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### Life expectancy

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#### Life expectancy

For the first time in history, in 2011, life expectancy at birth on average across OECD countries exceeded 80 years, an increase of ten years since 1970 (Figure 6.1). Italy, Japan and Switzerland lead a large group of over two-thirds of OECD countries in which life expectancy at birth now exceeds 80 years. A second group, including Chile, the United States, and a number of Central and Eastern European countries, have a life expectancy between 75 and 80 years. Among OECD countries, life expectancy was lowest in Mexico and Turkey. While life expectancy in Turkey has increased rapidly and steadily over the past four decades, the increase in Mexico has slowed down markedly since 2000.

Emerging countries such as Brazil, China, Indonesia and India have also achieved large gains in longevity over the past decades, with life expectancy in these countries converging rapidly towards the OECD average. There has been much less progress in South Africa (due mainly to the epidemic of HIV/AIDS) and the Russian Federation (due mainly to the impact of the economic transition in the 1990s and the rise in risky behaviour among men).

In the United States, the gains in life expectancy since 1970 have also been much more modest than in most other OECD countries (Figure 6.1). While life expectancy in the United States used to be one year above the OECD average in 1970, it is now more than one year below the average. Many possible explanations have been suggested for these lower gains in life expectancy, including: 1) the highly fragmented nature of the US health system, with relatively few resources devoted to public health and primary care, and a large share of the population uninsured; 2) health-related behaviours, including higher calorie consumption per capita and obesity rates, higher consumption of prescription and illegal drugs, higher deaths from road traffic accidents and higher homicide rates; and 3) adverse socioeconomic conditions affecting a large segment of the US population, with higher rates of poverty and income inequality than in most other OECD countries.

Life expectancy varies by gender, and also by socioeconomic status as measured for instance by education level (Figure 6.2). Higher education levels not only provide the means to improve the socio-economic conditions in which people live and work, but may also promote the adoption of more healthy lifestyles and facilitate access to appropriate health care. On average among 14 OECD countries for which data are available, people with the highest level of education can expect to live six years more than people with the lowest level of education at age 30 (53 years versus 47 years). These differences in life expectancy by education level are particularly pronounced for men, with a gap of almost eight years on average. They are particularly large in Central and Eastern European countries (Czech Republic, Estonia, Hungary, Poland and Slovenia), where the life expectancy gap between higher and lower educated men reaches more than ten years.

Higher health spending per capita is generally associated with higher life expectancy at birth, although this relationship tends to be less pronounced in countries with the highest health spending per capita (Figure 6.3). Japan, Italy and Spain stand out as having relatively high life expectancies while the Russian Federation and the United States have relatively low life expectancies, given their levels of health spending.

#### Definition and measurement

Life expectancy at birth measures how long, on average, people would live based on a given set of age-specific death rates. However, the actual age-specific death rates of any particular birth cohort cannot be known in advance. If age-specific death rates are falling (as has been the case over the past decades), actual life spans will be higher than life expectancy calculated with current death rates.

The methodology used to calculate life expectancy can vary slightly between countries. This can change a country's estimates by a fraction of a year.

Life expectancy at birth for the total population is calculated by the OECD Secretariat for all OECD countries, using the unweighted average of life expectancy of men and women.

To calculate life expectancies by education level, detailed data on deaths by sex, age and education level are needed. However, not all countries have information on education as part of their deaths data.

#### **Further reading**

National Research Council and Institute of Medicine (2013), "US Health in International Perspective: Shorter Lives, Poorer Health", in S. Woolf and L. Aron (eds.), Panel on Understanding Cross-National Health Differences Among High-Income Countries, National Academies Press, Washington, DC.

OECD (2013), Health at a Glance 2013: OECD Indicators, OECD Publishing, Paris, http://dx.doi.org/10.1787/health\_glance-2013-en.

#### Figure notes

Figure 6.1: 2009 for Canada and 1971 for Canada, Israel, Italy and Luxembourg.

Figure 6.2: 2009 for Italy and Netherlands, 2007 for Austria.

Figure 6.3: For life expectancy: 2009 for Canada; for health spending: 2010 for Australia, Denmark, Japan and Mexico, 2009 for Luxembourg, and 2008 for Turkey.

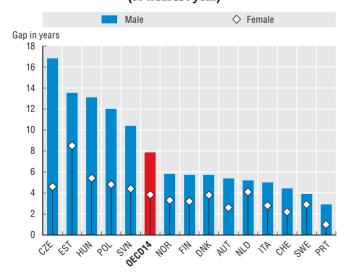
Information on data for Israel: http://dx.doi.org/10.1787/888932315602.

#### 6.1. Life expectancy has increased remarkably in OECD countries

Panel A. Life expectancy at birth in 2011 or nearest year Panel B. Rise in life expectancy between 1970 and 2011 (in years) Switzerland 82.8 82.7 Japan 82.7 Italy Spain 10.7 10.4 82.4 82.4 Iceland 8.4 82.2 France 10.0 Australia 82.0 11.2 81.9 Sweden 7.1 81.8 Israel 10.0 Norway 7.0 Netherlands New Zealand 81.3 81.2 7.6 9.7 81.1 Luxembourg 11.4 Austria 11.1 81.1 81.1 United Kingdom 9.2 81.1 81.0 Korea 19.0 Canada 8.1 80.8 Germany 10.2 7.0 80.8 Greece Portugal 14.1 80.8 80.6 Finland 9.8 80.6 Ireland 9.4 Belgium 9.4 80.1 Slovenia 11.5 80.1 10.1 79.9 Denmark 6.6 United States 78.7 7.8 78.3 Chile Czech Republic 78.0 76.9 8.4 Poland 6.9 76.3 Estonia 6.6 Slovak Republic 76.1 6.2 75.0 5.8 Hungary 74.6 Turkey 20.4 74.2 Mexico 13.3 73.5 10.6 China 73.4 14.8 Brazil Indonesia 69.3 17.5 69.0 Russian Federation 0.9 India 65.5 16.4 52.9)South Africa (-0.3) 85 80 75 70 65 60 0 5 10 15 20 25 Years Years

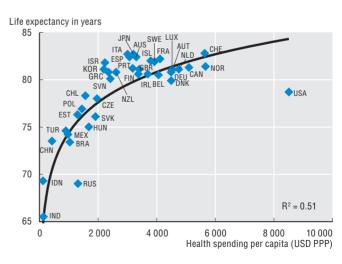
Source: OECD Health Statistics 2013 (http://dx.doi.org/10.1787/health-data-en); World Bank for non-OECD countries.

# 6.2. Variation in gap in life expectancy at age 30 by sex and between the highest "tertiary" level and the lowest "below upper secondary" level of education, 2010 (or nearest year)



Source: Eurostat database complemented with national data for Austria, Netherlands and Switzerland.

## 6.3. Higher health spending per capita is generally associated with higher life expectancy at birth, 2011 (or nearest year)



Source: OECD Health Statistics 2013 (http://dx.doi.org/10.1787/health-data-en); World Bank for non-OECD countries.

StatLink http://dx.doi.org/10.1787/888932966561