

# World in Your Pocket

## A Handbook of International Health Economic Statistics

2007

IHE

INSTITUTE OF  
HEALTH ECONOMICS  
ALBERTA CANADA

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# Preface

World In Your Pocket - a Handbook of International Health Economic Statistics is designed to be an easy and portable international reference guide to indicators of health care and health economics. We define “economic” broadly to include both means (personal and formal resources) and ends (health outcomes).

The chart book is intended to provide the user with a reasonably comprehensive overview of how we use health resources, and how well we use them. We have included the most recent data available from a broad array of sources. Variables are subject to reporting lag and not all data are reported for each year.

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# Introduction

## How the chartbook is organized

World In Your Pocket - a Handbook of International Health Economic Statistics includes the most current available data, presented in separate sections on health status, health care costs, health resources, health resource utilization and health system performance. The basic unit of observation is the individual country. Indicators are reported at the international level.

Space limitations require us to limit the number of countries in the international charts. We selected a group of countries with approximately the same level of economic development as Canada, including Australia, Finland, France, Germany, Italy, Japan, the Netherlands, New Zealand, Spain, Sweden, the United Kingdom and the United States. Data was not available for all countries in every chart.

We also included a number of developing countries in a select number of international charts. We selected a group of countries that have approximately the lowest Gross Domestic Product (GDP) in Africa, South America, and Asia. These countries include Malawi, Rwanda, Democratic Republic of the Congo, Chad, Kenya, Ethiopia, Bolivia, Haiti, Vietnam, Cambodia, Nepal, Lao People's Democratic Republic, India and Bangladesh.

## Source of Data

A variety of topics are included in the broad subject matter of health economic indicators. Thus, an array of data is summarized in the chart book from sources including the Organization for Economic Cooperation and Development and World Health Organization.

## Feedback

We hope you will find this chartbook useful and would appreciate your comments, questions and suggestions. Please contact us by email at [info@ihe.ca](mailto:info@ihe.ca) or by telephone at 780-448-4881.

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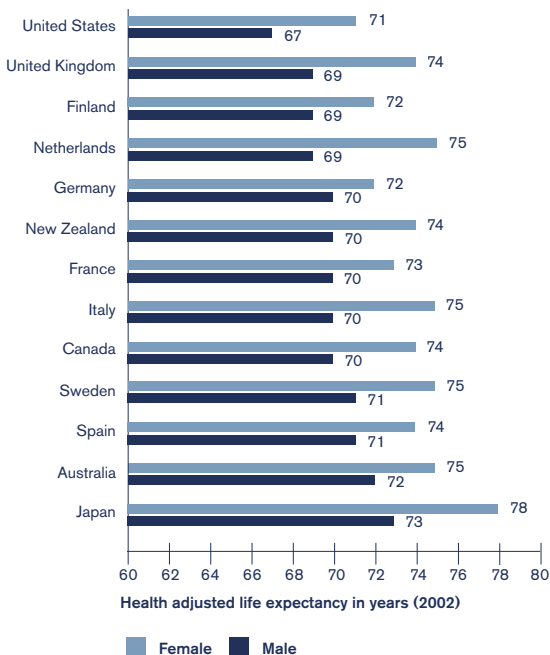
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# Health Status



## Health Adjusted Life Expectancy (HALE) In Selected Countries

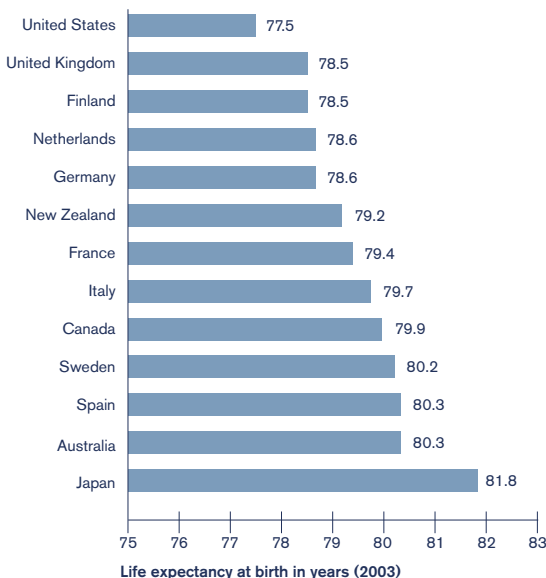


Note: Health Adjusted Life Expectancy (HALE) represents the number of expected years of life equivalent to years in full health.

Source: Statistical annex table 4. Healthy life expectancy (HALE) in all WHO member states, estimates for 2004. World Health report, 2004: Changing history. Geneva: World Health Organization; 2004.

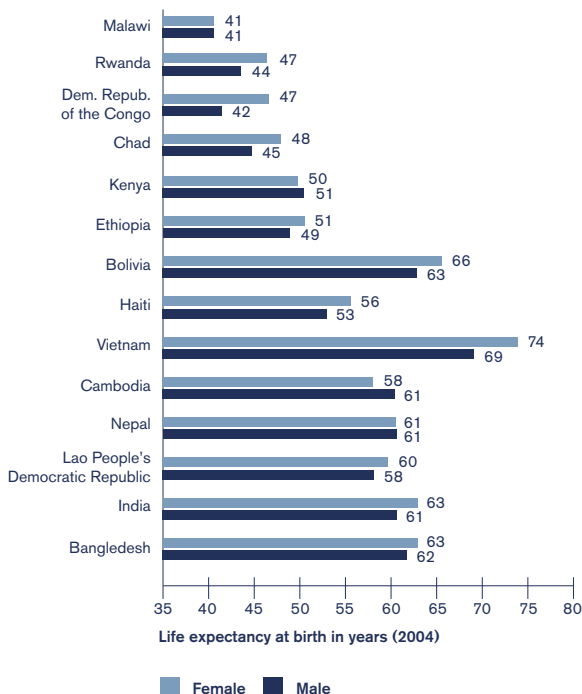


## Life Expectancy at Birth In Selected Countries



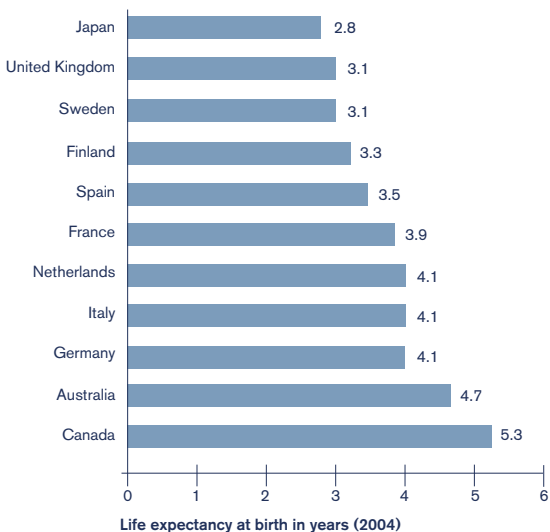
Source: OECD health data; 2006.

## Life Expectancy at Birth In Selected Developing Countries



Source: World health statistics, 2006. Geneva: World Health Organization; 2006.  
Available at: [www.who.int/whosis/whostat2006.pdf](http://www.who.int/whosis/whostat2006.pdf).

## Infant Mortality In Selected Countries

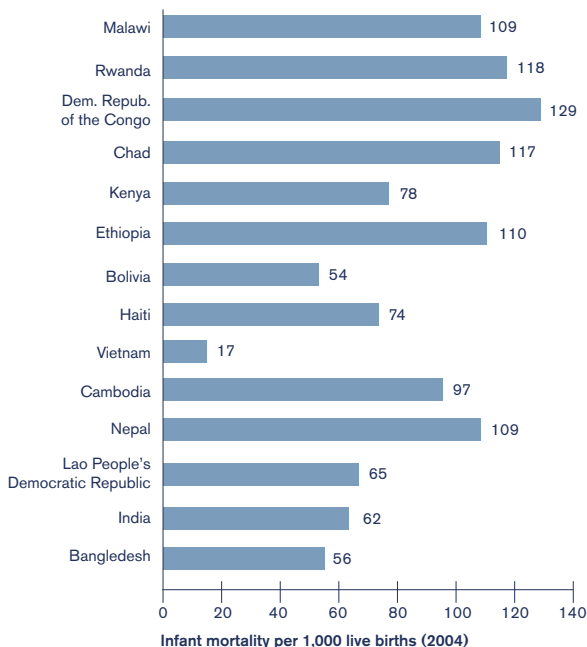


Note: Canada is 2003 data;

Source: OECD health data; 2006.

## Infant Mortality

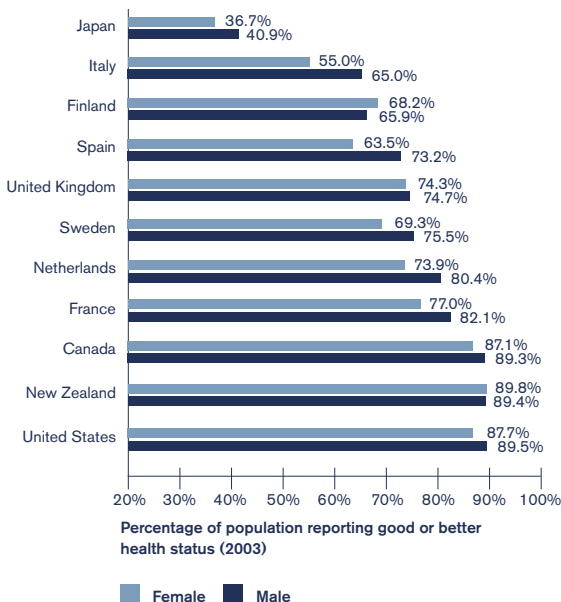
### In Selected Developing Countries



Source: World health statistics, 2006. Geneva: World Health Organization; 2006.  
Available at: [www.who.int/whosis/whostat2006.pdf](http://www.who.int/whosis/whostat2006.pdf).

# Percentage of People Reporting Good or Better Health Status (2003)

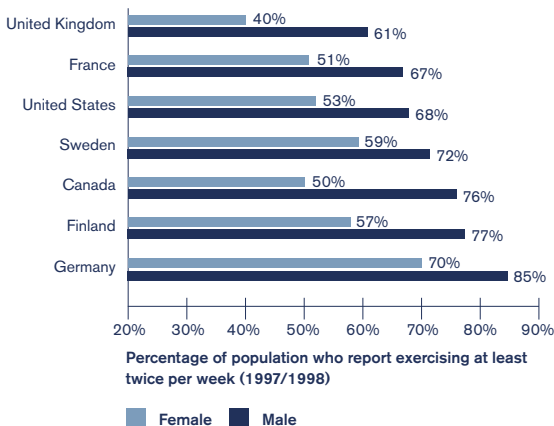
In Selected Countries



Note: France, Japan, Finland, Netherlands, Sweden and United States are 2004 data

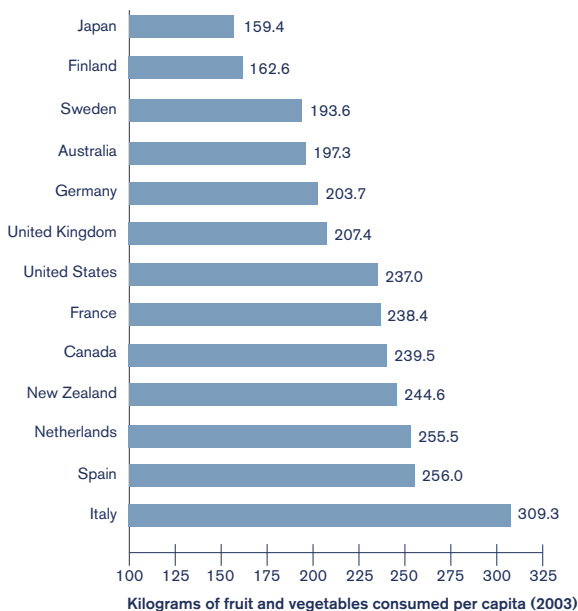
Source: OECD health data; 2006.

## Physical Activity In Selected Countries



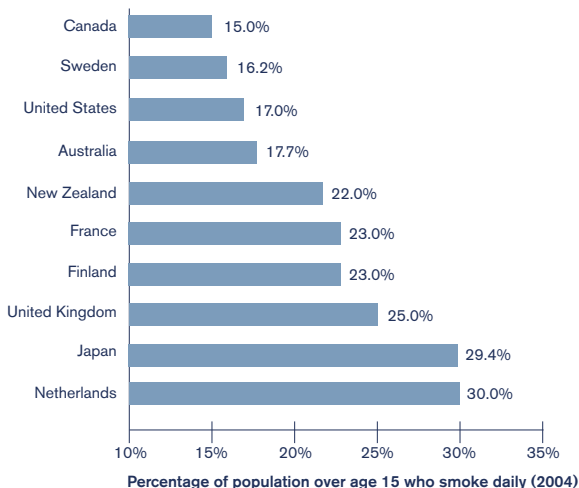
Source: Currie C, Hurrelmann K, Settertobulte W, Smith R, Todd J, editors. Health and health behaviour among young people: Health behaviour in school-aged children: A WHO cross national study (HBSC) international report. Copenhagen: World Health Organization; 2000.

## Consumption of Fruits and Vegetables In Selected Countries



Source: OECD health data; 2006.

## Percentage of Population Who Smoke Daily In Selected Countries

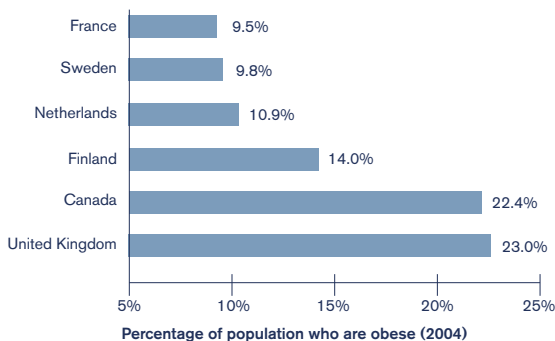


Note: The OECD defines daily smokers as the percentage of the population aged 15 or more years who report that they are daily smokers.

Source: OECD health data; 2006.



## Prevalence of Obesity In Selected Countries



Note: Obesity is defined as Body Mass Index (BMI)  $\geq 30.0$  where  $BMI = \text{Mass(kg)} / \text{height(m)}^2$

United States data is unavailable from source.

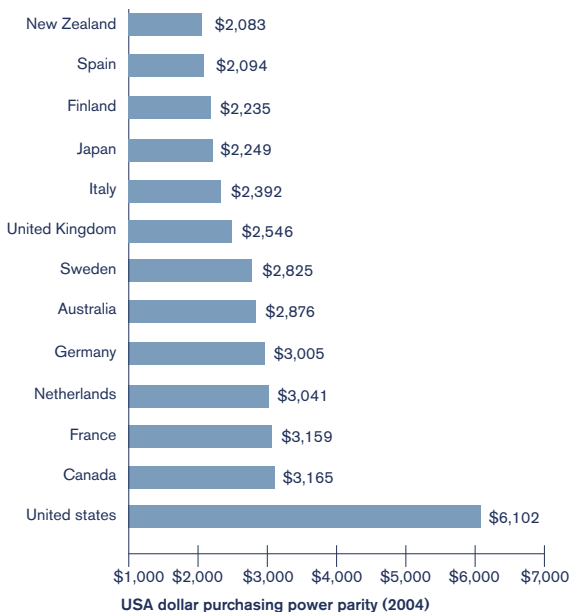
Source: OECD health data; 2006.



## Costs



## Total Health Expenditure Per Capita in Selected Countries

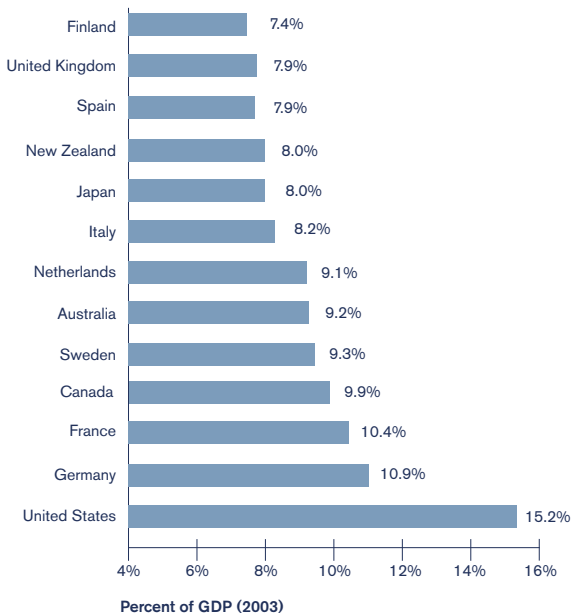


Note: Purchasing power parity is a currency conversion rate that both converts to a common currency and equalizes the purchasing power of different currencies. It eliminates the differences in price levels between countries in the process of conversion.

Data for Japan, France, Germany, and Australia are for 2003.

Source: OECD health data; 2006.

## Total Health Expenditure As a Percentage of GDP in Selected Countries



Costs

Source: OECD health data; 2006.

## Total Pharmaceutical Expenditure

### Per Capita in Selected Countries



Note: Purchasing power parity is a currency conversion rate that both converts a common currency and equalizes the purchasing power of different currencies. It eliminates the differences in price levels between countries in the process of conversion.

Data for Japan and Germany are for 2003.

Source: OECD health data; 2006.

## Family Physician Salaries In Selected Countries



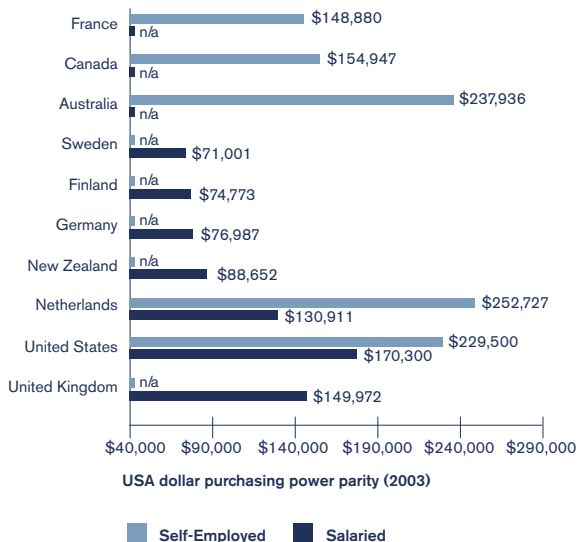
Note: Purchasing power parity is a currency conversion rate that both converts a common currency and equalizes the purchasing power of different currencies. It eliminates the differences in price levels between countries in the process of conversion.

Data for Sweden is for 2002.

Data for the United States is for 2001.

Source: OECD health data; 2006.

## Specialist Physician Salaries In Selected Countries



Note: Purchasing power parity is a currency conversion rate that both converts a common currency and equalizes the purchasing power of different currencies. It eliminates the differences in price levels between countries in the process of conversion.

Data for the United States is for 2001.

Data for Sweden is for 2002.

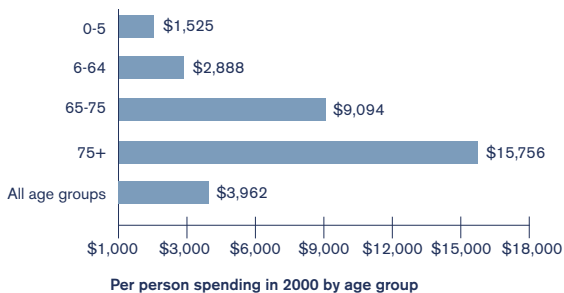
Data for United Kingdom is for 2004.

Data for Germany is for 2004.

Source: OECD health data; 2006.



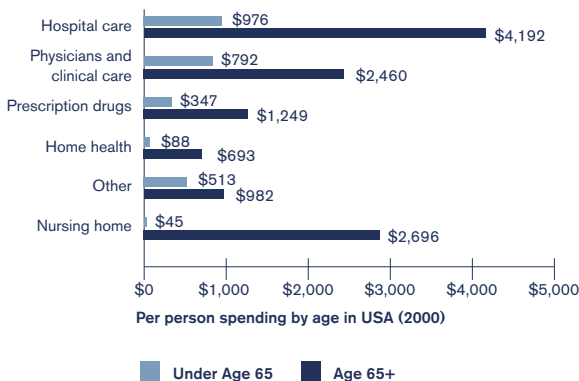
## Per Person Spending by Age In the United States for 2000



Costs

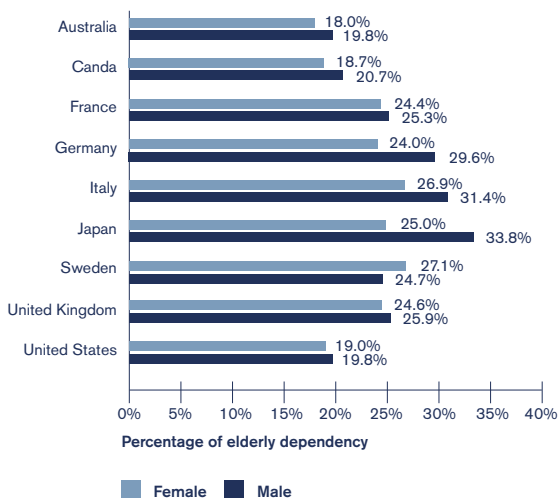
Source: Meara E, White C, Cutler D. Trends in medical spending by age, 1963-2000. Health Affairs 2004;23(4):176-83.

## Per Person Spending by Service Category and Age In the United States (2000)



Source: Meara E, White C, Cutler D. Trends in medical spending by age, 1963-2000. Health Affairs 2004;23(4):176-83.

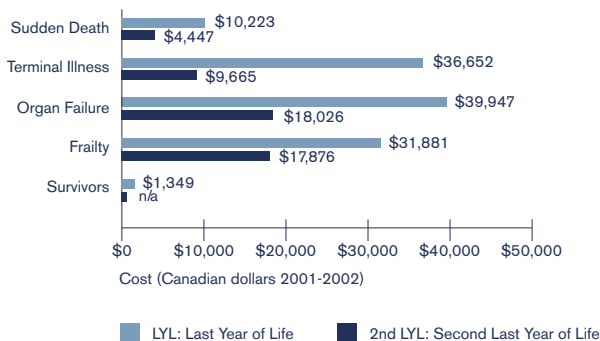
## Elderly Dependency Ratio In Selected Countries



Note: The elderly population dependency ratio is defined as the population age 65 and over as a percentage of the working-age population (i.e. the population aged 15-64).

Source: Jacobzone S, Cambois E, Robine JM. Is the health of older persons in OECD countries improving fast enough to compensate for population aging? OECD Economic Studies; 2000.

## End of Life Total Costs and Utilization in Alberta (any service)

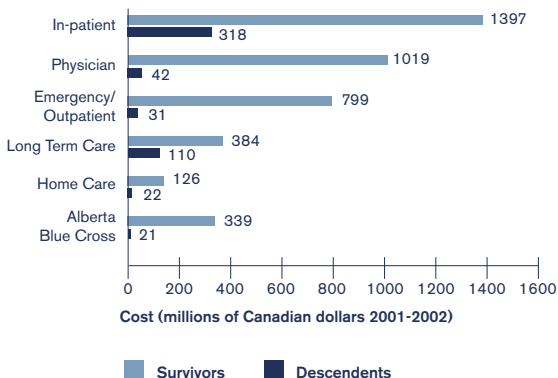


Source: Fassbender K, Smythe JG, Carson M, Finegan BA, Booth PM. Report of the Institute for Public Economics Health Research Group to Alberta Health and Wellness: cost and utilization of health care services at end of life in Alberta, 1999-2002. Edmonton, AB: University of Alberta; 2006.

# Total Health Care Costs

In Alberta for 2001-02

by Cost Category



Source: Fassbender K, Smythe JG, Carson M, Finegan BA, Booth PM. Report of the Institute for Public Economics Health Research Group to Alberta Health and Wellness: cost and utilization of health care services at end of life in Alberta, 1999-2002. Edmonton, AB: University of Alberta; 2006.



## Health Resources



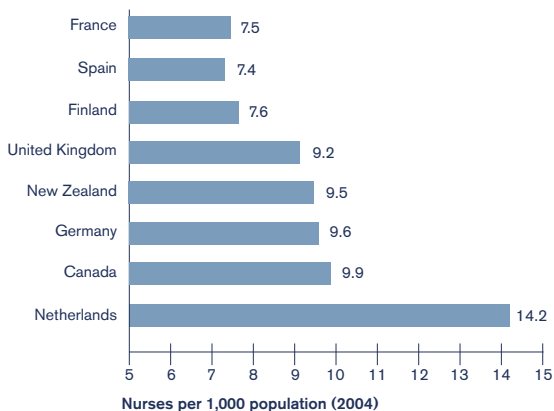
## Number of Physicians In Selected Countries



Source: OECD health data; 2006.



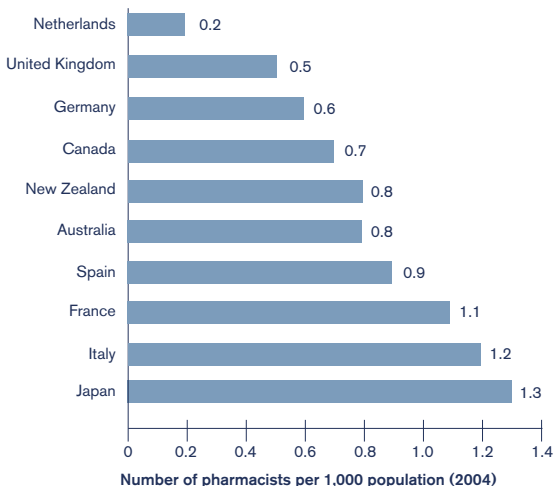
## Number of Nurses In Selected Countries



Note: Includes both Registered Nurses (RN) and Licensed Practical Nurses (LPN).

Source: OECD health data; 2006.

## Number of Pharmacists In Selected Countries



Notes: Data for Australia and United Kingdom are for 2003.

Source: OECD health data; 2006.

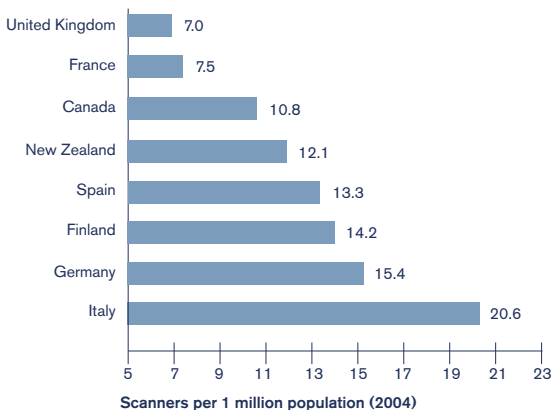
## Number of Dentists In Selected Countries



Note: Data for Australia, New Zealand and Sweden are from 2003.

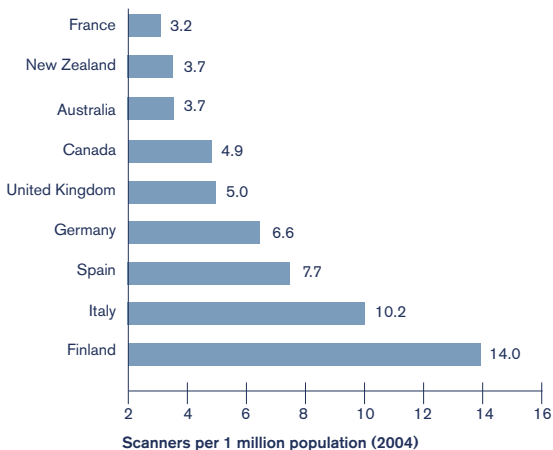
Source: OECD health data; 2006.

## Number of CT Imaging Scanners In Selected Countries



Source: OECD health data; 2006.

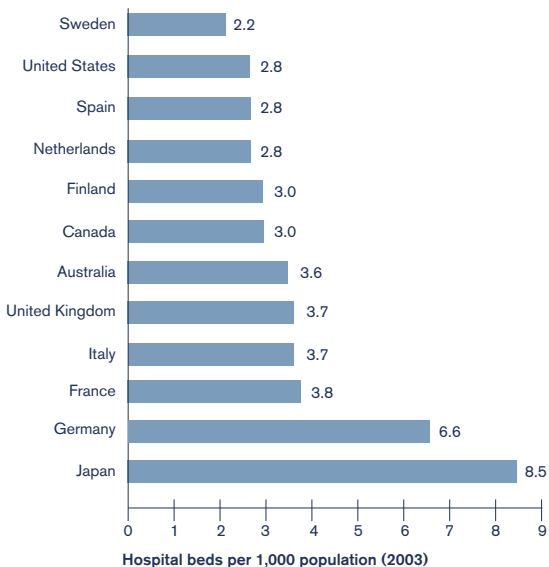
## Number of MRI Imaging Scanners In Selected Countries



Note: Data for New Zealand is for 2003.

Source: OECD health data; 2006.

## Number of Hospital Beds In Selected Countries

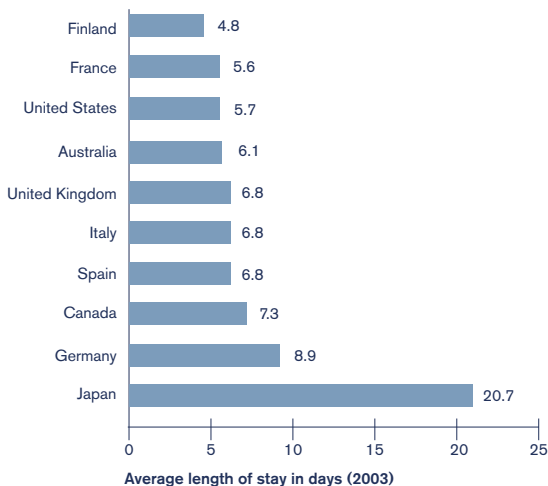


Source: OECD health data; 2006.

## Health Resource Utilization



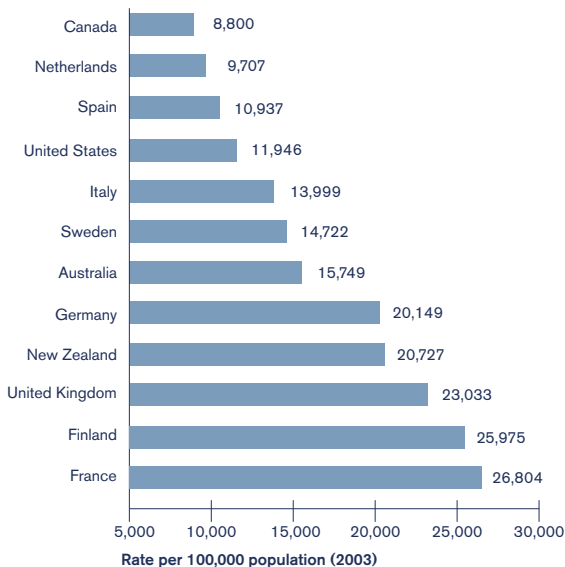
## Average Length of Stay in Hospital In Selected Countries



Source: OECD health data; 2006.



## Hospital Discharge Rate In Selected Countries



Source: OECD health data; 2006.



## Health System Performance

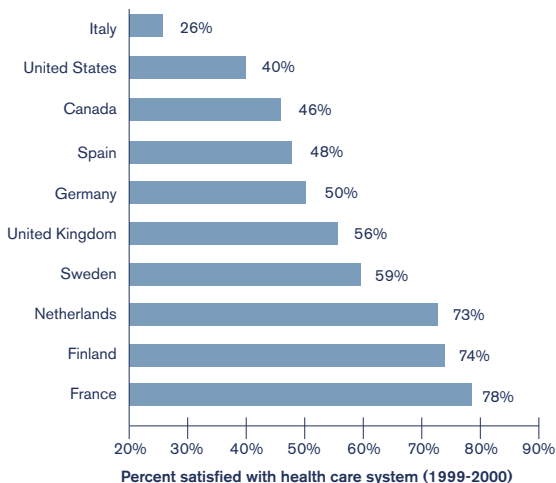


## National Unemployment Rate In Selected Countries



Source: OECD health data; 2006.

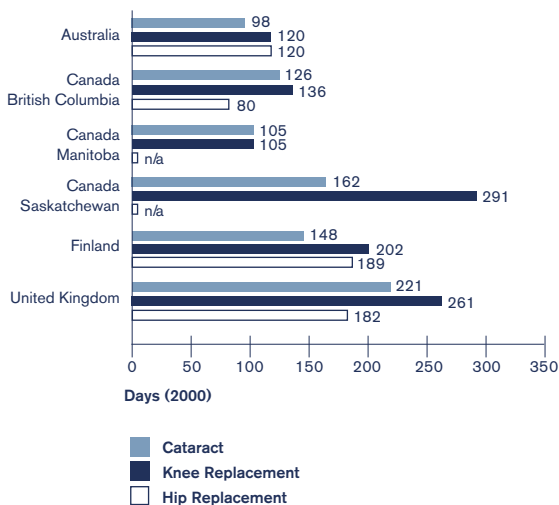
## Public Satisfaction with Health Care System In Selected Countries



Note: United States and Canada data from Harvard School of Public Health (2000).

Source: Blendon R, Minah K, Benson J. The public versus the world health organization on health system performance. Health Affairs 2001;20(3):10-20.

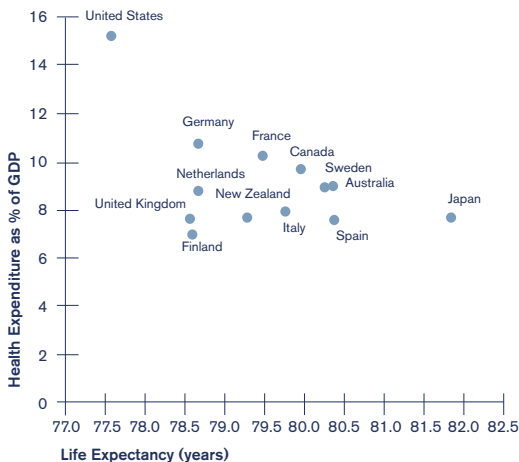
## Median Waiting Times In Selected Countries



Note: Waiting time is defined as time after making appointment with a specialist. Data unavailable for Alberta and most other Canadian provinces.

Source: Sicilani L, Hurst J. Explaining waiting times variations for elective surgery across OECD countries, OECD economic studies no. 38. OECD: Paris; 2004.

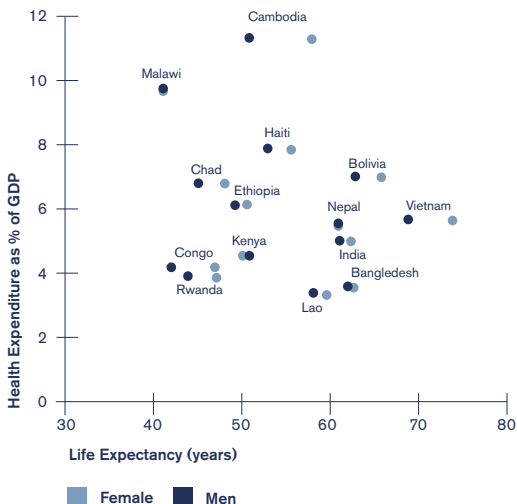
# Health Expenditure & Life Expectancy In Selected Countries



Note: Data is for 2004.

Source: OECD health data; 2006.

# Health Expenditure & Life Expectancy In Selected Developing Countries

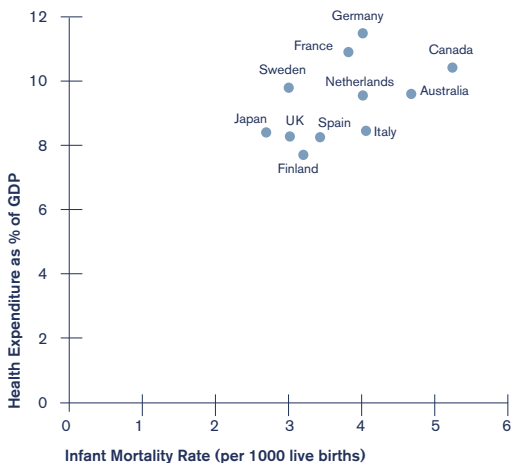


Note: Data is for 2004.

Source: World health statistics, 2006. Geneva: World Health Organization; 2006. Available at: [www.who.int/whisis/whostat2006.pdf](http://www.who.int/whisis/whostat2006.pdf).



## Health Expenditure & Infant Mortality In Selected Countries

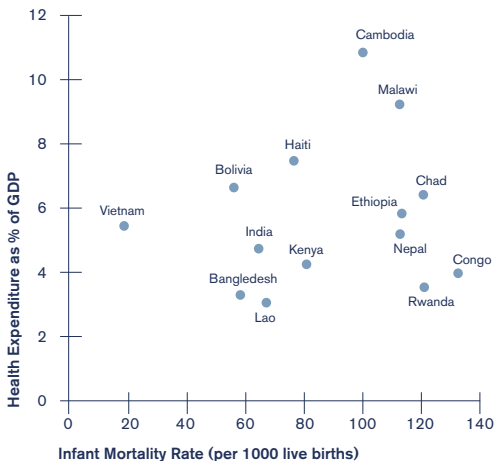


Note: Infant mortality rate for Canada is 2003 data.

Source: World Health Organization, The World Health Report 2006.

# Health Expenditure & Infant Mortality

## In Selected Developing Countries



Source: World health statistics, 2006. Geneva: World Health Organization; 2006.  
Available at: [www.who.int/whisis/whostat2006.pdf](http://www.who.int/whisis/whostat2006.pdf).

**Quality-Adjusted Life Years (QALY)  
League Tables**



# Quality-Adjusted Life Years (QALY) League Tables for Cataract Surgery

Cataract Surgery		
Year of Pub	Intervention VS Comparator in Target population	\$/QALY in 2002 US\$
2003	Cataract and posterior chamber intraocular lens implantation VS No treatment IN patients with bilateral cataracts with 20/83 vision – age 73	\$1,600
2002	Initial cataract surgery VS. Observation IN patients who undergo initial cataract surgery	\$2,100
2003	Second-eye cataract surgery VS. Preexisting unilateral pseudophakia IN Cohort of US patients with prior successful cataract surgery in fellow eye – median age 73	\$2,800
2002	Cataract surgery VS. No Cataract surgery IN patients scheduled for cataract extraction in one eye	\$4,500

Note: A QALY League table provides a rank ordering of interventions in ascending order of their incremental cost effectiveness ratio. A low cost per QALY appearing towards the top of the league table does not necessarily mean that the program/ intervention is more worthwhile from a societal perspective than a program/ intervention appearing lower down the table.

Source: Centre for the Evaluation of Value and Risk in Health. Tufts – New England Medical Centre. Available at: <http://www.tufts-nemc.org/cearegistry/data/docs/PhaseIIACompleteLeagueTable.pdf>.

# Quality-Adjusted Life Years (QALY) League Tables for Organ Transplantation

Organ Transplantation		
Year of Pub	Intervention VS Comparator in Target population	\$/QALY in 2002 US\$
2003	Cadaveric donor renal transplantation with no wait VS Continued dialysis IN non-diabetic patients who are stable on dialysis – age 65+	\$1,600
2003	Living donor renal transplantation with 4 year wait VS Continued dialysis IN non-diabetic patients who are stable on dialysis – age 65+	\$24,000
2003	Cadaveric renal transplantation with 2 year wait VS. Continued dialysis IN non-diabetic patients who are stable on dialysis – age 65+	\$210,000
2003	Cadaveric donor renal transplantation with 4 year wait VS Continued dialysis in non-diabetic patients who are stable on dialysis – age 65+	\$210,000

Note: A QALY League table provides a rank ordering of interventions in ascending order of their incremental cost effectiveness ratio. A low cost per QALY appearing towards the top of the league table does not necessarily mean that the program/intervention is more worthwhile from a societal perspective than a program/intervention appearing lower down the table.

Source: Centre for the Evaluation of Value and Risk in Health. Tufts – New England Medical Centre. Available at: <http://www.tufts-nemc.org/cearegistry/data/docs/PhaseIIACompleteLeagueTable.pdf>.

# Quality-Adjusted Life Years (QALY) League Tables

## for Hip Replacement

Hip Replacement		
Year of Pub	Intervention VS Comparator in Target population	\$/QALY in 2002 US\$
2002	Total hip replacement surgery VS. No total hip replacement surgery IN females undergoing hip replacement surgery – age 60-69	\$1,200
2002	Total hip replacement surgery VS. No total hip replacement surgery IN males undergoing hip replacement surgery – age 60-69	\$1,500
2002	Total hip replacement surgery VS. No total hip replacement surgery IN females undergoing hip replacement surgery – age 70-79	\$2,000
2002	Total hip replacement surgery VS. No total hip replacement surgery IN males undergoing hip replacement surgery – age 70-79	\$2,500

Note: A QALY League table provides a rank ordering of interventions in ascending order of their incremental cost effectiveness ratio. A low cost per QALY appearing towards the top of the league table does not necessarily mean that the program/ intervention is more worthwhile from a societal perspective than a program/ intervention appearing lower down the table.

Source: Centre for the Evaluation of Value and Risk in Health. Tufts – New England Medical Centre. Available at: <http://www.tufts-nemc.org/cearegistry/data/docs/PhaseIIACompleteLeagueTable.pdf>.

# Quality-Adjusted Life Years (QALY) League Tables

for Vaccination

Vaccination		
Year of Pub	Intervention VS Comparator in Target population	\$/QALY in 2002 US\$
2003	Four doses of seven-valent pneumococcal conjugate vaccine VS. No vaccination IN 80% of the Canadian population	\$25,000
2003	Universal infant vaccination program with a hypothetical 7-valent conjugated pneumococcal vaccine VS No vaccination IN infants and children in the Netherlands – birth to age 10	\$81,000

Note: A QALY League table provides a rank ordering of interventions in ascending order of their incremental cost effectiveness ratio. A low cost per QALY appearing towards the top of the league table does not necessarily mean that the program/ intervention is more worthwhile from a societal perspective than a program/ intervention appearing lower down the table.

Source: Centre for the Evaluation of Value and Risk in Health. Tufts – New England Medical Centre. Available at: <http://www.tufts-nemc.org/cearegistry/data/docs/PhaseIIIACompleteLeagueTable.pdf>.

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