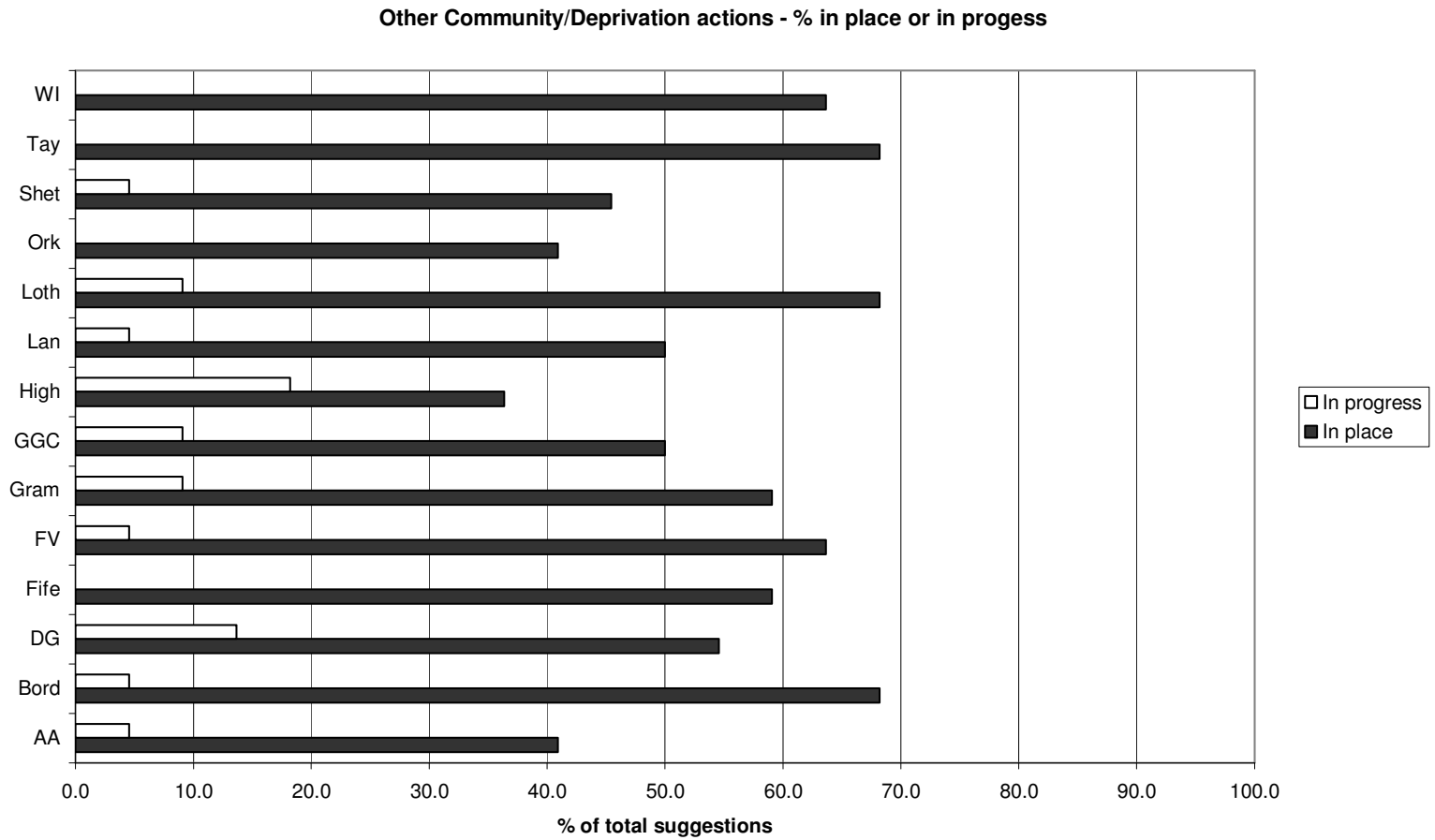
Examples of actions included play area strategies, physical activity standards, alternative types of PE, active travel plans, options for disabled people, food policies in leisure centres, financial incentives to encourage sport/leisure participation, walking groups.



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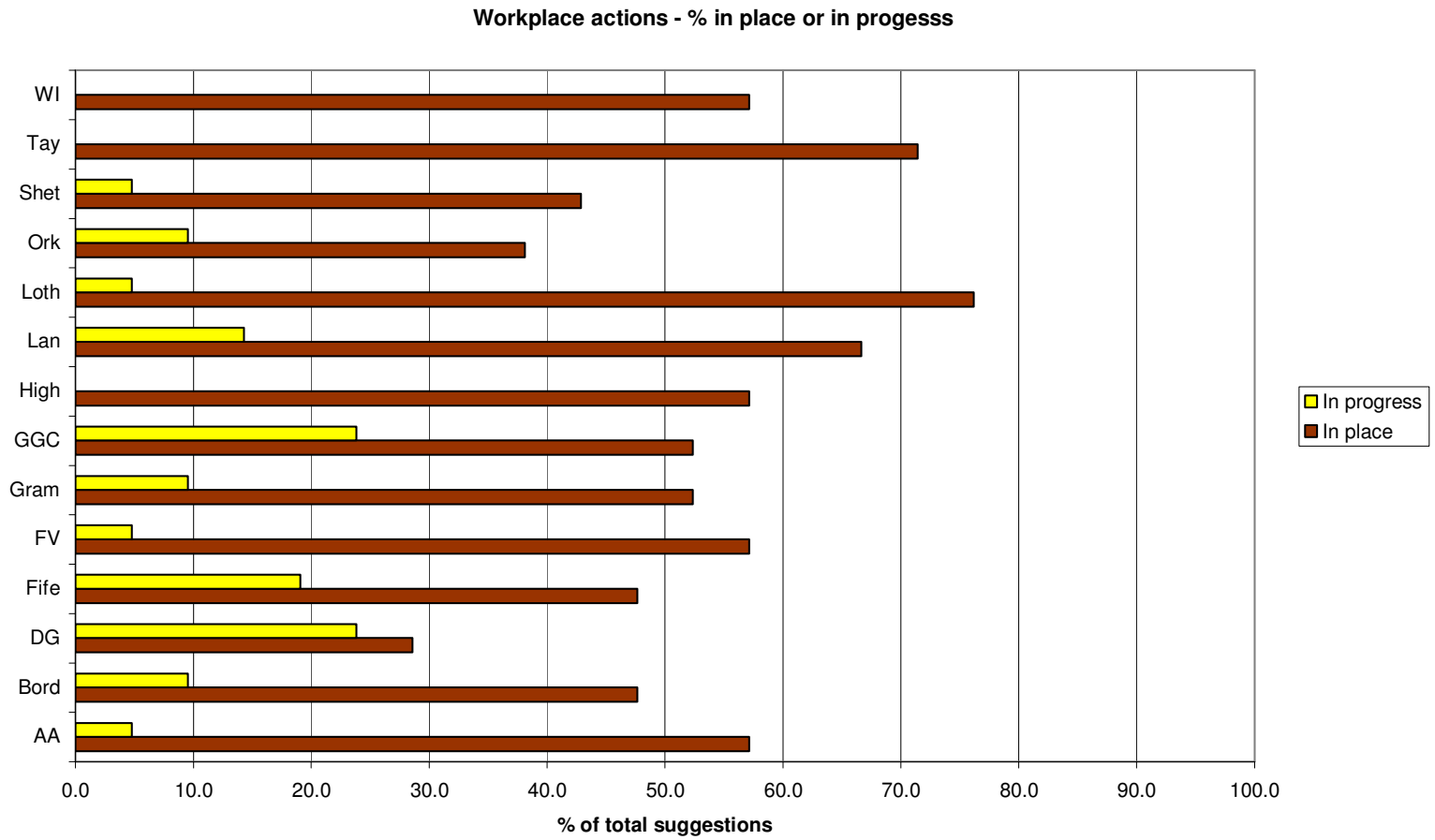
Examples of actions included fruit and vegetable co-ops, exercise classes, cooking classes – all targeted at areas of deprivation, provision of weight management around smoking cessation, planning policies that impact on active travel and active living.



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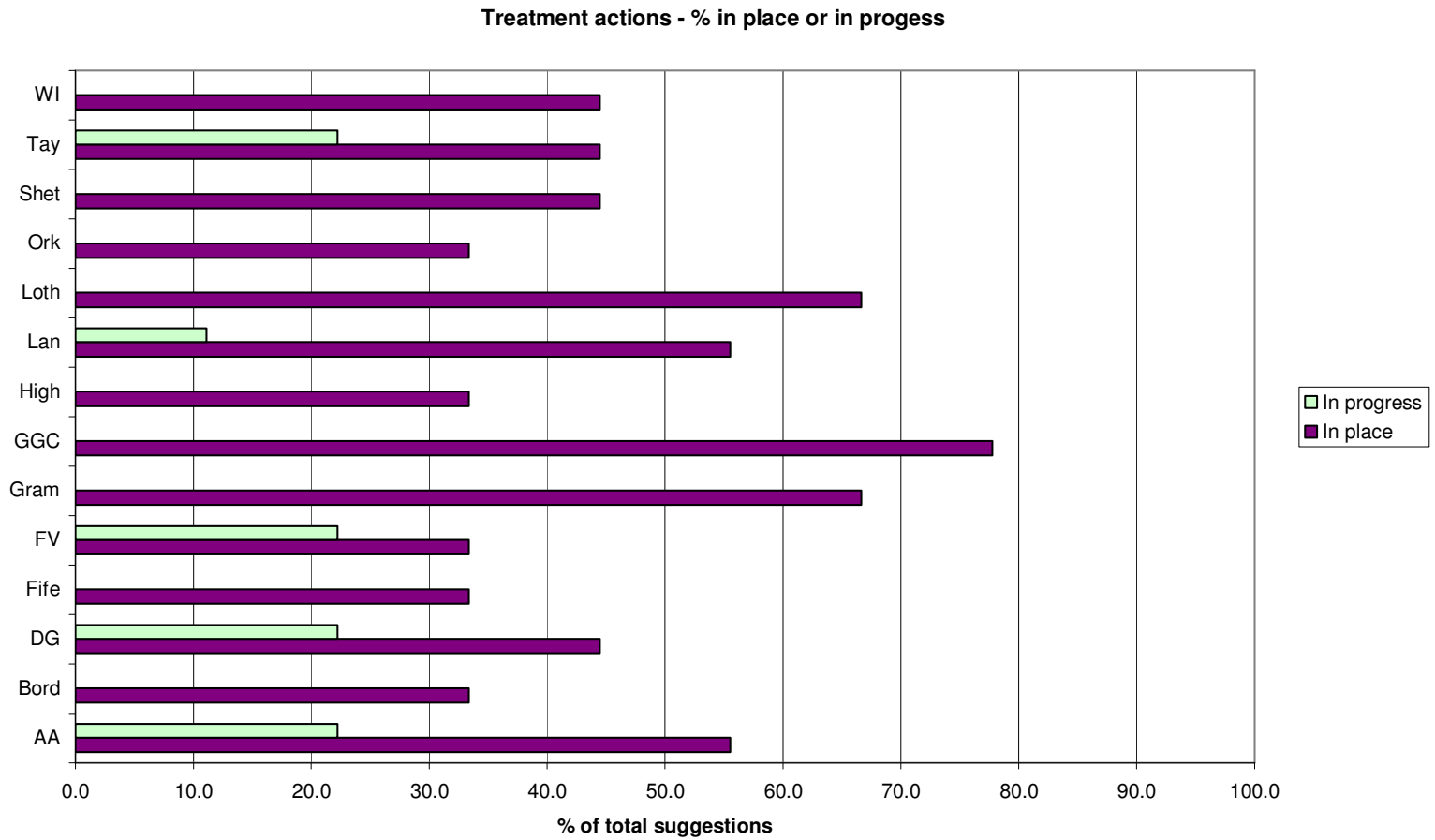
Examples of actions included active travel plans, showers and bike parking, workplace slimming groups, healthy food and vending policies, weight checks.



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Examples of actions included dietetic referral criteria, weight management advice for pregnant women, local guidance on anti-obesity drugs, provision of services around bariatric surgery, specialist clinics for morbid obesity and child obesity.

Appendix 12: Primary Care survey results – Scotland-wide

Number of responses[24]	493
Number of general practices in Scotland	1033
Overall response rate (%)	47.7

1. In which NHS Board area is your surgery based?

	Number	% of total	% response in each area[25]
Ayrshire & Arran	39	7.9	66.1
Borders	24	4.9	100.0
Dumfries & Galloway	14	2.8	40.0
Fife[26]	29	5.9	50.0
Forth Valley	36	7.3	62.1
Grampian	23	4.7	27.4
Greater Glasgow & Clyde	130	26.4	47.4
Highland	38	7.7	36.9
Lanarkshire	37	7.5	37.4
Lothian	68	13.8	52.7
Orkney	7	1.4	46.7
Shetland	5	1.0	50.0
Tayside	29	5.9	40.8
Western Isles	14	2.8	100.0
TOTAL	**493**	**100.0**	

2. What type of community is served by your Practice?

	Number	%
Mainly urban	245	53.6
Mainly rural	135	29.5
Evenly split between rural and urban	76	16.6
Don't know	1	0.2

3. How many GPs work in your Practice? This includes full-time and part-time GPs

	Number	%
Single-handed Practice	34	7.4
2 to 5 GPs	258	56.5
More than 5 GPs	122	26.7
Other (please specify)[27]	43	9.4

[24] Not all respondents answered all questions. Questions 1-3 were compulsory
[25] Response as percentage of total number of general practices in each NHS Board area
[26] Fife general practices were surveyed in 2005 as part of the mapping for the Fife Healthy Weight Strategy. The results are presented in the Fife report rather than being included here because the Fife questionnaire differed significantly from the SOAR questionnaire.
[27] These respondents declined to state the number of GPs

4. Can your patients access a local publicly-funded 'exercise on referral' programme?

	Number	%
Yes	269	64.5
No	100	24.0
Don't know	48.0	11.5

5. Does your Practice offer any of the following options to overweight or obese patients?

	Yes	No	Will in future	Don't know	Total
In-house slimming group led by Dietitian	14	402	3	4	423
In-house slimming group led by another health professional e.g. Practice Nurse	99	317	6	1	423
One-to-one consultation with in-house Dietitian	112	308	0	2	422
One-to-one consultation with another type of health professional	348	72	2	1	423
Referral to Dietetic Department (hospital or community-based)	375	42	1	6	424
Referral to Consultant-led obesity service	123	254	6	39	422
Informal advice to attend commercial slimming group e.g. Slimming World Weight Watchers	348	68	0	7	423
Referral to commercial slimming group by providing patients with free or reduced-cost tokens	31	378	2	11	422
Informal advice to attend public-sector slimming group e.g. Healthy Living Initiative	236	159	2	26	423
Prescription for anti-obesity drugs e.g. Xenical, Reductil	378	33	2	9	422

6. When patients are prescribed anti-obesity medication are they routinely offered a diet and lifestyle programme? This could be a literature pack CD-ROM pharmaceutical company helpline or consultation with a health professional.

	Number	%
Not relevant	15	3.6
Yes	336	80.8
No	41	9.9
Don't know	24	5.8

7. What referral criteria are used to identify those patients able to access the weight management options offered by your Practice?

	Number	%
Not relevant	12	3.0
No referral criteria used	107	26.4
High Body Mass Index + one or more co-morbidities (e.g. type 2 diabetes)	107	26.4
High Body Mass Index alone	161	39.8
Other (please specify)[28]	18	4.4

8. If your referral criteria include Body Mass Index (BMI), which cut-off is applied?

	Number	%
BMI > 25	46	18.0
BMI > 30	149	58.4
BMI > 35	31	12.2
BMI > 40	10	3.9
Other (please specify)[29]	19	7.5

9. Do any of the following groups of patients receive weight management advice as part of their routine care?

	Number	%[30]
People with type 2 diabetes mellitus	402	99.5
People with cardiovascular disease or hypertension	387	95.8
People with a diagnosed mental health condition	149	36.9
People with physical disabilities	165	40.8
Pregnant women	164	40.6
Other (please specify)[31]	28	6.9

[28] Other included self-referral, if patient looks overweight, if patient has high BMI and is motivated. Some GPs from GG&C use criteria set by the Glasgow Weight Management service.
[29] Other included varying the cut-off depending upon whether co-morbidities were present, the type of co-morbidity, whether patients were from a particular ethnic minority (lower BMI cut-off applied). One GP used BMI>27; another used BMI>45.
[30] These represent the percentage of respondents for each question and do not add up to 100%. Respondents could select as many options as they wished.
[31] Other included patients with joint pain, diabetes, chronic obstructive pulmonary disease, stroke, asthma, epilepsy, polycystic ovaries, osteoarthritis, cardiovascular disease risk. Also physically disabled patients, all patients attending well-person check-ups and patients attending smoking cessation or family planning sessions.

10. Do staff in your Practice have access to the following training and resources:

	% (number)			
	Yes	No	Don't know	Total
Training on obesity assessment in adults?	38.6% (153)	49.0% (194)	12.4% (49)	396
Training on obesity assessment in children?	14.1% (55)	69.5% (271)	16.4% (64)	390
Training on giving appropriate diet and physical activity advice?	52.9% (209)	38.0% (150)	9.1% (36)	395
Training on behavioural change or motivational interviewing?	32.1% (125)	52.5% (208)	14.4% (56)	389
Appropriate leaflets and diet sheets for adult obesity?	87.0% (346)	9.5% (38)	3.5% (14)	398
Appropriate leaflets for child obesity?	24.9% (98)	57.6% (227)	17.5% (69)	394

Appendix 13: Primary care survey results – summary of information

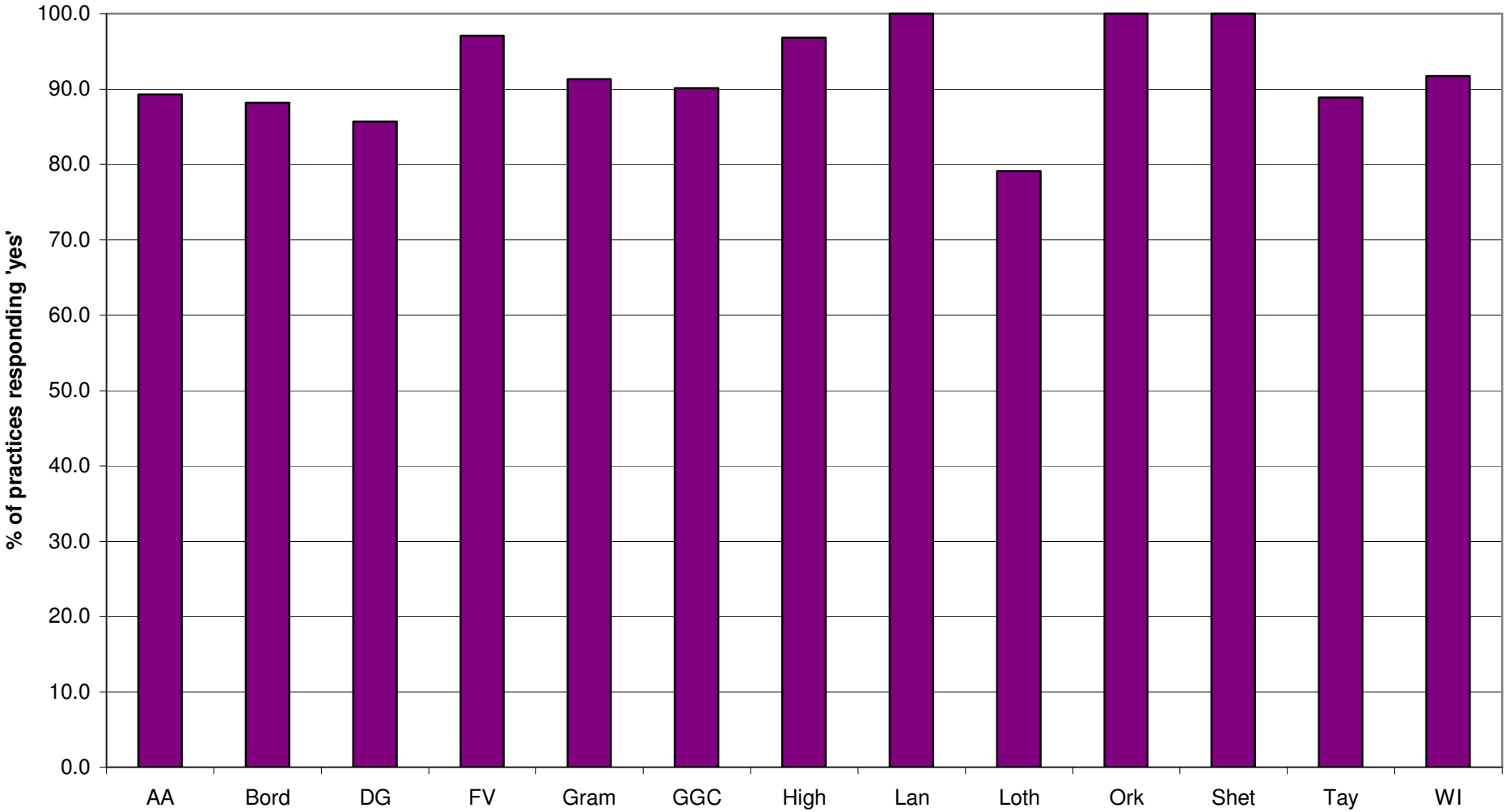
Percentage of general practices offering weight management options to overweight or obese patients

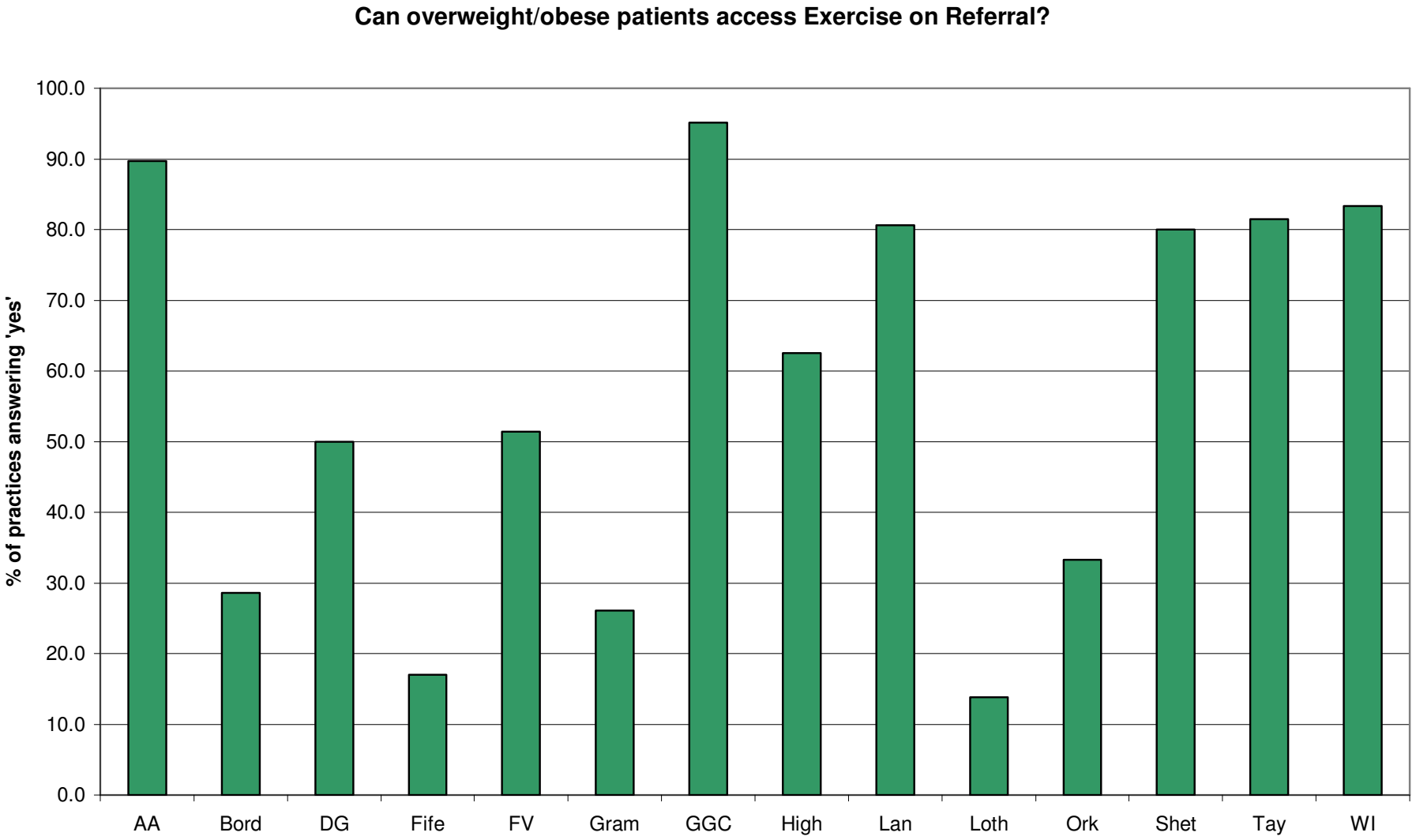
	AA	Bord	DG	Fife	FV	Gram	GGC	High	Lan	Loth	Ork	Shet	Tay	WI
In-house slimming group led by Dietitian	3.4	0.0	14.3	0.0	0.0	0.0	1.6	3.1	9.7	4.5	0.0	0.0	0.0	14.3
In-house slimming group led by another health professional e.g. Practice Nurse	31.0	5.9	14.3	31.0	28.6	26.1	24.6	25.0	35.5	11.9	50.0	0.0	25.0	28.6
One-to-one consultation with in-house Dietitian	82.8	58.8	14.3	28.0	20.0	21.7	11.5	28.1	19.4	38.8	0.0	0.0	10.7	46.2
One-to-one consultation with another type of health professional	96.6	70.6	85.7	83.0	82.9	91.3	76.2	90.6	83.9	83.6	83.3	80.0	78.6	84.6
Referral to Dietetic Department (hospital or community-based)	96.6	70.6	71.4	48.0	88.6	95.6	94.3	90.6	96.8	76.1	100.0	100.0	78.6	100.0
Referral to Consultant-led obesity service	6.9	0.0	71.4	10.0	14.3	65.2	38.5	9.4	35.5	19.4	16.7	20.0	42.9	23.1
Informal advice to attend commercial slimming group e.g. Slimming World Weight Watchers	89.7	70.6	64.3	41.0	85.7	87.0	90.2	84.4	77.4	76.1	66.7	80.0	75.0	76.9
Referral to commercial slimming group by providing patients with free or reduced-cost tokens	44.8	0.0	7.1	0.0	2.9	0.0	3.3	3.1	9.7	6.0	0.0	0.0	7.1	15.4
Informal advice to attend public-sector slimming group e.g. Healthy Living Initiative	69.0	35.3	0.0	41.0	34.3	56.5	75.4	56.2	74.2	41.8	50.0	0.0	57.1	38.5
Prescription for anti-obesity drugs e.g. Xenical, Reductil	89.7	58.8	100.0	86.0	100.0	91.3	93.4	93.8	93.5	77.6	83.3	80.0	92.9	92.3

AA = Ayrshire & Arran; Bord = Borders; DG = Dumfries & Galloway; FV = Forth Valley; Gram = Grampian; GGC= Greater Glasgow & Clyde; High = Highland; Lan = Lanarkshire; Loth = Lothian; Ork = Orkney; Shet = Shetland; Tay = Tayside; WI = Western Isles

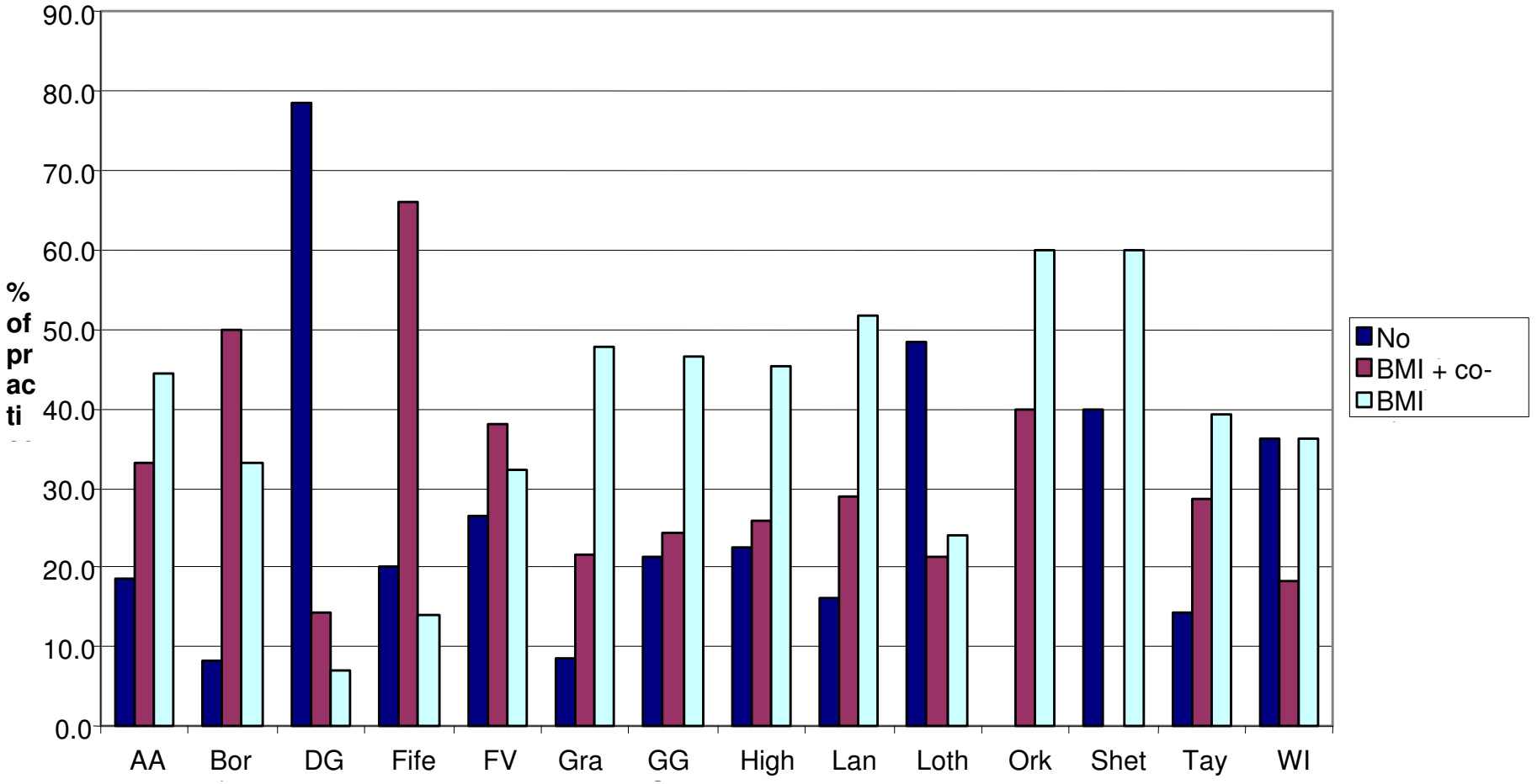
In Grampian, Highland and Lanarkshire, the response rate was lower than 40% suggesting that the data may not be reliable.

Is anti-obesity medication always prescribed alongside a lifestyle programme?

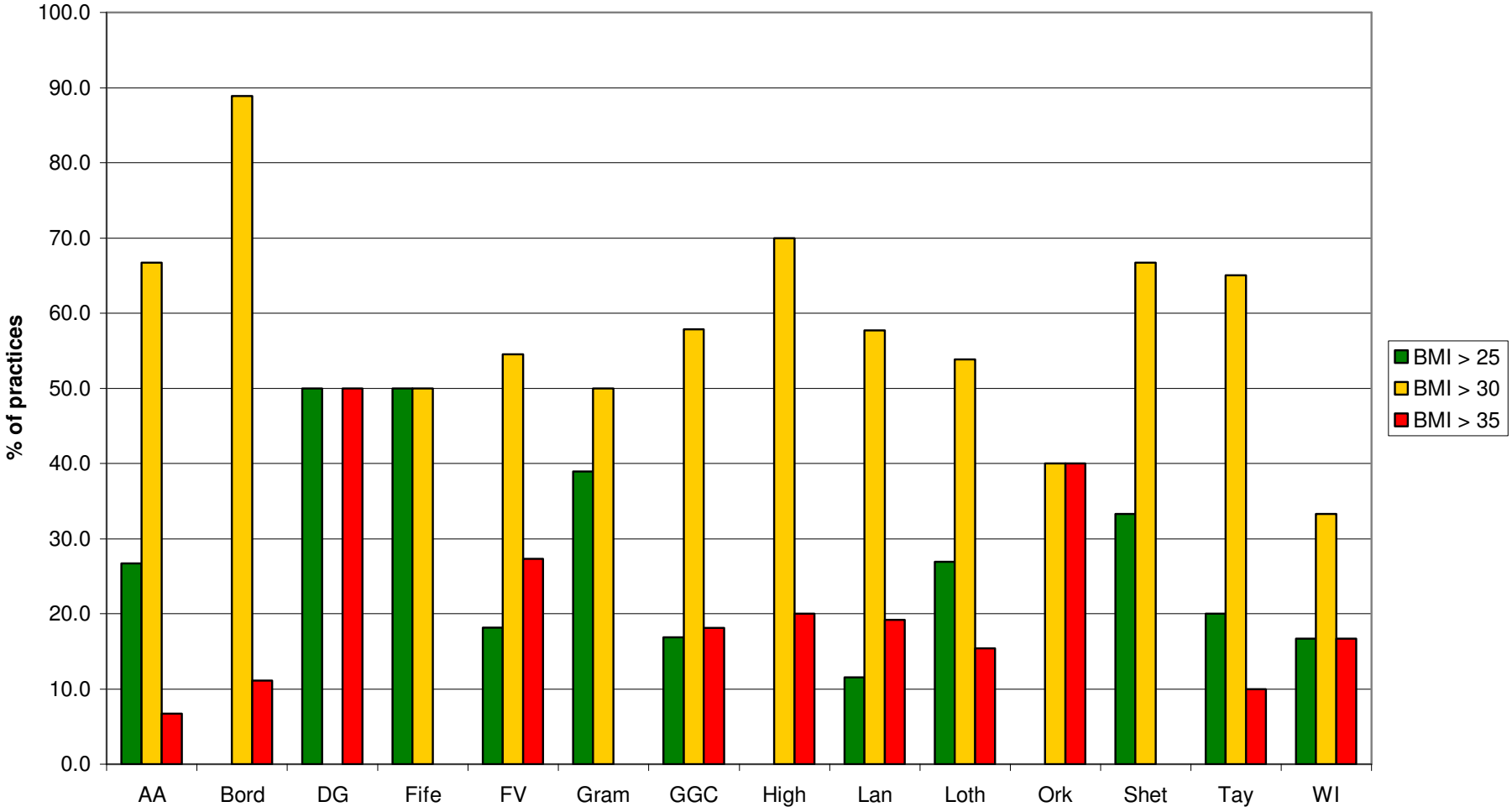



Can overweight/obese patients access Exercise on Referral?
% of practices answering 'yes'
100.0
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
AA
Bord
DG
Fife
FV
Gram
GGC
High
Lan
Loth
Ork
Shet
Tay
WI

What referral criteria are used to identify patients able to access weight management services?



Which BMI cut-off is used to inform criteria?



Appendix 14: Community Pharmacists' survey – Scotland-wide

Number of responses[32]	425
Number of Community Pharmacies in Scotland	1240
Overall response rate (%)	34.3

1. In which NHS Board area is your Pharmacy based?

	Number	% of total	% response in each area[33]
Ayrshire & Arran	13	3.1	13.5
Borders	13	3.1	52.0
Dumfries & Galloway	19	4.5	59.4
Fife[34]	66	15.5	86.8
Forth Valley	10	2.4	14.7
Grampian	46	10.8	35.9
Greater Glasgow & Clyde	111	26.1	30.8
Highland	7	1.6	10.0
Lanarkshire	13	3.1	11.6
Lothian	106	24.9	59.6
Orkney	3	0.7	100.0
Shetland	3	0.7	100.0
Tayside	13	3.1	14.6
Western Isles	2	0.5	66.7
TOTAL	**425**	**100.0**	

2. What type of community is served by your Pharmacy?

	Number	%
Mainly rural	71	19.8
Mainly urban	190	52.9
Evenly split between rural and urban	97	27.0
Don't know	1	0.3

3. How many FTE pharmacists work in your Pharmacy?

	Number	%
One	226	63.0
Two or three	121	33.7
More than three	12	3.3

[32] Not all respondents answered all questions. Questions 1-3 were compulsory
[33] Response as percentage of total number of pharmacies in each NHS Board area
[34] Fife Community Pharmacists were surveyed in 2005 as part of the mapping for the Fife Healthy Weight Strategy. The results are presented in the Fife report rather than being included here because the Fife questionnaire differed significantly from the SOAR questionnaire.

4. Does your Pharmacy have a private room or area that could be used for one-to-one consultations?

	Number	%
Yes	232	64.6
No	23	6.4
Will in future	48	13.4
Don't know	56	15.6

5. Does your Pharmacy offer any of the following to clients?

	% (number)				
	Yes	No	Will in future	Don't know	Total
Measurement of weight	23.6% (84)	59.8% (213)	14.6% (52)	2% (7)	356
Calculation of BMI	19.1% (68)	65.4% (233)	14.0% (50)	1.4% (5)	356
Comparison of BMI with obesity cut-offs	14.9% (53)	69.7% (248)	13.5% (48)	2% (7)	356
Measurement of waist circumference	12.1% (43)	71.6% (255)	14.3% (51)	2% (7)	356
Comparison of waist circumference with standards	9.6% (34)	74.1% (263)	14.4% (51)	2% (7)	355
Estimation of body composition or body fat	3.7% (13)	77.5% (276)	10.7% (38)	8.1% (29)	356

6. Does your Pharmacy offer advice on obesity prevention when appropriate clients request it?

	Number	%
Yes	224	63.1
No	85	23.9
Will in future	29	8.2
Don't know	17	4.8

7. Does your Pharmacy offer any of the following options to overweight or obese clients?

	% (number)				
	Yes	No	Will in future	Don't know	Total
Advice on low fat or healthy eating diets?	56.3% (201)	36.4% (130)	6.2% (22)	1.1% (4)	357
Advice on energy-reduced (low calorie) diets?	34.7% (124)	55.2% (197)	7.6% (27)	2.5% (9)	357
Advice on physical activity for weight control?	50.1% (179)	40.1% (143)	6.7% (24)	3.1% (11)	357
Assessment of co-morbidities associated with obesity e.g. blood pressure type 2 diabetes?	28.6% (102)	57.1% (204)	12.9% (46)	1.4% (5)	357
Advice on or review of anti-obesity drugs?	24.1% (86)	63.9% (228)	8.4% (30)	3.6% (13)	357
Prescription of anti-obesity drugs e.g. in association with a PGD?	5% (18)	82.1% (293)	8.7% (31)	4.2% (15)	357
One-to-one weight management consultation with pharmacist?	16.2% (58)	70.3% (251)	11.2% (40)	2.2% (8)	357
One-to-one weight management consultation with another member of staff?	7.3% (26)	78.4% (280)	11.5% (41)	2.8% (10)	357

8. If one-to-one weight management consultations are carried out by staff other than pharmacists, which are involved? Tick as many as you like.

	Number	% of those responding
Question not relevant/did not respond	306	
Pharmacy Technician	43	81.1
Dietitian	5	9.4
Nurse	4	7.5
Lay person	3	5.7
Other (please specify)[35]	4	7.5

[35] Other included assistant, trained assistant, lifestyle advisor

9. What referral criteria are used to identify those clients able to access the weight management options offered by your Pharmacy?

	Number	% of those responding
Question not relevant/did not respond	308	
No referral criteria used	21	41.2
High Body Mass Index + one or more co-morbidities (e.g. type 2 diabetes)	13	25.5
High Body Mass Index alone	7	13.7
Other (please specify)[36]	10	19.6

10. If your referral criteria include Body Mass Index (BMI), which cut-off is applied?

	Number	% of those responding
Question not relevant/did not respond	344	
BMI > 25	8	53.3
BMI > 30	7	46.7
BMI > 35	0	0.0
BMI > 40	0	0.0
Other (please specify)	0	0.0

11. Do staff in your Pharmacy have access to the following training and resources:

	% (number)				
	Yes	No	Partially	Don't know/not relevant	Total
Appropriate training on giving diet and nutrition advice to overweight or obese clients?	19.5% (69)	49.7% (176)	27.7% (98)	3.1% (11)	354
Appropriate training on giving advice about physical activity?	17.2% (61)	53.7% (190)	26.0% (92)	3.1% (11)	354
Appropriate training on behavioural change support for weight management?	9.6% (34)	67.2% (238)	19.8% (70)	3.4% (12)	354
Evidence-based literature and other resources covering diet and physical activity topics?	17.8% (63)	59.3% (210)	18.4% (65)	4.5% (16)	354

[36] Other included health screening, diabetes, requested by client, high blood pressure, advice given when anti-obesity medication prescribed, BMI>30 and living within a particular postcode, Healthy North Ayrshire criteria used

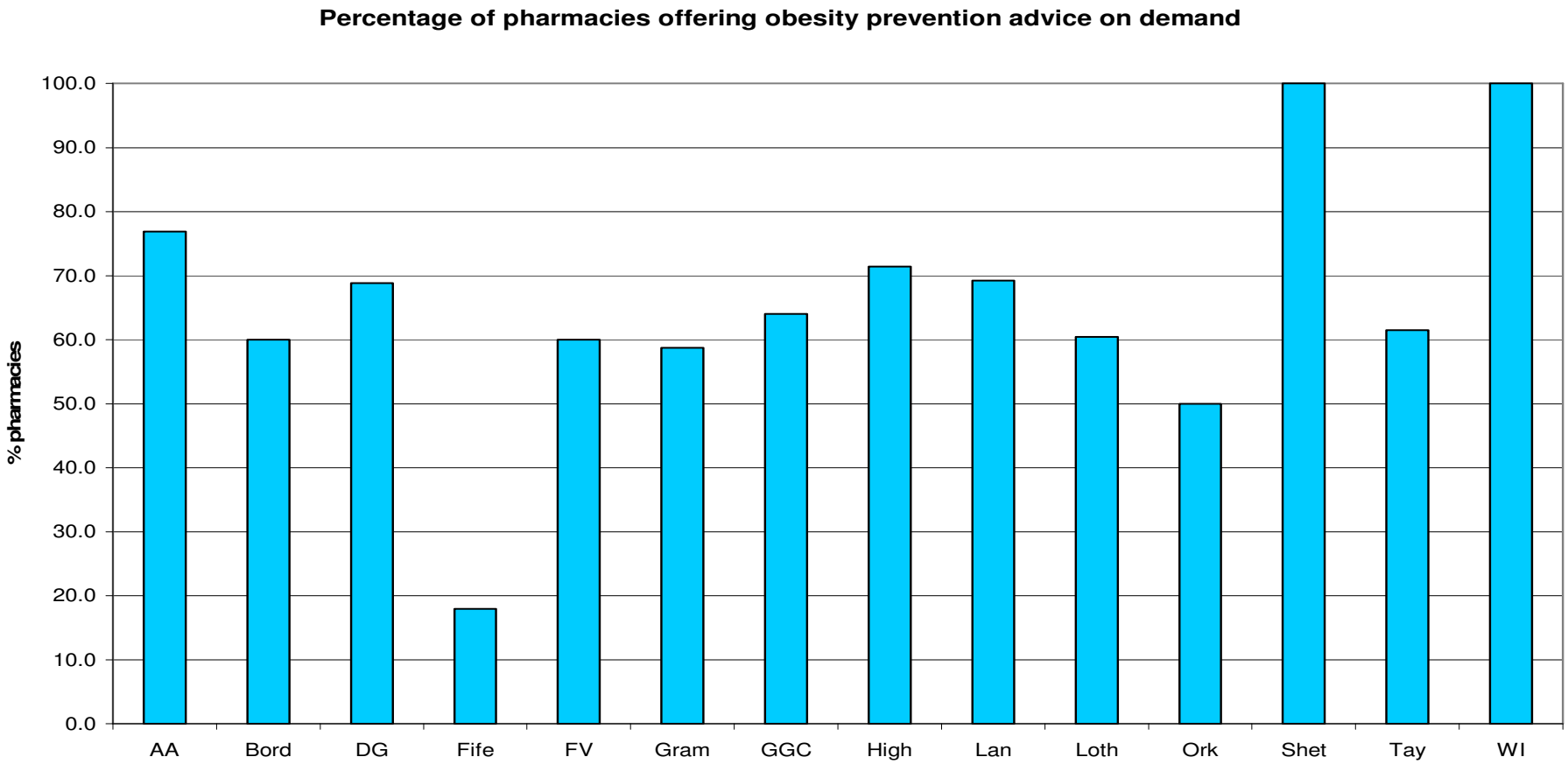
Appendix 15: Community Pharmacist survey results – summary of information

Percentage of community pharmacies offering weight management services to clients

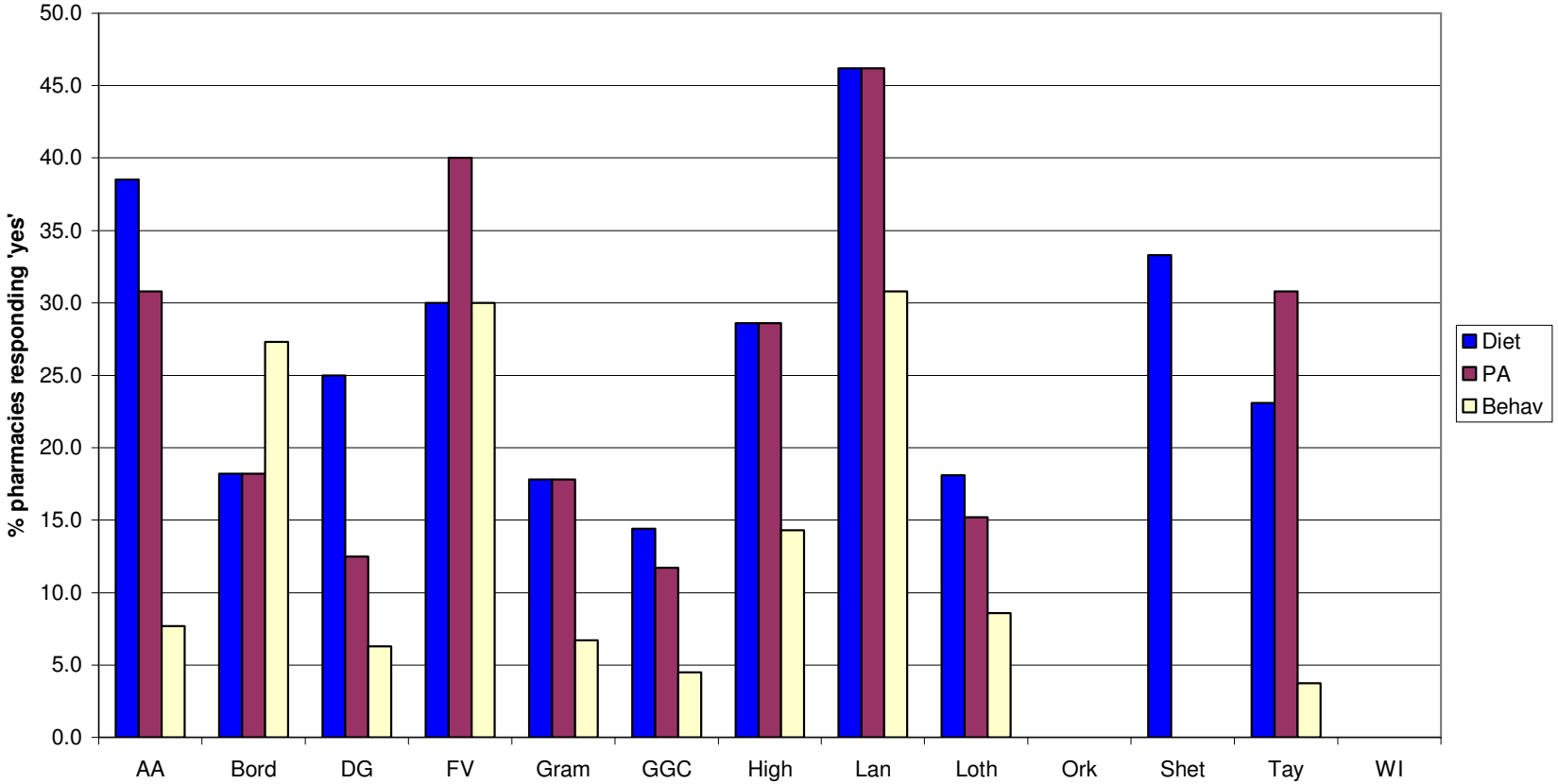
	AA	Bord	DG	Fife*	FV	Gram	GGC	High	Lan	Loth	Ork	Shet	Tay	WI
Measurement of weight	53.8	54.5	18.8	-	50.0	15.2	18.8	14.3	38.5	23.6	0.0	33.3	15.4	0.0
Advice on low fat or healthy eating diets?	92.3	63.6	76.5	-	80.0	45.7	56.8	71.4	76.9	47.2	50.0	33.3	46.2	50.0
Advice on energy-reduced (low calorie) diets?	53.8	27.3	41.2	-	60.0	21.7	38.7	71.4	46.2	29.2	0.0	0.0	38.5	50.0
Advice on physical activity for weight control?	76.9	54.5	58.8	-	80.0	41.3	49.5	57.1	69.2	43.4	50.0	0.0	53.8	50.0
Assessment of co-morbidities associated with obesity e.g. blood pressure type 2 diabetes?	38.5	18.2	35.3	-	60.0	23.9	26.1	28.6	30.8	30.2	0.0	0.0	30.8	0.0
Advice on or review of anti-obesity drugs?	69.2	18.2	52.9	-	70.0	21.7	15.3	42.9	7.7	22.6	50.0	0.0	23.1	0.0
Prescription of anti-obesity drugs e.g. in association with a PGD?	38.5	9.1	17.6	-	20.0	2.2	2.7	0.0	7.7	1.9	0.0	0.0	0.0	0.0
One-to-one weight management consultation with pharmacist?	38.5	9.1	23.5	-	80.0	2.2	10.8	57.1	46.2	9.4	0.0	0.0	53.8	0.0
One-to-one weight management consultation with another member of staff?	30.8	9.1	11.8	-	30.0	6.5	4.5	14.3	7.7	6.6	0.0	0.0	23.1	0.0

AA = Ayrshire & Arran; Bord = Borders; DG = Dumfries & Galloway; FV = Forth Valley; Gram = Grampian; GGC= Greater Glasgow & Clyde; High = Highland; Lan = Lanarkshire; Loth = Lothian; Ork = Orkney; Shet = Shetland; Tay = Tayside; WI = Western Isles

* The Fife survey was carried out in 2005 using different questions. Therefore the data are not comparable.


Percentage of pharmacies offering obesity prevention advice on demand
% pharmacies
100.0
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
AA
Bord
DG
Fife
FV
Gram
GGC
High
Lan
Loth
Ork
Shet
Tay
WI

Do pharmacy staff have access to appropriate training to support weight management activities?



Diet = giving diet and nutrition advice; PA = giving advice on physical activity; Behav = behavioural change support

Appendix 16: Useful published resources

Scotland

(a) General health

The Scottish Office (1999). Towards a healthier Scotland: a white paper on health.
www.scotland.gov.uk/library/documents-w7/tahs-00.htm

Scottish Executive (2000). Our National Health: A plan for action, a plan for change
www.scotland.gov.uk/Publications/2000/12/7770/File-1

Scottish Executive (2003) Improving health in Scotland – The challenge. Identified five key risk factors, including low physical activity and obesity, which prevent Scots from achieving better health. Suggested range of policy and leadership ideas to improve health in Scotland and reduce inequalities.
www.scotland.gov.uk/Publications/2003/03/16747/19929

(b) Diet and nutrition

Scottish Executive (1996) Eating for Health: A diet action plan for Scotland. Examined areas that present the hardest challenge to a healthier diet. Practical measures that could have a real impact on diet are identified. Organisations are highlighted which could be expected to provide a lead, plus other key stakeholders, such as industry.
www.scotland.gov.uk/library/documents/diet-00.htm

Food Standards Agency Scotland (2003). Diet and nutrition strategy: our role in implementing the Scottish Diet Action Plan 2003-2006.
Outlines the Food Standards Agency's role in improving diet and nutrition over the long- and short-term, e.g. by influencing food purchasing and eating habits, instigating changes in processed food specifications and increasing awareness of food and health.
www.food.gov.uk/scotland

Scottish Executive (2004). Eating for health: Meeting the challenge. Following on from The Challenge document, this report creates a strategic framework for Scottish food and health policy. It enhances the Scottish Diet Action Plan by identifying methods of delivery and short-term targets.
www.scotland.gov.uk/Publications/2004/07/19624/39995

NHS Health Scotland (2006). Scottish Diet Action Plan (SDAP) Policy Review. Review of the Scottish Diet Action Plan, Progress and Impacts 1996- 2005.
www.healthscotland.com/documents/1497.aspx

Health Scotland Heart Health Network (2007). Cardiovascular Disease: A Guide to Primary Prevention in Scotland (see chapter 5 for diet & nutrition)
www.phis.org.uk/projects/default.asp?p=FBDB

(c) Early years
Scottish Executive (2005) "Nutritional guidance for early years – food choices for children aged 1-5 years in early education and childcare settings".
Offers guidance on the menus, snacks and drinks provided to children in early years care.
www.scotland.gov.uk/Publications/2006/01/18153659/15

(d) Schools
Scottish Executive (2004) Being well – doing well: a framework for health promoting schools in Scotland.
Describes the health promoting school concept and provides a framework for developing, planning and evaluating health promoting schools.
www.healthpromotingschools.co.uk/

Scottish Executive (2002) "Hungry for Success"
Reviewed the contribution of school food to the health and well-being of Scottish children. Makes recommendations including monitored Nutrient Standards for School Lunches, guidance and training for caterers, better links with how food and nutrition are dealt with by the curriculum, and improved dining environments.
www.scotland.gov.uk/Publications/2003/02/16273/17566

Scottish Executive (2006). Improving the health and nutrition of Scotland's children. Schools (nutrition and health promotion) (Scotland) bill. The bill outlines a raft of proposals to improve school meals and ensure that local authority schools are health promoting environments.
www.scotland.gov.uk/Resource/Doc/113711/0027629.pdf

(e) Workplace
Scottish Executive (2004) "Healthy Working Lives"
A policy which brings together Scotland's Health at Work (SHAW), Safe and Healthy Working, and NHS Health Scotland's workplace health team into a single, integrated organisation, called the Scottish Centre for Healthy Working Lives.
www.healthscotland.com/hwl/abouthwl.cfm
http://www.scotland.gov.uk/Publications/2004/08/hwls/0

Criteria for Scottish Healthy Working Lives awards
http://www.shawlanarkshire.org/awards/

(f) Physical activity and sport

Scottish Executive (2003). Let's make Scotland more active: A strategy for physical activity.
Describes the benefits of regular physical activity and reviews the evidence on activity levels in Scots. Makes a range of recommendations for improving access to, and participation in, physical activity for all ages and abilities.
www.scotland.gov.uk/Publications/2003/02/16324/17895

Sport Scotland (2003). Sport 21: shaping Scotland's future
A strategy to improve the quality of sport in Scotland. The report makes a number of recommendations to be addressed between 2004 and 2007.
www.sportscotland.org.uk

Scottish Executive (2003). A walking strategy for Scotland: consultation document.
http://www.scotland.gov.uk/consultations/culture/wsfs-00.asp

Scottish Executive (2004). Report of the review group on physical education
Discussed how schools can be supported to implement improvements in the physical education curriculum, how this can improve current levels of participation in physical education and how that might in turn lead to greater participation and levels of performance in physical education, sport and physical activity for life.
http://www.scotland.gov.uk/Publications/2004/06/19482/38627

(g) Obesity treatment

Scottish Intercollegiate Guidelines Network (SIGN) (1996) Obesity in Scotland: integrating prevention with weight management. Edinburgh: SIGN 8
Gives guidelines for health professionals and the public on assessing and managing different levels of overweight in adults.
www.sign.ac.uk/guidelines/published/index.html

Scottish Intercollegiate Guidelines Network (SIGN) (2003) Management of obesity in children and young people. Edinburgh: SIGN 69.
Gives guidelines for health professionals and the public on assessing and managing different levels of overweight in children, including evidence for best practice.
www.sign.ac.uk/guidelines/published/index.html

NHS Health Scotland (2005). Review of bariatric surgical services in Scotland.
An expert group was convened to review services for the surgical management of patients with morbid obesity and to make recommendations to the Chief Medical Officer on future delivery.

NHS Health Scotland (2006). Towards a healthy weight action plan for Scotland.

This report summarises the outcomes of a 2005 workshop attended by over 80 stakeholders. A range of options for obesity prevention and treatment in Scotland are suggested.

(h) Other Scottish-focussed information
Budewig K, Crawford F, Hamlet N, Hanlon P, Muirie J, Ogilvie D (2004). Obesity in Scotland: why diets, doctors and denial won't work.
http://www.obesescotland.org.uk/

Information on setting up food co-ops
Bill Gray, National Project Officer, Scottish Consumer Council
bgray@scotconsumer.org.uk
0141 226 5261
www.communityfoodandhealth.org.uk/

(i) Data on obesity prevalence in Scotland
Scottish Public Health Observatory summary
http://www.scotpho.org.uk/web/site/home/Clinicalriskfactors/Obesity/obesity_data/obesity_adults.asp

Scottish Health Survey
See Chapter 5 for data on obesity.
http://www.scotland.gov.uk/Publications/2005/11/25145024/50251

ISD Child Health Surveillance Programme
http://www.isdscotland.org/isd/info3.jsp?pContentID=2531&p_applic=CCC&p_service=Content.show&

ISD Child Health Team - Obesity
http://www.isdscotland.org/isd/info3.jsp?p_service=Content.show&pContentID=3630&p_applic=CCC&

England
The second Wanless report (2004). Securing Good Health for the Whole Population. HM Stationery Office.
www.hm-treasury.gov.uk/consultations_and_legislation/wanless/consult_wanless04_final.cfm

The National Institute for Clinical Excellence (NICE) (2006). Obesity: Guidance on the prevention, identification, assessment and management of overweight and obesity in adults and children. London: NICE.
This guidance is evidence- based and incorporates updates of previous guidance on morbid obesity and anti-obesity drugs.
http://guidance.nice.org.uk/CG43/guidance

The National Audit Office (2001). Tackling Obesity in England. Report by the Controller and Auditor General HC220.
http://www.nao.org.uk/publications/nao_reports/00-01/0001220.pdf

The National Audit Office and Healthcare Commission Audit Office (2006). Tackling child obesity: first steps. London: The Stationery Office.
This report considers the cost-effectiveness of treating child obesity and offers recommendations for improving this.
http://www.nao.org.uk/publications/nao_reports/05-06/0506801.pdf

Department of Health (2006). Obesity Care Pathway. Weight Loss Guide.
This comprehensive package of materials offers specific leaflets for use by health professionals and patients to manage obesity in adults and children.
www.dh.gov.uk

South East Public Health Observatory (2005) Choosing Health in the South East: Obesity.
http://www.sepho.org.uk/Download/Public/9783/1/SEPHO%20obesity%20report%20Nov%2005.pdf

National Centre for Social Research (2005). Obesity among children under 11 (based on data from the Health Survey in England)
http://www.dh.gov.uk/PublicationsAndStatistics/Publications/PublicationsStatistics/PublicationsStatisticsArticle/fs/en?CONTENT_ID=4109245&chk=WB/AR1

International

World Health Organisation (WHO) (2000). Obesity: preventing and managing the global epidemic. Technical Series Report No 894**.** WHO: Geneva.
http://www.who.int/nutrition/publications/obesity/en/index.html

WHO (2002). Global Strategy on Diet, Physical Activity and Health. WHO: Geneva.
http://www.who.int/dietphysicalactivity/en/

International Obesity Taskforce and the European Association for the Study of Obesity (2002). Obesity in Europe: The case for action.
http://www.iotf.org/media/euobesity.pdf

European Commission (2005). Green paper. Promoting healthy diets and physical activity: a European dimension for the prevention of overweight, obesity and chronic diseases. Brussels: EU. COM (2005) 637 final.

Appendix 17: Useful Links

These links are provided for interest only and are not endorsed or recommended by the Scottish Public Health Network.

Scottish Public Health Observatory
www.scotpho.org.uk

World Health Organisation (WHO) obesity website
www.euro.who.int/obesity

WHO Global database on Body Mass Index
www.who.int/bmi/index.jsp

International Obesity Taskforce
www.iotf.org

Association for the Study of Obesity
http://www.aso.org.uk/portal.asp

MEND programme. A dietetic-led approach to weight management in children and young people using evidence-based practice
www.mendprogramme.org/

Faculty of Public Health obesity 'Toolbox'
www.fph.org.uk

Food and Drink Federation
https://www.fdf.org.uk

National Obesity Forum
This independent body has produced guidelines for the management of adult obesity and a low-cost training CD ROM for health professionals.
www.nationalobesityforum.org.uk

Counterweight
http://www.counterweight.org/

Aberdeen Centre for Energy Regulation and Obesity
www.abdn.ac.uk/acero

Policy options for responding to the growing challenge of obesity (PorGrow) project at Sussex University
http://www.sussex.ac.uk/spru/1-4-7-1-8.html

Foresight tackling obesities: Future choices project
http://www.foresight.gov.uk/Obesity/Obesity.htm

Cycling Scotland
http://www.cyclingscotland.org/home.aspx

ScotPHN report

For further information contact:

ScotPHN
NHS Health Scotland
Elphinstone House
65 West Regent Street
Glasgow
G2 2AF

Email: scotphn@health.scot.nhs.uk
Web: www.healthscotland.com/scotphn