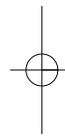
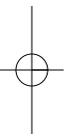


# PART 1

## THE SOCIAL CONTEXT OF HEALTH AND ILLNESS



# 1

## A VERY BRIEF HISTORY OF MEDICINE AND SOCIETY

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### Chapter Summary

This chapter describes:

- » the social, economic and political changes affecting health and healthcare;
- » developments in the practice of medicine;
- » the initial documentation of health inequalities;
- » the establishment of the NHS;
- » and introduces ideas about priority setting in the NHS.

### Useful terms for this chapter

*Germ theory*: the idea that many diseases are caused by micro-organisms, invisible to the naked eye, which was controversial when first proposed, but which now underpins micro-biology and basic hygiene practice (see Box 3, Chapter 1)

*Knowledge explosion*: expansion of knowledge initially associated with mass printing technology and now with digital technology, which means that no single person can keep up with all of advances in understanding, even in a limited specialist field.

## INTRODUCTION

What is the value to today's medical students of learning about the history of medicine? Apart from the inherent interest of exploring the past, the dilemmas and anxieties as well as the success and confidence of our times can be understood to have developed from what has gone before. Developing an understanding of the conditions that have led up to the present can promote

reflection on the likely direction of change for the future of the profession and can also engender a sense of the range of possible alternatives. Appreciating the tensions inherent when treating illnesses that have faced previous generations may encourage the type of reflective practice that is the goal of today's professionals.

This chapter gives some of the historical context that is necessary for understanding contemporary British medical practice by surveying developments and continuities over the last century in health outcomes, health policy and medicine's role in managing illness. Over the last hundred years remarkable changes have taken place in the practice of medicine while the effects of social and economic changes and of scientific discoveries have become apparent in the nation's health and its expectations of medicine. From the time of the ancient Greeks up until the First World War (1914–1918) medicine's tasks had remained relatively stable and fairly simple, namely 'to grapple with lethal disease and gross disabilities, to ensure live births and manage pain' (Porter, 1997: 718), and medicine's success in this enterprise has, with some justification, been described as 'meagre'.

In the eighteenth century medicine had been practised by a range of different occupational groups that included bonesetters, dentists, apothecaries, surgeons, midwives, herbalists and druggists. Hospitals were mainly voluntary and were funded by local subscribers who had the right to control access to services. Throughout the nineteenth century a set of reforms saw the physicians and surgeons wrest control over hospital admissions from these subscribers. After 16 unsuccessful attempts, the 1858 parliamentary bill brought about the Medical Registration Act that conferred considerable advantage on the medical profession by restricting certain appointments to those practitioners who were registered with the General Medical Council (which was established as a result of the bill).

Public expectations at the time of medicine's ability to combat disease were low and although medicine had attained the status of a profession (rather than a mere occupation), it carried relatively little prestige or power. The retreat of infectious disease and the rise of chronic conditions occurred in parallel with the evolution of the doctor from small-scale, self-employed service-provider to high status professional at the heart of the machinery of modern medicine. The twentieth century saw health indicators for the British population improve and medicine claimed some notable victories against disease while growing in prestige, power and influence. Critics have interrogated how much of the improvement in health and wellbeing can be attributed to the effects of the growing apparatus of medicine and have pointed to the positive effects of improved social and economic conditions over the same time span. Assessing the contribution of medicine to human health and happiness is crucial given the large proportion of public spending that is devoted to medical services, although the attribution of benefit to different causes is difficult to gauge with certainty.

## 1900 – THE DAWN OF THE TWENTIETH CENTURY

As the nineteenth century turned into the twentieth, medicine had become a profession regarded as more-or-less fit for a gentleman's son. The hospital was still in the process of becoming an important concentration of expertise and technology and medicine was practised largely in patrons' homes or in consulting rooms.

A precursor to the NHS was established through the National Insurance Act of 1911 that founded an insurance scheme against sickness for every working person in the country. The bill was passed despite some strong objections raised by the BMA (British Medical Association – see Box 2, p. xxx) that were primarily concerned with the lack of medical representation in the administration of the scheme. The Medical Registration Act of 1858 had created the conditions for a unified and autonomous profession to develop, since it would eventually permit only legally qualified medical practitioners to practise, although in 1900 it was not yet illegal for someone to practise medicine if they were not registered. The General Medical Council (see Box 1, p. xxx) had responsibility for the register and replaced the 22 licensing bodies that had previously accredited doctors. It drew on the membership of pre-existing associations of surgeons, apothecaries and physicians and acted as an effective pressure group in representing the interests of the profession to the authorities of the state. Hospitals were beginning to be recognized as places where medical expertise and innovative treatment could be found and their role as providers of services to the poor who could not afford fee-for-service consultation at home or in surgeries was fading. A few women had also won the right to qualify in medicine and the London School of Medicine for Women had been established.

The generalist physician still held sway as the most influential voice within medicine, but the tendency to specialize, which characterizes medicine nowadays, was emerging. Family doctors' practice at the start of the twentieth century was largely continuous with that of the nineteenth century, with their role consisting mainly of observation, interpretation and reassurance at the patient's bedside. This general practice took place in small-scale consulting rooms, often in doctors' own homes, and relied on a limited range of equipment and pills and potions of dubious efficacy. The division was growing between generalists and consultants who were beginning to make the most of the new equipment and auxiliary staff available in hospital settings. Surgery in alliance with anaesthesia and professional nursing had established itself in city hospitals as a skilled speciality, with other areas such as obstetrics, paediatrics and orthopaedics emerging as distinct areas of knowledge and practice.

The transformation of Britain from a mainly agricultural to an industrial economy was well underway, with the proportion of the population living in

cities standing at 80 per cent in 1880, compared with only 15 per cent in 1750 (and compared with about 88 per cent at the start of the twenty-first century). The number of men employed in agriculture continued its nineteenth century decline and would continue to fall steadily until the end of the twentieth century. The numbers employed in mining were still increasing, as they had done since the mid-1800s, and these would peak around 1920 before dropping down to minimal levels by the end of the twentieth century. Residential areas had grown up, near to industrial centres and were often squalid, over-crowded and impoverished with their ill effects on residents apparent in the levels of disease, despite ongoing public health reforms. The authorities were shocked by the effects of deprived living on the population's health when recruitment for the Boer war (1899–1902) found that 35 per cent of conscripts were unfit for service. The right to vote had been extended during the nineteenth century to an increasing proportion of lower-class men (women remained disenfranchised until well into the twentieth century), thereby concentrating politicians' attention on the needs of the growing proportion of working-class voters. The state's relationship with the nation's health was in flux: the Depression and the Industrial Revolution had taken their toll on workers' bodies and the difficulties in raising a fit army paved the way for subsequent public health measures.

Parliamentary acts legislated for a series of reforms to protect the poor, including school meals for children, the prohibition of the sale of alcohol and tobacco to children, minimum wages in certain trades and a national insurance unemployment benefit in the event of job loss. Local authorities began to improve the systems of sewage and rubbish removal and the supply of uncontaminated drinking water. The statutory regulation of working conditions in factories and workshops and of the adulteration of foodstuffs slowly improved conditions and marked the beginning of official intervention in the health of the working population. These reforms may have contributed to the ongoing decline in the death rate, which stood at 18 per thousand at the turn of the century. The rate, which had been dropping since records began in the first half of the nineteenth century, would continue to fall until the First World War, but historians agree that the work of personal physicians had little to do with improving survival rates. Nonetheless, increased longevity combined with scientific advances in understanding the disease process supported medicine's growing confidence as a profession. Evidence of the benefits of Listerian surgery (see Box 4, p. xxx) in reducing infection and the elegant experiments of Pasteurian bacteriology (see Box 3, p. xxx) made a clinical practice whose efficacy against disease was informed by scientific findings a distinct possibility.

Technological inventions were also becoming available and adding to the reputation of hospital medicine: the thermometer and stethoscope were used in hospital training and were soon to become routinely used; the X-ray (invented in 1895) and electrocardiograph (invented in 1901) were yet to find their place as standard diagnostic tools. Clinical medicine had a system of

diagnosis based on the interpretation of physical signs, increasingly aided by technology, with the search for physical causes of disease justified by scientific reasoning. Despite these signs of the rise of medicine as a scientific discipline, the early part of the twentieth century was a time when the doctor had the ability to diagnose disease scientifically while remaining therapeutically powerless.

### BOX 3

#### **Louis Pasteur**

Louis Pasteur (1822–1895) was born in the Jura region of France and educated in Paris as a biologist and a chemist. In 1854 he became a professor of chemistry at the University of Lille where he studied fermentation in wine and beer. His series of elegant experiments confirmed the ‘germ theory of disease’ to his contemporaries and showed that microorganisms could be killed by heating liquid to 55 degrees Celsius for a short period of time (a process known as pasteurization that is applied to milk and other comestible liquids to this day). His work became the foundation for the science of microbiology and a cornerstone of modern medicine, with immunology growing directly from his work on developing a rabies vaccination.

### BOX 4

#### **Joseph Lister**

Joseph Lister (1827–1912) discovered the antiseptic technique which has been crucial to the development of modern surgery. Born in Essex, the son of a wealthy wine merchant, Lister graduated from University College, London in 1852 and began his surgical career in Edinburgh, becoming professor of surgery at the Royal Infirmary in Glasgow by 1860. Working on Pasteur’s ‘beautiful researches’ demonstrating his theory that bacteria cause infection, Lister proved the effectiveness of antiseptics by using lint-soaked carbolic acid to dress a boy’s compound fracture in 1865. During operations Lister had carbolic acid constantly sprayed, which saturated all those present and was a practice ridiculed by some colleagues, but, together with the heat sterilization of instruments, this resulted in a dramatic decrease in postoperative fatalities. He became professor of clinical surgery at Edinburgh University in 1869 before returning to London for an appointment at King’s College in 1877.

Hospitals, which were central to the rise of medicine, were largely located in the cities, and the urban poor were catered for by charitable institutions and by specialist foundations funded through donations. Rural general practitioners

offered some services at cottage hospitals in return for a fee, but compared to their urban counterparts rural populations were under-served. The insurance principle, administered through friendly societies or co-operatives, put hospital treatment within the reach of an increasing proportion of the population and the demand for hospital services grew consistently with their availability.

Anatomy, bacteriology, and physiology were taught in medical schools using textbooks and written examinations, a new feature of medical education. The standardized assessment of the transfer of professional knowledge was a key feature of medicine's emergent professionalism. The recognition of an ever-expanding range of human diseases was underway and doctors' key role in classifying the cause of death (see Chapter 2) was well-established.

## FIRST WORLD WAR: 1914–1918

In the run up to the 1914–1918 conflict, also called the Great War, the gains in longevity among the affluent classes benefiting from improved standards of living had yet to filter down to the poorer classes. Mortality for women and children, including those in the poorer classes, continued to drop during the war years, probably due to a more equitable distribution of the food supply which had come under state-control. The increased provision of health surveillance and services for mothers, together with maternity benefit, reflected the state's concern with producing future healthy generations, particularly young men who could serve in the war. Better survival rates for babies led to a falling birth rate and the effect of smaller families together with an increase in women's employment was a rise in the average standard of living. The improvement may also have been supported by state restrictions on the availability of alcohol (a staple foodstuff and safe drinking source only a few generations earlier), justified to keep war-time factory workforces to regular hours. In addition to the provision of obstetric services, medicine's war effort involved the maintenance of the fighting machine by tending to the armed forces.

In many ways war has been good for the development of medical expertise, not least because people and governments have a heightened tolerance for medicine's more brutal methods to repair the damage wrought by warfare's violence. The shift in medicine from the nineteenth century's observational bedside craft to a scientific interventionist calling had begun before the onset of the First World War, but the conflict offered continuing opportunities for this development. Techniques to repair firearm wounds and innovations in the treatment of the psychological effects of sustained fighting were notable medical legacies of the Great War. But more important than these technical advances was the centrality accorded to health in the post-war re-making of society. There was a willingness to improve environmental health and social conditions for the whole population, which included a concerted effort to

build 'homes fit for heroes' through raising public funds. Having played an important role in the war effort, medicine was seen as a central profession in building society back up. Changes to the national insurance scheme made it more accessible and widened the availability of medical services.

## 1918–1939

The period between the World Wars saw infectious disease continue to retreat, with effects on longevity as the proportion of people over 65 years in the population increased from 6 per cent in 1920 to 9 per cent in 1940. The long-term effects of better nutrition, living standards and environment contributed to the retreat of tuberculosis, meningitis, polio, rheumatic fever and pneumonia as routine infections. The arrival of sulpha drugs – chemical compounds with a bacteriostatic effect – from the mid-1930s meant that doctors finally had an effective chemotherapy for fever and bacterial infection. The early sulpha drugs slashed the mortality rates of puerperal fever, responsible for much post-partum maternal mortality, and were seen as miraculous. Pharmaceutical regulations were minimal and these sulpha drugs were prescribed in vast quantities. They may also have supported ongoing gains in longevity, which had the concomitant effect of the rise of chronic and degenerative diseases in later life. Lung cancer, coronary artery disease, diabetes, stroke and chronic degenerative disease emerged as major diseases as the era of acute infection slowly gave way to that of chronic disease.

While long-term health outcomes were improving steadily, the Great Depression, whose onset was marked by the New York stock market crash of 1929, made daily life difficult for much of the population, particularly the working classes. National debts incurred in order to fund the Great War contributed to economic instability on a global scale and economic recovery was slow. While Britain was not hit as hard as some other European countries, unemployment in the industrial areas was devastating. A government-funded unemployment scheme was introduced in 1934, which paid out according to need as determined by a means test rather than according to the level of contributions that had been made. A widespread unwillingness to revisit the hardship of the 1930s contributed to the national enthusiasm for further reform to the Welfare State and the establishment of the NHS following the Second World War.

## SECOND WORLD WAR 1939–1945

The initial shock of the Second World War was not so much combat casualties as the poor condition of the city children evacuated to rural settings. The

dirtiness, scabies, head lice and incontinence of some evacuees became public knowledge and showed up the inadequacy of the public health measures and health surveillance that had been established since the First World War. When fighting started in earnest after the so-called phoney war, the proportion of casualties and fatalities among the civilian population was far higher than in previous conflicts. Hospitals had not previously had to cope with the aftermath of bombing and inadequacies in the system were exposed. Innovations in healthcare organization resulting from these experiences included the establishment of the public health laboratory system, mobile paramedical teams and the blood transfusion system. Specialist areas of medical interest continued to develop within the generalist hospital, with psychiatry being particularly important in getting soldiers back to a fit state of mind to fight once their bodily wounds had healed.

In addition to the move away from generalist clinical practice, the lasting change to the medical care of the Second World War was the use of penicillin – a biological agent that destroyed pathological bacteria more effectively than chemical sulpha drugs. Penicillin cured wound infections and sexually transmitted diseases among the armed forces and was greeted as another miracle drug, boosting morale and dramatically increasing doctors' power to influence the course of disease.

## 1945 TO THE TWENTY-FIRST CENTURY

Since the end of the Second World War in 1945, Britain has not had to cope with mass civilian or armed forces casualties and medicine's development has been focused on civilian healthcare. The national mood in 1945, following years of rationing, fighting and fear, was doubtless worn down, but it was also determined to build a better future, with science being seen as the rational and progressive means to this end. Scientific medicine was viewed as playing a key role in relieving society of its burden of disease, disability, premature death and depression through the appliance of innovative technology and pharmaceuticals. The introduction of penicillin to treat civilian illness after the war established its reputation as a wonder drug and cemented the public's faith in scientific medicine. However, the unwanted side-effects of scientific intervention were already apparent: by 1948 nearly 60 per cent of staphylococci isolated at the Hammersmith Hospital in London were already penicillin resistant.

The establishment of the NHS was key to the commitment to a happier, healthier future and was accompanied by the introduction of family allowances and the education act that made schooling available to all 5–15 year olds. Meanwhile a revolution in manufacturing was in full swing that would bring unprecedented change to domestic life, with the arrival of cars, televisions and washing machines for the masses.

The NHS was established shortly after the Second World War in order to make medical care available to the entire British population, free at the point of delivery. The ideal was that an adequate service would be provided for all, regardless of their social position, and it was assumed that such universal care together with public health measures would result in a decrease in the population's need for healthcare. The NHS was not, in reality, newly made in 1948, since existing hospitals – both charitable and municipal – were nationalized and GPs were employed on new contracts while remaining in existing premises without additional equipment or personnel. Existing interest groups had to be accommodated in the new system and the most powerful and the most resistant of these were hospital consultants. Aneurin Bevan (1897–1960), Minister of Health in the post-war Labour government, claimed to have ‘won over consultants by choking their mouths with gold’ and negotiated a set of compromises to establish a system that addressed professional concerns to a considerable degree.

The NHS has been described as representing a compromise between the principles of traditional medical authority and rational public administration (Klein, 2000). Having bought out the existing system, without much in the way of re-organization or reformation, the inequities of the pre-NHS healthcare system persisted: London was very well served with hospitals, with very few in the north, east and west of the country where they were confined to the cities. The distribution of GPs was uneven as were their facilities and skills and, since there was no obligatory additional training after leaving medical school, their reputation as less expert than hospital consultants might have been warranted. The establishment of the NHS did nothing to disrupt the division between hospital doctors and GPs, indeed it may have been deliberately reinforced. Unable to satisfy all the constituents of the medical profession, Aneurin Bevan deliberately encouraged rifts and then sought the support of the most influential sections of the profession to push through a deal. Hospital consultants gained various perks such as study leave and merit awards, while the BMA (representing the General Practitioners) persisted in its opposition to the terms under which the NHS was established.

Inequities and compromises notwithstanding, figures on the uptake of national health services in the immediate aftermath of its establishment suggest it was a success. Millions of sets of teeth and pairs of spectacles had been supplied by the time charges for them were introduced in 1951 by the then Chancellor Hugh Gaitskill, seeking revenues for the Cold War arms race. Aneurin Bevan resigned from government in protest, but a year later a charge was introduced for prescription drugs. These charges did nothing to temper the ever-increasing demand for GPs' services and prescriptions.

The dramatic improvements in mortality rates apparent in the first half of the twentieth century could not be sustained at the same rate after 1945. Nonetheless, the 25 per cent of deaths attributable to infectious diseases in 1900 had fallen to less than 1 per cent by 1990, having declined throughout

the century. Academics and researchers have argued about how much credit medicine can take for this change. Thomas McKeown's (1912–1988) well-known and widely cited thesis says that improvements in life expectancy can be better explained by improvements in social, economic and environmental factors than by progress in medical science (McKeown, 1979). Others have suggested that the picture is more complex with changes instigated by medicine shaping the environment in which infectious agents failed to thrive. In particular, the public health movement and the work of medical officers contributed to creating clean water, safe sewage disposal and other innovations to clean up the urban environment, such as dustbins with lids to deter flies.

### BOX 5

#### **Thomas McKeown**

Born in Northern Ireland in 1912 and educated in Canada, Thomas McKeown worked at Oxford University and Guy's Hospital medical school during the 1930s before qualifying in medicine in 1942. He was appointed to the Chair in Social Medicine at the University of Birmingham in 1945. While he had interests in foetal medicine and congenital malformations, it is his interest in society and medicine for which he is chiefly remembered.

He developed ideas about the contribution of medical interventions to the improvement of the human condition in analyses that were published as collaboratively written papers and later elaborated upon in books which included *The Modern Rise of Population* (1976), and *The Role of Medicine* (1979). His thesis challenged the belief, promoted by establishment medicine, that improvements to the population's health and particularly reductions in mortality had sprung from clinical practice. McKeown argued that population health ameliorated in line with social, economic, public-health engineering, and dietary improvements.

His realistic reappraisal of the origins of progress was not universally well received, competing as it did with vested professional interests and challenging hagiographic accounts of medical men. He was a founder of the social medicine movement and a proponent of the application of scientific analysis to healthcare planning to provide services on the basis of identifiable need.

## **COSTS AND BENEFITS OF TWENTIETH CENTURY MEDICAL INNOVATION**

The development of a polio vaccine in 1953 and its use in mass immunization programmes in the 1960s were followed by vaccinations against diphtheria,

tetanus and whooping cough, and later by measles, mumps and rubella vaccinations. The second half of the twentieth century was a period of economic expansion combined with rapid innovation and development for the western world and medicine has been very much part of this process. The development of effective vaccinations against so many infectious diseases, together with drugs effective against many bacterial conditions and some viral infections, not to mention metabolic disorders, is an impressive record for biomedical sciences and represents an important reduction in human suffering and premature death. The high speed of identification and the adoption of new ideas and practices seen in the post-World War Two years has been unprecedented in human history.

However, rapid progress against infectious agents has been accompanied by the catastrophic effects of other innovations, such as ‘Thalidomide’, marketed to pregnant women as a safe anti-emetic which also had sedative and hypnotic properties, but which actually caused serious foetal defects and was withdrawn in 1961. Other casualties of pharmacological innovation include a synthetic oestrogen prescribed to prevent miscarriage which was subsequently linked with a rare form of cancer, and a non-steroidal anti-inflammatory drug prescribed to over 80 million people worldwide for osteoarthritis and other acutely painful conditions before being withdrawn in 2004 because of its association with an increased risk of heart attack and stroke associated with long-term, high-dosage use. No products introduced since penicillin or vaccines have had a comparably positive impact and even that impact cannot be counted as purely beneficial. Antibiotic resistance was first noted in the 1940s soon after widespread prescription started and the search for products to evade resistance has remained an important and ongoing part of research and development in the pharmaceutical industry ever since. Half a century later, the public health implications of the widespread use of anti-biotic medicine are coming to the public’s attention. The routine dosing of farmed animals with anti-biotics and inappropriate anti-biotic prescription for viral infections in human populations have been linked with the identification of multiply-resistant lines of bacteria responsible for acute and life-threatening infections in hospital settings.

Assessing the role of medicine in the improvement of human health and happiness is difficult because, as the story of penicillin shows, each innovation changes not only the world in which the pathogens act, but also our own perceptions and expectations of disease and of health. For example, while the founders of the NHS imagined that the population’s health would improve as a result of free access to services to the point where demand would drop, they were unfortunately misguided. Rather, our perceived need for health-care has expanded in line with medicine’s ambitions and capabilities and our expectations have shifted a long way from those held in 1948.

## BOX 6

**Dangerous childbirth**

At the beginning of the twentieth century having a baby was a relatively risky business, with maternal death rates around 1 in 100 for live births. The number in developed countries today is about 1 in 10,000. Perinatal mortality rates have also dropped with developed countries' rates being below 10 per 1,000 live births, compared to more than 100 per 1,000 live births a century ago. Improved pre-natal care has contributed to these improvements, as have the medical management of birth with asepsis preventing postpartum infection, the use of Caesarean section and assisted delivery for obstructed or stalled birth, and the use of blood transfusion to mitigate the effects of hemorrhaging. Obstetricians' interventions undoubtedly save mothers' and babies' lives, yet the routine use of the elective Caesarian section for normal births as well as the emergency or planned Caesarian for abnormal births has changed expectations about birth. Women and babies no longer routinely die in childbirth, but critics argue that the price for increased safety through medically managed birth has been the brutalising and dehumanising of most births. The question of whether increased safety offsets the other costs is debated in both medical and non-medical circles.

The development of organ and joint replacement techniques in the twentieth century represents the realization of the highest expectations of high tech, pharmaceutically sophisticated medical interventions. Thanks to the timely development of immunosuppressant drugs, together with the development of surgical techniques and the availability of cadaver organs, often as a result of road traffic accidents, it has become possible to replace a diseased heart. Given the very poor success rate of early attempts at transplantation, another factor in the eventual success of transplant surgery has been a supply of patients willing to be subjected to experimental and uncertain procedures carrying little hope of success. The mood of confidence in medicine and optimism about a scientifically shaped future that prevailed during the 1960s and 1970s, when these techniques were in development, doubtless made such willingness more likely. By the start of the twenty-first century transplant surgery had become routine for renal problems, taking place in 23 centres throughout the UK performing about 1700 transplants per year. Transplant medicine is currently recognized as a distinct branch of surgery, with separate training routes for those doctors specializing in transplantation of the kidney and the liver.

While death from infectious disease is now a rarity, the number of deaths from cancer has continued to increase. Improvements to radiotherapy regimes and the introduction of chemotherapy, followed by screening

programmes for breast and cervical cancers in the early 1960s, represent medical advances in tackling cancer. Despite notable progress in the case of some rarer cancers, the prospects for those with common adult-onset cancers continue to be moderate with early detection remaining the best chance for recovery. Where cancer has disseminated through the body, management rather than cure is the aim of medical treatment. Increasing numbers of cancer deaths represent an unwelcome continuity with the nineteenth century and one which continues to resist the progress of scientific medicine.

## HEALTH INEQUALITIES

The major causes of death towards the close of the twentieth century were cardio-vascular disease, stroke and cancer. The inequitable social class distribution of rates of premature death, which had been noted by nineteenth century philanthropists such as Charles Booth and Edwin Chadwick, re-emerged as a political issue towards the end of the 1970s. Analysis of statutory data showed that, despite the NHS having been in operation for thirty years, men and women of the poorer social classes continued to experience significantly higher rates of premature death. The establishment of the NHS meant that people were no longer excluded from receiving healthcare because they could not pay for the service or for an insurance premium. Nonetheless, the NHS did not address the inequitable national distribution of healthcare facilities, nor the uneven availability of good quality services. Research continues to investigate the relative contribution of individual lifestyle behaviours (for example, smoking, excess drinking and unhealthy food) and the more diffuse and widespread effects of persistent poverty (damp housing, material deprivation, a sense of the unfairness of inequality) on mortality inequalities. A discussion of health inequalities is picked up again in Chapter 4.

The economic recession of the 1970s did not forestall the continued rise in demand for health services and meant that governments were in search of new solutions to persistent health problems. Containing health and social care bills for the long-term mentally ill and for the elderly who, throughout the twentieth century, continued to grow as a proportion of the population was much of the impetus behind 'community care' programmes for both of these groups. People who had been confined to institutions became more visible when living in community settings and, arguably, were more vulnerable to prejudiced attitudes. Further discussion of the funding of health and care services is to be found in Chapter 9.

Global health inequalities and old prejudices against marginalized groups were reinforced in 1983 with the identification of the Human Immunodeficiency Virus, or HIV, as the agent responsible for a syndrome of rare conditions associated

with the breakdown of the immune system – Acquired Immunodeficiency Syndrome or AIDS. Gay men, drug users, sex workers and Africans have all been identified as having increased risk of contracting the virus for different reasons and, at times, have been held culpable for their own suffering. The spread of HIV and other rare viral diseases, together with the inability to produce a cure, suggests that confidence in the retreat of infectious diseases in the face of scientific progress has perhaps been misplaced, or is at least premature.

Medicine has over-reached its own and its patients' expectations in areas such as transplant surgery. Barriers to the development of technologically sophisticated medicine have been moral and ethical as well as practical and scientific as people have struggled to come to terms with the extraordinary treatment options that have become available with such speed. In other respects medicine has failed to fulfil the hopes of those who sponsored and implemented a national health service in Britain, in that, despite improved access, inequalities persist in the quality of service available to groups defined by locality, social class, ethnic group, age and medical diagnosis. The apparently limitless demand for healthcare and the colonization of areas not previously seen as medical (such as infertility, short stature and sexual performance) mean that, even in a nationalized, publicly funded system, the opportunities for the accumulation of profit are considerable. The profit motive in pharmaceutical and medical technology multi-national companies makes the eradication of national and global health inequalities unlikely in the foreseeable future.

## MEDICAL TRANSFORMATIONS

To visualize the changes that have taken place in the medical profession since 1900, imagine the rural GP of one hundred years ago, solely responsible for the day-to-day health of his community of patients, from birth to death. He (women doctors were still rare) would have carried most of his equipment, tonics, sugar pills and perhaps morphine with him when he made house visits, and would have done so by foot, bicycle or horse. He would have expected to be able to cope with whatever condition he faced as a good diagnostician and generalist physician. He would have had to bill his patients in order to make a living, and, particularly in poor areas, would have needed to enjoy a decent reputation and an extensive patient list in order to make a good living. Doctors with a social conscience may have chosen to present smaller bills to their poorer patients, since there was no statutory health insurance system. In contrast, today's doctors are embedded in a more formally regulated, institutionalized enterprise which could not operate without equipment, services and the infrastructure of the state, industry and research communities which brings medical practitioners into constant contact with other professionals. At the start of the twentieth century when the ideal of a

generalist physician was still defended, medicine was already in the process of becoming highly specialized. This process has developed throughout the twentieth century so that even most general practitioners in the community and physicians practising general internal medicine in hospitals have areas of particular expertise. The knowledge explosion has made it impossible for any doctor to keep abreast of all aspects of medicine and potentially threatens medicine's status as a unified discipline. What constitutes the core material of a medical education and how much of this is subsequently relevant in daily practice continue to be debated.

The daily context of patients as well as doctors has changed dramatically since 1900: our lives are almost unrecognizable compared to those of our early twentieth century forbears for whom television, supermarkets, mobile telephones, personal computers and widespread access to air travel were science fictions and a national health service was still a generation away. The limitless desire for the consumer goods that populate our daily lives has been equally influential in medicine. While ownership of ever more powerful machines is perhaps its own reward, medical consumerism may have more drastically diminishing returns. Even if money and other resources were no barrier, no amount of medical expertise can budge the bottom line that we share with our ancestors: despite the great expectations of scientific medicine, death, disease and degeneration remain our fate. The implications of this obvious assertion represent a truth with which modern society and the medicine that serves it have yet to come to terms.

### *Further reading*

Davey Smith, G., Dorling, D. and Shaw, M. (eds) (2001) *Poverty, Inequality and Health in Britain 1800–2000: A Reader*. Bristol: Policy.

*A selection of papers chosen to illustrate the continuities and changes in the ongoing investigation of poverty and health over the last two centuries, with a useful historical time line showing key moments and pieces of legislation.*

Hardy, A. (2001) *Health and Medicine in Britain since 1860* (Series: Social History in Perspective). Basingstoke: Palgrave.

*A succinct account of a discrete period of British social history which gives a good sense of the development of the British health services and doctors' place therein.*

McKeown, T. (1979) *The Role of Medicine: Dream, Mirage or Nemesis?* Oxford: Basil Blackwell.

*A book that can rightly be called a classic, given its profound influence on the criticism of the profession and discipline of medicine.*

Porter, R. (1997) *The Greatest Benefit to Mankind: A Medical History of Humanity from Antiquity to the Present*. London: HarperCollins.

*This is a big (800-plus pages) book which surveys the history of medical thinking and medical practice, with a focus on the development of western medicine. Described as a 'blockbuster' by a review in the Guardian newspaper, it is an enjoyable read, offering an informed and wide ranging view of the past, interestingly connected to current concerns.*

## REVISION QUESTIONS

- 1 What were the significant historical events that permitted the development of medicine as a powerful profession?
- 2 What were the significant historical events that led to the establishment of the NHS?
- 3 To what extent can medicine claim responsibility for the improvement in mortality rates in the second half of the twentieth century?

## EXTENSION QUESTIONS

Think about the phrase 'the golden age of medicine' and decide which of the following phrases you agree with most.

- The golden age of medicine is characterized by patients respecting their family doctors with whom they enjoy a trusting, lifelong relationship.
- The golden age of medicine will occur when the potentials of stem cell research for organ regeneration and of pharmacogenetics for personalized medicine are fulfilled.
- The reduction of mortality rates to historically unprecedented low levels marks the golden age of medicine.

At which historical period were the costs of medicine smallest compared to the benefits?

If you could choose any historical period between 1900 and 2050, when would you most like to be, or to have been, a doctor?

When would you most like to be, or to have been, a patient?

Are the benefits of scientific medicine set to increase in the future?