increased and not been affected by the universal coverage requirements that were put into place.

### Models of health care delivery and financing systems

In The Healing of America: A Global Quest for Better, Cheaper, and Fairer Health Care, author TR Reid (2009) describes the methods that other industrialized democracies have used to provide health care for citizens for far less than what is spent on health care in the USA. These countries provide universal coverage for all their citizens.

Reid (2009) describes his purpose in writing this book as to "search the developed world for effective health care systems and take lessons from the ones that work best." Not surprisingly, Reid finds positives and negatives in many of the systems he evaluates in an unbiased fashion. His conclusion that all spend less administratively than the USA, gain better outputs than the US system, and cover all citizens within countries is irrefutable (Reid 2009).

Reid couches the issue in terms of a fundamental moral decision to provide health care coverage to all citizens or not. Other democracies have embraced providing universal coverage for citizens, and in doing so, they outperform the US health care system on indices of cost, quality, and choice – three key focal points for discussion in the book. Reid (2009) notes that over 20000 Americans die each year because they cannot afford to see a doctor, and quotes that 700 000 individuals must declare bankruptcy due to mounting bills arising from a lack of health insurance coverage.

## Four basic models of health care delivery and insurance

Four basic models of health care delivery and insurance have evolved over time. As was noted above, these models have been adapted and combined for country-specific necessities. The four models are as follows:

- 1 Beveridge model
- Bismarck model 2
- 3 national health insurance model
- 4 out-of-pocket model.

### The Beveridge model

The Beveridge model, named for William Beveridge (1879–1963), describes the British National Health Service (NHS) (http://www.bbc.co.uk/history/ historic figures/beveridge william.shtml). William Beveridge was an economist and social reformer in the UK. In 1941, the British government commissioned a report to detail how the UK should be rebuilt after World War II (Anonymous 2010). The report, issued in 1942, detailed five "giant evils" in

need of being addressed: want, disease, ignorance, squalor, and idleness. This report served as the basis for the UK to address health care problems, the health care delivery system, and payment for health care in the UK (Anonymous 2010).

The British NHS was begun in 1948, and its initiation was based upon the work of William Beveridge and the model he proposed. As an appointed peer in the British Parliament, Beveridge was a leader of the Liberals in the British House of Lords (Anonymous 2010). Although the model was named in honor of William Beveridge, Aneurin Bevan, government Minister of Health at the time, was the chief architect of the British NHS (Klein 2006).

The British NHS is truly a cradle-to-grave insurance and health delivery system covering all British citizens (Klein 2006). In his historical treatise on the politics of the decision to form the NHS Klein (2006) noted:

Britain's National Health Service (NHS) came into existence on 5 July 1948. It was the first health system in any western society to offer free medical care to the entire population. It was, furthermore, the first comprehensive system to be based not on the insurance principle, with entitlement following contributions, but on the national provision of services available to everyone. It thus offered free and universal entitlement to state-provided medical care (p. 1).

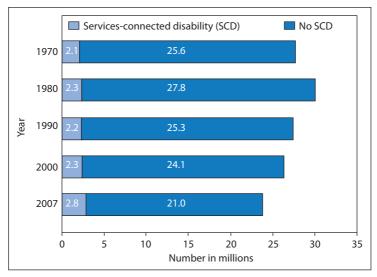
Delamothe (2008) notes that, in addition to the above, quality and equity should be added to this descriptor of the British NHS, since these tenets have been key segments of the NHS from its inception. Other countries have applied the Beveridge model to health care systems and include Italy, Spain, and Cuba. The Medicaid program in the USA is a Beveridge model for those with coverage, with the exception that hospitals, providers, and associated allied health providers who provide Medicaid services are not owned by the US government.

### US Department of Veterans Affairs (VA) health care – similar to the Beveridge model

The VA health care system in the USA is probably the most exact duplicator of the British NHS, as is the US Indian health service (care provided to Native Americans) and the US Department of Defense (active-duty military personnel and their families through the Tricare managed care program within the Department of Defense).

#### VA health care issues

The number of US veterans is depicted in Figure 2.2. Also shown is the number of veterans with service-connected disabilities. The number of service-connected disabilities has increased recently as more advanced methods of treating battlefield traumas have emerged, saving many soldiers. Also, as shown in Figure 2.2, the numbers of US veterans has decreased from 1980 (elevations



Living US military veterans in the USA. Source: CDC/NCHS, Health, United States, 2009, Figure 3. Data from the US Department of Veterans Affairs and the US Census Bureau. National Center for Health Statistics; Health, United States, 2009 With Chartbook on Trends in the Health of Americans, Hyattsville, MD: 2010.

due to the number of US veterans from the Vietnam War) through the first decade of the 2000s. However, with wars under way in both Iraq and Afghanistan at present, the numbers of individuals expected to seek care from VA facilities will no doubt increase in the near and long-term future. The individuals currently receiving care through the US Department of Defense will increase the numbers treated within the VA system. Care provided within the VA system is considered to be good in comparison with that received elsewhere in the US system.

#### Service-related concerns within the VA system

The access to care and treatment of long-term consequences of war injuries or exposures has long been a sore point for US veterans. The health effects of exposure to Agent Orange by Vietnam veterans (Schuck 1987), Gulf War syndrome for the first Iraq War veterans (Taylor and Stephenson 2007), improvised explosive device-related traumas and need for subsequent rehabilitation (Gondusky and Reiter 2005), and posttraumatic stress disorder for many veterans from many wars have long been controversial and contentiously debated syndromes (Seal et al. 2007). Posttraumatic stress disorder among US veterans is not something that just occurred with veterans from World Wars I and II or the Vietnam War. Similarly occurring symptoms experienced by Civil War veterans were

called "soldiers' heart," referring to a rapid heart rate that occurred with veterans. Within other wars, veterans of those wars spoke of shell shock or battle fatigue.

#### The Bismarck model

The Bismarck model of health care structure, financing, and delivery is named in honor of Prussian Chancellor Otto von Bismarck, who unified Germany in the 19th century. As a component of unification, Bismarck oversaw the creation of the first western welfare state. This system incorporates "sickness funds" which are jointly financed by employers and employees via payroll deductions. In this instance, the Bismarck model represents what is available to employees via employer-sponsored health insurance coverage. The major difference in the German system is that the "sickness funds" companies (e.g., health insurance companies) are not profit-generating entities. These "sickness fund" companies do not make a profit.

This Bismarck model of health care can be found in Germany, France, Belgium, the Netherlands, Japan, Switzerland, and in some cases in Latin America (Reid 2009). It is also, as noted, available in the USA as employeremployee-partnered insurance for many employed Americans less than 65 years of age.

#### The national health insurance model

The Canadian system of health care approximates a national health insurance model. The Canadian system originated in Saskatchewan in the late 1940s. Saskatchewan Premier Tommy Douglas was the architect of the plan, providing public coverage for residents through the Saskatchewan Hospitalization Act. On January 1, 1947, hospital care became free for residents of Saskatchewan (Reid 2009). Through debate, short-term strikes by the medical community, rancor and discussion, the will of the Canadian people remained steadfast for a health care system nationwide. The Canadian Health Act, providing for a universal plan throughout Canada, was passed by the Canadian Parliament in 1984 (Reid 2009). Each of the 10 Canadian provinces and three territories administers its own plan (Reid 2009). This model of structure, delivery, and financing contains elements of both the Beveridge and Bismarck models. This system uses private-sector care providers coupled with universal coverage with one payer - the Canadian government. The Canadian system is a true national health insurance model, and is guided by five principles:

- publicly administered throughout all provinces 1
- comprehensive coverage for all services
- universal, home jurisdiction covers the individual until residency status is settled during any waiting periods

- 4 portable (coverage is available for Canadians regardless of the province they are in or travel to or move to, e.g., moving from Ontario to British Columbia). However the Ontario Health Insurance Plan (OHIP) will not pay for services deemed not medically necessary.
- 5 accessibility: all insured Canadians have reasonable access to health care facilities. Also, health providers (physicians, pharmacies, hospitals, and other providers) must be reasonably compensated for provision of health care services.

The Taiwanese (Republic of China), when constructing a revised health care system in the 1990s, chose a model most like the national health insurance model, with elements of the Beveridge model. The South Koreans did likewise. Those patients in the USA with Medicare coverage find their health care insurance plan is most like a national health insurance model, e.g., Canada's. The formula for payment to physicians and the process for paying physicians on behalf of Medicare clients are in need of alteration. Three times in 2010 before the end of the fiscal year, stop-gap intercessions were made to stem the implementation of a 21–23% decrease in payments to physicians. In 1997, as part of the budget reconciliation, the US Congress passed a balanced budget law that put the current formula in place, determining how doctors will be paid.

### The out-of-pocket model

Until health care reform package (PPACA) was passed, the US system was partially an out-of-pocket model for the 45–47 million uninsured in the USA. Precisely how many will become insured, and thus lose the out-of-pocket status, remains to be seen over the 10-year phase-in of the health care reform package (PPACA), and perhaps alteration based on changes in the US House of Representatives, the US Senate, and presidential elections to be conducted between now and 2014. The lack of a system, or an amalgamated series of differing plans which was and is such a patchwork of a system, has beget a legacy of currently 700 000 medical bankruptcies in the USA each year.

The additional segments which will now eliminate exclusion of pre-existing conditions for insurance eligibility, removal of insurance caps on payments over a lifetime, expansion of coverage for many currently uninsured, provision of Medicaid to more individuals due to reduction in the income eligibility ceiling, and coverage for children under their parents' insurance plans through age 26, will be a hoped-for tremendous help for many currently desperate individuals in the USA.

Rural India, Burkina Faso, and Cambodia all have out-of-pocket models of health care system structure, delivery, and payment for health care in play. This system of out-of-pocket care may also be referred to as a market-driven process of health care delivery.

#### Socialized medicine

The term "socialized medicine" dates back to the 1940s, 12 US presidential eras back in the past, when there was a backlash against then President Harry Truman's efforts to sponsor a reorganization of the US health care system to provide universal health care insurance for all Americans. Then, the American Medical Association used "socialized medicine" as a "red herring" to avert the American public's eye away from the beneficial segments of a national health insurance for all program. In Reid's treatise, the myth of many foreign (to the USA) systems as all being "socialized medicines" is debunked (Reid 2009). In Chapter 13 of his book, Reid explodes various myths surrounding foreign health care systems, namely:

- "It's all socialized medicine out there."
- "They ration care with waiting lists and limited choice."
- "They are wasteful systems run by bloated bureaucracies."
- "Health insurance companies have to be cruel."
- "Those systems are too foreign to work in the USA."

Not every one of these comparator systems is perfect and to his credit Reid (2009) points out flaws consistently and fairly. For example, he finds long queues in Canada, poorly paid physicians in Japan, undertreated patients in the UK, and challenging facilities in France. Reid interviews physicians, hospital administrators, governmental regulators, international health care experts, and finally patients receiving care.

## Influence of lobbyists and special-interest groups on health policy

It is certainly not a surprise to anyone that the influence of lobbyists on many pieces of legislation is significant, pervasive, and effective in achieving specific goals of special-interest groups. One can guess as to the influence the contributions have on many aspects of what extends into laws affecting many aspects of our lives. These resultant effects (of perhaps funding shifts to other items) on health care, health care systems, health insurance programs, health professions, health professionals, and health professional educational programs are blatant and oppressive because of neglect of other worthy funding points.

## Follow the money

The passage of the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA) (Pub. L. 108-173) is a case in point of how funding follows lobbyists' collective activities. The Medicare Part D

drug program as a part of this legislation overtly favored pharmaceutical manufacturers, insurers, and pharmacy benefit management companies in an egregious fashion. Pharmaceutical companies were and are allowed to do business as usual with multiple pricing levels, and retain the ability to raise prices at will. The MMA legislation specifically prohibits the Centers for Medicare and Medicaid Services (CMS) from negotiating with pharmaceutical companies for advantageous prices that these same companies provide freely elsewhere. The Federal Supply Schedule pricing has allowed the VA to purchase drugs at reduced prices and the federal 340B Drug Pricing Program provides access to reduced-price prescription drugs to over 12 000 health care facilities certified in the USA. Pharmaceutical companies remain profitable even with these reduced pricing programs, partly due to their ability to shift price hikes elsewhere in a multilayered process of drug pricing.

To provide for optimum participation by Medicare Part D prescription drug plans (PDPs) and Medicare Advantage (MA-PDPs, as a component of managed care Medicare Part C) drug plans, a component of the MMA legislation provided PDPs and MA-PDPs with significant subsidies containing upfront funding, allowing these companies to participate with an assurance of profitability (Levinson 2007). In effect, participating plans were given a profitability fallback regardless of what happened with enrollment into their plans by eligible seniors, and were thus risk-averse from a lack of enrollment and/or profitability with their proffered plans.

As the legislation was written and enabled, for the first year of the program, due to overpayment to PDP and MA sponsors, Part D plan sponsors owed Medicaid a net total of \$4.4 billion for the year 2006. This amount of overpayment has been reduced to \$600 million for 2007, a significant reduction, but this amount remains sizeable. These overestimated payments provided to plans were to be returned to Medicare. However, to complicate this matter further, CMS had no mechanisms in place to collect funds from such overpayments. This was finally set up and accomplished well into 2007 for the 2006 payments; as such, sponsors held significant amounts of money for an extended period of time. Lobbyists exerted pressure to pass the MMA in the form in which it was enacted.

The health care lobbyist influence on health care matters is significant (Heid and Sook 2009). According to Northwestern University's Medill News Service, the number of former House and Senate key staffers turned lobbyists is significant (Heid and Sood 2009). There are 14 former chiefs of staff and four former deputy chiefs of staff among the more than 200 former congressional aides now working as lobbyists and registered in 2008-2009 (Heid and Sood 2009).

These are US Senators and they work at a federal level and greatly impact health policy. Funding scenarios by these vested interests may be less intense

in terms of dollar volumes in various state legislatures, but these groups in the health sector, providing funding at the federal level, also fund state legislators in each state. Here the competing interests for funding affecting state Medicaid programs most definitely intersect with state funding for other worthy entities.

### Changing health care systems is contentious

The structures of a country's health care systems are a complex amalgamation of influences, patterns, and societal expectations. Changing a system dramatically becomes more difficult as health policy influences from insurers, providers, patient advocacy groups, state and federal government entities, and society bear down on health care systems. Efforts to pass enabling legislation in the UK in 1948, in Canada in 1984, in Taiwan and Switzerland in the 1990s, and in the USA in 2010 were all contentious processes.

## Key points of stress for the future US health care system and health care policy applications

With the passage of PPACA in March 2010, one inclination is to rest easy; problems currently in the USA health care system will now be fixed. This is far from the true state of affairs both at present and in the future. Small steps of success often herald the major cliffs yet to be surmounted. For example, the passage of health care reform legislation earlier in 2010 was heralded by suggestions of an immediate impact on public health as a result, while others suggest this bill is flawed and incomplete. Perhaps these views may both be correct. Regardless, the major influences on the health care system and patients remain to be seen and may be decades away. Oftentimes pundits will suggest that it was important to get something passed, even if not the most appropriate bill possible. In the future, problems currently in place can be readily fixed when improvements are made on the passed bill. This did not occur with the passage of PPACA and the Medicare Part D program, flawed in design and implementation from the outset.

Initial problems with the Medicare Part D drug benefit included:

- "doughnut hole" period of lack of coverage after initial co-insurance requirements met, targeted to be reduced over a 10-year period with the enactment of PPACA and specific components dealing with the "doughnut hole"
- pricing increases
- many competing plans with many choices

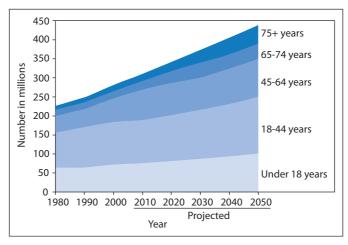
- access to CMS website by seniors: the website has recently been updated, but readability concerns may still exist
- readability of materials supplied to seniors.

This program, which began on January 1, 2006, was not significantly altered by the passage of the PPACA. Tinkering with the benefit might be the best consideration of the passage of PPACA and subsequent effects on the Part D drug benefit. A sum of \$250 was provided to Medicare Part D recipients in 2010 to cover some of the "doughnut hole" gap in coverage for eligible seniors. With average prescriptions costing in the range of \$70–75, roughly a 160% increase over costs in 1982, this \$250 amount will not help many in a significant way. The "doughnut hole" gap is set to shrink over a 10-year phase-in of decreases in costs shared by generic and brand-name drug manufacturers. However, as optimistic as this sounds, the reality is that prices can still be increased at will by both generic and brand-name manufacturers during this period, as they have done over the years in which Medicare Part D has been in existence (since January 1, 2006). A recent analysis by the Kaiser Family Foundation (Hoadley et al. 2010) found that, between 2009 and 2010, monthly prices in the coverage gap increased by 5% or more for half of the top 10 brand-name drugs, while the consumer price index for urban consumers (CPI-U) increased by 2.7% and the CPI for medical care (CPI-M) increased by 3.5% between January 2009 and January 2010.

Competing plans are still numerous – less so with Medicare Advantage plans, which were targeted by the PPACA. The www.medicare.gov website was recently upgraded, but the site is still difficult for many seniors to wade through. Part of this difficulty rests with the degree of readability of Medicare materials: this makes understanding difficult for many, not just seniors.

When examining what lies ahead in the USA, one factor is the rapid numerical rise of the population. From the projections seen in the population growth figure estimated through the year 2050 (Figure 2.3), the number of US citizens is projected to increase dramatically over the next decades. A significant increase in those over the age of 65 is apparent. This projected increase of around 50% in the US population between the years 2010 and 2050 will be impacted by health care costs and availability of coverage, but such a large population increase will surely dramatically influence the US health care system. The true effects of the passage of PPACA upon the population remains to be seen: what can be estimated with certainty is that the system of care, insurance for care, payment levels for care, demand for health services, and the availability of health care will all be significantly challenged in the years ahead.

Individuals are covered under Medicare immediately upon reaching the age of 65 years. But approximately 15% of Medicare recipients are less than age 65 years; they may be disabled or eligible for end-stage renal disease



Population growth estimates through 2050. Source: CDC/NCHS, Health, United States, 2009, Figure 1A. Data from the US Census Bureau. Source: National Center for Health Statistics; Health, United States, 2009 With Chartbook on Trends in the Health of Americans, Hyattsville, MD: 2010.

services under Medicare. Even with coverage under Medicare, there are gaps in insurance for necessary health expenditures for recipients. This coverage gap will remain significant for several reasons: more seniors will be eligible for Medicare, and this number will not decrease; expenditures will no doubt increase - there has not been an overall decrease in health expenditures for as long as can be remembered; and the types of services, scope, and intensity will increase with advancements, profitability of such, and demand for more advanced treatments.

Medicare does not pay for many services that are required by recipients. For example, long-term care that is custodial in nature is not covered, whether this is home care or care in a long-term care facility. Dental services are not covered under Medicare, including dentures or routine dental care. Vision services, such as routine examinations, eyeglasses and refractions, are not covered by Medicare plans. Also, hearing aids or hearing examinations are not covered under Medicare. There are no limits (ceilings) for out-of-pocket costs on a yearly basis for Medicare enrollees – many private health insurance plans have such limits for out-of-pocket payments. Many seniors purchase Medi-Gap coverage plans to cover non-covered expenses, but these premiums can be expensive and further out-of-pocket payments are additionally required for the most part.

As can readily be discerned from Figure 2.4, the proportion of the population between the ages of 65 and 74 years is estimated to increase by 50% (from 6% to 9%) by 2050, and the population aged 75 and older will virtually double from 6% of the population in 2007 to 11% in 2050. A key point is that the proportion of those between ages 45 and 64 years, as well as between 18

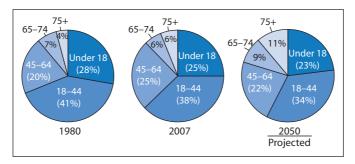
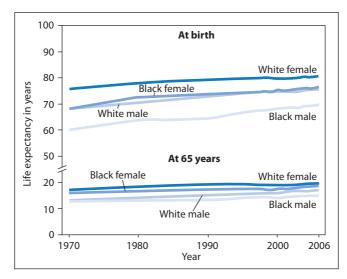


Figure 2.4 Selected population percentages categorized by age. Source: CDC/NCHS, Health, United States, 2009, Figure 1A. Data from the US Census Bureau. National Center for Health Statistics; Health, United States, 2009 With Chartbook on Trends in the Health of Americans, Hyattsville, MD: 2010.

and 44 years, are both decreasing during this projection. The number of eligible individuals requiring Medicare services is increasing dramatically and the proportion of those who will carry the heaviest burden of financing the Medicare program is shrinking as a percentage of the population. These are estimates, it should be noted, but sobering estimates nonetheless. The US CBO provides frequent projections for spending in coming periods. The latest projections point to a projected federal spending in 2020 with a comparison of Medicaid and Medicare percentage of total spending (Congressional Budget Office 2010). Medicare is projected to account for 17% of total federal spending, and Medicaid 8% of total federal spending.

Figure 2.5 provides a view of seniors' longevity in the USA, and the life expectancy for additional years once reaching the age of 65 years. These

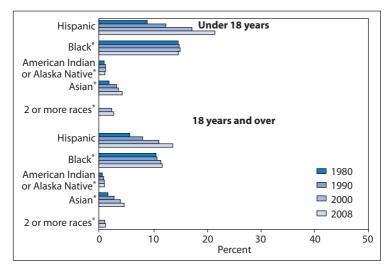


Life expectancy. Source: CDC/NCHS, Health, United States, 2009, Figure 16. Data from the National Vital Statistics System. National Center for Health Statistics; Health, United States, 2009 With Chartbook on Trends in the Health of Americans, Hyattsville, MD: 2010.

figures are broken down further, showing differences between blacks, whites, and gender-specific trends within the two races. People are living longer regardless of race; a more pronounced increase for whites than blacks and gender separation is apparent across the two racial groupings. These trend lines again show the pervasively negative influence of race on aging. But the data indicate above other differences that Americans are living longer, and to ages never reached (on average) before. This will have significant societal ramifications in the long term, not only for health care and health care utilization but for other tangents as well.

Figure 2.6 shows that the proportion of the US population accounted for by African-Americans and Hispanic-Americans is increasing. These increases are noteworthy in that data indicate both groups receive disparate care when compared with whites in the USA. How future health care is delivered more equitably will rest on the shoulders of health professionals, health systems, insurers, and the expectations of all these and the recipients of that care.

The percentage breakdown of those living in poverty in the USA is presented in Figure 2.7 and by race and/or ethnicity in Figure 2.8. A significant number of Americans live in poverty in the USA, and minority populations suffer to a significant degree in comparison with whites. Those with fewer resources, economic and otherwise, do not fare as well as those who are better off in the US health care system. The segments of the elderly living in poverty and children living in poverty are both of considerable concern at present and certainly in the future as well. The dramatic decrease in seniors living in



Breakdown of population by race/ethnicity. Source: CDC/NCHS, Health, United States, 2009, Figure 2. Data from the Census Bureau. National Center for Health Statistics; Health, United States, 2009 With Chartbook on Trends in the Health of Americans, Hyattsville, MD: 2010. \*Not Hispanic.