

Executive summary

Introduction

In this Report we consider some of the ethical issues that arise from efforts to improve health at the population level, and we examine the roles and responsibilities of the different parties involved. Although some might see personal behaviour as the primary factor determining the health of the population, we consider that to be too simplistic. Individual behaviour certainly plays a role, but health is influenced by many factors, such as clean air, the built and work environment, socio-economic and genetic background, and access to healthcare. Industries such as those producing, selling and marketing food, drink and tobacco also play an important role, and the impact of almost all these factors is influenced directly or indirectly by government policy.

The political, regulatory and economic environments in which people live establish a setting that has a considerable influence on the extent to which they are able to lead healthy lives (paragraphs 1.4, 3.20–3.21). The term ‘public health’ is generally used to refer to efforts made to improve that setting, and in this Report we understand public health as the “science and art of preventing disease, prolonging life and promoting health through organised efforts of society”.¹ Public health measures focus on stopping the healthy becoming sick, rather than treating the sick, either by implementing preventative measures or by trying to reduce unhealthy behaviour. We note that ‘public health’ can also be used to refer to the collective state of health of members of a population. To avoid confusion or ambiguity, we use the term ‘population health’ for this latter meaning throughout this Report. Thus, public health measures are designed to improve population health (see paragraph 1.6 and Box 1.4).

Historical background to public health

Historically, many of the most substantial advances in improving population health have been made through non-medical developments. These include improved housing and sanitation, which considerably reduced morbidity and mortality in western European countries in the 19th and 20th Centuries. Law and regulation also played a crucial role, and a wide range of highly prescriptive health and safety regulations helped reduce ill health and premature death. Measures derived from medical advances, such as vaccination programmes, have also made a significant contribution. However, although, overall, health has improved and life expectancy has increased in the UK and other western European countries in the 20th Century, considerable inequalities in health persist, and in some cases these have widened, especially between socio-economic groups (see paragraphs 1.3, 3.23–3.27).²

Ethical issues

The context of the debate

Public health measures raise complex questions about the relationship between the state and the individuals and organisations that are affected by its policies. They also raise questions about the duties that individuals have towards each other. A substantial body of literature in political philosophy examines these relationships of duties and entitlements, and we provide an overview in Chapter 2. The younger academic field of bioethics has also generated an influential body of

¹ See Royal Colleges of Physicians of the United Kingdom, *What is Public Health*, available at: http://www.fphm.org.uk/about_faculty/what_public_health/default.asp.

² Acheson D (1998) *Independent Inquiry into Inequalities in Health* (Norwich: The Stationery Office), available at: <http://www.archive.official-documents.co.uk/document/doh/ih/ih.htm>.

literature and much of this work takes an individual-centred approach. Public health, however, is not generally concerned with the *individual* level, but with the population level, and it is not always easy or appropriate to apply concepts such as autonomy, which carry considerable weight in the traditional bioethics literature, to the area of public health (see paragraphs 2.22–2.25, 7.38–7.31, 8.10–8.12).

The Working Party's approach

In Chapter 2 we set out an ethical framework which builds on existing literature and provides a general structure for the consideration of ethical issues arising in public health. We consider the basic parameters of a liberal framework for public health policy and its relationship to different theories of the state (paragraphs 2.3–2.9). John Stuart Mill's 'harm principle', to which we refer as the 'classical harm principle', suggests that state intervention is primarily warranted where an individual's actions affect others (paragraphs 2.13–2.15). This forms a crucial constituent part of our proposed framework and sometimes is sufficient on its own to justify a public health policy.

Building on this principle we identify several further issues that are important to public health. We highlight especially the limitations of individual consent and the importance of reducing health inequalities. We comment on different types of inequality, different groups between which inequalities may exist and different ways of reducing them (paragraphs 2.27–2.32). We argue that the focus in reducing health inequalities should be on 'prioritarian' strategies that aim to improve health opportunities and outcomes in the most disadvantaged groups.

On consent, we differentiate between interventions where explicit individual consent is required, those where preventing harm to others outweighs its requirement, and those where the degree of interference with a person's liberty or preferences may obviate the need for consent. Public health interventions sometimes fall into the latter category, and democratic decision-making procedures may be appropriate to give an 'authorisation' or 'mandate' to implement a certain measure. The procedures should be transparent, fair and inclusive (paragraphs 2.22–2.26, also paragraphs 4.58–4.62).

Acting, and failing to act, to improve population health

The central issue in public health is the extent to which it is acceptable for the state to establish policies that will influence population health. Some take the view that 'doing nothing' is the morally most acceptable or 'neutral' option, as it gives the greatest scope for individuals to act freely, guided by their own preferences and choices. However, many policies that constrain liberties at some level, such as compulsory primary and secondary education, play an important role in assisting people in developing the ability to act autonomously in the first place. Moreover, **it would be wrong to require justification only for active intervention. Any policy, including a policy to 'do nothing', implies value judgements about what is or is not good for people, and requires justification** (see paragraphs 2.27–2.38, 3.37–3.38, 8.17).

The stewardship model

We discuss the question of what degree of intervention might be acceptable to improve population health (paragraphs 2.34–2.40), and we present what we call the stewardship model.

The concept of 'stewardship' is intended to convey that liberal states have a duty to look after important needs of people individually and collectively.³ It emphasises the obligation of states to

³ See World Health Organization (2000) *World Health Report 2000* (Geneva, Switzerland: WHO); "Stewardship is the overarching function that determines the success or failure of all other functions of the health system. It places the responsibility back on government and calls for the strengthening of ministries of health. However, it does not call for necessarily a hierarchical and controlling role of government but more of that of overseeing and steering of the health system. It calls for vision, setting of regulations and implementing them, and the capacity to assess and monitor performance over time. A strong stewardship should in fact permit a more efficient use of the private sector to meet the needs of the health system."

provide conditions that allow people to be healthy and, in particular, to take measures to reduce health inequalities. The stewardship-guided state recognises that a primary asset of a nation is its health: higher levels of health are associated with greater overall well-being and productivity. Box 1 and paragraphs 2.41–2.44 describe in more detail the goals and constraints of the stewardship model.

Box 1: The stewardship model (see paragraph 2.44)

Core characteristics of public health programmes carried out by a stewardship-guided state can be summarised as follows:

Concerning goals, public health programmes should:

- aim to reduce the risks of ill health that people might impose on each other;
- aim to reduce causes of ill health by regulations that ensure environmental conditions that sustain good health, such as the provision of clean air and water, safe food and appropriate housing;
- pay special attention to the health of children and other vulnerable people;
- promote health not only by providing information and advice, but also by programmes to help people overcome addictions and other unhealthy behaviours;
- aim to ensure that it is easy for people to lead a healthy life, for example by providing convenient and safe opportunities for exercise;
- ensure that people have appropriate access to medical services; and
- aim to reduce health inequalities.

In terms of constraints, such programmes should:

- not attempt to coerce adults to lead healthy lives;
- minimise interventions that are introduced without the individual consent of those affected, or without procedural justice arrangements (such as democratic decision-making procedures) which provide adequate mandate;
- seek to minimise interventions that are perceived as unduly intrusive and in conflict with important personal values.

Note that the positive goals and negative constraints are not listed in any hierarchical order. The implementation of these principles may, in theory, lead to conflicting policies. However, in each particular case, it should be possible to resolve these conflicts by applying those policies or strategies that, in the circumstances, enable the desired social goals to be achieved while minimising significant limitations on individual freedom (see Box 2). We illustrate the role of particular components in the discussion of the case studies considered in Chapters 4–7.

Role of third parties

Although the state should be guided in its public health policies by the concept of stewardship, this does not absolve other parties, in particular the corporate sector, from their responsibilities.

We discuss the concept of corporate social responsibility, and note that while companies may have different motivations for pursuing social responsibility strategies, they increasingly recognise that they have obligations beyond simply complying with relevant laws and regulations. If industry fails to meet these obligations and the health of the population is significantly at risk, the market fails to act responsibly. In such cases, we argue, it is acceptable for the state to intervene (paragraphs 2.47–2.50, 5.26, 5.16–5.25, 6.18–6.31, 8.24).

The stewardship model and the principles we set out in Chapter 2 do not provide a fixed set of rules or a hierarchy of principles. Rather, the framework suggests what should be taken into account when developing policy (paragraphs 2.44, 2.52, 8.3–8.12).

Policy issues

Evidence

Evidence about, first, causes of ill health and, secondly, the efficacy and effectiveness of interventions is important to public health policy (paragraphs 3.3–3.4). Ideally, evidence should be based on peer-reviewed research, and not on preliminary results or unpublished reports. Selective use of evidence or ‘policy-based evidence’⁴ that has been commissioned or interpreted to support

⁴ House of Commons Science and Technology Committee (2006) *Scientific Advice, Risk and Evidence Based Policy Making*, available at: <http://www.publications.parliament.uk/pa/cm200506/cmselect/cmsctech/900/900-i.pdf>.

existing or planned policies is unhelpful and can lead to confusion. In practice, evidence is often incomplete, or it may be ambiguous, and usually it will be contested. Although scientific experts may sometimes be tempted or pressured into offering precise answers to policy makers, the honest answer will often be “we don’t know” or “we can only estimate the risk to within certain, sometimes wide, limits”. Claims of absolute safety or certainty should therefore generally be treated with great caution (see paragraphs 3.7–3.12, 8.19–8.23).

The media, stakeholders and campaigning groups have particular roles in relation to the presentation of evidence for or against particular health risks and we emphasise the crucial importance of accuracy and fairness in presenting evidence (see paragraphs 3.7–3.9, 4.33–4.35, 7.47).

Risk

We contrast two different views about what risk assessments should entail. According to the ‘statistical view’, risk is defined in terms of the probability of an event occurring, multiplied by the severity of its impact. On the ‘social construct view’, risk is framed by personal biases that result in certain kinds of risks being more relevant than others, and by what is accepted in particular social groups or society as a whole. **We take the view that the assessment of risk in the development of policy should be based on the ‘statistical view’; however, we recognise that acceptability of risk to the public may also depend on subjective perceptions** (paragraphs 3.13–3.14).

Precaution and proportionality

The ‘precautionary principle’ is often invoked where there is some evidence of a serious threat to health, safety or the environment. The precise meaning of the principle has been the subject of much debate and it would be wrong to see it as a simple rule. This is why we prefer the term *precautionary approach*, rather than *precautionary principle* (paragraphs 3.15–3.16).

A Communication by the European Commission on the matter⁵ helpfully suggests that five main elements can be distinguished: (a) scientific assessment of risk, acknowledging uncertainties and updated in light of new evidence; (b) fairness and consistency; (c) consideration of costs and benefits of actions; (d) transparency; and (e) proportionality.

Whether an intervention is proportionate depends largely on: whether the public health objectives are sufficiently important to warrant particular laws, policies or interventions; how likely the intervention is to achieve certain ends; and whether the means chosen are the least intrusive and costly whilst still achieving their aims (paragraphs 3.16–3.19). The concept of proportionality is closely linked to what we call the ‘intervention ladder’.

The intrusiveness of different policies: the intervention ladder

Our proposed ‘intervention ladder’ suggests a way of thinking about the acceptability and justification of different public health policies (Box 2). The least intrusive step is generally ‘to do nothing’, or at most monitor the situation. The most intrusive is to legislate in such a way as to restrict the liberties of individuals, the population as a whole, or specific industries. In general, the higher the rung on the ladder at which the policy maker intervenes, the stronger the justification has to be. A more intrusive policy initiative is likely to be publicly acceptable only if there is a clear indication that it will produce the desired effect, and that this can be weighed favourably against any loss of liberty that may result (paragraphs 3.37–3.38).

⁵ *European Commission (2000) Communication from the Commission on the Precautionary Principle COM(2000)*. Note that the Communication uses the term ‘precautionary principle’ rather than ‘precautionary approach’ used by us. In one sense it may be unimportant which term is used. However, we think that the term ‘approach’ conveys more immediately that there is not just one, but several principles or considerations that need to be considered.

Box 2: The intervention ladder (paragraphs 3.37–3.38, Box 3.2)

The ladder of possible government actions is as follows:

Eliminate choice. Regulate in such a way as to entirely eliminate choice, for example through compulsory isolation of patients with infectious diseases.

Restrict choice. Regulate in such a way as to restrict the options available to people with the aim of protecting them, for example removing unhealthy ingredients from foods, or unhealthy foods from shops or restaurants.

Guide choice through disincentives. Fiscal and other disincentives can be put in place to influence people not to pursue certain activities, for example through taxes on cigarettes, or by discouraging the use of cars in inner cities through charging schemes or limitations of parking spaces.

Guide choices through incentives. Regulations can be offered that guide choices by fiscal and other incentives, for example offering tax-breaks for the purchase of bicycles that are used as a means of travelling to work.

Guide choices through changing the default policy. For example, in a restaurant, instead of providing chips as a standard side dish (with healthier options available), menus could be changed to provide a more healthy option as standard (with chips as an option available).

Enable choice. Enable individuals to change their behaviours, for example by offering participation in a NHS 'stop smoking' programme, building cycle lanes, or providing free fruit in schools.

Provide information. Inform and educate the public, for example as part of campaigns to encourage people to walk more or eat five portions of fruit and vegetables per day.

Do nothing or simply monitor the current situation.

Public health measures are frequently viewed as infringements of liberties, especially where they become more coercive. Yet, comparable measures are often accepted in general health and safety policies, for example, in relation to protective clothing or use of seat belts (see Chapter 3, Box 3.3, paragraph 8.17, Box 8.1). However, as the latter example illustrates, initial resistance often turns into acceptance, and even approval, if the interventions are seen to be successful.

Targeting versus universal approaches

There are clear correlations between health and socio-economic status: in general, poorer health and less healthy behaviours are associated with lower socio-economic position (see paragraphs 3.23–3.27). The stewardship model includes an obligation to reduce health inequalities and to pay special attention to the health of children and other vulnerable people. Different strategies that may be pursued include targeting the disadvantaged (paragraphs 3.29–3.30) or at-risk groups (paragraph 3.30). Some object to any targeting approach on the basis that it may lead to stigmatisation (paragraphs 4.45, 5.12, 5.30–5.31, 5.34, 5.38, 5.42, 6.16 and 8.27–8.28), and instead favour universal approaches. However, different people may respond differently to universal measures. For example, better food labelling may benefit some more than others, as not everyone will read the labels or use the information provided to change their behaviour. In general those most able to benefit from information-based strategies are better educated and from higher socio-economic status groups. Universal measures can therefore increase health inequalities, and **systematic monitoring is therefore a crucial component of universal as well as targeted measures** (see paragraphs 3.23–3.24, 8.29).

The implications of our discussions of ethical and policy issues are illustrated in the following case studies on infectious diseases, obesity, smoking and alcohol, and fluoridation of water.

Infectious disease

The main ethical issues in the surveillance, control and prevention of infectious disease concern how to reconcile individual consent and civil liberty with community benefit, including the prevention of harm to others. In addition, infectious diseases require consideration of health inequalities at a national and global level. We also discuss issues arising from international programmes for the surveillance and control of pandemics.

Prevention of infectious diseases through vaccination

Vaccination strategies often seek not only to protect individuals against infection, but also to bring about 'population immunity'⁶ (see paragraphs 4.9–4.10). It is sometimes claimed that all those who refuse to receive vaccinations (or to have their children vaccinated) are 'free-riders', in the sense that they may be avoiding taking on their 'share' of the burden for the benefit of the community while nevertheless benefiting from population immunity. However, the situation is more complicated than this, as people may object to vaccinations for many reasons (paragraph 4.17).

Population immunity can confer a substantial collective benefit, but achieving it requires the organised efforts of society in establishing vaccination schemes, and collective action and cooperation by the population in taking part to achieve high levels of vaccination coverage. We consider three broad approaches to vaccination policy: voluntary, incentivised and quasi-mandatory.⁷ In all cases, education and information campaigns are generally used to improve uptake (paragraphs 4.20–4.29). **In general, public health policies should use the least intrusive means to achieve the required public health benefit. Directive vaccination approaches that go further than simply providing information and encouragement to take up the vaccine may, however, be justified on the basis of minimising risks of harm to others, or protecting the health of children and other vulnerable people. A case-by-case assessment will always be required. When assessing whether more directive policies are acceptable, the following factors should be taken into account: the risks associated with the vaccination and with the disease itself, and the seriousness of the threat of the disease to the population. In the case of incentivised policies, the size of the incentive involved should be appropriate so that it would not unduly compromise the voluntariness of consent (paragraph 4.26).**

We identified two circumstances in which quasi-mandatory vaccination measures are more likely to be justified. First, for highly contagious and serious diseases, for example with characteristics similar to smallpox. Secondly, for disease eradication if the disease is serious and if eradication is within reach (paragraph 4.27).

There also needs to be consideration of whether a directive measure will be more effective than voluntary ones. The evidence on this for routine childhood vaccinations is complex and limited. **At present, there is not sufficient justification in the UK for moving beyond the current voluntary system and implementing incentivised or quasi-mandatory policies for routine childhood vaccinations (paragraph 4.32).**

When a disease causes serious harm only in certain groups in the population, high vaccination levels might still be sought across the whole population in order to achieve population immunity. Vaccinating boys against rubella or against a virus that causes cervical cancer, or vaccinating girls against mumps would be examples (paragraphs 4.18–4.19, 4.28). **On the basis of the value of community and stewardship considerations, it is in principle ethically justified to encourage individuals to take part in vaccination programmes when there is no, or only a small, personal**

⁶ Population immunity is also commonly known as 'herd-immunity'.

⁷ By quasi-mandatory we refer to schemes that require individuals to be vaccinated unless they qualify for an exemption and where there are penalties for those who do not comply.

benefit, but significant benefits for others. However, consent is essential, and there should be careful assessments of the benefits to be gained for the population and the possible harm that may result for the people who receive the vaccination (paragraph 4.29).

Surveillance of infectious disease

We discuss two types of infectious disease surveillance. First, population surveillance of infectious disease trends, which involves the systematic collection, analysis and interpretation of data about disease incidence and prevalence. With this type of surveillance, data are generally collected anonymously (paragraphs 4.36–4.38). Secondly, notifiable disease surveillance, in which individual cases of particular diseases must be notified to the relevant authorities for the purpose of monitoring and disease control (paragraphs 4.41–4.42, also Box 4.5).

The collection of anonymised surveillance data on trends in infectious disease ranks low on the intervention ladder. Without sufficient data, it may not be possible to assess and predict trends and risks in infectious diseases. **It is acceptable to collect and use anonymised data for assessing and predicting trends in infectious disease without consent, as long as any invasion of privacy is reduced as far as possible** (paragraph 4.39).

Legislation on notifiable diseases requires the collection of data about individuals with particular infections which includes identifying information. One of the main aims of such measures is to prevent harm to others from the spread of disease, which means that they can be justified under the classical harm principle (paragraphs 2.13–2.14). **The avoidance of significant harm to others who are at risk from a serious communicable disease may outweigh the consideration of personal privacy or confidentiality, and on this basis it can be ethically justified to collect non-anonymised data about individuals for the purposes of implementing control measures. However, any overriding of privacy or confidentiality must be to the minimum extent possible to achieve the desired aim** (paragraph 4.43).

Surveillance on an international level is also important, particularly for diseases that could lead to large-scale epidemics or pandemics. International disease surveillance is compromised where countries do not have the capacity to undertake effective disease surveillance or where they decide not to fully cooperate with international surveillance efforts (paragraphs 4.47–4.49). **Based on an application of the stewardship model at the global level, countries have an ethical obligation to reduce the risk of ill health that people might impose on each other across borders. Therefore countries should notify other relevant countries and bodies about outbreaks of serious diseases at the earliest stage, following the relevant procedures laid out by WHO (the World Health Organization)** (paragraph 4.50).

Early detection of outbreaks requires an efficient surveillance system, and different countries have different capacities for surveillance, monitoring and reporting of infectious disease. We note that both WHO and a Foresight report have identified a need for greater investment in surveillance capacity in poorer countries,⁸ which is compatible with applying the stewardship model at the global level.

***Recommendation 1:* Countries such as the UK should seek to enhance the capacities of developing countries to conduct effective surveillance of infectious diseases. The UK health departments, in liaison with the Department for International Development, should work to take this forward with international partners such as WHO, the European Centre for Disease Prevention and Control (ECDC) and the Centers for Disease Prevention and Control (CDC) in the USA.** (Paragraph 4.50)

⁸ Foresight (2006) *Infectious Diseases: Preparing for the future. Executive Summary* (London: Office of Science and Innovation); World Health Organization (2006) *Strengthening pandemic-influenza preparedness and response, including application of the International Health Regulations (2005)*, available at: http://www.who.int/gb/ebwha/pdf_files/WHA59/A59_5-en.pdf.

A case of lack of cooperation with global surveillance has recently been seen with Indonesia, which, for a period in 2006/7, ceased to provide influenza viral isolates to the WHO-managed international surveillance system because of concerns that the country would not have reasonable access to the benefits produced with the aid of these viral isolates. The Indonesian case is made more complex by the involvement of a pharmaceutical company, with which a deal was allegedly made, although the full details of this are unclear (paragraphs 4.51–4.53).

Further to our observations on corporate social responsibility (paragraphs 2.47–2.50), the effect of commercial interests and intellectual property rights on public health surveillance measures requires careful consideration. **WHO is in a unique position to enable centralised and transparent determination that a novel virus has emerged, to evaluate pandemic-related evidence, and to develop response strategies, as acknowledged in the *International Health Regulations 2005*. This capacity must be sustained.**

***Recommendation 2:* We urge pharmaceutical companies not to enter into agreements with countries in a way that would potentially undermine the work of the WHO Global Influenza Surveillance Network.** (Paragraph 4.54)

Virus isolates should not be treated like any ordinary commodity, as adequate access and use is required to allow surveillance systems to function effectively, and so that timely vaccine production is not unduly hindered. Access is therefore of the greatest importance for public health, both on a national and global level.

***Recommendation 3:* We urge WHO to explore, in liaison with governments and relevant industries, the notion of viewing virus isolates as a form of ‘public good’, and to take a flexible approach to patenting and intellectual property protection.** (Paragraph 4.55)

***Recommendation 4:* WHO should not merely facilitate access to virus isolates for commercial companies, leaving the question of availability of vaccines to market forces. It should use its authority to impress on pharmaceutical companies their social responsibilities.** (Paragraph 4.55)

Control of infectious diseases

Quarantine and isolation of individuals known or suspected to have a particular infection are some of the most liberty-infringing measures available to policy makers.⁹ These measures may be considered either on a larger scale in the case of an epidemic, or, more often, on a smaller scale, for individual cases of a serious disease (such as patients with multi-drug-resistant tuberculosis, or chronic typhoid carriers; see paragraphs 4.58–4.61). **Liberty-infringing measures to control disease, such as compulsory quarantine and isolation, rank towards the top of the intervention ladder. The ethical justification for such measures involves weighing the classical harm principle on the one hand, and individual consent and the importance of avoiding intrusive interventions on the other. Where risk of harm to others can be significantly reduced, these considerations can be outweighed** (paragraph 4.62).

Information and communication

Infectious disease surveillance, prevention and control measures raise important issues about the need to communicate with individuals, populations and organisations (paragraphs 4.69–4.71). **Where a potentially serious infectious disease outbreak or incident occurs, the relevant authorities should ensure that they neither downplay the risks, which may lead to higher rates of preventable infections, nor overstate the risks, as this may result in panic or a lack of public trust that could be long-lasting.**

⁹ We note that there is the potential for these types of measures could be implemented inappropriately or abused, or that people may be suspicious of potential abuses, particularly for example, in countries with totalitarian regimes.

Recommendation 5: The UK health departments and health protection agencies,¹⁰ in particular, have a responsibility to ensure the timely provision of adequate and appropriate information about the nature of an infectious disease outbreak or incident, the type of interventions to be implemented and the rationale for their use. (Paragraph 4.72)

The coverage of doubts about the MMR (measles, mumps and rubella) vaccine in the media provides an example of how inaccurate or poor reporting of evidence and risk can have a highly damaging effect on population health, in this case through a loss of public confidence in the vaccine (paragraphs 4.33–4.35, Box 4.3). **We consider that researchers, journalists and others who report research have a duty to communicate findings in a responsible manner.**

Recommendation 6: Those who report research should take account of the *Guidelines on Science and Health Communication* published by the Social Issues Research Centre, the Royal Society and the Royal Institution of Great Britain.¹¹ In particular we emphasise that the source and the status of scientific evidence alluded to should be identified (including, for example, whether it is preliminary or based on a conference presentation, and whether it has been peer reviewed). We also encourage initiatives that provide independent information that is accessible to the public on the accuracy and reliability of medical stories reported in the media. An example of such an initiative is the National Library for Health's 'Hitting the Headlines' resource,¹² which provides summaries relating to media reports within two days of their publication. (Paragraphs 4.34–4.35)

Obesity

Becoming overweight or obese is a risk factor for several serious health conditions (paragraphs 5.2–5.4). The prevalence of obesity in children and adults has increased dramatically over the past decade in the UK and many other countries. Reversing this trend is likely to take many years because food and physical activity habits are deeply ingrained in social and individual patterns of behaviour. Policies with potential long-term benefits are sometimes difficult to reconcile with government priorities in the short term. As the prevalence of obesity appears to be the result of many different factors, reducing obesity in the population is likely to require multifaceted measures taken by many different agents (paragraphs 5.5–5.11).

Children are especially vulnerable, and evidence shows that children's early diet has a long-term impact on health, including obesity and its related health risks. Additionally, children are more susceptible to external influences, including marketing by industry, and they have limited control and ability to make genuine choices.

Role of industry: corporate social responsibility

Many people's diets include food that has been prepared or processed by others, and therefore consumers' choices are at least partly influenced by the products available and the way they are promoted, priced and distributed. We focus on two particular examples of the responsibilities of corporations: the promotion of foods and drinks high in fat, salt and sugar to children; and the labelling and composition of food. Our recommendations are based on our observations on corporate social responsibility (paragraphs 2.47–2.50) and the stewardship model's emphasis on conditions that make it easy for people to lead healthy lives, paying special attention to vulnerable people, and reducing causes of ill health through appropriate regulations (paragraph 2.44). **Businesses, including the food industry, have an ethical duty to help individuals to make**

¹⁰ By this we refer to the Health Protection Agency, Health Protection Scotland, the National Public Health Service for Wales and the Communicable Disease Surveillance Centre (Northern Ireland).

¹¹ Social Issues Research Centre, the Royal Society and the Royal Institution of Great Britain (2001) *Guidelines on Science and Health Communication*, available at: http://www.sirc.org/publik/revise_d_guidelines.pdf.

¹² See: <http://www.library.nhs.uk/hth/> and <http://www.library.nhs.uk/rss/newsAndRssArchive.aspx?storyCategory=0>.

healthier choices. The food and drink industries should therefore review both the composition of products that they manufacture and the way they are marketed and sold. Where the market fails to uphold its responsibility, for instance in failing to provide universal, readily understandable front-of-pack nutrition labelling or in the marketing of food more generally, regulation by the government is ethically justifiable (paragraph 5.25).

Several different models of providing labelling information have been introduced since 2000. It is premature to judge which of these is most effective in enabling consumers to make appropriately informed decisions (paragraph 5.24, Box 5.3). We note that the Food Standards Agency has commissioned a study¹³ to investigate whether front-of-pack labels contribute to healthier choices being made and, if so, which elements of the various schemes are the most effective.

Recommendation 7: When the Food Standards Agency (FSA) has reviewed its commissioned study on the effectiveness of labelling schemes, and the findings have been peer reviewed, they should form the basis for adoption by the food industry of the most effective scheme. If, however, the food industry does not accept the scheme, it would be appropriate for the UK Government to pursue legislation (if appropriate, at the European level). As we have noted elsewhere, such information-based schemes could increase health inequalities, and this should be monitored. (Paragraph 5.25)

Parental influence is a key factor in preventing childhood obesity, but other parties have an ethical duty to support parents. Given the special vulnerability of children, it would be desirable, for example, not to advertise foods high in fat, salt and sugar to children by any medium, including on the Internet. The stewardship-guided state should aim to protect children from harm and provide an environment in which they can lead healthy lives. An example of the way in which the state might intervene includes regulation of the promotion of unhealthy foods and drinks to children, if industry fails to adequately regulate itself. A study in Australia published in 2006 suggests that this may be a particularly cost-effective way of reducing obesity in children (paragraphs 5.19–5.22).¹⁴

In May 2007, the European Commission published a White Paper entitled *A Strategy for Europe on Nutrition, Overweight and Obesity-related Health Issues*,¹⁵ which included details of a best-practice model for self-regulation of food advertising for children. The Commission plans a review in 2010 of the extent to which agents across the EU are contributing to the achievement of the objectives in the Strategy.

Recommendation 8: Following the planned review of the EU Strategy on obesity in 2010, the European Commission should consider whether there are cases in which self-regulation of food advertising for children has proved unsatisfactory and whether more binding regulation across the EU is required. (Paragraph 5.23)

Role of government and public services

Education of children

Education plays a central role in providing individuals with the capacity to lead a healthy life. It is therefore appropriate for schools to seek to influence positively the food and exercise habits of children. **The stewardship model's emphasis on circumstances that help people to lead healthy lives, especially if they are in vulnerable positions, leads to an ethical justification for the state**

¹³ Food Standards Agency (2007) Press release: *Front of pack labelling research project moves forward*, 9 July, available at: <http://www.food.gov.uk/news/pressreleases/2007/jul/frontpackresearchpress>.

¹⁴ Victorian Department of Human Services (2006) *ACE-Obesity Assessing Cost-effectiveness of obesity interventions in children and adolescents* Summary of Results (Victorian Government Department of Human Services), available at: http://www.health.vic.gov.au/healthpromotion/quality/ace_obesity.htm.

¹⁵ Available at: http://ec.europa.eu/health/ph_determinants/life_style/nutrition/documents/nutrition_wp_en.pdf.

to intervene in schools to achieve a more positive culture towards food, cooking and physical activity (paragraph 5.36).

As in many other areas of public health policy, the only way of establishing whether a new policy is likely to lead to improved health is by trialling it. **Because the need being addressed is an important one, it is desirable to explore the potential of promising policies, even if evidence for their effectiveness is incomplete.** In addition, changes in attitudes and culture towards food and physical activity are likely to take a long time. For example, the effectiveness of recent initiatives to introduce healthier meals and free fruit and vegetables in schools needs to be evaluated over many years (paragraph 5.36).

Recommendation 9: The UK Government departments responsible for food, health and education should develop long-term strategies for schools with the aim of preventing obesity, and changing food and exercise culture, accompanied by monitoring and follow up. (Paragraph 5.36)

The Department of Health for England and Scottish health authorities currently collect data on height and weight of children in schools both to inform local planning and to track progress against the public service agreement target to reduce obesity (paragraph 5.37). **Data on the prevalence of obesity are a crucial part of understanding trends and the impact of interventions. Weighing and measuring young children is ethically justifiable, provided the data are anonymised and collected in a sensitive way.**

Recommendation 10: The collection of the data on obesity in children should be managed in a way that minimises the risks of stigmatisation, for instance by encompassing it within a broader programme of health checks. The UK health departments should give consideration to how this could be best realised in practice. (Paragraph 5.38)

Protecting children from harm in the home

The classical harm principle could be invoked to justify interventions by the appropriate authorities where children become obese as a direct result of their parents' preferences for food and exercise. However, determining when intervening in the home would be appropriate involves a balancing of competing values. **In general, direct regulation of food provided to children in the home would be disproportionate, as any health benefits achieved would be outweighed by the value of private and family life (see also paragraph 6.15). However, where severe obesity is caused by overfeeding by parents or guardians, child protection issues would be raised if the child was at risk of significant harm to health.**¹⁶

Recommendation 11: The Secretary of State for Children, Schools and Families, with the advice of the Office of the Children's Commissioner, should develop criteria for deciding when interventions, such as removing a child from their home, would be appropriate under the Government's *Every Child Matters* approach.¹⁷ (Paragraph 5.39)

Provision of healthcare

Obesity-related illnesses account for considerable NHS expenditure and this is likely to increase with the rising prevalence of obesity. However, the question of whether or not to make treatment for obese people conditional on behaviour change does not fall within the remit of public health, but rather in the realm of clinical decision-making.

¹⁶ The fact that state intervention in home life is generally considered a last resort in a liberal state may in part explain why the focus of much government action (whether on eating or exercise habits) is often directed towards the school rather than home environment.

¹⁷ *Every Child Matters* is the Government's approach to the well-being of children and young people from birth to age 19.

Obesity has complex causes. It is usually not easy to determine to what extent a person's weight is under their own control, and to what extent it is influenced by environmental factors that make it difficult to exercise or eat healthily. There is a significant risk of stigmatisation and unfair 'victim-blaming', where already-disadvantaged people are held unduly responsible for their poor health state. Any policies that single out obese people could also substantially undermine the concept of solidarity and the value of community. **It would not generally be appropriate for NHS treatment of health problems associated with obesity to be denied to people simply on the basis of their obesity. However, appeals to change behaviour before or subsequent to an intervention could be justified, provided that the change would enhance the effectiveness of the medical intervention, and people were offered help to do this** (paragraph 5.42).

On the whole, the focus of efforts should be on avoiding the need for treatment in the first place. This is a fairer approach, and it seems likely that it would cost less.

The built environment

The design of urban environments and buildings can help to improve opportunities for people to increase their energy expenditure with ease. A focus on the built environment might help to compensate for the low levels of effectiveness of health education strategies or policies aiming to help individuals to increase their physical activity by taking up sport (paragraph 5.29).

***Recommendation 12:* Planning decisions by central and local government should include the objective of encouraging people to be physically active. This may entail some restrictions of people's freedoms, for instance to drive anywhere they wish to, but these restrictions would be justified in terms of public health benefits.** (Paragraph 5.32)

***Recommendation 13:* The training of architects and town planners should include measures for increasing people's physical activity through the design of buildings and public spaces. This can be viewed as analogous to the recent incorporation of the study of energy efficiency and sustainability of buildings. The recommendation is directed to those who design training programmes, including the Architects Registration Board, the Royal Institute of British Architects and the Royal Town Planning Institute. Planning regulations by local planning authorities should set requirements in this area.** (Paragraph 5.33)

Alcohol and tobacco

Alcohol and tobacco are enjoyed legally by many people in the UK and other countries. Low to moderate intake of alcohol does not cause demonstrable harm and has even been suggested to have some health benefits. Excessive alcohol consumption¹⁸ is extremely harmful to the health of consumers themselves and is often linked to problems of public safety that impact upon third parties. For tobacco, regular smoking of even a small number of cigarettes is harmful to the health of the smoker and people around them. Drinking alcohol and smoking are among the highest risk factors for mortality and morbidity (paragraphs 6.4–6.7). Given these and other similarities, we consider alcohol and tobacco together in this case study.

People in socio-economic groups with fewer resources are disproportionately affected by the harms caused by alcohol and tobacco and, therefore, under the stewardship model, public health policies in this area should aim to reduce these health inequalities (see paragraphs 2.27–2.32). They should also aim to pay special attention to the health of children and other vulnerable groups.

¹⁸ In this Report we use 'excessive' alcohol consumption to refer to drinking that leads to alcohol use disorders as defined in the Alcohol Needs Assessment Research Project (ANARP). This Report used the World Health Organization categorisation of alcohol use disorders which specifies three categories: 'hazardous drinking', people drinking above recognised 'sensible' levels but not yet experiencing harm; 'harmful drinking', people drinking above 'sensible' levels and experiencing harm; and 'alcohol dependence', people drinking above 'sensible' levels and experiencing harm and symptoms of dependence.

Role of government and public services

Considerable harm to others is caused by people who have consumed excessive amounts of alcohol (paragraphs 6.10–6.11), and governments have acted to reduce this harm by implementing certain coercive measures, such as prohibiting driving or operating machinery with a blood-alcohol level over prescribed limits. These measures are publicly accepted and appropriate authorities enforce them. Further measures could be implemented that reduce harms to individuals themselves as well as to other people. **The stewardship model provides justification for the UK Government to introduce measures that are more coercive than those which currently feature in the National Alcohol Strategy (2004 and 2007).**

Recommendation 14: We recommend that evidence-based measures judged effective in the WHO-sponsored analysis *Alcohol: No ordinary commodity*¹⁹ are implemented by the UK Government. These include coercive strategies to manage alcohol consumption, specifically in the areas of price, marketing and availability. For example, taxes on alcoholic beverages could be increased, which has been shown to be an effective strategy for reducing consumption. We also recommend that the Home Office, the UK health departments and the Department of Culture, Media and Sport analyse the effect of extended opening hours of licensed premises on levels of consumption, as well as on anti-social behaviour. (Paragraph 6.31)

As with alcohol, the harm to others caused by tobacco smoking justifies the implementation of coercive measures. The introduction in the UK of legislation to prohibit smoking in enclosed public places is therefore justified. (Paragraph 6.13)

Smoking within the home impacts negatively upon the health of non-smoking members of the household, especially children. **In principle, the general ethical and scientific arguments that apply to banning smoking in enclosed public spaces also apply to banning smoking in homes (and other places) where children are exposed to environmental tobacco smoke. However, this would be extremely difficult to enforce without compromising privacy.**

Recommendation 15: We recommend that the Department for Children, Schools and Families should communicate to local authority children's services that there may be exceptional cases where children, for example, those with a serious respiratory condition, would be at risk of such a substantial level of harm from passive smoking that intervention to prevent such harm may be ethically acceptable. This would usually need to be decided in the courts. (Paragraph 6.15; see also Recommendation 11)

Provision of healthcare for people who smoke and/or drink excessively

Questions about the extent to which a person's behaviour has contributed to their requirement for NHS treatment fall primarily in the domain of clinical medicine, rather than public health, as with obesity. **It might be justified for doctors to appeal to patients to change their behaviour in relation to alcohol and tobacco before or subsequent to an intervention provided by the NHS, provided that the change would enhance the effectiveness of the intervention, and people were offered help to do this. For example, alcohol treatment programmes might be offered in advance of performing a liver transplant as the cessation of excessive drinking would be likely to increase its clinical effectiveness, or could even make the transplant unnecessary.**

As with obesity, the focus of efforts should be on avoiding the need for treatment in the first place (paragraph 6.17, see also paragraphs 5.41–5.42).

Recommendation 16: The UK health departments should further liaise with employers about how best to offer assistance with behaviour change programmes, such as smoking cessation, which could benefit the employer as well as employees. (Paragraph 6.17)

¹⁹ Babor T, Caetano R, Casswell S *et al.* (2003) *Alcohol: No ordinary commodity – Research and public policy* (Oxford: Oxford University Press).

Role of industry

Large and profitable companies are involved in the alcohol and tobacco industries, and almost all of these have established ‘corporate social responsibility’ policies, which often include so-called ‘harm-reduction strategies’. In the case of the tobacco industries, a stringent harm-reduction strategy is difficult to imagine as this would ultimately require them simply not to sell their products. In principle, if government wanted to pursue more aggressively its ethical objective of reducing health inequalities, it might ban the sale of tobacco products altogether, given that in developed countries, smoking is the leading single risk factor for mortality and is closely associated with socio-economic inequalities (paragraph 6.4). However, at present, the introduction of such a measure would be highly unlikely, which illustrates the complex set of interests of stakeholders that influence public health. Our recommendations therefore focus on what is achievable in the current situation (paragraphs 6.18–6.27).

A recent initiative of the industry to reduce harms has been to develop a form of smokeless tobacco known as snus. Snus, which is placed underneath the lip, has been used legally in Sweden and some other countries for many years although it is banned in all other Member States of the European Union. It is addictive to the consumer but eliminates the risk of harm to third parties. The industry argues that there is epidemiological evidence that this form of tobacco presents considerably lower health risks than cigarette smoking.²⁰ However, although there may be lower health risks compared with cigarette smoking, it is still associated with harm and addiction.²¹

Recommendation 17: In view of the health risks and the possibility that consumers may be led to believe they are using a relatively harmless product, we are not persuaded that permitting snus or conducting further research on the health risks is a helpful approach. Allowing snus might also carry the risk of increasing health inequalities in the UK as members of certain ethnic groups who already have a culture of chewing stimulants, such as betel nut, might more easily take up snus. (Paragraph 6.25)

Although, generally, we focus in this Report on the situation in the UK, in the case of tobacco and alcohol it is also relevant to consider the international context. **It is ethically inconsistent for tobacco and alcohol companies advertising and selling their products in developed countries to claim corporate social responsibility, and yet apply different standards for protecting consumers in different countries, depending on local laws. Acting ethically exceeds simply complying with relevant laws and regulations.**

Recommendation 18: Policies on selling and advertising tobacco and alcohol that afford the greatest protection to consumers should be adopted worldwide. The members of the UK Tobacco Manufacturers’ Association and other companies that produce or market tobacco products should implement a voluntary code of practice that universalises best practice in terms of consumer protection. One example would be worldwide adherence to standards in advertising that have been developed and agreed by the industry in the EU, and particularly the UK. (Paragraph 6.27)

Alcohol and tobacco use in children

Drinking alcohol and smoking are associated with dependence and harms, and the levels of consumption and use in children and adolescents raise concerns. **We welcome the raising of the minimum age for the purchase of tobacco from 16 to 18 years that has taken place throughout the UK as part of a strategy to protect vulnerable people. Although thought needs to be given to the way in which this measure can be implemented most effectively, it is an appropriate**

²⁰ See, for example, British American Tobacco *Smokeless Snus and Health*, available at: http://www.bat.com/OneWeb/sites/uk__3mnfen.nsf/vwPagesWebLive/8C2FF319B8EFFB63C125700B00334456?opendocument&DTC=&SID.

²¹ For a review article, see Gray N (2005) Mixed feelings on snus *Lancet* **366**: 966–7.

initiative in the context of the stewardship model, as the market has largely failed to self-regulate in this area.

Recommendation 19: Producers, advertisers and vendors of alcohol and tobacco need to recognise more fully the vulnerability of children and young people, and take clearer responsibility for preventing harms to health. This would include refraining from understating risks, and from exploiting the apparent desirability of drinking alcohol and smoking, particularly in ways that appeal to children and young people. Furthermore, it would appear that whatever the legal position, these products are widely available to underage children, and existing law and policy need to be implemented more stringently. (Paragraph 6.33)

Fluoridation of water

Fluoride occurs naturally in the water supply in some regions, and it has been suggested that adding fluoride to the water supply more generally may reduce tooth decay. Water fluoridation schemes have been in place for over 50 years in parts of the UK and elsewhere. A major literature review published in 2000, the 'York review', found that there was evidence that water fluoridation improved the health of teeth although this benefit is difficult to quantify. The review also found evidence that ingesting fluoridated water could be associated with harms, in particular fluorosis. Overall, however, the evidence both for benefits and for harms was found to be weak (paragraphs 7.4–7.7, 7.31). This is somewhat surprising, given that fluoridation has been implemented as a policy option for several decades.

Three elements of the stewardship model could, in principle, be used to justify water fluoridation: the reduction of health inequalities; the reduction of ill health; and concern for children, who constitute a vulnerable group. Water fluoridation has the potential to contribute to these goals, particularly where the health need of a particular locality is high. However, three further ethical principles need also to be considered: minimising interventions that affect important areas of personal life; not coercing ordinary adults to lead healthy lives; and consent. **The principles of avoiding coercive interventions and minimising interventions in personal life could be used to argue against the addition of any substance to the water supply. However, we do not accept that the addition of potentially beneficial substances to the water supply should always be prohibited. Rather, we seek to identify the situations in which this may be appropriate** (paragraph 7.25). **The acceptability of any public health policy involving the water supply should be considered in relation to: (i) the balance of risks and benefits; (ii) the potential for alternatives that rank lower on the intervention ladder to achieve the same intended goals; and (iii) the role of consent where there are potential harms** (paragraph 7.26).

Alternative fluoride-based interventions are in use in other parts of the world, including fluoride supplements and fluoridation of salt or milk, which rank lower than water fluoridation on the 'intervention ladder' (see paragraph 7.13, Box 7.4 and paragraphs 3.37–3.38). Their relative costs and benefits both to population health and individual liberty should be assessed when considering water fluoridation.

With water fluoridation, a whole area either receives fluoridated water or does not. Populations do not remain static, as people move to and from an area. In practical terms it would therefore not be feasible to seek individual consent. In this situation it could be suggested either that the intervention never be implemented because individual consent cannot be obtained, or that an alternative approach to obtain mandate is used (paragraphs 2.22–2.25).

Both action (adding fluoride) and inaction (not adding it) might disadvantage some groups of people, either through limiting personal choice or through preventing individuals from receiving any health benefits of the measure. Overall the prevalence of caries has reduced considerably over recent decades, but inequalities between regions persist. Therefore, the extent to which people might be affected by these two options varies. **The most appropriate way of deciding whether fluoride should be added to water supplies is to rely on democratic decision-making procedures. These should be implemented at the local and regional, rather than national level,²² because the need for, and perception of, water fluoridation varies in different areas. Account should be taken of relevant evidence, and of alternative ways of achieving the intended benefit in the area concerned. Whatever policy is adopted, dental health and any adverse effects of fluoridation should be monitored** (paragraph 7.40).

***Recommendation 20:* The UK health departments should monitor the effects of water fluoridation, including the incidence and severity of fluorosis and other possible harms. Water fluoridation policy should be objectively reviewed by the UK health departments on a regular basis in light of the findings of ongoing monitoring and further research studies. Furthermore, the conclusions and their basis should routinely be published.** (Paragraph 7.42)

Information about the evidence is important in policy decisions, particularly where people are asked to vote or contribute to policy decisions. **Neither the public nor policy makers are helped by information that makes it difficult for the non-expert to obtain a good understanding of current evidence** (paragraphs 7.43–7.47).

***Recommendation 21:* All the groups involved in the fluoridation debate should ensure that the information they produce presents a balanced account of risks and benefits, and indicates accurately the strengths and weaknesses of the evidence base.** (Paragraph 7.47)

For contentious issues such as fluoridation, the media have a responsibility to report research findings accurately. In this context, we reiterate the earlier recommendation, made in relation to vaccination, about the reporting of research and how this should be conducted (see Recommendation 6 and paragraphs 4.33–4.35, 7.47).

²² Within the constraints of the water supply network.