

### Summary and Implications

This chapter considers a few of the most important public health issues – smoking, health inequalities, salt, obesity, falls and physical activity – and presents case studies which examine the process of how targets were set, how strategies were developed and what progress has been made in practice.

It has been known for many years that a small number of risk factors account for a significant proportion of the burden of disease, and that the socio-economic gradient in some of these lifestyle choices can explain a very large proportion of health inequalities (around half in the case of smoking alone). Yet the Government does not currently have a comprehensive set of objectives for reducing the prevalence of these key lifestyle risk factors across the population for the local NHS and local authorities to choose how best to deliver them.

There is very little information on the local prevalence of some of these risk factors and much of the national information is not timely. So where targets and objectives have been set, there has not always been an appropriate and consistent degree of challenge, nor evidence about how they can be achieved cost-effectively, nor what incentives and strategies are needed for their practical delivery.

Objectives need to be set on a consistent and coherent basis across the whole range of major health determinants, and action plans produced based on:

- a clear evidence base to inform such action;
- a coherent national strategy for evaluating promising initiatives to build up evidence on what works cost-effectively; and
- rapid dissemination of successful experiments across the country.

Even in smoking, where there is a relatively richer evidence base on how to change behaviour, it is questionable whether the scale of the effort to reduce smoking prevalence is in line with the costs to the population and to the NHS of the burden of disease smoking causes.

**4.1** As outlined in *Population Health Trends*, there are a number of lifestyle factors, for example smoking, obesity and physical activity, which cause a large part of the burden of mortality and morbidity. These factors have been well understood over recent decades and many reports have been produced with targets and action plans to tackle these issues, as discussed in Chapter 2 of this Report. But trends in the overall health of the population suggest that these plans have not been successful at a population level – whilst smoking prevalence and levels of physical activity have remained relatively stable over the last decade, obesity levels have been rising. This chapter discusses a number of key risk factors and looks at government plans for tackling them.

**4.2** The case studies presented here are not comprehensive in covering the full range of public health issues but instead are illustrative of some of the key issues in how public health policy is developed in practice. The Review recognises that there are many other drivers of demand for health, including diet more generally, mental health and sexually transmitted diseases, that have not been given due consideration here.

**4.3** The Government should seek advice about what quantified objectives it should set for progress in tackling all major determinants of health and health inequalities. The process should involve consultation, and quantified objectives should be subdivided where appropriate to cover important subgroups, particularly those key to achieving objectives to reduce health inequalities. It may be appropriate to set figures for three years and seven years ahead and they should be reassessed regularly.

## SMOKING

**Trends 4.4** Smoking is the single greatest cause of preventable illness and premature mortality. It is estimated to kill 120,000 people per year in the UK (one fifth of all deaths) and causes one third of all cancer and one seventh of cardiovascular disease<sup>1</sup>. It is estimated to cost the NHS up to £1.7 billion<sup>2</sup> each year in terms of treating ill health as well as having wider costs such as productivity losses from ill health, absenteeism and accidents.

**4.5** Second-hand smoking, otherwise known as passive smoking, increases the risk of lung cancer by 20 to 30 per cent<sup>3</sup> for people who live with smokers, equivalent to several hundred deaths a year. Second-hand smoke also causes heart disease, increasing the risk by around 25 per cent in people who live with smokers<sup>4</sup>. Children are particularly vulnerable to passive smoking because they have less developed immune systems and smaller lungs. It has been observed that the children of smokers have a doubling of the risk of sudden infant death syndrome and a 50 per cent increase in the risk of asthma<sup>4</sup>.

**4.6** In England, an estimated 27 per cent<sup>5</sup> of adults were smokers in 2001 according to the latest Government figures. Although there has been a large decline in smoking since the 1970s, when the link between smoking and ill health became well known, smoking prevalence remained fairly stable at around 27 per cent during the 1990s. There are long lags in the availability of smoking trends data. This makes it particularly difficult to set policy effectively and to measure the impact of interventions to reduce smoking and to plan policy.

**4.7** There is, however, some evidence using alternative more frequent omnibus survey data to suggest that there has been a marginal decline in smoking prevalence between 1999 and 2002 of about 0.4 per cent per year<sup>6</sup>.

**4.8** The overall rate of 27 per cent hides major societal differences; 32 per cent of manual workers smoke compared with 21 per cent of those in non-manual occupations; 28 per cent of men smoke while the figure for women is 25 per cent; smoking in pregnancy now stands at 19 per cent; and 10 per cent of 11 to 15 year olds are regular smokers<sup>5</sup>.

<sup>1</sup> *Protecting Smokers, Saving Lives: The case of a tobacco and nicotine regulatory authority*, Royal College of Physicians, December 2002

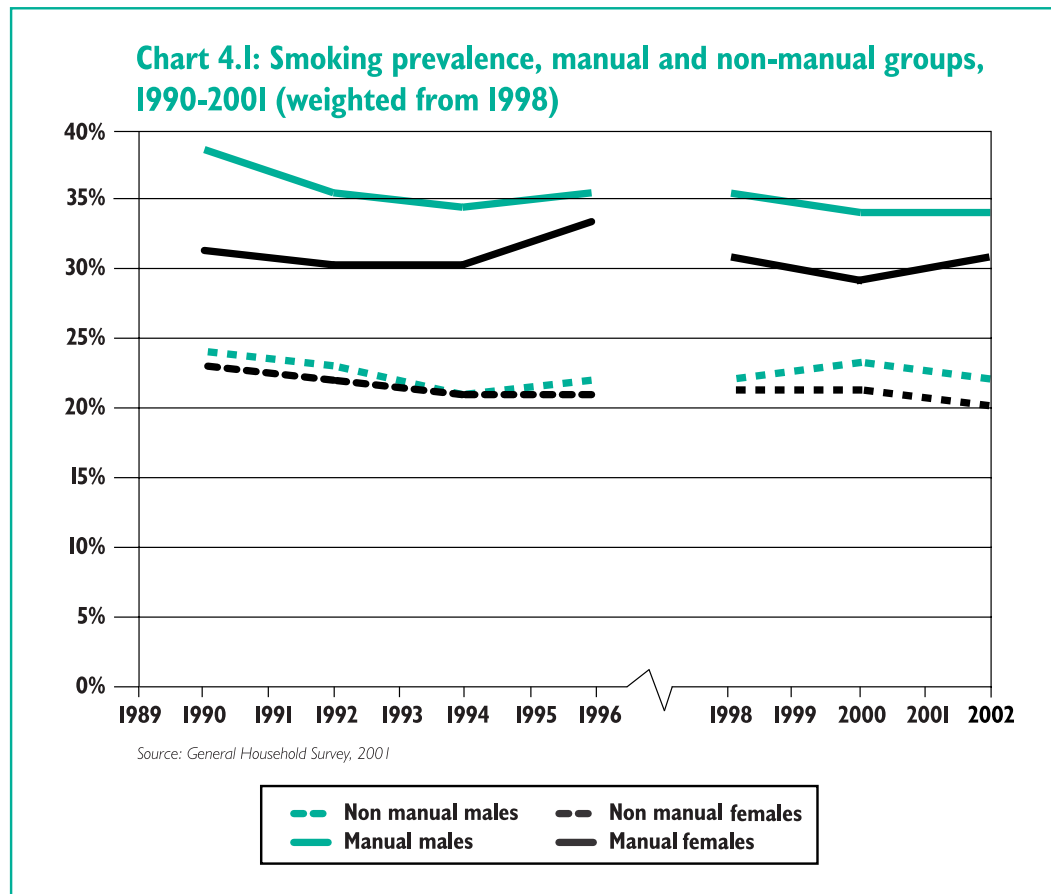
<sup>2</sup> *Smoking Kills*, DH, 1998

<sup>3</sup> *BMA towards Smoke Free Workplaces*, Board of Science and Education and Tobacco Control Resource Centre, 2002

<sup>4</sup> *International Consultation on Environmental Tobacco Smoke and Child Health: consultation report*, WHO, 1999

<sup>5</sup> *General Household Survey*, 2001

<sup>6</sup> *Monitoring Cigarette Smoking in Britain in a Timely Fashion*, M Jarvis, *Addiction*, 2003



**4.9** There is an overwhelming case for government intervention in reducing tobacco consumption and protecting children and others from passive smoking. Because such large gains can be made from getting an individual to give up smoking, even smoking cessation interventions with limited success rates can be shown to be cost-effective.

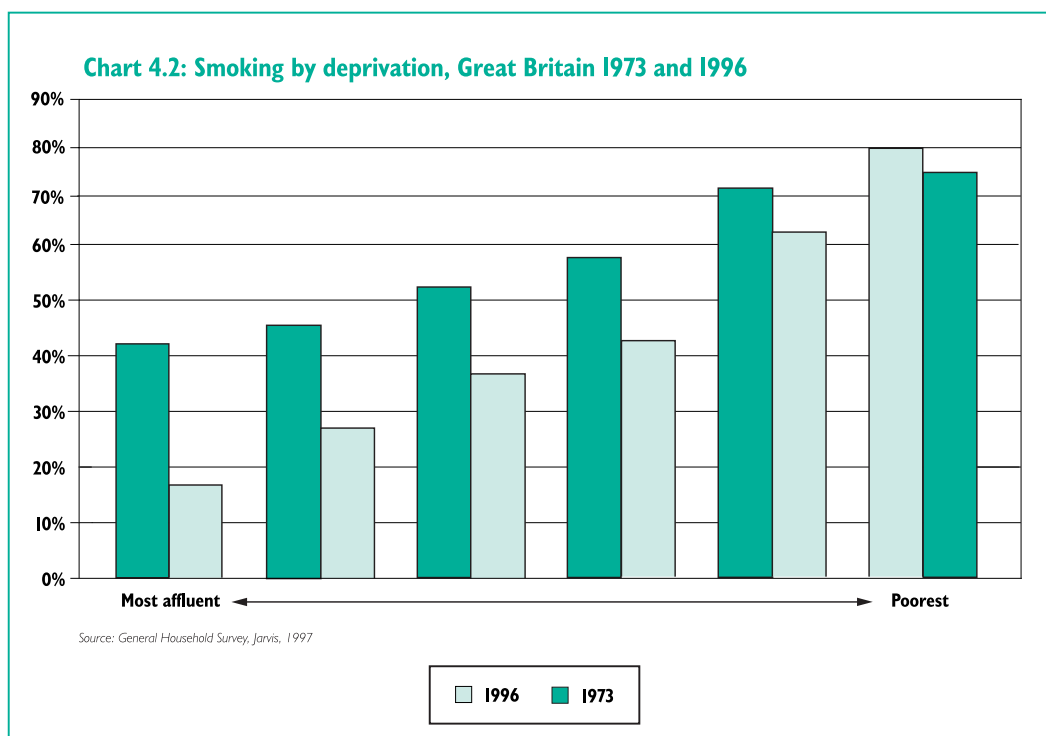
**Smoking Kills 4.10** In 1998, this Government produced its first comprehensive anti-smoking strategy, the White Paper *Smoking Kills*. *Smoking Kills* set targets for reducing smoking prevalence in the population and in certain key sub-groups of the population alongside a package of measures to help existing smokers quit the habit and help children and young people not to get addicted in the first place.

**Government targets 4.11** There is currently no Public Service Agreement target on reducing smoking. However, from the evidence above it is clear that reducing smoking will be a key determinant of success against the PSA target on CHD, cancer and health inequalities. Both *Smoking Kills* and the *Cancer Plan* have set key targets on reducing smoking:

- to reduce smoking prevalence from 28 per cent (1996 baseline) to 26 per cent in 2005 and 24 per cent in 2010 (*Smoking Kills*);
- to reduce smoking prevalence among manual groups from 32 per cent (1998) to 26 per cent by 2010 (*Cancer Plan*);
- to reduce smoking prevalence among 11-15 year olds from 13 per cent (1996) to 11 per cent by 2005 and 9 per cent by 2010 (*Smoking Kills*);
- to reduce smoking among pregnant women from 23 per cent (1995) to 18 per cent by 2005 and 15 per cent by 2010 (*Smoking Kills*).

**4.12** These targets were set in the context of little change in the prevalence of smoking over the 1990s, and therefore the overarching target on prevalence does not represent substantial progress. Recent progress certainly suggests that the overarching target might be achievable. Meeting the target levels set out in the *fully engaged scenario* would require another step-change in levels of smoking reductions similar to those seen over the 1970s and 1980s (see chart 1.3).

**4.13** The specific targets, particularly on prevalence among manual groups, look far more challenging. Most of the decline in smoking prevalence since the 1970s has been due to big reductions in prevalence among the least disadvantaged groups (see chart 4.2) and for some groups, smoking rates have actually increased. These trends are particularly significant in the context of achieving the health inequalities targets – it is estimated that half the difference in survival to 70 years of age between social class I and V is due to higher smoking prevalence in class V<sup>7</sup>.



**4.14** The overall policy targets are supplemented by specific targets for the NHS and devolved to PCTs through the Priorities and Planning Framework (PPF), for the years 2003/04 to 2005/06. These operational targets are:

- to achieve 800,000 smokers successfully quitting at the four week stage by 2006;
- to achieve a one percentage point reduction per year in the proportion of women continuing to smoke throughout pregnancy, focusing especially on smokers from disadvantaged groups; and
- in primary care, to update practice-based-registers so that patients receive appropriate advice and treatment on diet, physical activity and smoking, particularly those patients at high risk of CHD, with hypertension, diabetes and a BMI greater than 30.

<sup>7</sup> Department of Health analysis

**4.15** These targets are important in determining how PCTs allocate their resources and the services that they choose to provide at the local level. But it is not clear how the targets were arrived at and how they contribute to overall objectives.

**4.16** One area of particular concern in this Review has been the adoption of self-reported cessation at 4 weeks as the main cessation outcome measure for monitoring purposes. The 4 week target is in line with the Food and Drug Administration (FDA) definition of complete abstinence. Some leeway for relapse is allowed in the first two weeks after the quit date, so a successful 4 week quitter has not smoked at all for at least 2 weeks. However, given the addictive nature of tobacco, only 30 to 40 per cent of smokers truly abstinent at 4 weeks are likely to be abstinent at one year<sup>8</sup>. Therefore, as an outcome, it is a poor representative indicator of true long-term cessation and there must be a danger that fixing a target in this way and giving it prominence leads to distortions of resource allocation and measurement.

### Smoking cessation services

**4.17** NHS Stop Smoking Services were originally funded through a separate funding stream allocated to Health Authorities. They were based on the evidence that smoking cessation programmes are a cost-effective means of reducing smoking prevalence. Cessation services have also been shown to be particularly successful when combined with nicotine replacement therapy (NRT)<sup>9</sup>. The smoking cessation services target on 4 week quitters has been increased from a national target of 100,000 in 2002/3 to 800,000 for the three years between 2003/04 and 2005/06. This is supported by an increase of £138 million in funding allocated to PCTs. See box 4.1 for further details of lessons so far.

**4.18** Smoking cessation services alone are essentially an individual intervention that cannot be expected to deliver significant falls in prevalence. They are part of a much broader strategy that is required to influence smoking behaviour across the general population, with a commitment from right across government, not just from the Department of Health.

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<sup>8</sup> ASH and Department of Health analysis

<sup>9</sup> *Smoking Cessation Guidelines for Health Professionals*, Thorax, 1998

**Box 4.1 Smoking Cessation Services**

From the visits that the Review team have made there are a number of early lessons to be learnt from the operation of smoking cessation services:

- smoking cessation targets are widely welcomed by public health professionals;
- the existence of the smoking cessation targets has, in some cases, diverted resources from acute services to primary prevention;
- ensuring that smoking cessation services are combined with nicotine replacement therapy (NRT) where appropriate can improve success rates from 2 per cent with no help at all, to 20 per cent for those who have used a clinic and NRT; and
- there were 124,100 successful quitters at the 4 week stage in 2002/03 – assuming a drop-out rate of 70 per cent, this could translate to 37,000 fewer people each year continuing to smoke.

However, there are also urgent areas for better management if resources are to be effectively used and the right lessons learnt:

- there is only patchy evidence on how to best make the service work;
- despite HDA guidance on the skills of smoking cessation officers, this information has not always made it to the frontline – some areas are looking for nurses, whilst others are more interested in specific people skills. With such a huge increase in the target, there is likely to be a shortage of skilled people;
- management information is very poor – both at the national level (where there are very long lags before smoking prevalence data becomes available) and at the local level (where it is not clear who is smoking, who wants to give up and their motivations for wanting to give up). Nor is it clear that the assumptions about people's likelihood to remain quitters will be accurate if the services start to focus on the hardest to help;
- there is also a lack of monitoring information – smoking cessation officers are only required to follow-up the client at the 4-week stage and it becomes more difficult to monitor progress after this point. There are examples where GPs are paid £15 to record whether or not smoking cessation was successful; and
- the same quitter can be recorded up to twice in one year if they return to smoking after the first success.

**Advertising ban** 4.19 The commitments in *Smoking Kills* suggested that a comprehensive ban on all aspects of tobacco promotion, advertising and sponsorship would also produce a reduction in the prevalence of smoking. The Tobacco Advertising and Promotion Act received Royal Assent in 2002, ending newspaper, magazine and billboard advertising, in pack promotion schemes and almost all sponsorship except global events, which will be ended in mid-2005. It is estimated that the combination of these advertising bans might help to reduce smoking by up to 5 per cent<sup>10</sup> over the long term.

**Secondhand Smoke** 4.20 *Smoking Kills* recognised the dangers of second hand smoke and suggested “completely smoke-free places are ideal”. The policy recommendation it set forward was voluntary arrangements with employers and industry rather than any regulatory

<sup>10</sup> *Effect of Tobacco Advertising on Tobacco Consumption: a discussion document reviewing the evidence*, DH, 1992

action to ban smoking in public places.

**4.21** To date, the voluntary approach to banning smoking in the workplace has had limited success – in 2002 50 per cent of people said their workplace was smoke-free, compared with 40 per cent in 1996. A number of other countries have now implemented a workplace smoking ban via legislation. Some of this experience has been shown to be successful at reducing the prevalence of smoking, see box 4.2. Public support for smoking restrictions has also been found, in surveys, to be high, especially for restrictions in restaurants, the workplace and other public places, see table 4.1. However, it is perhaps not widely recognised that pubs and bars are themselves workplaces for some people.

#### **Box 4.2 Smoke-free workplaces and public places**

Measures that introduce more smoke-free workplaces and public places not only reduce exposure to second hand smoke, but may also result in a fall in cigarette consumption – the harder it is to find somewhere to smoke, the more incentives there are to quit. Smoking restrictions in the workplace have been established in Australia, Canada, Hong Kong and the USA. California has been particularly vigilant and imposed a ban on the smoking of tobacco in all enclosed places of employment in 1995. Ireland also took stringent preventative measures and announced that smoking would be banned in all workplaces, including restaurants and pubs in 2004. New York City has passed similar legislation.

Some studies estimate that a workplace smoking ban in England might reduce smoking prevalence by around 4 percentage points<sup>11</sup> – equivalent to a reduction from the present 27 per cent prevalence rate to 23 per cent if a comprehensive workplace ban were introduced in this country. This could be an underestimate if it triggers a move to wider cessation or an overestimate if other measures are already impacting on the smoking prevalence rate.

Around half of workplaces in England are not yet smoke-free. In the hospitality sector, the introduction of smoke-free policies on a voluntary basis has been particularly slow. Objections usually centre on the perception that becoming smoke-free will result in a reduction in business. However a recent study, which reviewed nearly 100 published studies on the economic effect of smoke-free policies on the hospitality industry, concluded "all the best designed studies report no impact or a positive impact of smoke-free restaurant and bar laws on sales or employment"<sup>12</sup>. This complements previous work, which estimated that introducing clean air policies actually increases productivity by 3 per cent<sup>13</sup>.

In other countries, bans across individual cities or areas, such as implementation in California or New York, have served as a catalyst for wider change. If national restrictions are not introduced, an equivalent city or town in England could act as a champion for smoke-free public places across the country and make a real impact on the health of their population, whilst piloting a ban on smoking in public places in England.

<sup>11</sup> *Health Check: on the state of public health*, Chief Medical Officer, DH, 2002

<sup>12</sup> *Review of the Quality of Studies on the Economic Effects of Smoke Free Policies on the Hospitality Industry*, M Scollo et al., Tobacco Control, 2003

<sup>13</sup> US Occupational Safety and Health Administration (OSHA),

**Table 4.1: Public opinion on smoking restrictions, 2002**

Smoking should be restricted	%
...at work	86
...in restaurants	88
...in pubs	54
...in other public places	87

Source: *Smoking related behaviour and attitudes, ONS, 2002*

### Anti-smoking campaigns

**4.22** Around £13 million was spent on anti-smoking education and media campaigns in 2002/3. Some campaigns are now delivered by charities such as Cancer Research UK and the British Heart Foundation.

**4.23** These campaigns are based on international experience: for example, the British Heart Foundation's "arteries" campaign in January 2004 draws heavily from a successful campaign in Australia. The success of campaigns is measured through tracking research of audience attitudes and actions before and after the campaign. Previous evidence indicates that if sustained at a high intensity and frequency anti-smoking campaigns can be expected to reduce smoking prevalence by about 1 per cent.

### Tobacco Regulation

**4.24** Tobacco regulation includes labelling of tobacco products, preventing the use of misleading terms and the safety of tobacco products. Drawing from international experience, especially from Canada, bigger and more direct warnings, such as "Smokers die younger" and "Smoking causes fatal lung cancer" became compulsory on cigarettes. These warnings take up 30 per cent of the front of packs and 40 per cent of the back.

**4.25** The directive also saw misleading descriptors such as "light", "mild" and "low tar" removed from cigarette packs (the evidence is now clear that they are no less dangerous than other cigarettes) and also introduced new maximum levels on tar, nicotine and carbon monoxide yields.

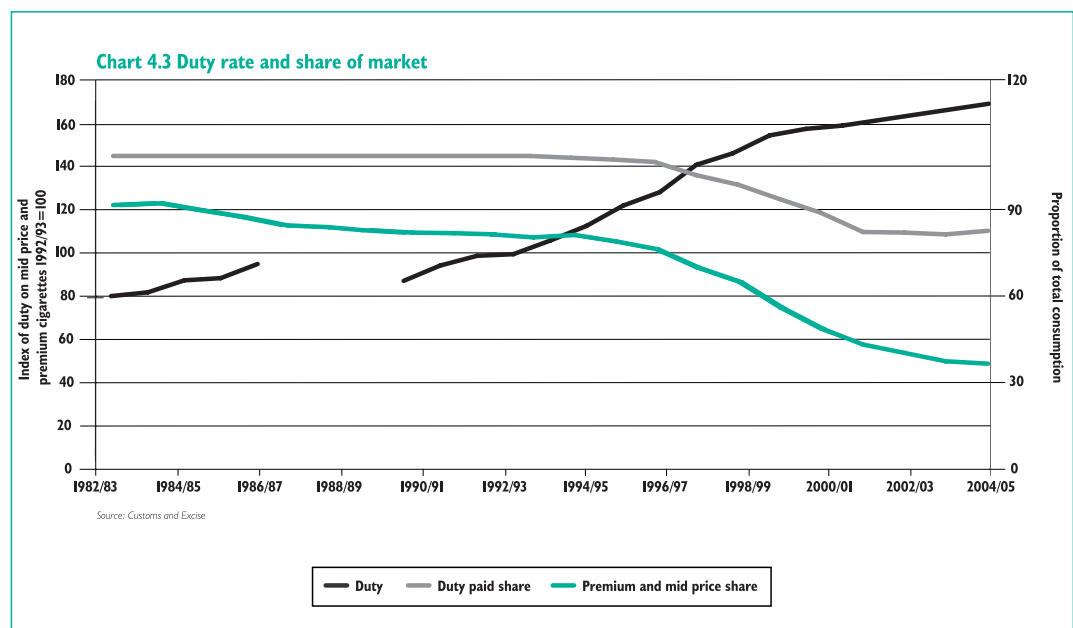
**4.26** However, regulation of tobacco still falls outside of the usual regulatory authorities. Food products, for example, would be regulated by the Food Standards Agency, and medicines by the Medicines and Healthcare Regulatory Agency (MHRA), but there is no equivalent authority for tobacco products. However, cigarettes contain at least 50 agents known to cause cancer. If a product of this nature was brought to market with its known characteristics today, it is inconceivable that it would be approved for sale. **Therefore, some arguments can be made for one organisation to take on this regulatory role. It is recommended that the Department of Health's review of arm's length bodies consider this proposal.**

**4.27** Moreover, the fact that tobacco is largely unregulated is in stark contrast to the regulation of some of the safer alternatives, for example, nicotine replacement therapy. Nicotine replacement therapies are regulated by the MHRA. Nicotine is the addictive ingredient in a cigarette but it is not nicotine that does the most potential damage to health. Therefore, nicotine replacement therapy is a much safer alternative to smoking.

On this basis, Action on Smoking and Health (ASH) argue that more thought should be given to appropriate alternative forms of nicotine delivery<sup>14</sup>.

### Reducing availability and supply of tobacco

**4.28** Fiscal and regulatory measures can also be used to reduce consumption of tobacco. From 1997, the Government increased the tobacco duty escalator to 5 per cent – therefore, increasing cigarette duty in real terms by at least 5 per cent a year. In the 1999 Pre-Budget Report the escalator was removed in favour of Budget-by-Budget decisions. Budget 2000 still saw a 5 per cent real increase. Since then, duty has risen in line with inflation (although pre-tax prices have continued to rise in real terms). The UK now has one of the highest levels of duty of cigarettes in the world and the highest priced cigarettes in the EU. However, cheaper smuggled cigarettes (typically £2.50 for 20 compared with from £3.50 to £4.50 for legal products), and increased numbers of people moving to roll-ups (often using cheap smuggled rolling tobacco) have undermined this.



**4.29** Recent rises in tax rates have had little impact on total revenues. Chart 4.3 illustrates that the share of duty-paid cigarettes as a proportion of all cigarettes consumed started to fall from the mid-1990s. This can be attributed to an increase in smuggled, and counterfeit, cigarettes. Customs and Excise have estimated that total lost revenue from smuggling tobacco products was £2.5 billion in 1999.

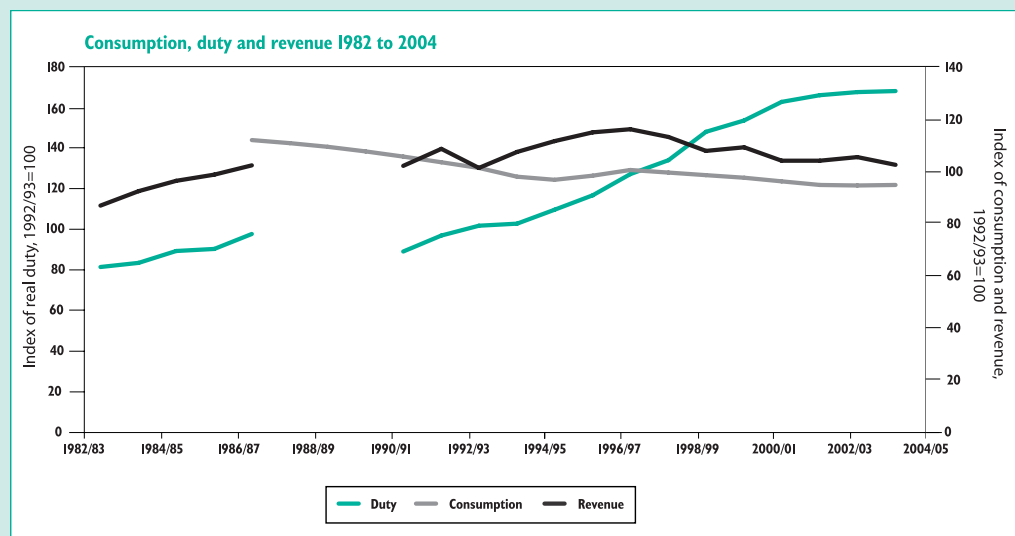
**4.30** Customs and Excise have a target to reduce the proportion of smuggled cigarettes in the market from 22 per cent in 2000/01 to 17 per cent by 2006. The figures are, by definition, difficult to estimate but there does appear to have been some progress in reducing the smuggled share, which is thought to have fallen to 18 per cent. It is likely that there is some trade-off between tax on tobacco and smuggling, which had, in the late 1990s, increased alongside increases in duty. Although tobacco duty remains a powerful instrument for reducing demand for tobacco, the presence of tobacco smuggling places constraints upon the effectiveness of continuing increases. It is possible that, given the continuing existence of large volumes of smuggled and counterfeit cigarettes, the current rate of duty is somewhere near its optimum in terms of revenue raising and reducing consumption. See box 4.3.

<sup>14</sup> ASH Submission to the Wanless Review, 2003 [www.ash.org](http://www.ash.org)

### Box 4.3: Smuggling and taxation

“Trying to control cigarette smuggling by stopping cigarettes coming into the country is like trying to stop your house from flooding – because a bathroom tap has been left running – by bailing out the water with buckets but leaving the tap running.”<sup>15</sup>

There is a strong, negative relationship between tax and the consumption of cigarettes. Historically, this has been in the ratio of a 3 per cent fall in consumption for every 10 per cent increase in tax. However, the emergence of smuggling has meant that as price increases, tax revenues do not necessarily rise and consumption does not necessarily fall. In fact, over recent years, despite continued increases in tobacco duty, tax revenues have fluctuated and consumption has seen only a marginal decrease (see chart below).



Smuggling often involves the illegal importation back into the UK of tobacco products manufactured in the UK from a low-price (or duty free) source country, in which there is often little or no market for the products in question.

This does not itself, however, make a case for reducing tobacco duty. There is strong evidence that such a step does not reduce smoking prevalence – in Canada, a tax reduction led to an increase in smoking prevalence as well as a large loss in tax revenues.

Spain is one of the few countries in the world that has successfully tackled its smuggling problem. This action largely centred on reducing the supply of smuggled cigarettes from Andorra through a concerted effort to reduce supply into the county at container level – for example, through intelligence, customs activity and cooperation and technology. UK cigarettes exports to Andorra were also very high until the action by Spain in 1997. Subsequently, UK cigarette exports to Cyprus have increased from 89 million in 1996 to 5404 million in 2000<sup>16</sup>.

The presence of smuggling places severe constraints on the effectiveness of tobacco taxation as a tool for helping to reduce tobacco consumption. Even following recent successes in reducing the UK smuggled market share, at 18 per cent that share remains substantial and makes a case for further action.

<sup>15</sup> *Turning off the Tap*, L Joosens, Cancer Research UK, 2002

<sup>16</sup> Eurostat

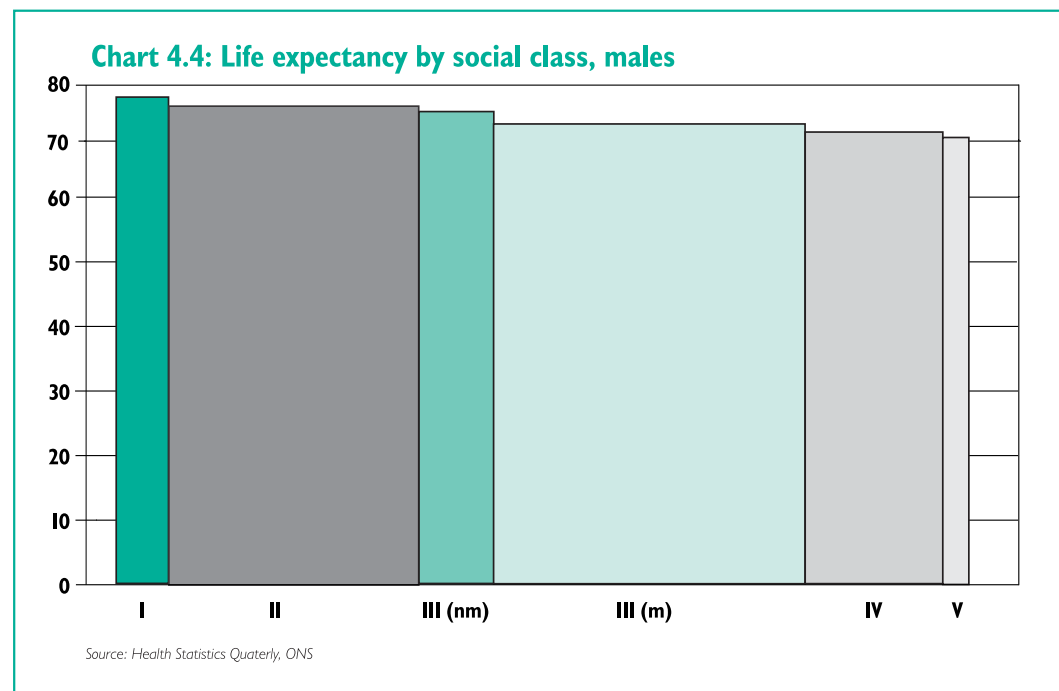
**Conclusions**

**4.31** The Department of Health coordinates efforts to reduce smoking prevalence. *Smoking Kills* set out the Government’s strategy to tackle smoking. The strategy has been implemented in part on the basis of evidence – for example, on smoking cessation services, NRT, advertising bans, regulation and taxation. But there is still much to learn about the most successful ways of implementing these policies and there is little information upon which to target and develop actions. We do not know the relative value of different interventions and, in particular, we do not know what messages and interventions work to get lower socio-economic groups to stop smoking.

**4.32** The evidence suggests that there are still large gains to be made from further increase in taxation (subject to smuggling) and restrictions on workplace and public place smoking. A workplace smoking ban might reduce smoking prevalence by up to 4 percentage points but this will depend on the extent to which other interventions are already impacting on the prevalence rate and the extent to which workplace bans are being implemented on a voluntary basis.

**HEALTH INEQUALITIES**

**4.33** Despite improvements in population health and significantly increased prosperity over the last few decades, health inequalities have persisted and, in some cases, widened. These health inequalities work on a number of dimensions: social class, geographical area, ethnicity, age and gender. Chart 4.4 provides an illustration of these inequalities in health status across the population in terms of life expectancy by social class, with the area of the columns representing the number of people in each social class.



**Targets 4.34** There is currently a Public Services Agreement (PSA) target on health inequalities supported by two more detailed objectives. They are:

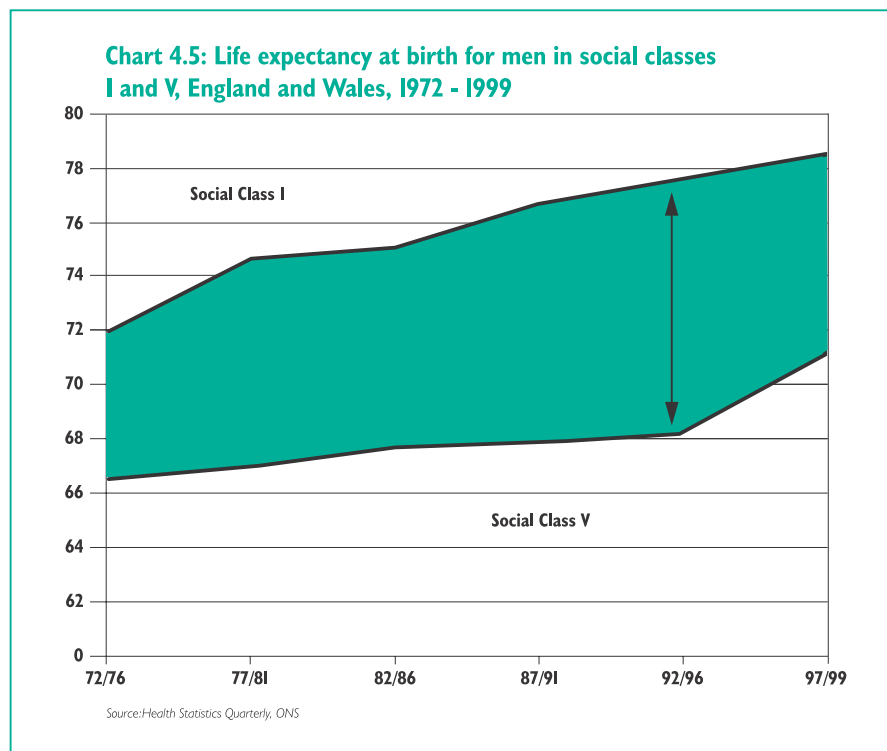
By 2010, to reduce inequalities in health outcomes by 10 percent as measured by infant mortality and life expectancy at birth.

- starting with children under one year, by 2010 to reduce by at least 10 percent the gap in mortality between routine and manual groups and the population as a whole; and
- starting with local authorities, by 2010 to reduce by at least 10 percent the gap between the fifth of areas with the lowest life expectancy at birth and the population as a whole.

**4.35** The infant mortality and life expectancy targets act as overall statistical indicators of reductions in inequality and as an aspirational spur for further action. As progress should come about through cross-government activity, it is particularly appropriate that the targets are not simply a measure of NHS activity but reflect a broad range of activities within and outside of the organisation.

**4.36** Inequalities in life expectancy and infant mortality, like many other health inequalities, vary according to geography, socio-economic group, gender and ethnicity. The life expectancy component of the target is expressed as an area-based target, whereas infant mortality is expressed in terms of narrowing a gap between manual social groups and the total population. This broadened the infant mortality agenda to cover children not living in deprived areas of health authorities with the highest rates and therefore seeks to cover a much larger part of the social class gradient than it otherwise would.

**4.37** As health inequalities have been widening on some definitions for the most part of the last twenty years (see chart 4.5), the 10 per cent reduction in inequalities was seen as an “aspirational” target.



**4.38** Feasibility studies were then conducted in order to set a realistic timeframe in which to meet the targets. The 2010 timescale was set according to the expected results of specific health interventions and activities – with both long and short-term pay-offs. For example, interventions to tackle smoking would have a significant impact on CHD levels within five years, but would take thirty years to produce similar results for lung cancer statistics. These specific policies and interventions necessary to achieve, and over the long term go beyond, the targets together formed the delivery plan.

### A Programme for Action

**4.39** The *Cross-Cutting Review on health inequalities* in Spending Review 2002 examined each of the national programmes and interventions formulated to tackle health inequalities in order to identify how government spending could be applied most effectively and cost-effectively. This review provided the backbone for the Department of Health's delivery plan, the *Programme for Action*. The programme identified the key interventions that will contribute to closing the life expectancy and infant mortality gaps for the 2010 targets as being<sup>17</sup>:

For life expectancy:

- reducing smoking in manual social groups (through smoking cessation services, ending tobacco promotion, running mass media education campaigns etc);
- preventing and managing other risks for coronary heart disease (CHD) and cancer such as poor diet and obesity, physical inactivity and hypertension through effective primary care and public health interventions – especially targeting the over-50s (with the 5-a-day programme, Local Exercise Action Programmes (LEAP), as well as focusing directly on tackling the major killers through early detection, intervention and treatment);
- improving housing quality by tackling cold and dampness, and reducing accidents at home and on the road (through Neighbourhood Renewal Schemes, the provision of better quality social housing, public education campaigns to increase accident-awareness).

For infant mortality:

- improving the quality and accessibility of antenatal care and early years support in disadvantaged areas (interventions include the Sure Start programme and Neighbourhood Nursery Initiative among many others);
- reducing smoking and improving nutrition in pregnancy and early years (typically through smoking cessation programmes, the Healthy Start programme and provision of fruit at schools);
- preventing teenage pregnancy and supporting teenage parents (mostly through education and learning opportunities provided by DfES);
- improving housing conditions for children in disadvantaged areas (one aim of the National Strategy for Neighbourhood Renewal, as well as efforts to improve the standard of social housing).

<sup>17</sup> *Tackling Health Inequalities: A Programme for Action*, DH, 2003

**4.40** The policies listed within the *Programme for Action* were very wide ranging and covered the activities of a number of different departments. However, Department of Health analysis suggests that the main contributing factors towards achieving the life expectancy target nationally are reductions in CHD, cancer and respiratory disease. The key challenges to progress in efforts to meet the health inequalities targets are examined below.

**Progress 4.41** It is too early to comment on progress against the *Programme for Action*. However, it appears that the health inequalities target, especially the life expectancy part of it may be achievable on current policy. Actions taken to tackle key conditions like circulatory disease and cancer – which alone explain nearly two-thirds of geographical life expectancy inequality – look set to meet their respective targets and in doing so will go a long way towards meeting the life expectancy target. Tackling key lifestyle factors such as smoking among disadvantaged groups will be absolutely vital in the longer term, as discussed above.

**4.42** However, there are a number of challenges. First, is access to services. Some interventions may not be reaching the most disadvantaged. If this is true then, although the trend looks promising, progress towards reducing health inequalities could reach a ceiling that will be difficult to break through unless actions are taken to reach specifically those groups with whom it is hardest to engage. These populations will need access to primary care at least as good as care in more affluent areas together with extra help to enable them to make full use of those services. In the past, communities most at risk of ill health have often been those experiencing the least satisfactory access to the full range of preventative services in primary care such as cancer screening services, health promotion and immunisation.

**4.43** Second, we know very little about what works for the most disadvantaged groups as proven by the trends in smoking prevalence between different socio-economic groups.

**4.44** Moreover, the nature of the inequalities targets suggests that interventions should be targeted quite directly at pregnancy and early life experiences, and at the elderly. But they do not take into account the interventions that may be needed to reduce inequalities amongst other age cohorts and over the longer term.

**4.45** Progress towards the infant mortality target is much harder to assess. The numbers of infant deaths in each locality are small (in many cases fewer than 10), and sole registrations of births are not included in the measure – despite the fact that infant mortality is higher for this group. Therefore, measuring, monitoring and, more worryingly, tackling infant mortality is extremely difficult.

**4.46** Finally, the *Programme for Action* had no figures for how much the strategy would cost, or how much the various parts of the strategy would contribute towards the targets. This makes it difficult to prioritise between interventions for implementation at the local level.

**Conclusions 4.47** The Government's health inequalities PSA target consists of two objectives chosen as high-level and general indicators of reductions in health inequalities. The *Programme for Action* lists many interventions that will contribute towards the targets but it is not clear which interventions to prioritise or how best to invest.

**4.48** The life expectancy target is stretching but it could be achieved if the promising trend in reductions of CHD and cancer continues, and if substantial progress is made in the most disadvantaged areas. There is, however, a potential limit to progress that may be encountered if actions fail to target the hardest groups to reach. Moreover, there is little evidence about what works among disadvantaged groups to tackle some of the key determinants of health inequalities such as smoking. Beyond the 2010 target period, more thought will need to be given to what interventions can be used to reduce health inequalities over the long term.

**4.49** Infant mortality is a very important indicator of a nation's health and differences in infant mortality are a good representative of health inequalities. But it will be more challenging to assess progress against the infant mortality target; the target itself is difficult to measure, monitor and tackle at the local level where deaths are often in single figures.

## SALT

**4.50** Eating too much salt can lead to higher blood pressure, which in turn increases the risk of coronary heart disease or stroke. Cardiovascular disease is responsible for 20,000 deaths per annum, is the second most common cause of premature death and costs the NHS an estimated £10 billion per annum.

**4.51** If the target recommendation of average intake of salt of 6g/day were achieved, a reduction in the incidence of stroke by 22 per cent and CHD by 8 per cent is likely, corresponding to the prevention of about 11,000 stroke deaths and 8,000 CHD deaths each year. The effect on non-fatal strokes and non-fatal heart attacks could yield annual savings of about £50 million and £16 million for in-patient care for strokes and heart attacks and angina respectively. Additional savings could accrue from a reduced need for secondary prevention and long-term care, particularly of stroke patients.

**Trends 4.52** Salt intakes have increased during the last 15 years – by around 9 per cent for men and 5 per cent for women between 1986/7 and 2000/1. Current estimates suggest that average salt intakes are 11g/day and 8g/day in men and women respectively<sup>18</sup> – well above the amount of 6g/day recommended by the Scientific Advisory Committee on Nutrition (SACN). Overall, salt intakes are higher than recommended in 85 per cent of men and 69 per cent of women and only 2 per cent of men and 17 per cent of women in the youngest age group (19-24 years) have intakes of salt below 6g/day. Estimated salt intakes in children from foods consumed shows that average intakes are considerably higher than those recommended by SACN.

**4.53** Consumption levels do not differ between income groups, though blood pressure does increase with age and is higher amongst Caribbean and Pakistani women.

**4.54** On average, around 75 per cent of salt in the diet comes from manufactured foods, such as cereal based products, processed meat, soups and sauces. Cereal and meat products contribute significantly to salt intakes and only a relatively small amount of salt is added in cooking and at the table.

**Targets 4.55** The Food Standards Agency (FSA) has set targets to reduce average salt intake by 10 per cent by 2005/6, which equates to a 1g per day reduction. In the long term, the target is to reduce average population intake by a third over the next 5 years to bring

<sup>18</sup> *The national diet and nutrition survey of British adults aged 19-64, 2003*

intakes down to the recommended 6g per day. Most western countries recognise the population approach to be the most effective means of reducing the average blood pressure and in many cases have set target amounts of around 6g/day. Objectives have also been set by the FSA to reduce salt consumption for children.

**4.56** In the Performance and Planning Framework for 2003 to 2006, PCTs are required to ensure practice-based registers and systematic treatment regimes, including appropriate advice on diet, physical activity and smoking, particularly for those patients at high risk of CHD, for example, those with hypertension, diabetes and a BMI greater than 30. This includes advice on the health benefits of reducing salt intakes and preventing raised blood pressure. *The NHS Plan* also set out a clear commitment to work with the food industry by 2004 to improve the overall balance of diet including salt, fat and sugar. But there is no national salt target for the Department of Health, and the FSA targets are not currently formalised within the NHS.

**Box 4.4 The "Better Hospital Food" Programme and the NHS Menu<sup>19</sup>**

The NHS needs to accommodate a wide variety of special diets, including ethnic and religious diets, allergy-avoidance diets, 'soft' or puréed diets, and diets chosen from personal preference such as vegetarian or vegan diets.

The new NHS Menu is designed to provide patients in hospital with eating patterns similar to those they have at home. This comprises a continental or cereals-and-toast type breakfast, a light lunch and dinner in the evening. In addition, it recognises that people often have snacks during the day, and these are also available as part of the NHS Menu.

The British Dietetic Association is working with the NHS on the Better Hospital Food programme, and as a result the new NHS Menu is carefully checked and monitored to provide the best possible nutrition to each patient. Strict nutritional analyses of each dish help chefs and NHS Trust managers to choose a balanced selection of dishes for the menu, and could contribute to meeting the 6g/day salt target.

**Evidence 4.57** There is consistent evidence that blood pressure falls with salt reduction. This suggests that small population-wide reductions in salt intake could have a significant impact on the prevalence of hypertension and risk of coronary heart disease.

**4.58** A review of studies on effects of advice to individuals to reduce salt levels over the long-term<sup>20</sup> showed that the observed blood pressure reductions were not sustained over time. As most dietary salt is from processed food, individuals have difficulty in maintaining a low salt diet over the long-term. Therefore, a population approach is required to achieve sustained reduction in salt intake by reducing the level of salt in processed foods. This will enable a gradual lowering of population salt intakes.

<sup>19</sup> *Improving the patient experience, better hospital food*, NHS Estates, 2003

<sup>20</sup> *Systematic review of long term effects of advice to reduce dietary salt in adults*, Hooper et al., BMJ, 2002

**Strategy 4.59** The joint Department of Health and FSA strategy involves:

- working with industry to reduce levels of salt in processed foods;
- encouraging public sector caterers and their suppliers to reduce salt levels in production;
- improving the nutrition labelling to include salt levels, through the current EU Commission's review of labelling rules;
- developing a model of reductions required in different categories so as to achieve the population target intakes of 6g/day;
- raising awareness amongst consumers about the health risks of high salt intake; and
- developing advice for consumers and health professionals about how to reduce blood pressure, for example, by increasing consumption of fruit and vegetables, increasing levels of physical activity and maintaining a healthy weight.

**Conclusions 4.60** Currently there is no formal target for reductions in salt intake, other than the aspirational objectives of the FSA. The 6g per day target is only a first step towards the optimal levels of salt consumption but could have a significant impact on reducing blood pressure. In addition, the target of a 10 per cent reduction in average salt intake by 2005/6 has already secured some commitments from industry to reductions in salt in some foods.

**4.61** Since most of the salt in people's diet comes from processed foods, a whole population approach is required to tackle salt reductions. This will involve working with industry to reduce these levels and is the approach that the Department of Health and the FSA have adopted in their work with stakeholders. It is not yet clear what levers exist to manage progress towards the FSA's target. Nevertheless, if the types of salt reduction commitments achieved through the current strategy of a combination of developing consumer awareness and concern and constructive working with industry were rolled out across industry it could give rise to a reduction in salt intake levels in line with SACN recommendations.

## OBESITY AND OVERWEIGHT

**Trends 4.62** In the majority of developed countries there has been an increase in the numbers of overweight and obese people over the past 30 years, reflecting a clear change in the balance between energy intake and expenditure.

**4.63** The scale of the problem is unprecedented – over half of the population in England are currently overweight or obese<sup>21</sup>. This is a serious concern when obesity reduces a person's life expectancy by 9 years, on average, and increases the risk of a wide variety of disease (box 4.5). Overweight, to a lesser extent, also impacts on these risks.

<sup>21</sup> *Health Survey for England, 2002*

**Box 4.5: Health risks associated with obesity**

Obesity is associated with an increased risk of:

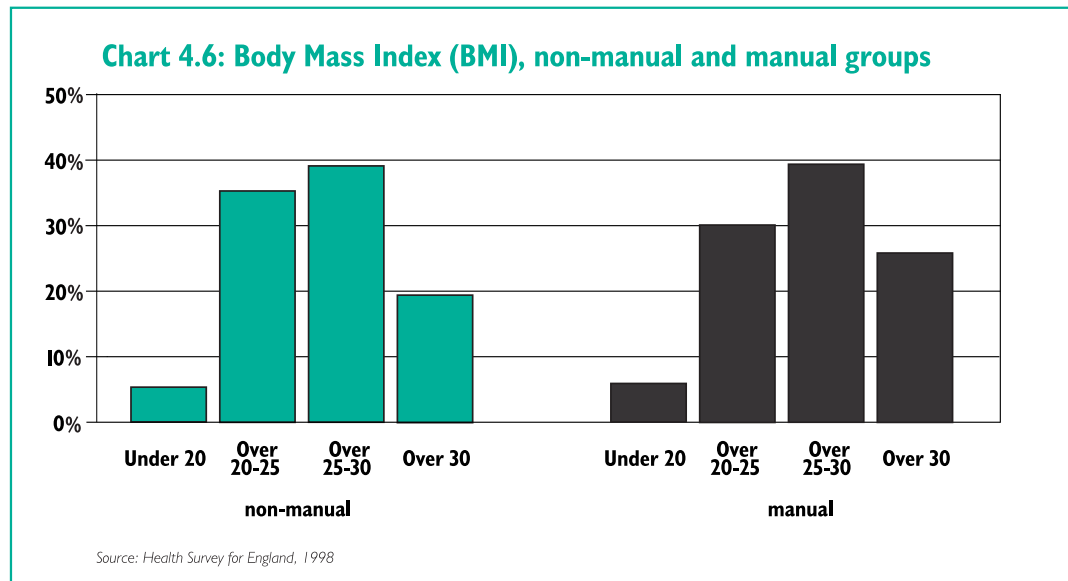
- Heart disease and stroke;
- Type 2 diabetes;
- Some cancers, including postmenopausal breast cancer and colon cancer;
- Hypertension;
- Gall bladder disease;
- Osteoarthritis;
- Sleep apnoea;
- Breathing problems;
- Lower back pain;
- Complications in pregnancy;
- Increased risk in surgery; and
- Psychosocial and social problems, including reduced self-esteem and increased risk of depression and social isolation.

**4.64** In 2002, 23 per cent of women and 22 per cent of men were obese (BMI greater than 30) compared to 8 per cent of women and 6 per cent of men in 1980, and 57 per cent of women and 65 per cent of men were overweight or obese (BMI greater than 25).

**4.65** Obesity and overweight are related to age, and socio-economic factors such as educational level, social class and wealth<sup>22</sup> (chart 4.6), with a marginally higher prevalence of obesity in manual groups compared to non-manual groups.

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<sup>22</sup> *The management of obesity and overweight: an analysis of reviews of diet, physical activity and behavioural approaches. Evidence briefing.* C Mulvihill and R Quigley, HDA, 2003.



**Children 4.66** In children, overweight and obesity combined increased by over 25 per cent between 1995 and 2002. This increase in prevalence is apparent at a young age with obesity in 2 to 4 year old children almost doubling from 5 per cent to 9 per cent between 1989 and 1998<sup>22</sup>.

**4.67** The prevalence of obesity in children is also higher among manual groups and ethnic inequalities in the prevalence of overweight are also apparent, with higher rates among Asian groups.

**Cost of obesity 4.68** The cost of this problem is large – in 1998 the direct cost of treating obesity was £9.4 million and the cost of treating diseases attributable to obesity – predominantly CHD, Type 2 diabetes and hypertension – was £470 million<sup>23</sup>. These costs do not include the impact of being overweight but not obese, which can also be a significant risk factor for diseases such as diabetes. It is predicted that if present trends continue, by 2010 the annual cost to the economy would be £3.6 billion.

**Targets 4.69** There are currently no national obesity targets. The previous Government set targets to reduce the prevalence of obesity to 6 per cent for men and 8 per cent of women by 2010 in *Health of the Nation*. However, obesity rates have risen dramatically since then and the targets are not being met.

**Understanding obesity 4.70** A variety of social and situational factors have influenced the increasing trend in obesity. These are important to consider as, whilst there may be an interaction between individual genetic make up and environment, this in no way accounts for the dramatic trends in overweight and obesity. The current trend in obesity is attributable to two main factors: diet and physical activity.

**4.71** There is evidence to suggest that current social trends affect the intake of fats and sugars, with a modest increase in energy intake in recent years<sup>24</sup>. People are snacking more and drinking more carbonated drinks containing sugar. There has also been an increase in the number of meals eaten outside the home, which tend to be higher in fat<sup>25</sup> and may also be higher in calories and sugars than foods eaten at home.

<sup>23</sup> *Tackling Obesity in England*, NAO, 1998

<sup>24</sup> National average energy intake in 1995 was estimated in the National Food Survey to be 1780 kcal, the 2001/2 data show a modest increase in this figure to 1895 kcal in the Expenditure and Food Survey.

<sup>25</sup> *National Food Survey*, 2001

Evidence from the United States<sup>26</sup> suggests that portion sizes are significantly larger now than they were in the 1970s, especially for high calorie snacks and fast foods. This “supersizing” of fast foods and snacks has also occurred in England and may make it easier for people to over-eat inadvertently and consume higher levels of fats and sugars in their diet.

#### **Box 4.6 Drinking water in schools**

Recent movements have been made to reduce the amount of high-sugar drinks consumed by children. Branding on vending machines in schools is being discussed, and action to provide water in classrooms has increased. The increase of water provision in schools is aligned with the National Healthy Schools Standard aims for improved health in learning environments.

Community initiatives, such as Yorkshire Water’s Cool Schools where free water coolers are put in schools, have been successful in promoting the consumption of healthy drinks as opposed to high-sugar and artificial drinks. Schemes with bottles for water carrying and water coolers have worked through improving access to water and promoting regular water intake throughout the school day.

**4.72** Many other factors may affect the motivation of individuals in their food choices; the cost of high-fat and high-sugar foods, the levels of knowledge about cooking and its relationship with healthy food consumption and the impact and effectiveness of types of food labelling and advertising. Increased understanding of these social and personal dimensions of overweight and obesity would be valuable in informing action on excess energy intake.

#### **Box 4.7 Changing eating behaviours**

In order to change behaviours, a number of key elements must be in place. The example of eating behaviour can be applied to illustrate some of the key variables in changing behaviour<sup>27</sup>.

First, the person must think that they are capable of dieting successfully and need to have a positive reaction to this challenge. In order for this behaviour change to be effective, they also need to have a strong intention to address their overweight or obesity and feel that acting to reduce their weight is consistent with their self-image.

Further to this, the person requires the skills and understanding to know how to lose weight, such as knowing what foods to eat and how to cook different foods. They must also feel that society values what they are doing – so it is important that an individual does not feel that there is more pressure to eat unhealthy foods than to stick to their diet or exercise plan. Finally, there is also the environment which impacts on the ability to choose to lose weight. The availability and price of healthy foods such as fruit and vegetables is an example of this, where barriers such as these can prevent a person engaging in behaviour change.

**4.73** The trend in overweight and obesity is inextricably linked to physical activity levels and overall energy expenditure. Particularly relevant are the dimensions of physical activity integrated into lifestyle – the increase in sedentary lifestyles in England has lessened the amount of habitual physical activity most people engage in. This side of the energy equation is discussed further in the case study on physical activity below.

<sup>26</sup> *Patterns and Trends in food Portion Sizes 1977-1998*, S Neilson and B Popkin, Journal of the American Medical Association, 2003

<sup>27</sup> Principles established by Fishbein, Ajzen, Bandura, Becker, 1991

**Strategy 4.74** Action to tackle obesity is currently being undertaken through the prevention themes of national CHD and cancer programmes and is part of the NSFs, such as for CHD and Diabetes.

**4.75** Within primary care, the most common referral options used by GPs for overweight and obese patients are state-registered dieticians, followed by private sector slimming organisations, physicians, community based programmes and trained exercise specialists and surgeons<sup>28</sup>.

**4.76** Future plans for tackling obesity and overweight include:

- NICE and HDA: Guidance on the identification, prevention and management of obesity and maintenance of weight reduction. This follows recommendations that guidance be developed for the management of overweight and obese patients in primary care.
- The Government Food and Health Action Plan (FAHAP), which will focus on key nutrition priorities – salt, fruit and vegetables, added sugars, fat and saturated fat and dietary fibre. The Plan will also address the different contributions of government departments, the NHS, industry, local authorities, schools and public bodies to reducing obesity.
- The Children’s NSF will include standards for implementing measures to promote healthy diets and lifestyles, including the reduction of obesity and overweight.

**Conclusions 4.77** There are no government national targets on obesity. Past statements of intent have yet to be acted upon and there is very little evidence on what works. Achieving the *Health of the Nation* targets could no longer be seen as a sensible objective and would require a sharp reversal of trends. No other country has managed to reverse these trends.

**4.78** In view of the current and future impact of obesity on population health and demand for health care services, and in light of the evidence base demonstrating effective interventions, it is imperative that interventions to reduce obesity are sufficiently resourced, fully researched and implemented in a coherent manner. Ongoing evaluation should be undertaken to gain greater understanding of the cost-effectiveness of interventions and their differential impact across societal groups.

## PHYSICAL ACTIVITY

**4.79** Physical activity is defined as ‘any force exerted by skeletal muscle that results in energy expenditure above resting level’<sup>29</sup>, which includes a wide range of activities, including all activity from household work, to walking, to competitive sports.

<sup>28</sup> NAO 2001, postal survey

<sup>29</sup> *Physical activity, exercise and physical fitness: definitions and distinctions of health-related research*, C Caspersen et al., Public Health Reports, 1985

**4.80** Physical activity has significant health benefits: adults who are physically active have a 20 to 30 per cent reduced mortality risk<sup>30</sup> compared with those who are inactive. Physical activity can help to prevent CHD, diabetes, musculoskeletal disorders and mental illness, cancer and overweight and obesity, as well as having preventative and immediate effects on children's health.

**4.81** The World Health Organisation (WHO) rated physical inactivity as one of the ten leading causes of death in developed countries, and estimates inactivity is responsible for 22 to 23 per cent of CHD, 16 to 17 per cent of colon cancer, 15 per cent of diabetes, 12 to 13 per cent of stroke and 11 per cent of breast cancer<sup>31</sup>.

### Cost of physical inactivity

**4.82** In addition to the effect of physical inactivity on health and the personal costs of disease, the consequences of physical inactivity cost an estimated £8.2 billion annually, which includes costs such as lost productivity and sickness absence as well as costs to the NHS<sup>32</sup>. This estimate is similar to figures in other countries that indicate approximately 2.5 per cent of total national health care costs are incurred through inactivity<sup>33</sup>.

### Trends

**4.83** In 1996, the Department of Health produced their Strategy Statement on Physical Activity. This recommended levels of physical activity, which are now widely used. These are:

- adults should accumulate at least 30 minutes of moderate intensity physical activity on 5 or more days a week; and
- young people should accumulate at least 60 minutes of moderate intensity physical activity each day, and that at least twice a week this should include activity that can improve bone health, strength and flexibility.

**4.84** In 1998, 40 per cent of men and 26 per cent of women were physically active at the target levels. This means that 60 per cent men and almost three quarters of women were not active at the desirable level<sup>34</sup>.

**4.85** The most common forms of physical activity engaged in by men and women differ, with 22 per cent of men moderately physically active in their work and women more commonly active through walking and heavy housework. An additional feature of the current trends is that the proportion of people engaging in physical activity declines with age and particularly after age 35.

<sup>30</sup> A physical activity energy expenditure of 500-1000 kcal a week has been found to reduce the risk of dying from all causes by 20-30%, *Medicine in Sports and Exercise*, 2001.

<sup>31</sup> World Health Report, WHO, 2002

<sup>32</sup> *Game Plan*, Strategy Unit, 2002. This figure does not include the contribution of inactivity to obesity, which has been estimated to cost £2.5 billion

<sup>33</sup> Canadian Medical Association Journal, 2000

<sup>34</sup> Health Survey for England 1998

**4.86** Physical activity is associated with social class, income and educational attainment. Outside work, people of higher socio-economic status take part in more physical activity. For example, in men, age-adjusted rates of walking are 38 per cent higher in social class I compared with social class V. For women, rates are 67 per cent higher in social class I compared with social class V. Similar trends are observed for sports participation. In both men and women and in all age groups, low educational attainment is associated with higher levels of inactivity<sup>35</sup>.

**4.87** This is also a concern for children: 4 out of 10 boys and 6 out of 10 girls are not meeting the recommended hour a day physical activity for children<sup>36</sup>.

**Targets 4.88** General Government commitments exist for physical activity. There are, for example, a number of NHS Plan commitments and NSF milestones relating to physical activity, such as the goal that NHS bodies should work closely with local authorities to agree and contribute to the local delivery of effective policies on increasing physical activity.

**4.89** More specific targets also exist; the Cabinet Office Strategy Unit produced *Game Plan* in 2002 – a strategy for delivering the government’s sport and physical activity objectives.

**4.90** *Game Plan* stated that, for physical activity, only 32 per cent of adults in England take 30 minutes of moderate exercise five times a week, compared to 57 per cent of Australians and 70 per cent of people in Finland. On this basis the report recommended that the Government adopt a target to increase levels of participation in physical activity from 32 per cent to 50 per cent by 2010 and to 70 per cent by 2020.

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<sup>35</sup> Allied Dunbar National Fitness Survey, 1992

<sup>36</sup> National Diet and Nutrition Survey, 2000

**4.91** The 70 per cent figure for Finland is based on a self-reported survey question about whether the respondent practices “exercise or physical exertion during leisure time for at least three hours a week”. Self-reported data for Great Britain have shown a similar prevalence of people considering that they were fairly or very physically active, and so highlights the difficulties of measuring physical activity and of using self-reported measures<sup>37</sup>. However, another question in the Finnish survey suggested that approximately 30 per cent of the population participated in physical activity of at least half an hour 4 to 7 days a week. This figure is more closely aligned to the 45 per cent prevalence found in comparable countries such as Canada and Australia, and is perhaps more closely comparable to the Department of Health’s recommended levels of physical activity as outlined above.

**4.92** For England to achieve the 70 per cent target participation rates outlined in *Game Plan*, approximately 21 million additional people would need to be engaged in physical activity. The lower medium term target, aiming for prevalence of physical activity for England that is similar to the levels found in Canada and Australia would still encompass a radical change in engagement in physical activity required by the population, requiring strategies that would easily allow individuals to incorporate physical activity into their everyday lives.

**Strategy 4.93** A Review of International Experience<sup>38</sup> found the only countries that have reported significant and sustained increases in population-level physical activity participation are Canada and Finland. A number of other countries – Australia, USA, Netherlands, and Denmark – have demonstrated some interesting developments in strategy, policy or practice on physical activity, although these have not to date made a validated impact on long-term participation.

**4.94** Some of the factors which appear to unite the countries which have been successful in increasing physical activity include: a culture which supports physical activity, use of the ‘moderate message’ communicating the importance of moderate intensity physical activity, consistent and imaginative use of mass media, local innovation, cross-sectoral collaboration and setting realistic targets.

**4.95** Evidence from Finland suggests that high levels of participation in sport and physical activity are achievable over the long term through a rigorous and systematic approach coupled with high levels of funding. Key elements of the Finnish approach are the prioritisation and funding of health, increased corporate social responsibility, organisation of sport and physical activity devolved to the lowest level and sophisticated assessment of key behavioural drivers for each target group.

**4.96** Planned future developments in the area of physical activity include:

- the WHO Global Strategy on Diet, Physical Activity and Health, which is to be launched in May 2004; and
- the Activity Coordination Team (ACT), which will provide a strategy to increase levels of physical activity and sport in England, developed jointly between the DH and DCMS working with nine interested government departments, their agencies and the Local Government Association.

<sup>37</sup> National Diet & Nutrition Survey, 2004

<sup>38</sup> Department of Health analysis

**Progress**

**4.97** Physical activity levels in developed countries have fallen, both in adults and children, due to a combination of factors. Trends contributing to lower activity levels compared to previous generations include<sup>39</sup>:

- greater use of cars for short journeys;
- sedentary occupations;
- lower sports participation;
- parental reluctance to allow children to play outdoors;
- increased pressures on time available for school sport and physical education; and
- greater access to television and computers and other sedentary activities.

**4.98** These trends have had a significant impact on the levels of physical activity for most people. An example of this is the increase in journeys by car for short distances<sup>40</sup>. Between 1975/76 and 1999/2000 total miles travelled (non-leisure) per year on foot fell by 26 per cent and miles travelled by bicycle also fell by 26 per cent<sup>41</sup>. There have, however, been increases in walking and cycling for leisure<sup>42</sup>.

**4.99** The problem of reduced short journeys on foot or by pedal bicycle is particularly pertinent with children, for whom concerns about personal safety and perceptions of road safety by parents have influenced mode of travel-to-school, reducing the habitual level of daily activity for many children.

**4.100** It is likely that the biggest influence on the numbers participating in sport and physical activity over the next 20 to 30 years will be the ageing population. This will require concerted efforts to engage older people in physical activity (box 4.8).

<sup>39</sup> Epstein et al 1995, 2000

<sup>40</sup> Total traffic increased 77% between 1980 and 2002, the majority of which was a growth in car traffic. *Transport Statistics Report*, Transport Trends 2003 Edition, DfT and National Statistics, 2003.

<sup>41</sup> *National Travel Survey 1999/2001*, National Statistics, 2002

<sup>42</sup> *Survey of Public Attitudes to Quality of Life and To the Environment*, DfT, 2001

### Box 4.8 Older adults and physical activity

Older adults are more likely to have many chronic diseases that are affected by physical activity levels, such as diabetes and CHD. Actions on NSFs for these specific diseases should particularly aim to improve the levels of physical activity for those suffering disease. In addition, the NSF for older people states that:

- strong evidence exists that older people benefit from increasing physical activity;
- that the NHS, with councils, should assess local priorities to promote both physical and mental health and well-being among older population groups; and
- the NHS and councils should ensure that older people have fair access to programmes of disease prevention and health promotion, including physical activity.

However, broader preventative measures are necessary to prolong and maintain health for the entire population of older adults, not just those with recognised disease.

The HDA briefing on evidence<sup>43</sup> suggests that interventions designed specifically for the 50+ aged group are effective in producing short term changes and are likely to be effective in producing mid to long term changes also. Evidence also indicates that the use of behavioural approaches, telephone support and a combination of group and home based exercise are associated with longer term changes in behaviour and that interventions that promote moderate and non-endurance physical activities, such as flexibility exercises, are associated with long-term behaviour change.

An example of a programme promoting health for older adults is HealthWorks Newcastle, which has set up healthy living activity for people over 50 through a 'Walking the Way to Health' programme. This has had 450 people register on the scheme, of which 16 per cent have high blood pressure, 6 per cent are diabetic and 56 per cent report no physical activity in the past 2 years. This intervention, supported through the role of Physical Activities Coordinator, has resulted in an improvement in self-reported health status and has expanded to provide a range of activities engaging those in key target groups.

**4.101** Other changes in society and culture, such as the engagement of people from ethnic minority groups in the population, have the potential to influence levels of physical activity and participation. Ethnic minority groups' overall participation in sport is less than the national average<sup>44</sup>, and Indian, Pakistani and Bangladeshi women in particular have a low engagement in sport.

**4.102** It is also necessary to consider that the level of physical activity of an individual at a young age may influence the level of physical activity an individual is likely to engage in throughout life. Therefore engaging all children in physical activity, and especially those from high-risk groups, would be an investment in the long-term health of those individuals.

**Conclusions 4.103** Again there is no national target for physical activity that is "owned" by the Department of Health and is implemented by the NHS. Targets were introduced in *Game Plan* to increase physical activity: By 2010, 50 per cent of individuals to be undertaking 30 minutes of physical activity 5 days a week, increasing to 70 per cent by

<sup>43</sup> *The Effectiveness of Public Health Interventions for Increasing Physical Activity Among Adults: a review of reviews, Evidence Briefing 1st Edition*, M Hillsdon et al., HDA., 2004

<sup>44</sup> *Sport Participation and Ethnicity in England, National Survey 1999/2000*, Sport England, 2001

2020. This is an extremely challenging target, and whilst there is some good evidence on what works in countries such as Finland and Canada, achievement of the target will require strategies that will easily allow individuals to incorporate physical activity into their everyday lives.

## FALLS

**4.104** Falls are a major cause of disability and the leading cause of mortality resulting from injury in people aged over 75 in the UK<sup>45</sup>. One-third to one-half of people aged over 65 fall each year, resulting in over 400,000 attendances at accident and emergency departments. Up to 14,000 people die annually in the UK as a result of an osteoporotic hip fracture<sup>46</sup> and up to 50 per cent can no longer live independently<sup>47</sup>.

**4.105** The National Service Framework (NSF) for Older People (2001) estimated the cost of hip fractures (the most common serious injury related to falls in older people) at around £1.7 billion per annum for England<sup>48</sup>. Of this, 45 per cent of the cost is for acute care, 50 per cent for social care and long term hospitalisation and 5 per cent for drugs and follow-up treatment.

**4.106** Additional consequences of a fall can include:

- psychological problems, for example a fear of falling and loss of confidence in being able to move about safely;
- loss of mobility leading to social isolation and depression;
- increase in dependency and disability;
- hypothermia;
- pressure-related injury; and
- infection.

**Trends 4.107** The number of those aged 75 and over admitted to hospital following a fall is similar to the total number admitted in all other age groups, including children. In this most elderly category, the number increased by 3.6 per cent between 2000/01 and 2001/02, and by a further 6.8 per cent between 2001/02 and 2002/3<sup>49</sup>.

**4.108** Rates of falling do not appear to increase with deprivation<sup>50</sup>. However it is recognised that poor housing conditions can increase the risk of falls.

**Targets 4.109** Falls prevention and treatment is a key element of the NSF for Older People, which aims 'to reduce the number of falls which result in serious injury and ensure effective treatment and rehabilitation for those who have fallen'. This aim is reflected in the 2003/6 Priorities and Planning Framework for the NHS which states that 'by April 2005, an integrated falls service should be established across all local health and social

<sup>45</sup> *Older People: Older People and Accidents, Fact sheets 2*, Health Education Authority, 1999

<sup>46</sup> *Osteoporosis: Etiology, Diagnosis and Management*, Epidemiology of Fracture, L Melton, 1988

<sup>47</sup> *National Service Framework for Older People*, DH, 2001

<sup>48</sup> *The Cost of Treating Osteoporotic Fractures in the United Kingdom Female Population*, D Tongerson and P Dolan, Osteoporosis International, 2000

<sup>49</sup> *Hospital Episodes Statistics Data*, Department of Health, 2003

<sup>50</sup> *Prevention and reduction of accidental injury in children and older people*, Evidence briefing, M Millward etc al, HDA, 2003

care systems'. Progress towards this target will be monitored by CHAI, which this year will undertake a review of implementation of the NSF for Older People.

**4.110** A reduction in falls will contribute to the target set in *Saving Lives: Our Healthier Nation* to reduce serious injury by at least a tenth by 2010.

**4.111** Additionally, the Performance Assessment Framework for Social Services, which forms the basis of the annual Social Service Star Ratings, includes an indicator on "Admissions to hospital of people aged 75 or over due to hypothermia or injury caused by a fall per 1000 head of population aged 75 or over".

### Effective interventions

**4.112** The NSF for Older People identified a number of key interventions and systems changes to reduce the number of falls and their impact. In October 2002, the Department of Health published the Report of a cross-Government Task Force *Preventing Accidental Injury – Priorities for Action*. The Report identified falls as a priority for early preventative action, and described the most effective interventions.

**4.113** Currently, the National Institute for Clinical Excellence (NICE) is preparing clinical guidelines for the assessment and prevention of falls including recurrent falls in older people. These Guidelines will be published in August 2004.

**4.114** The NICE assessment is likely to recommend an initial risk assessment of older people to determine the most suitable programme. An effective programme is likely to be multi-factorial, rather than a single intervention. It will usually include a risk assessment of hazards in the home, visual, gait and balance problems, a review of the use of any psychotropic medication, education on risks to avoid at home and in the community, and a programme to build muscle strength and balance tailored to the capacity and needs of the individual.

### Gathering evidence of effectiveness

**4.115** Falls prevention provides a good example of ongoing practical research to identify what works and how it can be implemented in practice. For example the 'Healthy Communities Collaborative Pilot' (see Chapter 5, box 5.4) and the Evercare Programme (see Chapter 5, box 5.5) both seek to pilot interventions within the primary care setting from which lessons can be learned and disseminated to achieve 'whole systems' change.

### Partnership working

**4.116** The evidence on effective interventions to prevent falls and provide subsequent care, and lessons learned from the pilot sites, highlight the importance of an integrated approach between health and social care, including disciplines such as medical, nursing, pharmacy and social services.

### Progress towards national targets

**4.117** Despite national guidance, the progress made by PCTs and local authorities towards having integrated falls services is patchy. A Help the Aged survey in September 2002 of 94 PCTs found that although only a few were on their way to an integrated service most were in the process of developing falls prevention programmes. About half of those interviewed said they had a multidisciplinary approach to falls. Box 4.9 presents an example of action being taken by one PCT to develop an integrated falls prevention strategy.

**Box 4.9 Local examples - Cambridgeshire**

The Southern Cambridgeshire Falls Prevention Project is using an inter-agency, three tier assessment process to identify falls risk in older people.

Screening tools and a care pathway have been developed together with a number of initiatives to reduce falls risk, including:

- a health promotion campaign, 'Walk Tall, Don't Fall' including an educational pack given to all participants;
- a comprehensive community exercise programme, which aims to ensure that each sheltered housing complex, day centre and residential home has an effective exercise group running regularly;
- balance and safety groups – a 10 week educational and exercise programme for high risk fallers;
- 'Next step' classes are run by the City Council as an exit route from individual and group therapy programmes; and
- use of hip protectors with high-risk fallers in residential and nursing homes.

**Conclusions 4.118** The prevention of falls and the development of an integrated falls strategy within local communities is recognised as a national priority. A number of developments are taking place to address this priority, including the gathering and dissemination of evidence-based practice, and the inclusion of falls prevention within the performance management framework of health and social services. Nonetheless, the 2005 milestone within the PPF remains challenging, and achievement will require concerted effort between all partners.

