

---

# 23 Ethical principles and ethical issues in public health

---

*K.C. Calman and R.S. Downie*

---

## Introduction

Let us begin by accepting the World Health Organization (WHO 1952, p. 5) definition of the term 'public health' as modified by the Acheson Report (1988, p. 1): 'Public health is the science and art of preventing disease, prolonging life and promoting health through organized efforts of society.' This definition suggests that ethical problems can arise in public health over preventing disease and promoting health. 'Prolonging life', if it is not achieved by preventing disease or promoting health, is a matter for clinical medicine and will not be discussed separately in this chapter. Ethical issues may also arise over 'the organized efforts of society' and over what it means to say that public health is both a science and an art. We shall conduct our discussion, then, under these headings and try to encompass a wide range of ethical issues, including some with international implications (see below). In order to make it clear why these ethical issues arise we must first offer a brief survey of national and international problems in public health (see below), and then introduce the principles of ethics (see below).

## Current problems in public health

These problems are of course discussed in detail elsewhere in this book and what follows is simply a very short account to put our ethical discussions into a public health perspective.

Levels of health, measured in almost any way vary considerably from country to country. The collection of accurate statistics and their analysis is the responsibility of the WHO and other international organizations. They show the extent of the problems, for example:

1. 20+ million adults with HIV infection by the year 2000;
2. 8 million clinical cases of tuberculosis each year—one-third of the world's population infected;
3. 300 million people with mental illness;
4. 2 million deaths from malaria and 270 to 450 million cases;
5. 300 million hepatitis B cases;
6. 250 million cases of sexually transmitted diseases.

In the United Kingdom the infant mortality figures for 1991 were 7 per 1000 live births. In other countries figures in the same year of

140 to 160 deaths per 1000 live births were recorded. Life expectancy at birth varies from almost 80 years in the richest countries to around 40 years in the poorest. These are huge variations and the economic cost of this burden of disease, ill health, and disability, is considerable. In 1991 the United States spent \$2800 per person on medical care, compared with \$2 to 40 per capita in the poorest countries.

As developing countries progress and health and lifespans improve, the problems of ageing populations become clearer. The changes in life-styles which are occurring increase the chances of coronary heart disease and increases in smoking increase the chances of developing lung cancer and other smoking-related diseases. Thus, the health problems faced now by the developed countries are likely to be those of the future for developing ones. The increasing urbanization of the population can only increase the problems listed above unless there is a planned way of ensuring that effective public health policies are introduced. The rise in the elderly population is occurring worldwide.

Turning now more particularly to Europe we find that over the last few years a considerable amount of data has been collected on health in Europe. The information used here comes from the report by the WHO European Regional Office (1994). The European region ranges from Portugal to Russia, from Iceland to Turkey and includes the countries of Central and Eastern Europe (CCEE) and the newly independent states (NISs) such as Kazakhstan, Belarus, and the Baltic states. The number of countries in the European region of the WHO has risen from 31 to 50 in the last few years.

Certain general factors are relevant. In 1992, no less than eight countries were affected by war, with the consequences of conflict such as violent death, disruption of the infrastructure, and migrations of several million people. In the countries of eastern Europe in particular, there has been an economic recession which has had a major impact on health statistics. The migration of large numbers of the population has been associated with poverty, homelessness, and poor living conditions. Violence has been obvious in many countries. What have been the implications of these changes on the health of the people of Europe?

Life expectancy in the countries of the European Union (EU) continues to rise and is around 72 years for males on average. This is in contrast to a number of countries in the NISs in which life expectancy has actually fallen. While this is a crude indicator of health it demonstrates how rapidly changes in social, economic, and

environmental circumstances can have an effect. Infant mortality in Europe ranges from 5 to 10 per 1000 life births in most Nordic and western European Countries, to over 40 in some central Asian Republics. Generally the figures show an improvement, but in some CCEE and NIS countries there has been a slight increase. Maternal mortality is similarly distributed and is again declining overall.

There are considerable variations in cardiovascular mortality across the region. What is particularly disturbing is that between 1985 and 1992, while many countries showed a decline in mortality (the United Kingdom by 5 deaths per 100 000) others showed a considerable increase. The lessons of prevention will need to be learned all over again in CCEE and NISs. In a similar way age-standardized death rates from cancer in the 0 to 64 years age group are decreasing in the EU and Nordic countries but increasing in CCEE and NISs. Higher smoking rates explain some of these differences.

Communicable diseases remain a major health problem. Polio, diphtheria, and cholera have all seen a resurgence. Immunization rates are generally high but in the NISs protection against, for example, diphtheria is inadequate. The health service infrastructure in some countries is such that it is difficult to implement vaccination programmes. Tuberculosis is increasing, partly due to the migration of very large numbers of people. By August 1995, there had been a cumulative total of 140 000 cases of AIDS reported in the region. Encouragingly, the annual incidence shows signs of slowing down, thanks to the huge preventive efforts over the last 10 years.

Turning to women's health we find that maternal mortality is high where abortion remains the principal method of contraception. There is also concern about the cigarette smoking rates in women and mortality in women from lung cancer continues to rise. Finally, in this snapshot of figures, the number of elderly people in the region continues to rise and they are a particularly vulnerable group. Mental health problems are also a cause for concern.

The picture therefore is a mixture of good and bad news, with substantial lessons to be learned. Many of these lessons are ethical and it is to these that we now turn. The next section will give an account of the main principles and concepts in terms of which health care ethics are discussed and will relate some of the health data just introduced to these principles.

## Medical care ethics and public health ethics

From the time of Hippocrates until the 1960s, medical ethics (or health care ethics or bioethics) were seen in terms of doctors' duties to patients. These duties have traditionally been thought of as those of not harming the patient (non-maleficence) and of helping the patient (beneficence). Although these principles of non-maleficence and beneficence were interpreted differently in different cultural contexts over the centuries their exclusiveness was not seriously challenged until the appearance in the 1960s of the patients' rights movement. There were many influences on this movement but an important one was the general democratization of society in the post-Second World War period. The public in general terms wish to be involved in decisions which are going to affect them. This move to more openness and more consultation has influenced medicine as much as other branches of society. More specifically,

within medicine the rise of patients' rights movements was influenced by the exposure of abuses in medical research, when it emerged in the 1960s that in some cases informed consent was not being obtained for dangerous research. The result was that, first in the United States and then in the United Kingdom and elsewhere, research ethics committees or human subjects committees were established, which in turn influenced the medical approach to the doctor-patient relationship.

The concept which has been adopted to encapsulate the idea of the rights of patients is 'autonomy'. Codes of medical ethics and philosophical discussion from the 1970s increasingly added 'respect for the patient's autonomous decisions' to the duties of non-maleficence and beneficence. To be autonomous is to be self-governing and self-determining. To respect people's autonomous decisions may seem highly desirable. However, the autonomy of the lion can give problems to the lamb! Consider, for example, women's issues. In some countries of the world women have few rights and are treated as second-class citizens. Gender-based violence is common. Genital mutilation is still practised in some places. Clearly in such cultures there is little respect for the autonomy of women. Racial and cultural differences must also be respected, but not to the extent that the rights of women are ignored.

Education is important here. The level of education of the population is closely related to health status. This is particularly the case for women. In Kenya, for example, for women who have had more than 7 years of schooling, there is a 50 per cent reduction in the mortality of their children compared to those who have not been educated. Such a clear demonstration emphasizes the special role of education and its priority in improving health. Women make decisions about food, health, and life-style and are therefore the most important agents for change. Violence against women and the restriction of their roles are particular problems. These are problems of respecting autonomy in diverse cultural contexts.

In the 1960s the concept of justice entered the discussion of health care ethics. This sometimes seemed to mean treating individual patients justly, say by observing their rights, and sometimes that autonomous patients were all equally entitled to equal shares in the distribution of health care. The latter emphasis is particularly important for public health. Indeed, it is arguable that justice (or equity) raises the most important of the ethical issues for public health. The information given in the first section shows just how variable the levels of health are between countries and within countries there are marked differences in health which can be correlated with differences in the distribution of resources (Whitehead 1987).

In discussions of justice it is important to distinguish 'equity' and 'equality'. The two words have different meanings in relation to health and health care, yet they are often used interchangeably. Equity is about fairness and justice. It has an ethical dimension in that judgements need to be made in relation to society as a whole. It is concerned, therefore, with avoiding unfairness in opportunity and choice. Equality on the other hand, is about comparisons between the level of health or the ability of individuals and communities to access health care. There are some inequalities which are predictable, but could not be considered inequitable. For example, women live longer than men due to biological differences. This is an inequality, but is not inequitable. Equality (and inequality) does not necessarily have an ethical base, though ethics might

be relevant in health contexts in which there are neglected risk factors.

The distinction between equity and equality can best be described by looking at those factors which can influence health and health care. It is possible to divide inequalities into those which are unavoidable and, hence, where questions of equity do not arise and those which might be avoided and thus raise issues of equity. Let us look at some examples (Whitehead 1990). In discussing the examples we must always remember that what is 'unavoidable' at one point in history becomes 'avoidable' at another.

First, natural or biological variations such as age, sex, race, and genetic background could be considered as factors which cannot be changed and thus any inequalities related to them unavoidable. For example, older men have a higher incidence of heart disease than younger men, a clear example of an inequality. But no-one would consider this related to inequity, except to the extent that we have neglected risk factor reduction in the elderly (Hermanson *et al.* 1988; Omenn 1990).

Second, life-style and behaviour, if freely chosen, can result in inequalities in health. As an example, cigarette smokers have a higher incidence of lung cancer than non-smokers. This is an inequality, but to the extent that it is created by choice, it might be considered not inequitable. Indeed selective uptake of health promotional initiatives, for example by middle class groups, could even increase inequalities in health, but could not be considered as unfair, unless it could be established that health promotion is selectively targeted at these groups.

Third, life-style and behaviour, if not freely chosen and which results in poorer health, is likely to be considered as avoidable by society and thus unfair. Behaviours chosen through a lack of resources, housing conditions, overcrowding, dangerous working conditions, exposure to environmental hazards, or lack of adequate public health response, would be examples. Disabled people often suffer unfairness (inequity) which compounds their already unequal health.

Fourth, inadequate access to health care or other public services might be inequitable if the cause were avoidable. For example, financial considerations which resulted in a failure to use transport might be one such factor. Another might be lack of access to information about services due to learning or language problems or the information not being available. This lack or inequity could lead to inequalities of access because of the restriction of choice and opportunity.

Those examples bring out that equity is about fairness and justice and implies that everyone should have an opportunity to attain his or her full potential for health. Inequalities exist in health and health care. Some of these are unavoidable and, thus, would not be classified as unfair or inequitable. Others are avoidable. It is this latter group, in which the inequalities are inequitable, to which further attention might be addressed.

Another area of concern which raises questions of justice is that of war. The ethical dimensions of war have been discussed throughout the centuries, often under the heading of the 'just' war. It may or may not be possible to establish that some wars are 'just', but the impact of war on health is clear and that impact creates injustice as much as removing it. In addition, of course, the casualties in wars occur very disproportionately among the less advantaged.

For almost two decades discussions of medical ethics have been conducted in the United States and the United Kingdom very largely in terms of the four principles of non-maleficence, beneficence, respect for autonomy, and justice. Many influential textbooks have been written and indeed are still being written, using them as the necessary and sufficient principles of humane discussion in medical ethics. In discussions of public health we must also stress the principle of utility—of maximizing the total benefits for the populations involved. Of course, some writers would say that the principle of utility underlies the others, that they are specific expressions of the single principle of utility. But this at once gives too little and too much emphasis to utility. It gives too little in that utility is not some submerged underlying principle, but is itself a first-order principle which can and must be used to guide decision procedures in ethics, particularly public health ethics. At the same time it gives too much emphasis, since utility is not the single ultimate principle but is one among others and indeed is often in conflict with the others. This is especially true of one important issue for public health medicine, namely, rationing.

Some people may argue that rationing, while it raises important policy issues, does not raise ethical issues. The assumption of this position is that ethics has to do only with the face-to-face situation. We believe this view to be inadequate. Questions of the supply and fair distribution of resources are matters of ethics and the general ethical principles which are relevant are those of utility and justice. Utility is the principle concerned with the maximizing of outcomes or preferences. In the old formulation it tells us to seek the greatest happiness of the greatest number. As such the principle of utility says nothing about how the greatest happiness should be distributed; an aggregate of utility A might be greater than an aggregate of B, but we might still give our moral approval to the situation which produces B rather than A, on the grounds that in B the benefits are more fairly distributed.

The ethical problems which derive from the tension between justice (or equity) and utility arise in different areas of health care. One such is the area of health service provision. The level of provision of health services is of considerable importance particularly in relation to the balance between hospital and primary care, the use of resources to develop effective interventions, and the ability to deliver public health measures. The infrastructure organization and management are all important.

For most health care systems primary care is the most important feature. It was enshrined as a basic principle by the WHO in the Declaration of Alma Ata in 1978. The conflict in the use of resources in developing countries between primary care and the acute hospital sector may be of a different magnitude, but the issues are the same. How do you ensure the most effective use of limited resources to benefit the greatest number of the population? The draining away of resources to specialist facilities instead of being directed towards primary care is particularly relevant.

For developing countries numerous interventions are known to be both effective and affordable. These include immunization, information on family planning and infant and maternal health, reductions in the use of alcohol and tobacco, improving air and water quality, treatment of tuberculosis with short courses of chemotherapy, the underpinning of an appropriate diet with vitamins, iodine, and iron, and use of the WHO essential drug list. All of this can be delivered within the primary care setting.

It can be argued that hospital services are needed, even in the poorest countries. However, it is necessary to ensure that the treatments are effective and the outcomes give value for money. The professional challenge in developing countries, as in developed countries, is to measure and evaluate outcomes of care. For this reason good management of the resources available is essential, so one of the requirements in developing countries is to ensure that such management skills are available. Management skills are at their most effective when there is a balance between justice and utility in the distribution of resources.

In many countries of the world there is a reassessment of the structure and organization of health services to make them more effective and achieve value for money. Many different models are being tried; it is necessary to ensure that the lessons learned in one country are able to be used in others. International health organizations can be used to facilitate the sharing of such information and, thus, to ensure the most efficient use of resources compatible with equity.

Sharing information can also guide the way in which money can be invested in health. Donor agencies and humanitarian organizations put large resources of money and skills into developing countries. In doing so it is essential that priorities are set to achieve the maximum health benefit. Some of the issues raised earlier in this chapter about effective interventions are relevant. The balance between the allocation of limited resources to primary health care and hospital care would be an example. But who is to make these choices? The country itself or the donor agencies? There is no right answer to this question; tact and diplomacy are as important here as medical and economic knowledge. The autonomous decisions of the recipient countries must be respected, but the donor agencies must also have regard for utility and equity.

An example of this kind of problem is the ethical promotion of pharmaceuticals. In countries with limited resources, a source of effective drugs is essential. Such drugs need to be supplied as cheaply as possible and the use of expensive alternatives avoided. Heavy promotional campaigns can divert resources; hence, the importance of the WHO Essential Drug Project to supply effective drugs as cheaply as possible to countries. This project is another example of the attempts by the WHO to give concrete expression to the principle of utility tempered by equity.

There is another area in which there can be tensions between utility and equity and that is in the measurement of quality in health care. Utility commits us to evaluating outcomes, to setting targets, and to auditing everything that can be audited. Evaluation programmes, under the umbrella of 'utility', require the introduction of scales and units of measurement.

What is not in measurable units tends to be regarded as unimportant. To put it differently and controversially, quality is interpreted in quantitative terms; consequently, in some areas of health care where quality is not easily quantifiable, quality is marginalized. For example, how is quality to be measured in the palliative area of health care? As a result of the desire to quantify (which is an implication of utility) there can be injustice in the evaluation of some services. Again, there are ethical problems here for public health medicine.

Health care ethics, then, is best discussed in terms of the five principles of non-maleficence, beneficence, respect for autonomy, justice, and utility. As we have seen, these principles can and

frequently do conflict. In addition to the conflicts which can be found in any area of health care ethics, there is a special problem in the area of public health. We can introduce this special problem by contrasting the clinician with the public health specialist.

The clinician is typically in a one-to-one relationship with a patient who has requested an interview because of a felt problem. The clinical imperative is therefore that something must be done including the giving of advice. The public health specialist, on the other hand, does not have a specific patient with whom he or she is in a special relationship and has received no request from a patient. The public health specialist therefore is making a judgement about what it is in people's interests to have, whether they have requested it or not and dealing with populations, groups, or societies rather than individuals. The ethical consequences of these features are that public health generates problems concerned with issues such as paternalism and individual rights and generates problems which are broadly (that is, non-party) political in their implications.

After this general introduction to ethical principles let us now look at the four areas of public health which we have identified in the definition suggested by the WHO, beginning with the claim that it is a 'science and an art'.

## The science and the art of public health

Practitioners in the field of public health include a variety of personnel such as physicians, environmentalists, educators, and managers. The core science which assists these practitioners is epidemiology. Some might say that epidemiology does not really raise ethical problems because it is simply an attempt to gather information on health and disease and information is ethically neutral. Unfortunately the matter is not so simple; ethical issues surely can enter epidemiology via the methods which are used to gather health statistics and the choice of subjects and populations for study. To illustrate, let us examine a controversy between a distinguished epidemiologist, Sir Richard Doll and a distinguished writer on medical ethics, Dr Raanan Gillon (Gillon 1987).

Sir Richard Doll wished to carry out anonymous screening for the prevalence of the acquired immune deficiency syndrome (AIDS) on blood samples taken in hospitals for other purposes. Apparently ethics committees have been reluctant to sanction such testing. In a letter to the *British Medical Journal* he wrote: 'How it can be unethical is incomprehensible, as it can do no possible harm to anyone and could do much good' (Doll 1987, p. 244).

The method which Sir Richard Doll proposed was to wait until the blood samples had been tested for whatever reason they had originally been taken and then to make them anonymous, except that the donor's age, sex, and residential area would be noted. The samples would then be tested for an antibody to HIV. Samples would be obtained, for example, from antenatal clinics or casualty departments. The epidemiological justification was that it would provide some information on the prevalence and spread patterns of HIV. It could therefore be argued in favour of this proposal that it represents an 'organized effort of society' which might make some contribution to combatting disease.

Dr Raanan Gillon was not convinced. He pointed out first that the proposal violated the Declaration of Helsinki, endorsed as recently as 1989, which sets out the principles which should govern medical research on human subjects. The code makes it explicit that subjects of research should be volunteers and should be

adequately informed about the research. Indeed, the code explicitly contradicts the expressed view of Sir Richard quoted above by stating that 'in research on man the interests of science and society should never take precedence over considerations related to the well being of the subject'. In other words, the code is making absolute the principle of respect for autonomy.

An obvious answer to this particular dispute might seem to be to show respect for the autonomy of the research subject by obtaining consent for using the blood sample for epidemiological research. Various difficulties can be raised about the attempt to obtain consent in such an instance: that it is too cumbersome, that the results will be inaccurate if permission is refused, that testing without consent is common, that consent is implied by allowing the blood to be taken in the first place, and that ethical problems arise if the result is positive. Gillon (1987) made replies to all these arguments.

It is not our purpose to adjudicate the issue, but to use this controversy as an example of our claim that even the scientific basis of public health—epidemiology—can raise ethical issues and these issues relate to basic principles and conflicts of health care ethics.

The WHO definition speaks of the 'science and art' of public health. What is the 'art' and does it also raise ethical issues? We take it that the 'art' is the art of persuading the public and the government to adopt policies which are derived from the scientific basis. We shall discuss this when we discuss the organized efforts of society (see below), which is the final clause in the WHO definition. Let us in the meantime turn to the concept of prevention.

## Prevention

To prevent is to come before or to take steps in advance to stop something happening. It is easy to think that prevention must be an ancient concept of medicine. This is not the case. In earlier periods in history some diseases were thought to be inevitable, perhaps as a consequence of human sin and, while they might be avoided in individual cases, they could not be prevented. Indeed, there is still confusion between prevention, which is the abolition or reduction in the incidence of the disease, avoidance, which is keeping clear of risk factors, and protection which may limit the spread of disease, say by vaccination or immunization. For example, public health policy may encourage the prevention of malaria by swamp-clearing programmes and thus aim at the elimination of the source of the disease or travellers may be prevented from catching the disease by avoiding certain geographical areas or they may be protected against it by being given tablets. All these practices are loosely called 'prevention'. Of course, the categories will sometimes overlap. For instance, immunization or vaccination programmes, which are really protection programmes, may lead to a reduction in the incidence of a disease or even to its elimination, as in the case of smallpox. But this overlap does not always occur. The compulsory wearing of seat-belts is often regarded as a preventive measure. However, it does not prevent accidents; only good driving and safer roads and vehicles do that. It gives a measure of protection against the adverse effects of accidents (Blaney 1987).

The terminology is further confused because of the distinctions customarily drawn between primary prevention, where the intent is to reduce the sources and incidence of disease, secondary prevention, where the intent is to ameliorate the disease condition when

it exists, and tertiary prevention, where the intent is to reduce complications in a disease state. These categories have often been criticized, but they remain in use. We shall not use them, but look at some ethical problems which arise in the general area of prevention.

It might seem that there is no need to provide any ethical justification for prevention: it is self-evidently a good thing. While this may be true, the general public and governments do not always act as if it were so. From the point of view of government it seems that much more money goes in the direction of health care than of prevention and from the point of view of the public there is often an attitude of scepticism towards many preventive measures and even more towards what is now called 'health promotion'. Prevention as a general policy therefore requires some justification.

There is an economic justification that prevention is usually cheaper than care, a medical justification that some diseases are probably not completely curable so their occurrence should be prevented, and an ethical justification that prevention avoids the pain, misery, and grief of disease. It is also possible to include the economic and the medical justifications in a wide sense of 'ethical justification'. As we shall see, however, this general ethical justification of prevention does not always apply to specific areas of prevention and even when it does there are those who argue that the benefits of prevention can be outweighed in some cases by the ethical costs. Let us look at some examples.

Take the fluoridation of local water supplies. From the 1930s it was noted that there was a correlation between levels of fluoride in the drinking water and levels of dental caries. This suggested a preventive policy of introducing fluoride where the level was low. There were objections, on the grounds of undesirable side-effects, such as Down's syndrome and more recently cancer. However, in Britain the Report of the Working Party on fluoridation of water and cancer (1985) found no evidence for such claims and other scientific groups have reached the same conclusion. The ethical objection remains, however, that adding fluoride to the water supply can count as compulsory medication and, as such, it is a violation of individual rights as laid down in the UN Declaration of Human Rights. Rights, of course, are not inalienable and can be overridden when the survival of the public requires it. However, it is doubtful if the prevention of dental caries can count as a justification for ignoring rights. Note that there is really no solution to this dispute. One position or the other must be overruled (Knox 1987).

The issue of vaccination for rubella raises rather different issues. The vaccine for rubella works by providing a benefit to the children of those to whom it is given (preventing congenital defects due to infection during pregnancy). Now the vaccine can be given to girls only or to both girls and boys. If it is given to girls only there is little effect on the transmission or eradication of the disease. A 'girls only' policy is therefore a 'protection' rather than a 'prevention' measure. If, on the other hand, the vaccine is given to both girls and boys and if the uptake is over 90 per cent, we have a preventive measure which will eventually lead to the eradication of the disease. However, if the second policy is followed and the uptake is low, say approximately 60 per cent, then we have a situation which is harmful to the children of the unvaccinated young female population, for they will be much less likely to develop natural immunity. The ethical issues, then, are these. If we (the public) want the

benefits of prevention then we must also put up with a degree of compulsion to ensure a high uptake. If compulsion is ethically or politically unacceptable then the best policy, to avoid harm, is to offer protection to those at risk. Again there is no ethically correct answer; a choice must be made (Knox 1987).

Under the general heading of 'prevention' we can discuss the ethical issue of contraception. One of the major problems in the world at present is overpopulation. Methods of contraception are readily and cheaply available with very few adverse effects. Yet abortion continues to be used for contraceptive purposes in some countries, with serious health consequences for some women. In some countries religious views oppose the use of contraception in any form. This policy therefore moves the arguments for and against contraception from an individual perspective to a national one. This is a good example of how the value system and beliefs of a nation or culture can affect the health of the population and complicate discussions of ethics. Unplanned parenthood and multiple pregnancies can have many negative health and social consequences and are closely related to the role of women in society.

Another public health activity which falls in general terms into the category of prevention is that of screening. Screening can be defined in various ways, but a simple definition is provided by Stone and Stewart (1994, p. 1): 'Screening is a preventive activity which seeks to identify an unsuspected disease or pre-disease condition for which an effective intervention is available.' Screening is currently a fashionable medical activity. The demand for it is being encouraged by governments and by certain patients' organizations.

Politically it seems desirable because there is a belief that prevention saves money and successive governments have therefore set up various screening programmes. A national screening programme for cervical cancer was set up in the United Kingdom in 1964 and a programme for breast cancer was established in 1988 for women aged 50 to 64 years. The establishment of such programmes has been enthusiastically supported by various women's groups. Indeed, such is the current demand for screening that Shickle and Chadwick (1994) in a discussion of the ethics of screening ask whether 'screeningitis' is an incurable disease. If it were, no doubt there would be a demand for a screening programme!

It is possible to screen for many conditions, but screening programmes must satisfy ethical criteria. First, they must satisfy the informed consent criteria for any sort of medical intervention. Second, since screening initiatives tend to be profession driven rather than individual driven, there is an additional responsibility for the professional to justify the intervention which may not have been requested. Third, some screening procedures carry health risks and all of them are likely to be accompanied by discomfort, anxiety, and inconvenience for symptomless individuals. Fourth, any screening programme carries with it the risks of the false-positive or the false-negative. Thus, screening requires as much ethical justification as other medical interventions. Moreover, since screening programmes can be expensive in the aggregate, they require evaluation.

It is interesting to note that, although the main growth of writing in the area of medical ethics began in the 1970s, the criteria for screening were drawn up by Wilson and Jungner (1968) and adopted by the WHO in 1968. These criteria are a sensible mixture of the medical, the ethical, the economic, and the democratic. They

are listed below as principles 1 to 10. The *Ad Hoc* Group on Screening Research (1992) added four principles which had already been proposed by Professor Haggard of the MRC Hearing Research Unit at Nottingham. (principles 11 to 14, below).

1. The condition sought should be an important health problem.
2. There should be an accepted treatment for patients with recognized disease.
3. Facilities for diagnosis and treatment should be available.
4. There should be a recognizable latent or early symptomatic stage.
5. There should be a suitable test or examination.
6. The test should be acceptable to the population.
7. The natural history of the condition, including development from latent to declared disease, should be adequately understood.
8. There should be an agreed policy on whom to treat as patients.
9. The cost of casefinding (including diagnosis and treatment of patients diagnosed) should be economically balanced in relation to possible expenditure on medical care as a whole.
10. Casefinding should be a continuing process and not a 'once and for all' project.
11. The incidental harm done by screening, and by the information (correct or otherwise) that it gives, should be small in relation to the total benefits from the screening-assessment-treatment system.
12. There should be agreed guidelines on whom to divulge the provisional and final results to and on when and how this is best done; there should be transitional counselling support where necessary.
13. All screening arrangements should be reviewed from time to time in the light of changes in demography, culture, health services, technologies, and the epidemiology of the target conditions.
14. Since 'cases' are not homogeneous, the balance of costs, benefits, and risks from screening, assessments, and treatments has to be worked out on a stratified (demographic or case-type) basis.

## Negative and positive health

Let us now move on to the next task of public health medicine as defined by the WHO—that of prolonging life and promoting health. As we have stated in our opening paragraph, if prolonging life is not an aspect of preventing disease or promoting health, then it is a matter for clinical medicine so will not be discussed here. We

shall therefore concentrate in this section on promoting health. Let us begin by examining the conception of health held by the health promotion movement (Swedish Council for Planning and Co-ordination of Research 1994).

The literature of the new public health and in particular health promotion tends nowadays to have a complex view of the concept of health and to distinguish various elements within it.

The first concept of health is often defined negatively as the absence of ill health. However, 'ill health' is a complex notion comprising disease, illness, handicap, injury, and other related ideas. These overlapping concepts can be linked if they are seen on the model of abnormal, unwanted, or incapacitating states of a biological system.

The second idea of 'positive health' has appeared more recently in published reports. The origins of this idea are in the definition of health to be found in the preamble to the constitution of the WHO: 'Health is a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity' (WHO 1946, p. 1). It follows from this definition that 'well being' is an important ingredient in positive health.

A third idea in the concept of health is that of 'fitness'. Fitness in its most obvious sense refers to the state of someone's heart and lungs. To be fit in this sense is to have a place on a scale ranging from being able to climb stairs or run for a bus without getting out of breath to being able to run a marathon or climb Mount Everest. Fitness can also be used in a related but broader sense, which we might call the 'sociological' as opposed to the 'heart and lungs' sense. In the sociological sense of fitness a person is fit for some occupation or job. This means that people have the necessary health to enable them to perform the job or task adequately without, for example, too many days off work.

It is tempting to think of fitness as standing alongside well being as a component in positive health. But this is a mistake; fitness can be seen as part of either the negative or the positive dimensions of health. One is healthy if one is not ill or diseased; analogously one can be fit if one can perform the tasks of daily life—stair climbing, walking to and fro, luggage lifting, and so on—without undue physical stress. The analogue to positive well-being is the fitness which enables a person to swim, ride a bicycle, climb a hill, and so on. Fitness, then, is best seen as a component of both negative and positive health rather than as a separate dimension to health.

The WHO definition refers to the 'mental and social' as well as to the physical. Nevertheless, the mental and social components of health are the poor relations of the health services and do not receive adequate attention. It is certainly true that mental health is most often taken to be the absence of mental ill health. The idea of positive mental health or mental well being is an obscure one and perhaps a dangerous one if it implies that eccentricity and single-mindedness are to be discouraged and the balanced and conformist personality encouraged.

The idea of 'social well being' is in fact just as obscure as that of mental well being, although at first sight it does not seem to be a difficult notion. What does it mean? In one sense 'social well being' refers to the skills and other abilities which enable us to form friendships and relate to other people in conversation and through the many different sorts of contacts which are part of ordinary social life. Sometimes these are called 'lifskills' and the possession of them helps to create a sense of 'self-esteem' which is currently

a fashionable concept in the literature of health education. Clearly, like fitness, social well-being in this sense can be graded on a scale from negative to positive. It is a property of individuals and refers to their ability to cope in a social context—hence 'social well being' is an appropriate term.

Can we link the absence of ill health and the presence of well being in a single concept of health in the manner of the WHO definition? This is not a rarified question because it affects the legitimate scope of health education. If well-being is a component in the concept of health, then clearly health education has a much wider remit than it would otherwise have.

One important factor influencing this question is that ill health and well-being cannot be related to each other as opposite poles on a linear scale. This approach has been tried by some theorists but it is not satisfactory, for it is logically possible (and not in fact uncommon) for someone to have poor physical health but a high state of well-being—as in the case of a terminal patient in a hospice who is supported by a caring staff and loving friends—or a good state of physical health but poor well-being—as in the case of someone who has no diseases or illnesses but lacks friends, a job, and interests.

The fact that health (the absence of ill health) and well being cannot be related on a linear scale must raise the question of whether they are in fact two components of a single concept. It can be argued that they are aspects of a single concept (Downie *et al.* 1996). However, it may be preferable and less confusing conceptually to think of them as two overlapping concepts rather than as a single concept with two dimensions. Thus, the feeling of well being that a person has after an invigorating swim can fairly be described as a 'glow of health', but the well being or satisfaction that a person has after writing a chapter in a book, listening to a piece of music, or just playing an enjoyable game is less obviously related to concepts of health and more obviously related to the concept such as 'enjoyment' and 'happiness'. Again, the well-being that is created by moving someone to better housing is more obviously related to concepts of 'welfare' than to that of health. Our conclusion is that, while the concepts of health and well being overlap, they are distinct and cannot be combined into one concept. This point will come up again (see below).

It does not, of course, follow from the fact that well being is a different concept from health that health education has no bearing on it. To take analogous cases, a health educator, indeed a doctor, might reasonably be concerned with the process of ageing or with contraception. But neither getting older nor pregnancy constitutes ill health. In other words, just as the legitimate activities of a doctor may be wider than coping with ill health, so the legitimate activities of a health educator may be wider than anything reasonably called 'health'. The multifaceted nature of health means that health promotional activities can be controversial (Antonovsky 1987).

## Two types of intervention: an ethical contrast

The rise of the health promotion/education side of public health practice has led to a comparison with clinical medicine and to implications of the ethical superiority of health promotion, which can of course take place in a variety of settings other than the clinical. This matter requires investigation and we shall contrast

the interventions typical of clinical medicine with those of health promotion.

What is called the 'biomedical' model of health presents health in negative terms as the absence of disease, injury, or disability and sees health interventions primarily in terms of 'treatments' for existing conditions. As Mencken (1923) wrote 'The aim of medicine is surely not to make men virtuous; it is to safeguard and rescue them from their vices.' On the other hand, it is sometimes suggested that the aim of health promotion is to make us virtuous. In terms of this contrast we can compare medical interventions and health promotion as follows (Downie 1990).

Medicine characteristically bypasses our rational minds and treats us as causal mechanisms. In other words, characteristic medical treatments are biochemical or surgical, whereas health promotion characteristically attempts to enable us to understand our bodies and their environments. Medicine typically (but again by no means exclusively) stresses the curative or palliative, while health education stresses the preventive. Medicine stresses the doctor-patient or one-to-one relationship, whereas health promotion tends to have a broader societal perspective. Perhaps most fundamentally, medicine tends to be reductionistic in its assumptions—from the scientific study of disease processes on which it is based—whereas health promotion tends to be holistic in its assumptions.

But does it follow from these distinctions, if they contain at least some truth, that health promotion is in some way ethically superior to medicine? This by no means follows: there is a place for both approaches; they are or should be complementary. What does follow is that health promotion gives rise to an acute set of ethical problems because it is interfering with life-style. It therefore requires considerable ethical justification.

For any specific intervention (legislation for clean water, a programme of immunization, restrictions on smoking in public places, or whatever), the necessary precondition of implementation is that it will improve the health of the public and this improvement must be objectively demonstrable. In this context, as distinct from the clinical context, no patient is requesting intervention; experts are deciding that intervention is necessary and the onus is therefore on them to establish the need for intervention (Charlton 1993). According to this approach, effectiveness must be established by scientific means, such that all rational and competent judges can agree on the facts (Kelly and Charlton 1992). The most common technique for establishing effectiveness of this kind is, as we have seen, through the discipline of epidemiology, in which clear and certain conclusions may not always be obtainable.

This approach to health promotion in general applies in particular to prevention and to health protection. For example, it must be demonstrable that exercise or a low-fat diet are health determinants and that preventive measures such as screening are effective. In these areas some precision is possible but health promotion can reasonably be criticized ethically for 'gratuitous intervention' if it extends beyond its expertise in those areas (Skrabanek 1990). The importance of having measurable objectives for programme management and evaluation has been recognized in some official documents. See, for example, the US Surgeon General's Report (1991), *Healthy people 2000* and in England, the report of the Department of Health (1992), *The health of the nation* (1992) or Tones and Tilfors (1994).

## Health fascism, health imperialism, and self-absorption

A nastier variant of the 'gratuitous intervention' objection to health promotion is the 'health fascism' objection. It is that health promotion is attempting to impose a certain lifestyle on us whether we want it or not (Kelly and Charlton 1992).

While this way of putting the objection is exaggerated and overdramatic, it has some elements of truth. The health promotion movement is value driven in a way in which medicine ordinarily is not. It is committed to the view that there are better and worse ways of living one's life, and that there are better and worse ways of organizing society and distributing its goods and services. In other words, health promotion has moral and political commitments. It is committed to encouraging the kinds of life-style which will bring about true well being. But this is not to say that there is only one correct way of leading one's life. The health promotion position is the modest one that some sorts of life-style and some social and political arrangements are much more likely than others to bring about true well-being. A modest position of this sort is hardly health fascism.

Another version of the same objection claims that health promotion turns every good state into a matter of health. Health promotion is imperialistic. Those making the charge of health imperialism might argue that what in health promotion terms is 'positive health' is really just a name for a range of states which are as easily or better seen in other ways. For example, 'well-being' is just another name for happiness and there are no professional skills which can reliably assist us in attaining happiness. Again, the idea of 'fitness' might be said to be a technical one, relative to specific ends, such as playing in the Premier League, but not one with an important bearing on health. The charge of health imperialism can also be directed at mental health. Mental illness may satisfy some of the criteria for illness (although even that has been disputed), but positive mental health might be said by critics to be a concept which attempts to annex the territory of the well adjusted to that of the healthy. For example, mental illnesses, such as depressions or obsessions, are incapacitating in a manner similar to that of physical illness, but to stress positive mental health might be seen as simply making a value judgement in favour of the conventional or the well balanced as opposed to the eccentric, as we have already noted.

The reply to the charge of health imperialism can be expressed in terms which are partly logical or philosophical and partly practical. There is a philosophical view going back to Plato which can be conveyed by the slogan 'Everything is what it is and not another thing'. According to this view it must either be true or false that well-being and fitness are components of the concept of health. But concepts can be much more flexible. Indeed, it may only be concepts in exact sciences which are rigid and mutually exclusive. Many concepts overlap or are 'open-textured'. For example, the concept of an opera will overlap with that of a musical. Again, one and the same phenomenon can be seen in different ways for different purposes. For example, a morning assembly at school can be seen as an occasion for making announcements or as an expression of corporate identity. In like manner, for certain purposes or in certain contexts it is helpful to include well being and fitness in the concept of health, whereas in other contexts it might seem inappropriate to do so. For example, two people who

have acknowledged their love for each other may experience states of well-being, but it would be a comic distortion to construe this possibly fleeting feeling in terms of health. Thus there is no correct answer to the question 'Is well-being really part of the concept of health?'

Turning now to the activities which critics might claim represent the imperialism of health promotion we find that the same kind of conceptual flexibility is helpful. For example, suppose that a local authority builds a leisure centre with a swimming pool, gymnasium, squash courts, and so on. Is this a health promotional enterprise or not? Again, there is no one answer to this question. From one point of view it could be seen as contributing to prevention or health protection, fitness, or well being, but from another it might seem too solemn to see it in these terms; rather it is a centre where people can have fun. In the United States there is considerable debate about public funding for 'midnight basketball' for disadvantaged youth—with crime prevention, socialization, and health promotion aims intermingled.

It is helpful here to introduce the concept of health alliances. There are certain activities which are indisputably health promotion, but there are many others with which health promotion can form alliances. If health and health promotion can be seen in this logically and practically flexible, way then the charge of imperialism can be avoided.

It is of course true that an undue concern with physical health is a characteristic to be found in some present-day societies. But to see health as a positive good is not necessarily to commit oneself to self-absorption. It is certainly the view of the WHO that positive health is 'seen as a resource for everyday life, not the objective of living'. (WHO 1984, p. 6. Published in *The Journal of the Institute of Health Education*, (1985), 23, 6) The point is that positive health is a value, not the supreme value. It makes perfectly good sense to weigh health against other values and sometimes it will be reasonable to give precedence to health and sometimes not. For example, someone with a stressful life-style might give up a job—perhaps at some personal economic cost or even to the detriment of service of others—on the grounds that his or her health was suffering. Equally, someone might reasonably sacrifice health for another value, such as dedication to a life of scholarship or service to others. To say that health is a value and makes a claim is by no means to say it is the supreme value or requires self-absorption.

## Health commercialism and health indoctrination

It is often said in objection to health promotion that it attempts to bypass autonomy and to sell health like a commodity. In this it might be said to resemble the advertisements for the unhealthy products which it is opposing (Williams 1984).

In reply to this argument we might question the premise that autonomy is something which everyone in fact possesses. People can be victims of all sorts of social processes and be lacking in power. For example, as the advertising of tobacco and alcohol becomes progressively more difficult in some countries, so the manufacturers have turned their attention to the developing world and the huge markets which are opening up. As the countries become more affluent, so the consumption of such products

increase with consequential long-term adverse health effects. Another example concerns breast milk substitutes. All health authorities are clear about the value of breast feeding for the mother and the baby. However, considerable pressure was brought to bear on mothers in developing countries to use breast milk substitutes. Not only was this more expensive, but the health benefits of breast feeding were lost. International action was required. The WHO resolved that states ensure that there be no free or subsidized substitute which would affect breast feeding practice. This may seem to be merely a political compromise, but it may nevertheless be an effective way of implementing an ethically defensible position.

In view of the political and commercial power of the antihealth forces in society, health must be presented in as attractive a way as possible or health education will fail totally. If health educators confine themselves strictly to the rational, critical approach to education, then it is preferable to depict health education as an element within a larger health promotion movement concerned with health advocacy, legislative change, fiscal reform, and the mobilization of community interests, as well as education narrowly conceived.

The tension between the ethical requirement to be person respecting in methods and the practical necessity to be effective is addressed from an interesting point of view in the literature of self-help groups. The growth of self-care groups concerned with every conceivable malady and involving both the sufferers and their relatives has been a notable development during the last decade. These movements avoid the charge of paternalism commonly still made against every branch of health care, including health education. Apart from ethical considerations, self-care movements seem to be effective within their limits, although they may benefit from a professional health educator to advise and facilitate. Advising and facilitating is indeed an important role for health education.

## The 'organized efforts of society'

We come now to the final clause in the WHO definition. Public health medicine is to obtain its results 'through the organized efforts of society'. How are we to interpret this and what ethical issues arise from our interpretation? Is it just a metaphor to speak of 'society' bringing about health? One obvious answer to this question is that to speak of 'society' bringing about health is a roundabout way of referring to our elected political representatives. We shall therefore begin by looking at the role of the state in health care concentrating on health legislation.

First, a person's right to exercise autonomy may be legitimately curtailed by health legislation when he or she is suffering from certain sorts of infectious disease or mental illness such that the interests or health of others are liable to be harmed. There is no difficulty about the acceptance of this restriction in general terms. The problems arise over the more detailed application. For example, a topical question concerns the nature and extent of the restrictions which should be placed on sufferers from AIDS or the extent of justifiable investigation or reporting of those who may be HIV positive (Walters 1988). Again, it is controversial how far those who are mentally ill should be detained against their will or what sort of treatment they should have if they are detained.

Pressure for legislation is generated as more becomes known about how diseases are transmitted. For example, the dangers of

'passive smoking' are now appreciated and other sorts of environmental pollution are now known to cause or exacerbate diseases such as asthma. There is therefore a case for curbing the freedom of both individuals and corporate bodies, such as industries, in the name of the autonomy of other individuals. This issue is, of course, a source of much political debate. Some countries have banned smoking in many public places and various 'watchdogs' keep a close eye on the consequences of the operation of the nuclear power industry. Although there can be political debate about applications of the 'preventing harm to others' idea, the general principle is clear and acceptable.

These problems become more acute when we consider the international dimension of health. In a developed country like the United Kingdom international aspects have several implications. The first relates to communicable disease and with the ease of transport now the possibility of transmission to different populations becomes ever easier. Movement for business, leisure, or migration of populations is occurring on a scale as never before. The great plague, cholera, and influenza epidemics of the past and AIDS, tuberculosis, and malaria in the present, show just how vulnerable the world is to such infections. The introduction of quarantine in Italy and France in the fourteenth century was one of the earliest attempts to control such infections and there is still ethical justification for certain sorts of boundary control for health reasons.

The need for international legislation is also apparent if we consider environmental issues, the most recent and serious of which was the radioactive release in Chernobyl. But environmental problems regularly cross international boundaries as the effects of acid rain and global warming make clear. The need to ensure that there is an environmental impact assessment of economic growth has been set out in a series of programmes of 'sustainable development'.

Has the state any justification for using fiscal policy or for passing legislation to promote positive health or well-being? A strong argument for maintaining that a government does have a duty to promote positive health can be found in the preamble to the constitution of the WHO (1946, p. 1), which asserts that there is a right to positive health. In ambitious terms it states 'The enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition' (WHO 1946). If this is a fundamental right, then presumably there is a correlative duty laid upon governments to implement it. In other words, acceptance of the WHO constitution commits states to health and welfare policies. How far such policies can be implemented no doubt turns on the wealth of the country, but there can be no doubt that wealthy Western nations are committed to implementing fiscal and legislative policies to enhance positive health.

To argue that there is a duty on governments to promote health for its own sake still leaves some questions unanswered. Supposing there is such a duty, can it be implemented other than at the expense of individual autonomy?

It is easy to slip into the error of regarding all legislation on the model of the criminal law—as restrictive prohibition backed by sanction. But this is an over-simplified way of looking at some health legislation. For example, legislation may require public

bodies to make provision for the disabled. This is more aptly seen as a positive creation of new opportunities than as negative prohibition. There are legal requirements on factory owners to restrict unpleasant pollutants and on car manufacturers to ensure certain safety standards. Indeed, there is an enormous range of health legislation with a positive slant. Whereas this may diminish the freedom of some groups in society, it certainly extends the freedom of the majority and improves their quality of life (Pinet 1987).

If we think of autonomy in this way, then health legislation is not removing our individual autonomy but rather enhancing it. In improving the general quality of life, legislation can add to our autonomy. This is obviously the case if we consider the example of provision for the disabled, but it is true also of antipollution legislation and many other types of health legislation.

So far in this section we have been concerned with the role of the state and health legislation. But there is much more to the 'organized efforts of society' than legislation. Let us state the five principles which the WHO (1984) sees as the basis of health promotion.

1. Health promotion involves the population as a whole in the context of their everyday life, rather than focusing on people at risk for specific diseases.
2. Health promotion is directed towards action on the causes or determinants of health.
3. Health promotion combines diverse but complementary methods or approaches, including communication, education, legislation, fiscal measures, organizational change, community development, and spontaneous local activities against health hazards.
4. Health promotion aims particularly at effective and concrete public participation.
5. While health promotion is basically an activity in the health and social fields, and not a medical service, health professionals—particularly in primary health care—have an important role in nurturing and enabling health promotion.

How are we to interpret phrases such as 'concrete public participation'? What is the ethical importance of this approach?

One way of making sense of this idea is to think of society not in terms of the individuals who make it up, but in terms of the institutions, practices, customs, political arrangements, and social class relationships which give structure to the society. From this point of view, people are related to each other by the structures of their society, and indeed part of their identity is created by these social structures. We could then evaluate a society in terms of the way in which its social structures tend to produce health in the people who belong to that society. Just as we sometimes praise the 'atmosphere' in a school or hospital as one of well being, so the social structures of an entire society might be said to make for or detract from health or well being.

Some theorists with firm attachments to individualism might prefer to understand what we have said as referring to health determinants rather than health itself. For example, they might agree that a society with marked social class gradients and

corresponding gradients in the distribution of ill health is one with a tendency to create ill health in individuals. Thus, in terms of this approach, if we speak of an 'unhealthy society' we are simply speaking metaphorically about the determinants, such as poor housing and diet, that have helped to produce poor health states in individuals. Other thinkers might be prepared to extend language and to maintain that it is not a metaphor to characterize social relationships and structures as being themselves unhealthy. It is perhaps self-indulgent to pursue this theoretical question here, but it is certainly one way of making sense of the phrase 'the organized efforts of society', in the WHO (1952, p. 5) definition or 'effective and concrete public participation', as the WHO (1984, p. 6, published in *The Journal of the Institute of Health Education* (1985), 23, 6) principle puts it.

To the extent that there is exclusive emphasis on the state delivery of health care to individuals, there is the invitation to see health as a commodity to be supplied by the state. The same is true if we think of health as a commodity bought by private health insurance. But health is not in any sense a commodity. Health and well being are in the end a set of relationships among citizens. As Beauchamp (1987, p. 72) wrote:

Collective goods are ultimately a set of relationships among the citizens of a community, relationships in which the community as a whole participates to obtain desired benefits. These collective goods include aggregate states of welfare or wellbeing, including declining rates of disease and premature deaths; efforts to limit the resources society devotes to personal health services; shared and common access to a good like medical care to foster the sense of community and membership in the group itself. And finally, there are those highly important collective goods, shared or common beliefs and values.

It is clear that we can add a legal system to Beauchamp's (1987) list and in particular one designed to stimulate social responsibility. Indeed, it is plausible to suggest that the increasing government intervention on drunk-driving issues has encouraged a greater social awareness about the dangers of alcohol more generally and, thus, a greater sense of community and individual responsibility. In a similar way, legislation designed to assist disabled or handicapped persons can also increase a sense of community responsibility for those groups. In other words, in so far as health legislation and other governmental health policies are directed at increasing community awareness, as distinct from being directed at the good of specific individuals, it is not paternalistic.

## Conclusions

The issues described in this chapter have highlighted a number of general ethical principles which are of relevance in improving the health of a population. They were illustrated by being applied to the basic issues which need to be addressed in any country which wishes to see the health of its citizens improved. The issues include social and economic problems, the intersectoral nature of action, the role of women, the level of education of the population, the organization of health services, the way resources are allocated, and the national and international importance of health legislation. We showed that these issues can be discussed in terms of the ethical principles of non-maleficence, beneficence, respect for autonomy, and justice. But these traditional bioethical principles must be supplemented by the ethical principle of utility to take into account the severe resource problems of the contemporary world.

## References

- Acheson Report (1988). *Public health in England. Report of the Committee of Inquiry into the future development of the public health function*, HMSO, London.
- Ad Hoc Group on Screening Research (1992). *Report to the health services and public health research board*. MRC, London.
- Antonovsky, A. (1987). *Unraveling the mystery of health*. Jossey-Bass, San Francisco.
- Beauchamp, D. (1987). Life-style, public health and paternalism. In *Ethical dilemmas in health promotion* (ed. S. Doxiadis), pp. 69–81. John Wiley, Chichester.
- Blaney, R. (1987). Why prevent disease? In *Ethical dilemmas in health promotion* (ed. S. Doxiadis), pp. 47–56. John Wiley, Chichester.
- Charlton, B. (1993). Public health medicine—a different kind of ethics? *Journal of the Royal Society of Medicine*, 86, 194–5.
- Department of Health (1992). *Health of the nation: a strategy for health in England*. HMSO, London.
- Doll, R. (1987). A proposal for doing prevalence studies of AIDS. *British Medical Journal*, 294, 244.
- Downie, R.S. (1990). Ethics in health education: an introduction. In *Ethics in health education* (ed. S. Doxiadis), pp. 3–18. John Wiley, Chichester.
- Downie, R.S., Tannahill, C., and Tannahill, A. (1996). *Health promotion: models and values*. Oxford University Press, Oxford.
- Gillon, R. (1987). Testing for HIV without permission. *British Medical Journal*, 294, 821–3.
- Hermanson, B., Omenn, G.S., Kronmal, R.A., and Gersh, B.J. (1988). Beneficial six-year outcome of smoking cessation in older men and women with coronary artery disease. *New England Journal of Medicine*, 319, 1365–69.
- Kelly, M.P. and Charlton, B.G. (1992). Health promotion: time for a new philosophy? *British Journal of General Practice*, 223–4.
- Knox, E.G. (1987). Personal and public health care: conflict, congruence or accommodation? In *Ethical dilemmas in health promotion* (ed. S. Doxiadis), pp. 59–68. John Wiley, London.
- Mencken, H.L. (1923). *Prejudices: third series*. Jonathan Cape, London.
- Omenn, G.S. (1990). Prevention and the elderly: what are appropriate policies. *Health Affairs*, 9, 80–93.
- Pinet, G. (1987). Health legislation, prevention and ethics. In *Ethical dilemmas in health promotion* (ed. S. Doxiadis), pp. 83–97. John Wiley, Chichester.
- Report of the working party on fluoridation of water and cancer: a review of the epidemiological evidence* (1985). HMSO, London.
- Shickle, D. and Chadwick, R. (1994). The ethics of screening: is 'screeningitis' an incurable disease? *Journal of Medical Ethics*, 20, 12–18.
- Skrabaneck, P. (1990). Why is preventive medicine exempted from ethical restraints? *Journal of Medical Ethics*, 16, 187–90.
- Stone, D. and Stewart, S. (1994). *Towards a screening strategy for Scotland*. Scottish Forum for Public Health Medicine, Glasgow.
- Swedish Council for Planning and Coordination of Research (1994). In *Health promotion and prevention* (ed. P.-E. Liss and N. Nikka). FRN, Stockholm.
- Tones, B.K. and Tilfors, S. (1994) *Health education: effectiveness and efficiency*. Chapman & Hall, London.
- US Surgeon General's Report (1991). *Healthy people 2000: national health promotion and disease prevention objectives*. Department of Health and Human Services, Public Health Service, US Government Printing Office, Washington, D.C.
- Walters, L. (1988). Ethical issues in the prevention and treatment of HIV infection and AIDS. *Science*, 239, 597–603.
- Whitehead, M. (1987). *The health divide: inequalities in health in the 1980s*. Health Education Council, London.
- Whitehead, M. (1990). *The concepts and principles of equity and health*. WHO European Regional Office, Copenhagen.
- WHO (1946). *Constitution*. WHO, New York.
- WHO (1952). *Expert Committee on Public Health Administration*. Technical Report Series No. 55. WHO, Geneva.

WHO (1984). *Health promotion. A discussion document on the concepts and principles*. WHO, Copenhagen.

WHO Regional Office (1994). *Health in Europe. The 1993/1994 health for all monitoring report*. WHO Regional Office, Copenhagen.

Williams, G. (1984). Health promotion—caring concern or slick salesmanship? *Journal of Medical Ethics*, 10, 191–5.

Wilson, J.M.G. and Junger, G. (1968). *Principles and practice of screening for disease*. WHO, Geneva.