

Witnessing history: a personal view of half a century in public health

BP Bergman¹, F Laing², AS Chandler³, KC Calman⁴

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Former Chief Medical Officer Sir Kenneth Calman recently celebrated 50 years in medicine. It was a period which saw the evolution of the public health agenda from communicable diseases to diseases of lifestyle, the change from a hospital-orientated health service to one dominated by community-based services, and the increasing recognition of inequalities as a major determinant of health. This paper documents selected highlights from

his career including the Aberdeen typhoid outbreak, AIDS, bovine spongiform encephalopathy, foot and mouth disease, radioactive fallout, the invention of computerised tomography and magnetic resonance imaging, and draws parallels between the development of the modern understanding of public health and the theoretical background to the science 100 years earlier.

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Correspondence to:

BP Bergman
Institute of Health and Wellbeing
Public Health & Health Policy
1 Lilybank Gardens
Glasgow G12 8RZ
UK

Email:

beverly.bergman@glasgow.ac.uk

Introduction

There is an iconic phrase which states that if you can remember the Sixties, you were not there.¹ An alternative, but untested, hypothesis is that preservation of an intact memory of this period may have been occasioned by working in public health. Beginning in the 1960s, this paper examines five decades of developments in public health, focusing on some of the most influential events of the period, and was inspired by the 50th anniversary of the graduation in medicine of one of the authors (KCC). It commemorates selected highlights from his career and, in so doing, documents a key period of challenges and transformations, predominantly from a Scottish perspective. It is illustrated by KCC's personal reflections.

Historical background

The end of the Second World War saw Britain emerge militarily and politically victorious but at enormous cost to population, economy and infrastructure. Nearly 400,000 service personnel had lost their lives, together with over 65,000 civilians,² two million homes had been destroyed and much damage had been done to ports and industry. Food rationing, introduced in the wake of disruption to supply lines, continued up until as late as 1954. Rebuilding of property was slow, and urban bomb sites persisted for many years as a visual reminder of the destruction, some eventually mutating into car parks.

Nonetheless, the post-war global economy proved buoyant and in 1957 the then Prime Minister, Harold Macmillan, delivered

an optimistic speech promising 'a state of prosperity such as we have never had in my lifetime – nor indeed in the history of this country...most of our people have never had it so good'. After the post-Great War austerity of the 1920s and 1930s that may have seemed true, but it was not to hold good for the future. As early as 1961, Macmillan was forced to impose spending cuts and a wage freeze as inflation began to rise.³ The Sixties had begun.

Outbreaks, epidemics and pandemics had dominated public health practice during the 1950s – poliomyelitis, influenza, and even smallpox. Other serious communicable diseases such as dysentery, infectious hepatitis and measles were so commonplace as to be accepted as a normal part of day to day life. Although research published in 1950 had clearly demonstrated the link between smoking and lung cancer,⁴ the recognition of the importance of lifestyle choices as a determinant of health still lay many years in the future. The next 50 years were to bring many hitherto unforeseen changes, both led by and requiring an agile response by public health.

The Sixties

The Macmillan speech took no cognisance of the appalling poverty, overcrowding and living conditions that still characterised many inner cities where the bulk of the working population was concentrated. Slum clearance was already under way, with the slums generally being replaced by high-rise blocks, but the 1961 census showed that 11,000 homes in Glasgow remained unfit for habitation (Figure 1).⁵

¹Honorary Senior Research Fellow, Institute of Health and Wellbeing, University of Glasgow, Glasgow, UK; ²Curator of Official Publications, National Library of Scotland, Edinburgh, UK; ³Doctoral student, ⁴Chancellor, University of Glasgow, Glasgow, UK

Figure 1 Mother and baby, Glasgow slums, late 1960s. ©Nick Hedges. Reproduced with permission



The spending cuts and wage freeze led to public disillusionment and industrial unrest, and overall national income declined despite draconian measures aimed at boosting the economy. The failed US-led Bay of Pigs invasion of Cuba in 1961 was quickly followed by the 1962 Cuban missile crisis, while ongoing nuclear tests in the Pacific underlined the continuing potential for global nuclear war. Rising levels of strontium-90 in milk, as the fallout from the nuclear tests was deposited on calcium-poor soils by Scotland's high rainfall, led to concerns about the future health of infants.⁶ Racial tensions were building up worldwide, leading to widespread race riots in the USA in 1967. In the UK, immigration was increasing, especially from Africa and the Indian subcontinent, and racial tensions were beginning to emerge here too, culminating in the controversial and damaging speech by Enoch Powell in 1968. Social unrest grew widely, and was quickly adopted by the student population, resulting in mass protests throughout the summer of 1968. As the decade drew to a close, tensions within an increasingly divided Northern Ireland erupted into what was to become known as The Troubles.

Against that background, societal norms were also changing. Divorces rose steadily throughout the 1960s, even before the legislative changes brought about by the Divorce Reform Act 1969, leading to a rapid increase in the number of single parent families and, of necessity, working mothers and 'latchkey kids'. The stress of coping unsupported by a spouse increasingly led to reliance on a new generation of psychotropic drugs, heavily promoted by industry as a panacea not only for patients⁷ but for a medical profession facing new challenges from a rising tide of social problems.

Despite these evolving problems, by the beginning of the 1960s, the fall in communicable disease rates since the Second World War was becoming clear. In Scotland, for example, diphtheria had already fallen from 517 cases in 1941 to 54 in 1960, but concerns were being expressed about rising death rates from lung cancer, coronary heart disease and chronic bronchitis. The main risk factors had been recognised to be tobacco smoking and air pollution, but achieving social change was to prove more of a challenge. Typhoid was reported as 'under control' with around 15 cases per year, an assessment which was to prove over-optimistic when a major outbreak in Aberdeen in 1964, traced

to contaminated corned beef imported from South America, resulted in over 400 cases, but no fatalities. Although the timely public health response is acknowledged to have prevented a much larger outbreak,⁸ important lessons were learned, especially in relation to the provision of information to the public via the press. A well-intentioned campaign to alert the public to the importance of good personal hygiene, aimed at preventing a possible second wave of infection due to the development of asymptomatic carriers, led to a major over-reaction when places of entertainment were closed, academic staff at the University were advised to wear gloves when handling examination papers and the city became widely known as the 'Beleaguered City'.⁹ However, clinical expertise developed at the University of Aberdeen in the aftermath of that outbreak still continues to inform the global management of this disease.¹⁰

In 1960, a review of long-term National Assistance claimants was carried out; foreshadowing concerns about the number of benefit claimants 50 years later. Only 6% were found unfit for any work although the majority had some limitation, including mental ill-health in 36% and gastrointestinal conditions in 12%. Many claimants were found employment, or were recommended for admission to an industrial rehabilitation unit.^{11,12}

The Seventies

While the 1960s had been the decade of social change, albeit not always beneficial, and public health had been focused largely on communicable disease and the growing recognition of smoking-related disease, the 1970s were to be dominated by far-reaching organisational reform in the health services and local authorities. The National Health Service (Scotland) Act 1972 repealed and updated much of the original National Health Service (Scotland) Act 1947. It set up Health Boards, which remain the foundation of the structure of the NHS in Scotland, and established a number of central bodies including the Scottish Health Service Planning Council and the Common Services Agency (now NHS National Services Scotland), which greatly increased the role of management in the NHS. The relationship between the Health Boards and local authorities was set out and, while disestablishing the Medical Officer of Health, the Act made provision for the appointment of a 'designated medical officer' who would act on behalf of the local authority; this was to become a key role for public health. The post of Health Service Commissioner for Scotland was established, to be appointed by The Queen. The Act also provided the legislative framework for the provision of contraceptive services and, two years later in 1974, free family planning services were made available to everyone in Scotland, irrespective of age, gender or marital status.

At the same time, local government itself was undergoing major change with the implementation of the Local Government (Scotland) Act 1973, resulting in the replacement of a structure of counties, burghs and districts which had largely been in place since the Middle Ages with a two-tier

system of regional and district councils. Inevitably there were implications for public health at a local level.

The 1972 Act was followed six years later by the National Health Service (Scotland) Act 1978, which finally repealed the whole of the 1947 Act. Whereas much of the 1972 Act had been concerned with the management of hospitals, the new Act concentrated on primary care including general practice, dentistry, ophthalmic services and pharmaceutical services, reflecting an overall shift in focus towards the community. General practice services were to be managed by a Medical Practices Committee established under each Health Board.

The positive trends in population health which had begun in the 1960s continued. The birth rate continued to fall, from 16.8 per 1000 population at the start of the decade to 12.4 at the end, while stillbirths fell from 14 to 8 and infant mortality dropped from 20 to 13 per 1000 live births. In 1970 there were 59 cases of puerperal fever; by 1975 only 6 were recorded. However, annual acute psychiatric inpatient admissions for alcohol intoxication and alcoholic psychosis climbed inexorably from 3000 in 1970 to 5500 in 1975 before falling back slightly to 5000 in 1979. Clinical practice was also changing rapidly. As part of a major surgical unit, KCC recalled that each Monday morning and afternoon was taken up with large peptic ulcer clinics, with pre and post operation options being considered. Within a few years this surgical approach was completely replaced by drug treatment. Initially this was aimed at reducing gastric acid secretion by blocking the histamine (H₂) receptors whose role as mediators of acid secretion had been first recognised by Sir James Black in 1971;¹³ the identification of the proton pump mechanism of gastric parietal cells in the late 1970s¹⁴ paved the way for the addition of the proton pump inhibitors to this emerging therapeutic armamentarium. However it was the key discovery by Warren and Marshall in 1982 of the microorganism now known as *Helicobacter pylori*,¹⁵ and the subsequent recognition that its eradication could lead to ulcer healing,¹⁶ which gave rise to the policy that all patients with gastric or duodenal ulcers who are infected with *H. pylori* should receive treatment with antimicrobial drugs.¹⁷

During this period, KCC's special interest was oncology. Over a 10-year period the ability to diagnose, treat and care for patients with cancer changed significantly. New drugs such as the platinum-based antineoplastic agents appeared and revolutionised the management of a number of cancers,¹⁸ and in particular, testicular tumours.¹⁹ Trial and error gave way to clinical trials, involving a wide range of clinical staff, and the importance of the team became paramount. The whole process of care was refined, putting patients at the heart of the decision making. Palliative care became recognised as a patient-driven specialty, and one which demonstrated the importance of patient involvement and of communication. A patient care group, *Tak Tent* ('take care' in Scots) was established in Scotland and this put the patients firmly in the process of care, representing a 180° shift from the traditional clinician-driven approach.

Figure 2 Postcard images from the Lothian 'Take Care' campaign. Lothian Health Service Archives. GD22/PD1.4/57 and GD22/PD1.4/64, used with permission



The Eighties

The decade opened with the completion of the seminal report *Inequalities in Health*, authored by Sir Douglas Black (1913–2002), which highlighted for the first time the excess burden of ill-health and mortality faced by those living in poverty²⁰ and demonstrated that although overall health had improved since the inception of the NHS, there had been no reduction in social inequalities. The report, commissioned by the Labour government, did not find favour with the newly-elected Conservative government. Despite its subdued launch (it was never 'published' although photocopies were available to the public on request), it went on to make a major political impact,²¹ although the need to tackle social inequalities, poor housing and unemployment did not receive widespread recognition and political acceptance in the UK until the publication of the subsequent report, *Independent Inquiry into Inequalities in Health*, by Sir Donald Acheson (1926–2010) 18 years later.²²

Meanwhile, a new and ultimately far-reaching communicable disease challenge was on the horizon which would cut across the traditional boundaries of socio-economic inequality; AIDS. In 1981, unusual clusters of *Pneumocystis carinii* pneumonia and Kaposi's sarcoma in previously healthy young men were first reported in the USA, conditions which were more commonly associated with immunosuppression and older people, and in December of that year, the first case was reported in the UK. The AIDS pandemic, as it became, was to become the leading cause of death in adults aged under 60 years, and led to a global public health response on an unprecedented scale.²³ By 1983, the first cases were reported in Scotland, among intravenous drug users in contrast to the earlier UK cases, particularly in the Greater London area, which had predominantly affected homosexual and bisexual men. The Scottish response was therefore based initially around needle exchanges and substitution of methadone for injected heroin, with measures aimed at the gay community following somewhat later.²⁴ This was followed by a community-wide 'Take Care' campaign in 1989 which used a range of promotional materials to highlight that HIV could affect anyone.²⁵ With the passage of time and an overall liberalisation of frank speech, it is easy to underestimate the cultural shift which was required in the 1980s to overcome the societal taboos surrounding the necessary open and public discussion of sexual matters (Figure 2).

In February 1985, a cow on a farm in Sussex died after developing neurological symptoms and was found at post-mortem to have a spongiform encephalopathy, a hitherto unknown cattle disease named bovine spongiform encephalopathy (BSE). It was quickly identified as a prion disease and, drawing parallels with known prion diseases such as kuru, a ban was imposed on the use of ruminant proteins in sheep and cattle feed. A Government Working Party concluded that it was unlikely to pose a threat to humans and that beef remained safe to eat, although in the next decade this would prove to have been an over-optimistic assessment.

In his book *The Potential for Health*,²⁶ KCC recalls that three important issues were becoming clear. The first was that of the potential for health; using the knowledge we have, it should be possible to improve health. Issues such as smoking, alcohol and obesity were just three of the most obvious factors, in turn inextricably linked to the major problem of inequalities in health which still exist. The second issue was that of akrasia, the ability to know that something is wrong, but still doing it. How do we get people to change behaviour? The final issue was that of risk, its recognition, communication and the language used to discuss it.²⁷ For each of these issues, telling the right story at the right time can certainly help, but there still remains a need to get much better at doing it.

The second half of the 20th century saw major advances in medical imaging which, in turn, were to revolutionise non-invasive diagnosis. Although the principles of X-ray tomography had been known for some time, it was the advances in computing power in the 1960s which paved the way for the development of computerised tomography (CT) and for the first commercial CT scanner, the EMI-Scanner, in 1971. However CT scanning involves exposure to substantial radiation doses, and the development of magnetic resonance imaging (MRI) in the 1970s represented a major advance in patient safety. The world's first full-body MRI scanner was developed at the University of Aberdeen and the first clinical scan on a living patient was performed on 28 August 1980. The prototype scanner has now been refurbished and is displayed at Aberdeen Royal Infirmary where it forms part of the University Museums' collection.²⁸

During the 1980s there were several major industrial accidents on the international stage, of which some had implications for public health in the UK. In 1984, an explosion at the Union Carbide India Limited pesticide plant in Bhopal, India, led to a major release of methyl isocyanate and an estimated initial death toll of nearly 4000, with over half a million injuries. Since then, a further 8000 people are estimated to have died from the effects of the incident, and many thousands have been left permanently disabled. A large-scale cohort study has been in progress since then to follow up the survivors; methodological shortcomings in that study have led to the identification of important lessons for the epidemiological follow-up of major incidents.²⁹ Eighteen months later, a catastrophic nuclear accident occurred at the

Chernobyl Nuclear Power Plant near Pripjat, Ukraine. Although there were few immediate deaths, and only 237 people suffered acute radiation sickness, radioactive contamination from the disaster affected a very wide area including much of Russia, Scandinavia and western Europe. Monitoring by the National Radiological Protection Board showed that hill areas in Scotland were most affected, notably in the Central belt, Dumfries and Galloway, Arran, and the Uists. In some areas, levels of radioactive caesium-137 in sheep meat exceeded permitted limits for human foodstuffs, and restrictions were put in place. As with strontium-90 in the early 1960s, the areas most affected were those with high rainfall where the soil mineral content was low. Chernobyl-related monitoring restrictions in Scotland were not finally lifted until 2010, 24 years after the incident, the last affected farms being in the East Ayrshire and Stirling areas.³⁰ KCC recalls that at the time, he was an adviser to the Dounreay Nuclear Power Station enquiry, which was investigating the safety of the process. He spotted a whole body radioactive counter and decided to test the process on himself. Having recently been on the island of Arran he was alarmed to find that his body had a measurable level of caesium-137 although, almost 30 years on, he reports no adverse effects!

At the start of the decade, there had been early evidence that both the incidence and the death rate from coronary heart disease, which had been rising steadily since the 1950s, had stabilised or possibly begun to fall, and by the end of the decade it was clear it was indeed falling. Only part of the trend in mortality could later be explained by improvements in the management of cardiovascular disease.³¹ But admissions to acute hospitals for alcohol-related conditions including liver disease were now beginning to increase, in contrast to the reduction in admissions to mental hospitals for acute intoxication and psychosis which continued to fall, continuing a trend observed throughout the previous decade and suggesting that the longer-term impact of alcohol misuse was now becoming manifest.

There were two further important developments in the 1980s. The first concerns the emergence of medical ethics as a recognised discipline. This was partly due to a greater recognition of the practical implications of advances in treatment and investigations. The issue of communication was central to this. Related to this was the importance of the teaching and learning in medicine about ethical issues. This had been a bedside issue in the past, at the discretion of individual clinical teachers, but formal courses were now becoming established.³²

The second development was that related to the arts and humanities in clinical and public health practice. This involved, at first, the use of literature in the teaching of medical students, but has since developed to encompass dance, theatre, moving images and music. There have been a number of resources developed for the arts including the book *Tools of the Trade* from the Scottish Poetry Library, which is now distributed to all new medical graduates in Scotland,³³ and KCC's own comprehensive review of 700 years of Scottish

medicine as seen through contemporary Scottish literature, 'A Doctor's Line': *Poetry and Prescriptions in Health and Healing*.³⁴ More recently, the critically-acclaimed dance performance *5 Soldiers* has brought an understanding of the issues faced by physically and psychologically injured veterans to a wide audience,³⁵ further illustrating the importance of the arts as a medium for health communication.

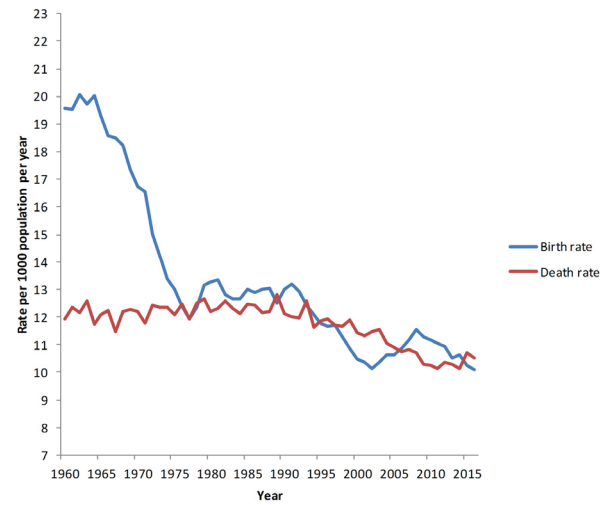
The Nineties

As the second millennium entered its last decade, the shape of Scotland's population was becoming dominated by older people. In 1991, the number of people aged over 90 now equated to the number who had been aged over 75 just 30 years earlier, despite no change in the overall size of the population. The number of over-90s was to almost double again in the next 20 years, by which time the number of people aged over 65 exceeded the number aged under 15, the low birth rate of 11 per 1000 population at the end of the 1990s reflecting a trend of reducing numbers of children per family throughout the preceding 100 years, with major implications for the dependency ratio underpinning support for the elderly. The very rapid fall during the 1960s may have reflected increasing uptake of the oral contraceptive pill. By the end of the decade, the birth rate had fallen below the death rate (Figure 3), resulting in a net reduction in the population, although in subsequent years increasing immigration was to offset the fall. The rising numbers of older people brought an increasing burden of dementia, contributing to care needs, with over 30% of the over-90s estimated to be affected.³⁶

During the early part of the decade, evidence began to accumulate that BSE was transmissible not only from cow to cow but also between species. In 1995 the first human death from variant Creutzfeldt-Jakob disease (vCJD) was reported, and in 1996 the Spongiform Encephalopathy Advisory Committee, which had previously issued reassurances that transmission to humans was unlikely, announced there was a probable link between BSE and vCJD. The National CJD Research and Surveillance Unit was established at the University of Edinburgh to monitor the characteristics of the disease, identify trends, study risk factors and improve care of those affected, with close links to a wide range of other UK agencies. The initially alarming predictions of a major epidemic have proved unfounded to date; the peak year of onset was 1999, with 29 cases, and no UK cases have been reported in people born after 1989. Of the 178 UK cases of vCJD, 24 have been in those resident in Scotland, of whom the majority have been in the west.³⁷

These incidents demonstrated a further factor in improving public health; the media. While a free press is highly valued in democratic societies,³⁸ there is also a commercial element that may lead to distortion of coverage,³⁹ which in turn may impact on the accuracy of scientific reporting. Although in general terms the media are a force for good in telling stories of health and illness, it is important to always remember that the 'good story' is the main driver and that to be ahead of

Figure 3 Birth and death rates per 1000 population, Scotland 1960-2016. Contains public sector information licensed under the Open Government Licence v3.0



the game and pre-empt that diversion is always a good ploy, as described by KCC in *A Study of Storytelling, Humour and Learning in Medicine*.⁴⁰ The power of the media to influence public opinion and behaviour was to be well illustrated by the 1998 'vaccine scare'.

Ever since the anti-vaccination movement graphically portrayed by the cartoonist James Gillray in 1802,⁴¹ such scares have threatened the widespread uptake of vaccines necessary to achieve herd immunity. In the 1970s, media reports of neurological reactions to the widely-used pertussis component of the 'triple' DTP vaccine had led to a rapid decline in coverage, from 77% to 33% or lower, and three major epidemics of pertussis ensued, the first affecting over 100,000 people. Although a government compensation scheme for alleged vaccine damage was established, the aetiological role of the vaccine remained controversial and the eventual legal judgement in 1988 was that there was no evidence it caused permanent neurological sequelae.⁴² Nonetheless, both media commentators and the public were by now well-rehearsed in the arguments against vaccination when the fires were re-ignited by the publication in *The Lancet* in 1998 of a paper by Andrew Wakefield, later discredited and retracted in full, claiming to have demonstrated a link between the measles, mumps and rubella (MMR) vaccination, inflammatory bowel disease and autism.⁴³ Predictably, MMR vaccination coverage fell (Figure 4) and there was a resurgence in incidence of all three diseases, especially mumps (Figure 5). It was some 10 years before coverage rates returned to 'pre-Wakefield' levels, and a substantial cohort of children never received the vaccine. Fortunately, despite these children having now reached childbearing age, there has been no evidence of a resurgence of congenital rubella syndrome.⁴⁴

Another aspect of the improvement of health is in the development of policy at government level, and the implementation of the resulting written reports. Those of particular interest in KCC's career were *Hospital Doctors: Training for the Future*,⁴⁵ *A Policy Framework for Commissioning*

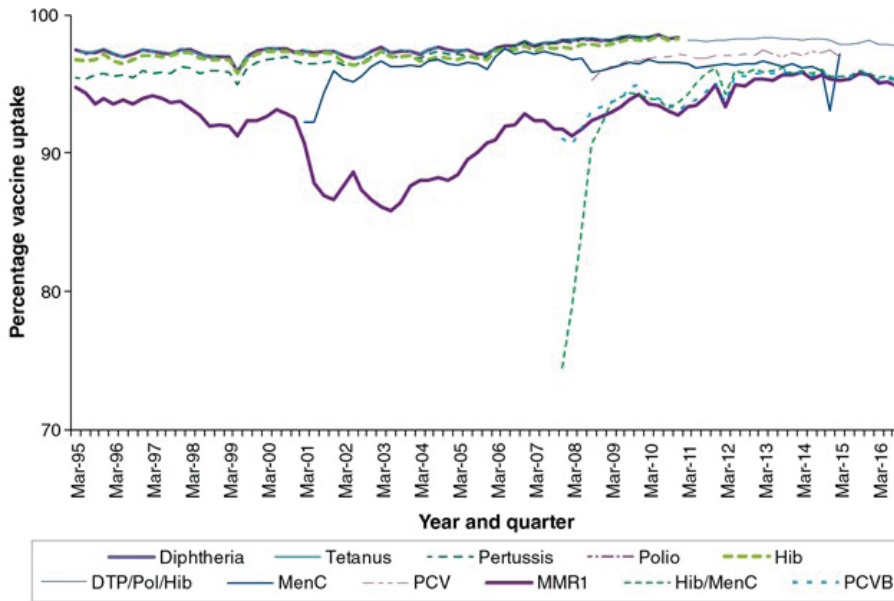


Figure 4 Vaccine coverage rates in Scotland 1995-2016.⁷⁸ ©Health Protection Scotland 2017. Contains public sector information licensed under the Open Government Licence v3.0

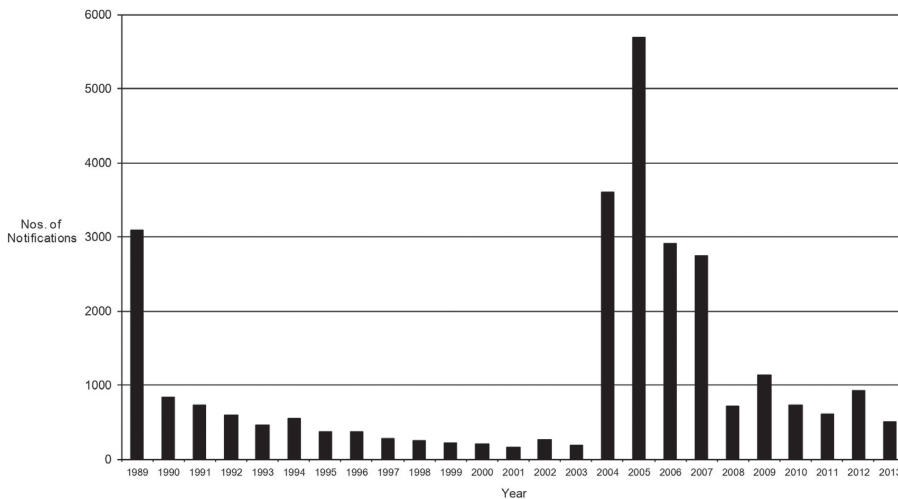


Figure 5 Mumps in Scotland 1989-2013.⁷⁹ ©Health Protection Scotland 2013. Contains public sector information licensed under the Open Government Licence v3.0

Cancer Services,⁴⁶ and Developing Emergency Services in the Community.⁴⁷ These were all implemented but could not have been achieved without the cooperation and full input from the medical royal colleges and postgraduate deans. Patients were also involved in two of these policy areas and contributed significantly. One of these, on Cancer Services, took time to implement because its issue coincided with a period of change in the NHS itself.

This raises the issue of how best to implement major new policies. Four things seem to matter. The first is that there needs to be significant political will to make it happen. The second is to have a clear and agreed strategy. There then needs to be people on the ground to implement the policy. This is a key aspect of the process and the changes in postgraduate medical education could not have occurred without effective local input. The final strand is the resources required to take things forward. This could be finance, but could also include people and buildings. In looking back at policy implementations, and cross referencing them to these four factors, it is usually possible to determine why the policy has been implemented successfully or, conversely, failed.

The new millennium

With the benefit of hindsight, it is easy to overlook the level of health service resources which were devoted to preparations for the predicted impending ‘millennium bug’, a computer problem resulting from early programming use of a two-digit year date format which, it was predicted, would result in systems rolling back to a notional ‘year 1900’ at the turn of the millennium and would lead to widespread disruption. The fears proved to be largely unfounded, although one of the few serious healthcare-related incidents occurred in Sheffield where incorrect Down’s syndrome test results were sent to 154 women as a result of incorrect calculation of the mother’s age. Two inappropriate terminations were carried out, and four affected babies were born after their mothers had been informed that they were low-risk.⁴⁸

Epizootic diseases continued their dominance, with a major UK-wide outbreak of foot and mouth disease in 2001 which led to the slaughter of over 10 million sheep and cows. Movement of farm animals was restricted, as was access to the countryside, and all animal carcasses in the vicinity of affected farms were burned, an operation which required the

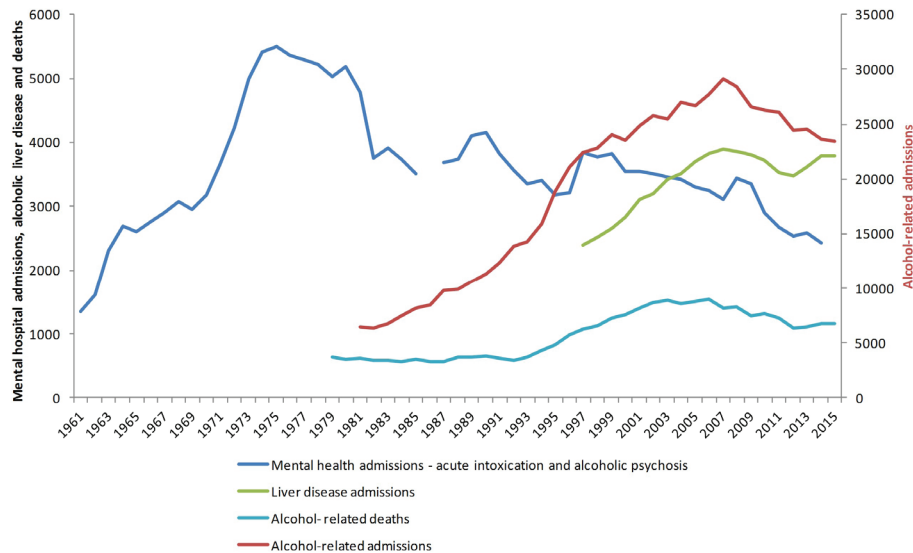


Figure 6 Alcohol-related morbidity and mortality in Scotland 1961–2015. Compiled from various archive sources. Contains public sector information licensed under the Open Government Licence v3.0

assistance of the Army. The outbreak left a legacy of both economic and emotional damage,⁴⁹ while several soldiers involved in carcass disposal contracted Q fever.⁵⁰ With hindsight, while the disease was managed in accordance with extant protocols, there was a failure to fully appreciate the psychological effect on those involved,⁵¹ not only among the affected farmers but also those who took part in the cull. Although psychological impact was noted in the Scottish Government response and funding was made available for local counselling, there was no mention in the ‘lessons learned’ of any requirement to include specific support in future plans.⁵² Continuing the epizootic theme, in 2000 the first case of anthrax in an injecting drug user was reported from Norway,⁵³ and in 2009–2010 a serious outbreak occurred among the drug-using population of Scotland, ultimately involving 82 confirmed or probable cases.⁵⁴ The source was postulated to have been a contaminated goat or other animal hide used to transport a batch of heroin between Afghanistan or Pakistan and Scotland.⁵⁵

In the global arena, 2009 saw the first influenza pandemic since 1968–1969. Nicknamed ‘swine flu’ in recognition of its origin as a re-assortment of bird, swine and human flu viruses, its antigenic similarity to the 1918 pandemic virus led to widespread alarm, not entirely unjustifiably in view of the estimated 284,500 fatalities worldwide.⁵⁶ The public health response in Scotland was swift, moving from an initial containment phase to a treatment phase as cases became more widespread, with an immunisation programme being rolled out as a specific vaccine became available. Over 1500 people were hospitalised in Scotland, including 54 pregnant women, and there were 69 deaths including three pregnant women.⁵⁷ Several patients required extracorporeal membrane oxygenation for profound respiratory failure.⁵⁸

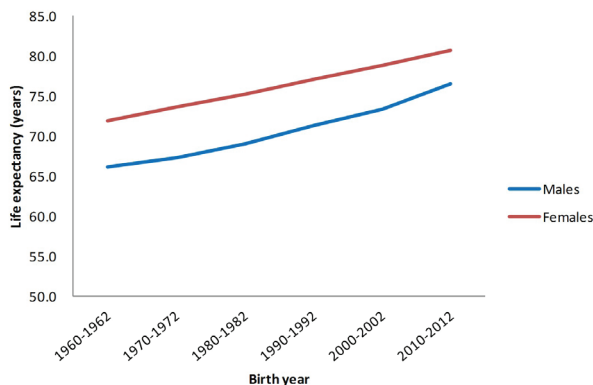
Communicable disease challenges continued to dominate public health as the new millennium progressed. The highly transmissible Ebola virus, which had first been identified in 1976 and had been causing sporadic outbreaks in Africa, now gave rise to the largest-ever outbreak which ran from 2013–2016 in West Africa, resulting in a reported 28,616

cases and 11,310 deaths.⁵⁹ Novel diseases continued to emerge, while others changed their character. A large cluster of cases of microcephaly in Brazil in 2015–2016 marked the evolution of Zika virus, known for over 60 years as a mild mosquito-borne disease, to a condition having profound implications for pregnant women and their fetuses. Cases associated with Guillain-Barré syndrome were also identified, both in Brazil and in an outbreak in French Polynesia, and global spread of the virus was reported, causing considerable anxiety to travellers.

Sixty-five years on from the publication of the first conclusive evidence of the link between smoking and lung cancer,⁴ Scotland led the way for a UK-wide ban on smoking in indoor public places with the publication of an Act of the Scottish Parliament,⁶⁰ which came into force on 26 March 2006. By now, the case against smoking was compelling; in 2004 Richard Doll had published a 50-year follow-up on his original study of doctors’ mortality in relation to smoking which showed that on average, smokers died 10 years earlier than non-smokers and had up to a three-fold increase in the risk of dying in middle age.⁶¹ The beneficial impact of the ban on acute coronary events quickly became apparent;⁶² the benefits to lung cancer incidence and mortality will take longer to realise. The Scottish Government’s tobacco control strategy was published in 2013 and set an ambitious target to reduce smoking prevalence in Scotland to 5% or less in 20 years.^{63,64} Although the overall prevalence of adult smoking in Scotland had fallen to 21% by 2015, major challenges remain in the lower socio-economic groups, with the prevalence ranging from 35% in the most deprived communities, to 11% in the least deprived.⁶⁵

Drug and alcohol problems continued unabated. Admissions and deaths due to alcohol-related conditions rose to a peak around 2005–2007 and have since fallen back, perhaps a late legacy of very heavy drinking some 30 years earlier, while liver disease has plateaued, possibly reflecting an overlap from the growing number of cases of obesity-related liver disease (Figure 6).⁶⁶ Drug-related deaths in Scotland rose from an annual average of 260 in 1996–2000 to 659 in

Figure 7 Life expectancy at birth, Scotland 1960–2012.⁸⁰ Contains public sector information licensed under the Open Government Licence v3.0



2012–2016, but with a shift towards the older age-groups; the average of 83 per year for under-25s in 1996–2000 fell to 39 per year in 2012–2016, while for the 35–44 age group, the number rose from 46 per year to 234 over the same period,⁶⁷ also suggesting legacy problems affecting long-term drug users. Comparison with earlier years (1995 and earlier) is problematic owing to changes in coding and the method of recording.⁶⁸

Obesity was identified as a major emerging public health problem, in Scotland as elsewhere in the developed world, with the proportion of people aged 16–64 recorded as overweight (BMI 25 and over) increasing from 52% in 1995 to 62% in 2015. The proportion recorded as obese (BMI 30 and over) rose from 17% to 28% over the same period, while the proportion of morbidly obese (BMI 40 and over) rose from 1% to 3%. The greatest numbers of obese men in 2015 were in the 55–64 age group (40%), whereas for women it was 45–54 (34%). A raised waist circumference was recorded in 34% of men aged 16–64 in 2015, compared with 14% in 1995, while for women it was 48% in 2015 compared with 19% in 1995. By the end of the 10 years to 2015, 52% of men were identified as being at increased health risk based on BMI and waist circumference, compared with 19% at the start of the period; for women, the proportion had increased from 40% to 66%. However the proportion of children outwith the healthy range has been falling since 2011, providing guarded optimism that the peak may have passed.⁶⁹ On a positive note, life expectancy has continued to rise, although at a slower rate than some European countries,⁷⁰ and there was evidence that the gap between men and women was starting to narrow (Figure 7).

Thirty years on from Sir Douglas Black's report, Sir Michael Marmot presented a further review of inequalities and health in England.⁷¹ This painted a dismal picture of the premature loss of up to 2.5 million years of life, and 2.8 million years of limiting illness or disability, as a result of health inequalities stemming from social inequalities. There were major geographical disparities, with the greatest impact falling in the north-east, especially in the lowest socio-economic groups. The cost to society was estimated at up to £70 billion per year in lost productivity, welfare and healthcare

costs. A framework for action was proposed to improve health and wellbeing for all and reduce inequalities, based on a wide-ranging portfolio of priority objectives and policy recommendations extending across the spectrum of national, local and third sector involvement. Crucially, the review identified the major threats to health as smoking, alcohol, obesity and drug use, and the major social determinants of health as the early years, education, work, income, and communities.

Five years later, a report by the King's Fund⁷² painted a more optimistic picture. Analysing data from 2006–2010, in comparison with 1999–2003, there was clear evidence that income-related inequalities had improved since Marmot's 'call to action', with a flattening of the gradient. The report also noted geographical variations, with some parts of the UK doing better than the average, while others experienced poorer outcomes, highlighting the importance of taking local knowledge, history and experience into account when translating strategy into action. The King's Fund had previously identified that a lack of community and networks was more damaging to the health of older people than either moderate smoking or obesity;⁷³ now there was clear evidence that communities could be a powerful force in influencing health behaviours, and hence addressing inequalities. In Scotland, this work was being taken forward by a Ministerial Task Force as the *Equally Well* policy,⁷⁰ and delivered through a network of Community Planning Partnerships.

Conclusion

From these selected personal highlights of half a century in medicine, a number of themes have emerged. There have been known diseases which have occurred on an unprecedented scale, for example the 1964 Aberdeen typhoid and the 2001 foot and mouth disease outbreaks, where the protocols for management were well established and a timely response was put in place to cope with the scale and severity of the problem although, with the benefit of hindsight, aspects such as media involvement or psychological support could have been better managed. Greater challenges have been presented by newly-recognised conditions such as HIV and BSE, where an understanding of the disease, its epidemiology and, most importantly, its prevention, has emerged only slowly, giving rise to a perception of the delivery of mixed messages to the public. Although unavoidable, this uncertainty and changes in advice are poorly understood by the target audience, and the role of public health in managing the public-facing response to any major incident is crucial.

There have been a number of major transitions, from a largely hospital-based care system to one in which care in the community predominates, and from communicable diseases amenable to public health solutions to the diseases of lifestyle which will require individual behavioural change to address; the falls in perinatal mortality and childhood morbidity of the 1960s may yet prove to be counterbalanced by rising lifestyle-related morbidity in the same generation. These changes have taken place against a background

of rapid technological evolution which has seen, at a clinical level, the development of high-quality non-invasive diagnostic procedures such as MRI, and at a population level, an increase in both the speed and pervasiveness of communication and increasing critical scrutiny and accountability of every aspect of public life, combined with budgetary constraints. While undoubtedly driving up standards, this has created new pressures for the health professions and the challenge for the next generation will be to maintain an environment in which innovation in healthcare and health protection can still flourish.

This year marks the centenary of the end of the First World War, a conflict which cost over 750,000 British lives. In contrast to the Crimean War 60 years earlier, when an estimated 16,000 (73%) of the 22,000 deaths had been the result of largely preventable disease, only 19% of deaths in the First World War were due to illness,⁷⁴ despite the extremely austere conditions prevailing in theatres such as the Western Front and Gallipoli. The turning point had been the advancement from the late 19th century theoretical formulation of the science of 'hygiene', being an understanding of the physical effect of the environment on populations,⁷⁵ to the early 20th century practical application of 'sanitary science', which reflected the art of accommodating to the surroundings,⁷⁶ however challenging or austere those may be. Although overarching health strategy could be developed centrally, it was recognised that its implementation could only be achieved by

the individual military units, supported by embedded specially trained staff, who could work with the knowledge of local issues to enable local solutions to be developed based on the 'art of the possible'. One hundred years later, there is a clear parallel with the development of an understanding of inequalities, progressing from a recognition of the issues,^{20,22} to a clear understanding of the strategy that would be needed to achieve change,⁷¹ and to acknowledgement that central strategy is at its most effective when translated into local delivery through community engagement.⁷³ Only then can local barriers to change be overcome to enable the 'art of the possible' and move towards the ultimate goal of public health, *Salus populi suprema lex esto*.⁷⁷

It is clear that overall health has improved over the last 50 years. However, there is much still to do and the objectives are obvious. A reduction in cigarette smoking, alcohol consumption and the use of illegal drugs, are ongoing issues. Obesity has now become a major threat to public health and needs urgent attention. At the heart of this are the remaining inequalities in health which have shifted a little but still remain a major health issue. Let us hope that the next 50 years will see a significant change in this aspect of the health of the nation. **!**

Acknowledgements

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References

- 1 Christon L. The Comedy Column: Shandling Takes the Low-Key Road. *Los Angeles Times* 13 June 1982.
- 2 Commonwealth War Graves Commission. Commonwealth War Graves Commission Annual Report 2014–15; 2015.
- 3 University of Leeds. The British Political Scene in the 1960s. <http://www.leeds.ac.uk/politics/cbl/brit/scene.htm> (accessed 6/9/17).
- 4 Doll R, Hill AB. Smoking and carcinoma of the lung. *Brit Med J* 1950; 2: 739.
- 5 Shelter Scotland. Scotland's Housing Crisis. <http://www.scotlandhousingcrisis.org.uk> (accessed 6/9/17).
- 6 Scottish Home and Health Department. Health and Welfare Services in Scotland. Report for 1966 (Cmd 2984). 1966, Edinburgh, HMSO.
- 7 The Rolling Stones. 'Mother needs something today to calm her down/And though she's not really ill/There's a little yellow pill/She goes running for the shelter of a mother's little helper/And it helps her on her way, gets her through her busy day'. ©1966 Abkco Music, Inc.
- 8 Scottish Home and Health Department. The Aberdeen typhoid outbreak 1964. Report of the departmental committee of enquiry. (Cmnd. 2542) 1964, Edinburgh, HMSO.
- 9 Pennington H. *Have Bacteria Won?* Cambridge: Polity Press; 2016.
- 10 University of Aberdeen. Typhoid 50 years on: Pioneering research into cure for global killer. <https://www.abdn.ac.uk/news/6273> (accessed 6/9/17).
- 11 Department of Health for Scotland. Report of the Department of Health for Scotland 1960. Part I: Health and Welfare Services (Cmnd 1320) 1961, Edinburgh, HMSO.
- 12 Vaughan Jones JAL. Back to work. *Brit Med J* 1951; 2: 601–3.
- 13 Black J, Duncan W, Durant CJ et al. Definition and antagonism of histamine H2-receptors. *Nature* 1972; 236: 385–90.
- 14 Forte J, Lee H. Gastric adenosine triphosphatases: a review of their possible role in HCl secretion. *Gastroenterology* 1977; 73: 921–6.
- 15 Marshall B, Warren JR. Unidentified curved bacilli in the stomach of patients with gastritis and peptic ulceration. *Lancet* 1984; 323: 1311–5.
- 16 Borody T, Cole P, Noonan S et al. Recurrence of duodenal ulcer and *Campylobacter pylori* infection after eradication. *Med J Australia* 1989; 151: 431–5.
- 17 National Institutes of Health. *Helicobacter Pylori in Peptic Ulcer Disease*. Consensus Development Conference Statement. 7–9 February 1994. <https://consensus.nih.gov/1994/1994HelicobacterPyloriUlcer094html.htm> (accessed 23/1/18).
- 18 Leibold D, Canetta R. Clinical development of platinum complexes in cancer therapy: an historical perspective and an update. *Eur J Cancer* 1998; 34: 1522–34.
- 19 Einhorn LH. Testicular Cancer as a Model for a Curable Neoplasm; The Richard and Hinda Rosenthal Foundation Award Lecture. *Cancer Res* 1981; 41: 3275–80.
- 20 Gray AM. Inequalities in health. The Black Report: a summary and comment. *Int J Health Serv* 1982; 12: 349–80.
- 21 Obituary: Sir Douglas Black. *BMJ* 2002; 325: 661.
- 22 Bamba C, Smith KE, Garthwaite K et al. A labour of Sisyphus? Public policy and health inequalities research from the Black and Acheson Reports to the Marmot Review. *J Epidemiol Community Health* 2011; 65: 399–406.
- 23 Merson MH. The HIV–AIDS pandemic at 25 – the global response. *N Eng J Med* 2006; 354: 2414–7.

- 24 HIV Scotland. History: How HIV has changed. <http://www.hivscotland.com/about-us/history> (accessed 9/8/17).
- 25 University of Edinburgh Social Studies. The 'Take Care' Campaign Report. http://hiv-aids-resources.is.ed.ac.uk/wp-content/uploads/2015/03/SOC2.Take_Care_Campaign_Report.pdf (accessed 9/8/17).
- 26 Calman KC. *The Potential for Health*. Oxford: Oxford University Press; 1998.
- 27 Bennet P, Calman KC, Curtis S et al. *Risk Communication and Public Health*. Oxford: Oxford University Press; 1999.
- 28 University of Aberdeen. Medical Library News: World's first MRI scanner now on display. <https://aberdeenmedlib.wordpress.com/2016/03/21/worlds-first-mri-scanner-now-on-display> (accessed 9/8/17).
- 29 Sharma DC. Bhopal study represents 'missed opportunity'. *Lancet* 2013; 382: 1870.
- 30 Scottish Government. Chernobyl and its effect on Scottish Agriculture. <http://www.gov.scot/Topics/farmingrural/Agriculture/Livestock/Meat/Sheep/chernobyl> (accessed 9/8/17).
- 31 Hotchkiss JW, Davies CA, Dundas R et al. Explaining trends in Scottish coronary heart disease mortality between 2000 and 2010 using IMPACTSEC model: retrospective analysis using routine data. *BMJ* 2014; 348: g1088.
- 32 Downie RS, Calman KC. *Health Respect: Ethics in Health Care*. Oxford: Oxford University Press; 1994.
- 33 Gillies J, Morrison L, Newell A et al. *Tools of the Trade: Poems for New Doctors*. Scottish Poetry Library, 2016.
- 34 Calman KC, 'A Doctor's Line': *Poetry and Prescriptions in Health and Healing*. Dingwall: Sandstone Press; 2014.
- 35 5 Soldiers. <http://www.5soldiers.co.uk> (accessed 29/11/17).
- 36 Wilson G, Fearnley K. *The Dementia Epidemic*. Edinburgh: Alzheimer Scotland; 2007.
- 37 National CJD Research & Surveillance Unit. Creutzfeldt-Jakob disease surveillance in the UK: 24th Annual Report 2015. <https://www.cjd.ed.ac.uk/sites/default/files/report24.pdf> (accessed 12/4/18).
- 38 Brunetti A, Weder B. A free press is bad news for corruption. *J Public Econ* 2003; 87: 1801–24.
- 39 Ellman M, German F. What do the papers sell? A model of advertising and media bias. *Econ J* 2009; 119: 680–704.
- 40 Calman KC. *A Study of Story Telling, Humour and Learning in Medicine*. Stationery Office Books; 2000.
- 41 British Museum. The Cow-Pock or the Wonderful Effects of the New Inoculation. http://www.britishmuseum.org/research/collection_online/collection_object_details.aspx?objectId=1638225&partId=1&people=18459&peoA=18459-1-7&page=1 (accessed 16/8/17).
- 42 Baker JP. The pertussis vaccine controversy in Great Britain, 1974–1986. *Vaccine* 2003; 21: 4003–10.
- 43 Wakefield AJ, Murch SH, Anthony A et al. RETRACTED: Ileal-lymphoid-nodular hyperplasia, non-specific colitis, and pervasive developmental disorder in children. *Lancet* 1998; 351: 637–41.
- 44 Tookey P. Congenital rubella. British Paediatric Surveillance Unit 24th Annual Report 2009–2010. Department of Health/Royal College of Paediatrics and Child Health. London 2010. <https://www.rcpch.ac.uk/system/files/protected/page/Annual%20Report%200910.pdf> (accessed 12/4/18).
- 45 Department of Health. Hospital Doctors: Training for the Future; the Report of the Working Group on Specialist Medical Training. Health Publications Unit, Heywood, Lancs, 1993.
- 46 Expert Advisory Group on Cancer. A policy framework for commissioning cancer services: A report by the Expert Advisory Group on Cancer to the Chief Medical Officers of England and Wales. London: Department of Health; 1995.
- 47 Calman KC. Developing Emergency Services in the Community: the Final Report. NHS Executive, 1997.
- 48 Wainwright M. NHS faces huge damages bill after millennium bug error'. The Guardian 14 September 2001. <https://www.theguardian.com/uk/2001/sep/14/martinwainwright> (accessed 12/4/18).
- 49 Convery I, Mort M, Baxter J et al. *Animal Disease and Human Trauma: Emotional Geographies of Disaster*. Basingstoke: Palgrave Macmillan; 2008.
- 50 Kelly DJ, Richards AL, Temenak J et al. The past and present threat of rickettsial diseases to military medicine and international public health. *Clin Infect Dis* 2002; 34(Suppl 4): S145–69.
- 51 Peck DF, Grant S, McArthur W et al. Psychological impact of foot-and-mouth on farmers. *J Ment Health* 2009; 11: 523–31.
- 52 Scottish Executive. Foot and Mouth Disease in Scotland – The Scottish Executive Response. Edinburgh, 2002. <http://www.gov.scot/Publications/2005/01/20602/51164> (accessed 12/4/18).
- 53 Ringertz SH, Høiby EA, Jensenius M et al. Injectional anthrax in a heroin skin-popper. *Lancet* 2000; 356: 1574–5.
- 54 Palmateer NE, Ramsay CN, Browning L et al. Anthrax infection among heroin users in Scotland during 2009–2010: a case-control study by linkage to a national drug treatment database. *Clin Infect Dis* 2012; 55: 706–10.
- 55 Scottish Drugs Forum. Anthrax. <http://www.sdf.org.uk/what-we-do/reducing-harm/infection-outbreak-control/anthrax> (accessed 16/8/17).
- 56 Dawood FS, Iuliano AD, Reed C et al. Estimated global mortality associated with the first 12 months of 2009 pandemic influenza A H1N1 virus circulation: a modelling study. *Lancet Infect Dis* 2012; 12: 687–95.
- 57 Health Protection Scotland. The Pandemic of Influenza A(H1N1) Infection in Scotland 2009-2010: A Report on the Health Protection Response. 2010. <http://www.hps.scot.nhs.uk/resourcedocument.aspx?resourceid=901> (accessed 12/4/18).
- 58 Berryman S. Extracorporeal membrane oxygenation in a Scottish intensive care unit. *Nurs Crit Care* 2010; 15: 262–8.
- 59 Meltzer MI, Atkins CY, Santibanez S et al. Estimating the future number of cases in the Ebola epidemic—Liberia and Sierra Leone, 2014–2015. *MMWR Suppl* 2014; 63(Suppl 3): 1–14.
- 60 Smoking, Health and Social Care (Scotland) Act 2005 (2005 asp 13).
- 61 Doll R, Peto R, Boreham J et al. Mortality in relation to smoking: 50 years' observations on male British doctors. *BMJ* 2004; 328: 1519.
- 62 Mackay DF, Irfan MO, Haw S et al. Meta-analysis of the effect of comprehensive smoke-free legislation on acute coronary events. *Heart* 2010; 96: 1525–30.
- 63 Scottish Government. Creating a Tobacco-Free Generation: A Tobacco Control Strategy for Scotland. 2013. <http://www.gov.scot/resource/0041/00417331.pdf> (accessed 12/4/18).
- 64 Scottish Government. Smoking. October 2017. <http://www.gov.scot/Topics/Statistics/Browse/Health/TrendSmoking> (accessed 6/9/17).
- 65 Scottish Health Survey 2015 data. Tobacco use: adult smoking in Scotland. <http://www.scotpho.org.uk/behaviour/tobacco-use/data/adult-smoking-in-scotland> (accessed 6/9/17).
- 66 Diehl AM, Goodman Z, Ishak KG. Alcohollike liver disease in nonalcoholics: a clinical and histologic comparison with alcohol-induced liver injury. *Gastroenterology* 1988; 95: 1056–62.
- 67 National Records of Scotland Drug-related Deaths in Scotland in 2016. <https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/vital-events/deaths/drug-related-deaths-in-scotland/2016/list-of-tables-and-figures> (accessed 16/8/17).
- 68 National Records of Scotland Figures for drug-related deaths for Scotland for 1995 and earlier years. <https://www.nrscotland.gov.uk/files//statistics/drug-related-deaths/dr14/figures-for-drug-related-deaths-1995-and-earlier-years.pdf> (accessed 16/8/17).
- 69 Scottish Government. The Scottish Health Survey 2015 – Obesity. <http://www.gov.scot/Publications/2016/09/2764/downloads#res505810> (accessed 16/8/17).
- 70 Scottish Government. Equally Well Review 2013. Scottish Government. Edinburgh 2014.
- 71 Marmot MG, Allen J, Goldblatt P et al. Fair society, healthy lives: Strategic review of health inequalities in England post-2010. The Marmot Review. 2010. <https://www.parliament.uk/documents/fair-society-healthy-lives-full-report.pdf> (accessed 12/4/18).
- 72 Buck D, Maguire D. Inequalities in life expectancy. Changes over Time and Implications for Policy. King's Fund; 2015. https://www.kingsfund.org.uk/sites/default/files/field/field_publication_file/inequalities-in-life-expectancy-kings-fund-aug15.pdf (accessed 12/4/18).
- 73 Buck D, Gregory S. Improving the public's health: a resource for local authorities. The King's Fund; 2013. https://www.kingsfund.org.uk/sites/default/files/field/field_publication_file/improving-the-publics-health-kingsfund-dec13.pdf (accessed 12/4/18).

- 74 Macpherson WG. *Official Medical History of the War: Casualties and Medical Statistics*. London: HMSO; 1931.
- 75 Parkes EA. *A Manual of Practical Hygiene*. London: Churchill; 1864.
- 76 Melville CH. *Military Hygiene and Sanitation*. London: Edward Arnold; 1912.
- 77 Cicero MT. 'The health of the people shall be the highest law'. De Legibus vol.III part III sub.VIII.
- 78 Health Protection Scotland Weekly Report. 10 January 2017. <http://www.hps.scot.nhs.uk/immvax/wrdetail.aspx?id=71753&wrtype=9> (accessed 12/4/18).
- 79 Health Protection Scotland. Mumps. <http://www.hps.scot.nhs.uk/publichealthact/annualdata.aspx#tables&charts> (accessed 12/4/18).
- 80 Based on National Records of Scotland data. Life Expectancy at Scotland Level – Scottish National Life Tables. <https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/life-expectancy/life-expectancy-at-scotland-level/scottish-national-life-tables> (accessed 29/8/17).

In memoriam

In memoriam brings to the attention of Fellows and Collegiate Members the deaths of colleagues and friends. Obituaries paying tribute to the life and work of those whose deaths have been reported in *In memoriam* can be found on the College website: www.rcpe.ac.uk/obituaries

Fellows and Collegiate Members are invited to provide the College (editorial@rcpe.ac.uk) with information that will enable us to write obituaries. Self-written obituaries to be held in readiness will always be welcome.

Dr F M Baber FRCP Edin

Born: 15/11/1925
Specialty: Paediatrics/Community Child Health
MB Manc 1950, DCH Lond 1954, MRCP Edin 1957

Dr D Bell FRCP Edin

Born: 21/05/1942 Died: 17/04/2018
Specialty: Public/Community Health/Epidemiology
BSc Durham 1963, MB Durham 1966, MSc Edin 1979, CDAS Stirl 1998

Dr C N Deivanayagam FRCP Edin

Born: 15/11/1942 Died: 20/11/2012
Specialty: Respiratory
MB Madras 1966, MRCP Edin 1969 Resp Dis & Tub

Dr H K El-Shamy FRCP Edin

Born: 31/05/1930 Died: 22/03/2018
Specialty: Dermatology
MB Ain Shams 1954, DV&D Ain Shams 1957, MRCP Edin 1962, LMSSA Lond 1963

Dr M W M Hadley FRCP Edin

Born: 30/12/1921 Died: 31/01/2018
Specialty: Radiology
MB Edin 1944, MRCP Edin 1949, MD Edin 1953, DMRD Edin 1955

Dr R L Lyon FRCP Edin

Born: 05/09/1922 Died: 30/01/2018
Specialty: Geriatric Medicine
MB Edin 1945, MRCP Edin 1950, MD Edin 1960

Dr W D Masson FRCP Edin

Born: 26/09/1931 Died: 17/03/2018
Specialty: Paediatrics/Community Child Health
MB Aberd 1955, DCH Glasg 1964, DTM&H Lond 1963, MRCP Edin 1969

Dr G C Schild FRCP Edin

Born: 28/11/1935 Died: 03/08/2017
Specialty: Medical Microbiology/Bacteriology/Virology
BSc Reading 1958, PhD Sheff 1963, DSc Reading 1994

Dr D J Sinclair FRCP Edin

Born: 09/04/1933 Died: 05/04/2018
Specialty: Radiology
MB Edin 1957, DMRD Edin 1963, MRCP Edin 1965 Radiodiag

Dr Dr M K Strelling FRCP Edin

Born: 18/03/1925 Died: 16/02/2018
Specialty: Paediatrics/Community Child Health
MB Lond 1953, DCH Lond 1957, DObstRCOG Lond 1957, MRCP Edin 1963 Child Life

Mr P Taylor FRCP Edin

Born: 15/04/1930 Died: 27/04/2018
Specialty: Ophthalmology
MB Sheff 1953, MRCP Edin 1960

Dr JC Voigt FRCP Edin

Born: 12/07/1933 Died: 12/05/2018
Specialty: Obstetrics & Gynaecology
BM Oxfd 1958, DObst 1960, MRCP Edin 1964