North Tees Primary Care Trust

Health Improvement Partnership

Obesity: A Digest for Stockton

This report provides a summary of the data, trends, evidence and interventions related to obesity.

The purpose of this paper is to outline the key issues of obesity and its contribution to poor health in Stockton on Tees. It is recommended that the Health Improvement Partnership meeting on December 15th 2004 develop an obesity action plan for Stockton. This plan should cover the following areas:

1. Leadership
2. Prevention
3. Treatment
4. Monitoring and evaluation

Recommendations:

- Identify necessary roles, actions and responsibilities needed to implement the plan.
- Agree how to best use the existing evidence base to inform and promote effective local action.
- Interventions are appropriately monitored, evaluated and lessons learnt are shared and recognised.

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Box 1: Definitions of overweight and obese

Overweight and obesity are both conditions in which weight gain (predominately fat) has reached the point of endangering health.

Adults
The Internationally accepted definitions of overweight and obesity in adults are based on Body Mass Index (BMI). This is calculated as:

$$BMI = \frac{\text{Weight (kg)}}{\text{Height (m}^2\text{)}}$$

Underweight	BMI less than 20
Desirable	BMI 20-25
Overweight	BMI 25-30
Obese	BMI greater than 30

BMI does not take into account the issue of fat distribution.

Children
The BMI classification for obesity in adults is not applicable for children as the ratio of velocity of weight gain to height gain changes during normal growth
The International Obesity Task Force now recommends the use of BMI with appropriate centile charts. Internationally based cut-off points have been published defining:

- Overweight as a BMI equal to or greater than the 91st centile.
- Obesity as a BMI equal to or greater than the 98th centile.

The obese child has a high risk of becoming an obese adult with all the associated adult risks such as coronary heart disease, cancers and osteoarthritis.

In the recent Public Health White Paper the following commitments to obesity, diet and exercise are made:

- By mid-2005, devise a simple code indicating fat, sugar and salt content in processed foods. Work with supermarkets to encourage wider adoption of code.

- Work with food industry to reduce portion sizes and cut fat, sugar and salt content.

- Ofcom to examine food advertising aimed at children with a view to voluntary restriction on junk food adverts. Legislation to be considered in 2007 if “softly softly” approach proves ineffective.

- Schools urged to take a “whole school” approach to diet and nutrition. Healthier meals and free fruit to be mandatory. Offer pupils opportunities to learn about diet, nutrition, food safety and food preparation and cooking. Actively promote healthy food and drink as part of a balanced diet.

- More than £1billion investment in physical education and school sport, more sports academies and more protection for school playing fields.

- Children to be encouraged to walk or cycle to school and adults to “get active” at work.

- Independent task force to examine the best ways to prevent and treat obesity.

1. TRENDS IN OBESITY

Facts relating to overweight and obesity

Box 2: International facts relating to obesity (Source: World Health Organisation (WHO, 2000) Obesity: Prevention and Managing the Global Epidemic.

- 18 million children under 5 are classified as overweight
- In 2000, the number of obese adults globally had increased to over 300 million and more than 1 billion adults were overweight.

Box 3: National facts relating to obesity. (Source: National Audit Office (NAO) 2001: Tackling obesity in England.

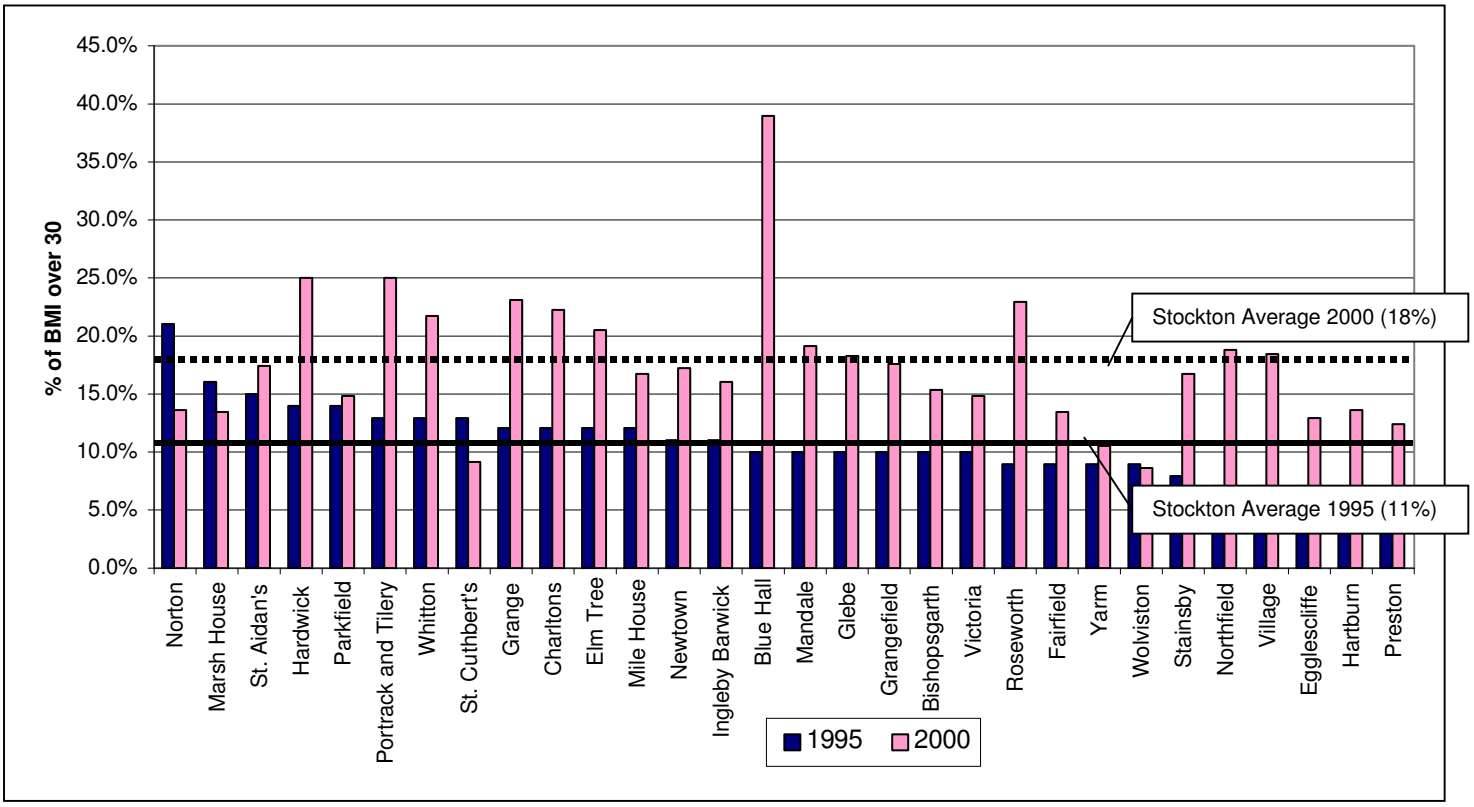
- In the UK over half of the adult population is overweight and about 1 in 5 adults are obese.
- England has experienced the fastest increase in overweight and obesity in Europe.
- Most evidence suggests that the main reason for the rising prevalence is a combination of less active lifestyles and changes in eating patterns.
- The prevalence of obesity is greatest amongst those of low socio-economic class, and those from certain ethnic minorities.
- Figures from the 2001 Health Survey for England (DoH, 2002) report that 8.5% of 6 year olds and 15% of 15 year olds were obese at that time.

1.1 Obesity Status in Stockton on Tees

Source: Tees Health and Lifestyle Survey 1995 and 2000 and The Stockton Healthy Schools Programme Survey 2003.

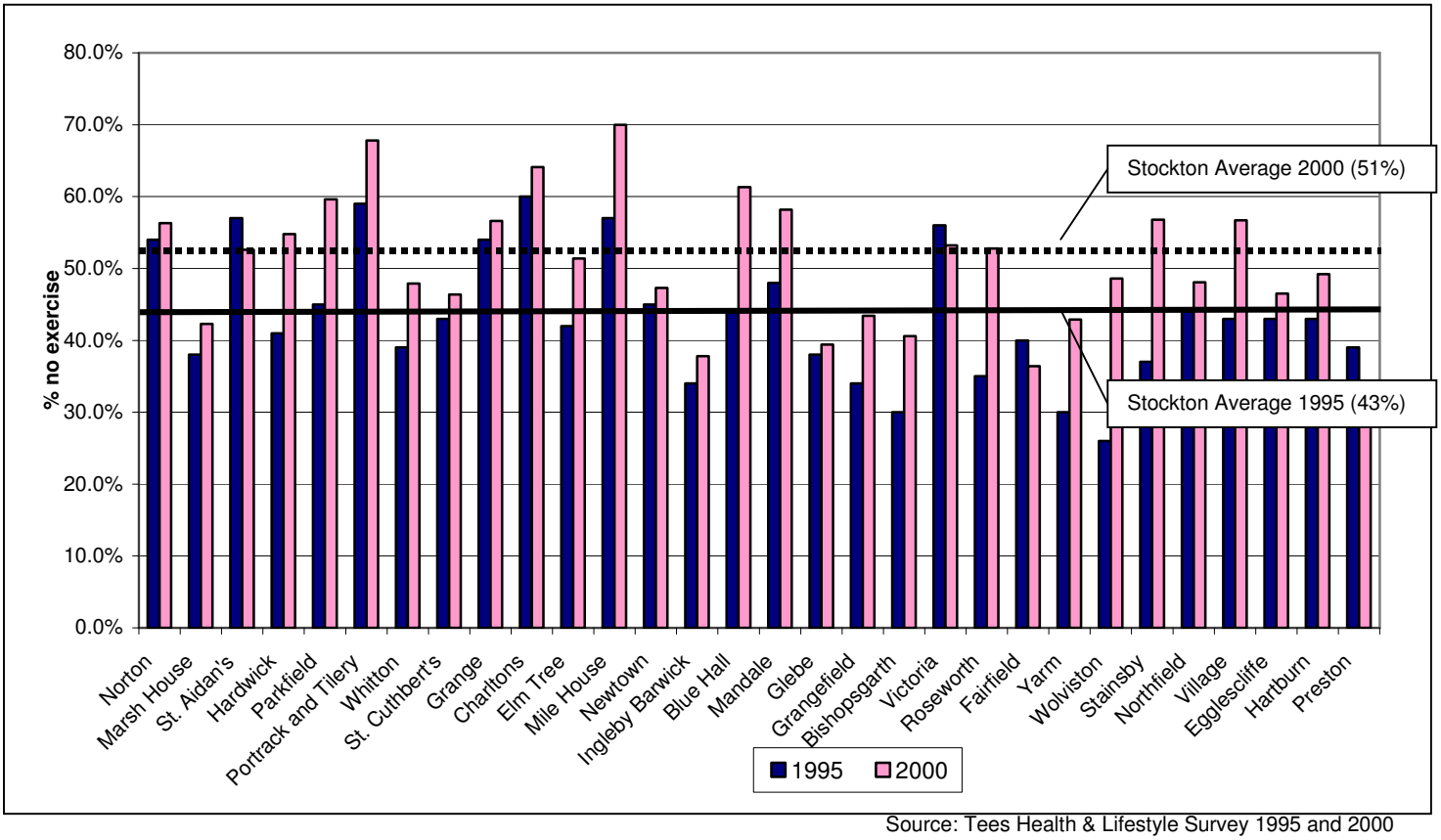
- Rates of obesity in the most deprived group (12-22% for 1995 and 2000) were about 50% higher than the most affluent group (8-13%)
- There is a continuous gradient in obesity from the most affluent (who are least obese) to the very deprived (who are most obese).
- There has been an increase in obesity in all ages for men and women from 1995 to 2000, with the greatest increase in obesity occurring at age 25-34 for men and 16-24 for women.
- About 50% of men and women are not taking any moderate or strenuous activity sufficient to benefit their health.
- 22.4% of secondary school pupils in Stockton ‘never’ consider their health when choosing what to eat.
- 44.8% of the pupils in Stockton would like to lose weight, however most people try to lose weight by diet alone and do not include exercise.
- 47% of Year 2 (ages 6-7) pupils have crisps and 48% sweets and chocolate on ‘most days’.

Figure 1: The percentage of people who had recorded a Body Mass Index (BMI) over 30 (obese), in 1995 and 2000, by ward.



Source: Tees Health & Lifestyle survey 1995 and 2000

Figure 2: The percentage of people who do no exercise, in 1995 and 2000, by ward.

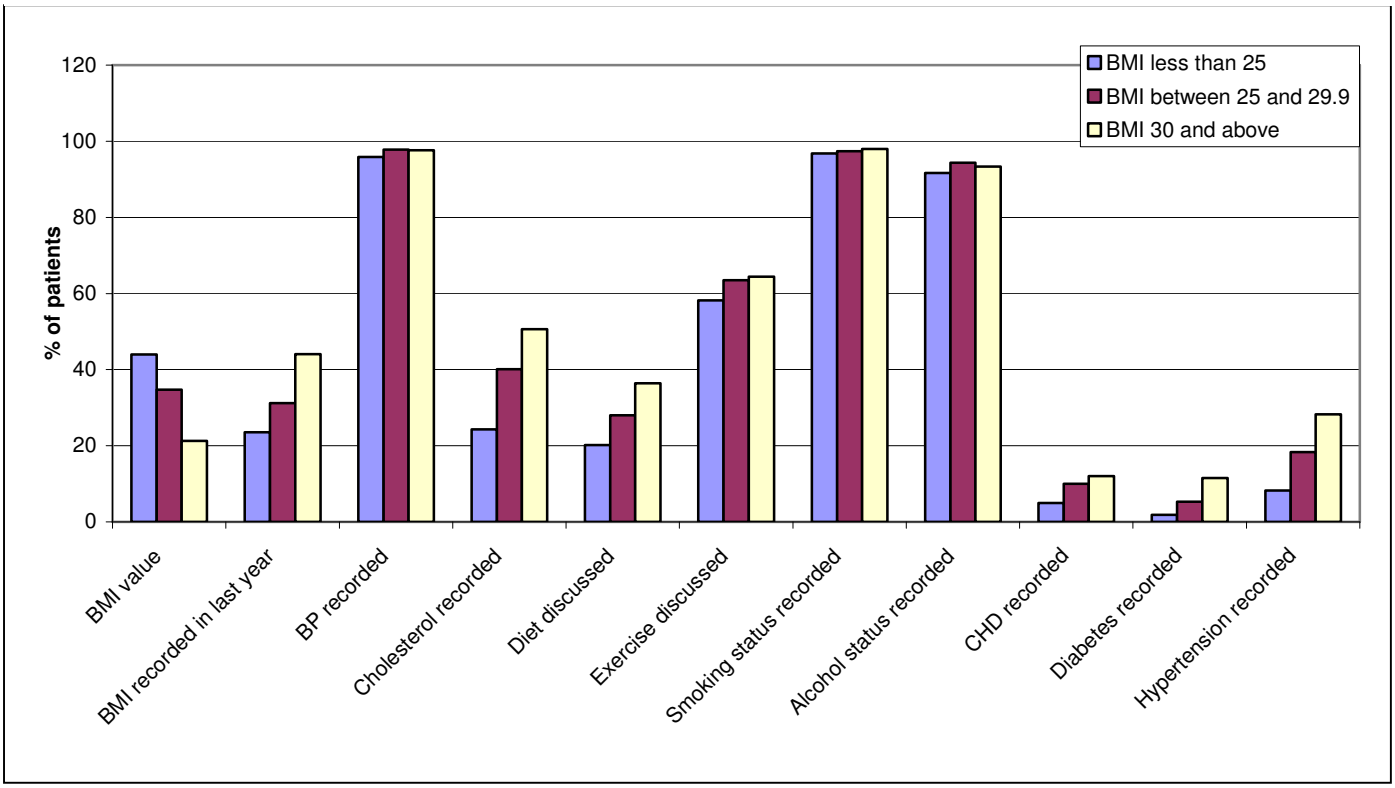


Source: Tees Health & Lifestyle Survey 1995 and 2000

Teesside Primary Care Informatics (PCI) audited current weight management in primary care by extracting BMI data. 20 practices in North Tees were audited which is a population of 155833. The results of the audit are as follows:

- 22189 patients (30%) have had a BMI recorded in the last year.
- 7867 patients (35%) of those with a BMI in the last year are 'overweight'
- 6808 patients (31%) of those with a BMI in the last year are 'obese'
- 6% of the population have CHD
- 3% of the population have diabetes
- 11% of the population have hypertension

Figure 3: Findings from a BMI Audit of 20 practices in North Tees, 2004

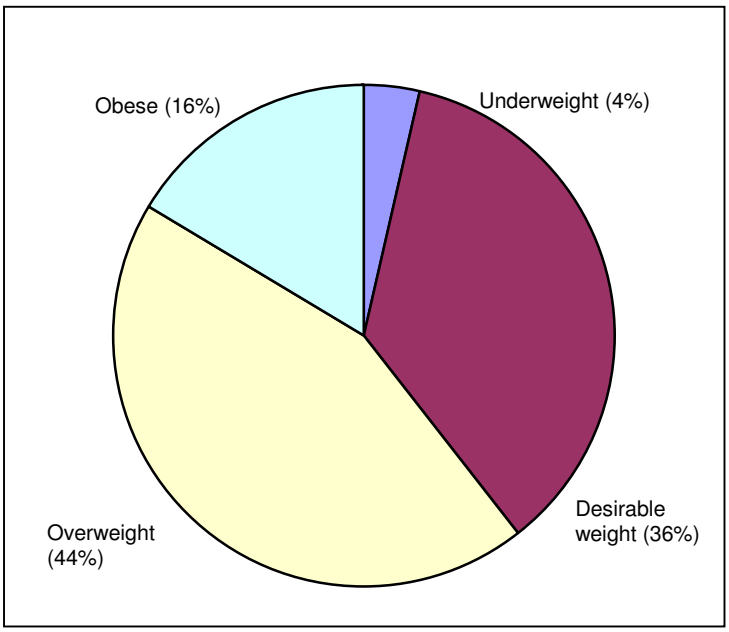


Source: Primary Care Informatics, Body Mass Index: North Tees PCT Totals. May-Aug 2004

1.2 How is weight distributed in the local population?

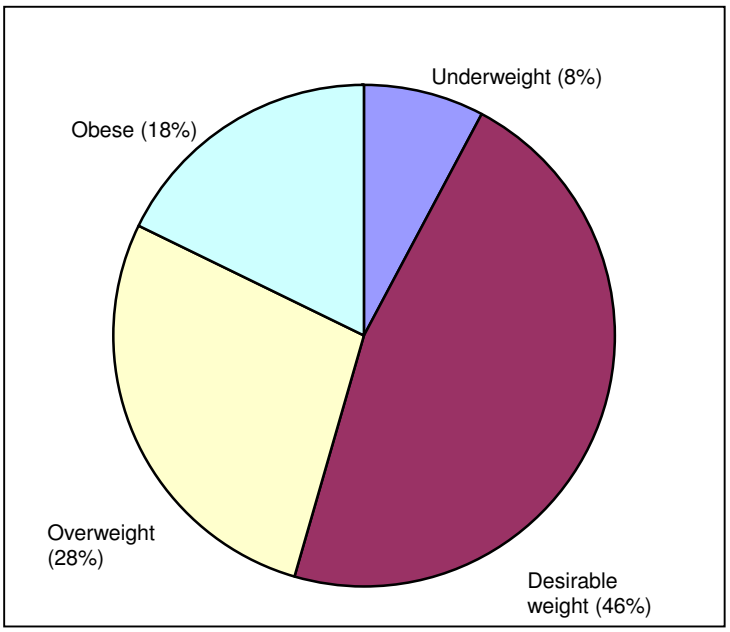
- The proportion of men (35.8%) who are of desirable weight is less than that for women (46.5%)
- Men (44.2%) are more likely to be overweight than women (27.9%)
- There is little difference in the proportions of men (16.3%) and women (17.7%) who are obese.

Figure 4: Body Mass Distribution for Men, 2000



Source: Tees Health & Lifestyle Survey 2000

Figure 5. Body Mass Distribution for Women, 2000



Source: Tees Health & Lifestyle Survey 2000

2. CAUSES OF OBESITY

Data from the Health Survey for England (Joint Health Surveys Unit, 2002) revealed that age, education, social class and prosperity have an important influence on the risk of becoming obese. The current environment of energy dense diets and low levels of physical activity is seen by researchers as the primary cause of the current global obesity epidemic.

Weight gain usually occurs when energy intake exceeds expenditure. Some factors contributing to weight gain are:

- Low levels of physical activity
- Increased consumption of fast foods and snack foods
- Increased dependence of car
- Increased automation in the workplace

Other causes include medical conditions, genetic factors and therapeutic causes.

3. COSTS ASSOCIATED WITH OBESITY

(Source: Department of Health)

In England, the cost of obesity is estimated to be £3.7 billion per year, including:

- £49 million for treating obesity
- £1.1 billion for treating the consequences of obesity,
- Indirect costs of £1.1 billion for premature death
- £1.45 billion for sickness absence

The cost of obesity plus overweight is estimated at up to £7.4 billion a year.

So for a population size similar to that of Stockton (178,600), the estimated annual cost of obesity plus overweight is would be £26 million.

The estimated *human* cost of obesity nationally is:

- 18 million sick days a year;
- 30 000 deaths a year, resulting in 40 000 lost years of working life.
- Deaths linked to obesity shorten lifespan of nine years on average.

3.1 Health costs associated with obesity

The health consequences of obesity and overweight are many and varied, ranging from an increased risk of premature death to several non-fatal but debilitating and psychological complaints that can have an adverse effect on quality of life.

Some of the major health problems associated with obesity and overweight are:

- Type 2 diabetes

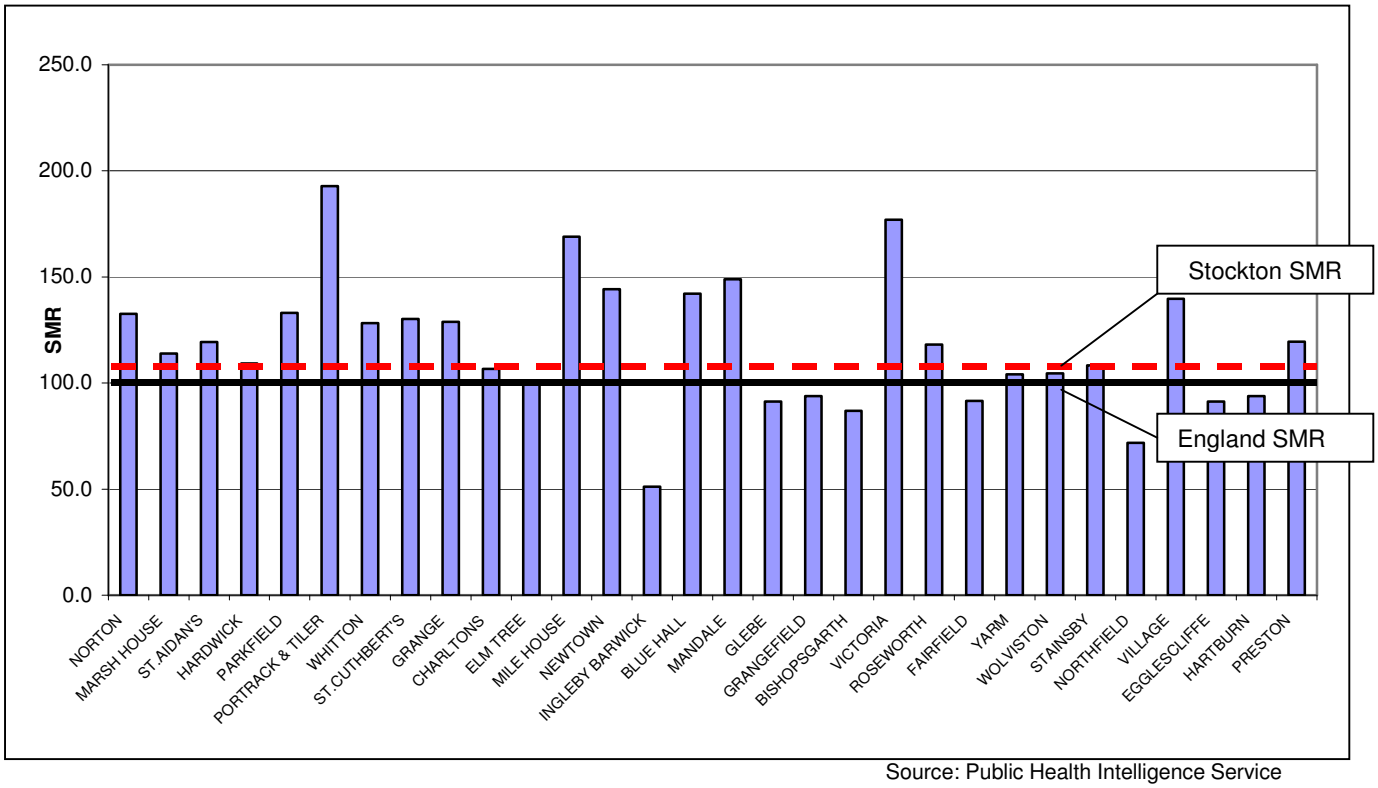
- Cardiovascular disease and hypertension, including coronary heart disease (CHD), stroke and peripheral vascular disease.

- Some cancers, particularly of hormone-dependent and gastrointestinal cancers. The clearest association is with cancer of the colon, for which obesity increases the risk by nearly three times in both men and women.

The degree of risk is influenced for example, by the relative amount of excess body weight, the location of the body fat, the extent of weight gain during adulthood and amount of physical activity. Most of these problems can be improved with relatively modest weight loss (10 to 15%), especially if physical activity is increased.

Long term weight loss is associated with reduced risk of developing diabetes and improved glucose tolerance in men and women. There is evidence to suggest that even a modest weight loss of 5-10% of starting body weight is sufficient to achieve clinically relevant health effects.

Figure 6: SMR for Coronary Heart Disease for each ward in Stockton, 1993-1997



Source: Public Health Intelligence Service

4. EVIDENCE FOR TACKLING OVERWEIGHT AND OBESITY

The Health Development Agency (HDA), 2003 has produced a summary of evidence for the management of obesity and overweight.

4.1 Overweight and obesity in children and adolescents

Prevention

- The evidence supports the use of multi-faceted school based interventions to prevent overweight and obesity in school children. Interventions include:
    - Nutrition education
    - Physical activity promotion and reduction in sedentary behaviour
    - Teacher training and curricular material
    - Modification of school meals and tuck shops
- There is limited evidence which suggests family based programmes that involve parents and contain dietary education and target reductions in sedentary behaviour may help prevent childhood obesity.

Treatment

- In most obese and overweight children weight maintenance is an acceptable goal
- Targeting parents (at least one parent) and children together with physical activity and health promotion.
- Multi-faceted family-based behaviour modification programmes for primary school children, where parents take primary responsibility for behaviour change. The programmes include diet, exercise, reducing sedentary behaviour and lifestyle counselling.
- Weight maintenance and/or weight loss can only be achieved by sustained behavioural changes such as healthy eating, increased physical activity and reducing physical inactivity e.g. watching television, playing computer games to less than 2 hours per day.

4.2 Overweight and obesity in adults

Prevention

- A combination of diet and physical activity
- Individual risk assessment and advice with regular follow up.
- Briefing training sessions for GPs and practice nurses.
- Specialist weight loss clinics for people at risk of becoming obese.
- Promoting physical activity.

Treatment

- Approaches which combine diet and increased physical activity
- Combination of behavioural therapy strategies with other weight loss programmes
- Training for health professionals and community leaders of self-help weight loss clinics
- Encouraging shared care between GPs and a hospital service
- Use of in-patient obesity treatment services
- Reminders to GPs to prescribe diets delivered by behavioural psychologists
- Brief educational interventions for GPs
- Partnership with organisations that deliver weight loss programmes
- The use of low calorie diets (1,000-1,500 kilocalories per day).
- The National Institute for Clinical Excellence (NICE) have produced guidance for the use of Orlistat and Sibutramine. A protocol, including arrangements for advice, support and counselling on diet, physical activity and behavioural strategies, must be followed. Patients must show a commitment to losing weight before the drugs can be prescribed.
- Evidence shows that surgery can be effective when all other non-surgical methods have failed.

5. SUMMARY OF CURRENT OBESITY PREVENTION AND MANAGEMENT SCHEMES IN STOCKTON

5.1 Nutrition and Healthy Eating

- A Stockton-on-Tees Food Policy has been developed to promote healthy eating, support sustainable food production, provide nutritionally balanced meals in schools, workplaces, food outlets and community facilities, and support measures to ensure foods are adequately labelled.

- A range of initiatives focus on promoting healthy eating in communities, schools, food outlets, workplaces and in the more disadvantage wards in Teesside e.g. Food for Health Award, Partners in Health Promotion, 5-A-Day Programme, Sure Start, National School Fruit Scheme, School breakfast clubs, Health tuck shops, Adult Education.

- Information and supports is available about nutrition related initiatives and how to overcome some barriers to healthy eating e.g. Community Food Network, North East Obesity Forum, North East Community Food Initiatives Network, Guidelines for promoting healthy eating and weight management.

5.2 Physical Activity

- A Stockton-on-Tees Physical Activity Strategy provides a framework for increasing participation in physical activity to improve the health, well-being and quality of life.

- Stockton Sports Development Team provide a range of physical activity programmes and healthy lifestyle advice for communities and residents, people referred from their GP or health professional, and schools.

- Other services are available which aim to promote health living and provide physical activity e.g. Tees Active Leisure, Stockton Adult Education Service, Parks and Countryside events, Stepping Out-Health Walks etc.

5.3 Other Initiatives

- Stockton Healthy Schools Programme has developed healthy eating and physical activity initiatives which include building on the National Fruit Scheme, healthy tuck shops and vending machines, after school cookery clubs, breakfast clubs etc.

- School nurses have an important role in prevention, identification and management of childhood obesity and measure height and weight at the entry interview and deliver health related topics in schools e.g. healthy eating and benefits of physical activity.

- Primary care identify obese or overweight people during clinics or when carrying out routine blood pressure checks. Some practices offer 1 to 1 advice on diet and exercise, follow up sessions with weight monitoring, group sessions.

- A Secondary Care weight management programme that is nutritionist led encourages exercise on prescription as well as lifestyle changes. A weight management clinic is held on a fortnightly basis which is Consultant led.

- An accredited ‘Weight Management’ course is available through North Tees PCT Public Health Department for anyone wishing to run adult weight loss groups and a ‘Healthy Eating on a Budget’ course is available for members of the public with an interest in healthy eating.

Section 5 provides a picture of the current initiatives and partners who are addressing the obesity issues in Stockton. This list of initiatives is by no means exhaustive and many partners throughout of obesity.

Locally, there is a strong desire for action and many projects are underway. What is now required is strong leadership and coordination of projects, a local awareness of the evidence base on obesity, and future work to be guided by evidence and appropriately evaluated.