



Report July 2004



# Challenging Health Care System Sustainability Understanding Health System Performance of Leading Countries



Challenging Health Care System Sustainability: Understanding Health System Performance of Leading Countries  
by *The Conference Board of Canada*

## About The Conference Board of Canada

### We are:

- A not-for-profit Canadian organization that competes for business like any other.
- Objective and non-partisan. We do not lobby for specific interests.
- Funded exclusively through the fees we charge for services to the private and public sectors.
- Experts in running conferences but also at conducting, publishing and disseminating research, helping people network, developing individual leadership skills and building organizational capacity.
- Specialists in economic trends, as well as organizational performance and public policy issues.
- Not a government department or agency, although we are often hired to provide services for all levels of government.
- Independent from, but affiliated with, The Conference Board, Inc. of New York, which serves some 2,500 companies in 60 nations and has offices in Brussels and Hong Kong.

## Preface

*Challenging Health Care System Sustainability: Understanding Health System Performance of Leading Countries* is a follow-up to the *Understanding Health Care Cost Drivers and Escalators* report released by The Conference Board of Canada in March 2004.

The purpose of this report is to provide insights for key decision-makers on the performance, productivity and management practices of health care in other OECD countries. In this report, we focus on Switzerland, Sweden, Spain, France, Australia and New Zealand. The report identifies best practices in these countries and gives possible directions for further analysis.

Support for the report came from Alberta Health and Wellness. In keeping with The Conference Board of Canada's guidelines for financed research, the design and method of research, as well as the content of the report, were determined solely by the Conference Board.



# Contents

---

<b>Introduction</b> .....	i
---------------------------	---

---

<b>Key Findings</b> .....	1
---------------------------	---

---

<b>Health Systems of Leading Countries</b>	
<b>Switzerland</b> .....	11
<b>Sweden</b> .....	25
<b>Spain</b> .....	41
<b>France</b> .....	57
<b>Australia</b> .....	73
<b>New Zealand</b> .....	89

---

<b>Conclusion</b> .....	107
-------------------------	-----

---

<b>Appendix A: International Comparison of Health Indicators</b> .....	111
<b>Appendix B: Socio-economic and Environmental Performance</b> .....	113
<b>Appendix C: Health Expenditure Growth Rate</b> .....	115
<b>Appendix D: Methodology of the Benchmarking Analysis</b> .....	117

---

# Acknowledgements

**Team for the preparation of *Challenging Health Care System Sustainability—Understanding Health System Performance of Leading Countries***

**Authors**

Gabriela Prada, Kelly Grimes, Adele McCleery, Duyen Nguyen, Marie-Pascale Pomey, Valerie Reed, Carole Stonebridge, Glen Roberts

**External Challengers**

Doug Angus, Alberto Holly, John King

**Conference Board of Canada Reviewers**

Charles Barrett, Anne Golden, Gabriela Prada, Gilles Rhéaume, Brenda Lafleur

**Production Management**

Alexandra Butas, Angela Plater, Verena Shapiro

**Editing**

Margot Andresen, Joanne Mathews

**Project Management**

Glen Roberts, Gabriela Prada

**Project Sponsor:**

Alberta Health and Wellness

# Introduction

In March 2004, The Conference Board of Canada released *Understanding Health Care Cost Drivers and Escalators*, a comparison of Canada’s health care system to those of 23 other OECD countries. It found that Canada is the third largest spender on health care, but only a “middle-of-the-pack performer” on indicators related to health status, non-medical factors and health outcomes.<sup>1</sup>

The current report, *Challenging Health Care System Sustainability: Understanding Health System Performance of Leading Countries*, follows up on the Cost Drivers report. It examines five OECD countries whose health care performance was deemed to be among the best: Australia, France, Spain, Sweden, and Switzerland. We also examine New Zealand, although it is not a top performer, because it has managed to achieve excellent performance on non-medical factors.

In looking at these six countries, we seek to answer the question, “Why do their health care systems perform and produce better results than Canada’s health care system—and how do they do so?”

There is no single answer. The six countries differ widely in their approaches to the funding and organizing of their health care systems. To make sense of these differences, for each country we devote a separate chapter to an analysis of the following factors:

- The organization of the country and its health care system;
- The country’s health insurance program and how it is financed;
- The country’s cost drivers and escalators;<sup>2</sup>
- The country’s balance of investments in health, health care and other social programs;
- The major challenges facing each country’s health care system and their implications for Canada; and
- An illustration of how each country’s health care system integrates and delivers health services in the case of a diabetic patient.

*Challenging Health Care System Sustainability: Understanding Health System Performance of Leading Countries* is unique, in that it:

- Looks beyond the issue of the funding and delivery of health care to the broader social, economic and environmental determinants of health.
- Reviews international best practices for managing key cost drivers and escalators.

Canadians will have to make difficult decisions about the level of health care we want, what we are willing to pay for and the delivery methods we will accept. The purpose of this report is to create a platform for debate, by using international best practices as a basis for reflection, discussion and action.

---

<sup>1</sup> A full copy of the Cost Drivers report is available from <[www.conferenceboard.ca](http://www.conferenceboard.ca)>.

<sup>2</sup> Cost drivers are structural forces that have an impact on health care costs, including the effects of population growth, aging, demand, chronic diseases and inflation. Escalators are products and services that have an impact on health care costs, such as pharmaceuticals, home care, new technologies and health human resources.



# Key Findings

There is no single equation that gives the optimal balance between low-cost and high-quality health care. Switzerland's system gives the private sector a prominent role and is expensive. Sweden's system is primarily publicly funded and performs with a high level of co-ordination, regulation and communication. Despite these differences, both countries surpass Canada in health performance. They finished first and second in the Conference Board's recent benchmarking analysis of health indicators, while Canada ranked 13<sup>th</sup> in overall health care performance among 24 OECD countries.

Table 1 shows a summary of the data analyzed in this study. Determining the reasons for the success of health systems is a very complex and challenging endeavour that involves numerous elements. Factors like a country's productivity, resources, competitiveness and genetics go beyond the purview of health care systems; yet their effect on the health of the population can be profound. Nevertheless, certain inferences can be drawn from this study, bearing in mind that these observations relate only to the six countries examined. Our findings are grouped into three categories: structure, workforce and other.

Structural differences relate to the organization of the system, funding, cost drivers and escalators and the degree of competition. We found that:

- While Switzerland is the top performer in health care and has the most expensive health care system, spending more on health care is no guarantee of better health outcomes. Spain, for example, spends considerably less than Canada on health, but is ranked third on health care outcomes, while Canada is in 20<sup>th</sup> place on health care outcomes.
- Contrary to popular perception, 30 per cent of Canada's health spending comes from private sources. Supplementary insurance and out-of-pocket costs cover a wide range of health services and treatments, including physiotherapy, psychotherapy, chiropractors, dental care, long-term care, home care, cosmetic procedures and pharmaceuticals. In fact, our private spending on health care is on a par with Spain and Australia, higher than France and twice that of Sweden.
- Escalating pharmaceutical costs are a concern for all six countries, as well as Canada. While there is no one solution, some countries—like New Zealand—have had considerable success with keeping costs down through strong procurement strategies, supply-side controls (such as prescription size) and the use of price controls.
- The report confirms recent OECD findings that waiting times tend to be longer in countries which combine public health insurance (with zero or low-cost sharing) and constraints on surgical capacity.
- Countries with considerably older populations than Canada—like Sweden, Spain and France—do not have more expensive health systems. While most forecasts suggest that an aging population will make health care costs skyrocket, our findings indicate that there are other determinants involved. In Sweden, for example, pharmacare and extended support services are helping to manage the impact on health expenditures of an aging population. It is important to note that other factors, such as genetics, family support and the use of advanced directives through living wills also affect the final result.
- Every country has some form of user fees. In Canada, we have user fees for many types of products and services, such as pharmaceuticals and physiotherapy. New Zealand places the most emphasis on user fees of any of the countries studied. Patients are not asked to pay for specialists, but do pay a fee for primary health care consultation—a practice which promotes greater hospital use in that country. User fees can be used to promote restraint of the use of health services. However, the use of co-payments in Switzerland has done nothing to encourage restraint, because the payments are small. On the other hand, Sweden applies cost-sharing successfully.

An effective structure depends upon having a highly skilled, productive workforce. We found that:

- When the health care workforce is able to use tools, such as information and communication technologies (ICTs), and participate in continuing education, it results in substantial enhancement to patient care and greater productivity. Swedish hospitals spend 4 per cent of their budget on ICTs, while Canadian acute care organizations spend only between 1.8 and 2.5 per cent. Commitment to ICT can permit electronic health records to be available to every health care provider who deals with a patient, leading to better co-ordination of services and higher quality care.
- In France, where continuing education is a priority, physicians receive 0.5 per cent of the total hospital budget for further training, while other health professionals receive an additional 1 per cent. Sweden shows exceptional support for continuing education programs. For example, physicians are allocated up to 15 per cent of their working time for continuing education and are encouraged to undertake post-graduate programs and engage in research. Comparable figures are not available for Canada. Research by The Conference Board of Canada suggests that Canada under-invests in continuing education in health care.<sup>1</sup>

There are also observable impacts from other influences on health. We found that:

- Countries that have a greater focus on broad determinants of health seem to have better population health status. European countries like France, Switzerland and Sweden have tough laws protecting the environment and also report better health status.
- Countries with a greater commitment to addressing non-medical factors, such as obesity, road traffic accidents and immunization, have better health outcomes. For example, Australia has only a third as many traffic injuries as Canada, due in large part to its intensive campaign to reduce traffic accidents. Its record on immunization for influenza is 78 per cent for people aged 65 and older—the highest of the countries studied.



**Table 1**  
**Summary of Findings**

	Canada	Switzerland	Sweden	Spain	France	Australia	New Zealand
<b>Rankings</b>							
Overall performance of the health system <sup>1</sup>	13th	1st	2nd	3rd	3rd	8th	14th
Health status <sup>1</sup> (infant mortality, life expectancy, disability-free life expectancy, self-reported health status, etc)	5th	1st	5th	2nd	11th	10th	16th
Health outcomes <sup>1</sup> (lung cancer mortality rates, acute myocardial mortality rates, stroke mortality rates, etc)	20th	3rd	6th	3rd	6th	6th	16th
Non-medical factors <sup>1</sup> (body weight, tobacco and alcohol consumption, road traffic accidents, immunizations, etc)	15th	5th	1st	17th	1st	10th	5th
<b>General</b>							
Area size	9,984,670 km <sup>2</sup>	41,287 km <sup>2</sup>	450,000 km <sup>2</sup>	504,782 km <sup>2</sup>	547,030 km <sup>2</sup>	7,686,850 km <sup>2</sup>	268,680 km <sup>2</sup>
GDP per capita (U.S. \$ at PPP)	\$30,300	\$31,891 (2002 est.)	\$26,052	\$22,400	\$26,879	\$27,408	\$24,800
<b>Health Expenditures</b>							
Total expenditure on health (as a % of GDP)	9.7	10.9	8.7	7.5	9.7	9.2	8.2
Total health expenditure (approximate amount in Cdn \$)	\$112 billion	\$50.5 billion	\$34 billion	\$81.4 billion	\$231.8 billion	\$54 billion	\$6 billion
Health spending—total (per capita, U.S. \$ at PPP)	\$2,937	\$3,248	\$2,270	\$1,600	\$2,561	\$2,350	\$1,623
Public/private mix of total health expenditures	70:30	57:43	85:15	71:29	76:24	70:30	77:23
Health spending—public (per capita, U.S. \$ at PPP)	\$2,078	\$1,758	\$1,935	\$1,143	\$1,947	\$1,618	\$1,330
Share of nominal health spending by component, 2001 <sup>2</sup>							
Hospitals	43.9%	47%	58%	52.6%	43%	33%	63.9%
Pharmaceuticals	16%*	13%	15%	21.9%	21%	14%	NA
Increase of total costs of pharmaceuticals <sup>3</sup>	9.3%	11%	7%	10.9%	6.6%	11.4%	3%
<b>Population &amp; Health Status</b>							
Population	31.4 million	7.3 million	8.9 million	40.9 million	60.2 million	19.6 million	3.9 million
Population aged 65+, per cent of total population	12.7	15.6	17.5	17	16.3	12.7	12
Fertility rate	1.49	1.45	1.54	1.25	1.85	1.73	1.9
Life expectancy at birth—males	76.7	77.2	77.5	76.1	75.6	76.6	75.7
Life expectancy at birth—females	82	82.8	82.1	83	83.1	82	80.8
Infant mortality rate	5.3	4.9	3.4	3.9	4.37	5.3	5.8

	Canada	Switzerland	Sweden	Spain	France	Australia	New Zealand
<b>Hospitals</b>							
Are there waiting times for health services?	yes	no	yes	yes	no	yes	yes
Average length-of-stay in hospital <sup>4</sup>	7.2 days	9.2 days	5.0 days	7.5 days	5.5 days	6.2 days	3.3 days
Hospital beds/1,000, 2002	3.2	3.9	2.4	3.2	8.4	3.8	6
<b>Health Human Resources</b>							
Percentage of workforce in health care	7.6	10.1	7.7	4.3	7.5	7.2	8.7
Physicians (Density/1000 population)	2.1	3.5	3.1	3.2	3.3	2.5	2.2
Physicians-general practitioners (Density /1000 population)	1	0.4	0.5	NA	1.6	1.3	0.8
Physicians-specialists (Density/1,000 population)	1.1	2.1	2.2	1.8	1.7	1.2	0.7
Form of compensation of physicians	Mostly fee-for-services	Mostly fee-for-services	Mostly salaries	Mostly salaries	Mostly fee-for-services	Mostly fee-for-services	Mostly fee-for-services
Nurses (Density/1,000 population)	9.9	10.7	8.8	6.9	7.0	10.3	8.53
Participation rate in all continuing education and training	29 %	42 %	54 %	NA	NA	36 %	46 %
<b>Non-medical Factors</b>							
Body weight (per cent of population aged 15+ with a BMI > 30)	14.9	6.8	9.2	12.6	10	20.8	17
Road traffic accidents—Injured per million population	7376	4184	2510	3751	2317	1939	3183
Per capita sulphur oxide emissions (kg/cap)	89.7	3.9	8 <sup>5</sup>	40.4 <sup>5</sup>	14.2 <sup>5</sup>	95.8	11.6 <sup>5</sup>
Immunization: D.T.P.—percentage of children immunized	84.2	94	99	98	98	91.8	88.7
Immunization for influenza for ages 65 years and older, 2000 (per cent of population)	63	46	NA	56.1	65	78	62
<b>Innovation</b>							
R&D as a percentage of GDP	1.85	2.63	4.27	0.96	2.20	1.53	1.03
MRI units ( per million population)	3.5	12.9	7.9	5.7	2.6	4.7	2.6
<i>Data shown is from 2003 or most recent year available</i>							
* Total public and private pharmaceutical costs are 16 per cent of the share of nominal health spending (2001).							
<sup>1</sup> As per The Conference Board of Canada's Research.							
<sup>2</sup> Must be interpreted with caution, as countries have embraced different definitions, and therefore, information may not be consistent (e.g., some might include LTC and psychiatric hospitals, while others would only refer to acute care).							
<sup>3</sup> Limitations on data availability resulted in the use of average annual compound rates over a period of time, in some cases, and annual increases from one year to the next, in other cases.							
<sup>4</sup> Must be interpreted with caution, as definitions may vary among the countries and the mix of rural/urban population might have an impact on the average.							
<sup>5</sup> Includes sulphur dioxide only.							
Source: The Conference Board of Canada; OECD.							

## SWITZERLAND

Switzerland ranks first in overall health care system performance and is also the second highest total spender on health care at 10.9 per cent of GDP, compared to Canada at 9.7 per cent.

Although Switzerland is one of the top spenders in health care, it is not one of the elite performers when it comes to economic performance, as indicated in the Conference Board's report, *Defining the Canadian Advantage: Performance and Potential 2003-04*. The Swiss want a high quality health care system—one that guarantees them access to care—and they are prepared to pay for it. Only 57 per cent of Swiss health care is publicly funded and this figure has been decreasing.

Health costs have increased as a result of high levels of supply and use. Although co-payments for health services are used in Switzerland, they have not been effective in encouraging patients to exercise restraint in their use of the system. In part, this is because the payments are small.

Like Canada, Switzerland's health care system is decentralized to 26 cantons and 2,900 municipalities, resulting in 26 slightly different systems. The Swiss health care system covers a wide spectrum of health care services. This large, expensive system is financed through a compulsory health insurance premium that is federally regulated. The system is standardized within cantons and not dependent on income. Unlike the Swiss private and semi-private insurance packages, the public system cannot be risk-adjusted.

Wait times are not a problem in the Swiss health care system, partly because it has a high concentration of technology equipment. For example, Switzerland has 12.9 MRI units per million of population, while Canada has 3.5. The country also has a high ratio of hospital beds, 3.9 per 1,000 of population, as compared to 3.2 per 1,000 of population in Canada. The lack of waiting time may also be related to competition among public and private providers to offer acute care services to patients.

Switzerland has achieved gold-level performance in several key areas where Canada's performance is bronze-level. The country's elite status has been

achieved by pursuing targeted federal strategies, coupled with efficient regulatory measures. For example, since the 1980s, Switzerland has demonstrated significant declines in emissions of air pollutants and, in particular, reductions in sulphur oxide emissions. The Swiss government also has a well-co-ordinated program for controlling communicable diseases that has led to excellent rates of immunization for diphtheria, tetanus and polio (DTP)—94 per cent in 2001, compared to 84 per cent for Canada the same year.

## SWEDEN

Sweden ranks second in the performance of its health system, as it does in education, society and health determinants. The country's extensive social welfare traditions provide a supportive environment for these government priorities.

While the Swedish health care system is 85 per cent publicly funded, health costs account for only 8.7 per cent of GDP, which means that Sweden's total health expenditures are lower than Canada's on a per capita basis. Almost 60 per cent of Sweden's health budget is spent on hospitals (compared to 43.9 per cent in Canada in 2001). In Sweden, citizens share the responsibility for health care costs through co-payments for health services. Those who cannot pay are provided with social support to cover their health needs, ensuring equal access to services.

The Swedish government has emphasized fiscal responsibility for health care, locking its national health budget into place for three years. Political and administrative leadership in the 1990s, concerned about rising health care costs, made tough decisions that led to a significant fall in the number of acute care and psychiatric beds, as well as improved outpatient care. These serious budget cuts also resulted in a substantial decrease of the health workforce. Eventually, these measures achieved more manageable and stable health care costs.

In order to control increasing pharmaceutical costs, the Swedish government issued a directive that generic comparator pharmaceuticals be used, provided patients agree. If patients choose more expensive drugs, they are

expected to pay the price differential. Physician prescription patterns are continually monitored electronically to ensure that they follow the government's recommendations.

There is a high degree of co-ordination behind this smoothly running system. Contracts between levels of government play a significant part in clarifying roles and ensuring co-operation. Health care guarantees ensure that Swedes have adequate access to health services and treatment; for example, there are no waiting times for diagnostic procedures.

Excellent internal and external communications also support co-operation and an integrated approach to services. Swedish hospitals invest 4 per cent of their budgets on ICTs, as opposed to Canadian acute care facilities, which invest only 1.8 to 2.5 per cent. Electronic health records are on-line in every hospital and primary care centre.

Sweden has the oldest population and one of the highest life expectancies in the world. In order to mitigate the impact of aging on health care costs, Sweden has successfully implemented support programs for seniors, including geriatric services, extensive home support programs and social support for the elderly who can still care for some of their own needs.

Sweden has a high doctor-to-patient ratio, with 3.1 physicians to every 1,000 of population, compared to Canada at 2.1. Physicians and nurses are primarily paid salaries. Physicians earn between \$9,000 and \$12,000 Cdn per month, and a nurse's average monthly salary is \$3,500–4,000 Cdn.

Despite the fact that wages are lower than in Canada, Swedish health workers seem satisfied. This can be attributed, in part, to reasonable working times and flexible work arrangements. Sweden also offers high quality health work environments that are comfortable and pleasant.

Sweden shows exceptional support for continuing education programs. For example, physicians are allocated up to 15 per cent of their working time for continuing education and are encouraged to undertake post-graduate programs and to engage in research. All of

these factors contribute to motivating staff and giving them a sense of pride and social responsibility.

Sweden places great importance on supporting determinants of health. The government's focus on environmental quality and education are two examples. There is also extensive support for public health and health promotion programs. A remarkable 99 per cent of Swedish children have received DPT vaccine.

## SPAIN

The Spanish health care system ranks third among OECD countries. Unlike Canadians, Spaniards have expressed increasing satisfaction with their health care system, which provides them with primary care, specialty care, pharmaceuticals and complementary benefits (excluding dental care).

Social security and health account for two-thirds of social expenditures of the central state. In recent years, public health care expenditures in Spain have been decentralized to regional health areas (or authorities). These health areas are 98 per cent financed through general taxation and their expenditures account for 7.5 per cent of GDP. Cost containment agreements have helped to keep health expenditures under control. Public health expenditures in Spain account for 71 per cent of total health care costs, while private expenditures account for 29 per cent.

Hospital budgets are fixed, and hospitals and specialized care account for 52.6 per cent of the overall health budget. Hospitals are largely focused on acute care, with 3.2 beds per 1,000 of population—the same rate as Canada. Computer information systems are gradually being introduced in hospitals, but are only used to a limited degree in primary health care centres.

Public and private health care providers in Spain work together to cover public health care needs, without much competition between the two models. Spanish citizens enjoy almost universal health care coverage (99.4 per cent), and this will become increasingly important, as the population ages. One area of weakness, in response to this trend, is the very low level of home care available.

The OECD reports that Spain has waiting times for surgery. Spain has been managing this issue with a mixed policy approach. The country's policies include an increased role for private hospitals, incentives for patients (those who have to wait longer than six months for surgery can choose private hospitals), and incentives for physicians to work in off hours. There are also surgical guidelines, with a priority ranking system given to different types of surgery.

One area where Spain has excelled at keeping costs down is pharmaceuticals; they are managed by significant regulation of pricing, supply and distribution. The Spanish health ministry publishes a "negative list" of drugs that are excluded from public funding. Commercial prices have been reduced, influenced by the greater use of generic products and the application of discounts. Nevertheless, users pay 40 per cent of their drug costs, reducing the amount spent on pharmaceuticals.

Reforming primary care networks even further is an important focus for the system. Extensive primary care networks, integrated with public health efforts, have effectively increased immunization levels.

Most health care workers are paid fixed salaries. Spain has 3.2 physicians per 1,000 of population and 6.9 nurses per 1,000 of population. Wages of health personnel employed in the public health system represented about 44 per cent of the health care budget in 2001.

Spain has gold-level performances in two health determinants. The first is DPT immunization, which has achieved a rate of 98 per cent. The second is mortality and potential years of life lost (PYLL) due to lung cancer in women. The level of lung cancer among Spanish women is dropping, while it continues to go up in several comparator countries, including Canada. Canada could learn from Spain's campaign to target primary health care delivery, document smoking habits and set specific national targets.

## FRANCE

France ranks first among OECD countries for its health care system, according to a World Health Organization report published in 2000 and third, according to Conference Board research (*Understanding Health Care Cost Drivers and Escalators, 2004*). And yet, some challenges to public health exist, as evidenced when 11,000 people died during a record-breaking heat wave in the summer of 2003; a number of factors contributed, including a lack of emergency preparedness and leadership.

Health expenditures account for 9.7 per cent of the country's GDP. However, the public health care system is facing chronic deficits and the tax burden for French citizens is one of the highest in Europe. There are a number of reasons for this, including the high cost of labour, labour market requirements (a mandatory 35-hour work week) and restrictions on layoffs and pension reform.

The French health care system suffers from some of the same problems as the Canadian one. The system is characterized by having too many players and not enough clarity about the division of responsibilities. Too much weight is given to the treatment of illness, and not enough to prevention.

France's health care is administered through 22 regional health bodies. The French health system combines elements of private and public care. Public funding covers 76 per cent of total health costs, while public funds correspond to 24 per cent. Several factors, such as aging, technology and pharmaceuticals, have resulted in a growing role for the private sector.

There is a two-tiered health insurance system that includes basic mandatory public coverage and supplementary insurance; both employers and employees pay health insurance contributions. The system covers medical, surgical, pharmaceutical and hospital costs.

Half of health care is delivered by public hospitals and private clinics. Public hospitals are the core of the health care system, which is funded out of an annual general budget from regional health authorities. French hospitals

have 8.4 beds per 1,000 of population, more than double Canada's 3.2 beds per 1,000 of population.

Pharmaceuticals are a key driver of the overall increase in total health spending. The government has introduced strategies for controlling these costs, such as a national policy on pharmaceuticals. This includes directives that 10 per cent of the least costly drug alternatives be used and that 3 per cent of drugs prescribed must be generic (the generic drug market represents 5 per cent of pharmaceutical sales). One of the shortcomings of this plan is the fact that there is very little incentive for physicians to control pharmaceutical expenditures.

The government has also signed one agreement with drug firms to limit drug expenditures, in general, and another four-year agreement that specifies the drugs that are to be used in hospitals.

The ratio of physicians to population more than doubled since 1970, jumping from 1.3 per 1,000 of population in 1970 to 3.3 per 1,000 inhabitants in 2000. In the same period, specialists increased from 43 per cent of all doctors to 51 per cent.

There has been a strained relationship between physicians and the government since 1996, when a legislated ceiling was imposed on doctors' fees. This is especially important, since doctors who work in hospitals are salaried employees.

France has a nursing shortage—the system is estimated to be short 10,000 nurses at present. There are currently seven nurses to every 1,000 of population, compared to Canada at nearly 10. In hospitals, these nurses are salaried, while nurses in private practices receive a fee-for-service. Hospitals spend 1 per cent of their budget on training and professional development, with physicians allotted 0.5 per cent for continuous medical education.

One of the more surprising health facts about France is that there is a 7.5 year difference in life expectancy between men and women, partly because of an unusually high mortality rate among men, due to violent deaths from fatal accidents, suicide and homicide. France also has a high consumption rate for both alcohol and

tobacco. Yet, life expectancy is one of the highest among OECD countries.

## AUSTRALIA

Australia is fourth in the world in its economic performance. Confirming the fact that health care spending is closely linked to economic performance, Australia spends 9.2 per cent of its GDP on health care expenditures.

The Australian health care system is a complex mix of public and private mechanisms, both for funding and delivery, built on the premise that Australians should contribute to the cost of health care according to their ability to pay. Public health care accounts for 70 per cent of expenditures and private care for 30 per cent.

This country faces many similar challenges to Canada, from providing access to health care in remote regions to servicing the particular health concerns of its Aboriginal population.

Health care agreements between the Commonwealth and state governments for hospital services are negotiated and signed every five years. Public hospitals are funded through case-mix funding and performance criteria. The parallel private system rebates 75 per cent of medical services, but the patient must pay the full cost of accommodation. Bulk billing by physicians allows the patient to pay nothing, since the physician bills medicare directly. If the physician does not subscribe to bulk billing, a co-payment is required. Remote and rural areas tend to have higher co-payments.

The Australian system, like Canada's, controls its demand for health care by managing the supply. Consumer/provider expectations, technological advancement and aging are the factors driving health costs.

The Pharmaceutical Benefits Scheme (PBS) provides subsidized drug prices for Australian residents. A PBS safety net gives a threshold for medicine in a given year, but it is the universal system that controls the overall pharmaceutical costs through the use of generic drugs.

Laboratory costs are kept down by the state paying only for the three most expensive tests ordered per illness episode. Pathologists and radiologists have agreed to price per volume schedule fees. The Medical Benefits Scheme (MBS) and PBS have standardized physician and pharmaceutical costs. Labour accounts for two-thirds of all health expenditures.

Forty per cent of all physicians in Australia are general practitioners (GPs). The rate of 2.5 physicians per 1,000 of population is fairly low, but comparable to Canada. Most GPs are part of private practice groups and there are very few nurse-practitioners to alleviate demand. A small number of public hospitals are operated by the private sector.

Australia is currently pilot-testing a national electronic record network, Health Connect, to improve service and keep demand down.

The Australian government has focused, with considerable success, on decreasing smoking rates, increasing immunization and reducing road traffic accidents. Australia currently has the highest rate of immunization for influenza of all OECD countries. The reduction in the number of road traffic accidents can be attributed to reduced speed limits, increased enforcement, and increased supervised driving practices.

Australia offers high-quality, universal health care and has strong health promotion policies that have produced results. Life expectancy has increased in Australia because of lower infant mortality rates. There are fewer deaths due to traffic accidents and there are lower rates of heart disease, due to smoking and dietary changes.

## NEW ZEALAND

A silver-level performer in overall health, New Zealand ranks sixth in economic performance. The health care system in New Zealand is more limited than in most other OECD countries, covering hospital and specialty services, without full primary care coverage. One of the few countries with user fees for primary health care, New Zealand provides people with lower incomes with a community services card to offset the

cost of health care, since there is no social insurance plan.

District Health Boards act like regional health authorities. They use a weighted population-based formula for funding and a balanced scorecard approach to accountability. New Zealand's health care system is 77 per cent publicly funded, mainly through taxation. Twenty-three per cent is privately funded, primarily by user fees. Health care expenditures account for 8.2 per cent of the country's GDP.

The government's reliance on user fees, lack of access to care, insufficient availability of services and shortage of health care professionals have led to inequalities among population groups and safety concerns.

Although a patient has an average length-of-stay in hospital of only 3.3 days, there are 6 beds for every 1,000 of population. In other words, New Zealand has twice as many hospital beds as Canada, but patients only spend half as much time in hospital. Part of the reason is a direct result of user fees (approximately \$30 Cdn for a visit to a GP). People are reluctant to visit the doctor and often leave symptoms too late. Instead, many choose to present themselves in public hospital emergency rooms for treatment, since they do not have to pay and will be seen immediately.

Private hospitals do not provide highly specialized care. The public health care system covers in-patient care and outpatients of public hospitals. It subsidizes pharmaceuticals, laboratory and X-ray tests. Specialists are paid a salary in the public system.

Primary health care is dominated by a private, for-profit general practice—60 per cent of health income comes from patients and 40 per cent from the public purse. New Zealand has a low ratio of physicians to patients—only 2.2 physicians per 1,000 of population.

Seventy per cent of the cost of delivering public health care in the country is spent on the wages of health care workers. New Zealand is on the verge of a health care workforce crisis. Policies are being put in place to develop the role of nurse-practitioners, increase medical school positions, and improve recruitment and retention.



One government agency, Medsafe, regulates drugs and another, Pharmac, sets formulary and price. This gives Pharmac considerable bargaining power. New Zealand has controlled the cost of pharmaceuticals through the implementation of supply-side controls and the use of reference pricing, which has been very successful. On average, the cost of pharmaceuticals increases by 3 per cent per year, which is noteworthy, given that the rate of annual increase in Canada is 9.3 per cent.

The Government of New Zealand is focused on population health issues, such as decreasing the prevalence of smoking and improving nutrition, as well as implementing a national influenza immunization strategy. In addition, the Ministry of the Environment sets guidelines for sulphur dioxide emissions. The government is also engaged in a cancer control strategy. The government has successfully lowered the incidence of road traffic accidents, following a series of educational programs targeting drivers.

## CONCLUDING THOUGHTS

Decision-makers have to make choices about the level of health care that Canadians are willing to pay for and the delivery methods they will accept. This study demonstrates that there are many possible approaches, and that international experiences provide Canada with examples of good practice to consider, as well as the ones to avoid.

How do other countries manage to perform so well? The answers lie in decisions made by health care leaders and managers. These systems share the following characteristics:

- Strong and dedicated leadership willing to make tough decisions and focus on critical issues in order to continually improve the health care system;
- A dedicated, flexible and motivated workforce that is also willing to accept decisions that balance their own objectives with legitimate public interest; and
- A public that has realistic expectations of which services the health system can provide and is engaged in improving personal health.

Health care systems are complex, but they are adaptable. They only require clear direction.

---

<sup>1</sup> Janice Cooney and Allison Cowan, *Training and Development Outlook: Canadian Organizations Continue to Under-Invest* (Ottawa: The Conference Board of Canada, 2003).



## HEALTH SYSTEMS OF LEADING COUNTRIES

# Switzerland



Switzerland lies in the centre of Europe and is similar in size (41,287 km<sup>2</sup>) to the province of Nova Scotia. With few natural resources of its own, the country has attained prosperity mainly through technological expertise, exporting, tourism and finance.<sup>1</sup> Consisting of four principle language communities—German, French, Italian and Romansch—its Gross Domestic Product (GDP) per person in U.S. dollars is \$31,891,<sup>2</sup> compared to \$30,300 in Canada.

### ORGANIZATION OF THE COUNTRY

Switzerland is officially known as the Swiss Confederation, and is a federal republic with three levels of government. At the federal level, legislative authority resides with the 200 members of the National Council, who are elected from each canton (a political entity equivalent to the provinces of Canada), in proportion to its population. In addition, the Council of States consists of two elected members from each canton. The senior executive body is the Federal Council, which consists of seven members (ministers) of equal rank and, since 1959, it has been composed of members of the four largest political parties,<sup>4</sup> working as a collegiate, rather than a coalition.<sup>5, 6</sup>

Since 1979, Switzerland has been divided into 23 cantons and three demi-cantons, each of which differs, with respect to size and population. They are sovereign in all matters that are not specifically designated as the responsibility of the federal government. Each has its own constitution, legislature and executive, which is elected every four years, and the right to call a referendum and organize popular petitions.<sup>7</sup> Switzerland also has about 2,900 municipalities, which can formulate policies in many areas and have responsibilities conferred upon them by the cantons.<sup>8</sup>

### ORGANIZATION OF THE HEALTH CARE SYSTEM

Historically, the Swiss Confederation had little legislative power in the area of health and welfare. The federal government's powers are limited to health and disability insurance, public health, the regulation of training in health-related professions, and upholding the constitutional guarantee that all service providers are free to operate anywhere in the country.<sup>9</sup> (See Exhibit 1).

Each canton has power over regulation, hospital accreditation and finance, as well as disease prevention, the provision of care, health education, the implementation of federal laws, and the authority to delegate responsibility to the numerous municipalities. As a result, there are 26 health care systems in the country, each having slight differences from the other.

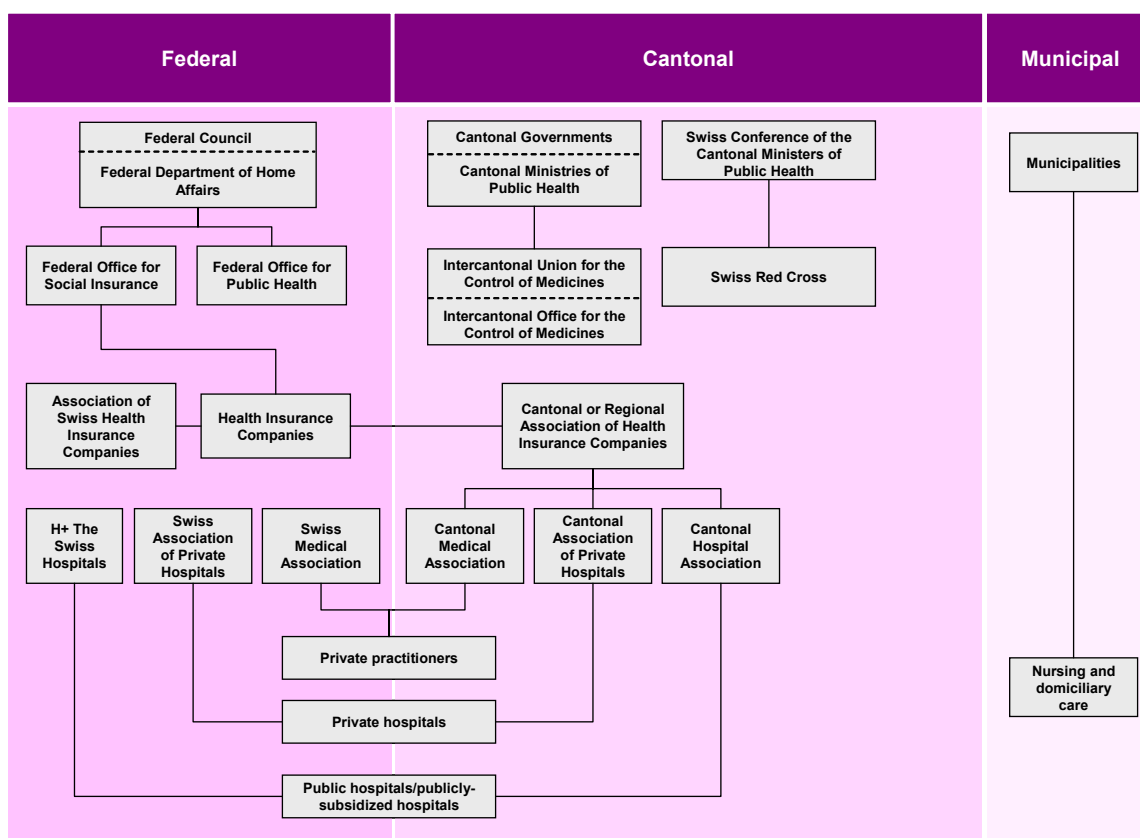
There have been many attempts to achieve a common health policy. In 2001, the Swiss Health Observatory was established to compile and distribute health care information, and to provide support through planning, decision-making and other activities. It reports to the Steering Committee of the National Health Policy project, which is made up of cantonal and federal authorities.

Most cantons operate their own hospitals and some also subsidize private ones. In addition, there are private clinics that do not receive any support.<sup>10</sup> The canton can provide nursing and home care services, or delegate the responsibility to the municipalities. But, the canton is still responsible for licensing the providers of these services. In addition, cultural differences influence consumption rates between French-speaking and German-speaking cantons, and between urban and rural areas. Notably, French-speaking cantons consume the most services.<sup>11</sup>

The revised health insurance law opened the door to alternate models of care and, as a result, there has been some movement towards two model types: Health Maintenance Organizations (HMOs) and GP Physician Networks. The major insurers in Switzerland have HMO divisions that employ salaried physicians. In 1998, the first physician-owned HMOs began to offer basic insurance coverage with reduced premiums. The GP Physician Networks serve as gatekeepers for insurers and work toward reducing unnecessary hospitalization.

The physicians in these networks share in the profits/losses of the plan and are paid on a fee-for-service basis. Although the Swiss see great promise for greater efficiency through the growth of more of these types of managed care, the actual incentive remains quite low, due to regulatory restrictions on profit-taking for basic insurance and a cap on premium reductions for joining an HMO. In fact, after an initial period of rapid growth of these models, enrolment has stagnated and only 7 per cent of the population remains in these networks.

**Exhibit 1**  
Organizational Chart of the Swiss Health Care System



Source: European Observatory on Health Care Systems.

## Health Insurance Program

In 1996, a revised health insurance law (LAMal) was introduced that guaranteed all Swiss residents basic health insurance coverage.<sup>12</sup> This new legislation injected a degree of competition into the health system, as both insurers and providers must compete for patients

as customers. At the same time, the Swiss parliament suggested premiums should not exceed 8–10 per cent of a household's income with the stipulation that individuals of modest financial means be entitled to state assistance with premiums (shared between the confederation and the cantons). The degree of assistance depends on the home canton; this has led to horizontal

inequalities. There is current debate about the revision of LAMal, to correct for this inequality.

The health insurance system has three components:

1. *Compulsory Basic Social Insurance (CBSI):*

This includes standardized services offered throughout the federation, such as the cost of medical treatment in the canton of residency, in-patient and outpatient care, care for the elderly, care for the physically and mentally handicapped, unlimited stays in nursing homes and hospitals, and approved alternative and complementary medicines. The premiums are federally regulated, but are not fixed; they must be independent of parameters such as income and gender. Premiums are based on estimates of health care expenditures in each canton and therefore, they vary on a regional basis.<sup>13</sup> Of note, is that all sickness funds must charge this same community-rated premium contribution to all of their adults over the age of 25 living in the same canton. Insurance must be purchased for each individual (including children), and there is no family premium. Insurance companies that provide this compulsory health insurance coverage are registered with the Federal Office for Social Insurance, to which they are accountable. They are not allowed to make a profit on the compulsory portion of the services they offer, nor can they refuse coverage to an applicant. In addition to the premium, patients must make a co-payment in the form of an annual minimum deductible (*franchise*), typically in the range of SwF 300 for adults, with options for a higher deductible/lower premium mix. In addition, there is a charge of 10 per cent (maximum SwF 600) for all ambulatory medical costs. A co-payment for hospital treatment of SwF 10 per day is levied on single-occupant households.

2. *Supplementary Insurance:*

This private or semi-private insurance coverage can be purchased for treatments that are not covered under the CBSI system. This includes certain dental care and risk-related procedures, as well as private hospital rooms. In 1997, this type of coverage financed 11.2 per cent of total health care costs in the country.

3. *Sickness, Old Age and Disability Insurance:*

Funded through mandatory, income-based employer/employee contributions, this coverage financed close to 7 per cent of health care expenditures in 1997.<sup>14</sup>

Health providers are financed primarily through payments from insurance companies or direct payments from the patient.

## Health Services Financing

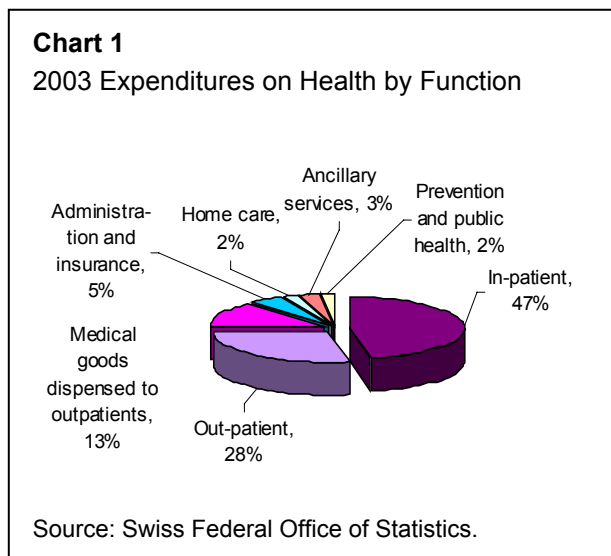
The complexity and extent of the Swiss health care system inevitably involves many contributing costs. The most recent figures from the OECD reveal that Switzerland is second only to the United States, as the most expensive health system in the world. As a percentage of GDP, health care spending has risen progressively from 8.5 in 1990, to 10.9 in 2001. This reflects a real annual per capita growth rate of 2.4 per cent. The recession of the 1990s and the economic downturn since 2000 have raised concerns about the sustainability of this level of health spending. As a result, the balance of investment in both the health system and the broader social system are being closely scrutinized for cost savings and efficiency gains.

The health care system in Switzerland is financed largely through compulsory health insurance premiums and a mix of public and private insurance plans. Federal, cantonal and municipal subsidies from tax revenues are used to fund hospitals, in-patient and outpatient care.

While health care in Switzerland is accessible and of high quality, at a rate of 10.9 per cent of the GDP in 2001,<sup>15, 16</sup> the cost is higher than it is in most other countries. In addition, over the past 20 years, there has been an increase in private expenditures, as indicated in Table 2.<sup>18, 19</sup>

<b>Table 2 Public and Private Expenditures on Health</b>		
	<b>1980</b>	<b>2001</b>
Public	65.1%	57.1%
Private	32.4%	42.9%
Source: The European Observatory on Health Systems; World Health Organization.		

Decisions about health budget allocations provide some insight into the potential sources of cost overruns and inefficiencies. As seen in Chart 1, in-patient hospital care (47 per cent) consumes the largest share of spending. In Switzerland, the average hospital length-of-stay is 9.2 days, second only to Germany in the OECD.<sup>20</sup> The impact of payment schemes (private care providers and public institutions) may also create some incentives for increasing the amount of medical service.<sup>21</sup>



Hospital expenditures and the surplus of facilities in the Swiss system have been examined by the cantons of Bern and Fribourg, and have also been the subject of a recent study at the University of Lausanne. The research suggests that a dramatic reduction in the number of hospitals would not affect the quality of care and would reduce the overall investment made in hospital care.<sup>22</sup>

The demand for medical services is channelled through the insurance system that guarantees an individual access to the health care system. Efforts to restrain spending and improve efficiency depend on the incentives available to insurers to negotiate better prices and terms with service providers.<sup>23</sup> The absence of

regulation of both price and supply of services is considered to be an important factor behind cost and supply-driven pressures on the health care system.

Payments for public hospitals create incentives for increasing the quantity of medical care. Prices are negotiated between insurer and provider associations in each canton. The providers' remuneration is largely based on the number of medical interventions (fees-for-service), or days of hospitalization, rather than on diagnosed medical conditions (outcomes). As costs tend to be higher at the start of a stay in hospital, rather than at the end, there is a financial incentive to lengthen the time spent in hospital. Hospitalization prices paid by insurers for those with only CBSI coverage are less than full cost, with the remainder charged to the cantons, creating a further incentive to use hospitals.

Since all insurers must accept bills directly from certified physicians, this further reduces their incentives to pressure suppliers to reduce costs. On the demand side, low co-payments of 10 per cent by patients do nothing to encourage them to contain their demand for services, nor does it give insurers an incentive to contain demands.<sup>24</sup>

## MANAGING COST DRIVERS AND ESCALATORS

The main drivers influencing the sustainability of the current level of health care services are: changes in the population structure, the state of the economy, pharmaceuticals, the regulation of some sectors, and the demand for services. Other important elements that also have an influence in the costs of health services include competition, the emerging importance of mental health, technology and e-health.

## Demographics

In 2003, the population of 7.3 million was distributed as shown in Table 3.

<b>Age Category</b>	<b>Distribution</b>
0-14 years	16.6 % (Male: 623,428 Female: 591,709)
15-64 years	67.8% (Male: 2,519,302 Female: 2,439,560)
Over 65 years	15.6% (Male: 470,257 Female: 674,382)

Source: Central Intelligence Agency (CIA).

In the period 1970–1997, the population of Switzerland showed a 15 per cent reduction in the size of younger age groups and a clear increase in the number of people aged 30–54 years, and over 60 years (22.1 per cent were over 60 in 2002, up from 19.4 per cent in 1992). With a population growth rate of only 0.21 per cent, a fertility rate of 1.45, and a migration rate of 1.37 migrants per 1,000 of population, over the next 30 years, old age and health expenditures will steadily gain in importance.<sup>25</sup> As age-related illness and disabilities increase, there will be increased pressures on the cantons and municipalities will increase, too.

## General Economy

The growth rate of GDP in Switzerland over the past 20 years has been only 1.25 per cent, compared to the OECD average of 2.75 per cent. The global slump in demand for financial and capital goods, which are very important to the Swiss economy, along with a decrease in exports and depressed domestic demand, have led to a recession. The unemployment rate reached a five-year high of 4.1 per cent in March 2004. In this negative economic environment, health care expenditures have grown faster than the Swiss economy.<sup>26</sup>

## Home Care

Home care in Switzerland (known as Spitex services), has been one of the most significant additions to the compulsory insurance plan. Most municipalities have delegated the responsibility for service provision to independent organizations. Insurance companies will pay the full cost of nursing care, if the provider has a

standardized cost accounting system in place. Coverage is quite comprehensive, but is subject to regional variation; supplementary benefits or out-of-pocket payments make up the difference, when coverage is not sufficient. Nursing home and Spitex services have been responsible for the rising expenditures of health insurance companies.<sup>27</sup>

Eighty per cent of home care services are provided by private, non-profit organizations; 13 per cent of these are communal organizations. The majority of home care facilities (59 per cent) provide nursing services that are prescribed by doctors and covered by insurance, as well as meals-on-wheels plans, which are not covered by insurance. Forty per cent of home care facilities provide additional services, such as transportation and counselling. There has been a massive shift from residential accommodation (without nursing care) to accommodation with light-to-intensive nursing care provided in the home.<sup>28</sup>

While there are also residential homes for the aged, as well as nursing homes,<sup>29</sup> caregivers earn pension entitlements based on the length of time for which the care is provided. They are also eligible for supplementary benefits if they provide care for longer than three months.

## Pharmaceuticals

Pharmaceutical expenditures increased by 11 per cent in 2002,<sup>30</sup> which is a much higher increase than the rate for total health spending. This is partly due to financial incentives to prescribe a lot of drugs—expensive products, of which only 3 per cent are generic—and the absence of regulation over the drug market. Another factor is that many of the large brand-name pharmaceutical firms operate in Switzerland. About 33 per cent of all medicines sold are produced in Switzerland and 67 per cent are imported.

The Inter-cantonal Office for the Control of Medicines is responsible for the registration of all drug products. The price structure is set by the “Sanphar,”<sup>31</sup> which determines the manufacturer’s selling prices, as well as wholesale and retail prices. Pharmacists dispense about 62 per cent of all medicines and earn more from dispensing expensive, rather than lower-cost, drugs.

Doctors dispense about 20 per cent<sup>32</sup> of all medicines and receive a regressive margin,<sup>33</sup> which is determined by the retail price of the drug.

## Health Workforce

With a ratio of 3.5 physicians (compared to 2.1 for Canada) and 10.7 nurses per 1,000 of population, Switzerland has an abundant supply of care providers, compared to other OECD countries.<sup>34</sup> Independent practice doctors provide most ambulatory care. In 1998, 56 per cent of doctors were based in private offices; 36 per cent of them were GPs, and 46 per cent were specialists.<sup>35</sup> The physician to population ratio has been considered too high by policy-makers and, as a result, many universities have adopted more stringent entrance standards for medical school.

Doctors and allied health professionals who work in an ambulatory setting are paid on a fee-for-service basis. Fees are negotiated annually between the insurance company and professional associations. All medical-related professions have a national fee schedule. In the private sector, prices are typically aligned with the national schedule. Most hospital doctors are employed directly by the hospital and are salaried. Switzerland has an exceptionally high number of outpatient contacts and this is a challenge for policy-makers. The high density of doctors, freedom of choice of doctor, fee-for-service payment scheme, and, the cultural tendency for high use of health services are all contributing to the rising number of doctor consultations per person.<sup>36</sup>

While the number of pharmacists is similar to other countries, some physicians in Switzerland are also authorized to dispense medication.

## Demand

The Swiss typically have high expectations of their health care system and, although there is recognition that spending must be contained, the government has not imposed expenditure caps, as yet. Health service use rates differ among the cantons, with distinct regional variations. Public demand for newer and more expensive pharmaceuticals has an impact on increasing health costs. The elderly dependency ratio in Switzerland is expected

to increase from 23.5 to 43.5 per cent by 2035.<sup>37</sup> Clearly, this trend will have an impact on health service use rates.

## Other Costs Drivers and Escalators

### MENTAL HEALTH

Research published by the Swiss Health Observatory showed that half of all Swiss suffer from psychological problems at some point in their lives and one in 10 has tried to commit suicide. In the 10-year period of 1990–2000, the number of people claiming disability benefits doubled—and one-third of those qualifying for the benefit cited mental health reasons.<sup>38</sup> As a result, mental health has become a priority in the development of the national health policy. The Swiss Health Observatory is monitoring four key areas (epidemiology, psycho-social determinants, repercussions of mental illness and professional treatment)<sup>39</sup> and is also investigating the impact of mental health problems on the economy.<sup>40</sup>

### TECHNOLOGY AND E-HEALTH

The Swiss Health Observatory project, initiated in 2001, optimistically projected that over the next 10 years, the application of the Internet to health care will bring about sweeping changes in the health care system. Ideally, by providing effective, low-cost assistance and a back-up for professional health care providers, these technological developments will have a significant impact on the scope of health care services.<sup>41</sup> However, the implementation of E-Health is known to be costly and developments in this regard have been slow to develop.

## BALANCE OF INVESTMENTS IN HEALTH, HEALTH CARE AND OTHER SOCIAL DETERMINANTS OF HEALTH

Table 4 highlights the key socio-economic and environment rankings for Switzerland, according to The Conference Board of Canada's *Performance and Potential 2003-04: Defining the Canadian Advantage*. Compared to the other countries in the report, Switzerland is a high performer, in terms of health determinants, and it is also among the top countries for innovation. The priority given to these areas, in terms of



investment, policy and regulation are reflected in these rankings.

of \$3.1 billion. Unemployment and social assistance expenditures rose steeply in the 1990s. The trend in social investment as a percentage of GDP is detailed in Table 5, which illustrates that total social expenditures (including health care) increased from 19.8 to 28.8 per cent in the period of 1990–1998.

While life expectancy in Switzerland is consistently rated among the highest within the OECD, Table 6 highlights some lifestyle factors that influence the Swiss population. For example, rising obesity rates and an inadequate level of physical activity, especially among the young, have been targeted with the introduction of programs such as *Suisse Balance* and *Allez Hop*, in the hope that substantial savings in health care expenditures will result. The growing issue of stress in the workplace has also been identified as a key area for policy consideration.

Spending per student in the Swiss education system is the highest in the OECD. Current educational reforms are focused on more targeted spending aimed at improving efficiency and results, without using additional resources.

During the 1990s, there was an increase in social expenditures of 4.25 per cent of GDP.<sup>42</sup> In particular, there have been significant pressures related to invalidity and social assistance benefits—work-related stress has resulted in a 44 per cent increase in claims for compensation.<sup>43</sup> The Swiss Federal Statistics Office estimates that this has cost the economy the equivalent

<b>Table 4 Switzerland's Socio-Economic and Environmental Performance, by Category</b>	
<b>Categories</b>	<b>Overall Performance Level</b>
Economy	9th
Innovation	5th
Environment	9th
Education and skills	11th
Society	8th
Health Determinants	5th
Source: The Conference Board of Canada.	

<b>Table 5 Public Social Expenditure by Main Category, 1980–1998 as a Percentage of GDP</b>			
	<b>1980</b>	<b>1990</b>	<b>1998</b>
Total public social expenditure	15.17	19.80	28.28
Old age cash benefits	5.61	8.22	11.16
Disability cash benefits	0.88	1.26	2.16
Occupational injury and disease	1.00	0.63	0.75
Sickness benefits	0.28	0.49	0.52
Services for the elderly and disabled people	0.16	0.47	0.70
Survivors	0.46	1.04	1.35
Family cash benefits	1.04	1.02	1.20
Family services	-	0.14	0.13
Active labour market programs	0.07	0.23	0.77
Unemployment	0.07	0.12	1.00
Health	4.64	5.67	7.64
Housing benefits	0.09	0.11	0.19
Other contingencies	0.87	0.39	0.71
Source: OECD.			

<b>Table 6 Lifestyle Data: Switzerland</b>	
Obesity rates among Swiss adult population (%)	6.8*
Alcohol consumption; litres per capita Switzerland, age 15 +	11*
Tobacco consumption, % of Swiss population who are daily smokers	33*
Number of men who die from suicide each year	1000
Number of women who die from suicide each year	400
Physical activity: number of Swiss who report doing no exercise	2 out of 5
Education	
Percentage of population with at least secondary education: Men	89*
Percentage of population with at least secondary education: Women	75*
* 2001 or most recent year available. Source: OECD; Highlights on Health in Switzerland OECD Report; Swiss Federal Office for Sport.	

## PERFORMANCE AND PRODUCTIVITY

### Performance

In March 2004, The Conference Board of Canada identified several key areas where Switzerland achieved a gold-level performance (in contrast to Canada's bronze level) in the publication, *Understanding Health Care Cost Drivers and Escalators*. These include sulphur oxide emissions, Diphtheria-Pertussis-Tetanus (DPT) immunization, and female mortality due to lung cancer.

### SULPHUR OXIDE EMISSIONS

Emission of air pollutants and, in particular, sulphur oxide, declined during the 1980s as a result of a targeted federal strategy, coupled with efficient regulatory measures implemented at the cantonal level.<sup>44</sup> The Energy Action 2000 program achieved considerable progress in emission and pollutant control through both regulation and economic incentive measures (redistributed charges on high-sulphur heating fuel). The economic stagnation of the 1990s and the Swiss energy structure (almost entirely hydro and nuclear power, with high prices) factored into the successful reduction in emissions.

### DIPHTHERIA-TETANUS-PERTUSSIS IMMUNIZATION

Immunization for DTP is covered through the compulsory insurance plan. Children in Switzerland are immunized for DTP up to the age of 16, and in some

areas, this immunization is mandatory. The federal government is responsible for controlling communicable diseases through the Swiss Federal Office for Public Health. One of the main components of the communicable disease program is an early warning system, called *Sentinella*, which is run jointly by the Swiss Federal Office for Public Health, the universities and the Swiss Medical Association. Data on communicable disease incidence is supplied each week to the Swiss Federal Office for Public Health from 150–250 physicians, representing various specialties and practice settings. Infectious diseases are then identified early.

### FEMALE MORTALITY DUE TO LUNG CANCER

Switzerland has the highest life expectancy of all the countries in the European region of the WHO.<sup>45</sup> The results of a EURO CARE-3 study conducted in 2000 clearly suggest that cancer survival is related to macro-economic variables, such as the GDP and the total national expenditure on health.<sup>46</sup> Longer survival from cancer depends, in part, on the widespread application of effective diagnosis and treatment, which is more likely in countries with greater health care investment.<sup>47</sup> As one of the largest investors in health care and technology uptake, Switzerland is well-positioned to attain a gold-level standing in this key outcome areas.



## Productivity

Productivity gains in health care organizations often result from technology uptake and investment in physical capital. However, similar gains can be achieved through investment in the human capital of a system and through the implementation of new and innovative processes.

Switzerland has the highest hospital density (406 hospitals in 1997), a high average length-of-stay in hospital (9.2 days),<sup>48</sup> a concentration of high technology equipment, and one of the highest physician-to-patient ratios in Europe.

New physician training is considered to be of a high standard. The initial program of study can last as long as six years. Training for specialties is generally between five and seven years, with 50 specialties recognized by the Swiss Medical Association. The global trend towards more advanced training for nurses resulted in the establishment of a nursing science education program at several Swiss universities in the year 2000.

The high hospital density has been a concern to policy-makers. Some cantons are looking into reducing the number of hospitals—especially those used for short-term care—and are seeking efficiency gains by consolidating high-technology medicine into selected Centres of Excellence.<sup>50</sup> The historical pattern of decentralization in the health system makes this problematic. Strong public interest and municipal/cantonal autonomy run counter to consolidation. Hospitals are operated by public or private institutions and can be for-profit or not-for-profit. The cantons draw up a list of hospitals that are entitled to reimbursement through the compulsory plan, and this list can include private hospitals. Patients are entitled to care in one of these public or non-profit hospitals in their home canton, although supplementary insurance may allow for care in another canton or a private hospital. Theoretically, competition exists between the hospitals, but it is difficult to argue that it actually is present.<sup>51</sup> Some patients certainly have a choice of hospital, as well as the degree of privacy they prefer.

In a recent study comparing waiting times for surgery in several OECD countries, Switzerland reported that waiting times are not a significant factor in its health system. The study concluded that this result may be associated with a generous supply of both acute care hospital beds and health care personnel.<sup>52</sup>

Switzerland invests heavily in research and development (R&D) and, in 2002, ranked second to the United States in total spending as a percentage of GDP.<sup>53</sup> Private firms carry out most of this spending, with the remainder spent by the Federal Institute of Technology and by the cantonal universities. The portion of venture capital that is invested in health and biotechnology in Switzerland is only about 13 per cent, compared to a rate of 22 per cent in Canada.<sup>54</sup>

The Commission for Technology and Innovation is the main federal funding body for applied R&D; within this structure, the medical sub-group, MedTech, fosters networking and knowledge transfer opportunities in the field of medical technology. It is also a member of the broader EuroScan network. Private/public partnerships are also encouraged, such as the establishment of the Novartis-Neuroscience Centre in Zurich. The Health Technology Assessment (HTA) has a long-standing history in Switzerland and the drive to evaluate technologies on the basis of cost-effectiveness and efficiency has increased the profile of the association.

Technology investments in the country have been substantial, resulting in the highest concentration of advanced technology equipment (such as MRIs and radiation therapy machinery) in Europe.<sup>55</sup>

## MAJOR CHALLENGES

Developments in society and technology raise new public health issues and open the way for new risks that need to be seen within the context of society as a whole. Under the aegis of the Swiss Federal Office of Public Health (SFOPH), new health-related developments in health promotion and prevention are being identified in the quest to shift from a disease-oriented to a health-oriented society. Public health research is focusing on personal, ecological and societal conditions, and biomedical research is seeking to isolate biological and genetic causes for disease. This is being done with the

co-operation of several government agencies working together under a research plan which focuses on cancer, HIV/AIDS, addictions, chronic illnesses, public health, the Swiss Health Observatory, lifestyle and violence, and lifestyle and nutrition.

For the period of 2004–2007, the focus will be social and behavioural factors, and determining which strategies and interventions are most effective. There will be three areas for action: healthy policies, lifestyle and health, and risks to health. Part of this plan includes an evaluation process intended to assess the effectiveness, relevance and economic efficiency of individual federal research projects.<sup>56</sup>

The second area of reform is economic considerations to reduce the spiraling cost of health care, while maintaining individual rights and expectations within the 26 decentralized, canton health systems. In order to maintain the current level of health care, it is essential that the functioning of the market improve and competition be reinforced. This would lead to stronger productivity gains, which are vital to stimulating growth. The most serious problems are concentrated in the sectors least exposed to foreign competition, such as pharmaceuticals.<sup>57</sup>

The compulsory health care insurance market is affected by regulatory problems, partly due to the need to promote solidarity.<sup>58</sup> According to the OECD, reforms in this sector should include abolishing the insurer's obligation to contract out ambulatory services and the elimination of cartels, which set prices. These measures are expected to lower the level of medical costs and strengthen control over spending growth, since insurers would thus be able to negotiate lower average prices.<sup>59</sup> In fact, a revision of the cartel law, which levies penalties against anti-competitive behaviour, is due to come into effect in 2004.

One of the challenges is to discontinue administrative control over supply. In addition, the equality of access for all health care providers must be maintained, so that they can continue to operate under the compulsory health insurance system. Competition in the pharmaceutical market would be stimulated if doctors were to prescribe more generic substances, rather than branded products. Reforms to hospital and physician

payment methods could provide incentives to improve efficiency; at present, the fact that they are paid per treatment pushes the supply side.

One of the biggest challenges to the reform of the health system in Switzerland is the right of the Swiss people to call and vote in referendums. Currently, each Swiss citizen pays the same amount for CBSI coverage. In May 2003, nearly three-quarters of voters rejected a proposal to link health insurance premiums to income and wealth. The initiative called for around 75 per cent of health insurance costs to be linked directly to income and personal wealth, while the remaining 25 per cent was to be financed by a 1.5 per cent increase in the value-added tax rate.

Other proposals that are being considered to reduce the spiraling cost of health care include raising patients' contributions to medical bills, limiting the number of doctors, easing import restrictions on cheaper drugs and transferring the administration of certain aspects of Swiss health policy to the federal level.<sup>60</sup>

## CONCLUSION

While Switzerland has an extremely well-developed health care system that offers a broad range of high-quality services, it is expensive. Financed largely through a compulsory health insurance system that guarantees access to health care for every individual, expenditures have continued to grow in order to keep up with the changing demands and expectations of the population.

Although the Swiss enjoy very high living standards and life expectancy, there are concerns about the prevalence of obesity and the accompanying rise in diabetes. Increased social expenditures for old age and disability cash benefits are likely to continue in future years, so that, like many other countries, Switzerland must balance its investments between competing social and health interests. The particular concern for this country, as highlighted in Schmitt-Koopman's research on the rise of diabetes, is to allocate resources toward prevention of the disease and complications, rather than continuing to accept the high costs of treatment.<sup>61</sup>

Like Switzerland, the Canadian health care system must balance diverse regional needs with the ever-increasing need for greater efficiency with restrained resources. With 26 cantons and a long tradition of decentralized health care, Switzerland is attempting to respect this tradition while, at the same time, controlling health care expenditures that remain among the highest in the world.

Canada can look to the work of the Swiss Health Observatory, as this organization seeks to develop a co-ordinated national health policy among the many players that make up the Swiss Health Care system.

## CLINICAL VIGNETTE

Emilie Tremblay, a 49-year-old mother of three has lived in the canton of Vaud for most of her life. She lives within commuting distance of Lausanne where she works as a secretary. She has been feeling quite ill for some time and often feels hungry, even after eating. She has a family history of diabetes and is becoming concerned that this might be her problem. She eventually books an appointment with her family doctor of many years, Dr. Francis. Her colleagues at work suggest several names of diabetic specialists she might see, but she decides to stay with her regular physician. At the appointment, a number of diagnostic tests are ordered. She is able to have them completed in a lab down the street from the office. The office phones Mrs. Tremblay within a few days and asks her to return for another appointment. Mrs. Tremblay is told she is borderline diabetic and that, with the proper attention to diet, she can probably control the disorder. Dr. Francis refers Mrs. Tremblay to a dietician, who meets with her on several occasions to discuss the nutritional changes she needs to make. The doctor's nurse comes to Mrs. Tremblay's home to show her how to use a blood glucose monitoring machine. Mrs. Tremblay finds that she is able to control her diabetes successfully by monitoring diet and doing regular exercise. She is given information about the Swiss Diabetes Association, but doesn't feel she needs to contact the organization. After several follow-up appointments with Dr. Francis, Mrs. Tremblay returns to her routine schedule of annual physicals.

On Mrs Tremblay's 54<sup>th</sup> birthday, she enjoys a celebratory dinner and party with her family at a friend's home in the neighbouring canton of Neuchatel. She begins to feel light-headed and faint, so, her husband takes her to the local hospital. She is seen by the internist on call who finds that her blood sugars are elevated and she admits to numbness in her toes for the past year. Mrs Tremblay is admitted overnight and is discharged the next day with instructions to make an appointment with Dr. Francis. Her supplemental insurance plan covers the expenses incurred at the hospital. Dr Francis refers her to a specialist, whom she sees for several follow-up sessions, along with his diabetic care nurse. Mrs. Tremblay is put on medication to control her blood sugar, which stabilizes after several months. She then returns to the care of Dr. Tremblay for regular follow-up visits.

---

<sup>1</sup> Amiet Minder, *Health Care Systems in Transition: Switzerland* (Copenhagen: The European Observatory on Health Care Systems, 2000).

<sup>2</sup> Available [on-line] from NationMaster [cited June 15, 2004], <[www.nationmaster.com/country/sz/economy](http://www.nationmaster.com/country/sz/economy)>.

<sup>3</sup> Available [on-line] from NationMaster [cited June 15, 2004], <[www.nationmaster.com/country/sz/economy](http://www.nationmaster.com/country/sz/economy)>.

<sup>4</sup> The four main political parties are the Radical Free Democratic Party, the Christian Democratic People's Party, the Social Democratic Party and the Democratic Union of the Centre.

<sup>5</sup> Amiet Minder, *Health Care Systems in Transition: Switzerland* (Copenhagen: The European Observatory on Health Care Systems, 2000).

<sup>6</sup> World Health Organization, *Highlights on Health in Switzerland* (Geneva: World Health Organization, 2001).

- 
- <sup>7</sup> The Institute for the Study of Civil Society, *The Swiss Health System*, [on-line], [cited June 15, 2004]. Available from Civitas, <[www.civitas.org.uk/pdf/Switzerland.pdf](http://www.civitas.org.uk/pdf/Switzerland.pdf)>.
- <sup>8</sup> Amiet Minder, *Health Care Systems in Transition: Switzerland* (Copenhagen: The European Observatory on Health Care Systems, 2000).
- <sup>9</sup> World Health Organization, *Highlights on Health in Switzerland* (Geneva: World Health Organization, 2001).
- <sup>10</sup> Amiet Minder, *Health Care Systems in Transition: Switzerland* (Copenhagen: The European Observatory on Health Care Systems, 2000).
- <sup>11</sup> Amiet Minder, *Health Care Systems in Transition: Switzerland* (Copenhagen: The European Observatory on Health Care Systems, 2000).
- <sup>12</sup> Amiet Minder, *Health Care Systems in Transition: Switzerland* (Copenhagen: The European Observatory on Health Care Systems, 2000).
- <sup>13</sup> Community-rated means that they are the same for anyone taking out a policy with a company in a given area.
- <sup>14</sup> Amiet Minder, *Health Care Systems in Transition: Switzerland* (Copenhagen: The European Observatory on Health Care Systems, 2000).
- <sup>15</sup> Claude Giorno, Miguel Jimenez and Philippe Gugler, OECD Economics Working Papers No. 383, *Product Market Competition And Economic Performance in Switzerland* (Paris: Organization for Economic Co-operation and Development, 2004).
- <sup>16</sup> OECD *Health Data 2003*, 3<sup>rd</sup> ed. (Paris: OECD, 2003).
- <sup>17</sup> World Health Organisation, *WHO Comparison on Selected Indicators within WHO Region*.
- <sup>18</sup> Amiet Minder, *Health Care Systems in Transition: Switzerland* (Copenhagen: The European Observatory on Health Care Systems, 2000).
- <sup>19</sup> OECD *Health Data 2003*, Chart 1: Health expenditure per capita, US\$ PPP, 2001 shows that Switzerland spent approximately 1750 public expenditure and Canada approximately 1925, compared to private expenditures of approximately 3175 for Switzerland and only 750 for Canada. (Paris: Organization for Economic Co-operation and Development, 2003).
- <sup>20</sup> OECD, *OECD Health Data 2003* (Paris: Organization for Economic Co-operation and Development, 2003).
- <sup>21</sup> Isabelle Joumard, Claude Giorno, *Enhancing the Effectiveness of Public Spending in Switzerland*, OECD Economics Working Papers No. 332 (Paris: Organization for Economic Co-operation and Development, 2002).
- <sup>22</sup> Francois de Wolff, *Planification de hospitaliere, vision + action, essai de modelisation pour la Suisse*, [on-line], [cited February 2004]. Available from <[http://www.archihosp.ch/files/planif\\_hosp\\_v2.pdf](http://www.archihosp.ch/files/planif_hosp_v2.pdf)>.
- <sup>23</sup> OECD, "Economic Survey Switzerland 2003; The Health Sector is suffering from regulatory problems," [on-line], (January 2004), [cited June 2004]. Available from OECD, <[www.oecd.org/dataoecd/51/45/25597699.pdf](http://www.oecd.org/dataoecd/51/45/25597699.pdf)>.
- <sup>24</sup> Isabelle Joumard, Claude Giorno, *Enhancing the Effectiveness of Public Spending in Switzerland*, OECD Economics Working Papers No. 332 (Paris: OECD, 2002).
- <sup>25</sup> "The Swiss Health Observatory: Concept and Business Plan," [on-line], (October 2001), [cited June 2004]. Available from the Swiss Health Observatory, <[www.obsan.ch/e/](http://www.obsan.ch/e/)>.
- <sup>26</sup> OECD, "Data Show Health Expenditures at an All-time High," [on-line], (June 6, 2003).
- <sup>27</sup> Amiet Minder, *Health Care Systems in Transition: Switzerland* (Copenhagen: The European Observatory on Health Care Systems, 2000).
- <sup>28</sup> Amiet Minder, *Health Care Systems in Transition: Switzerland* (Copenhagen: The European Observatory on Health Care Systems, 2000).
- <sup>29</sup> *International Reform Monitor*, "Health Care and Long-term Care in Switzerland," [on-line], [cited June 2004]. Available from The International Reform Monitor, <[www.reformmonitor.org/httpd-cache/doc\\_stq\\_hc-908.html](http://www.reformmonitor.org/httpd-cache/doc_stq_hc-908.html)>.

- 
- <sup>30</sup> *Swissinfo*, "Health Insurers Ditch Drug Deal," [on-line], (June 2003), [cited June 30, 2003]. Available from Swissinfo, <[www.swissinfo.org/sen/swissinfo.html?siteSect=105&sid=3993083](http://www.swissinfo.org/sen/swissinfo.html?siteSect=105&sid=3993083)>.
- <sup>31</sup> Sanphar is an association representing manufacturers and wholesalers in the Swiss pharmaceutical sector.
- <sup>32</sup> Hospitals dispense about 12 per cent and drugstores, about 6 per cent.
- <sup>33</sup> The higher the price, the smaller relative margin.
- <sup>34</sup> OECD, *OECD Health Data 2003* (Paris: Organization for Economic Co-operation and Development, 2003).
- <sup>35</sup> The Institute for the Study of Civil Society, *The Swiss Health System* (London: The Institute for the Study of Civil Society (CIVITAS)).
- <sup>36</sup> Amiet Minder, *Health Care Systems in Transition: Switzerland* (Copenhagen: The European Observatory on Health Care Systems, 2000).
- <sup>37</sup> Isabelle Joumard, Claude Giorno, *Enhancing the Effectiveness of Public Spending in Switzerland*, OECD Economics Working Papers No. 332 (Paris: OECD, 2002).
- <sup>38</sup> Marzio Pescia, *Swissinfo*, "Mental Illness Sends Disability Claims Skyrocketing," [on-line], (August, 2003,) [cited August 4, 2003]. Available from Swissinfo, <[www.swissinfo.org/sen/swissinfo.html?siteSect=105&sid=4075667](http://www.swissinfo.org/sen/swissinfo.html?siteSect=105&sid=4075667)>.
- <sup>39</sup> "The Swiss Health Observatory: Concept and Business Plan," [on-line], (October 2001), [cited June 2004]. Available from the Swiss Health Observatory, <<http://www.obsan.ch/e/KonzeptE-8-02.pdf>>.
- <sup>40</sup> Isobel Leybold, *Swissinfo*, *Mental Health Problems remain taboo* [on-line], (March 2004), [cited March 9, 2004]. Available from Swissinfo. <[www.swissinfo.org/sen/swissinfo.html?siteSect=105&sid=4773120](http://www.swissinfo.org/sen/swissinfo.html?siteSect=105&sid=4773120)>.
- <sup>41</sup> The Swiss Health Observatory : Concept and Business Plan [on-line]. October 2001, [cited June 2004]. Available from the Swiss Health Observatory, <<http://www.obsan.ch/e/KonzeptE-8-02.pdf>>.
- <sup>42</sup> J. Bennett, *Investment in Population Health in Five Countries* (Paris: Organization for Economic Co-operation and Development, 2002).
- <sup>43</sup> J. Bennett, *Investment in Population Health in Five Countries* (Paris: Organization for Economic Co-operation and Development, 2002).
- <sup>44</sup> OECD, *Energy Policies of IEA Countries: Switzerland, 2003 Review* [on-line], (2003), [cited June 2004]. Available from the OECD, <[library.iea.org/dbtw-wpd/textbase/npsum/switz2003.pdf](http://library.iea.org/dbtw-wpd/textbase/npsum/switz2003.pdf)>.
- <sup>45</sup> World Health Organization, *Health for all database* (Geneva: World Health Organization, 2000).
- <sup>46</sup> A. Micheli, et al., "European health systems and cancer care," *Annals of Oncology*, 14, 5:v41-v60, (2003).
- <sup>47</sup> Ibid.
- <sup>48</sup> OECD, *OECD Health Data 2003* (Paris: Organization for Economic Co-operation and Development, 2003).
- <sup>49</sup> Amiet Minder, *Health Care Systems in Transition: Switzerland* (Copenhagen: The European Observatory on Health Care Systems, 2000).
- <sup>50</sup> Amiet Minder, *Health Care Systems in Transition: Switzerland* (Copenhagen: The European Observatory on Health Care Systems, 2000).
- <sup>51</sup> The Institute for the Study of Civil Society, *The Swiss Health System* (London: The Institute for the Study of Civil Society (CIVITAS)).
- <sup>52</sup> Luigi Siciliani and Jeremy Hurst, *OECD Health Working Papers No. 7: Explaining Waiting Times Variations for Elective Surgery across OECD Countries* (Paris: Organization for Economic Co-operation and Development, 2003).
- <sup>53</sup> International Institute of Management Development, *The World Competitiveness Yearbook 2003* (Lausanne: International Institute of Management Development, 2003).
- <sup>54</sup> OECD, *STI Scoreboard: Creation and Expansion of Knowledge* [on-line], (2001), [cited June 2004]. Available from OECD, <[www.oecd.org/dataoecd/17/19/1900544.pdf](http://www.oecd.org/dataoecd/17/19/1900544.pdf)>.
- <sup>55</sup> Ibid.

---

<sup>56</sup> Federal Office of Public Health, *Research Master Plan "Health": The Continual Commitment to Public Health Swiss* [on-line], (June 2004), [cited June 2004]. Available from The Swiss Federal Office of Public Health, <[www.ressortforschung.admin.ch/html/docs/01-e.pdf](http://www.ressortforschung.admin.ch/html/docs/01-e.pdf)>.

<sup>57</sup> OECD *Economic Survey Switzerland 2003: Product market competition and economic performance* [on-line], (January 2003), [cited June 2004]. Available from the OECD, <[www.oecd.org/dataoecd/51/45/25597699.pdf](http://www.oecd.org/dataoecd/51/45/25597699.pdf)>.

<sup>58</sup> Ibid.

<sup>59</sup> Ibid.Ibidl

<sup>60</sup> Jonathan Summerton, *Swissinfo Health Reforms get short shrift* [on-line], (May 2003), [cited May 16, 2003]. Available from Swissinfo. <[www.swissinfo.org/sens/swissinfo.html?siteSect=105&sid=1853486](http://www.swissinfo.org/sens/swissinfo.html?siteSect=105&sid=1853486)>.

<sup>61</sup> I. Schmitt-Koopmann, M. Schwenkglens, G. Spinaz, T. Szucs, "Direct Medical costs of type 2 diabetes and its complications in Switzerland," *European Journal of Public Health* 14 (March 2004), p.8.



# Sweden



With an area of almost 450,000 kms<sup>2</sup>, Sweden is 22 times smaller than Canada and the third largest country in Europe. Sweden is characterized by a well-developed industrial sector, excellent internal and external communications, a skilled labour force, and extensive social welfare traditions. These characteristics have allowed the country to achieve an enviable standard of living. Sweden has had a tradition of peace and neutrality for more than two centuries. Its population is approximately nine million.

## ORGANIZATION OF THE COUNTRY

Sweden is a constitutional monarchy; although it has a king, actual power rests with a legislature. The monarch, King Carl XVI Gustaf, who ascended the throne in 1973, is the country's head of state. He has ceremonial and patronage functions, but no political role.

Every four years, individual candidates are elected directly to the Riksdag, Sweden's unicameral parliament, according to Sweden's constitution. Seven political parties are represented in Parliament. They are well-organized and enjoy public financial support (approximately \$71 million Cdn per year), which allows them to pursue their activities without having to depend on private or business contributions. In the most recent election in September 2002, the minority Social Democratic Party, led by Prime Minister Göran Persson, was re-elected. Following a legislative election process, the Riksdag elects the Prime Minister, who appoints the Cabinet. There is a considerable degree of co-ordination among the various government ministries.

In addition to the central government, a number of central authorities and agencies, along with local authorities, are responsible for ensuring that the directives issued by the central government and the

Riksdag are properly implemented. Sweden has 21 county councils (regional governments) and 289 municipalities; they are responsible for health, health care, education, housing, transportation, sewage and water supply, public assistance, care of the elderly and the disabled, and child welfare. Regional and local authorities have the right to levy income taxes to cover their expenses.

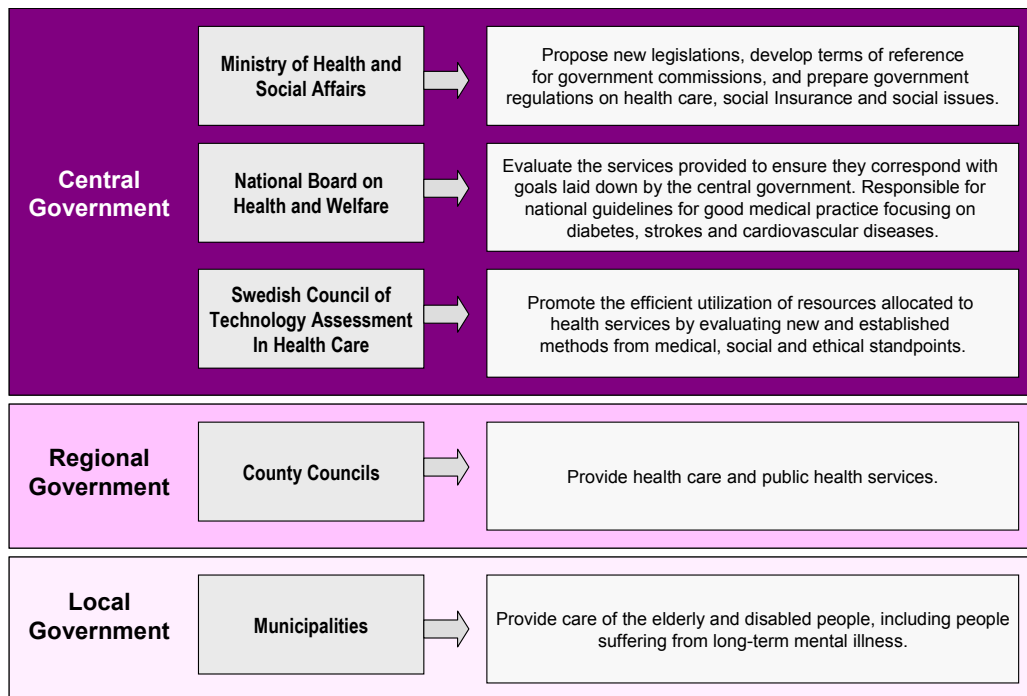
National budgets, established by the central government, are locked in place for three years and limited by a spending ceiling. This allows the government and the Riksdag to keep a closer eye on spending and to facilitate long-term policy decisions.

## ORGANIZATION OF THE HEALTH CARE SYSTEM

The Health and Medical Services Act is the basis for the Swedish health care system. It ensures that good quality health services are easily accessible to all people. It also establishes that health services must respect the patients' integrity and their right to make their own decisions regarding their health. Other acts regulate the obligations and responsibilities of personnel, professional confidentiality, patient records and health professional qualifications.

Planning, delivery and management of health care services in Sweden is carried out at three political levels—central governments, municipal governments and county councils (Exhibit 2). Elected political representatives have a huge influence on health and welfare systems (for example, they serve on hospital boards), which are carried out principally at the regional or county council level.

**Exhibit 2**  
**Organization of Swedish Health and Social Services**



Source: The Conference Board of Canada.

The **Central Government** establishes basic principles for health services, passes relevant legislation, and evaluates the performance and results of Sweden's health and social systems. Three agencies govern these functions:

- The Ministry of Health and Social Affairs is responsible for leadership, legislation and regulations in health care, social insurance and social issues.
- The National Board of Health and Welfare is the government's central advisory and supervisory agency in the field of health services, health protection and social services. It evaluates services and establishes national guidelines for medical practices, on which local care programs are based.
- The Swedish Council of Technology Assessment in Health Care evaluates methods from medical, social and ethical perspectives and disseminates its findings to central and local governments, and health services staff, providing the basic data for decision-making.

**Regional Governments**, represented by 21 county councils, are responsible for providing health services and for achieving high standards of public health. These councils are governed by politicians who are elected by constituents. They are responsible for the allocation of resources, and the planning and delivery of health services. County councils own and run the majority of hospitals, health centres and other health institutions. They not only deliver services, they are also responsible for some training, such as the continuing education of health professionals.

County councils co-operate and collaborate. Although there are 21 county councils, there are only six medical regions. Highly specialized care and, to a certain extent, research and medical training are provided through these medical care regions. Agreements establish the responsibilities of each county council, including the price to be charged for highly specialized care.

The Federation of County Councils is the organism that represents county councils at the national level, allowing for co-ordination and collaboration in health and social areas.



**Local governments**, represented by the municipalities, are responsible for domestic care of the elderly and disabled people, as well as living arrangements, employment, and support services for people suffering from long-term mental illnesses.

Recent reforms have focused on a higher degree of decentralization by giving municipalities augmented responsibility for health services.

There is an increased need for municipalities and county councils to work together. Although contracts between municipalities and county councils are the main mechanism used to clarify roles, “local government federations” have also been established to ensure greater co-operation among all the partners in health services. There are more than 60 local government federations across Sweden. Another form of co-operation is found in joint boards, which handle specific operations, such as primary health care centres.

The Swedish Association of Local Authorities is the organization that collectively represents the local (municipal) authorities. It is in the process of merging with the Federation of County Councils (regional). The new organization will give them one voice, with greater influence in negotiating with the central government and other health stakeholders.

## Health Insurance Program

Sweden has an extensive system of social insurance benefits. These mainly provide financial security for families and children (including parental insurance) and financial security in the case of sickness, handicap and old age. All residents of Sweden and patients from other European countries seeking emergency health services are entitled to use Swedish health services at subsidized prices. Patient fees for hospital stays, medical consultations and treatment provided by other health professionals have been established by the different levels of government. (See Table 7.)

There is a cost ceiling (approximately \$155 Cdn per year), to limit personal expenses, but patients reaching this amount are entitled to free medical care for the remainder of the 12-month period. There is also a cost ceiling for pharmaceutical expenses, set at

approximately \$155 Cdn per prescription and approximately \$310 Cdn for a 12-month period. Other benefits include the provision of free medical treatment for children and young people under 20, benefits payable to expectant mothers who are unable to work during pregnancy, and free prenatal care, delivered through maternity clinics.

<b>Services</b>	<b>Patient Fees (approximate amount in Cdn\$)</b>
Hospital stay for children and young adults (up to 19 years of age)	Free of charge
Hospital stay for patients between 20 and 69 years of age	\$14 per day
Consultation with primary care doctor	\$18–\$26 (depending on the County Council)
Consultation with a hospital consultant or a doctor in private practice	\$31–\$52 (depending on the County Council)
Consultations with other health professionals (physiotherapists, occupational therapists and nurses), in the public sector and private care	\$9–\$18 (depending on the County Council)
Source: The Swedish Institute.	

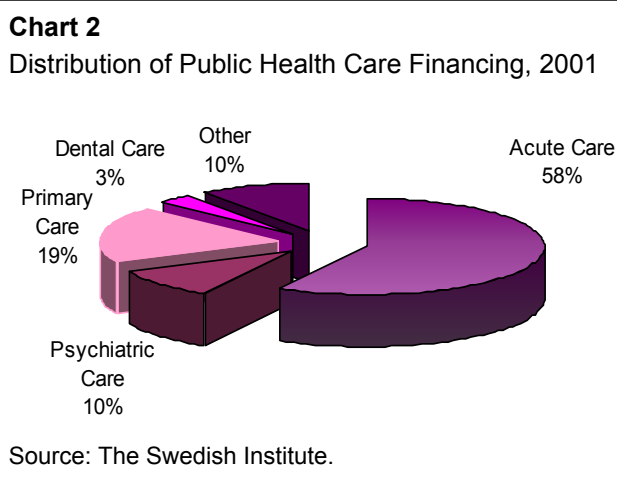
In addition to the public system, almost all Swedish employees are covered by collective insurance schemes, which include diverse benefits, such as sickness, loss of income, occupational injury and supplementary pensions. These schemes are the result of collective agreements of labour market organizations and are financed by employers. Premiums are usually calculated as a percentage of the company’s gross pay.

A more traditional private insurance market is also present in Sweden, but, as a result of the extensive public system, its share of the market is comparatively small. However, it is expanding by offering services to supplement the public schemes (e.g., health care, health insurance for travel abroad and sickness benefits). A more recent development is the expansion of services to cover publicly insured services. Private insurance can now pay for medical procedures covered under the public system, but delivered in private hospitals with shorter waiting lists. A very small proportion of the population is covered by these schemes. Some employers are currently offering them to employees, in

an attempt to maintain high productivity of the workforce.

## Health Services Financing

In 2001, health services expenditures in Sweden, including pharmaceuticals and dental care, reached approximately \$34 billion Cdn, or 8.7 per cent of GDP. Public funding accounted for 85 per cent of total health spending, while private funding accounted for only 15 per cent. Total health expenditures per capita (in international dollars) in 2001 reached \$2,270 (compared to \$2,937 for Canada). As shown in Chart 2, acute care hospitals have the biggest percentage of public finances, at 58 per cent in 2001, while primary care received only 19 per cent.



County councils financed approximately 80 per cent of total health care costs. Health services account for almost 90 per cent of the budget of county councils. The majority of this amount comes from tax revenues, while approximately 4 per cent comes from patient fees. A reduction in the tax base forced county councils to reduce their expenditures by 1.5 per cent per year during the 1990s. These reductions resulted in increased outpatient care and a fall in the number of acute care beds per 1,000 inhabitants (from 4.4 in 1985 to 2.4 in 2002) and psychiatric care beds (from 2.5 in 1985 to 0.6 in 2001).

Financing for health care organizations is based on their performance. County councils sign contractual agreements with hospitals, using the Diagnostic Related Groups system. This has resulted in the de-politicization of health organizations and the emergence of hospitals

that operate as county council-owned limited companies. In the late 1990s, it became increasingly common for county councils to put care services out to tender. Therefore, the amount of care supplied by private providers rose to almost 10 per cent of total county council expenditures. Private medical establishments contracted by the county councils currently provide approximately 29 per cent of all visits to a doctor.

Health care costs are currently under control. During the 1990s, health expenditures grew out of control, reaching 10 per cent of Sweden's Gross Domestic Product (GDP). This obliged policy-makers to introduce drastic changes (e.g., closing hospitals, merging health care facilities, decreasing the number of beds and establishing new financing arrangements), which have decreased their expenditures to current levels of 8.7 per cent of GDP. There seems to be consensus that the re-organization of the acute care sector and a stronger focus on primary care were the main elements that allowed Sweden to take control of its health expenditures.

## Role of the Private Sector

Private health care delivery is fairly limited in Sweden. Less than 10 per cent of all physicians work full time in private practices. Contracting arrangements with the county councils allow most of the care provided in private settings to be publicly financed. Only a small part of these hospital services are financed privately through patient fees and private health care insurance. Although most of the system is publicly administered, there are for-profit primary health care centres, hospitals and long-term care facilities.

There are more than 800 physicians working in the Praktikertjänst Group,<sup>1</sup> which is a practitioner co-operative where the physicians are owners (as shareholders) and employees. This group provides small-scale enterprises with access to different systems, including accounting, administration, IT and business development. Psychotherapists, nurses in charge of practices, midwives, speech therapists, physiotherapists and other independent health care providers are also becoming part of this corporation. The main reasons for joining this group include a higher degree of flexibility for clinical practice (e.g., scheduling, work environment) and the desire to work outside the public sector.

Opportunities for higher profits seem to be secondary. According to Statistics Sweden, Praktikertjänst was the sixth largest employer in Sweden in 2002.

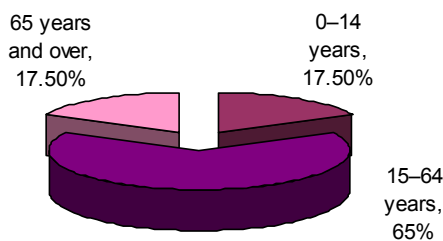
There are two for-profit hospitals in Sweden. The biggest, St. Göran, is located in Stockholm. This hospital was founded 110 years ago. In 1999, it became Sweden's first privately owned emergency hospital. It has 24-hour emergency departments and facilities for internal medicine, general surgery, orthopedics, anesthesia, pain relief and geriatrics. St Göran's plans to extend its accident and emergency services to other regions through local branches. It currently shows a high level of efficiency (approximately 11 per cent cheaper than the average for Stockholm County Council),<sup>2</sup> and patient and staff satisfaction. Up to now, profits have been re-invested in the hospital, although there is a possibility that some dividends will be given to shareholders in the future.

## MANAGING COST DRIVERS AND ESCALATORS

### Demographics

Sweden has a population of 8.9 million people; 49 per cent men and 51 per cent women. The Swedish population is increasing slowly (the population growth rate is 0.01 per cent), mostly due to immigration. In 2002, the Swedish fertility rate was 1.54 children born per woman. Sweden also has the oldest population in the world. People 65 years or older account for 17.5 per cent of the total population, while those 80 years or older account for 5.1 per cent (Chart 3). Life expectancy is the highest among OECD countries, reaching 77.5 years for males and 82.1 for females.

**Chart 3**  
Age Structure of the Swedish Population



Source: CIA World Book

According to Statistics Sweden, by 2020, the population aged 65–74 will see an increase of 45 per cent, while the group aged 75–84 is expected to increase by 24 per cent. The oldest group (those 85 and up) will also increase by 19.5 per cent.

Since the needs and demands for care increase with age, the aging of the population has resulted in an increase in health care costs. However, current health care costs, the number of doctors per capita, and the percentage of the population employed in health care are no greater than elsewhere. In fact, using the population of Sweden as the standard population (to standardize the rate to health care costs and show the significance of the age factor), most countries in Europe (with the exception of Italy) spend a higher share of their GDP on health care and have higher health care costs per inhabitants than Sweden.<sup>3</sup> In part, the extensive social system, including personal support services (home care) that serve the elderly, may explain these results.

Sweden saw a dramatic increase in the number of refugees and their immediate families applying for asylum in the late 1980s and early 1990s. This trend and more liberal immigration policies have produced a more diverse society. At the end of 2001, 476,000 foreign citizens (one in 20) were living in Sweden. The most common groups of foreign citizens are the Finns, Iraqis, Norwegians, Danes, Yugoslavs, Bosnians, Germans and Poles. Non-Swedish citizens account for only 6 per cent of the population, while citizens born outside Sweden account for 10.6 per cent.

Despite the democratic principles adopted by Swedish society, there are marked differences in health among different social groups, and these differences are growing. The more vulnerable groups include people with low incomes or poor education, single parents and their children, and those who are mentally ill.

### General Economy

The central government keeps very tight control of the inflation rate. The target rate is 2 per cent, with a tolerance interval of +/- 1 per cent. The inflation rate, according to the harmonized index for consumer prices in Sweden, is one of the most stable in Europe (its per cent of change over 12 months barely reaches 0.5 per

cent). The average inflation rate registered in 2002 was 2.2 per cent, well below the reference value of 3.3 per cent for the European Union. Over a long period, the increase in the Harmonized Consumer Price Index (HCPI) has been compatible with price stability. In March 2002 the unemployment rate was 5.2 per cent.

Sweden has a very healthy financial situation. During 2001, the government recorded a budget surplus equivalent to 4.8 per cent of GDP, well above the reference value of a deficit of 3 per cent for the European Union. The surplus was 1.1 per cent higher than the previous year. Since 1994, government debt has declined markedly and the government has steadily recorded budget surpluses since 1998. The government has devised a long-term budget strategy aimed at maintaining a budget surplus of 2 per cent until 2015, in order to cope with the budgetary pressures caused by demographic developments. The debt ratio is forecast to fall to 45.2 per cent of GDP by 2004.

## Home Care

Home care in Sweden is decentralized and is a shared responsibility. The county councils are responsible for nursing care following acute episodes, while the municipalities are responsible for home support and assisted living for the elderly and people with disabilities or mental illnesses. Medical and nursing care at home is generally co-ordinated by primary health care centres, although, in some instances, hospitals bear the responsibility for co-ordination. Care is provided by district nurses attached to primary health care centres or hospitals, and general practitioners or district doctors. These services are free of charge.

It is difficult to estimate the amount of funds allocated to nursing and medical home care, since they are included in primary health care and hospital expenditures. Because district nurses and most physicians are compensated through salaries, higher volumes of home care services do not necessarily lead to an increase in expenditures.

Other professionals, including physiotherapists and occupational therapists, also provide care at home. In many instances, they are employed by primary health centres, or act as private practitioners, under contract to

municipalities or county councils. In general, home-based rehabilitation efforts are considered to be inadequate, with too little day care provision and poorly functioning collaboration between social welfare provision and health care.<sup>4</sup>

Municipalities provide home support to ensure that the elderly or people with functional impairments can lead the most normal lives possible. Small groups of personal assistants or “housewives” provide continuing living support around-the-clock. Home help services are provided to approximately 8 per cent of elderly people (65–79 years of age) and to approximately 20 per cent of people who are 80 years or older. Developments in home care include an increase in the level of health of clients, more relatives being involved with care, a reduction in expectation of services, and more frequent privately purchased help.

In the 1970s, home help almost exclusively referred to help with household activities (buying groceries, meal preparations, cleaning and doing the laundry). But during the past two decades, more time has been devoted to personal care, which includes supervision, getting up/putting-to-bed, bathing, etc. This is related to an increased rationing of home help to provide more support to the oldest and most fragile individuals. Reports indicate that 50–80 per cent of care time is spent on personal care. Average hours have increased and now account for almost 30 hours per month (most recipients receive less than 26 hours a month, while 5 per cent of recipients receive help for 120 hours a month or more).

In principle, there is no upper limit on the hours which could be devoted to home care. The right to live at home and obtain help, regardless of the dimension of the needs, is legally established in the Social Services Act. Assistants make home visits as many times as necessary during the day. They have competitive wages and are proud of their occupation. In 1999, municipalities spent approximately \$ 1,940 Cdn per inhabitant in elder and disabled care, which includes care provided at long-term institutions and approximately \$ 510 Cdn per inhabitant in special care for individuals and their families.<sup>5</sup> More than 33 per cent of municipal employees work in elder care or health care, forming the largest municipal employee group.

In some cases, municipalities and county councils provide joint services to meet the needs of patients. The role of case manager is assumed by the provider who has the greatest experience dealing with the patient.

## Pharmaceuticals

Swedish patients use approximately 12 million doses of pharmaceuticals every day. The total cost for prescribed pharmaceuticals in 2000 and 2001 increased by an average of 7 per cent. The central government and the county councils have a shared responsibility for pharmaceutical costs related to outpatient care. This shared responsibility is regulated in an agreement covering the period 2002–2004.

Under the terms of Sweden's social insurance scheme, the patient pays the entire cost of prescribed pharmaceutical preparations, up to approximately \$155 Cdn. If the cost rises above this figure, the level of subsidy rises until it reaches a cost ceiling. This means that the patient never has to pay more than approximately \$310 Cdn in a given 12-month period.

Since the early 1990s, there has been an increase in county councils' pharmaceutical costs. Since then, county councils have had greater financial responsibility for the cost of drugs in outpatient care. In 1990, the county councils spent 1.6 billion SEK (in-patient care), or approximately \$275 million Cdn on pharmaceuticals. In 2001, these costs reached 19.3 billion SEK (or \$3.3 billion Cdn), of which 2.3 billion SEK (approximately \$395 million Cdn) was related to in-patient care.<sup>6</sup> Pharmaceutical costs account for approximately 15.1 per cent of county councils' total health and medical care costs.

As is the case with many other OECD countries, Sweden has witnessed an increase of pharmaceutical costs as a proportion of total health care expenditure. Costs have risen from just over 8 per cent in 1990 to more than 15 per cent in 2000. New strategies are being implemented to control these expenditures. For example, the Pharmaceutical Benefits Board was established in 2002 to assess and make decisions on which pharmaceutical preparations should be subsidized. This board also negotiates the cost of pharmaceutical products with the manufacturers. Prescribed drugs that

qualify for subsidies must now be exchanged for the least expensive generic alternative, provided that the patient agrees with the replacement. When the patient chooses to keep the more expensive medicine, he or she pays the difference in price.

Another measure that seems to be very effective is the monitoring of prescription patterns within county councils. Committees have been established to assess similar drugs and make recommendations based on efficacy and price, which are distributed to all physicians within a given county council, including general practitioners. Hospitals and primary health centres monitor prescription patterns and distribute reports to physicians that compare their prescribing patterns with those of peers. These reports have had a powerful effect on physician prescriptions. In the few cases where physicians did not follow the recommendations, they were coached by the leaders of their groups (who receive reports showing the prescribing patterns of all physicians in the centre or hospital). There is no retribution if recommended guidelines are not followed; good communication channels and awareness are the basis for managing pharmaceutical prescribing patterns.

All pharmacies in Sweden are part of the state-owned National Corporation of Swedish Pharmacies (Apoteket AB). Through its 900 pharmacies, this organization has the exclusive right to sell medicine, both to the general public and to hospitals throughout Sweden.

## Health Workforce

Health reforms between 1991 and 1996 in the elder care system, psychiatric services and acute care system led to a dramatic decrease of health care employees in county councils, from approximately 402,000 to approximately 231,000. Since 2001, the number of health care employees has remained steady, at approximately 250,000; of this number, about 78 per cent are full-time employees.<sup>7</sup> Hospitals spend approximately 60 per cent of their budgets on salaries for staff, including physicians.

## PHYSICIANS

There are approximately 29,000 physicians in Sweden; of this number, 20 per cent are family physicians and 80 per cent are specialists. Physicians are a very powerful

group in the Swedish health care system. Approximately 41 per cent of physicians are female, although the proportion is increasing. Female physicians tend to chose general practice or specialties such as geriatrics, gynecology and obstetrics. There are 3.1 physicians per 1,000 of population and 0.5 general practitioners per 1,000 of population. County councils would like to increase this ratio to 0.66/1,000.

More than 90 per cent of physicians are compensated through salaries. They are employed by hospitals or primary health care centres. There is a small number of physicians (less than 10 per cent) who work in private settings, including private primary health care groups, which are owned by physicians. These groups have contractual agreements with county councils; they are remunerated based on capitation models.

General practitioners do not enjoy the same profile in the community as specialists; they generally earn lower salaries, although this is beginning to change. General practitioners see patients mainly in primary health care offices, but they also make home visits when necessary. Since primary care is offered 24-hours-a-day, some physicians (especially the youngest), work approximately 2–3 nights per month on call.

Specialists' salaries account for approximately 10–15 per cent of hospital budgets. Physicians' salaries are negotiated annually at the national level. The Swedish Medical Association (or the local medical association) negotiates financial remuneration and other employment conditions, such as working hours and on-call duties, mainly with county councils, but also with municipalities and the central government.

The big challenge faced by the medical workforce is a shortage of physicians (about 500) in primary care and certain specialties, including psychiatry and dermatology. There are several reasons for these shortages. First, the aging of the population is also affecting the medical workforce. Approximately 24 per cent of physicians are 65 years or older.<sup>8</sup> Second, there is a larger proportion of physicians (especially middle-aged females) who choose to work part-time. Third, some physicians are moving to Norway. Their reasons for emigration include better salaries and working conditions, and a higher degree of professional

autonomy. Fourth, many physicians hold administrative positions, since legislation introduced 10 years ago requires them to hold a medical degree in order to qualify for positions as clinical department heads or hospital administrators. Currently, 80–90 per cent of the heads of departments in clinical specialties are doctors. There is also a growing number of physicians on sick leave.

In an effort to alleviate these shortages, compensatory mechanisms have been implemented, including an increase in salaries and an improvement in working conditions. Current monthly salaries are between \$ 9,000 Cdn and \$12,000 Cdn (specialists are generally placed at the top of the range). The average annual salary increase is approximately 2–3 per cent. In addition, Sweden is bringing in physicians from other countries and programs have been instituted to integrate foreign-trained physicians into the system more quickly. In 2003, 1,695 physicians were granted licenses. Of this number, 805 received their training in Sweden, while the remainder graduated in another country.<sup>9</sup>

In 2003, there were 980 new residency places for non-licensed doctors. More than 200 training places for doctors have been created recently, for a total of 1,000 places per year. This will lead to a rise in the number of qualified physicians trained in Sweden, as of 2007.

## **NURSING WORKFORCE**

In 2002, there were more than 76,000 nurses were employed by county councils. In 2000, there were 8.8 nurses per 1,000 of population.<sup>10</sup> Approximately 23 per cent worked part-time. The nursing workforce is composed of general nurses and specialized nurses who take additional training in certain disciplines (e.g., hematology, diabetes). Although there are no nurse-practitioners in Sweden, nurses carry on a variety of activities, including, triage, public health, home care, clinical assessments, patient education, nutritional counselling, and prescribing (under certain circumstances). Assistant nurses or “sub-nurses” provide support in nursing activities.

More than 95 per cent of nurses are female. Male nurses are more likely to work in hospitals than in the community. Nurses' monthly salaries range from



approximately \$3,500–4,000 Cdn. Assistant nurses receive \$2,800–3,000 Cdn monthly.

Recent attempts to improve retention and recruitment have given the nursing workforce more flexibility in their schedules and working hours. Nurses with children who are five years or younger are allowed to work only 75 per cent of their time and still receive full benefits. Nurses can also rotate from department to department.

Some primary care nurses have their own offices. They provide consultations and care to patients with particular conditions, including diabetes and cardiovascular diseases. Nurses also participate in planning care before patients are discharged from hospital. They usually assume the role of case manager for the provision of home care.

The number of training places for nurses has increased dramatically in recent years (from 1,500 places to a total of 5,000). These nurses will complete their basic training in 2005. The need for more nurses is primarily growing in home care for the elderly (as well as other parts of the system), due to the increasing numbers of nurses reaching retirement age.

## **OTHER HEALTH PROFESSIONALS**

A number of other health professionals have important roles in the delivery of primary care and acute care services. Midwives are usually part of primary health practices. They manage pre- and post-natal programs, pap-smear programs and contraception. Physiotherapists see patients without referral. They participate in discussions related to patient care plans as part of the health care team. Physiotherapists are mostly women; they earn an average monthly salary of approximately \$3,700 Cdn.

## **Demand for Health Care**

Swedes are used to a very strong social protection system, which includes free medical and dental care for children and young adults up to 19 years of age, pharmacare and free public health services—all financed primarily through taxation.

However, concern over growing waiting lists has resulted in the establishment of a health care guarantee in 1997. This guarantee determines that:

- Primary care must be provided the same day;
- Access to general practitioners must be provided within eight days;
- Consultations with specialists must occur within 90 days (30 days, if a diagnosis has not been established); and
- Treatment must be provided within 90 days of diagnosis.<sup>11</sup>

The expectations of health care workers are satisfied through annual salary increases and a number of other incentives, including reasonable working times, flexible work arrangements, opportunities for research and professional education, and outstanding work environments.

## **BALANCE OF INVESTMENTS IN HEALTH, HEALTH CARE AND OTHER SOCIAL DETERMINANTS OF HEALTH**

Sweden has a smaller economy than Canada. In 2001, Swedish GDP per capita (in U.S. Purchasing Power Parity) was \$26,052, while it was \$28,811 for Canada, placing Sweden 11<sup>th</sup> among OECD countries.<sup>12</sup> The average earnings of a Swedish production worker in 2002 was approximately \$33,000 Cdn and the unemployment rate was approximately 5 per cent. Although Sweden has a smaller economy, it ranks second in social performance.<sup>13</sup> Furthermore, based on benchmarking analysis of 31 indicators among the top 12 OECD countries, Sweden ranks first on determinants of health. This reflects the value that Sweden gives to the protection of the most vulnerable citizens, such as the elderly, youth, the unemployed and poor, as well as the importance placed on education, social support networks and working conditions.

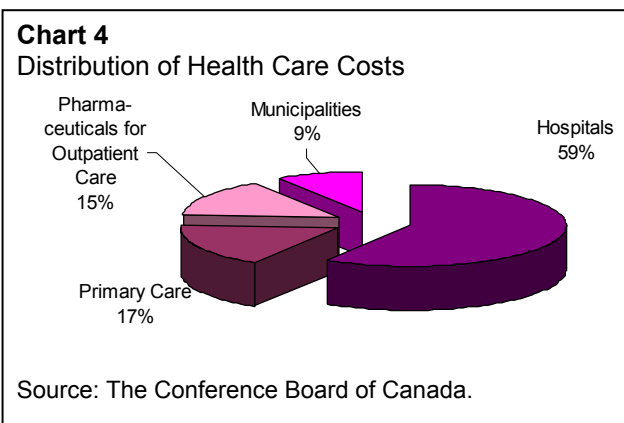
Sweden has an advanced welfare state and an effective social insurance system, which provides economic security for families with children, the elderly, unemployed, disabled and sick. Education, health care, child care costs, infrastructure, and recreation and culture are largely met through taxation. Most social insurance benefits are administered locally by public

social insurance offices (the exception being unemployment insurance). In 2001, about 5 per cent of the Swedish population received economic aid at some time, at a cost of 8.7 thousand million SEK (approximately 0.4 per cent of GDP), of which 14 per cent went to refugees. Swedes pay separate taxes to:

- The central government;
- The county council;
- The municipality; and
- The Lutheran state church.

Most people pay around 31.5 per cent of their income in taxes (although some Swedes pay up to 42 per cent). Of this amount, the majority goes to municipalities; next county councils; and the remainder goes to the central government. For every 100 SEK paid in taxes, 10.53 SEK, on average, went to county councils in 2003.

Sweden spends 8.7 per cent of its GDP in health care (approximately 178 billion SEK). The distribution of these funds is shown in Chart 4.



The pension system, which was modified in 1999, guarantees a pension to people with no income or low income. It also makes provision for people who are incapable of working for various reasons, for widows, and for other survivors. Time spent at home looking after children and time spent studying or doing military service count toward people's final pension.

The parental insurance and family policy compensates both mothers and fathers for loss of income during the period they are away from work after birth or adoption of a child. Parents are entitled to 480 days' leave from work. The compensation level for 390 of these days is

80 per cent of that person's previous salary. For the remaining 90 days, parents receive a flat rate of 60 SEK per day (approximately \$10 daily Cdn). Parents who were not employed before the birth or adoption of their child receive a flat rate of 180 SEK for the first 390 days and 60 SEK for the remaining days. Families with children are also entitled to national child allowances of 950 SEK per month per child, until the child turns 16. Additional payments are made to families with more than three children.

There are two kinds of unemployment insurance. About 90 per cent of all employees belong to an unemployment fund, normally affiliated with a trade union and supervised by the National Labour Market Board. Individual membership fees finance approximately 7 per cent of this voluntary insurance system. The rest comes from government budget appropriations. For those who meet the criteria, insurance pays a maximum of approximately \$125 Cdn per day for the first 100 days and thereafter, a maximum of approximately \$116 Cdn. For those who are not contributing to the voluntary scheme, there is a state-funded basic benefit that gives a maximum of approximately \$55 Cdn per day.

Education is provided free of charge during the nine-year compulsory school system and the upper secondary school system, as well as at universities and colleges. In 2001, Sweden invested 7.7 per cent of its GDP in education. The Swedish literacy rate is 99 per cent.

Most people enjoy a very high standard of housing in Sweden. Approximately 46 per cent of households live in houses, while 54 per cent live in apartments. Some 22 per cent of the adult population also owns a weekend cottage. Low-income households, especially those with children, can obtain a state housing allowance to help meet their housing costs. There are also housing supplements for pensioners of between \$18 and \$700 Cdn (not exceeding 90 per cent of the rent). Almost 22 per cent of households receive a housing allowance or housing supplement. In addition, municipal housing companies (mostly non-profit corporations) own about 50 per cent of all rented flats in Sweden. These homes are available to all, at a reasonable cost.



## PERFORMANCE AND PRODUCTIVITY

### Performance

According to The Conference Board of Canada's research,<sup>14</sup> Sweden is a gold-level performer among OECD countries in some non-medical factors, including sulphur oxide emissions and DPT immunization.

### SULPHUR OXIDE EMISSIONS

Emissions of sulphur dioxide in Sweden have, for the most part, resulted from the combustion of coal and fuel oil. Combustion-related emissions have declined heavily in recent years, but still account for more than two-thirds of Sweden's total sulphur dioxide emissions. Process emissions, primarily from the pulp industry, are another of Sweden's major sources of sulphur dioxide. These emissions, too, have declined considerably within the last two decades. Light fuels like petrol, diesel oil and jet fuel have low sulphur content, with the result that road and air traffic produce only small emissions of sulphur dioxide.

Concerns about environmental conditions and their impact on health resulted in the establishment of 15 environmental quality objectives in 1999.<sup>15</sup> The Swedish parliament established these objectives, which include provisions to achieve clean air and a non-toxic environment, good-quality groundwater and sustainable forest, and to help Sweden become a sustainable society.

These objectives function as benchmarks for environment-related development in Sweden. The government's overarching goal is to solve all major environmental problems within one generation. In order to achieve these objectives, the Swedish Parliament defined 69 interim specific targets, indicating the framework and timeframe to direct environmental efforts over the next few years. Specific clean air targets include:

- A level of 5 µg/m<sup>3</sup> for sulphur dioxide, as an annual average, to be achieved in all municipalities by 2005; and
- A level of 20 µg/m<sup>3</sup>, as an annual average, and 100 µg/m<sup>3</sup>, as an hourly average, for nitrogen dioxide, to be achieved in most places by 2010.

Clean air objectives aim to:

- Substantially reduce air pollution;
- Decrease the risk of future cancers due to air pollution by at least 50 per cent;
- Improve the quality of life for people suffering from asthma; and
- Reduce ground-level ozone concentrations, leading to an increase in agricultural production.

There are regional differences between more densely populated areas and industrial clusters, and rural areas. However, new measures, programs and incentives are being introduced to ensure that Sweden will achieve its environmental objectives. Annual reports to the government provide an evaluation of progress toward interim targets. As shown in Table 8, Sweden performs better than Canada in several environmental indicators. According to The Conference Board of Canada's research,<sup>16</sup> Sweden ranks third in environment among OECD countries.

**Table 8**  
**Selected Environmental Indicators**

	Sweden	Canada
Pesticide use	0.06	0.07
Waste water treatment--public sewage treatment connection rate (secondary and tertiary treatment)	93	57
Emissions of carbon dioxide per unit of GDP	0.23	0.62
Emissions of sulphur oxides per unit of GDP	0.4	3.1
Municipal waste generated per capita	450	500
Municipal waste recycling	19	22

Source: OECD; The Conference Board of Canada.

### IMMUNIZATION

The general state of health in Sweden is excellent, according to international standards. A new-born child in Sweden belongs to the 2 per cent of the global population that has the greatest chance of living a long and healthy life. During the 1990s, the risk of a Swedish child aged 0–4 dying was cut by half. Sweden has one of the lowest rates of infant mortality in the world. (See Table 9.)

Country	Number per 1,000
Sweden	3.4
France	4.5
Spain	4.6
Canada	5.3
Source: Federation of County Councils.	

Sweden has a comprehensive immunization program. DPT immunization is provided free of charge to all children through district nurses at Child Health Centres and primary health care units. The coverage for the vaccine is monitored annually and is more than 98 per cent. The main potential high-risk group is newly arrived refugees, who are considered to have a greater likelihood of low vaccination coverage. However, current figures indicate that refugee children are, generally, well-vaccinated before they arrive. The National Board of Health and Welfare has recommended that every newly arrived child be offered a health exam. The child is then entered into a follow-up system, to complete the immunization program. In the last 20 years, there have been no reported cases of diphtheria, polio, or neonatal tetanus in Sweden.

## Productivity

In 2001, Sweden had 76 hospitals. The majority, or 42 per cent, had less than 199 beds. There are 2.4 acute care beds per 1,000 inhabitants.

Although it has a smaller economy than Canada, Sweden enjoys a high standard of living. A country's productivity is one of the elements that determine its standard of living, but there are many factors that affect a country's productivity. Human capital, innovation and competition are just a few.

## HUMAN CAPITAL

Sweden has a highly skilled workforce. It ranks second in education and skills, among OECD countries.<sup>17</sup> Education is provided totally free of charge until high school. University education is subsidized by the government and there are many student assistance programs available, some of which provide funding that

does need to be repaid. As shown in Table 10, Sweden invests a higher percentage of GDP in education than Canada. There is also a considerable difference in the level of participation in continuing education and training.

	Sweden	Canada
High school completion	81	82
Total public expenditures on education as a % of GDP	7.7	5.7
Ratio of students to teaching staff, primary	12.8	18.1
Ratio of students to teaching staff, secondary	14.1	18.8
Participation in all continuing education and training	54	29
Source: OECD; The Conference Board of Canada.		

Continuing professional education for health workers is generally dealt with as part of labour negotiations. The Swedish Medical Association has targeted 15 per cent of working time to be allocated for continuing education and professional development activities. Although very few members have achieved this target, there are many opportunities for continuing education and training, to ensure that the health care workforce remains up-to-date. As an example, primary care physicians can spend two or three months in acute care hospitals to update their skills and knowledge in certain areas. Public health courses are delivered across the country (in primary care and acute care settings) to teach health care providers about the tools available for managing public health issues.

A large number of physicians in Sweden have Ph.D.s and are dedicated to research. Participation in research and development is highly valued in this society and the central government and county councils provide funding for the continuing training of physicians in this field.

## INNOVATION

Sweden ranks fourth in innovation among OECD countries.<sup>18</sup> The need to be innovative and use innovative technologies seems to be engrained in Swedish society's culture and values, and is reflected in policy and government directions.

Sweden excels in fields such as wireless communications, microelectronics, telematics and photonics. Investment in R&D in Sweden is among the highest in the world. Sweden has had strong public support (e.g., education, innovation systems, infrastructure investments), which has resulted in a successful information and communication technology (ICT) industry. In June 2003, the research firm IDC (a leader in global market intelligence and an advisory firm in the information technology and telecommunications industry) named Sweden the world's top information economy for the fourth consecutive year.<sup>19</sup> As shown in Table 11, Sweden demonstrates stronger performance than Canada in selected innovation indicators.

	<b>Sweden</b>	<b>Canada</b>
R&D as a % of GDP	4.27	1.85
Investment in knowledge (R&D, software and higher education) as a percentage of GDP, 1998	6.54	4.74
Connectedness Index	105	105
Total R&D personnel per thousand labour force	16.2	8.9
Industry-financed GERD as a % of GDP	3.07	0.74
MRI Units per million population	7.9	3.5
Source: OECD; The Conference Board of Canada.		

About 80 per cent of the population aged 16–64 has access to the Internet. In September 2000,<sup>20</sup> it was found that approximately 65 per cent of people aged 16–64 had private access to the Internet in their homes.

Electronic health records exist in every hospital and primary care centre across the country. Functionality of these systems includes demographics data, hospital/physician visit information, historical chart data, diagnostic test results, clinical documentation and

prescription support. Some of the systems are connected to pharmacies, which facilitates filling prescriptions.

There is a unique identifier for every person in the health care system. This allows for the timely analysis of public health and health care management data. There is no connectivity between primary care settings and acute care hospitals—not because of technical capabilities, but because of legislation concerning information privacy. On average, hospitals invest approximately 4 per cent of their budgets in ICTs.

## COMPETITION

A certain level of competition is present in the health care system. Competition in Sweden seems to be driven by workers' sense of pride and strong social responsibility and values, rather than by the need and desire to make more profit, as is the case in the United States. Health care workers at all levels seem satisfied with their jobs, are proud of what they do, and are committed to be the best in their fields.

Under this social framework, governments closely monitor the performance of organizations and individuals (as is the case for prescription patterns). Management reports show lengths-of-stay, outpatient visits, admissions, in-patient care, surgery and other indicators. They are frequently distributed to hospitals to give feedback on their performance. Performance data for hospitals administered by county councils is also included. Managers use this information to improve their services and monitor productivity.

Sweden has adopted service-based funding for hospitals (DRG), which, combined with patients' freedom to choose their health care providers, results in some degree of competition. As money follows the patients, hospitals try to keep high standards of health service delivery and efficiency, in order to maintain their level of financing.

The fact that there is now a variety of employers (private hospitals, private nurses and practitioners) is also introducing a certain degree of competition into the process.

## CONCLUSION

Sweden has a strong health care system. Although the country faces similar challenges to Canada, it is exploring new ways of delivering services, examining rationing, implementing aggressive strategies to ensure a sustainable workforce, and leveraging technology to increase productivity.

One of the main challenges in Sweden is reducing the length of waiting times. Although Sweden has implemented several initiatives (e.g., health care guarantees have been in place for more than 10 years), long waiting times persist for certain therapeutic procedures. The recent introduction of agreements among county councils for increased accessibility to elective care aims to reduce waiting times and is expected to have a positive effect. Since 2000, Sweden has had a national database of waiting times for in-patient elective care. All hospitals in Sweden report to this database via the Internet.<sup>21</sup> The waiting time for seeing a doctor and receiving treatment at a hospital varies (for example, 94 per cent of patients who require

percutaneous transluminal coronary angioplasty are treated within three months, while only 44 per cent of patients see an allergy specialist within the same timeframe). In terms of common medical interventions for the elderly (e.g., operations for cataracts and hip replacement surgery), Sweden is just as accessible as other European Union countries.<sup>22</sup> There are no waiting times for diagnostic procedures in Sweden.

Sweden will continue to restructure emergency and elective health care, and to improve drug prescribing habits. Prevention, non-hospital care and home care will likely be reinforced.

There are lessons to be learned from Sweden's performance in controlling pharmaceutical costs, balancing and controlling the public/private mix and management of primary care. There also good opportunities for Canada to evaluate the potential of alternative payment mechanisms for physicians and their impact on the health care system.

## CLINICAL VIGNETTE

Ellen Berg is a 46-year-old female who lives in Österåker, a municipality about 30 minutes from Stockholm. Ms. Berg has noticed that she is continually hungry and thirsty and is losing weight. She decided to visit her primary care physician, Dr. Nilsson, for a consultation. Ms. Berg calls the family medical practice early in the morning and the receptionist books her for an emergency consultation at 9:30 a.m. After a detailed medical examination, Dr. Nilsson suspects Ms. Berg has diabetes, so she orders lab tests to confirm the diagnosis. Ms. Berg goes to the laboratory, which is located on the same floor of the primary health care clinic. Within the same day, the laboratory sends the results electronically to Dr. Nilsson, who confirms the diagnosis. Immediately, Dr. Nilsson begins to co-ordinate and implement a care plan for Ms. Berg. Within two weeks, Ms. Berg has a consultation with the diabetes nurse at the primary health centre, who gives her some nutritional guidelines, as well as advice for active living and foot care. Since Ms. Berg also presented high cholesterol levels, she is booked with the dietitian for nutritional counseling, as well as with the chiroprapist and the eye specialist, who comes to the primary health care centre twice a year to screen for retinopathy among diabetic patients.

With the help of the primary health care team of providers, Ms. Berg manages to successfully control her diabetes. However, three years later, she is severely hurt in a car accident, which brings her to the hospital. She undergoes surgery to repair a fracture of the femur and three days later, she is ready to go home. The surgeon calls Dr. Nilsson to inform her that Ms. Berg will be discharged. Together, they agree on a care plan for her home. An electronic referral is received a few hours later at the primary health clinic, where the district nurse begins to co-ordinate her home care treatment plan. She visits Ms. Berg daily to clean the surgical incision, change her dressings and check her glucose levels. After 10 days, Ms. Berg finishes her home care plan without complications and returns to her routine check-ups with the primary health care team. As all team members have access to her electronic health records, they are all informed of the latest developments in her case.

<sup>1</sup> Praktikertjänst Group, *Annual Report* (Stockholm: Praktikertjänst Group, 2003).

<sup>2</sup> St. Görans Hospital (Stockholm: St Görans Sjukhus, 2003).

<sup>3</sup> *Swedish Health Care in Transition*, Svenska Kommunförbundet and Landstings Förbundet, (2004).

<sup>4</sup> The Swedish Institute, Fact Sheets on Sweden, *The Care of the Elderly* (Stockholm: The Swedish Institute, July 1999).

<sup>5</sup> The Swedish Institute, Fact Sheets on Sweden (Stockholm: The Swedish Institute, September 2001).

<sup>6</sup> Landstings Förbundet, *Facts on the County Councils and Regions* (Stockholm: The Federation of Swedish County Councils, 2003).

<sup>7</sup> Landstings Förbundet, *Facts on the County Councils and Regions* (Stockholm: The Federation of Swedish County Councils, 2003).

<sup>8</sup> The Swedish Medical Association, *Physicians in Sweden 2004*, [on-line], [cited May 2004]. Available from The Swedish Medical Association, <[www.slf.se](http://www.slf.se)>.

<sup>9</sup> The Swedish Medical Association, *Physicians in Sweden 2004*, [on-line], [cited June 2004]. Available from The Swedish Medical Association, <[http://www.slf.se/upload/Lakarforbundet/In%20English/Lakarfakta\\_2004\\_eng\\_webb.pdf](http://www.slf.se/upload/Lakarforbundet/In%20English/Lakarfakta_2004_eng_webb.pdf)>.

<sup>10</sup> OECD, *Health Data* (OECD 2003).

<sup>11</sup> Luigi Siciliani and Jeremy Hurst, *Tackling Excessive Waiting Times for Elective Surgery: A Comparison of Policies in Twelve OECD Countries* (Paris: OECD, 2003) p. 98.

<sup>12</sup> The Conference Board of Canada, *Performance and Potential 2003-04: Defining the Canadian Advantage* (Ottawa: The Conference Board of Canada, 2003).

- 
- <sup>13</sup> The Conference Board of Canada, *Performance and Potential 2003-04: Defining the Canadian Advantage* (Ottawa: The Conference Board of Canada, 2003–2004).
- <sup>14</sup> The Conference Board of Canada, *Performance and Potential 2003-04: Defining the Canadian Advantage* (Ottawa: The Conference Board of Canada, 2003).
- <sup>15</sup> The Swedish Environmental Protection Agency [on-line], [cited June 2004]. Available from The Swedish Environmental Protection Agency, <<http://www.internat.naturvardsverket.se/>>.
- <sup>16</sup> The Conference Board of Canada, *Performance and Potential 2003-04: Defining the Canadian Advantage* (Ottawa: The Conference Board of Canada, 2003).
- <sup>17</sup> The Conference Board of Canada, *Performance and Potential 2003-04: Defining the Canadian Advantage* (Ottawa: The Conference Board of Canada, 2003).
- <sup>18</sup> The Conference Board of Canada, *Performance and Potential 2003-04: Defining the Canadian Advantage* (Ottawa: The Conference Board of Canada, 2003).
- <sup>19</sup> Invest in Sweden Agency [on-line], [cited June 2004]. Available from the Invest in Sweden Agency, <<http://www.isa.se/templates/Normal.aspx?id=2019#tools>>.
- <sup>20</sup> The National Board of Health and Wellness, *Health on the Internet, A Survey of Swedish Web Sites* (Stockholm: The National Board of Health and Wellness, 2002).
- <sup>21</sup> Luigi Siciliani and Jeremy Hurst, *Tackling Excessive Waiting Times for Elective Surgery: A Comparison of Policies in Twelve OECD Countries* (Paris: OECD, 2003).
- <sup>22</sup> The Swedish Association of Local Authorities and Swedish Federation of County Councils, *Swedish Health Care in Transition* (Stockholm: The Swedish Association of Local Authorities and Swedish Federation of County Councils, 2003).



# Spain



Spain covers 504,782 km<sup>2</sup>, an area comparable to Yukon Territory. With 40.9 million inhabitants (2002 figures), who are mostly Roman Catholic, Spain's population is denser in the capital region and along the coastline. The central areas of the country are more sparsely populated, with average population densities of less than 20 inhabitants per km<sup>2</sup>.<sup>1</sup> Climatic and water conditions, as well as the historic pattern of industrialization, account for the population distribution and the varying economic levels of the Spanish people. The central and northern coastline regions have low agricultural productivity levels, due to limited modernization of the primary sector there, and weaker secondary and tertiary sectors than other parts of the country. Conversely, the more affluent regions (primarily the northeast) are the source of the country's main industrial production and its thriving service sectors.

Significant differences in culture, language and politico-administrative traditions exist in Spain. There are four official languages: Castilian (the first official language of the whole population), Catalan (spoken in different dialects in Catalonia, Valencia and the Balearic Islands), Galician (closely related to Portuguese) and Basque (the non-romance language).

## ORGANIZATION OF THE COUNTRY

Spain is a constitutional monarchy. Following a long period of dictatorship, the electorate approved a new constitution in 1978, restoring the monarchy. The king, Juan Carlos, will be succeeded by his son, Felipe. The parliament consists of two houses: the Congress of Deputies and the Senate. Real power resides in the Congress of Deputies, which authorizes the formation of the national government, has the power to bring down the government, and is the first to know about government bills and budgets. The Congress must confirm or reject amendments or vetoes to legislation, before Senate approval. The Senate has directly elected members and regional representatives. Parliament is

elected for a maximum four-year term, but may choose to dissolve earlier.

Since 1978, there has been a profound political decentralization, giving a considerable degree of power to the 17 regions (Autonomous Communities) of the country, each of which has its own government and parliament. The country is organized into municipalities (almost 8,000), 50 provinces and 17 self-governing Autonomous Communities.

There are three main political forces with nationwide support and a handful of regional (or nationalist) groups. The three national political parties are the centre-right Popular Party (PP), the centre-left Spanish Socialist Workers' Party (PSOE) and the Communist-led coalition, the United Left (IU). The two most prominent regional groups are the centre-right Catalan party, Convergence and Union (CiU), and the centre-right Basque Nationalist Party (PNV).

Only days after the terrorist bombings of March 11, 2004, the Socialist party, under José Luis Rodríguez Zapatero, won the national election on March 14, 2004. The Socialists lack a majority in the new parliament. However, the Prime Minister has announced that the Socialists will form a minority government, with "permanent dialogue" and legislative agreements with smaller parties, to ensure an inclusive form of governance.<sup>2</sup>

In 1986, Spain joined the EU and currently accounts for 11 per cent of the EU-15's population and more than 8 per cent of its gross domestic product. All the main political parties are firmly committed to playing an active role within the EU. Spain was one of the founding members of the Economic and Monetary Union (EMU) and supported the use of a single currency. It has used the Euro since it was launched in January 1999.

Spain's mixed capitalist economy maintains per capita GDP at 80 per cent of that of the four leading West European economies. Unemployment had been steadily falling under the previous centre-right administration,

but remains high, at 11.7 per cent. There was a 2.4 per cent growth rate in 2003, despite the faltering European economy.<sup>3</sup> In order for Spain to be able to sustain its internal economic advances and its competitiveness within a single currency area, further progress will be needed to change labour laws and reform pension schemes. Challenges for Spain will likely continue as the monetary and other economic policies of an integrated Europe are adjusted and unemployment continues to be reduced.

## ORGANIZATION OF THE HEALTH CARE SYSTEM

The Spanish health care system (Exhibit 3) was established by the 1978 Constitution and consolidated by the 1986 General Health Care Act, as an integrated National Health Service (NHS), largely financed by public taxes, which provides nearly universal health care, free of charge at the point of use. All general practitioners and primary health care centres, outpatient specialized clinics and physicians' offices, as well as 80 per cent of hospital care, is publicly owned and managed.

### The Role of the Central Government

The central government is responsible for:

- General co-ordination of health activities and basic health legislation;
- Financing the health system and regulating the financial aspects of social security;
- Defining the benefits package guaranteed by the NHS;
- International health;
- Pharmaceutical policy;
- Under-graduate and post-graduate training; and
- Civil servant human resources policies.

The Ministry of Health and Consumer Affairs is the key authority responsible for the general co-ordination of public health and health care services, and for drafting basic health legislation and policy. Under the direct authority of the Ministry of Health, there are two institutions that have a strategic role in the decentralized process:

- The National Institute of Health (INSALUD) manages social security health care services in the 10 Autonomous Communities that have not yet assumed full political responsibility for health services (serving 38 per cent of the population).
- The Institute of Health Carlos III performs a number of functions through the Agency for Assessment of Health Technologies, the National School of Public Health, the Health Research Fund and a set of National Centres, which cover a series of research and service areas. These include:
  - The promotion and co-ordination of biomedical research;
  - Training of personnel in public health and health services management;
  - Public health services;
  - Health information;
  - Technology assessment;
  - Scientific and technical accreditation; and
  - Technical advisory functions.

The Ministry of Health directly oversees a number of other health care bodies, including the National Organization for Transplants, the National Institute of Consumer Affairs, the National Plan on AIDS and the Spanish Pharmaceutical Agency.

### The Role of Regional Governments

The system has been progressively decentralized, although the process is not yet complete. Each Autonomous Community has health planning powers and the capacity to organize its own health services to the level of decentralization that it considers most appropriate to its needs.

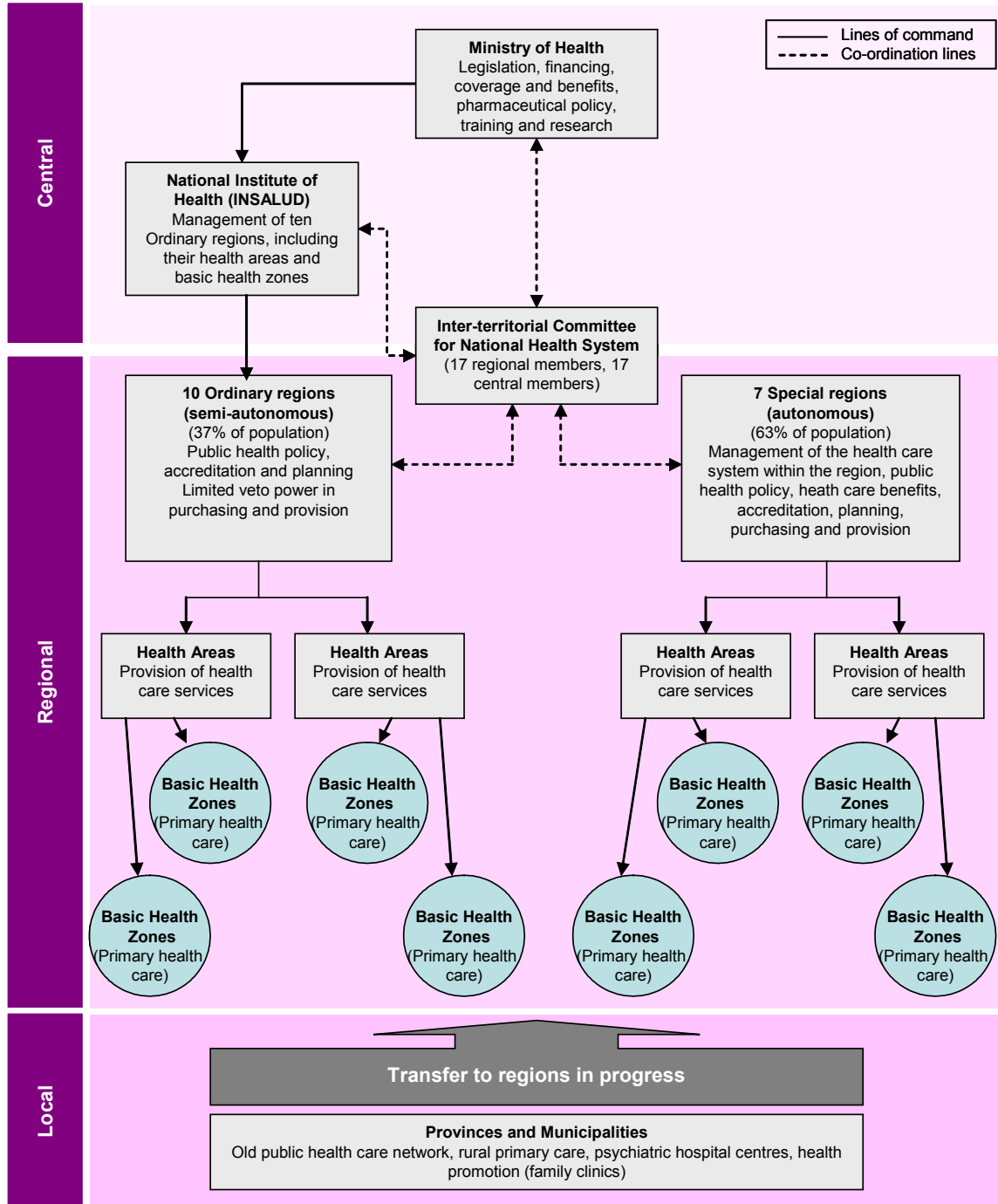
The 1978 constitution establishes the responsibility for the central state, the Autonomous Communities and those that are common to both. Health care and social security are shared areas of responsibility, although to very different degrees. Because of unresolved political disagreements related to the division of powers among territories, powers have devolved to the Autonomous Communities to various degrees. Only seven Autonomous Communities enjoy considerable legislative freedom and autonomy in health care policy, but they have restricted implementation powers in social security. The 10 remaining Autonomous Communities have a limited degree of autonomy in health care; they



do not have responsibilities in social security at the local level. However, all 17 Autonomous Communities have

considerable legislative and implementation powers in public health, community care and some social services.

**Exhibit 3**  
Organizational Chart of the Health Care System



Source: European Observatory on Health Care Systems.

The **Inter-Territorial Council** operates as a coordinating body for central government and the regions in the area of health. It includes health councilors from each of the 17 Autonomous Communities and an equal number of representatives from the central administration. It is chaired by the Ministry of Health and has advisory functions. More importantly, it ensures policy learning and implementation at various government levels and the introduction of consensus-based policy options.

## Health Areas and Health Zones

Each Autonomous Community has a number of health areas and several basic health zones. Health areas are the core of the health system. They are responsible for the management of health facilities (health centres and hospitals), services and programs in their territory. Each health area covers a population of 200,000–250,000 inhabitants. However, many Autonomous Communities differ in size with variations in local geography, socio-economic standards, demography, employment, epidemiological factors, cultural concerns, transportation and health facilities.

Health areas are administered by “area managers,” if they lie within the jurisdiction of the seven primary Autonomous Communities’ governments, or are administered by the central government (in the case of the 10 remaining Autonomous Communities).

Basic health zones are units of the health areas and make up the primary health care system. They are determined by population concentration, epidemiological factors and the resources of each zone. Each zone covers a population of 5,000–25,000 people. This decentralized organization has made it possible for health resources to be adapted more efficiently to the social, demographic and cultural factors of each region, and has facilitated a more balanced growth of the country’s health services. Basic health zones are administered by primary health care teams, who are accountable to the Health Area manager. Because the health areas have limited managerial autonomy, basic health zones are also accountable to the regional authority (the seven fully Autonomous Communities) or the central authority (the 10 remaining Autonomous Communities).

## The Role of Local Governments

In 1986, the *General Health Act* established the transfer of most of the formerly local health responsibilities to the Autonomous Communities, not including the basic sanitation policies and environmental health activities. Provinces and large city councils own most psychiatric hospitals, mental health care centres and nursing homes, although management (including personnel) and regulation of these centres is the responsibility of the Autonomous Communities. Municipalities hold some managerial responsibilities in the areas of sanitation, environmentally related health activities and public health. Participation of local governments in the health care system has been reduced to mainly advisory functions through community health councils.

## Health Services Financing

The Spanish health care system is financed by general taxation, which replaced the social insurance system in 1989. Taxes are collected centrally and allocated on a per capita basis to the Autonomous Communities, which administer the devolved Spanish health services. Funds are allocated to INSALUD for those Autonomous Communities whose health services are centrally managed. The allocation of funds to the different regional health service programs and expenditure categories is determined by the Autonomous Communities’ governments, in their respective budget Acts. The Autonomous Communities and local (municipal) governments may add their financial resources to the central financing. However, the share of total health care expenditures, financed through taxes raised by regional and/or local governments, is less than 10 per cent.

The Financial and Fiscal Policy Council is the multilateral intergovernmental body that regulates and steers the regional health care resource allocation system. Negotiation takes place every four years within this body, including budgetary agreements and commitments among levels of government. The council is composed of representatives of central and regional finance departments. Ninety-eight per cent of total public health care expenditure (excluding civil servants’ mutual funds) is funded through general taxation, while

the remaining 2 per cent is generated by other types of coverage.

Total public health care expenditures reached approximately \$81.4 billion Cdn (or 7.5 per cent of GDP) in 2001. Health expenditures tripled between 1986 and 1997. (See Table 12.) Between 1991 and 1997, there was an increase of 40 per cent, compared to an increase of 110 per cent between 1986 and 1991.

Public health care expenditures have been increasingly decentralized. Table 13 shows the percentage of health care spending executed for each administrative level.

In 2001, public health care expenditures accounted for 71.5 per cent of the total health care expenditure and 5.4 per cent of Gross Domestic Product (GDP), a slight decrease from 72.3 per cent of total health care expenditures and 5.8 per cent of GDP in 1993.<sup>4</sup>

Between 1991 and 2001, there was a significant increase in the budget for pharmaceuticals. As noted in Table 14, this element is the only one that increased in this timeframe.

Publicly funded hospitals operate with a fixed budget, which is determined by the hospitals' past expenditures and case mix.

**Table 12**  
**Total Health Care Expenditures 1990—1997**

<b>Total health care expenditure</b>	<b>1986</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>
Value in current prices Billion Ptas	-	3468	3865	4366	4616	4819	5110	5448	5762
Value in current prices Million \$ Cdn (2004 exchange rate)	-	34.2	38.2	43.1	45.6	47.6	50.5	53.8	56.9
Share of GDP (%)	-	6.9	7.0	7.3	7.5	7.4	7.3	7.4	7.4
Total public health care expenditure*	1450	2730	3048	3444	3679	3799	3999	4279	4385
Value in current prices Million \$ Cdn (2004 exchange rate)	14.3	26.9	30.1	34.0	36.4	37.5	39.5	42.3	43.3
Public as a % of total health care expenditure	-	78.7	78.9	78.9	79.7	78.8	78.3	78.5	76.1
* Ministry of Health & Consumer Affairs—1999. Sources: OECD; European Observatory on Health Care Systems.									

**Table 13**  
**Percentage of Public Health Care Spending Executed for Each Administrative Level**

<b>Administrative Level</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
Central Government	39.1	39	39	8.5
Autonomous Communities	58.3	59	59.1	89.8
Local Corporations	2.5	2.0	1.9	1.7
Source: Spanish Ministry of Health and Consumption.				

Table 14 Allocation of Public Health Care Expenditures (%)				
Service Type	1991	1996	2001	% change between 1991 – 2001
Hospital and Specialized Services	54.6	54.0	52.6	- 3.7
Primary Health Services	16.9	16.2	15.7	- 7.1
Public Health, Administration, Training Research	5.2	5.2	4.3	- 17.3
Pharmaceuticals (doctors' prescriptions)	16.8	19.5	21.9	30.4
Ambulance, Prostheses, Therapeutic Appliances	2.0	2.5	1.6	- 20.0
Capital Expenses	4.5	2.7	3.9	- 13.33
Total	100	100	100	

Source: European Observatory on Health Care Systems.

One major trend is that the public health care expenditures of the seven fully Autonomous Communities have increased at a greater rate than the remaining 10 Autonomous Communities, which are managed by the central government. Higher health expenditures tend to reflect improved health care outputs by the public health care system, such as greater modernization, rationalization, access and coverage. On the other hand, these choices create challenges for strategies to control costs in Spain. There is a limited degree of central government political control over the seven special Autonomous Communities, which carry full health care authority.

Since 1991, health care reforms have attempted to contain costs, rationalize organization and management, and increase the effectiveness and efficiency of health care provision. Some of these proposed reforms include:

- Changes to the organization and management of hospitals: the government implemented the *15/1997 Act* allowing Spanish hospitals greater flexibility and autonomy in the way they are organized. The Catalan Autonomous Community has introduced an approach to hospital financing that provides incentives for efficiency.
- Introduction of contracts and payment systems: these systems attempt to finance hospitals, balance budgets and introduce incentives that encourage efficiency.
- Pharmaceutical cost-containment measures: the introduction of the two negative lists of pharmaceuticals (excluded from state funding) in 1993 and 1998 which had a limited impact on expenditure, according to available research. Positive overall effects were achieved through significant regulation of pharmaceutical pricing,

supply and distribution (e.g., profit, commercial margins, reference prices and operating hours).

- Increasing the role of private ownership and management within the public health care sector: since the early 1990s, Catalonia has been a leader in contracting out integrated management of services to private companies at the regional level, in several health areas.

## PRIVATE HEALTH CARE EXPENDITURE

In 2001, private health care expenditures accounted for approximately 28.5 per cent of the total health care expenditure of Spain and 2.1 per cent of the country's GDP.<sup>5</sup> Health care expenditures include:

- Out-of-pocket payments to the public system (i.e., user co-payments for pharmaceuticals, which account for 40 per cent of total out-of-pocket payments);
- Out-of-pocket payments to the private sector, either as user co-payments or fee-for-service (i.e., 57 per cent of the total out-of-pocket payments are direct payments for private outpatient care, and 3 per cent are direct payments for in-patient care); and
- Voluntary insurance, which falls into three categories: purely voluntary, civil servants' mutual funds and employer-purchased insurance.

Voluntary (private) insurance is used by between 13.1 per cent and 18.7 per cent of the population and generally supplements services offered by the NHS (e.g., dental services, which are not covered) or provides an alternative modality of care.

## Health Insurance Program

Although public health care coverage is almost universal, it does not cover 100 per cent of the population. However, in 1997, it was estimated that 99.4 per cent of the population was covered by a statutory system. (See Table 15.) This includes those who are protected under the social security system (94.8 per cent) and those (civil servants and their dependants) who are covered through a system which is based on mutual funds (4.6 per cent). The remaining 0.6 per cent is excluded from universal coverage, since it represents affluent, self-employed, liberal professionals and employers. These factors relate to the social security link (on an employment-related basis), and not to citizenship and residence.

According to the *Royal Decree 63/1995*, the services covered by the national insurance plan include:

- Primary care: general medical and pediatric care at the doctor's office and the patient's home, and programs of disease prevention, health promotion and rehabilitation.
- Specialized care: outpatient and in-patient care, e.g., all medical and surgical specialties in acute care.
- Pharmaceutical benefits: the user pays 40 per cent of the price of prescription drugs, except for in-patients and specific groups (the retired, handicapped and people who have suffered occupational accidents), for whom there are no out-of-pocket payments. There is a range of drugs for chronic diseases, for which only 10 per cent of the cost is paid. All users of civil servants' mutual funds pay 30 per cent of pharmaceutical costs.
- Complementary benefits: prostheses, orthopedic products, wheelchairs, health care transportation, complex diets and home-based oxygen therapy.

Primary care is the usual point-of-entry to the health system, and primary care physicians are responsible for providing access to specialized care. Primary care is provided through health centres, by primary care teams that include doctors, nurses, nursing aides, and office staff. In some health centres, there are also support teams who provide dental care, mental health care, rehabilitation and other services.

Specialized care is provided through hospitals and in specialist medical centres. The majority of these centres are state-owned, although through regional health services, private centres can also provide attention on a complementary or substitute basis.

<b>Health Insurance Type</b>	<b>Per cent</b>
Public coverage	99.4
▪ Social security	94.8
▪ State mutual benefit societies—Social security	2.3
▪ State mutual benefit societies—Private insurance	2.3
Welfare	-
Individually contracted private medical insurance	8.4
Private medical insurance contracted by company	1.9
Regular doctor's fee*	0.2
Private doctors*	0.2
* The last two rows represent non-health insurance coverage.	
Source: Spanish Ministry of Health and Consumption.	

Dental care is excluded from public health care expenditures and accounts for an important part of private health care expenditures.

## MANAGING COST DRIVERS AND ESCALATORS

### Demographics

As in many other OECD countries, the Spanish population is aging. Several factors contribute to this, including limited population growth (current rate is 0.4 per cent), a plunging birth rate, a low fertility rate (1.2 in 2002), and an increase in the life expectancy of the population (currently at 76.1 for men and 83.0 for women<sup>6</sup>). In 2002, 21.6 per cent of the population was more than 60 years of age. The rapid aging of the population is accompanied by growth in pension costs, health care and social services costs.

Spain's net migration rate in 2003 was 0.99 migrants per 1,000 of population.<sup>7</sup> This reflects a growing positive immigration balance in Spain, which has gone from being a country of emigrants to being a land of refuge for economic immigrants, predominantly from

North Africa, Latin America and Eastern Europe. This influx of immigrants poses new social problems, such as the demand for social and residential integration of the new arrivals, and access to housing, health care and education.

## General Economy

In 2002, Spain had an inflation rate of 3 per cent (based on consumer prices) compared to 3.4 per cent in 2000 and 2.3 per cent in 1999.<sup>8</sup>

## Home Care

A very low level of public home care is available in Spain (4 per cent of total services provided). Home care is organized according to the various health areas. Within most municipalities, the infrastructure exists to deliver basic support to those people being cared for at home and their caregivers. Although accessibility is severely restricted, home care is expanding. However, co-ordination with medical care is still insufficient.

## Pharmaceuticals

Government authority over pharmaceuticals is divided into three levels: the central government, Autonomous Communities and regional health services/ INSALUD.

The central government:

- Regulates and authorizes clinical trials;
- Issues marketing authorizations for pharmaceuticals;
- Controls advertising of drugs and health care products directed towards the public;
- Licenses pharmaceutical laboratories;
- Regulates the quality and manufacture of pharmaceutical products;
- Fixes the price of drugs; and
- Sets co-payments and decides on the inclusion or exclusion of pharmaceuticals on the list of publicly financed medicines.

The Autonomous Communities oversee planning for pharmacies, fixing the criteria for the opening or relocation of outlets.

Regional Health services and INSALUD are in charge of the day-to-day administration of pharmaceutical benefits, setting the conditions of the agreements with pharmacies, and implementing cost maintenance programs. By law, they hold wider powers over the implementation of centrally issued legislation in the pharmaceutical field.

Public pharmaceutical expenditures have grown considerably since the early 1990s.<sup>9</sup> (See Table 16.) This appears to have resulted mainly from the rising average cost per prescription, rather than from an increase in the number of prescriptions. It reflects the increase in the market share of new and more expensive drugs. The significant year-by-year growth in pharmaceutical expenditures during the 1980s and early 1990s led to the adoption of a number of cost-limiting measures since 1993. These measures have targeted different areas of the pharmaceutical sector. The most important policy change has been the introduction of a negative list of pharmaceuticals, excluded from public funding by the *83/1993 Royal Decree* on selective pharmaceutical financing, which was enlarged and updated through the *1663/1998 Royal Decree*. The combined effect of both decrees led to the exclusion from public funding of 29 per cent of pharmaceutical brands registered on the market. This strategy has had limited impact on reducing costs.

A number of other cost-limiting policies were applied to the pharmaceutical sector, such as:

- A reduction in the value-added tax (VAT), applied to medicines;
- A reduction in the commercial prices of drugs;
- The use of generic products; and
- The application of discounts.

As a result of these overall regulatory strategies, the rate of growth in prices effectively paid by the public sector has been decreasing since the early 1990s.



Table 16 Public Pharmaceutical Data								
	1986	1990	1993	1994	1995	1996	1997	1998
Value in current prices Billion Ptas	214	420	609	649	728	813	856	945
Value in current prices Million \$ Cdn (2004 exchange rate)	2.1	4.1	6.0	6.4	7.2	8.0	8.5	9.4
% increase over previous year	-	16.24	7.76	6.53	12.27	11. 60	5.31	10.36
Total prescriptions (in millions)	-	-	505	494	525	552	526	561
Average price per prescription in current Ptas	542	847	1271	1380	1455	1539	1589	1755
Average price per prescription in \$ Cdn	5.4	8.4	12.6	13.7	14.4	15.2	15.7	17.4

Source: European Observatory on Health Care Systems.

## Health Workforce

More than 240,000 professionals work in the public health care system, almost 73,000 of whom are physicians (a little more than half of these are specialists), and almost 95,000 are nurses (the great majority, again, are in specialized care). The rest are technicians, midwives, dentists, pharmacists, social workers, physiotherapists, occupational therapists, and many others health professionals who support patient care. Approximately 110,000 other people also work in the centres and buildings of the health system, including maintenance staff, laundry staff, porters, etc.<sup>10</sup> Chart 5 outlines the distribution of health care personnel.

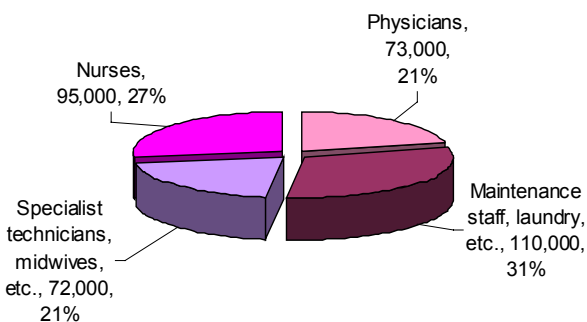
During the 1970s and early 1980s, a large number of physicians graduated from medical school. Since the 1990s, however, there has been a significant reduction in the number of physicians, although their number has remained high. For example, there were 3.2 physicians per 1,000 inhabitants in 2001. At that time, there were more than 125,000 physicians in Spain; of that number, approximately 70 per cent were specialists and 30 per cent were general practitioners.

There are considerable recruitment and retention issues in the primary health care sector. Despite efforts to expand the primary health care sector, the hospital sector still retained a higher proportion of total health care professionals in 2000 (76.2 per cent, compared to the EU average of 57.3 per cent).

In contrast, there are too few nurses, with a ratio of 6.9 nurses per 1,000 inhabitants, or 1.8 nurses per physician in 1997—almost half the EU average ratio, at 3.2 nurses. There has been little progress made in this field since the mid-1980s. The number of nurses has increased by only 20 per cent since then, slightly below the increase in physicians, and far below the growing numbers of other health care professions, like dentistry (with a 186 per cent increase). There is also a greater than average number of pharmacists, compared with average European levels.

In recent years, there have been several attempts to persuade health professionals to commit to the public sector, through limited economic incentives. A large number of health professionals still work in both the public and private sectors.

**Chart 5**  
Distribution of Public Health Care Personnel



Source: Presidencia del Gobierno.



Regulations governing the payment of health care professionals and negotiation of working conditions are established by the central government. This leaves health centre managers with a limited capacity to negotiate salary incentives, limited staffing flexibility and difficulty drawing professionals to a particular institution. Only the special Autonomous Communities can modify some salary complements. Both specialists (outpatient and in-patient) and general practitioners are public employees in Spain; therefore, their positions are salaried. Their basic salary is regulated by the central government, but their total salary varies among Autonomous Communities, which may provide different types and amounts of complements to the basic salary. In 2001, 44 per cent of the total public health care expenditure was spent on health care wages.<sup>11</sup> Although relatively low, compared to Canada, this figure comprises the wages of all public health care professionals.

Specialist physicians who work in publicly funded hospitals are not allowed to visit private outpatients, or to operate on private patients within the same hospital, yet they are allowed to work in privately funded hospitals. Specialists who work in publicly funded hospitals—but, not in privately funded hospitals—have higher remuneration, compared to those who also work in privately funded hospitals.<sup>12</sup>

## Demand for Health Care

Spanish citizens have expressed greater satisfaction with their public health care system over the past decade. Between 1993 and 1998, the proportion of the population who thought the public health care system worked well (or only needed minor changes) increased from 50 per cent to 70 per cent. In contrast, the proportion of the population who thought the system needed to be rebuilt dropped from 20 per cent to 7 per cent.

With respect to primary health care, the average satisfaction level nearly doubled between 1985 and 1995, and remained constant after 1995. This suggests an overall positive effect, following the implementation of primary care reforms. As for hospital care, between 1985 and 1990, overall satisfaction decreased from 70 per cent to 50 per cent, which seems to result from the

significant cost-control initiatives. After 1995, satisfaction levels rose to 70 per cent and have remained constant ever since.

There are notably low levels of public satisfaction for certain aspects of care, such as:

- Waiting times;
- The number of individuals sharing hospital rooms;
- Administrative procedures required to get access to hospital care; and
- Information addressing consumers' needs or reaching the general population (benefits and services offered, user rights, health promotion and prevention campaigns).

## Hospital Beds

In 2001, there were a total of 3.2 beds per 1,000 of population. The majority are acute care beds. Between 1979 and 1996, the absolute number of beds across regions decreased by 25 per cent, although this figure varies among regions. In the mid-1990s, 68.8 per cent of the total number of beds were public (325 hospitals), 18.4 per cent were private-for-profit (322 hospitals) and 12.4 per cent were private not-for-profit (135 hospitals). The number of private beds was significantly reduced during the 1990s, when 185 hospitals and more than 6,000 beds were closed down.

There was a rise in the demand for specialized services between 1986 and 1996. This increased demand applied to all categories, including outpatient consultations, emergency services and in-patient care. The number of outpatient consultations has increased by a factor of four, as a direct result of the integration of secondary care into hospital services. Demand for emergency services increased by more than 60 per cent during that period. Demand for in-patient care has gone up. This is reflected in the 20 per cent increase in discharges and almost 60 per cent increase in surgical operations.

## Waiting Times

Although information on waiting times has only been available since the mid-1990s, there is evidence of significant increases since the mid-1980s.<sup>13</sup> For example, research shows public dissatisfaction with

waiting times for publicly funded, non-emergency surgery.

During the period of 1996–2000, targets were set to reduce mean waiting times and establish a maximum waiting time. In addition, explicit guidelines on clinical prescriptions or surgical criteria were established for the most frequent waiting list pathologies. This allowed for the ranking of patients on the waiting list by priority (high, routine or low). The attempts to reduce waiting times made during the same period included:

- Funding allocations to hospitals on the basis of activity (mean and maximum) or waiting time targets;
- Financial compensation to public hospital physicians who choose to work in the afternoons to shorten waiting lists;
- An increased role for private hospitals; and
- Increased patient entitlement for those who are waiting more than six months, to choose other public or private hospitals.

The first two measures became successful strategies for reducing waiting times. Financial incentives were available to all categories of hospital personnel, although they were proportionate to their salaries and varied according to professional category. For example, the maximum increase in salary was 3 per cent for specialist physicians, 2 per cent for nurses and 1 per cent for other staff.

By 2000, the maximum waiting time was brought down to six months and the mean waiting time was reduced, to 55 days. The waiting times of patients in the 10 Autonomous Communities managed by the central government (INSALUD) over the period 1996–2000 decreased from 210 days in June 1996 to 67 days in 2000. Similarly, during the period 1992–2001, the waiting times for surgical procedure have generally declined (growth rates from 1994–2000 varied by between –2 per cent and –10.3 per cent, and increased for very few—between 0.4 per cent and 18.5 per cent.

## BALANCE OF INVESTMENTS IN HEALTH, HEALTH CARE AND OTHER SOCIAL DETERMINANTS OF HEALTH

According to the Conference Board’s research, Spain’s economy ranks 18<sup>th</sup> among OECD countries.<sup>14</sup> Spanish GDP per capita is \$22,400 (based on current PPP)<sup>15</sup> at current prices and in U.S. dollars. The growth of health care costs in Spain has had a major impact on total public spending and the consolidation of public accounts. Costs have risen from an average of 5.7 per cent of the GDP in the period 1980–1987 to 7.5 per cent in 2001, of which 5.4 per cent is publicly financed and 2.1 per cent is privately financed.<sup>16</sup>

The Spanish welfare system is essentially comprised of social security and health. These two items accounted for two-thirds of the total social expenditures of the central government during the year 2000. As shown in Table 17, health care has remained the second largest social expenditure, after pensions.<sup>17</sup> Education and housing have a much smaller budget, in relation to the total budget. This is indicative of the extent of the decentralization process between 1985 and 2000, resulting in continuous growth in the social expenditures of the Autonomous Communities, to the detriment of the central administration’s expenditures.

**Table 17**  
Central Government’s Budget as a Percentage of the Total Social Expenditures

Social Programs	1985	1992	1995	2000
Pensions	16.91	23.1	23.6	27.6
Social Benefits	6.5	5.0	4.9	3.30
Unemployment	5.73	6.5	6.8	4.00
Health Care	9.01	10.8	11.2	13.2
Education	8.00	5.5	3.7	2.2
Housing	0.59	0.4	0.4	0.33
Other	1.1	1.0	1.2	4.47
<b>Total</b>	<b>47.8</b>	<b>52.3</b>	<b>51.8</b>	<b>55.1</b>

Source: Unidades de Políticas Comparadas.

For the Autonomous Communities, social expenditures account for more than half of the total expenditure.<sup>18</sup> (See Table 18.) The two most important budgetary items at the regional level are health care and education.

<b>Table 18 Autonomous Communities' Social Expenditures (2000)</b>	
<b>Item of Expenditure</b>	<b>Budget %</b>
Social Security & Protection	7.06
Health Care	24.07
Education	24.34
Housing and Development	2.25
Others	4.13
Total Social Expenditure	61.85
Source: Unidades de Políticas Comparadas.	

The population is well-educated; more than 50 per cent have completed secondary school and nearly 15 per cent have a university degree. The total literacy rate (for age 15 and above) is 97.8 per cent.<sup>19</sup> Spain is an average performer, in terms of health determinants (social support networks, education and working conditions), ranking 16<sup>th</sup> among OECD countries.<sup>20</sup> Spain ranks 18<sup>th</sup> in protection of the environment, suggesting that more effort needs to be made in this area.

## PERFORMANCE AND PRODUCTIVITY

### Performance

The Conference Board's research identified Spain as a gold-level performer in Diphtheria–Pertussis–Tetanus (DTP) Immunization and female potential years of life lost (PYLL), and mortality due to lung cancer.

### DPT IMMUNIZATION

The DPT immunization rates for one-year-old children have increased consistently since 1993, from 87.4 per cent to 98 per cent in 2002.<sup>21</sup> This reflects the development of an extensive, reformed primary care network and the progressive integration of all public health responsibilities at the regional level (Autonomous Communities). The Autonomous Communities made significant efforts in immunization schedules and practices, and implemented them at the health areas level. Since 1999, a unified immunization calendar, as established by the Inter-Territorial Council, is provided to each Autonomous Community responsible for the

planning and management of immunization programs. Primary health care services are specified in contracts to health areas and health centres; they define the target immunization level for the population covered.

### MORTALITY RATES AND PYLL DUE TO LUNG CANCER IN FEMALES

Mortality rates due to lung cancer are relatively low in Spain, compared to other EU countries.<sup>22</sup> In 1985, the rates for men and women were 15 per cent and 25 per cent lower than the EU rates. Although these rates continue to be among the lowest in Europe, they are increasing.

In order to address this trend, a national prevention plan for 2003–2007 was approved in January 2003. It contains a broad range of prevention and promotion activities, in addition to the reinforcement of non-smoking areas.<sup>23</sup> Some of these activities target primary health care delivery. For example, smoking habits of clients are documented in their clinical assessment and there is a range of services to support smokers trying to quit smoking.

The national plan sets a number of specific targets for 2007 and a per capita annual budget for each Autonomous Community. Some of the targets include reducing smoking in the population of 16 years or older to 28 per cent (from 34 per cent); another aspect is the protection of individuals from tobacco smoke-contaminated air.

### Productivity

Post-graduate training of medical specialists and general practitioners is delivered through the post-graduate training system (MIR), which is based on a period of paid practical work (three to five years), and depends on the number of places available annually. Candidates are selected through a competitive entry examination.

Two specialties in nursing have been available since 1996: mental health and midwifery. Training for other specialties is in development. Access to training depends on the number of available places, despite the acute shortage of trained nurses in Spain.

There are no official training programs for health sector managers, although the National and Regional Schools of Public Health and other public and private teaching bodies offer some management training courses. The health care system does not demand specific management qualifications of individuals who fulfill managerial functions.

A large number of health care-related courses are provided through continuing professional education programs in Spain. For example, nurses can access continuing education courses for specific topics, such as mental health, in the context of primary health care, palliative and chronic care, drug addiction, STDs and AIDS, and others.

## INNOVATION

Spain ranks 21<sup>st</sup> in innovation, among OECD countries.<sup>24</sup> Spain lags behind other developed countries in global demand for computer information systems (IS) and investment in them. For example, Spain invests 1.4 per cent of its GDP in information technology, whereas the average of EU countries is 2.04 per cent. In order to improve Spain's global progress in innovation, a recent national, three-year plan on scientific research, development and technological innovation has set clear objectives for health care.<sup>25</sup>

In the Spanish health care system, computer information systems are gradually emerging in hospitals and in a limited way, in primary health care centres; their application is largely for administrative purposes. The development of electronic patient record systems has not yet reached the point where they can be substituted for paper-based filing systems.

Spain is beginning to use smart card technology for integrating patient identification and the electronic health record system.<sup>26</sup> These technologies enable access to hospitals and primary care databases, establishing links to wider health care networks.

Spain's investment in research and development (R&D) is significantly lower than the average R&D spending of EU countries. Nonetheless, out of the total R&D expenditure, 14.3 per cent goes to medical science, which has been the most productive scientific field in recent years. Eighteen per cent of the total R&D

expenditure has been consumed by pharmaceutical research.<sup>27</sup> The number of biomedical researchers per 100,000 inhabitants in Spain is much lower than the average of other EU countries.

## COMPETITION

Competition among private and public providers is limited, in that some private sector services are contracted out to the public system. Since the early 1990s, the Autonomous Community of Catalonia has explored opportunities to subcontract the integrated management of services in several health areas to private organizations. Similarly, the Autonomous Community of Valencia has contracted out hospital services on a long-term basis to fully private for-profit, new hospitals in two health areas. A per capita management system has also been introduced in the Autonomous Community of Valencia to finance area hospitals and promote competition among public hospitals.

Since 1993, private coverage is directed towards supplementing services offered by the public health care system. Competition and free choice among insurers has been an issue in the electoral campaigns of both the Popular Party and the Catalan governing party CiU. However, there is still considerable public opposition to market-oriented policies in Spain, which definitely hampers policy reform.

## CONCLUSION

Since the 1986 General Health Act, considerable changes and improvements have been achieved in the Spanish public health care system. Improvements relate to the development of a newly reformed primary care network and cutbacks to both financial and management structures.

Some of the challenges yet to be solved in Spain include the guarantee of equal access to health care for socially disadvantaged groups; the consolidation of a stable system of financing; controlling increases in health expenditures; decentralization of services to all Autonomous Communities; and the co-ordination and integration of various services within the public health care system. The most urgent future challenges entail:

- Consolidation of health information systems (information collection, homogeneous codification, and a common databank pooling system) to promote accountability and efficiency;
- Increased managerial autonomy at the local levels, together with an increased transfer of responsibilities, risks and resources; and
- Expansion of social and community care (long-term care, home care, mental health and rehabilitation) and their integration into the framework of the Spanish public health care system.

The Spanish experience in organizing, managing and delivering their health care services presents a number of potential lessons for Canada:

- There is good accessibility to primary health care, in terms of available appointments, consultation time per visit, and information received from the general practitioner.
- Spain's integrated public health care system is characterized by the majority of hospitals being publicly owned and the majority of health care personnel being salaried employees. This method of paying health care professionals has kept the health care wages as a portion of total health care expenditures relatively low, compared to Canada.

## CLINICAL VIGNETTE

Ana Vega, is a 46-year-old woman who lives in San Sebastian, a city in the province of Guipúzcoa (1.997 km<sup>2</sup>), which is in the northern, Basque region of Spain. Ms. Vega has been suffering from increased fatigue and frequent urination. Early one morning, she decides to call her general practitioner, Dr. Flores, for an appointment. She receives an appointment for the next day, at 8 a.m. The health centre is about 20 minutes traveling distance from her house. After a thorough medical examination, Dr. Flores indicates that Ms. Vega has diabetes. He then collects urine and blood samples to confirm the diagnosis. Samples are sent to the nearest hospital laboratory and results are forwarded back electronically to Dr. Flores in the afternoon. The diagnosis has been confirmed. Dr. Flores begins to co-ordinate and implement an integrated care plan with Ms. Vega. He provides some information about the disease and goes through the steps that she will need to follow. Ms. Vega returns home and tries to remember Dr. Flores' instructions and advices. She receives a phone call from the primary care nurse, who follows up on Ms. Vega, and explains further how to prevent complications from the disease and where to find community support resources that might help her care for herself. As the days go by, she finds herself lacking motivation and fails to comply with Dr. Flores' treatment plan. More than two weeks go by and her symptoms have not improved. She returns to Dr. Flores' clinic to find that her condition has indeed, worsened. Dr. Flores realizes that his primary care team has inconsistently followed up with Ms. Vega. As he feels that he and his team can no longer provide appropriate treatment options and support that could help to control Ms. Vega's disease, he decides to refer her to the area hospital, to seek specialized diabetes care with Dr. Moreno.

Ms. Vega gets an appointment to see Dr. Moreno a week later. Since little information has been shared between Dr. Flores and Dr. Moreno, the latter undertakes another comprehensive medical examination and collects urine and blood samples to document Ms. Vega's diagnosis. He notices Ms. Vega's left eye has a cloud on the lens of the eye. Once the laboratory results are received two hours later, he also discovers that she has unusually high blood glucose levels. The earliest he is able to schedule cataract surgery to remove the cataract from her left eye, is a month later.

In the meantime, Ms. Vega is reminded about the need to follow certain nutritional guidelines, how to care for her feet, and maintain active living. However, limited co-ordination between Dr. Moreno and Dr. Flores' primary care team do not help to control her symptoms. She returns to the hospital for her cataract surgery. Dr. Moreno effectively and successfully operates her eye and sends her home. He suggests that Ms. Vega call her primary care physician to make sure she recovers properly and continues the integrated care plan set out by Dr. Flores. As Dr. Flores has not yet received Ms. Vega's health records from Dr. Moreno, he calls Dr. Moreno's office at the hospital to request a copy of Ms. Vega's health records. After much persistence from the primary care team during the following two weeks, these are finally sent to Dr. Flores. Ms. Vega is aware that she needs to make regular visits to Dr. Flores' clinic.

Ever since her return from the hospital, she has adopted a more pro-active attitude. Luckily, she finds support from community sources that help her to take care of herself. She acquires knowledge about her condition and potential complications by seeking information from the nearby diabetes association. This information complements the fragmented information she receives from the primary health care centre. Her condition stabilizes, as she makes regular appointments with Dr. Flores and actively seeks the right services to carry out her care plan.

---

<sup>1</sup> The World Bank Group, "Spain Data Profile," [on-line], (April 2004), [cited June 15, 2004]. Available from, <http://devdata.worldbank.org/external/CPProfile.asp?SelectedCountry=ESP&CCODE=ESP&CNAME=Spain&PTYPE=CP>.

<sup>2</sup> *The Economist*, "Forecast," [on-line], [cited Mar 15, 2004]. Available from, <http://www.economist.com/countries/Spain/profile.cfm?folder=Profile-Forecast>.



- 
- <sup>3</sup> The Central Intelligence Agency (CIA), "The World Factbook: Spain," [on-line], (2003), [cited June 15, 2004]. Available from, <<http://www.cia.gov/cia/publications/factbook/geos/sp.html>>.
- <sup>4</sup> Ibid.
- <sup>5</sup> Ibid.
- <sup>6</sup> World Health Organization, "Comparison on Selected Indicator Within WHO Region," [on-line] (2003), [cited June 15, 2004]. Available from the World Health Organization, <<http://www.who.int/country/esp/en/>>.
- <sup>7</sup> The Central Intelligence Agency (CIA), "The World Factbook: Spain," [on-line], (2003), [cited June 15, 2004]. Available from, <<http://www.cia.gov/cia/publications/factbook/geos/sp.html>>.
- <sup>8</sup> Ibid.
- <sup>9</sup> European Observatory on Health Care Systems, *Health Care Systems in Transition: Spain* (Madrid: European Observatory on Health Care Systems, 2000).
- <sup>10</sup> Presidencia del Gobierno, "Health Care and the Social Security System Model," [on-line], [cited May 17, 2004]. Available from, <[http://www.la-moncloa.es/web/Esp\\_Hoy/ING/HEALTH.pdf](http://www.la-moncloa.es/web/Esp_Hoy/ING/HEALTH.pdf)>.
- <sup>11</sup> Ministry of Health and Consumption for Spain, *Datos basicos de la salud y los servicios sanitarios en Espana* (Madrid: Spanish Ministry of Health and Consumption, 2003).
- <sup>12</sup> Luigi Siciliani and Jeremy Hurst, *Tackling Excessive Waiting Times for Elective Surgery: A Comparison of Policies in Twelve OECD Countries, Annexes 1, 2, 3*, OECD Health Working Papers (Paris: OECD, 2003), p.102.
- <sup>13</sup> Luigi Siciliani and Jeremy Hurst, *Tackling Excessive Waiting Times for Elective Surgery: A Comparison of Policies in Twelve OECD Countries, Annexes 1, 2, 3*, OECD Health Working Papers (Paris: OECD, 2003).
- <sup>14</sup> The Conference Board of Canada, *Performance and Potential 2003-04: Defining the Canadian Advantage* (Ottawa: The Conference Board of Canada, 2003).
- <sup>15</sup> OECD, "National Account of OECD Countries: Main Aggregates," Volume 1, [on-line], (May 2004), [cited June 15, 2004]. Available from, <<http://www.oecd.org/dataoecd/48/5/2371372.pdf>>.
- <sup>16</sup> Ministry of Health and Consumption for Spain, *Datos basicos de la salud y los servicios sanitarios en Espana* (Madrid: Spanish Ministry of Health and Consumption, 2003).
- <sup>17</sup> C Mitxelena, *The Financing of the Welfare System* (Madrid: Unidades de Politicas Comparadas, 2002), p. 15.
- <sup>18</sup> Ibid.
- <sup>19</sup> The World Bank Group, "Country Profile Table: Spain," [on-line], (2003), [cited June 15, 2004]. Available from, <<http://devdata.worldbank.org/external/CPProfile.asp?PTYPE=CP&CCODE=ESP>>.
- <sup>20</sup> The Conference Board of Canada, *Performance and Potential 2003-04: Defining the Canadian Advantage* (Ottawa: The Conference Board of Canada, 2003).
- <sup>21</sup> Ibid.
- <sup>22</sup> G. López-Abente, "Obj. 10: Lograr el control del cancer, INFORME SESPAS 2000: La salud pública ante los desafíos de un nuevo siglo," [on-line], (1999), [cited June 15, 2004], p. 6. Available from, <[http://www.sespas.es/fr\\_inf.html](http://www.sespas.es/fr_inf.html)>.
- <sup>23</sup> "Real Decreto 548/2003, de 9 de mayo, por el que se crea la Comisión Intersectorial de Dirección y el Comité Ejecutivo para el desarrollo del Plan nacional de prevención y control del tabaquismo 2003-2007," [on-line], (2003), [cited June 15, 2004], Available from, <[http://www.mir.es/pnd/legisla/html/legisla\\_est\\_n15.htm](http://www.mir.es/pnd/legisla/html/legisla_est_n15.htm)>.
- <sup>24</sup> The Conference Board of Canada, *Performance and Potential 2003-04: Defining the Canadian Advantage* (Ottawa: The Conference Board of Canada, 2003).
- <sup>25</sup> Presidencia del Gobierno and Oficina de Ciencia y Tecnología, *Plan Nacional de Investigación Científica, Desarrollo e Innovación Tecnológica (2004-2007)* (Madrid: Comisión Interministerial De Ciencia Y Tecnología, 2004).
- <sup>26</sup> Office of Health and the Information Highway, *OHIH Report International Activities Toward Electronic Health Records: Unique Identification and PKI* (Ottawa: Health Canada, 1998).
- <sup>27</sup> Presidencia del Gobierno and Oficina de Ciencia y Tecnología, *Plan Nacional de Investigación Científica, Desarrollo e Innovación Tecnológica (2004-2007)* (Madrid: Comisión Interministerial De Ciencia Y Tecnología, 2004).



# France



*Sire, faites-moi une bonne politique, je vous ferai de bonnes finances.*

*“May your Majesty adopt good policies; I shall produce good finances.”*

*—Louis Necker, Finance Minister, petitioning Louis XVI*

With an area of approximately 547,000 km<sup>2</sup> and 60,180,529 inhabitants, France is 18 times smaller than Canada and has twice the population. France has been a republic since 1795; its fifth constitution was enacted in 1958. The values enshrined in the French constitution are liberty, equality and fraternity.

## ORGANIZATION OF THE COUNTRY

France holds presidential elections every five years. While the president acts as chief of state, France also has a prime minister who presides over the National Assembly. The prime minister is nominated by a majority in the National Assembly and is then officially appointed by the president. France’s parliament consists of the Senate and the National Assembly; the members are elected every five years. The Senate is renewed one-third at a time, and senators have six-year terms. All new legislation must be passed by both Houses. Differences in substance and wording are reconciled by a joint commission, before the last reading takes place.

Despite political consensus on the importance of decentralization in 1983, decisions in France continue to be centralized. France has 22 regional authorities, which appoint their own council members. Since 1991, some public health activities take place at the regional level and the trend appears to be growing. However, health programs are principally administered at the national level.

## ORGANIZATION OF THE HEALTH CARE SYSTEM

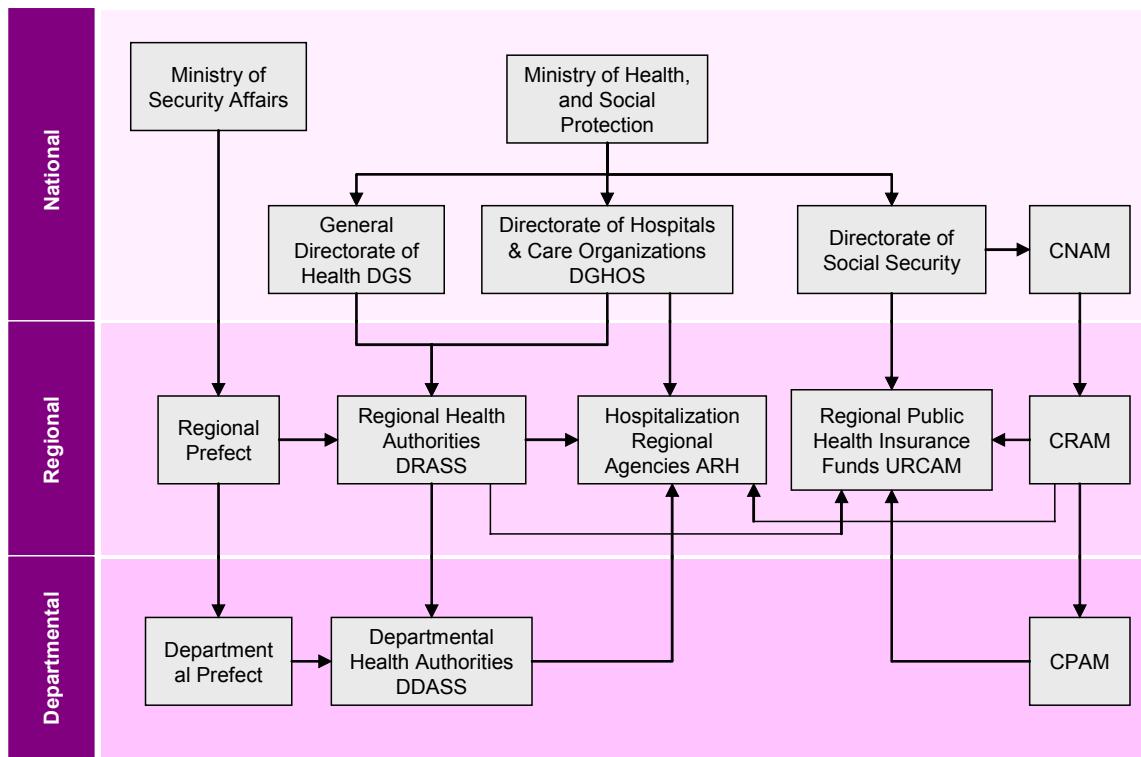
France’s health care system is based on welfare principles. French law lays the foundation for universal entitlement to medical benefits. The legal cornerstone of the system is a 1945 ordinance, which has been amended over the years. Since 1996, parliament has voted a statement of forecast revenues and expenditures every year, following a nonbinding debate on the Social Budget (the *Objectif National de Dépenses d’Assurance Maladie* [ONDAM]<sup>1</sup>).

The Ministry of Health and Social Protection has a variety of responsibilities. It is organized into three main directorates: the General Directorate of Health, the Directorate of Hospitals and Caretaking Organizations, and the Directorate of Social Security. The ministry:<sup>2</sup>

- Decides what health care functions are to be reimbursed and to what extent;
- Defines the responsibilities of the various players;
- Ensures that the entire population has access to care;
- Defends rights;
- Drafts and enforces relevant policy;
- Is responsible for public health safety within the health system;
- Plans the size and number of hospitals; and
- Oversees the allocation of resources for the purchase of highly technical equipment, including MRIs and CT-Scans.

The HIV-contaminated blood scandal of the mid-1980s resulted in the ministry’s revamping of public health policy. New agencies were created to oversee safety measures concerning the nation’s blood supply to specialized hospital wards (for organ transplants, neurosurgery, etc.) and to ensure that precautions are taken at all times in situations like emergency rooms settings.

**Exhibit 4**  
Governance in the French Health Care System



Source: The Conference Board of Canada.

The ministry monitors these activities through 22 regional health planning bodies, Direction Régionale des Affaires Sanitaires et Sociales (DRASS), and through similar bodies in the country's 100 regional health units. In 1996, France created the *Agences Régionales d'Hospitalisation* (ARH), organizations designed to administer hospital policy in each of France's regions. At the same time, it created the *Unions régionales des caisses d'assurance maladie* (URCAM), public health insurance funds that are charged with co-ordinating ambulatory activity. URCAM receives instructions from the government's regional administrators, the *préfets* (prefects), ensuring overall co-ordination of all central policies and their integration with the relevant local legislation (Exhibit 4). In this governance system, the health ministry has little financial leverage. The spending authority is vested mainly in one of the health fund's sectors, the *Caisse Nationale d'Assurance Maladie des Travailleurs Salariés* (CNAM), even though it is not part of the central government and its decisions are made by an independent council.

## Health Insurance Program

The French health care system is a mixed system which combines elements of public and private care, as well as publicly funded and private health insurance. Slightly less than half of health care is delivered by public hospitals and private clinics. The remainder is provided by private service providers, which include ambulatory health groups and auxiliary medical staff.

The health insurance system has two tiers: a basic mandatory public sector and supplementary insurance provided by for-profit and not-for-profit private insurers and mutual insurance companies. The basic scheme covers the population as a whole, while workers and their families are affiliated with public health insurance funds.

There are 18 basic health insurance funds. The main one, the *Caisse Nationale d'Assurance Maladie des Travailleurs Salariés* (CNAM), covers 80 per cent of the

population, which includes primarily private sector employees and their families. The two other important health insurance schemes are the *Mutualité Sociale Agricole* (for farmers) and the *Caisse Nationale d'Assurance Maladie des Travailleurs Indépendants et Artisans* (CANAM). Health insurance contributions are paid by both employers and employees. The employees also contribute through designated taxes (*Contribution Sociale Généralisée*). All the statutory schemes reimburse the same categories of treatment, which include medical, surgical and pharmaceutical expenses, and hospitalisation costs.

While France has a universal public health insurance system, the coverage it provides is not comprehensive and the vast majority of the French population has private complementary health insurance. As a result, 76 per cent of health spending is funded by public sources, while private sources account for 24 per cent. (Table 8). Supplementary insurance schemes, which account for about 12 per cent of total health expenditures, generally refund the full out-of-pocket costs to the consumer (*ticket modérateur*), cancelling out its assumed moderating effect on consumption. The share of health spending paid directly by consumers accounts for only 11 per cent of total spending.

Subsidiary mechanisms enable the public plans to increase their coverage to 100 per cent for some categories of patients and diseases, including long-term disabling illnesses and pensioners who are disabled. Legislation enacted in 2000 established the *Couverture Maladie Universelle* (CMU), which extended eligibility for publicly funded complementary coverage to low-income individuals, raising the percentage of the population covered by health insurance to 100 per cent and the proportion of the population with complementary coverage from 86 per cent to approximately 92 per cent.<sup>3</sup>

This increase in coverage addressed equity concerns relating to the fact that low-income patients tended to face higher out-of-pocket costs than high-income individuals, who had more complete private coverage. The increase in medical spending that resulted from this increase in coverage comes at a time when the public system is facing chronic deficits. The government's fiscal situation has contributed to debate over the

relative roles of public and private health insurance. However, for the present, for most of the population, health care expenditures are largely refunded. Together with a diversified supply of medical services—often offered on a fee-for-service basis—this has been one of the factors responsible for the rapid increase in health spending in France.

Most health insurance funds are private entities that are jointly managed by employers' associations and federated union organizations, under the state's supervision. The joint labour-management handling of the situation has often been the source of conflict within the funds' boards, as well as between the boards and the state.<sup>4</sup> Consequently, the responsibilities of the various stakeholders in the system are not always shared in the most comprehensive manner. For example, while parliament's budget determines how much public money will go to health expenditures, Cabinet determines reimbursement rates and sets the amount of contributions earmarked for the funds. The government negotiates with health care professionals to set tariffs designed to ensure that the system operates at the breakeven point.

Among OECD countries, the share of health care financed by private insurance is only surpassed by that of the United States, where private insurance is the predominant source of coverage, and the Netherlands, where private insurance is the principal payer of medical costs for 36 per cent of the population.<sup>5</sup> Several factors, such as aging, technology and pharmaceuticals point to a changing—and likely a growing role—for private, complementary health insurance in France.

## Health Services Funding

Each year, the National Assembly sets the projected health budget (the *Objectif National des Dépenses de Assurance Maladie - ONDAM*). This target is, in fact, not very binding: the income of the schemes is definite (tied to the economy), whereas expenditures are only forecast as indicative figures. In 2003, the ONDAM was fixed at 123.5 billion EUR, but, as is often the case, the budget was not adhered to. At the moment, the social security deficit in the area of health insurance is expected to grow from 6 billion EUR in 2002 to 12 billion EUR by the end of 2004. The budget for health

insurance is only partially integrated into the government budget (350.27 billion EUR).

In 2003, health expenditures accounted for 9.7 per cent of Gross Domestic Product (GDP). These funds were distributed among hospital treatment (43 per cent), outpatient treatment (24 per cent), and non-hospital pharmaceuticals (21 per cent). (See Table 19.)

Public hospitals are funded out of annual general budget appropriations from regional health authorities (*ARH*) and allocated monthly by health insurance funds. Modest payments from patients top up these budget appropriations. Patients make per diem co-payments of 10.67 EUR, nearly all of which is covered by complementary insurance programs, with the exception of additional charges for private rooms (where levels of coverage by complementary insurance vary).

The overall budget is based on the long-term operating costs of hospitals, with a modest allowance made for their actual levels of activity, average case-mix, and specific costs for treating certain diseases or expensive drugs. Doctors working in public hospitals are paid a salary. A hospital information system has been implemented to monitor the activities of various medical establishments. Gradually, all public and private medical establishments are switching to the Diagnosis Related Groups (DRG) payment system.

Private hospitals or clinics are paid on a fee-for-service basis. Similarly, ambulatory care is provided primarily by doctors on a fee-for-service basis. In such cases, doctors are paid directly by their patients. A small, but gradually increasing, proportion of health professionals receive direct payments from health insurance funds (the “*tiers-payant*” system).

<b>Table 19 Funding of Medical Expenditures, 2002</b>						
	<b>Total</b>	<b>In-patient care</b>	<b>Pharmaceuticals</b>	<b>Physician services</b>	<b>Other med. Goods</b>	<b>Dental services</b>
<b>% of total expenditures</b>	100%	43%	21%	12%	6%	6%
<b>By source of payment</b>						
<b>Public</b>	76.4%	92.0%	65.3%	71.8%	44.8%	34.8%
<b>Complementary insurance</b>	12.4%	4.2%	17.6%	20.2%	25.4%	35.2%
<b>Private households</b>	11.1%	3.7%	17.1%	8.0%	29.8%	30.0%
Source: OECD.						

## MANAGING COST DRIVERS AND ESCALATORS

### Demographics

France has one of Europe's highest fertility rates (1.85 children born/woman). However, the number of elderly people in France has risen substantially, with 16.3 per cent of France's population currently aged 65 or over. Due to the age structure of the population and increasing life expectancy, the number of people aged 75 and over will increase to 6 million by 2020.<sup>6</sup> Given these demographic projections, the number of "big consumers," as well as their medical expenditures will probably rise more steeply in the next few years.

### General Economy

The French economy is slowly deteriorating. After showing growth rates of 3.8 per cent in 2000 and 2.1 per cent in 2001, the economy grew by only 1.2 per cent in 2002.<sup>7</sup> Furthermore, in 2003, the public deficit reached 64.3 billion EUR or 4.1 per cent of GDP.<sup>8</sup> Stagnant growth in revenue, due mainly to the economic situation, played a very important role in this deterioration. The financial situation of the social security administration was affected by a sharp growth in health spending. The current economic slowdown and inflexible budget items have pushed the deficit above the European Union's 3 per cent debt limit. The inflation rate remains steady, at approximately 1.8 per cent per year. At present, the tax burden for French citizens is one of the highest in Europe.

Some challenges that the French government has faced recently include the high cost of labour and labour market restrictions, such as the 35-hour work week and restrictions on lay-offs and pension reform.

### Home Care

Although private physicians and nursing personnel are available to make home visits, home care is still in its infancy in France. Home care has been on the reform agenda for more than 10 years, but the system still remains very hospital-centred. Rehabilitation and intermediate care are provided by public and private hospitals.<sup>9</sup> Private for-profit hospitals account for about a quarter of capacity and bed days in this field. Early

discharge is not a general practice in France and hospital length-of-stay still remains high. One of the reasons for the slow development of home care may be the public's high expectation of being treated in hospitals.

Regarding non-medical home support, social welfare and family care assistance provide support to patients and their families to cope with everyday tasks. Patients or families are means-tested before being required to make a contribution to the cost of services.

Long-term care services, primarily for the elderly, are also provided by hospitals. Public hospitals account for more than 90 per cent of long-term care beds. There have been some attempts to separate these two levels of care, but progress in this direction has been limited. Residential care and home services for dependant elderly people and disabled adults falls under the responsibility of municipal authorities. They are financed by each individual, through social benefits for disabled adults, allowances for dependant elderly people, and social assistance for the poor and elderly. However, health care for people in residential care is financed by the health insurance system, usually on a per diem basis.<sup>10</sup>

### Pharmaceuticals

The drugs and medication agency (*Agence du médicament*) is the government authority responsible for the control of pharmaceuticals. This agency follows European Union (EU) regulations governing medical products. Like many other OECD countries, France has experienced an increase in the cost of drugs, as a proportion of total health expenditures, from 16.9 per cent in 1990 to 21 per cent in 2002.<sup>11</sup> For purposes of registration, drugs and medication are organized into two groups: non-reimbursable products and reimbursable products. The cost of reimbursable products has seen an average annual increase of 6.6 per cent. The rise in pharmaceutical spending has been one factor behind the overall increase in total health spending.

Some strategies are currently being implemented in an attempt to control these expenditures. In 1995, the medical agreement for GPs recommended that, among the drugs GPs prescribe, 10 per cent must be the least-costly alternative and 3 per cent are to be generic drugs.

In 1997, a committee in charge of the economics of drugs and medication (*le comité économique du médicament*) was given the responsibility of developing an agreement with drug firms to limit the increase in drug expenditures. The committee was also put in charge of redefining the list of reimbursable products and developing generic alternatives. At the present time, the generic drug market is about 5 per cent in France, which is quite low, compared to other OECD countries, where it is 10–30 per cent.

In 1997, a national drug observation program was created in another attempt to control drug expenditures. This program analyses and distributes all relevant information on prescriptions and their consumption. In 2003, the Minister of Health decided to stop reimbursing the use of several drugs, for which health professionals had been unable to prove a medical use, and to reorganize the commission (*la Commission de la Transparence*), giving it the responsibility for making recommendations to the government, as to which drugs should be included in the reimbursable products list.

Finally, in 2004, the state and the drug firms signed a four-year agreement on which drugs were to be used in hospitals, a measure expected to reduce health costs by 2 billion EUR.

## Health Workforce

Health care in France is delivered by a variety of health professionals, including physicians, nurses, speech therapists, physiotherapists, dieticians and many other technical and professional personnel. Choosing a doctor, or any medical or paramedical professional, is considered a personal choice in France, since the public has the right to consult with the provider of their choice. Many doctors make house calls, as do nurses and laboratory personnel.

Certain professional activities in France, including chiropractic, osteopathy and alternative medicine are restricted to doctors. These are known in France as “*les médecines douces*.” France is the world leader in homeopathy. Both acupuncture and homeopathy are recognized by French social security and are reimbursed under the applicable rules.

## PHYSICIANS

Physicians play a key political role in the system. In 2002 there were 198,700 active physicians in France. Approximately 49 per cent were general practitioners, while 51 per cent were specialists. About 36 per cent of physicians work in public settings (25 per cent in public hospitals and 11 per cent in other public establishments). These physicians are public servants who are paid through salaries set by the government. More than half of physicians work in private practice and are paid on a fee-for-service basis, with prices negotiated by physicians’ unions and public health insurance funds.

The ratio of medical practitioners to the population went from 1.3/1,000 inhabitants in 1970 to 3.3/1,000 inhabitants in 2000. The percentage of specialists went from 43 per cent in 1984 to 51 per cent in 2000, an increase of 40,000 specialists in 15 years. However, there is considerable geographical inequality in the availability of care. For example, there are twice as many specialists per person in the greater Paris area than in the region of Picardie (northern France).

The number of female physicians has been steadily increasing (31 per cent of all practicing physicians were women in 2000). The average age of physicians is increasing, as there is a steady decrease in the number of young physicians, and a concomitant increase in the number of physicians over 45. Physicians generally work in two kinds of environments: public hospitals and private practices. Today, many physicians feel that the prestige of working in a hospital does not compensate for the unsatisfactory working conditions they experience in these public settings.

Since the creation of social security, the relationships among physicians in private practice, public insurance funds and the state have become more and more strained. An agreement which sets the general regulatory framework and the remuneration of the profession is supposed to be signed every five years by physicians’ unions. The first one was signed in 1971, 26 years after public health insurance was created, despite the fact that physicians have had the right to organize unions in France since 1892. Subsequent agreements allowed some physicians to charge more than the social security tariffs (1980), then limited this right (1990) and finally, implemented official medical practice guidelines in



1993, called the *Références Médicales Opposables* (RMO).<sup>12</sup>

Membership in unions, however, remains low. Only approximately 20,000 professionals belong to the three most vocal unions, *Confédération des Médecins Français* (CSMF), representing general practitioners and specialists; the *Syndicat des Médecins Libéraux* (SML), representing a larger number of specialists; and the *Syndicat des Médecins Généralistes de France* (MG-France), representing general practitioners. To be authorized to sign the agreement with the public funds, the unions must have 5 per cent of self-employed physicians registered as members. A self-employed physician can decide whether or not to adhere to the contract. At the present time, the situation is particularly strained. Despite numerous negotiating sessions among doctors' unions, the funds and the state, there has been no signed agreement for specialists since 1998. The root of the problem is that private practice physicians are strongly opposed to capping outpatient costs.

## NURSING WORKFORCE

There are approximately 7 nurses per 1,000 inhabitants in France, less than the average in OECD countries.<sup>13</sup> France's nurses have the option of working in hospitals, in clinics, or in private practice. In hospitals and clinics, they draw a salary; in private practice, they are paid according to a fee-for-service system. As is the case for doctors, an agreement sets the general regulatory framework and the remuneration of nurses working in private practice.

At the moment, there is a shortage of 10,000 nurses in public hospitals,<sup>14</sup> and the country has adopted a policy to hire nurses from other European countries, such as Spain, as well as to try to bring back nurses who have left the profession. The shortage of nursing personnel is a major problem for hospitals, which has been exacerbated by the implementation of the 35-hour work week brought in by the government in 2001.

The political power of nurses in the health care system is not as strong as that of physicians. Studies have shown that French nurses are paid less than other European nurses. In addition, French public opinion and doctors seem to place less value on nurses than is the case in other European countries. These appear to be the main

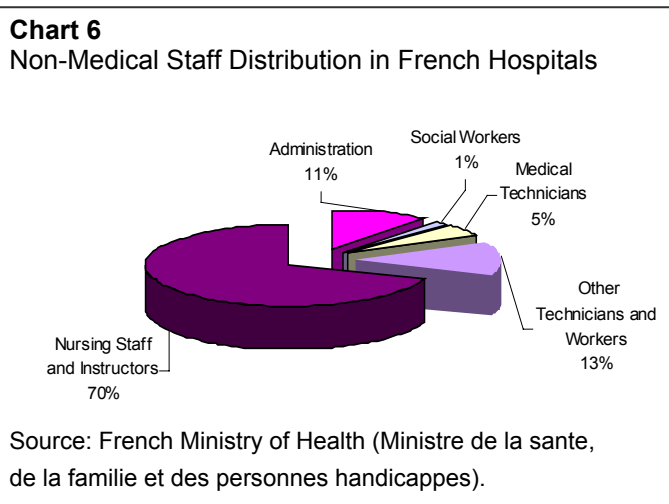
factors for the difficulty in attracting nurses to the profession in France.<sup>15</sup>

## OTHER HEALTH PROFESSIONALS

A great variety of paramedical professionals and technicians are trained in universities and colleges in France. There is a large number of schools under the responsibility of the Ministry of Social Affairs that train paramedical personnel in diverse areas, including midwifery, social work and audio-prosthesis. Holders of paramedical degrees have a very high employment rate. Physiotherapists and psychologists are the only professions allied to medicine and nursing to be submitted to workforce policy planning.

Regulations exist for the majority of paramedical health professions, including care assistants, hearing-aid makers, dieticians, occupational therapists, diagnostic radiographers, masseur/physiotherapists, opticians, speech therapists, psychologists, psychomotor therapists and laboratory technicians.

Although the majority of these professionals work independently, some work at hospitals across France, especially at community and regional hospitals, which include teaching hospitals. They employ eight hospital workers out of every 10 across the country. The distribution of non-medical staff throughout French hospitals is presented in Chart 6.





## Demand for Health Care

French society has very high expectations of health services. The French health care system does not have any gate-keepers, capping of services, or control of access to secondary and specialist care. Patients have free access to physicians in any institutions, either public or private, with no limit to the number of doctors seen or the frequency of visits. The public is accustomed to receiving timely services and access to up-to-date technologies. Doctors are free to choose which procedures to use and which drugs to prescribe.

It has been very challenging for the government to control public expectations under these conditions. One of the areas of greatest public demand has been the use of certain pharmaceuticals. Some strategies have been implemented, but with limited success, because they do not provide any incentive for the public to change its behaviour. For example, the incentive is not to persuade the public to buy more generic drugs, but rather to pharmacists, who are allowed to increase their mark-up if they can convince customers to substitute generic drugs for brand names.

Another strategy for reducing public demand (and subsequently controlling pharmaceutical costs) focused on introducing bonuses for health professionals to stay within budget limits.<sup>16</sup> This strategy has been very controversial as many physicians claimed that it was unethical to reward a doctor for prescribing less. The specialists refused to be made accountable for overspending and brought this case to court, where it was decided that the collective nature of fines was unconstitutional, and therefore, nullified the plan in 1998.

There are some attempts to introduce a gate-keeping system in ambulatory services and to control the increasing volume of specialty care.

## BALANCE OF INVESTMENTS IN HEALTH, HEALTH CARE AND OTHER SOCIAL DETERMINANTS OF HEALTH

According to The Conference Board of Canada's research,<sup>17</sup> France ranks 12<sup>th</sup> among OECD countries in determinants of health indicators. Income and social status, social support networks, education, employment and working condition indicators were included in this benchmarking report. France placed 4<sup>th</sup> among OECD countries in environment, with strong policies related to municipal waste recycling, pesticide use, carbon dioxide emissions and water quality.

France has placed great importance on addressing determinants of health issues, as well as health. There is protection from child poverty, and subsidies exist for low-income and single parent families. Policies also provide support to the unemployed, as well as subsidized housing for low-income individuals. Since balance between work and family life is important to French society, the government has implemented new legislation to help families reconcile family and work responsibilities, including the introduction of a 35-hour work week in 2000.

France places great importance on education, which is the largest government budget allocation, and which includes funding for universities. Total education expenditures represent about 6.2 per cent of GDP.

## HEALTH STATUS

Every four years, the committee for public health (*Haut Comité de la Santé Publique* -the *HCSP*) writes a report on the health status of the French population and advises the government how best to tackle public health priorities. The most recent report was published in 2002.<sup>18</sup>

In France, life expectancy at birth increased by 8.7 years between 1960 and 2000. French women's life expectancy at birth is one of the highest in the world (83.11 years). Interestingly, the gender gap in life expectancy at birth is 7.5 years, a much wider gap than in most other OECD countries. This gap reflects the relatively high mortality rates among French men, due to

violent deaths (e.g., fatal accidents, suicide, homicide).<sup>19</sup> France is also renowned for its high consumption of alcohol and tobacco. Nonetheless, the mortality rate related to alcohol has decreased by 40 per cent over the last 20 years. However, 35,000–45,000 deaths every year are still attributed to alcohol consumption, accounting for 10 per cent of total deaths. Tobacco consumption is responsible for 60,000 deaths every year, or one out of every nine deaths. One third of deaths are considered to be premature deaths and 95 per cent of the victims are male. In 2000, a survey done by ObEpi, Sofres–Inserm,<sup>20</sup> showed that 40 per cent of French people were overweight; of these, 10 per cent were obese. The prevalence of obesity rises according to age group. For example, between people aged 15–24 years old and those aged 35–44, the percentage of obesity jumps from 12 to 46 per cent for males, and from 11 to 29 per cent for females. The prevalence of excessive weight and obesity in children aged seven to nine is 14 per cent for boys and 18 per cent for girls.

The infant mortality rate has fallen significantly over the past few decades (4.37 deaths/1,000 live births in 2002).<sup>21</sup> The number of people living with HIV/AIDS is about 100,000.

## PERFORMANCE AND PRODUCTIVITY

### Performance

The Conference Board of Canada identified France as a gold-level performer in sulphur oxide emissions, Diphtheria-Pertussis-Tetanus(DPT) Immunization and potential years of life lost (PYLL), and mortality due to lung cancer among females.

### SULPHUR OXIDE EMISSIONS

For decades, France has been dedicated to achieving cleaner air. This has resulted in several commitments to international conventions or European Directives. Sulphur oxide emissions have continually decreased since the 1980s. This decline has been partly due to the Large Combustion Plant Directive, which has set limits on emissions of sulphur dioxide, nitrogen oxides and particles from power stations in the European Community since 1988.<sup>22</sup>

More than 60 per cent of sulphur oxide emissions come from the energy sector. France has maintained its position that nuclear energy, because it does not pollute the same way that coal, oil, or natural gas do, contributes to the preservation of the environment. Since nuclear energy does not release nitrogen, sulfur, carbon or dust into the atmosphere, France has argued that nuclear power is one of the best responses to demands for environmental protection. Between 1980, when nuclear energy provided just 15 per cent of France's electricity, and 2001, when the share of nuclear-generated electricity rose to around 75 per cent, France recorded sizable reductions in emissions of harmful pollutants from energy generation, including sulfur dioxide emissions, which decreased by 70 per cent.<sup>23</sup> According to the Ministry of Industry, French nuclear power plants prevent the emission of 1.7 million tons of sulfur dioxide and 890,000 tons of nitrous oxides each year.

Despite its nuclear power program, France still suffers from air pollution, especially in Paris and other major cities. Smog resulting from traffic in major cities causes health problems like asthma and chronic coughing. To control its air pollution problem, the French Environment and Energy Control Agency (ADEME) is equipping the country with a monitoring system that meets the requirements of the national Air Pollution Act. This act has forecast sulfur oxide emissions for 2010 and has set specific targets to achieve the desired reductions. Furthermore, in order to address environmental health concerns, the government will adopt a national plan for environmental health at the end of 2004. This plan will assess health risks related to the environment and will prioritize the economic and social actions that need to occur in order to tackle these health risks.<sup>24</sup>

### DIPHTHERIA-PERTUSSIS TETANUS (DPT) IMMUNIZATION

The immunization rate for DPT in one-year-olds in France increased from 95 per cent in 1992 to 98 per cent in 2002.<sup>25</sup> This excellent rate has been achieved through a mix of strong policies and surveillance activities. Legislation, the *code de la santé publique*, makes the DPT vaccine in France compulsory for all children and is covered by the national health insurance program. The vast majority of vaccinations are delivered by independent general practitioners and pediatricians, but they can also be obtained through public health centres.

The vaccination scheme in France for DPT requires three doses. Every child must have a compulsory medical exam at 24 months of age. At this point, the doctor examining the child will assess whether or not the three doses have been given to a child, and will register this information in the child's Health Certificate at 24 Months. The 24-month visit is also an opportunity for the physician to complete the child's immunization program.

The child's Health Certificate at 24 Months is transferred to the regional public health unit, which systematically analyzes all health certificates of 24-month-old children in the region. These regional reports are then aggregated at the national level.<sup>26</sup> This surveillance system also records social data (e.g., parents' occupations, type of child care, physicians' identification) that allow for socio-demographic analysis, which is vital for planning purposes. Cases where the child has not received the three mandatory doses are followed to ensure appropriate immunization coverage.

This method of issuing compulsory health certificates at 24 months of age has strengths, including the ability to offer historic vaccination trends and to show regional variations. Although the precise cost of the system is not known, it is estimated to be low, suggesting high cost-efficiency.

## **PYLL AND MORTALITY DUE TO LUNG CANCER – FEMALES**

France has one of the lowest rates of female mortality from lung cancer among OECD countries, contrary to what is observed for French males. This suggests that the behaviour of French men and women differs with regard to risk factors, particularly when it comes to smoking.<sup>27</sup>

However, this gap is closing. Female mortality due to lung cancer, although one of the lowest among OECD countries, has doubled in France during the past 20 years, showing a rate of increase of approximately 4.4 per cent annually. This trend seems to be the result of changes in tobacco consumption. French women, although they show lower smoking rates than French men (in 2002, 25 per cent of women smoked, compared to 36 per cent of men),<sup>28</sup> have consumed increasing

amounts of tobacco since the 1950s. In fact, French women have three times the risk of dying of lung cancer if they were born after the Second World War.<sup>29</sup> In 2000, lung cancer was responsible for 10.3 per cent of all PYLL in France for all cancer.

These observations have led some scholars to conclude that we might be observing the beginning of a lung cancer epidemic in France.<sup>30</sup> In an attempt to address this issue, the French government has implemented a national campaign against tobacco since 2003. This campaign aims to decrease tobacco consumption among youth by 30 per cent and among adults by 20 per cent, within five years.

This campaign, which has received national media coverage and has its own Internet site, focuses on various strategies, including the free distribution of nicotine replacement therapy to low-income people aged 16–50 years (nationally), who are willing to quit smoking, to all people in certain pilot regions, and to inmates. The government has also implemented “tobacology” units in many hospitals across France, distributed educational kits to physicians and pharmacists to support patient education, and provided a phone line to get information to health professionals (therapeutic and non-therapeutic strategies to support smoking cessation, recommended dosage and secondary effects).

After just a few months of implementation, the results are very encouraging. Sales of cigarettes have decreased by 13.5 per cent. The Tobacco Info-Service Hotline has almost double its activities; the sale of nicotine replacement therapy has increased by 50 per cent; and health professional consultations to support smoking cessation have increased by 50 per cent. These indicators imply that France is well underway to decreasing rates of lung cancer.

## **Productivity**

In France, hospitals have always been the core of the health care system.<sup>31</sup> This probably accounts for the extremely specialized, technical, curative nature of the care provided, arguably to the detriment of preventive care and community services.

The number of hospital beds has decreased over time: it currently stands at 8.4 per 1,000 inhabitants, which is close to the European average. Hospitals can be roughly divided into three categories: public, private not-for-profit and private for-profit. The public sector represents about 65 per cent of hospital beds. Public hospitals have specific obligations, such as ensuring continuity of care, teaching and training. Private not-for-profit and for-profit hospitals concentrate on surgical procedures. There is poor co-ordination between the ambulatory sector and the hospitals.

Until recently, French public health policy has suffered from chronic shortcomings. Since the 1990s, these have started to be addressed.<sup>32</sup> In 1990, a national body was set up to co-ordinate public health policy. Tools for monitoring public health have been strengthened; in particular, with the creation of a disease monitoring centre (*Institut de veille sanitaire*). Like the Atlanta Center for Disease Control and Prevention, this institute makes it possible to keep track of the epidemiological characteristics of diseases. However, last August, the Institute failed to keep track of the effect on health of the record-breaking heat wave France experienced.

Human capital, innovation and competition are just a few elements that affect and define a country's productivity. In the area of human capital, France spends approximately 6.2 per cent of its GDP on education, which is above the average for OECD countries (5.5 per cent).<sup>33</sup> Education is highly subsidized by the government. Approximately 22 per cent of the population had achieved tertiary education in France in 1999.<sup>34</sup> French hospitals spend approximately 1 per cent of their budgets on training and the professional education of health care providers, excluding physicians, who have a budget of approximately 0.5 per cent annually for continuing medical education.

The Conference Board of Canada found that, with the exception of the Connectedness Index, France shows stronger performance than Canada with regard to innovation. (See Table 20.)

Finally, the French health care system is more competitive than the Canadian health care system. In part, this is because there are stronger private players and no gatekeepers for specialty services. However, this

competition seems to undermine co-operation between public and private sectors, outpatient facilities and hospitals, and among various health care professions.<sup>35</sup>

Table 20 Innovation Indicators		
	France	Canada
R&D as a % of GDP	2.20	1.85
Investment in knowledge (R&D, software and higher-education) as a percentage of GDP, 1998	5.16	4.74
Connectedness Index	93	105
Total R&D personnel per thousand labour force	12.3	8.9
Industry-financed GERD as a % of GDP	1.15	0.74

Source: OECD; The Conference Board of Canada.

## CONCLUSION

The French health care system seems to be characterized by too many players and not enough clarity about who is responsible for what. This system (Exhibit 5) functions within a framework of macro-economic regulatory mechanisms; the only effective one appears to be budgetary control of public hospitals.

It is difficult to stabilize hospital expenditures when hospital budgets continue to be affected by external budgetary constraints, which offset the benefits of any internal restructuring.<sup>36</sup> In contrast, independent medical practice and the activity of private clinics are subject to only limited regulation. Demand for ambulatory care is also subject to limited restraints, since supplementary reimbursements by mutual insurance funds and private insurance largely offset co-payments by their members. Furthermore, *Couverture Maladie Universelle* (universal medical coverage) allows ambulatory care to be provided free-of-charge to low-income households.

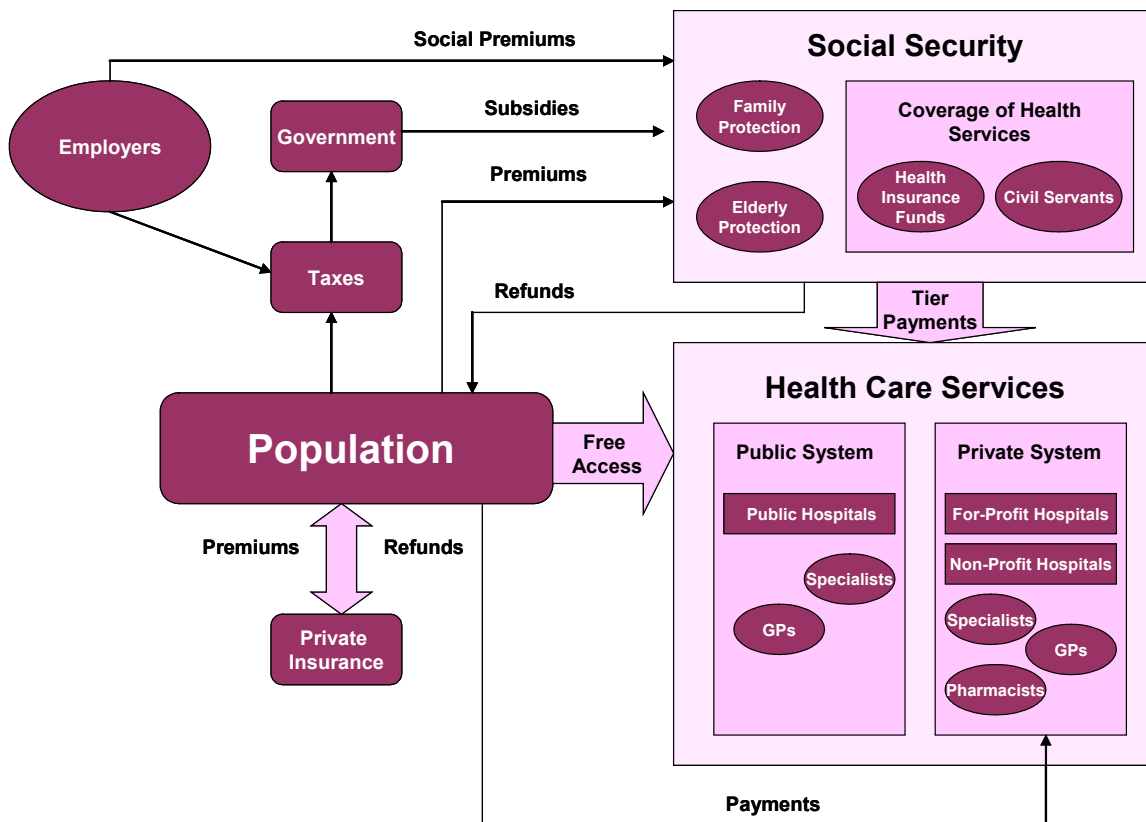
The relationship between the government and doctors has deteriorated since 1996, when a major reform that put a ceiling on doctor's fees was passed. And, at the present time, specialists don't have an agreement. The number of doctors will decline, as a result of a decision to impose quotas on medical schools. Doctors' freedom of choice as to where to set up practice and how to

achieve the optimal skill mix are among the issues debated.

Although some progress has been made, public health policy needs to be given greater prominence. In France, too much weight is given to the treatment of illness and not enough to prevention. Different policies concerning

the population's health are poorly co-ordinated and insufficient resources are allocated to achieve truly preventive measures. However, during the last two years, some campaigns have attempted to stop smoking, screen cancer and encourage people to get regular medical check-ups.

**Exhibit 5**  
The French Health Care System at a Glance



Source: The Conference Board of Canada.

## CLINICAL VIGNETTE

Madame Martin is 45 years old and, at 5 feet tall, she weighs 130 pounds. Last December, she presented symptoms of lethargy. She decided to go to the emergency room in a public hospital close to her home. She waited there less than half-an-hour before seeing Dr. Dupont, who decided to do a blood test. After an hour's wait, Dr. Dupont received the test results showing hyperglycaemia. The doctor asked Madame Martin if she had a GP; she did not. He decided to hospitalize her in the endocrinology unit. During her four days' in hospital, she had an eye examination and an angiogram. At the end of her hospitalization, the specialist, Dr. Bourg, told her she was suffering from diabetic neuropathy and diabetic retinopathy. Dr. Bourg wrote a letter to a colleague, a GP working outside the hospital, asking the colleague to treat Madame Martin. Madame Martin also obtained an appointment 10 days later, to receive laser treatment for her eyes. Dr. Bourg told Madame Martin that the department offered week-long educational programs designed to familiarize patients with their disease, to stabilize their glycaemia and to educate patients with respect to healthy food choices. Madame Martin was put on a waiting list. Two months later, because she had some health complications, she attended one such program. During the week of the program, Madame Martin was responsible for choosing her lunch and asked to determine its carbohydrate equivalent. All patients attending the program are required to explain their choice of food at lunch. Madame Martin also had personal appointments with a dietician and an MD. Qualified nurses provided the training and gave Madame Martin additional information, such as advice about physical fitness training and how to monitor her glycaemia. After the week was over, responsibility for follow-up was assumed by the GP, in co-ordination with Dr. Bourg, to treat any complications which had arisen.

<sup>1</sup> Rapport du groupe de travail de la commission des comptes de la sécurité sociale, "Médicalisation de l'ONDAM" [on-line], (March 31, 2003), [cited April 29, 2004]. Available from the French Ministry of Health, <[www.sante.gouv.fr/htm/actu/coulomb/sommaire.htm](http://www.sante.gouv.fr/htm/actu/coulomb/sommaire.htm)>.

<sup>2</sup> Agnès Couffinal, "The French Health Care System: A brief overview" [on-line], (October 2001), [cited April 27, 2004]. <[www.credes.fr/english/wp/pwg.pdf](http://www.credes.fr/english/wp/pwg.pdf)>.

<sup>3</sup> Valérie Paris, Dominique Polton and Simone Sandier, *Voluntary Health Insurance in The European Union*, prepared for the Directorate-General for Employment and Social Affairs of the European Commission (February 2002).

<sup>4</sup> Agnès Couffinal, "The French Health Care System: A brief overview" [on-line], (October 2001), [cited April 27, 2004]. <[www.credes.fr/english/wp/pwg.pdf](http://www.credes.fr/english/wp/pwg.pdf)>.

<sup>5</sup> Elias Mossialos and Stephen Thomson, *Voluntary Health Insurance in The European Union*, prepared for the Directorate General for Employment and Social Affairs of the European Commission (February 2002).

<sup>6</sup> INSEE, "Projection de la population", *INSEE Résultats* no. 361-362-363.

<sup>7</sup> Agence France tresor, *Annual Report 2003* (Paris: Agence France tresor, 2003).

<sup>8</sup> The public administrations' accounts in 2003, "Deterioration due to the social security accounts", INSEE (Paris: Ministry of Health, 2004).

<sup>9</sup> Simone Sandier, Dominique Polton, Valérie Paris and Sarah Thomson, *France*, in *Health Care Systems in Eight Countries: Trends and Challenges* (Geneva: European Observatory on Health Care Systems, April 2002), p. 42.

<sup>10</sup> Simone Sandier, Dominique Polton, Valérie Paris and Sarah Thomson, *France*, in *Health Care Systems in Eight Countries: Trends and Challenges* (Geneva: European Observatory on Health Care Systems, April 2002), p. 42.

<sup>11</sup> One of the steepest increases among OECD countries.



- 
- <sup>12</sup> The RMO are based on a professional consensus of scientific criteria related to medically useful therapies and prescriptions. The ANAES (Agency for Accreditation and Medical Technology Assessment) validates the proposed guidelines, which are written by the unions.
- <sup>13</sup> It should be noted, however, that nursing assistants are not included in the figures for France, while they are in most other countries.
- <sup>14</sup> Ministère de l'emploi et de la solidarité, "Programme 2001 de la DARES. Statistiques, études, évaluation, recherche", [on-line], (2001), [cited May 10, 2004]. <<http://www.travail.gouv.fr/etudes/pdf/progdares.pdf>>.
- <sup>15</sup> Canadian Health Services Research Foundation, *Planning Human Resources in Health Care: No Magic Solutions – An International Comparative Review* (Ottawa: Canadian Health Services Research Foundation, 2002).
- <sup>16</sup> OECD, *Improving the Performance of the Health Care System: From Measures to Action, Annex A* (Paris: OECD, 2002).
- <sup>17</sup> Conference Board of Canada, *Performance and Potential 2003-04: Defining the Canadian Advantage* (Ottawa: The Conference Board of Canada, 2003).
- <sup>18</sup> Haut Comité de la Santé Publique, "Recueil des principaux problèmes de santé en France. D'après les rapports La santé en France 1994, 1998 et 2002. Contribution du HCSP à l'élaboration de la loi de programmation en santé publique", [on-line], (December 2002), [cited April 29, 2004]. Available from the HCSP, <<http://hcsp.ensp.fr/hcspi/docspdf/hcsp/hc001409.pdf>>, p. 135.
- <sup>19</sup> OECD, "OECD Health at a Glance – How France Compares, The French Health Care System" [on-line], (October 2003), [cited April 31, 2004]. <[www.oecd.org/eco/eco](http://www.oecd.org/eco/eco)>, p. 6.
- <sup>20</sup> Haut Comité de la Santé Publique, "Recueil des principaux problèmes de santé en France. D'après les rapports La santé en France 1994, 1998 et 2002. Contribution du HCSP à l'élaboration de la loi de programmation en santé publique", [on-line], (December 2002), [cited April 29, 2004]. Available from the HCSP, <<http://hcsp.ensp.fr/hcspi/docspdf/hcsp/hc001409.pdf>>, p. 127.
- <sup>21</sup> OECD, *OECD Health Data 2003* (Paris: Organization for Economic Co-operation and Development, 2003).
- <sup>22</sup> Department for the Environment, Food, and Rural Affairs, Government of the United Kingdom, "Regulatory and Environmental Impact Assessment for the National Emission Ceilings Directive", [on-line], (December 2002), [cited March 17, 2003]. <[http://www.defra.gov.uk/environment/airquality/necd/pdf/necd\\_reia.pdf](http://www.defra.gov.uk/environment/airquality/necd/pdf/necd_reia.pdf)>.
- <sup>23</sup> Energy Information Administration, The Government of the United States, "France Environmental Issues", [on-line], (September 2003), [cited April 15, 2004]. Available from Energy Information Administration, <<http://eia.doe.gov/>> .
- <sup>24</sup> French Ministry of the Environment, "National Strategy for Sustainable Development", (December 2003), [cited February 2, 2004]. <[www.environnement.gouv.fr](http://www.environnement.gouv.fr)> .
- <sup>25</sup> UNICEF, *State of the World's Children*, [on-line], (2002), [cited April 29, 2004]. <<http://www.unicef.org/sowc02/fullreport.htm>> .
- <sup>26</sup> Comité de pilotage sur la couverture vaccinale en France, *Measure de la couverture vaccinale en France* (Paris : Comité de pilotage sur la couverture vaccinale en France, 2001).
- <sup>27</sup> Max-Planck Institute for Demographic Research, *Male-Female Differences in Mortality in the Developed World* (Rostock: Max-Planck Institute for Demographic Research, 1999).
- <sup>28</sup> Observatoire Européen des Drogues et des Toxicomanies (OFDT), "La consommation de tabac en France en 2002" [on-line], (2004), [cited March 10, 2004]. <<http://www.ofdt.fr/accueil.htm>> .
- <sup>29</sup> Government of France, Ministère de la santé et de la protection sociale [on-line], (2002) [cited June 18, 2004]. <<http://www.sante.gouv.fr/index.html>>.
- <sup>30</sup> Brenan et al, "Recent Trends and Future Directions for Lung Cancer Mortality in Europe", *British Journal of Cancer*, 2002.
- <sup>31</sup> Agnès Couffinhall, "The French Health Care System: A brief overview" [on-line], (October 2001), [cited April 27, 2004]. <[www.credes.fr/english/wp/pwg.pdf](http://www.credes.fr/english/wp/pwg.pdf)>.
- <sup>32</sup> William Dab, "Crises de santé publique et crise de la santé publique," *Revue française des affaires sociales* (December 1997).
- <sup>33</sup> Organization for Economic Development and Cooperation.
- <sup>34</sup> OECD, *Education at a Glance*, (Paris: OECD, 2001).



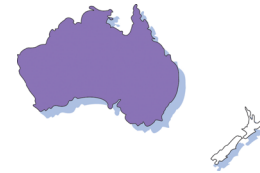
---

<sup>35</sup> Agnès Couffinhal, “The French Health Care System: A brief overview” [on-line], (October 2001), [cited April 27, 2004]. <[www.credes.fr/english/wp/pwg.pdf](http://www.credes.fr/english/wp/pwg.pdf)>.

<sup>36</sup> Ykata Imai, Stéphane Jacobzone and Patricia Lenain, “The changing health system in France”, Economics department working papers n°. 269 [on-line], (November 2000), [cited April 28, 2004]. <[www.oecd.org/eco/eco](http://www.oecd.org/eco/eco)>, p. 29.



# Australia



Australia is the smallest continent in the world, and is the sixth largest country. It is similar in land mass to the United States (excluding Alaska), with six states and two territories. Almost 40 per cent of Australia lies within the tropical zone. Like Canada, Australia faces the challenges of bringing services to remote regions of the continent, a considerable foreign-born population and a large Aboriginal population. In 2002, the population of Australia was close to 20 million.

## ORGANIZATION OF THE COUNTRY

Based on the British system, the Australian constitution established a Commonwealth or federal government in 1901. Each state has its own level of government, much like Canada's provinces, and below this, municipal and shire councils (local). Australia's Parliamentary structure consists of two houses, the Senate and House of Representatives. The Senate is elected for a six-year term, with 12 members from each of the States. There are two major (Liberal and National) and two minor (Australian Labour Party and Australian Democrats) parties active in Australian politics.

In November 2001, the Liberal Party was elected to its third consecutive term of office, through a coalition government. The Liberal Party represents views that range from the centre to the right and believes in free enterprise, small government and competition. Its' coalition partner, the National Party, has a platform based on private enterprise, rural issues, family values and national security. Voting is compulsory in Australia.<sup>1</sup>

## ORGANIZATION OF THE HEALTH CARE SYSTEM

The Australian health care system is a complex mixture of public and private mechanisms for both funding and delivery of services. (See Exhibit 6.)

The Commonwealth level of government, through the national Department of Health and Aging (NDHA), is responsible for policy, regulation and financing Medicare benefits. Interestingly, the NDHA establishes reciprocal agreements with many countries (though not with Canada) to allow health benefits to be portable when Australians are overseas. The Commonwealth has a leadership role in national issues like public health, research and national information management.

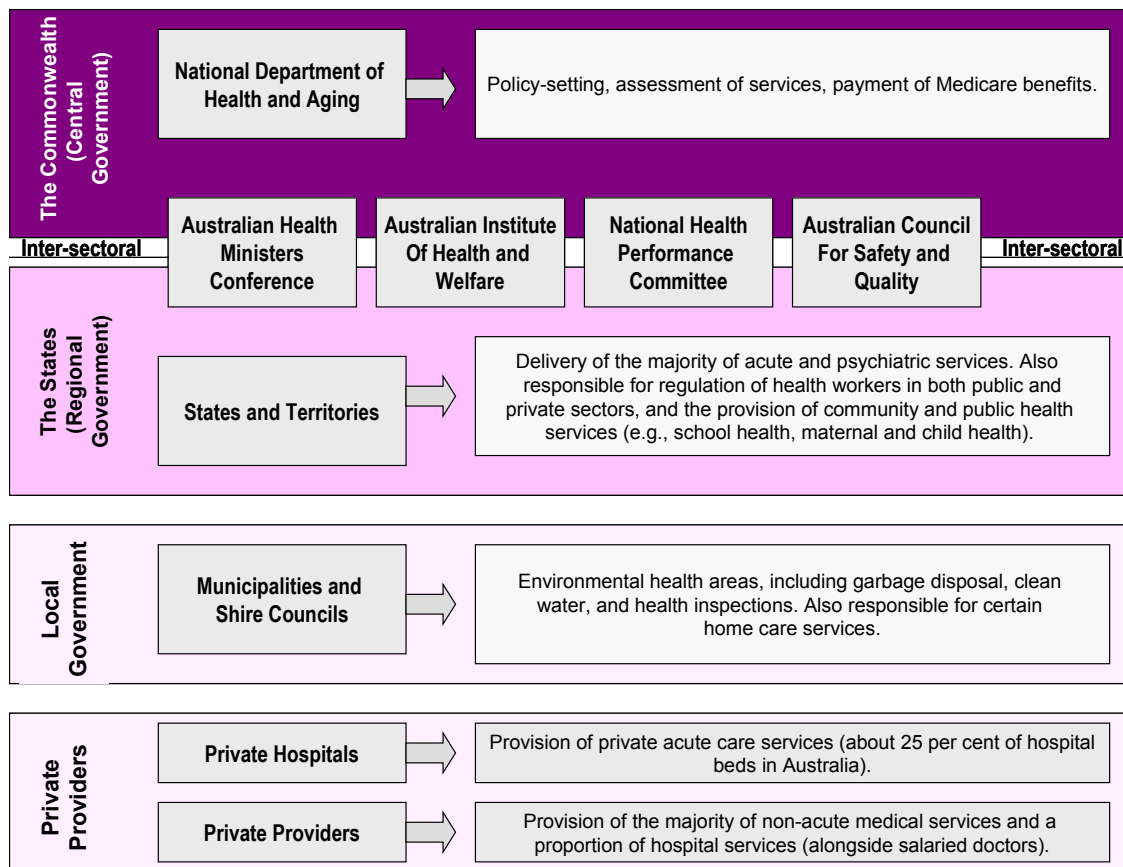
The NDHA plays an important role in disease prevention. As an example, the agency recently set out the National Health Priority Areas, which include: asthma, cancer, cardiovascular health, diabetes, injury prevention, mental health, and arthritis and musculoskeletal conditions. These Priority Areas are Australia's response to the World Health Organization's global strategy on health reform outlined in the report, *Health for All in the 21<sup>st</sup> Century*. These areas focus on the continuum of care from health promotion/prevention to treatment and management. They were chosen as the areas with the greatest potential for health gains that pose a significant burden of disease.

The Commonwealth ensures that overall policy, health priorities, funding, accountability and services for the Aboriginal population remain consistent throughout the country.

The Australian Health Ministers' Conference is a major decision-making body on health issues. This group, composed of all health ministers from the Commonwealth, states and territories, meets annually to promote a more co-ordinated national approach to health policy. The Australian Health Minister's Advisory Council (AHMAC) provides advice to the Conference. This council has established several groups, including the National Health Information Management Group, which has been responsible for the advancements of key health care issues in Australia (e.g., information technology use, health data definitions).

## Exhibit 6

### The Australian Health Care System



Source: The Conference Board of Canada.

Performance management of the health care system occurs through several bodies. The Australian Institute of Health and Welfare, funded by the Commonwealth, is the independent statistics and research agency for health. It houses national data on health and publishes regular reports on health and welfare system activities, including performance and outcome monitoring of health programs and departments, which are used to measure performance of health organizations across the country.

The National Health Performance Committee fosters the use of benchmarking within the health sector, based on national performance measures and indicators. This Committee developed a framework for indicators that was largely based on the Canadian Institute for Health Information's model. The framework provides a structured approach that uses three tiers for monitoring: health status and outcomes, determinants of health and

health system performance. This committee provides specialist advice to AHMAC through the National Health Information Group (NHIMG).

The Australian Council for Safety and Quality was established in January 2000 by the Australian Health Ministers to improve the safety and quality of health care.<sup>2</sup> This national body is creating awareness of health care safety, re-designing systems for health care to enhance patient safety, and improving information for better care.

Each state and territory is responsible for the delivery of public acute and psychiatric care. These services are typically provided through large multi-service centres or networks that include tertiary care, mental health, rehabilitation services and primary care.

States are also responsible for the provision of community and public health services, including health education in schools, maternal and child health, and dental health. In addition, states and territories maintain direct relationships with most health care providers and participate in the regulation of health professionals in both the public and private sectors.

Local/municipal governments have a role in environmental health areas, such as sanitation and hygiene, including garbage disposal, clean water, and health inspections. They also play a role in the funding and provision of certain community programs and home care services, including meals-on-wheels, home help and transport.

Every five years, Australian Health Care Agreements are negotiated and signed for each state. The current agreement runs from 2003–2008. The agreements set out the Commonwealth (national) and state mutual expectations, funding levels for public hospitals (through case mix funding) and performance criteria. As a result, the specifics of health system delivery may vary from state to state, with some having more decentralized models of health delivery.

A parallel private system operates in Australia, which offers choice to the consumer and helps to contain public expenditures. Private patients are able to choose their physicians during hospital stays. In the private system, patients receive a 75 per cent medical services fee rebate and pay the full cost of accommodation. The balance can then be claimed from one of the many private health insurance providers.

Primary care is similar to the Canadian system, in that general practitioners remain the gatekeepers to the health care system. Patients must be referred by general practitioners to speciality, diagnostic and hospital services. Both public and private patients have a choice of medical providers in primary care. Most physicians are in private practice groups. A general practitioner–hospital integration strategy has been developed to share protocols and improve information management for patient management among service providers. Evaluation results will be available in 2005.<sup>3</sup>

Community care services for the aged are jointly funded and administered by the Commonwealth and state governments. In the last decade, the Australian government has implemented extensive reform in aged care, especially since bringing in the *Aged Care Act* in 1997. There are two types of residential care: high-level care, provided at a nursing home and low-level care, provided at a hostel. The number of places is allocated in proportion to the number of people aged 70 years and over. Funding changed for residential care with the introduction of an income test to determine co-payment for nursing home residents. Policy analysts believe that, with this spreading of costs, the impact of aging demographics will be minimized.<sup>4</sup>

Similarly to Canada, there has been a shift in mental health services from psychiatric hospitals to the community. A National Mental Health Plan is in place for 2003–2008 to co-ordinate mental health activities nationally. It follows a population health framework, with a significant focus on community mental health services.<sup>5</sup>

## Health Insurance Program

In 1946, an amendment to the constitution enabled the government to provide health benefits and services. The Health Insurance Commission was created to run Australia's Medicare plan, under the 1973 Health Insurance Act. This allowed individuals to opt out and purchase private health insurance. However, by 1981, a large proportion of the population was uninsured for hospital treatment.

The current Medicare system was introduced in 1984, with the philosophy that all Australians should contribute to the cost of health care according to their ability to pay. Medicare provides access to free services for public patients in public hospitals and free (or subsidized) services delivered by medical practitioners, including family physicians, specialists, and participating optometrists and dentists (for specified services only).<sup>6</sup>

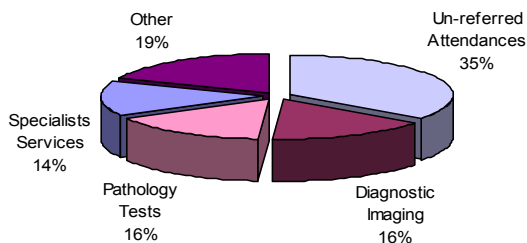
The Australian health system is funded mainly through income taxes, a Medicare levy, and private insurance. Three national subsidy schemes are in place, including: Medicare or Medical Benefits Scheme (MBS), the

Pharmaceutical Benefits Scheme (PBS) and the 30 per cent Private Health Insurance Rebate. The Health Insurance Commission is responsible for the MBS and PBS. These insurance schemes cover all residents of Australia and subsidize their payments for private medical services and prescriptive medicines. Under Medicare, public hospital services are jointly funded by the federal and state governments. The public system provides services to all Australians, regardless of their income. Services are provided at an affordable cost or at no cost. Allied health professionals are not covered by Medicare, but are usually covered through private health insurance.

Some physicians subscribe to bulk billing (they directly bill the Health Insurance Commission). In these cases, patients pay nothing, otherwise, a co-payment fee is paid (for any charge over the 85 per cent MBS fee, which varies by speciality and geographic area). If the physician is not subscribed to bulk billing, the patients will be billed for the services and they can claim 85 per cent back from the Health Insurance Commission. Remote and rural areas tend to have higher co-payment fees.

Health expenditures have risen substantially in the last decades and both the MBS and PBS play important roles in controlling the cost of physicians and pharmaceuticals through standard fees. In 2000–2001, the MBS paid out \$7,326 million AUS (approximately \$5,948 million Cdn) in benefits. (See Chart 7.) The majority of services paid were in the category of un-referred attendances, which include general practitioner services and emergency attendances after hours. These services, together, represent an average of 11 services per person under Medicare.<sup>7</sup>

**Chart 7**  
Payments Made by MBS in 2000–2001



Source: Commonwealth Department of Health and Aged Care.

Private health insurance provides coverage for private treatment in public or private hospitals, dental care, physiotherapy, chiropractic, acupuncture and some preventive services (such as sports equipment and gym memberships). Private health insurance is regulated by the Private Health Insurance Administration Council.

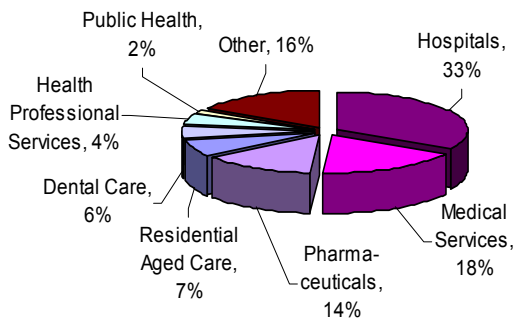
A “30 Per cent Private Health Insurance Rebate” and a government’s Lifetime Health Cover Policy were implemented to combat the falling participation rate in optional health insurance. As a result of these measures, private health insurance subscribers rose from 31 per cent of the population in June 1999 to 44 per cent in March 2003. Questions have been raised about the effectiveness of public subsidy of private health care insurance.<sup>8</sup> There are currently 43 private health insurance providers, with Medibank Private capturing 30 per cent of the market.<sup>9</sup> In 2002–2003, private health industry regulation was reviewed to examine options to contain health insurance premiums. Several new initiatives were implemented, including more streamlined processes, accountability of fund management and enhancing risk-sharing arrangements between funds.

## Health Services Financing

In 2001, Australia spent 9.2 per cent of Gross Domestic Product (GDP) on health, which is comparable to Canada’s 9.7 per cent. This figure represents \$3,153 AUS (approximately \$2,560 Cdn) per person.<sup>10</sup> In 2001–2002, total spending on health was \$66.6 billion AUS (approximately \$54 billion Cdn). Health expenditure by categories in 2000–2001 is shown in Chart 8. Hospitals represented the largest expenditure of the health care system, but also accounted for 55 per cent of total health spending at the state level and 27.8 per cent at the Commonwealth level.<sup>11</sup>

Household expenditures on health services, as a proportion of goods and services, has increased significantly in the last 15 years, going from 3.9 per cent in 1984 to 4.7 per cent in 1999.

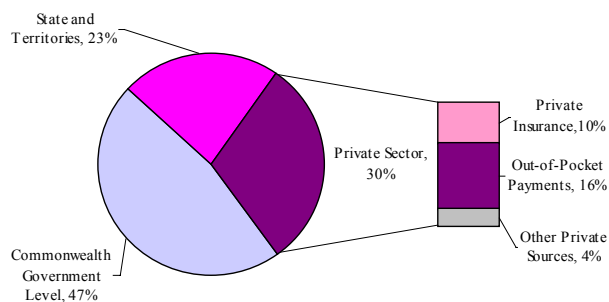
**Chart 8**  
2001–2002 Health Care Spending



Source: Australian Institute on Health and Welfare.

Income tax and the Medicare levy are collected at the federal level. The levy is 1.5 per cent of taxable income, with a 1 per cent surcharge for those without private health insurance who are above a designated income level. The Medicare levy provides 16.9 per cent of government funding. The sources of health care financing are shown in Chart 9. Total private sources amount to 30 per cent.<sup>12</sup>

**Chart 9**  
Funding for Health Services



Source: The Change Foundation and the Canadian College of Health Service Executives.

Government provides capital for new equipment in public hospitals, which eliminates the need to fundraise at the hospital level. In the 10-year period from 1990–2000, real growth in funding by the Commonwealth averaged 5.7 per cent, while at the state level, it grew by 3 per cent, and non-government sources grew by 2.5 per cent. In the 2003–2004 budget, an additional 17 per cent

in funding was provided through the Australian Health Care Agreements for public hospitals. This represents a new level of funding.<sup>13</sup>

Twenty-five per cent of acute care hospitals are private, comprising 30 per cent of total in-patient beds. Forty-four per cent of private beds are run by not-for-profit religious organizations. A small number of public hospitals are operated by the private sector.

Since 1984, pharmaceuticals have had an average annual growth rate of 11.4 per cent of government health care expenditures. The areas of national responsibility seem to have had the biggest real growth rates, specifically in pharmaceuticals and medical services. Three major cost containment strategies have been introduced to combat escalating costs. The first is through the MBS and PBS, where rates have been standardized for both physicians and pharmaceuticals. The second is for hospital funding, through five-year agreements with the states. The agreements begin with negotiated budgets, based on case mix funding. Lastly, pathologists and radiologists have agreed to a price/volume schedule of fees with stipulated growth rates. The right of pathologists to claim Medicare fees for tests they order has been removed. As well, a cap was added which specified that fees are only paid for the three most expensive tests ordered per episode.<sup>14</sup>

## MANAGING COST DRIVERS AND ESCALATORS

### Demographics

In 2002, the population of Australia was close to 20 million; it is expected to increase by 22 per cent by 2025.<sup>15</sup> Australia's population is younger than Canada's population. The elderly population (65 and over) comprised 12.7 per cent of the population in 2002. However, by 2051, the percentage of elderly is expected to increase to 27 per cent of the population. The median age of an Australian was 36 years in 2002. However, for the Aboriginal population, it was 20 years. By 2051, it is predicted that the median age of the total population will be 46 years.<sup>16</sup>



Fertility and mortality rates are declining. The fertility rate reached 1.73 births per woman in 2002—the lowest on record in Australia. Mortality rates for males have declined from 122.5 deaths per 100,000 in 1980, to 72.7 in 2000. This compares to a similar decline for females, where deaths went from 43.7 deaths per 100,000 in 1980 to 30.6 in 2000.

Life expectancy at birth for females is 82.0 years for females and 76.6 years for males—levels very similar to Canada.<sup>17</sup> Life expectancy has increased over the last 30 years, as a result of lower infant mortality rates, fewer deaths of young adults in motor vehicle accidents, and fewer deaths among older men from heart disease and stroke. However, the life expectancy for Aboriginal men is 56 years, while it is 63 years for women.

The population of Australia is culturally diverse, with one in four Australians being born elsewhere. Immigration has played a significant factor in Australian's population growth and in combating health care workforce shortages. In 2001, 23 per cent of the population was born overseas. In the last decade, the fastest growing immigration sources have been China, Vietnam and India.

Two per cent of the population is Aboriginal, with 27.5 per cent of Aboriginals residing in remote areas.<sup>18</sup> The population of Australia is very urbanized, with 64 per cent living in major cities.

## General Economy

Australia has a high GDP per capita at \$35,700 AUS, in 2002 (or \$27,408 US). Similarly to most developed countries, it experienced slow economic growth and high unemployment in the early 1990s. However, by 2001–2002, the economy had turned around, with a GDP per capital growth rate of 3.9 per cent.

Australia is a major exporter of agricultural products, minerals, metals and fossil fuels. The government has tried to reduce reliance on these primary exports and move to more manufactured products and services. The average growth rate over the 10-year period from 1992–2001 was 4 per cent for real GDP, which is higher than Canada's 3.6 per cent.

Significant economic policy has brought inflation under control through reducing public sector borrowing and promoting increased productivity growth. In July 2000, a 10 per cent goods and services (GST) tax was introduced and all revenue collected through it goes to the state governments for essential services. In February 2004, the unemployment rate was 5.7 per cent, with a participation rate of 63.5 per cent.<sup>19</sup>

## Home Care

In 1985, the Australian government established the Home and Community Care Program (HACC). An amended agreement was then signed by the states, which outlines the priorities and directions for the program. Smaller regions within states were established for annual planning and funding purposes. The HACC program provides community care services to the elderly and to young people with disabilities and their caregivers. The aim is to avoid unnecessary admission to long-term residential care by enhancing the independence of people with disabilities. The range of services provided through HACC include: community nursing, paramedical services, meals-on-wheels, home help, personal care, home maintenance, transport, day respite care, education for service providers/consumers, assessment and referral, information and advocacy, social (neighbour aid) and caregiver support.

Twenty per cent of the Australian population over 70 uses aged care services, with 40 per cent of them being 80 years or older. It is a cost-shared program, with 60 per cent funding from the Commonwealth (\$732.4 million AUS in 2003) and 40 per cent from the states (\$471.6 million AUS). The Commonwealth allocated \$253 million AUS in 2003–2004 to fund a new Pathways Home Program. This will help the states to provide “step-down” and rehabilitation services for individuals (specifically the elderly) to make the transition to living at home.<sup>20</sup>

Ninety-three per cent of clients receive some form of government benefit, such as a pension. Approximately 48 per cent of HACC clients have a caregiver to assist them. In 2003, there were 3,500 HACC-funded organizations providing services to 650,000 clients per year.<sup>21</sup>

## Demand

Demand for health services is growing in Australia. There seem to be three major factors contributing to pressures on the demand side. The first is heightened consumer and provider expectations of the health system in the last decade and the resulting increase in demand for services. Health expenditures have increased significantly in the last 40 years, growing at a rate of 2.8 per cent per year in the 1990s.<sup>22</sup>

The patient is able to choose his or her general practitioner and may consult more than one, as there is no requirement to belong to a specific group practice. General practitioners are the gatekeepers for the health system. However, patients also have a choice of secondary care providers, provided the general practitioner is willing to make the referral. Between 1998–1999 and 2000–2001, the number of services per person under Medicare increased by 0.7 per cent, going from 10.9 to 11.3 per year.<sup>23</sup> As seen in Table 21, utilization of health services is increasing. This may be partially explained by a corresponding increase in access, in which the number of general practitioners grew by 30 per cent during this period. As well, an extensive health promotion campaign was waged to encourage immunization, check-ups, pap smears and blood pressure maintenance.

Average number of times per year that a person consulted a physician	1998	2000
Males	4.5	5.2
Females	6.6	7.2

Source: Australian Institute of Health and Welfare.

This higher health services use pattern has also affected hospital use. In 2001–2002, the number of patient days in public hospitals increased by 0.6 per cent and in private hospitals, increased by 3.3 per cent. Between 1993–1994 and 2001–2002, admissions to Australian hospitals increased by almost 40 per cent, with public hospital admissions increasing by 20 per cent and private hospitals by 85 per cent.

In addition, a number of new technological advances (both pharmaceutical and medical technologies) have

escalated public demand. Assessment of new medical technologies is similar to that for pharmaceuticals. Once approval is obtained, the cost of a procedure is added to the MBS. The states and hospitals decide on the capital purchasing of new technology. There seems to be a good supply of more costly technologies in Australia, such as MRIs. In 1998, Australia had 4.5 MRI units per million population,<sup>24</sup> which increased to 4.7 in 2001.<sup>25</sup>

The final significant factor adding pressure to demand is the aging population. In 2001, there were 2.4 million Australians aged 65 and over; by 2031, that figure is expected to reach 5.4 million. The proportion of the population in the 80 and over category will double over the next 20 years.<sup>26</sup>

## Pharmaceuticals

All residents of Australia have access to medicine through the Australian government's Pharmaceutical Benefits Scheme and the Repatriation Pharmaceutical Benefits Scheme (RPBS). These schemes consume 14.3 per cent of total health expenditures.<sup>27</sup> The PBS subsidizes prescriptive medicines, which costs the consumer a maximum amount for most medicines.

The number of PBS prescriptions per capita was eight in 2002–2003, increasing the cost of benefit prescriptions to the government to 9.2 per cent in current dollars in one year.<sup>28</sup> This universal system to pharmaceuticals seems to better control overall costs, especially with the use of generic drugs. However, the trend to newer and more costly medicines is severely affecting the PBS system.

Over the last 10 years, the average PBS-dispensed price doubled, from \$16.76 AUS to \$34.24 AUS, in current dollars. A PBS safety net exists to provide a threshold for PBS medicines in a year. If the threshold is exceeded, then a safety net card can be made available, which makes medicines cheaper (or free) for the rest of the year. If a more expensive brand is prescribed, then the difference between it and the lowest priced, in addition to the PBS patient contribution, must be paid. Overall, consumers pay an average of 20 per cent of the total cost of the PBS.<sup>29</sup> Consumer co-payments have increased over the last decade, although measures have been put in place for low-income and high-use groups.

Pharmaceuticals must pass through rigorous quality testing to be added to the approved list through a three-stage process. The first step is an assessment of safety and efficacy, tested through the Therapeutic Goods Administration. The application then passes on to the Pharmaceutical Benefits Advisory Committee and its subcommittees, which base their recommendations on effectiveness, cost-effectiveness and clinical use of the drug. The Minister of Health has final approval, as to whether or not the drug will be added to the PBS, while the Commonwealth negotiates the price with the pharmaceutical manufacturer.

## Health Workforce

The health sector employs approximately seven per cent of the workforce in Australia, with 60 per cent being full-time employees and 40 per cent who are part-time. Female workers comprised 78 per cent of the health sector workforce. Labour costs account for two-thirds of total health expenditures.<sup>30</sup>

Australia faces similar health human resource shortages to Canada, especially in the acute and long-term care sectors. The Commonwealth regulates health human resources. The number of university medical school places available is also dictated by the Commonwealth through its funding. Every graduate of medical school is guaranteed a position in a public hospital. The Australian Medical Workforce Advisory Committee (AMWAC) is responsible for post-graduate training. This committee forecasts the number of general practitioners and specialists required in the future. However, as the states fund the training places, the recommendations from AMWAC are not always adhered to.

In 2000, there were 2.5 physicians per 1,000 of population, which is a higher ratio than Canada's 2.1 per 1,000.<sup>31</sup> Forty per cent of physicians are general practitioners (GP). The majority of physicians are in private practice, with most belonging to group practices. Growth in physician supply has been contained through minimizing the number of medical school places, limiting immigration of overseas trained physicians, and restricting the number of physicians able to bill Medicare.

There currently seems to be an oversupply of general practitioners in urban areas. However, rural areas face major shortages—especially those with a high Aboriginal population. Several strategies have been put in place to combat the shortage in rural areas. These include medical school scholarships for rural students and encouraging medical students to undertake rural placements. In the 2003–2004 budget, a provision was made for an additional 234 funded medical school places to be created each year. Students who fill these places will be bonded to areas of workforce shortage (rural and remote) for a minimum of six years. In addition, in 2004, there will be 150 training places added to the GP training program, which will focus on rural and remote areas. These two initiatives will cost \$231.6 million AUS over four years.<sup>32</sup>

Unlike physicians, nurses' workforce planning occurs at the state level. Registered nurses represent the largest proportion of the health workforce, at 44 per cent in 2002–2003. Nurses are salaried employees. Hospital wards are staffed primarily (82 per cent) by registered nurses and there are no health care assistants. There are very few nurse-practitioners in Australia, although their roles are expanding.

There has been a significant decline in the number of nurses in the last decade. The Australian Health Workforce Advisory Committee (AHWAC) was formed in December 2000 to undertake strategic health workforce planning. It reports to the Australian Health Minister's Advisory Council (AHMAC). The initial focus of planning was in the areas of intensive/critical care, emergency, aged care, mental health and midwifery.

Proactive programs to encourage nurses to come out of retirement or consider a career change have been implemented. As well, Australia has undertaken strong international health profession recruitment to increase supply beginning in 2004. Strategies to combat nursing shortages will be extended to outer-metropolitan and urban areas, where shortages exist. They will receive funding of \$64.2 million AUS, over four years. Up to 800 practices will be able to employ nurses or allied health workers, such as physiotherapists or Aboriginal health workers, in an attempt to relieve pressure on general practices.<sup>33</sup>

## BALANCE OF INVESTMENTS IN HEALTH, HEALTH CARE AND OTHER SOCIAL DETERMINANTS OF HEALTH

Social determinants of health include welfare, income support programs, housing and education. Social programs are run by all levels of government and include a mix of private, public and voluntary sectors. The Australian government spent 6.7 per cent of GDP on education in 2001.<sup>34</sup>

The states are responsible for welfare, although the Commonwealth is developing more policy in this area. Australia's welfare system includes allowances to families, child care benefits, and labour market assistance. In 2002–2003, 1.8 million families received income support payments through the Family Tax Benefit amounting to over \$10 billion AUS. In addition, over \$1.3 billion AUS was provided to the Child Care Benefit program. Labour market assistance, in the form of NewStart Allowance and Parenting Payments, accounted for close to \$10 billion AUS. Average spending on welfare services consumes over 2 per cent of GDP, which is average for OECD countries. In 1999–2000 the Commonwealth provided 28 per cent of funding for welfare services. Expenditure on welfare services averaged \$710 AUS per person in 2000–2001.<sup>35</sup>

*The Housing Assistance Act*, enacted in 1996, provided financial assistance to the states to support their housing systems. Housing assistance has decreased over the years going from a high of 400,000 units of public sector rental housing in 1997 to 354,000 units in 2002. As a result, in 2003, a new Commonwealth State Housing Agreement was implemented to create a new sustainable housing system.

Other major non-medical health factors, overseen primarily by public health programs, include immunization and public awareness programs to reduce tobacco use (and other drug use), road traffic accidents, alcohol use and physical inactivity. Throughout the years, these programs have contributed to longer life expectancy and higher self-reported health. In order to achieve better population health outcomes, the National Public Health Partnership was instituted in 1996, as a collaborative effort between the Commonwealth and the states.

Public Health Outcome Funding Agreements are implemented by the Commonwealth for each state. The agreements include performance indicators for the implementation of national strategies, including immunization. As a result, the immunization rate for influenza in Australia was the highest for all OECD countries, at 78 per cent in 2001. Strategies to increase immunization rates include incentives for general practitioners and the establishment of the Australian Childhood Immunizations Register.

Other major public health programs include those to prevent stroke and cardiovascular diseases. Death rates from stroke have fallen in Australia by over 60 per cent since the 1970s. This decline in mortality is mostly due to the significant public health campaign waged on smoking. The National Stroke Foundation (funded by the Commonwealth) has developed the National Stroke Unit Program, which promotes best practices in stroke care.<sup>36</sup> In addition, The Commonwealth has also created a National Cardiovascular Disease Database to collect and analyse information on deaths, prevalence of risk factors (smoking, diabetes, obesity, blood pressure and blood cholesterol) and procedures carried out. The data is used by policy-makers, in developing new initiatives.

Australia has focused on reducing death resulting from road traffic accidents. In the last 30 years, significant road safety programs have been implemented, including mandatory fitting of seat belts, campaigns against drinking and driving, reduction in vehicle speed limits, increased enforcement of speed restrictions and accident “black spot” programs. A National Road Safety strategy was developed to further reduce the number of vehicle fatalities, with a 40 per cent reduction in fatalities targeted for 2010.<sup>37</sup> These programs have resulted in a dramatic reduction of mortality, from 30.4 deaths per 100,000 of population caused by road traffic in 1970, to 8.8 per 100,000 of population in 2002 (Canada's rate is 9.7), despite a huge increase in the number of motor vehicles on the road. In addition, there has been a reduction in road traffic injuries, which currently stand at about 2,000 per million of population, compared to Canada, at over 7,000.<sup>38</sup>

In order to better track public health information in Australia, the National Public Health Expenditure Project was initiated in 1997. This project estimated that

overall public health spending was 2 per cent of total government health expenditures in 2002. In 2000, 50 per cent of total government public health expenditures was provided by the Commonwealth.<sup>39</sup>

The Australian government has estimated the economic and financial returns from public health programs during the past 30 years.<sup>40</sup> The returns of tobacco control and coronary heart disease (CHD) programs are shown in Table 22.

<b>Table 22</b>			
<b>Forecasted Economic and Financial Return of Selected Public Health Programs</b>			
	<b>Government Expenses (in millions AUS \$)</b>	<b>Government Savings (in millions AUS \$)</b>	<b>Overall Health and Social Benefits (in billions AUS \$)</b>
Tobacco control programs	176	344	8.6
CHD programs	810	567	9.3

Source: Australian Department of Health and Aged Care.

Both programs showed exceptionally high returns for the investment made by government.

## PERFORMANCE AND PRODUCTIVITY

The Conference Board of Canada identified Australia as a gold-level performer in potential years of life lost (PYLL) due to lung cancer among females. Although the lung cancer rate for females remains low when compared to OECD averages, the incidence of lung cancer in females has increased over the last decade by 1.3 per cent annually. This increase occurred mostly in older women, with rates remaining stable in younger women.

In an attempt to control lung cancer, many initiatives have been launched, including the National Cancer Control Initiative and the National Cancer Statistics Clearing House, which supplies an interactive data base on cancer statistics, including incidence and mortality

data. Other initiatives have focused on reducing tobacco consumption.

Smoking is the single largest risk factor for lung cancer. As is the case for Canada, smoking has decreased substantially in Australia during the past 30 years. Currently, 20 per cent of the adult population are smokers, which is comparable to the Canadian rate of 18 per cent.<sup>41</sup> For females, tobacco consumption went from 30 per cent to 23 per cent.

A collaborative relationship has developed between the state and Commonwealth governments. The National Expert Advisory Committee on Tobacco was created to provide expert advice on policy, in order to reduce the health, social and economic costs of tobacco. The National Tobacco Strategy was initiated in 1999 to develop a comprehensive strategy for tobacco control. Significant public health programs have been implemented, including mass media campaigns and health warnings/regulations that restrict the promotion of cigarette products. Between 1971 and 1996, a 154 per cent increase in the real price of cigarettes reflected higher taxation rates. In February 2003, the excise paid per 0.8 grams stick of tobacco was \$21.54 cents AUS. New health warnings for tobacco packaging are being implemented and new national guidelines for smoking cessation have been developed by General Practice Education Australia.<sup>42</sup>

Smoking is prohibited in all government buildings and public places. Interesting initiatives have occurred in some states as alternatives to corporate sponsorship by tobacco companies. One notable example is the State of Victoria, where the Victorian Health Promotion Foundation has been created. It was originally funded through tobacco tax, but is now funded through general taxation. The foundation sponsors arts and sports that were traditionally funded by the tobacco industry. As well, it provides funding to health promotion programs that target sun protection, responsible drinking, healthy eating and increased physical activity.<sup>43</sup>

## Productivity

Human capital, innovation and competition are just a few elements that affect and define a country's productivity. Regarding human capital, The Conference



Board of Canada's research showed that although Australia spends more than Canada in education (as a percentage of GDP), it participates more in continuing education and training.

The Conference Board found that, with the exception of total R&D personnel per thousand of labour force, Canada shows stronger performance in innovation than Australia in selected indicators. (See Table 23.)

<b>Table 23 Innovation Indicators</b>		
	<b>Australia</b>	<b>Canada</b>
R&D as a % of GDP	1.53	1.85
Investment in Knowledge (R&D, software and higher-education) as a percentage of GDP, 1998	3.86	4.74
Connectedness Index	100	105
Total R&D personnel per thousand labor force	9.8	8.9
Industry-financed GERD as a % of GDP	0.70	0.74
Sources: OECD; The Conference Board of Canada.		

In 2001, *Healthconnect*, a joint initiative of the Commonwealth and states, was put together to develop a national electronic health records network. A statement of business requirements has been developed for a national electronic health record and is being pilot-tested.

Finally, the stronger role of the private sector, makes the Australian health care system more competitive than the Canadian health care system. However, the mix of private and public delivery mechanisms for health has created some fragmentation of the system, with private insurers involved in only some aspects of care and service.

## MAJOR CHALLENGES

Australia's health system is a strong performer internationally. Universal health care, high quality health care delivery and strong health promotion policies have determined its place as a high achiever. The deliberate policy framework for a mixture of public and private funding and delivery mechanisms makes the Australian system intriguing. However, there are still major

challenges ahead and directions for reform. Until now, Australia has focused its reform on the supply side of the system, including workforce planning, pharmaceutical limitations, public/private mix, and caps on Medicare payments.

The increasing average real growth rate per person for health expenditures is an ongoing concern for the Australian government. Significant measures have been taken to contain the costs of the health system in Australia and this will continue to be a focus. The PBS and MBS schedules will continually be used to contain costs. The PBS has implemented co-payments for consumers and promoted the use of generic drugs by both physicians and pharmacists. The MBS has encouraged bulk billing by physicians through incentives, restricted the number of physicians able to bill Medicare, and implemented price-volume caps for pathologists and radiologists. The bulk billing initiative has been controversial since its implementation in February 2004. Critics believe that the use of incentives to bulk bill is one step in the current government's agenda to re-privatize medical care in Australia.<sup>44</sup>

The Australian government hopes that the mix of private and public funders and providers will be a better mechanism for containing rising health costs. The Private Health Insurance rebate has seen an increase in the number of people enrolled in the private side of the system. However, this rebate has incurred significant costs for the government and the use of public funds to do this has been questioned. The implementation of five-year agreements between the Commonwealth and the states for the provision and funding of health services is a noteworthy idea. As well, the extensive implementation of case costing in the hospital setting seems to have achieved gains in efficiency.

To balance the focus on cost containment, significant initiatives have been implemented to improve quality. Waiting lists seem to be better maintained through this balance of private and public systems. However, access remains both a political and a quality issue, especially in remote or rural areas, where access to public hospital treatments remains a concern. Those who can afford to buy private insurance are encouraged to participate in the private system through incentives.

Similarly to Canada, there has been a large national focus on waiting time improvement. The National Waiting Times Data Collection was introduced to standardize criteria for waiting times for elective surgery. Three categories exist, with a category one level patient admitted into hospital within 30 days, category two, within 90 days, and category three, within 12 months. The median waiting time in public hospitals was 27 days in 2001–2002 (exactly the same as the previous year). In the same year, 4.5 per cent of patients waited more than 12 months for elective surgery.<sup>45</sup>

Better health information, especially with respect to quality, has been forthcoming. The National Health and Medical Research Council and professional colleges have all issued clinical practice guidelines and other evidence-based data. The Australasian Cochrane Centre provides systematic reviews of health care interventions.

Patient safety is seen to be an integral part of overall efforts to improve the quality of the health system. The National Health Performance Committee continues its work to develop a framework for indicators of the Australian health system.

The shortage of health professionals in remote communities is currently being addressed through several initiatives, such as the Rural Retention Program of incentives and the undergraduate scholarship scheme to assist rural medical students. The Commonwealth has provided an 11.4 per cent increase over five years for the Regional Health Strategy to implement new programs.<sup>46</sup> The inequity of the health status of the Aboriginal population of Australia remains a significant problem and it is hoped that some of these initiatives will combat this disparity.

The aging population of Australia, although younger than that of most developed countries, will put a significant strain on the cost of health services. Following extensive consultation, a National Strategy on Aging has been developed.<sup>47</sup> The Commonwealth government has committed \$6 billion AUS for care of the aged and community care in 2003–2004, doubled from \$3 billion AUS in 1995–1996. An Aged Care System has been put into place that includes community care programs, residential aged care and an aged care assessment program. In 2002–2003, \$41.9 million AUS

in funding was allocated for Aged Care Assessment Teams (ACATs), which centralize the multi-disciplinary assessment of an individual's needs and that person's eligibility to access other services.<sup>48</sup>

The National Demonstration Hospitals Program, a significant activity in health reform for Australia, aims to integrate service across the pre-admission, in-patient and post-acute care components of the health system. Results looked promising and further initiatives, such as the GP-Hospital Integration project and the After Hours Primary Medical Care Program, have been implemented. In the GP-Hospital Integration initiative, GPs played a significant role in pilot-testing co-ordinated care for patients with chronic conditions. As a result, in the 2003–2004 budget \$69.2 million AUS was allocated over four years through Medicare to support GP involvement in co-ordinated, multi-disciplinary care plans. It provides rebates for GPs to work with other health professionals. The 2003–2004 budget also provides funding to further integrate health prevention and promotion with disease management. The After Hours program was introduced in 2001–2002, with funding of \$43 million AUS over four years, to develop accessible and affordable after-hour services.<sup>49</sup>

## CONCLUSION

The similarities between Canada and Australia are striking, when compared to other comparator political systems, geography, demographics and health status. Yet, Australia spends less on health than Canada: 9.2 per cent GDP versus 9.7 per cent. However, there are key differences, including the complexity of the relationship between private and public sectors in Australia. It would be worth examining some of the Australian experiences more carefully, including:

- The Commonwealth's (federal) use of enhanced roles and responsibilities for health reform;
- The experience with Pharmacare;
- The use of five-year health agreements between the Commonwealth and state governments to fund public hospitals, including performance targets;
- The enhanced role the private sector plays, especially in the area of private health insurance;



- The use of co-payments by consumers for a range of health services, including medical services and pharmaceuticals;
- The focus on seven national health priority areas for policy, funding, education and performance monitoring; and
- The strong health promotion and prevention focus.

These differences in the Australian context merit continued investigation of alternatives for Canadian health system.

## CLINICAL VIGNETTE

Mrs. Brown is a 50-year-old, overweight woman, suffering from hypertension, who lives in Sydney. She went to visit her long-time general practitioner, as she was feeling lethargic and thirsty. Her physician screened Mrs. Brown for diabetes and lab results confirmed the diagnosis of diabetes. A biomedical, biochemistry and lifestyle assessment (diet, physical activity and smoking) were conducted. The GP developed and confirmed an initial management plan, which included strict control of blood glucose levels, with Mrs. Brown. As the GP is subscribed to bulk billing, Mrs. Brown did not need to pay up front for consultations. She was encouraged to register with the National Diabetes Services Scheme, which provides blood and urine testing strips and consumables for special injection systems at subsidized prices. Mrs. Brown was also advised to register with the National Diabetes Register, which has been established to collect data on diabetes that will help to combat this disease. Mrs. Brown was referred to the diabetes educator, who provided information and education on subjects such as the monitoring of blood glucose levels, the need for weight reduction and self-monitoring of her feet.

Several months later, Mrs. Brown began to feel a weakness and sensation in her right arm and slowness in speech, so she went to a privately run hospital's emergency department, where she was seen very quickly. Her GP was contacted and participated in Mrs. Brown's assessment with a cardiologist. Mrs. Brown was given various tests, including an MRI, which determined the presence of a mild stroke. She received in-hospital treatment, during which time, she received additional education on diabetes and stroke and participated in the development of her care plan. Upon her discharge, a summary was provided to the General Practitioner, outlining admission details, results of her clinical assessment, in-hospital complications, results of knowledge and service, and patient education. An appointment with a physiotherapist was scheduled. Mrs. Brown received a 75 per cent medical services fee rebate and paid the full cost of accommodation for her stay. The remaining costs were covered by her private health insurance. Home care services were provided by the District Nursing Service for a short period of time, although Mrs. Brown had to pay a nominal fee, based on her income.<sup>50</sup>

---

<sup>1</sup> Australian Department of Health and Ageing, *The Australian Health Care System: An Outline* [on-line], (September 2000), [cited April 7, 2004]. Available from the Australian Department of Health and Ageing, <<http://www.health.gov.au/haf/ozhealth/ozhealth.pdf>>.

<sup>2</sup> Martin Fletcher, *The Quality of Australian Health Care: Current Issues and Future Directions* [on-line], (2000), [cited April 13, 2004]. Available from the Australian Department of Health and Ageing, <<http://www.health.gov.au/pubs/hfsocc/ocpahfsv6.pdf>>.

<sup>3</sup> Centre for General Practice Integration Studies, *GP-Hospital Integration: What have we learnt?* [on-line], (December 2001), [cited April 11, 2004]. Available from the Australian Department of Health and Ageing, <<http://www.health.gov.au/pubs/>>.

<sup>4</sup> Judith Healy, *Health Care Systems in Eight Countries: Trends and Challenges* [on-line], (April 2002), [cited April 19, 2004]. Available from European Observatory on Health Care System, <[www.euro.who.int/observatory/](http://www.euro.who.int/observatory/)>.

<sup>5</sup> Commonwealth Department of Health and Ageing, *Mental Health Plan 2003-2008* [on-line], (2003), [cited April 29, 2004]. Available from the Australian Department of Health and Ageing, <<http://www.health.gov.au/hsdd/mentalhe/mhinfo/nmhs/pdf/mhplan.pdf>>.

<sup>6</sup> Melissa Hillless and Judith Healy, *Health Care Systems in Transition: Australia* [on-line], (2001), [cited April 19, 2004]. Available from the European Observatory on Health Care System, <[www.euro.who.int/observatory/Hits/TopPage](http://www.euro.who.int/observatory/Hits/TopPage)>.

<sup>7</sup> Commonwealth Department of Health and Ageing, *Annual Report 2003* [on-line], (2004), [cited April 13, 2004]. Available from the Australian Department of Health and Ageing Care, <<http://www.health.gov.au/pubs/annrep/ar2003/pdf/ar2002-03.pdf>>.

<sup>8</sup> Michael Kirby, *The Health of Canadians – The Federal Role Volume Three: Health Care Systems in Other Countries* [on-line], (January 2002), [cited April 28, 2004]. Available from the Standing Senate Committee on Social Affairs, Science and Technology, <<http://www.parl.gc.ca/37/2/paribus/commbus/senate/com-e/>>.

<sup>9</sup> Australian Bureau of Statistics, *Australia Now* [on-line], (2003), [cited April 23, 2004]. Available from the Australian Bureau of Statistics, <<http://www.abs.gov.au/Ausstats>>.

<sup>10</sup> Australian Bureau of Statistics, *Australia Now* [on-line], (2003), [cited April 23, 2004]. Available from the Australian Bureau of Statistics, <<http://www.abs.gov.au/Ausstats>>.

<sup>11</sup> Australian Institute of Health and Welfare, *Australia's Health 2002* [on-line], (2002), [cited April 10, 2004]. Available from Australian Institute of Health and Welfare, <<http://www.aihw.gov.au/publications/index.cfm?type=detail&id=7637>>.

<sup>12</sup> The Change Foundation and Canadian College of Health Service Executives, *Report on Key Learnings: The Canada/UK – Australia Study Tour 2002* [on-line], (September 2000), [cited April 7, 2004]. Available from the Change Foundation, <<http://www.changefoundation.com>>.

<sup>13</sup> Australian Department of Health and Ageing, *Health Budget 2003-04* [on-line], (2003), [cited April 26, 2004]. Available from the Australian Department of Health and Ageing, <<http://www.health.gov.au/haf/ozhealth/ozhealth.pdf>>.

<sup>14</sup> Commonwealth Department of Health and Ageing, *Annual Report 2003* [on-line], (2004), [cited April 13, 2004]. Available from the Australian Department of Health and Ageing, <<http://www.health.gov.au/pubs/annrep/ar2003/pdf/ar2002-03.pdf>>.

<sup>15</sup> Australian Institute of Health and Welfare, *Australia's Health 2002* [on-line], (2002), [cited April 10, 2004]. Available from Australian Institute of Health and Welfare, <<http://www.aihw.gov.au/publications/index.cfm?type=detail&id=7637>>.

<sup>16</sup> Australian Bureau of Statistics, *Australia Now* [on-line], (2003), [cited April 23, 2004]. Available from the Australian Bureau of Statistics, <<http://www.abs.gov.au/Ausstats>>.

<sup>17</sup> OECD, *OECD Health Data 2003, 3<sup>rd</sup> ed.* [on-line], (2003), [cited April 22, 2004]. Available from OECD, <<http://www.oecd.org/dataoecd/1/31/2957323.xls>>.

<sup>18</sup> Australian Institute of Health and Welfare, *Australia's Health 2002* [on-line], (2002), [cited April 10, 2004]. Available from Australian Institute of Health and Welfare, <<http://www.aihw.gov.au/publications/index.cfm?type=detail&id=7637>>.

<sup>19</sup> Australian Bureau of Statistics, *Australia Now* [on-line], (2003), [cited April 23, 2004]. Available from the Australian Bureau of Statistics, <<http://www.abs.gov.au/Ausstats>>.

<sup>20</sup> Australian Department of Health and Ageing, *Health Budget 2003-04* [on-line], (2003), [cited April 26, 2004]. Available from the Australian Department of Health and Ageing, <<http://www.health.gov.au/haf/ozhealth/ozhealth.pdf>>.

- 
- <sup>21</sup> Australian Department of Health and Ageing, *Home and Community Care* [on-line], (2004), [cited April 12, 2004]. Available from the Australian Department of Health and Ageing, <<http://www.hacc.health.gov.au/publication.htm>>.
- <sup>22</sup> Australian Institute of Health and Welfare, *Australia's Health 2002* [on-line], (2002), [cited April 10, 2004]. Available from Australian Institute of Health and Welfare, <<http://www.aihw.gov.au/publications/index.cfm?type=detail&id=7637>>.
- <sup>23</sup> Australian Institute of Health and Welfare, *Australia's Health 2002* [on-line], (2002), [cited April 10, 2004]. Available from Australian Institute of Health and Welfare, <<http://www.aihw.gov.au/publications/index.cfm?type=detail&id=7637>>.
- <sup>24</sup> Judith Healy, *Health Care Systems in Eight Countries: Trends and Challenges* [on-line], (April 2002), [cited April 19, 2004]. Available from European Observatory on Health Care System, <[www.euro.who.int/observatory/](http://www.euro.who.int/observatory/)>.
- <sup>25</sup> OECD, *OECD Health Data 2003, 3<sup>rd</sup> ed.* [on-line], (2003), [cited April 26, 2004]. Available from OECD, <<http://www.oecd.org/dataoecd/1/31/2957323.xls>>.
- <sup>26</sup> Australian Department of Health and Ageing, *Aged Care in Australia* [on-line], (August 2003), [cited April 26, 2004]. Available from the Australian Department of Health and Ageing, <<http://www.ageing.health.gov.au/about/agedaust/agedaust.htm>>.
- <sup>27</sup> Australian Institute of Health and Welfare, *Australia's Health 2002* [on-line], (2002), [cited April 10, 2004]. Available from Australian Institute of Health and Welfare, <<http://www.aihw.gov.au/publications/index.cfm?type=detail&id=7637>>.
- <sup>28</sup> Australian Bureau of Statistics, *Australia Now* [on-line], (2003), [cited April 23, 2004]. Available from the Australian Bureau of Statistics, <<http://www.abs.gov.au/Ausstats>>.
- <sup>29</sup> Australian Institute of Health and Welfare, *Australia's Health 2002* [on-line], (2002), [cited April 10, 2004]. Available from Australian Institute of Health and Welfare, <<http://www.aihw.gov.au/publications/index.cfm?type=detail&id=7637>>.
- <sup>30</sup> Melissa Hilless and Judith Healy, *Health Care Systems in Transition: Australia* [on-line], (2001), [cited April 19, 2004]. Available from European Observatory on Health Care System, <[www.euro.who.int/observatory/Hits/TopPage](http://www.euro.who.int/observatory/Hits/TopPage)>.
- <sup>31</sup> Australian Bureau of Statistics, *Australia Now* [on-line], 2003, [cited April 23, 2004]. Available from the Australian Bureau of Statistics, <<http://www.abs.gov.au/Ausstats>>.
- <sup>32</sup> Australian Department of Health and Ageing, *Health Budget 2003-04* [on-line], (2003), [cited April 26, 2004]. Available from the Australian Department of Health and Ageing, <<http://www.health.gov.au/haf/ozhealth/ozhealth.pdf>>.
- <sup>33</sup> Australian Department of Health and Ageing, *Health Budget 2003-04* [on-line], 2003, [cited April 26, 2004]. Available from the Australian Department of Health and Ageing, <<http://www.health.gov.au/haf/ozhealth/ozhealth.pdf>>.
- <sup>34</sup> Australian Institute of Health and Welfare, *Health Expenditure Datacubes* [on-line], (2004), [cited April 19, 2004]. Available from the Australian Institute of Health and Welfare, <<http://www.aihw.gov.au/expenditure/datacubes/index.html>>.
- <sup>35</sup> Australian Institute of Health and Welfare, *Health Expenditure Datacubes* [on-line], (2004), [cited April 19, 2004]. Available from the Australian Institute of Health and Welfare, <<http://www.aihw.gov.au/expenditure/datacubes/index.html>>.
- <sup>36</sup> National Heart, Stroke, and Vascular Health Strategies Group, *Summary of a National Strategy for Heart, Stroke, and Vascular Health in Australia* [on-line], (May 2003), [cited April 22, 2004]. Available from the Department of Health and Ageing, <<http://www.health.gov.au/pg/cardio/pdf/sumrynatstrat.pdf>>.
- <sup>37</sup> Australian Transport Council, *The National Road Safety Strategy: 2001-2010* [on-line], (2004), [cited April 26, 2004]. Available from the Australian Transport Council, <<http://www.aycouncil.gov.au/strategy.pdf>>.
- <sup>38</sup> OECD, *OECD Health Data 2003, 3<sup>rd</sup> ed.* [on-line], (2003), [cited April 26, 2004]. Available from OECD, <<http://www.oecd.org/dataoecd/1/31/2957323.xls>>.
- <sup>39</sup> Australian Institute of Health and Welfare, *Health Expenditure Datacubes* [on-line], (2004), [cited April 19, 2004]. Available from the Australian Institute of Health and Welfare, <<http://www.aihw.gov.au/expenditure/datacubes/index.html>>.
- <sup>40</sup> Peter Abelson, *Return on Investment in Public Health* [on-line], (2003), [cited April 13, 2004]. Available from the Australian Department of Health and Ageing, <[http://www.health.gov.au/pubhlth/publicat/document/roi\\_eea.pdf](http://www.health.gov.au/pubhlth/publicat/document/roi_eea.pdf)>.
- <sup>41</sup> OECD, *OECD Health Data 2003, 3<sup>rd</sup> ed.* [on-line], (2003), [cited April 22, 2004]. Available from OECD, <<http://www.oecd.org/dataoecd/1/31/2957323.xls>>.
- <sup>42</sup> Commonwealth Department of Health and Ageing, *Annual Report 2003* [on-line], (2004), [cited April 13, 2004]. Available from the Australian Department of Health and Ageing, <<http://www.health.gov.au/pubs/annrep/ar2003/pdf/ar2002-03.pdf>>.

---

<sup>43</sup> Melissa Hilless and Judith Healy, *Health Care Systems in Transition: Australia* [on-line], (2001), [cited April 19, 2004]. Available from European Observatory on Health Care System, <[www.euro.who.int/observatory/Hits/TopPage](http://www.euro.who.int/observatory/Hits/TopPage)>.

<sup>44</sup> Alan Davidson, "Health Policy Lessons from Down-Under: Pro-Market Policies Boomerang," *Healthcare Management Forum*, Volume 17, No.1 (Spring 2004), p. 27.

<sup>45</sup> Australian Institute of Health and Welfare, *Australian Hospital Statistics 2001-02* [on-line], (June 2003), [cited April 29, 2004]. Available from Australian Institute of Health and Welfare, <<http://www.aihw.gov.au/publications/index.cfm?type=detail&id=8881>>.

<sup>46</sup> Australian Department of Health and Ageing, *Health Budget 2003-04* [on-line], (2003), [cited April 26, 2004]. Available from the Australian Department of Health and Ageing, <<http://www.health.gov.au/haf/ozhealth/ozhealth.pdf>>.

<sup>47</sup> Australian Department of Health and Ageing, *Aged Care in Australia* [on-line], (August 2003), [cited April 26, 2004]. Available from the Australian Department of Health and Ageing, <<http://www.ageing.health.gov.au/about/agedaust/agedaust.htm>>.

<sup>48</sup> Australian Department of Health and Ageing, *Health Budget 2003-04* [on-line], (2003), [cited April 26, 2004]. Available from the Australian Department of Health and Ageing, <<http://www.health.gov.au/haf/ozhealth/ozhealth.pdf>>.

<sup>49</sup> Australian Department of Health and Ageing, *Health Budget 2003-04* [on-line], (2003), [cited April 26, 2004]. Available from the Australian Department of Health and Ageing, <<http://www.health.gov.au/haf/ozhealth/ozhealth.pdf>>.

<sup>50</sup> Judith Healy, *Health Care Systems in Eight Countries: Trends and Challenges* [on-line], (April 2002), [cited April 19, 2004]. Available from European Observatory on Health Care System, <[www.euro.who.int/observatory/](http://www.euro.who.int/observatory/)>.

# New Zealand



New Zealand's population of 3.9 million is spread across the two islands that comprise the country. The North and South Islands cover approximately 270,000 km<sup>2</sup>—less than half the size of Alberta. New Zealand is a land of contrasts, from pristine wilderness areas to modern and sophisticated cities, and has an international reputation for being safe and friendly.

New Zealand has become an industrialized, market economy able to compete globally. It is currently heavily dependent on trade, particularly on agricultural products. In addition, it has strong services and manufacturing sectors. Approximately 85 per cent of New Zealanders live in urban areas.

## ORGANIZATION OF THE COUNTRY

New Zealand's parliamentary democracy is closely patterned on the United Kingdom's. The chief of state is Queen Elizabeth II. The unicameral parliament, which comprises the House of Representatives, is composed of elected representatives who serve three-year terms. Following legislative elections, the leader of the majority party (or a majority coalition) is usually appointed prime minister by the Governor-General.

The country has been led by the Labour/Alliance Coalition party since 1999. This government has brought sweeping changes to the structure of the health care system since it came to power, but programs such as Pharmac and the Accident Compensation Corporation, which were put into place prior to 1999, have had the biggest impact on the health care system and the overall health of New Zealanders.

## ORGANIZATION OF THE HEALTH CARE SYSTEM

New Zealand's health care system is relatively small, compared with that of other OECD nations. However, through innovative programs and careful priority-setting,

it has managed to outperform larger, wealthier countries on specific health indicators.

The Ministry of Health has overall responsibility for the health and disability sector. It provides guidelines on what services must be provided and sets national priorities, as identified in the New Zealand Health Strategy. The role of the Ministry of Health, includes:<sup>1</sup>

- Developing policy advice for the government on health and disability issues;
- Administering health regulations and legislation;
- Funding health and disability support services;
- Planning and maintaining nationwide frameworks and specifications of services;
- Monitoring sector performance; and
- Providing information to the wider health and disability sector and the public.

The national government of New Zealand decides how much public money will be spent on health care and provides broad guidelines on what services must be provided. These funds are then allocated to the District Health Boards (DHBs), which are responsible for the health of their local populations. Some DHBs purchase services from a range of providers, including public hospitals, non-profit health agencies, iwi (Maori) groups or private organizations. Other DHBs deliver the services by running public hospitals, preventive services, health promotion activities and public health nursing services.

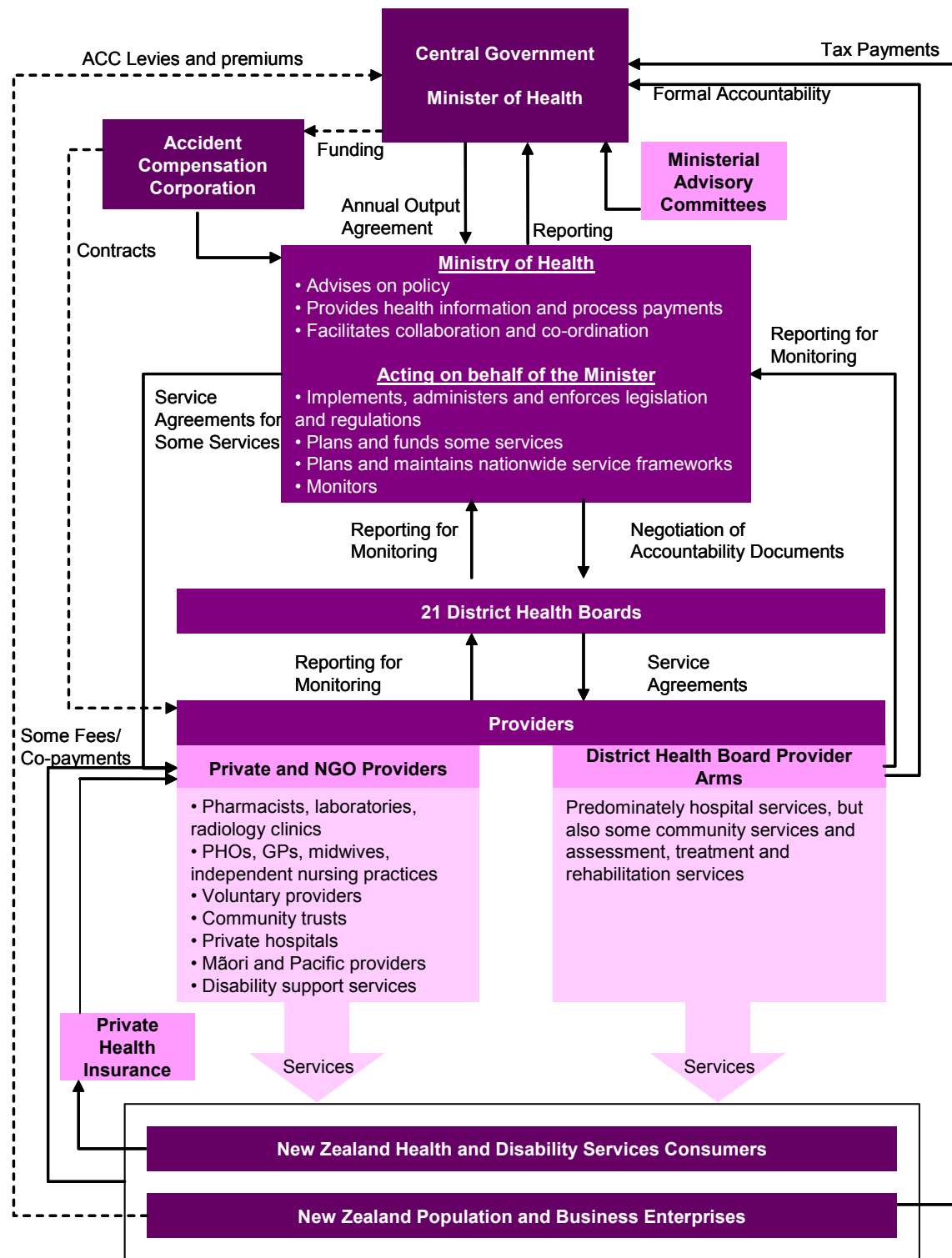
Over the past ten years, the New Zealand health care system has undergone several phases of restructuring. The latest change came in 2000, when the government dissolved the four Regional Health Authorities responsible for purchasing services and amalgamated the purchase and provision of health care services into the DHBs. (See Exhibit 7.)

There are 21 DHBs in New Zealand. These are Crown Entities responsible to the Minister of Health for their performance. The Ministry of Health enters into accountability arrangements with DHBs, which are based on their service and fiscal responsibilities. The

Ministry of Health monitors the success of DHBs in delivering services and managing the resources in their

care by assessing their financial and district plans. (See Exhibit 8.)

**Exhibit 7**  
Structure of the New Zealand Health and Disability Sector 2003

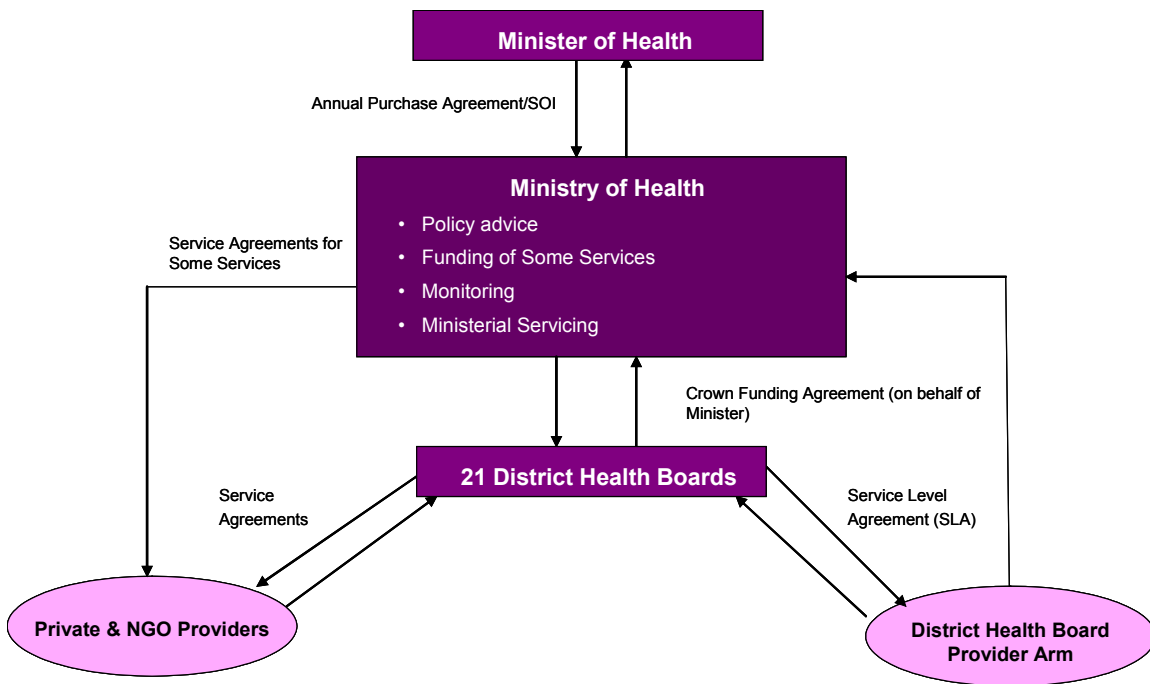


Source: New Zealand Ministry of Health.



**Exhibit 8**

**New Zealand Health Monitoring Arrangements**



Source: New Zealand Ministry of Health.

DHBs are required to develop public accountability documents, including a 5–10 year district strategic plan, a district annual plan, regular monthly reports against the annual plan, and quarterly reports on performance indicators, using a balanced scorecard approach. (See Table 25).

The New Zealand Health Strategy, published in 2000 by the Ministry of Health, provides the framework within which District Health Boards and other organizations across the health sector have to operate. It outlines seven fundamental principles to be incorporated throughout the health sector. In addition, this framework establishes 10 health goals to improve health status and reduce health inequalities, as well as 61 population objectives. The government has targeted 13 of these objectives for action in the short- to medium-term.<sup>2</sup> (See Table 24.) These health objectives represent key areas in which the government is looking for better performance and ultimately, better health outcomes.

<b>Table 24</b> <b>New Zealand Health Strategy's</b> <b>13 Population Health Objectives</b>	
1.	Reduce smoking
2.	Improve nutrition
3.	Reduce obesity
4.	Increase level of physical activity
5.	Reduce rates of suicide
6.	Minimize harm caused by alcohol and drug use
7.	Reduce the incidence and impact of cancer
8.	Reduce the incidence and impact of cardiovascular disease
9.	Reduce the incidence and impact of diabetes
10.	Improve oral health
11.	Reduce domestic violence
12.	Improve health status of people with severe mental illness
13.	Ensure access to appropriate child health care services
Source: New Zealand Ministry of Health.	



**Table 25**  
**Example of DHB Balanced Scorecard**

Balanced Scorecard Performance Indicators	Target	Notes to Calculations
<b>Organizational Health and Learning</b>		
Staff turnover voluntary	5%	Employees voluntarily resigning over total headcount per quarter
Staff stability rate	95%	Headcount of leaving employees with less than two years service over total headcount per quarter
Sick leave rate	5%	Total hours taken sick over total contracted employee hours
Workplace injuries	16.0	All occurrences resulting in work time lost over total hours worked per million hours
<b>Process and Efficiency</b>		
Resource utilization ratio	0.8	Dollar value of actual outputs at contract price over actual net operating costs
Performance to contract	0.9	Dollar value of actual outputs at contract price over value of contracted output
In-patient average length of stay case-weighted to patient admission rate	4.0	Case mix average length-of-stay multiplied by patient admission rate
Percentage of eligible elective day case surgery	61.0%	Day case elective surgery procedures over total elective surgery procedures
<b>Patient and Quality</b>		
Patients' overall satisfaction—in-patients	75%	Weighted overall satisfaction (very poor = 0, poor = 0.25, average = 0.5, good = 0.75, very good = 1)
Patients' overall satisfaction—out-patients	70%	Weighted overall satisfaction (as above)
Hospital-acquired blood stream infections	0.1	Episodes at hospital-acquired blood stream
Emergency triage times: category 1	98%	Triage 1 attendances, attend to immediately—proposed target (by MOH) 100%
Category 2	85%	Triage 2 attendances, attend to within 10 minutes—proposed target (by MOH) 85%
Category 3	80%	Triage 3 attendances, attend to within 30 minutes—proposed target (by MOH) 80%
Percentage of complaints resolved/closed	50%	Formal complaints resolved within 30 days over total formal complaints
<b>Financial</b>		
Return on net funds employed	6.4%	Net surplus before interest, donation and capital charge over total debt plus total Crown equity
Operating margin to revenue	2.2%	Net surplus before interest and capital charge over total revenue, exclusive of interest and donations
Revenue to net funds employed	2.9	Total revenue exclusive of interest and donations, over total debt, plus Crown equity
Debt-to-debt plus equity ratio	60.4%	Total debt inclusive of overdraft, over total debt, inclusive of overdraft plus Crown equity
Source: New Zealand Ministry of Health.		

General practitioners are the foundation of New Zealand's health care system and the first point of entry for patients. With the exception of emergency services, patients cannot access public secondary (including private specialists) and tertiary services, unless they are referred by a general practitioner. In effect, general practitioners co-ordinate access to the entire spectrum of health professionals and to the continuum of care.

Publicly funded hospitals provide a considerable range of health services for people who need emergency care or specialist care, either as in-patients for medical or surgical treatment, or as day cases. Specialists provide ambulatory care in community-based public hospital outpatient departments, which play a large role in the health system, since treatment is free, while consultations with independent practitioners must be paid for by patients.

Private hospitals generally do not provide highly specialized care, but rather, elective surgery and long-term geriatric care. However, a small amount of publicly funded treatment is carried out in private hospitals because of initiatives to reduce waiting lists. Conversely, public hospitals are not permitted to treat private patients and there are no private beds in New Zealand's public hospitals.

To create more equitable access to services, the government has developed nationally consistent referral and assessment tools for primary and secondary services. The tools support general practitioners and specialists in making consistent and transparent decisions about their patient's priority for assessment and treatment. As patients are increasingly treated in order of priority, individuals from populations with comparatively poor health status, such as Maori and Pacific Island peoples, normally have easier access to elective services. Overall, the strategy has managed to reduce the number of people on waiting lists. However, in 2002–2003 over 26,000 people waited longer than six months to see a specialist and more than 9,500 were still waiting for treatment.

Long-term care in New Zealand is provided mainly by private for-profit and voluntary sector agencies. Long-term care services provided by the government are funded through the Disability Support Services (DSS)

budget. Although the majority of care is provided in rest homes, continuing care hospital bed days have steadily increased over the past six years. This pattern of use may reflect later entry into long-term care, with correspondingly higher levels of disability. This is consistent with the government's Disability Strategy,<sup>3</sup> which promotes aging at home, with integrated support services.

Home care services are provided mainly by non-governmental organizations and are considered to be part of the unregulated environment in New Zealand. Expenditure for home support is on the rise, due to the government's strategies to support people remaining in their own homes, rather than going into residential care.

## Health Insurance Program

New Zealand was one of the first countries in the world to provide universal health care. Since 1938, the government has funded hospitals, while medical and pharmaceutical benefits did not fully come into effect until 1941. New Zealand operates a publicly funded health care system financed mainly through taxation, but combines government-funded services with a user-pay approach.

The government provides free in-patient and outpatient public hospital services, fully subsidized pregnancy services, mental health, drug and alcohol services, and public health screening and services for children under the age of six. It also subsidizes pharmaceuticals, laboratory and x-ray tests ordered by a doctor, and a range of support services for people with disabilities. New Zealand is one of the few OECD countries where people pay fees for primary medical care, while secondary health care is free.

People with lower incomes and high users of the system (more than 12 consultations a year) can have their health care costs offset by a range of government subsidy programs. Patients who fall below a certain income threshold are entitled to a Community Services Card, which allows holders to receive a subsidy on their general practitioner visits and on prescriptions.

Primary health care in New Zealand is dominated by a private, for-profit general medicine practice, with services provided on a user-pay basis. The fees are set

by individual general practitioners and range from about \$30 NZ (about \$26 Cdn) per consultation in smaller rural districts to \$45 NZ (or \$39 Cdn) in more affluent areas. The government has devised a system to ensure that primary health care visits are accessible, even to those with lower incomes. While this functions fairly well overall, it sometimes leads to inequities in availability.

As primary care is not fully covered by the national insurance program, patients who cannot afford to consult their general practitioner may have to wait. This means that medical conditions remain undiagnosed and become more severe, leaving no alternative but to refer the patient to specialist care, which is normally covered by the insurance program. Another frequent scenario has patients with aggravated or multiple health problems turning up at hospitals and clogging emergency departments.<sup>4</sup>

Patients often ask their general practitioner for a reference to a hospital when they require some procedures, such as minor surgery, that could be performed at the general practitioners' office. This results in general practitioners losing skills and motivation, an increased burden on public hospital waiting lists, and adds to the expenses of private health insurance companies.

Supplementary insurance coverage is available through the Accident Compensation Corporation (ACC). This is a Crown corporation that provides universal no-fault accident insurance coverage, injury prevention services, care management, and medical and rehabilitation services to those suffering an accident-related injury (i.e., motor vehicle accident, sports injury, or workplace injury).

ACC is funded by four sources: employers, earners, motor vehicle owners and general taxation revenues. ACC purchases primary health care, community services and elective medical treatment for claimants directly from hospitals and private providers. The ACC pays into a general government fund annually to cover the costs of acute care services provided by public hospitals to claimants.

While ACC's role in the New Zealand health care system is increasing in importance, it has different goals and constraints from the public health care system, and the dichotomy can result in perceived unfairness. For example, an impaired driver who is injured in a drunk-driving accident will receive faster service in a private hospital than a patient with cancer or diabetes. In order to get accident victims back to work more quickly and to avoid the high costs of paying lost earnings while accident victims wait for treatment, ACC purchases services from private hospitals. This results in growing waiting times for elective surgeries.

One of the biggest impacts of the ACC scheme is the abolition of a person's right to sue for personal injury caused by accidents. For medical professionals, this means that the risk of being sued for negligence is removed. Not only does this avoid the costs, inconvenience, and stress associated with litigation, but also the stigma of lawsuits, which could destroy their private practices. There are other avenues for dealing with negligence. Patients can still make claims to the ACC and professional bodies may take disciplinary actions. Where it is warranted, there may also be criminal investigations.

Private health insurance is also available and covers supplementary costs or gaps in service. Approximately one-third of New Zealanders have opted to purchase private health insurance.

## Health Services Financing

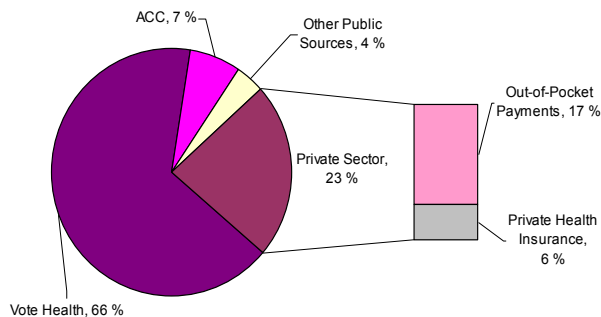
Health spending from 1990 to 2000 showed an average annual growth rate per capita of 2.9 per cent.<sup>5</sup> The Ministry of Health negotiates the final appropriation of the health budget, called Vote Health, with the Treasury. The appropriation is distributed between the Ministry's departmental budget and the country's 21 District Health Boards. In the 2003–2004 budget, the government's total appropriation for health was \$9.6 billion N.Z. (approximately \$8.05 billion Cdn). This budget represented an 11.3 per cent increase over the previous year.<sup>6</sup>

In 2002–2003, New Zealand's total expenditure on health was \$8.24 billion (approximately \$6 billion Cdn), which corresponds to 20 per cent of the government's total budget. This represents an average of \$2,573 NZ,

or \$1,623 US<sup>7</sup> per person. This is equal to 8.2 per cent of New Zealand's GDP.<sup>8</sup>

Public sector funding is the major source of health funding and accounts for 77 per cent of all health expenditures, while private sector funding accounts for 23 per cent. The majority of private sector funding comes from out-of-pocket expenditures by private households, with health insurance contributing 6 per cent. Donations from not-for-profit/voluntary organizations contributed to 0.3 per cent of private funding.<sup>9</sup> (See Chart 10.)

**Chart 10**  
Sources of Health Funding in 2000/2001



Source: New Zealand Ministry of Health.

The ACC is a small, but growing, source of funding for the health care system. From 1980-2001, ACC's share of total health care expenditures increased from 0.7 to 7.2 per cent. In 2001, ACC's total health expenditure was \$508 million NZ (about \$332 million Cdn), which is equivalent to an average annual growth rate of 14.7 per cent per year.<sup>10</sup>

Allocation of funding to DHBs is based on a weighted, population-based formula. This method is designed to fairly distribute funding among DHBs, according to the size and needs of their populations, and the cost of providing health and disability support services to meet those needs. DHBs purchase health services for their regions from a range of providers, including public hospitals, non-profit health agencies and private organizations.

## MANAGING COST DRIVERS AND ESCALATORS

### Demographics

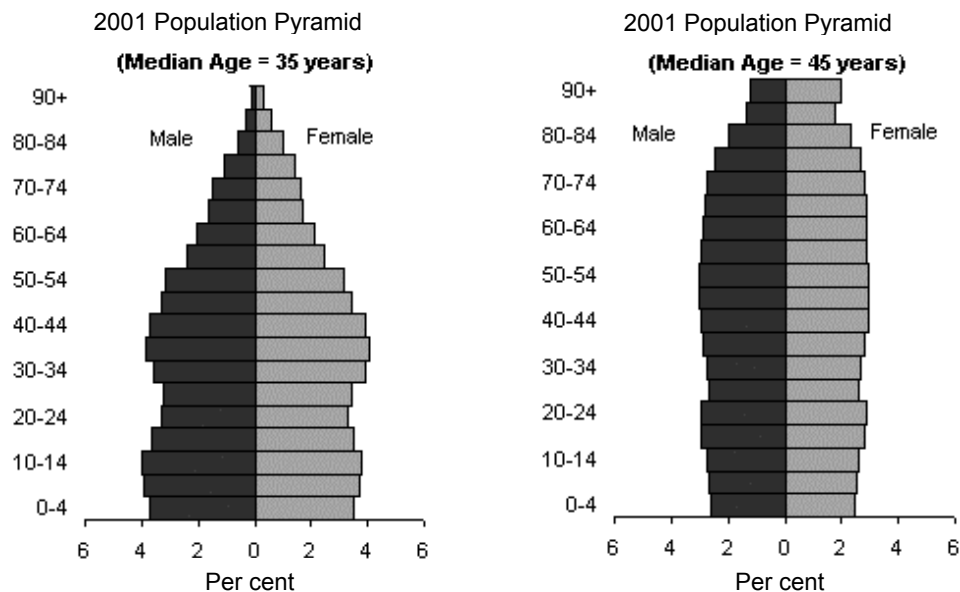
New Zealand's population of 3.9 million is divided into four main ethnic groups: European (80 per cent), Maori (14.7 per cent), Asian (6.6 per cent) and Pacific peoples (6.5 per cent). In New Zealand, people define their ethnic identity by cultural affiliation, rather than by their direct descent. Approximately 85 per cent of New Zealanders live in urban areas, leading to serious concerns about rural access to health care services.

The age structure of the New Zealand's population is changing. With a replacement rate of about 1.9,<sup>11</sup> the trend is leading towards fewer children, more elderly and an aging population. New Zealand's population is expected to grow from the current 3.9 million to a peak of 4.8 million in 2046—an increase of 24 per cent. The population will then decline slowly to 4.4 million by 2101, as deaths outnumber the combined effects of births and migration gain.<sup>12</sup> (See charts 11a and 11b.)

The number of New Zealanders 65 years and over doubled from 1967-2001 and the increase is expected to continue until 2066, when there will be 1.27 million people aged 65 and over. By then, this age group will make up 27 per cent of all New Zealanders—up from the current 12 per cent.<sup>13</sup> The change to the size and structure of New Zealand's population is a key driver of change in health services demand and expenditures. As New Zealand's population ages, a greater proportion of people will enter more costly age groups.

Health spending in New Zealand is automatically increased each year to take the aging population into account. Recent aging adjustments have been at the rate of approximately 0.4 per cent each year.<sup>14</sup> With an average annual population growth rate of 1.2 per cent, the government has committed additional funding: \$227 million in 2003-2004, \$355 million in 2004-2005, and \$535 million in 2005-2006 to meet the extra demand for health services.

**Chart 11a and 11b**  
Population Pyramids



Source: Statistics New Zealand.

## General Economy

The Conference Board of Canada's *Performance and Potential 2003-04: Defining the Canadian Advantage*, ranked the performance of New Zealand's economy sixth, in comparison with other nations. New Zealand's economic performance has improved since the early 1990s. The country's average annual GDP per capita growth rate is 2.25 per cent, which is higher than the 1.75 per cent average annual per capita growth rate for the total OECD.<sup>15</sup> In 2003, New Zealand's average annual income was \$39,600 NZ or \$24,800 US.<sup>16</sup>

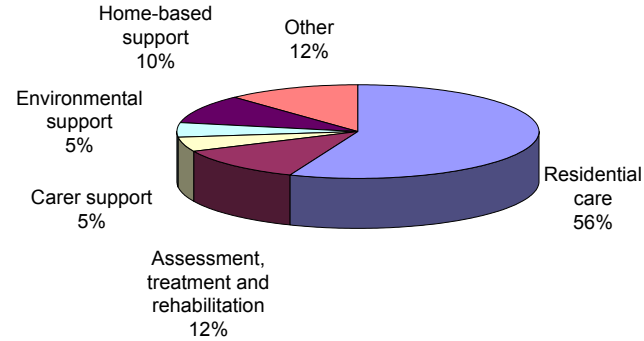
New Zealand experienced a substantial improvement in inflation performance during the 1990s, relative to previous decades. According to the Consumers Price Index (CPI), annual inflation was 4.5 per cent in 1995, as the economy experienced rapid growth and monetary policy was tightened. In 2004, CPI is forecast to fall to 1.6 per cent.<sup>17</sup> The government has embraced the policy of maintaining price stability within a 0–3 per cent inflation band, which aims to reduce levels of debt. This will give the government greater flexibility in its revenue and expenditure policies.

## Home Care

Approximately 4 per cent of New Zealanders enter residential care; most receive services at home with home care services or are cared for by relatives. To ensure that services are highly responsive to the support needs of people being cared for at home, the Ministry of Health and ACC have collaborated on a proposed new purchase framework and service specifications for home-based support services.<sup>18</sup>

Expenditure on home care in New Zealand more than doubled between 1995 and 2003. The increase reflects specific policy strategies to promote people staying longer in their own homes with integrated support services, rather than moving into residential care, which currently occupies more than half of the Ministry of Health's Disability Services Directorate's expenditure. (See Chart 12.) To support these strategies, home care expenditure has increased to over \$140 million in 2002–2003 and spending on caregiver support increased 11 per cent to \$55.4 million NZ.<sup>19</sup>

**Chart 12**  
Disability Support Services Expenditures by Area



Source: New Zealand Ministry of Health.

## Pharmaceuticals

In New Zealand, more people are now being treated with pharmaceuticals—and for less money than ever before. This has been possible through maximization of bargaining power, supply-side control measures, and the use of reference pricing.

The use of pharmaceuticals in New Zealand is regulated by two government agencies: Medsafe, which is responsible for the testing, licensing and distribution of medicines, and Pharmac, which regulates the price of medicines and sets subsidy levels and prescription guidelines. Medical practitioners, nurses, midwives and dentists can prescribe medicines from the Pharmaceutical Schedule and consumers are required to make a small co-payment.

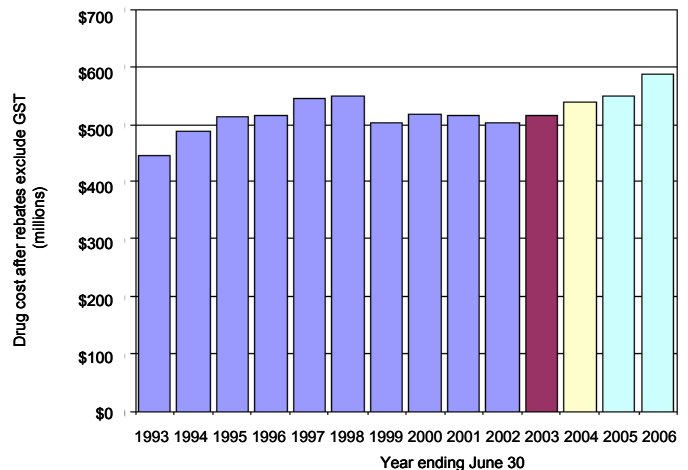
Pharmac is a monopoly purchaser with substantial bargaining power and, as such, has been able to apply supply-side controls with considerable success. Although the number of prescriptions continues to rise, expenditures grow at a lower rate, mainly due to Pharmac's negotiated price reductions.

Pharmac uses reference pricing, which means that all pharmaceuticals in a given sub-group are subsidized at the level of the lowest-priced pharmaceutical. Pharmac's aim is to have one fully subsidized pharmaceutical in each sub-group, which means that, in some instances, restrictions are lifted to ensure access to key drugs. These decisions, although they might ensure better

health outcomes, will likely have an impact on expenditures. As an example, Pharmac's decision to lift restrictions on access to statins (lipid-lowering therapy) contributed to a 99.5 per cent increase in the number of people receiving the drug between March 2002 and May 2003. Reference pricing is the most powerful policy tool the government has to ensure a free market approach to pharmaceutical pricing.

Without Pharmac's interventions, it is estimated that New Zealand's 2002–2003 drug subsidy bill would have been \$624 million higher.<sup>20</sup> Since Pharmac's inception in 1993, pharmaceutical expenditures have risen, on average, 3 per cent per year, which is in line with the cost of inflation. (See Chart 13.). In contrast, expenditures on pharmaceuticals for other countries, such as Australia, rose on average, 14 per cent per year, from 1992–2002.<sup>21</sup>

**Chart 13**  
New Zealand's Actual Pharmaceutical Expenditures 1993–2003



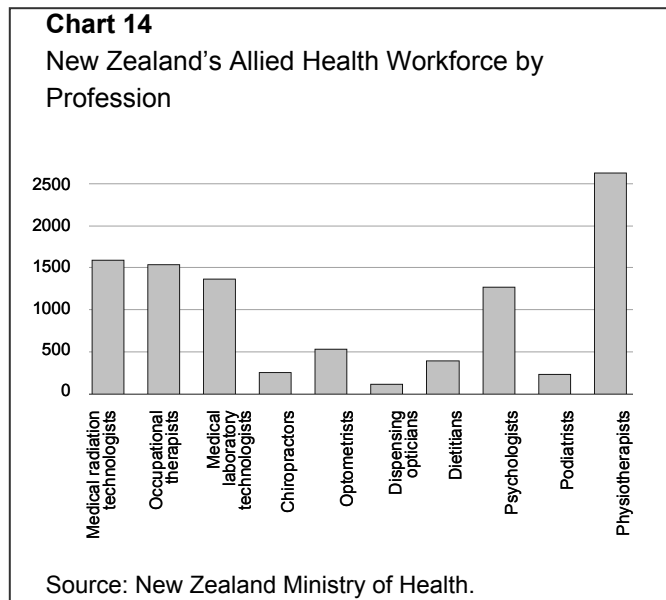
Source: Pharmaceutical Management Agency (PHARMAC).

## Health Workforce

In 2003, the health and community services workforce made up approximately 8.7 per cent of New Zealand's total labour force and accounted for approximately 70 per cent of the cost of delivering public health services.<sup>22</sup> In 2001, there were more than 8,500 physicians and approximately 37,000 nurses in New Zealand. These health providers are supported by about 10,000 complementary and alternative health workers and



30,000 informal health support workers.<sup>23</sup> (See Chart 14.)



Although the majority of nurses (77 per cent) and medical practitioners (61 per cent) work in the hospital setting, there are considerable numbers of nurses working in different fields (including practice nursing, district health nursing, occupational health and rural health).

In 2002–2003, New Zealand's ratio of the number of general practitioners to 1,000 population was 0.81. Similar to Canada, the ratio varies by region, with rural areas reporting as many as 2,000 patients for each GP, compared to the average New Zealand doctor/patient ratio of 1,230 for each general practitioner.<sup>24</sup> Approximately 44 per cent of physicians are general practitioners, while the remaining 56 per cent are specialists.<sup>25</sup> A higher percentage of physicians is choosing to specialize in high-profile, high-income areas, such as surgery, which have substantial opportunities for private practice.

About 90 per cent of general practitioners work alone or in group practices. The rest work in other organizations, such as community health centers.<sup>26</sup> Most specialists in the public sector are paid a salary and supplement their incomes with private practice. In the private sector, specialists who provide services to hospitals are paid on a fee-for-service basis. The dual income streams for some physicians means that

approximately 60 per cent of their income comes from patients and only 40 per cent from the public purse. This is seen as a major impediment to the government establishing a more population-based approach to health care.

In 2000, there were 8.53 active registered nurses and midwives per 1,000 of the population.<sup>27</sup> The number of nurses and midwives has increased by 4 per cent since 1990. In addition, nursing FTEs have increased by 24 per cent, which indicates that nurses are working more hours per week. These increases, however, are not enough to meet current demands. In 2001, the New Zealand Nurses' Organization estimated that there were approximately 2,000 nursing vacancies in New Zealand.<sup>28</sup>

In order to appropriately respond to the health human resources challenges which exist in New Zealand, the Health Workforce Advisory Committee (HWAC) has been asked to provide strategic advice to the Minister of Health on the health and disability workforce. The Ministry of Health also established a Workforce Steering Committee to evaluate a national recruitment and retention plan, and rolled out a three-year service funding package of \$32 million to support retention and recruitment efforts.<sup>29</sup>

The New Zealand government, in reaction to the publication of the Health Workforce Advisory Committee's 2003 report, *The New Zealand Health Workforce: Future Directions*,<sup>30</sup> put initiatives in place to develop the health workforce. Their strategies include:

- Developing the role of nurse-practitioners;
- Increasing the number of positions in medical schools;
- Creating a rural provider recruitment service; and
- Establishing Maori and Pacific workforce development funds.

Overall, the number of health practitioners in New Zealand is on the rise. There is some geographical variation, with some regions reporting shortages of some specialties, recruitment and retention issues, and under-representation of Maori and Pacific Island providers.



## Demand for Health Care

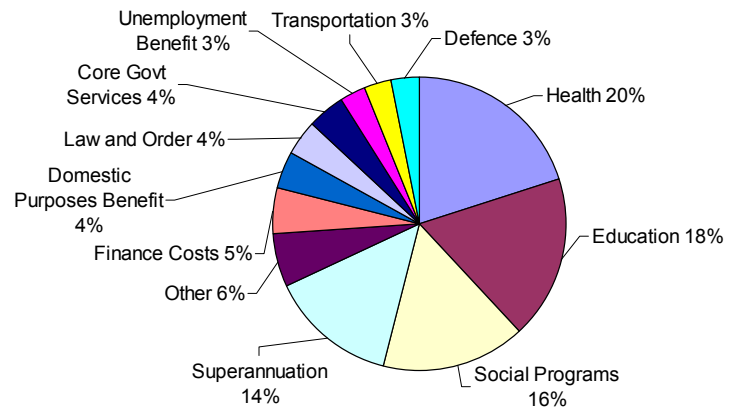
The future role of government as the dominant player in financing and delivering health care in New Zealand looks reasonably clear, but the future of the market is much less certain. Like all developed countries, New Zealand's health system is feeling the pressures of an aging population, new technologies and increasing public expectations.<sup>31</sup> Demography is likely to have a modest future impact, however, the impact of technology and expectations will be greater. Although New Zealand is one of the less wealthy OECD countries, it is consumer-oriented and has had to face the rationing debate earlier than most countries. The role of government agencies in managing technology and public expectations will continue to increase. New Zealand is recognized as a world leader of supply and demand strategies, such as rationing strategies.<sup>32</sup> These will be key to maximizing health benefit with fixed resources.

## BALANCE OF INVESTMENTS IN HEALTH, HEALTH CARE AND OTHER SOCIAL DETERMINANTS OF HEALTH

New Zealand's 2003–2004 spending on health and other social programs is described in Chart 15. Health expenditures include departmental outputs, health service purchasing, health payments to ACC and specific health programs, which target the government's population health objectives. Social programs include family support, accommodation supplements and disability benefits. The Domestic Purposes Benefit is described as "single parents caring for dependent child under 18, or person caring for someone (other than spouse or own child) who would otherwise be hospitalized." Overall spending on health, education, welfare and pension increased almost 40 per cent from 1990 to 1998.

Although New Zealand is a small country, it has reached social and health outcomes that are comparable, or better than other OECD countries. The Conference Board of Canada's research ranked New Zealand 13<sup>th</sup> for its performance on health determinants, and 14<sup>th</sup>, for the environment.<sup>33</sup>

**Chart 15**  
New Zealand Core Expenses in 2003/4



Source: New Zealand Treasury Department.

Higher expenditures in public health programs have contributed to improved health status and health outcomes. Here are some examples of current investments in this area:

- The New Zealand Cancer Control Strategy<sup>34</sup> aims to reduce the incidence and impact of cancer and reduce inequalities, with respect to cancer. The goals of this strategy include: a reduction of the incidence of cancer through primary prevention; effective screening and early detection, as well as effective diagnosis and treatment; and improvements in the delivery of services and quality of life for those with cancer and their families.
- Programs have been introduced to focus on the reduction of tobacco consumption.
- Immunization programs, such as the National Influenza Immunization Strategy Group (NIISG) improve coverage through public and health care provider education.
- Educational programs target drivers and the promotion of road safety. These programs have been credited with a reduction in the number of injuries and fatalities.

## PERFORMANCE AND PRODUCTIVITY

### Performance

The Conference Board of Canada identified New Zealand as a gold-level performer in sulphur oxide emissions. The New Zealand Ministry for the Environment sets guideline values for sulphur dioxide emissions (350 mgm<sup>-3</sup> one-hour average and 120 mgm<sup>-3</sup> 24-hour average) to protect lung functioning and prevent other respiratory symptoms in vulnerable sub-groups of the population. New Zealand is in line with current international guideline values and standards, and no guideline values were exceeded between 1992 and 2001.<sup>35</sup> In addition, recent attention to New Zealand's emissions regulation has concentrated on reducing the natural petroleum sulphur content in diesel fuel. This will, over time, make a direct contribution to lowering sulphur oxide emission rates.

### Productivity

In 2002, there were 445 hospitals in New Zealand, with six hospital beds per 1,000 of population.<sup>36</sup> The average length-of-stay for the secondary care sector fell by 50 per cent between 1989 and 2002, from 6.6 days to an average of 3.3 days.<sup>37</sup>

Human capital, innovation and competition are just a few elements that affect and define a country's productivity. Regarding human capital, New Zealand shows a stronger performance in selected education indicators than Canada. (See Table 26.) New Zealand spends 6.3 of its GDP on education, which is above the average for OECD countries (5.5 per cent), and above Canada's investment of 5.7 per cent.

District Health Boards are responsible for the provision of post-clinical education, as outlined in the Ministry of Health's Clinical Training Agency Strategic Intentions 2003-2012.<sup>38</sup>

The Clinical Training Agency (CTA), which provides profession-specific and cross-professional training, has a budget of more than \$81 million. This agency is responsible for purchasing post-entry clinical training for health care professionals, which aims to predict and prevent workforce shortages, where they relate to a lack of post-entry clinical training.

	<b>New Zealand</b>	<b>Canada</b>
Total public expenditures on education as a % of GDP	6.3	5.7
Ratio of students to teaching staff, primary	20.6	18.1
Ratio of students to teaching staff, secondary	16.3	18.8
Participation in all continuing education and training	46	29
Source: The Conference Board of Canada.		

A recent Conference Board of Canada study ranked New Zealand 12<sup>th</sup> among OECD countries in the area of innovation. The New Zealand government has just recently begun to leverage its domestic resources for creative and innovative ways to improve health care services. As an example, the government of New Zealand launched new guidelines for capital investment in 2003. These guidelines, which were included in the New Zealand Health Strategy, introduced innovations in five key areas:

1. The establishment of a four-year capital budget of \$657 million for health, which included the opening of four new hospitals across New Zealand in 2003;<sup>39</sup>
2. Expert DHB-led advice on prioritization and quality of capital investment decisions;
3. Collaboration between DHBs on service requirements and capital needs, to demonstrate that every possible opportunity has been taken to maximize health gain from expenditure;
4. Asset management planning that addresses current, medium- and long-term asset requirements and facility-related drivers for change; and
5. A staged process with clear criteria for business cases, to ensure DHBs cover all risks and address all complex requirements of planning for major health capital projects.

In addition, Health Innovation Awards, sponsored by the ministry of health and ACC, were launched in 2003. The awards are open to "all health professionals and others demonstrating innovation in the way they support the health and independence of New Zealanders." The aim of the awards is to recognize excellence and

leadership, to promote a culture of continuous quality improvement, and to help disseminate innovations throughout the health sector.

The recent move to purchaser-provider arrangements has created a much more competitive health care system. However, this shift has been found to undermine co-operation within and between sectors. The 2000 health reforms have been criticized for creating intense competition and struggles over contracts to provide services between hospitals and community care, and between general practice and third-sector providers. Furthermore, the competition between providers has inhibited the development of services oriented to the needs of individuals and communities. The focus is now on District Health Boards, to look at how they can remove the competitive model and foster well co-ordinated initiatives that improve health outcomes for individuals and communities, and eliminate health inequalities.

## MAJOR CHALLENGES

The government's reliance on user fees, limited access to services (especially primary care services), and shortages of health care professionals have led to inequalities and safety concerns in the health care system.

In the past, patients seeking elective services were placed on waiting lists for an indeterminate period of time. Some people waited without a care plan, a clinician responsible for their care, or a date by which their condition would be reassessed. In 1996, more than 89,000 New Zealanders were on waiting lists for elective surgery. The government introduced a strategy in 2000 entitled, "Reduced Waiting Times for Public Hospital Elective Services"<sup>40</sup> to improve the situation. It aims to reduce waiting times to a maximum of six months for first specialist assessments and to ensure that patients assessed as being eligible for treatment receive it within six months.

A strong primary health care system is central to improving the health of New Zealanders and to removing health inequalities. The government's primary vehicle for improving primary health care access and

services is the recent implementation of the Primary Health Care Strategy.<sup>41</sup> The strategy moves away from user fees and toward reducing barriers—particularly financial barriers—for groups with the greatest health needs.

Primary health organizations (PHOs) are the local structures that will achieve the objectives of the strategy. They are delicately poised to be either a major success, due to their capacity to achieve a far greater integration of primary care than has been achieved to date in New Zealand, or to fail miserably. PHOs will not work until they have won the "hearts and minds" of the country's general practitioners but, to date, their response is unclear.

PHOs are being put into place in New Zealand, but it has yet to be determined whether they will bring the intended improvements to access and be able to enhance the quality of care. The government's funding formula is designed to encourage the development of PHOs, whose population base includes a majority, who fall below a defined poverty line. This concept is well-received by those who work in primary care in these areas and should bring significant health care benefits to the people in most need of better access to health care, such as Maori and Pacific Island peoples. However, it creates an inequity for people who are in similar economic circumstances, but who do not make up a majority of the local population.

New Zealand is on the verge of a health care workforce crisis, both in public hospitals and in general practice. Among the causes of this crisis is the government's failure to address or plan for workforce development needs and to anticipate future pressures. Some consider that the government left the situation too late, until widespread international shortages in the health care labour market and New Zealand's relative geographic isolation exacerbated the problem.

A combination of limited availability of services and compromised quality are having an inevitable effect on patient safety. Yet, the seriousness of the situation is just beginning to be fully appreciated by the government. Until workforce shortages are resolved, patients will inevitably be the casualties of this neglect.

## CONCLUSION

New Zealand's health system is relatively small, with several unique characteristics. Steady economic growth has allowed the government to increase spending on health care and continue to fund innovative, yet controversial, programs such as the ACC and Pharmac.

The New Zealander experience of controlling the cost of pharmaceuticals, mainly through a system that allows it to maximize bargaining power, the implementation of supply-side controls, and the use of reference pricing, can be very valuable for Canada. It can certainly contribute to the debate and the evolution of the Canadian health care system.

## CLINICAL VIGNETTE

A 50-year-old female patient presents to her general practitioner, complaining of lethargy. The patient is currently overweight and rarely exercises. The physician completes a physical examination of the patient, including her medical history and that of her immediate family. The patient is of Maori descent and has a family history of diabetes. The physician orders blood tests, which are conducted at a private laboratory. The tests, which are free-of-charge, confirm the diagnosis of Type II Diabetes.

The patient continues to have her care monitored by her physician and receives a free diabetes check on eyes, blood pressure, biochemistry tests, height and weight, kidney function and sensation and circulation of feet once a year. In an attempt to assist the patient in losing weight and maintaining a healthy diet, the physician refers the patient to a dietician for health education sessions at the local Diabetes Clinic.

However, due to the late intervention with this patient, she has poor glycemic control and high blood pressure. The patient returns to the physician with complaints of blurred vision. The GP believes the patient is at high risk of retinopathy and refers her to an ophthalmologist, with an office in the public hospital outpatient department, for an examination. The examination reveals micro-vascular complications in the eye and the patient is diagnosed with progressive retinopathy. The patient remains under the supervision of the ophthalmologist, who monitors the patient at regular outpatient appointments. Should the condition progress to the point of threatening the patient's sight, the specialist will recommend that she undergo laser photocoagulation at the hospital.

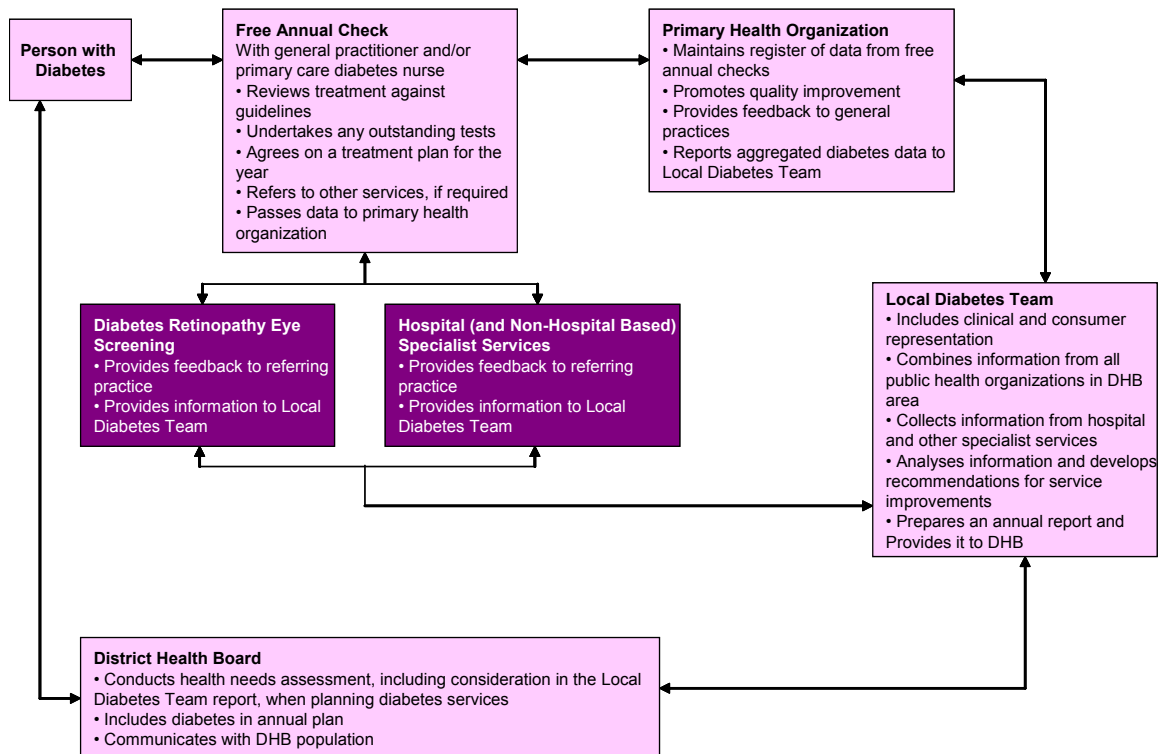
### Context for Diabetes

Outside the physician's office, diabetes services in New Zealand are plagued by the poor availability of services and limited access. Publicly funded health services for people with diabetes define universal eligibility. However, services are not available in all areas of the country and those that do exist, are hampered by language barriers, waiting lists, and a lack of health professionals with specialized diabetes training.

Diabetes health education programs and dietician services are provided free of charge through public hospitals. However, there is a limited number of these providers in New Zealand and therefore, limited availability. Diabetes New Zealand, a nation-wide, non-government, not-for-profit organization offers support groups, as well as supplies, such as glucose meters and testing strips, to diabetes patients at a reduced cost.

A national framework for diabetes services (Exhibit 9) was developed by the Ministry of Health to ensure a structured, quality system for delivering diabetes care. However, existing diabetes services in New Zealand have had to adapt, and manage with limited budgets. Effectively, this rationing strategy produces a particularly harsh outcome for people with diabetes, as they are more likely to develop serious complications, without early intervention and sufficient access to medical care.

**Exhibit 9**  
New Zealand's National Framework for Diabetes



Source: New Zealand Ministry of Health.

<sup>1</sup> New Zealand Ministry of Health, *Ministry of Health Profile* [on-line], (2003), [cited June 2004]. Available from, <<http://www.moh.govt.nz/moh.nsf/e00eda991ab5e3704c256670004079ba/c48df7adc0e64395cc256beb0073216a?OpenDocument>>.

<sup>2</sup> New Zealand Ministry of Health, *New Zealand Health Strategy* (Wellington, New Zealand: Ministry of Health, December 2000).

<sup>3</sup> New Zealand Ministry of Health, *New Zealand Disability Strategy: Making a World of Difference* (Wellington, New Zealand: Ministry of Health, 2001).

<sup>4</sup> M. Gimblett, "Hospital Overload Headed Your Way," *NZGP*, (20 September, 2000), p. 1-2.

<sup>5</sup> New Zealand Ministry of Health, *Health Expenditure Trends in New Zealand, 2002* (Wellington, New Zealand: Ministry of Health, November 2002).

<sup>6</sup> New Zealand Treasury Department, *Vote Health* (Wellington, New Zealand: The Treasury, 2003), B.5, Vol.1.

<sup>7</sup> Gerald F. Anderson, Uwe E. Reinhardt, Peter S. Hussey and Varduhi Petrosyan, "It's the Prices, Stupid. Why the United States Is So Different from Other Countries," *Health Affairs*, Volume 22, Number 3, (May/June 2003) p. 91.

<sup>8</sup> New Zealand Ministry of Health, *Health Expenditure Trends in New Zealand 2002* (Wellington, New Zealand: Ministry of Health, Nov 2002).

<sup>9</sup> New Zealand Ministry of Health, *Health Expenditure Trends in New Zealand 2002* (Wellington, New Zealand: Ministry of Health, 2003).

<sup>10</sup> New Zealand Ministry of Health, *Health and Independence Report 2003* (Wellington, New Zealand: Ministry of Health, 2003).

- 
- <sup>11</sup> New Zealand Principals' Federation, *What is happening to our school population? School aged population changes over the next 20 years* (Wellington, New Zealand: New Zealand Principals' Federation, March 2001).
- <sup>12</sup> Statistics New Zealand, *Demographic Trends 2003* (Wellington, New Zealand: Statistics New Zealand, 2002).
- <sup>13</sup> Statistics New Zealand, *Demographic Trends 2003* (Wellington, New Zealand: Statistics New Zealand, 2002).
- <sup>14</sup> Ministry of Health, *Population Ageing and Health Spending: 50 Year Projections* (Wellington, New Zealand: Ministry of Health, 1999).
- <sup>15</sup> New Zealand Treasury Department, *New Zealand Economic Growth: An Analysis of Performance and Policy* (Wellington, New Zealand: The Treasury, 2004).
- <sup>16</sup> New Zealand Treasury Department, *Budget Economic and Fiscal Update (BEFU) 2003* (Wellington, New Zealand: The Treasury, 2003).
- <sup>17</sup> New Zealand Treasury Department, *Budget Economic and Fiscal Update* (Wellington, New Zealand: The Treasury, 2003).
- <sup>18</sup> New Zealand Ministry of Health, *New Zealand Disability Strategy: Making a World of Difference* (Wellington, New Zealand: Ministry of Health, 2001).
- <sup>19</sup> New Zealand Ministry of Health, *Health and Independence Report 2003* (Wellington, New Zealand: Ministry of Health, 2003).
- <sup>20</sup> PHARMAC, *Annual Review 2003* (Wellington, New Zealand: Pharmaceutical Management Agency, 2003).
- <sup>21</sup> New Zealand Ministry of Health, *Health and Independence Report 2003* (Wellington, New Zealand: Ministry of Health, 2003).
- <sup>22</sup> Statistics New Zealand, *Household Labour Force Survey – December 2003* (Wellington, New Zealand: Statistics New Zealand, Dec 2003).
- <sup>23</sup> Health Workforce Advisory Committee, *The New Zealand Health Workforce: A Stocktake of Issues and Capacity 2001*(Wellington, New Zealand: Health Workforce Advisory Committee, April 2002).
- <sup>24</sup> New Zealand Ministry of Health, *Health and Independence Report 2003* (Wellington, New Zealand: Ministry of Health, 2003).
- <sup>25</sup> Health Workforce Advisory Committee, *The New Zealand Health Workforce: A Stocktake of Issues and Capacity 2001*(Wellington, New Zealand: Health Workforce Advisory Committee, April 2002).
- <sup>26</sup> Medical Council of New Zealand, *Medical Workforce in 2001* (Wellington, New Zealand: Medical Council of New Zealand, 2001).
- <sup>27</sup> Health Workforce Advisory Committee, *The New Zealand Health Workforce: A Stocktake of Issues and Capacity 2001*(Wellington, New Zealand: Health Workforce Advisory Committee, April 2002).
- <sup>28</sup> Health Workforce Advisory Committee, *The New Zealand Health Workforce: A Stocktake of Issues and Capacity 2001*(Wellington, New Zealand: Health Workforce Advisory Committee, April 2002).
- <sup>29</sup> Health Workforce Advisory Committee, *The New Zealand Health Workforce: Future Directions, Recommendations to the Minister of Health 2003* (Wellington, New Zealand: Health Workforce Advisory Committee, 2003).
- <sup>30</sup> Health Workforce Advisory Committee, *The New Zealand Health Workforce: Future Directions, Recommendations to the Minister of Health 2003* (Wellington, New Zealand: Health Workforce Advisory Committee, 2003).
- <sup>31</sup> T. Kriebel and L. Middleton, eds., *Health Futures: 2020 Visions*. (Wellington, New Zealand: Institute of Policy Studies, 1997).
- <sup>32</sup> J. Dixon and B. New, "Setting Priorities New Zealand-Style," *British Medical Journal*, 314:86 – 87, (1997).
- <sup>33</sup> The Conference Board of Canada, *Performance and Potential 2003-2004*, (2003).
- <sup>34</sup> Ministry of Health, *New Zealand Cancer Control Strategy* (Wellington, New Zealand: Ministry of Health, August 2003).
- <sup>35</sup> Environment Canterbury, *Issues & Options for the Management of Adverse Effects from Motor Vehicle Emissions* (Christchurch, New Zealand: Environment Canterbury, 2001).



- 
- <sup>36</sup> New Zealand Health Information Service, *Health Statistics* (Wellington, New Zealand: Ministry of Health, 2003).
- <sup>37</sup> New Zealand Ministry of Health, *Health and Independence Report 2003* (Wellington, New Zealand: Ministry of Health, 2003).
- <sup>38</sup> Ministry Of Health, *Clinical Training Agency, Strategic Intentions 2003–2012*, (Wellington, New Zealand: Ministry of Health, September 2002).
- <sup>39</sup> New Zealand Ministry of Health, *Health and Independence Report 2003* (Wellington, New Zealand: Ministry of Health, 2003).
- <sup>40</sup> New Zealand Ministry of Health, *Reduced Waiting Times for Public Hospital Elective Services – Government Strategy – March 2000* (Wellington, New Zealand: Ministry of Health, 2000).
- <sup>41</sup> New Zealand Ministry of Health, *Primary Health Care Strategy* (Wellington, New Zealand: Ministry of Health, 2001).



# Conclusion

There is no single equation that gives the optimal balance between low-cost and high-quality health care. Six countries, whose health care performances are deemed to be among the best, differ widely in their approaches to the funding and organizing of their health care systems. Switzerland's system gives the private sector a prominent role and is expensive. Sweden's system is primarily publicly funded and performs with a high level of co-ordination, regulation and communication. Yet both countries surpass Canada in health performance.

The differences between the Swiss and Swedish systems are also evident in the Canadian debate over health care reform. The 2002 Romanow report, for example, is seen by Canadians as championing the public system with no further expansion of the private sector role. The earlier Kirby report more clearly advocates greater private sector involvement in health care delivery.<sup>1</sup>

The reality is that, contrary to popular perception, 30 per cent of Canada's health spending comes from private sources. We are closer to the Swiss system (at 43 per cent private funding) than the Swedish system (at 15 per cent private funding). Clearly, the Canadian health care system is not as "public" as Canadians think.

Canadians have to make hard choices about what they want their health system to be. To help us make these choices, this report outlines the best practices in these high-performing countries. Each of these countries has had its own challenges to overcome. We can learn from their successes and failures, and take the necessary steps to ensure that we get the kind of health care system we want at a price we can afford. The one common element in all high-performing systems is a vision that includes a goal of producing the highest health status for its citizens, and providing the highest quality health care for all.

Eight key conclusions emerge in this report:

1. *Money alone is not the answer.*

Switzerland is the top performer in health care and has the second most expensive health care system of OECD countries, while Sweden is the second top performer and one of the lowest spenders. Canada is the third highest per capita spender on health care, including both public and private spending. Yet we are not a top performer. Clearly, performance is not necessarily determined by the amount of money spent.

2. *Canada must do more to control escalating pharmaceutical costs.*

According to the Canadian Institute for Health Care Information, Canada's publicly funded pharmaceutical expenditures in 2003 were \$7.6 billion. The Conference Board estimates that these expenditures will grow by 9.3 per cent per year, not adjusting for inflation, over the next 15 years. Can we look to other countries for solutions to this escalation? New Zealand has had noteworthy success in keeping costs down—publicly funded pharmaceutical costs grew by only 3 per cent per year—by the use of price controls, bulk buying and reducing customer demand for drugs.

Spain has managed its pharmaceutical costs through significant regulation of pricing, supply and distribution. In Sweden, if patients choose more expensive drugs, they are expected to pay the price differential, and the prescribing practices of general practitioners (GPs) are monitored; if doctors don't follow the drug recommendations of the government, they are coached by peers. Canada needs to consider these innovative solutions to manage pharmaceutical costs.

3. *Creating and maintaining a satisfied and productive workforce is vital for a high-performing health care system.*

Despite wages that are significantly lower than in Canada, Swedish health workers are satisfied. In part, this is because reasonable working times and flexible work arrangements ensure that they enjoy high-quality work–life balance. Most health care workers are paid a fixed salary, but they have pride in their work and value improving life for others. There is no doubt that the Swedish health workforce has been instrumental in Sweden achieving a second place ranking among OECD countries for health care. To ensure that Canada’s health workforce is satisfied and productive, the health care system must look to factors beyond remuneration.

4. *Canada needs to focus more on health promotion, prevention and appropriate investments in the broad determinants of health as strategies to control health costs over the long term.*

The majority of the top-performing countries have achieved better health outcomes through actions on the broader determinants of health, such as environmental stewardship, as well as health promotion programs focussing on prevention and changes in lifestyle choices, such as tobacco consumption and driving habits. Switzerland relies on targeted federal strategies and regulations to improve air quality and increase immunization rates. Spain has an outstanding performance in two areas where Canada fares badly—the number of traffic accidents and lung cancer in women. It reduced traffic accidents through rigorous fines, educational programs and banning the use of cell phones while driving. Lung cancer was reduced by encouraging doctors to talk with patients about their smoking habits. Australia’s strong health promotion policies have reduced heart disease mortality rates and increased influenza immunization rates. New Zealand has waged successful public campaigns to reduce road accidents and smoking.

Leading countries also focus on other determinants of health, such as education, early childhood development, income and social status to improve

the health outcomes of its population. Canada’s new vision of excellence in health should incorporate a greater focus on these broad determinants.

5. *The “greying” of Canada’s population does not have to result in a more expensive health care system.*

Most forecasts suggest that our aging population will inevitably cause health care costs to escalate. Our findings indicate that a more comprehensive approach to dealing with aging may be one way to keep related costs under control. With the oldest population in the world, Sweden has made an integrated approach a priority, tailor-making home care, health care and fitness activities to the needs of older Swedes. Canada needs to create a national strategy for palliative and elder care, and to continue to integrate health care services along the continuum of care.

6. *Countries that have invested strategically in health-related information and communications technologies (ICT) and provided training and skills development are better integrated and have a more productive workforce.*

The Swedish government invests approximately 4 per cent of hospitals’ budgets in ICT. Electronic health records are on-line in every hospital and primary health care centre. As illustrated by our vignette of the diabetic patient, the integration of record-keeping helps patients feel cared for and indeed, ensures better care. In addition, Swedish physicians are allotted up to 15 per cent of their working time for continuing education. The same is true in France, where 1.5 per cent of hospital budgets is spent on continuing education for staff, including physicians.

Canada invests between 1.8 and 2.5 per cent of hospitals’ budgets in ICT and only 40 per cent of our hospitals are linked to the Internet. Conference Board research indicates that Canada spends approximately \$300 per employee in the health care sector, as compared to \$838, on average, in other industries. Clearly, we need to focus on increasing our investments in ICT and continuing education.

7. *User fees/cost-sharing methods work well to control costs under certain circumstances, but may have consequences.*

New Zealand places the most emphasis on user fees of any of the countries studied. While patients are not asked to pay for specialists, they do pay a fee for primary health care consultations (approximately \$30 Cdn. for a GP visit). As a result, people are reluctant to visit their GPs and often leave symptoms too late or tend to take their problems to hospital emergency rooms, where they do not have to pay. In the case of Switzerland, the use of co-payments has done nothing to encourage restraint, because the payments are small.

Some countries have taken steps to ensure that user fees do not prevent access to the economically disadvantaged. Sweden, for example, in spite of its use of cost-sharing, ensures access through a cost-ceiling mechanism and social service supplements.

Sweden applies cost-sharing successfully and seems to have avoided the consequences that other countries, such as New Zealand, have experienced. They have done this by applying co-payments across all categories—primary care, hospital care and elder care. A complete and open discussion with countries that have made cost-sharing work, such as Sweden, may help to shed light on this issue for Canada.

8. *A publicly funded health care system with zero or low user fees needs to ensure that it has adequate surgical capacity if it wants to avoid long wait times.*

Like Canada, Sweden, Spain, Australia and New Zealand all have a publicly funded health care

system with low user fees, as well as constraints on surgical capacity. All have wait time problems. Switzerland, on the other hand, does not have wait time problems because it has significantly more private funding than Canada, combined with high surgical capacity.

Even though it is similar to Canada in terms of public funding, France does not have wait time problems because it has high levels of medical specialists and hospital beds. However, the French health care system faces chronic deficits and the country's citizens pay high taxes.

Avoiding long wait times is expensive and complicated. Canada, along with many other industrialized countries, will likely need to address the issue of wait times through a mixed policy approach, as suggested by the OECD.<sup>2</sup>

This examination of best practices reveals that all top-performing countries share certain characteristics:

- Strong and dedicated leaders, willing to make tough decisions and focus on critical issues in order to continually improve the health care system;
- Dedicated, flexible and motivated workers who are willing to accept decisions that balance their own objectives with legitimate public interest; and
- A public that has realistic expectations of which health services the health system can provide and is engaged in improving personal health.

Looking at these comparator countries, we can see that there needs to be a *united will* by all key players in order to orchestrate solutions to the challenges facing Canada's health care system.

---

<sup>1</sup> Peggy Leatt, *HealthcarePapers: New Models for the New Healthcare* (Toronto: HealthcarePapers, 2004), vol. 4, no. 4, p. 4.

<sup>2</sup> *OECD Project on Waiting Times for Elective Surgery* [slide show]. Presented by Jeremy Hurst, OECD, at the *Colloquium on Wait List Measurement, Monitoring and Management*. Ottawa: March 31, 2004.





## APPENDIX A

# International Comparison of Health Indicators

Health Status							
Country	Life expectancy- males	Life expectancy- females	Disability- free life expectancy- males	Disability- free life expectancy- females	Self- reported health	Infant mortality	Low birth weight
Australia	Gold	Gold	Bronze	Bronze	Gold	Silver	Silver
Canada	Gold	Silver	Silver	Silver	Gold	Silver	Silver
France	Silver	Gold	Silver	Silver	n.a.	Silver	Silver
New Zealand	Silver	Silver	Bronze	Bronze	Gold	Bronze	Silver
Spain	Silver	Gold	Silver	Silver	Gold	Gold	Silver
Sweden	Gold	Silver	n.a.	n.a.	Gold	Gold	Gold
Switzerland	Gold	Gold	Silver	Gold	Gold	Silver	Silver

Source: Conference Board of Canada.

Non-Medical Factors							
Country	Body Weight	Smoking	Alcohol consumption	Road traffic accidents	Sulphur oxide emissions	Immunization - DTP	Immunization (influenza)
Australia	Silver	Gold	Silver	Gold	Bronze	Silver	Gold
Canada	Silver	Gold	Gold	Silver	Bronze	Bronze	Gold
France	Gold	Silver	Silver	Gold	Gold	Gold	Gold
New Zealand	Silver	Silver	Silver	Gold	Gold	Silver	Gold
Spain	Silver	Bronze	Bronze	Gold	Silver	Gold	Silver
Sweden	Gold	Gold	Gold	Gold	Gold	Gold	n.a.
Switzerland	Gold	Bronze	Silver	Gold	Gold	Gold	Silver

Source: Conference Board of Canada.

### Health Outcomes

Country	Mortality rate due to lung cancer- males	Mortality rate due to lung cancer- females	Mortality rate due to heart attack- males	Mortality rate due to heart attack- females	Mortality rate due to stroke- males	Mortality rate due to stroke- females	PYLL- suicide- males	PYLL- lung cancer - males	PYLL- lung cancer- females	PYLL - breast cancer - females
Australia	Silver	Silver	Silver	Silver	Gold	Gold	Silver	Gold	Gold	Silver
Canada	Silver	Bronze	Silver	Silver	Gold	Gold	Silver	Silver	Bronze	Silver
France	Silver	Gold	Gold	Gold	Gold	Gold	Silver	Bronze	Gold	Bronze
New Zealand	Silver	Silver	Silver	Silver	Gold	Gold	Bronze	Gold	Silver	Bronze
Spain	Silver	Gold	Gold	Gold	Gold	Gold	Gold	Bronze	Gold	Silver
Sweden	Gold	Silver	Silver	Silver	Gold	Gold	Silver	Gold	Silver	Silver
Switzerland	Gold	Gold	Gold	Gold	Gold	Gold	Silver	Silver	Silver	Silver

Source: Conference Board of Canada.

## APPENDIX B

# Socio-economic and Environmental Performance

Socio-economic and Environmental Performance, by Country and Category							
Categories	Australia	France	New Zealand	Spain	Sweden	Switzerland	Canada
Economy	4th	14th	6th	18th	11th	9th	3rd
Innovation	10th	18th	12th	21st	4th	5th	5th
Environment	<i>ned</i>	6th	14th	18th	3d	9th	16th
Education & Skills	7th	<i>ned</i>	5th	<i>ned</i>	2nd	11th	5th
Society	13th	15th	<i>ned</i>	<i>ned</i>	2nd	8th	10th
Health Determinants	20th*	12th	13th*	16th*	1st	5th	9th

*ned* = not enough data. Means that the country did not have data for the minimum number of indicators in that category.

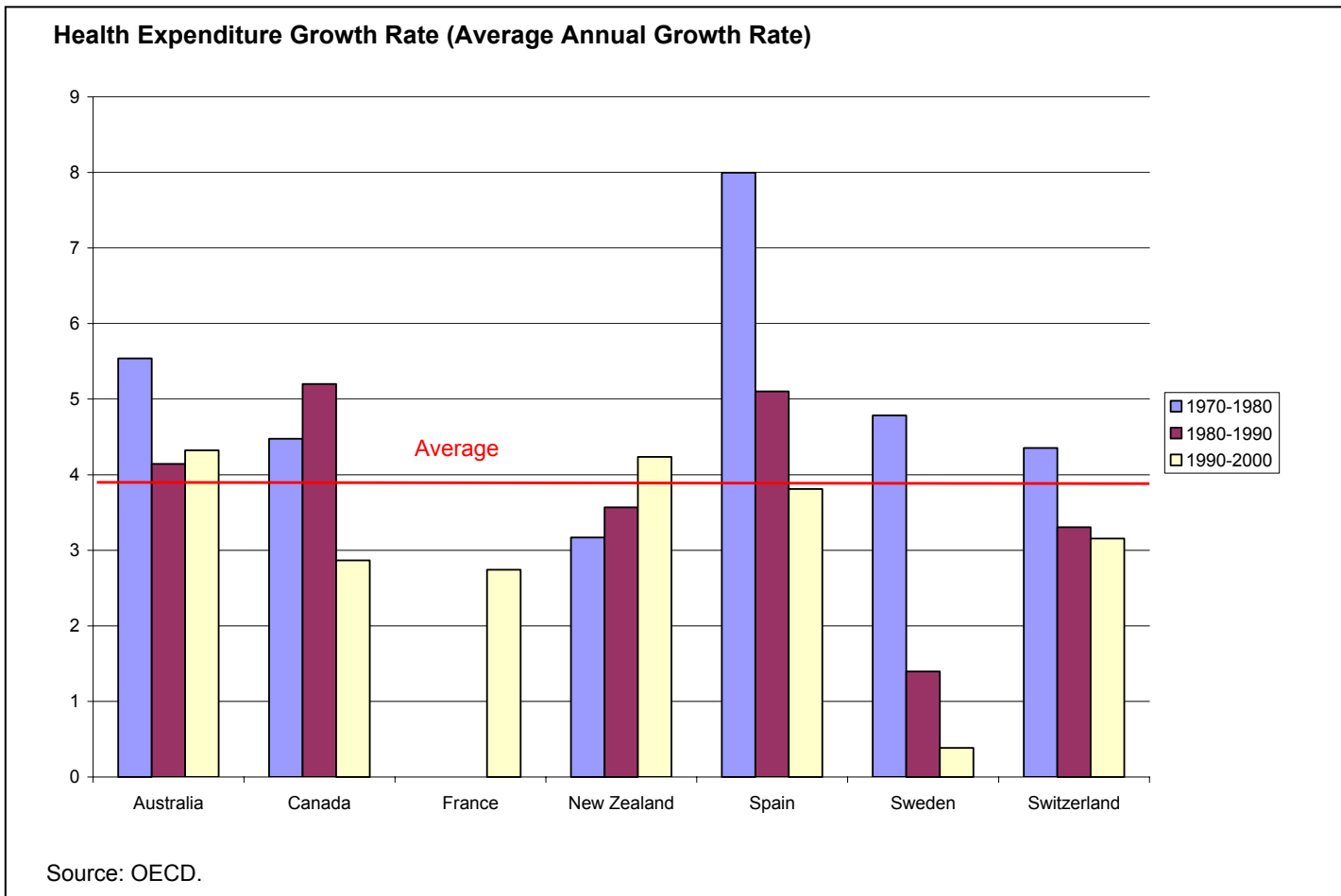
\* For this analysis we used a slightly modified methodology to provide the rankings.

Source: The Conference Board of Canada.



## APPENDIX C

# Health Expenditure Growth Rate





## APPENDIX D

# Methodology of the Benchmarking Analysis

### Indicators

In this benchmarking analysis, we use 24 indicators, organized into three broad categories: health status (seven indicators), non-medical factors (seven indicators), and health outcomes (11 indicators).

### Countries

We chose to compare Canada to other OECD countries, since they are the leading industrialized countries and serve as a worthy peer group. The principal source of data for our international analysis was the OECD.

Table 1 List of Ranked Indicators Used, by Category		
Health Status	Non-Medical Factors	Health Outcomes
Life expectancy males / females	Body weight	Lung cancer mortality rates males / females
Disability-free life expectancy males / females	Tobacco consumption	Acute myocardial infarction mortality rates males / females
Self-reported health status	Alcohol consumption	Stroke mortality rates males / females
Infant mortality rate	Road traffic accidents	PYLL* due to suicide – males
Low birth weight	Sulphur oxide emissions	PYLL* due to lung cancer males / females
	Immunization – DTP	PYLL* due to breast cancer
	Immunization for influenza	

\*Potential Years of Life Lost  
Source: Conference Board of Canada.



## Ranking Countries

Once the data has been inputted, countries' performances for each indicator are ranked by assigning a gold, silver or bronze level grade, based on countries' scores/rates. For each indicator, we take the difference between the scores of the top and bottom performers, and split this difference into thirds. A country achieves a gold-level performance if its indicator score is in the top third of all scores, a silver-level, if its score is in the middle third, and a bronze-level, if its score falls in the bottom third. For example, the top country on life expectancy is Japan, at 84.9 years. The bottom performer is Mexico at 77.1 years. Using our method, the ranges for gold, silver and bronze-level performances are as follows:

Gold:	82.4 to 84.9
Silver:	79.8 to 82.3
Bronze:	77.1 to 79.7

The performances are then counted up for each of the three categories of indicators (health status, non-medical factors and health outcomes). A gold-level performance is weighted as two points, while a silver-level performance is weighted as one point. Bronze-level performances did not receive any points, by virtue of finishing in the bottom group. We believe the gold, silver and bronze-level placing is important, since it places emphasis on indicator scores, rather than positional ranking.

To illustrate, Country A may rank second on life-expectancy, but be behind the first-ranked country, Country B, by several years. Referring to Country A as number two in life-expectancy would therefore overlook the more important issue—that there is a huge performance gap between the first and second-ranked countries.

There are limitations with this methodology. For instance, comparing indicators at an international level can mask disparity within jurisdictions—for example, differences between urban and rural populations. While the average scores of two jurisdictions may be similar, there could, in fact, be a very uneven set of health conditions at play in one jurisdiction, while another has little variance.

Second, we realize that many of our selected indicators can only serve as proxies for assessing the true performance of our health systems. Unfortunately, there are not many indicators, particularly at the international level, that actually assess health system performance, and so, these proxies must be used.

For more information on detailed findings, see *Understanding Health Care Cost Drivers and Escalators*, available free of charge at [www.conferenceboard.ca](http://www.conferenceboard.ca).

**The Conference Board of Canada**

255 Smyth Road  
Ottawa, ON K1H 8M7 Canada  
*Tel.* 1-866-711-2262  
*Fax* (613) 526-4857  
[www.conferenceboard.ca](http://www.conferenceboard.ca)

**The Conference Board, Inc.**

845 Third Avenue, New York, N.Y.  
10022-6679 U.S.A.  
*Tel.* (212) 759-0900  
*Fax* (212) 980-7014  
[www.conference-board.org](http://www.conference-board.org)

**The Conference Board Europe**

Chaussée de La Hulpe 130, Box 11  
B-1000 Brussels, Belgium  
*Tel.* (32) 2.675 54 05  
*Fax* (32) 2.675 03 95

**The Conference Board Asia-Pacific**

2802 Admiralty Centre, Tower 1  
18 Harcourt Road, Admiralty  
Hong Kong SAR  
*Tel.* (011) 852 2511 1630  
*Fax* (011) 852 2869 1403

E-copy: complimentary • Printed copy: \$35  
Publication 586-04

The Conference Board of Canada  
**Insights You Can Count On**



255 Smyth Road, Ottawa, ON K1H 8M7 Canada  
Tel. (613) 526-3280 • Fax (613) 526-4857 • Inquiries 1-866-711-2262

[www.conferenceboard.ca](http://www.conferenceboard.ca)