

Chapter 4. Living longer, living better

Healthier seniors are living and working longer and our concept of “elderhood” is changing accordingly. These developments invite reflection about the role of education, so often seen as primarily for the young. This chapter explores these issues through five lenses:

Ageing societies – examines trends in increasing life expectancy and life expectancy in good health.

The picture of health – highlights threats to well-being in the elderly, including the increase in rates of dementia and more individuals living alone.

Active elders – discusses the implications of ageing societies for pension systems and labour markets.

The silver economy – looks at the new economic opportunities and skills needs created by an older population with more disposable income.

The digital age(s) – illustrates the increasing digitalisation of the life of older adults, bringing with it new opportunities as well as new threats.

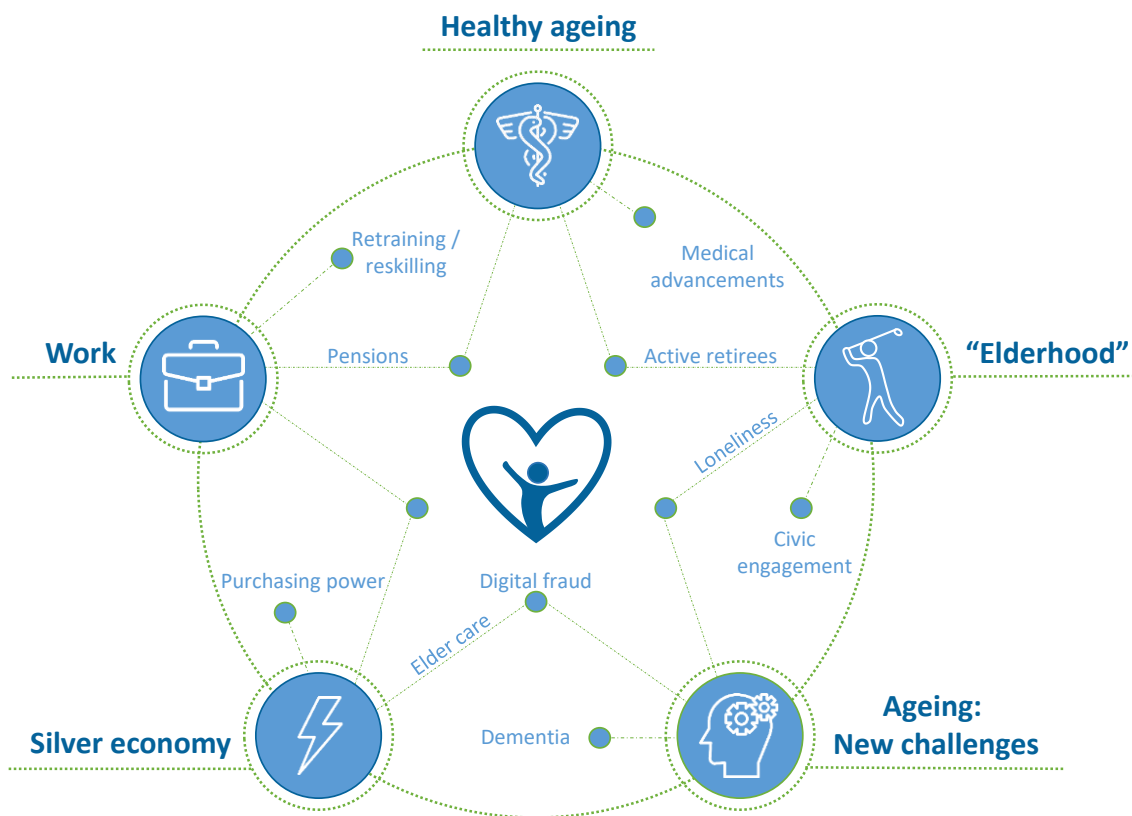
The ageing trends highlighted in this chapter are then linked to education, with a special focus on lifelong learning. The chapter ends with a look at how using different versions of the future can help us better prepare for the unknown.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

LIVING LONGER, LIVING BETTER: A VISUAL OVERVIEW

Our population is ageing. Healthier seniors are living and working longer, and they also tend to be relatively richer on average, opening the possibilities of a “silver market” aimed at the specific needs of this group. However, there are risks as well: chronic diseases such as diabetes and dementia are becoming more prevalent, and shrinking social circles increase the potential for loneliness. Digitalisation may help address many of these risks, but it also opens up new threats, for example Internet fraud targeted specifically at the elderly. These trends invite reflection about the role of education, so often seen as primarily for the young. Questions about retraining, lifelong learning and using the expertise of so-called silver workers are key questions for education in an ageing society.

| | | | | |
|---------------|-----------|----------|---------------|-----------------|
| GLOBALISATION | DEMOCRACY | SECURITY | AGEING | MODERN CULTURES |
|---------------|-----------|----------|---------------|-----------------|



Chapter highlights

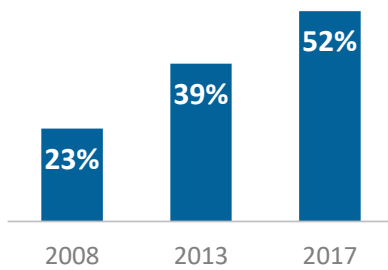
Dementia on the rise



19 million people in OECD countries suffered from dementia in 2017. This number is likely to reach nearly **41** million by 2050

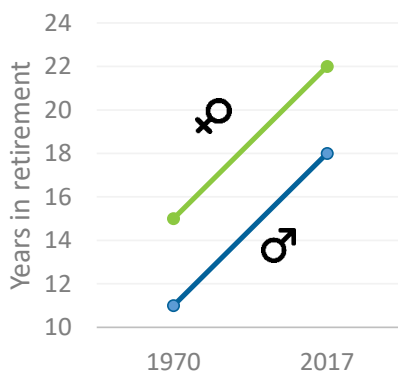
Digital elders

Adults aged **55-74** increasingly use the internet almost every day



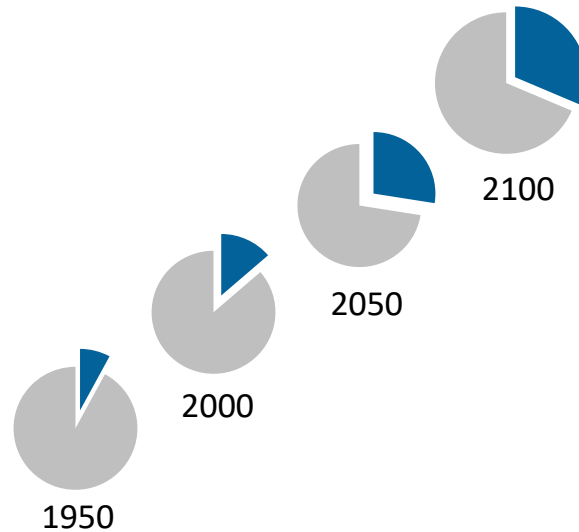
Lengthier retirement

Average years in retirement increased across all OECD countries



Ageing societies

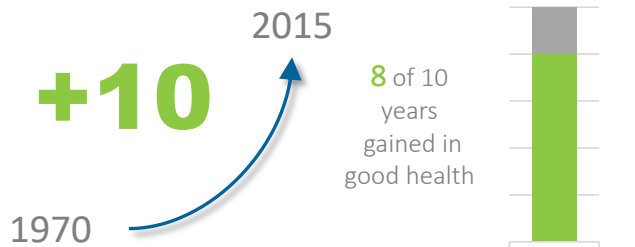
Share of people aged **65+** expected to grow



Living longer

All OECD countries reported gains in life expectancy at birth, most of it in good health

Years gained on average

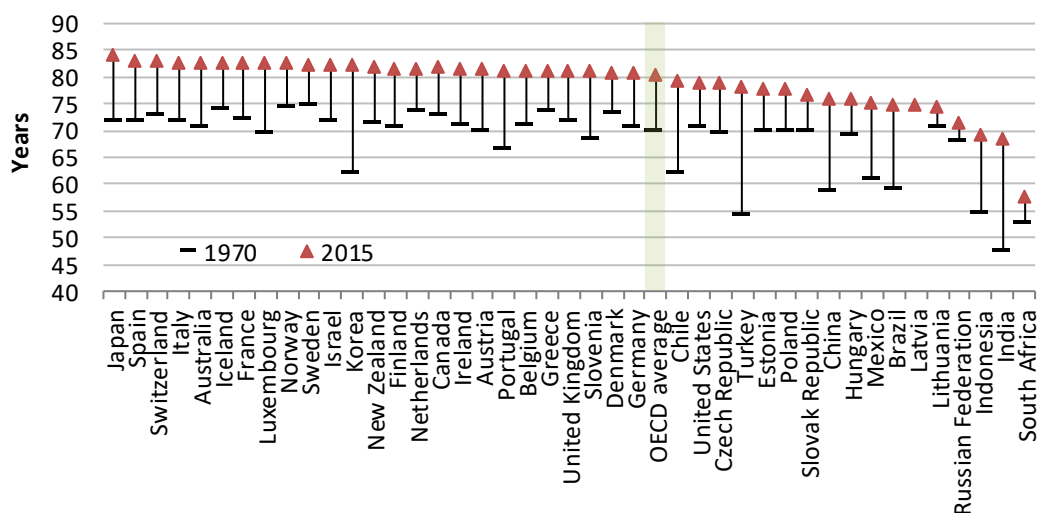


AGEING SOCIETIES

Our population is ageing: we have fewer young people and more adults are living to old age. Improvements in our health and lifestyles have led to a substantial growth in life expectancy across OECD countries in recent decades. Importantly, these gains have been mostly in good health, setting the stage for an active retirement. Ageing societies have several potential implications for education, such access to lifelong learning. Reskilling and retraining can support people in taking on healthier habits and behaviours, crucial in ensuring healthier, extended lives for all.

Figure 4.1. Getting on in years

Life expectancy at birth, 1970 and 2015



Note: Where data for countries were not consistently available in the same years, figures from the closest year are used (see StatLink for full information).

Source: OECD (2017), *Health at a Glance 2017: OECD Indicators*, http://dx.doi.org/10.1787/health_glance-2017-en.

StatLink  <https://doi.org/10.1787/888933888811>

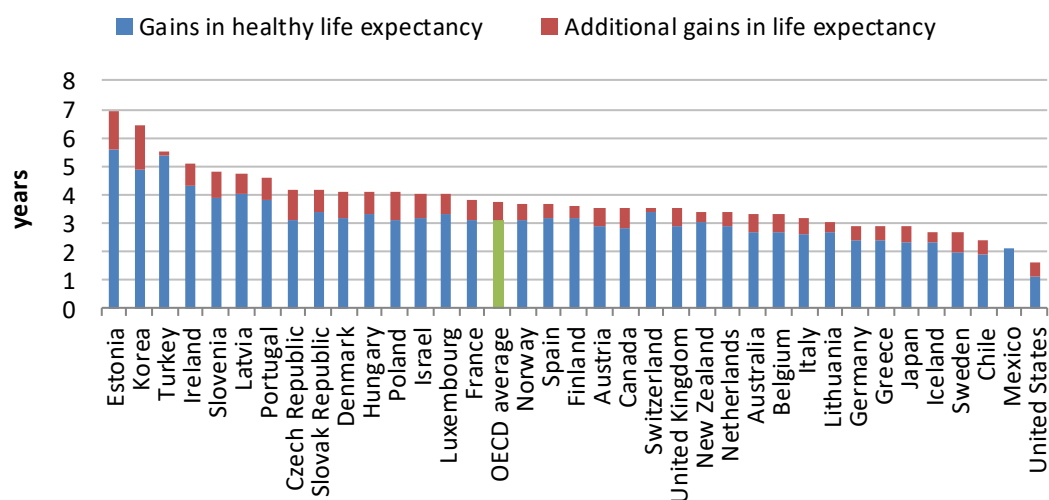
Life expectancy at birth has been rising. Over the last 45 years it has risen across OECD countries from an average of 70 to 80 years. A person born today is expected to live to more than 80 years in most OECD countries, with a high of 83 years in Spain and Switzerland and 84 in Japan. Many countries have seen large gains in life expectancy over this time, notably Turkey (an increase of 24 years), Korea (an increase of 20 years) and Chile (an increase of 17 years). Better health care, healthier lifestyles, higher incomes and better education levels are some of the factors that contributed to such life expectancy gains.

Increased life expectancy is one thing; the quality of these extra years is another. Here there is good news: Of the life expectancy gains over the period 2000-2016, 80% of this time has consisted of additional years lived in good health. The remaining 20% has

been marked by poor health resulting from injuries and diseases. Gains in healthy life expectancy have been particularly large in countries that had relatively low levels in 2000, such as Estonia and Turkey, but also in Korea. On the other hand, healthy life expectancy in the United States grew by about one year, which is only one third of the average growth of OECD countries.

Figure 4.2. 70 is the new 60

Total gains in life expectancy at birth, OECD countries, 2000-2016



Note: Countries are ranked in descending order of life expectancy gains.

Source: WHO (2018), *Global Health Observatory* (database), www.who.int/gho/en/.

StatLink  <https://doi.org/10.1787/888933888830>

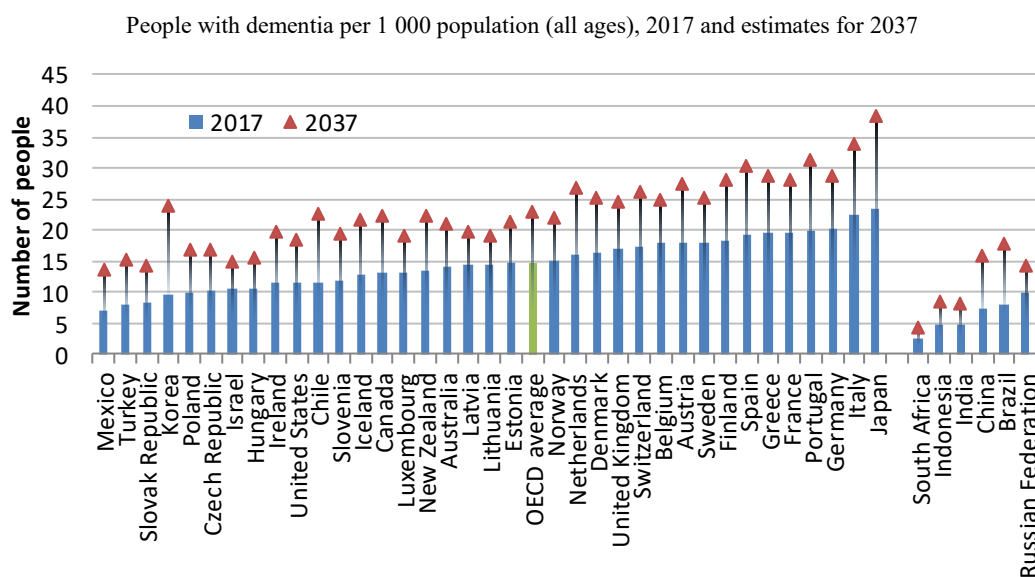
And education?

- As health and pension expenditures increase, national governments could face increasingly tight budgets. How might education co-operate with other sectors to tackle the public policy challenges from a cross-governmental perspective? Should other actors, such as citizens and companies, help finance the education system?
- When we expect schooling to prepare young people “for life”, that means something very different if average life expectancy is 80 to 90 years than 60 to 70 years. Do our “long-life” societies call for rethinking what education should equip young people with? What about learners who are 80+?
- The education workforce at all levels is ageing in line with the general population. How can we attract and retain sufficient numbers of teachers and academics to the profession?

THE PICTURE OF HEALTH

Despite an overall increase in healthy life expectancy, good health in old age is not a given. While deaths from communicable diseases (such as measles or the flu) are decreasing, chronic and degenerative diseases such as diabetes and dementia are becoming more prevalent, especially among the most elderly. Furthermore, as people age and their social circles shrink, risks of social isolation increase, potentially resulting in loneliness, depression and decreased capacity to perform everyday activities. Education can play a role in strengthening the competence of seniors and their carers in dealing with chronic conditions. It can also contribute to building stronger and more supportive communities that can cope better with the growing challenges of old age.

Figure 4.3. The dementia threat



Source: OECD (2018), *Care Needed: Improving the Lives of People with Dementia*, <https://doi.org/10.1787/9789264085107-en>.

StatLink  <https://doi.org/10.1787/888933888849>

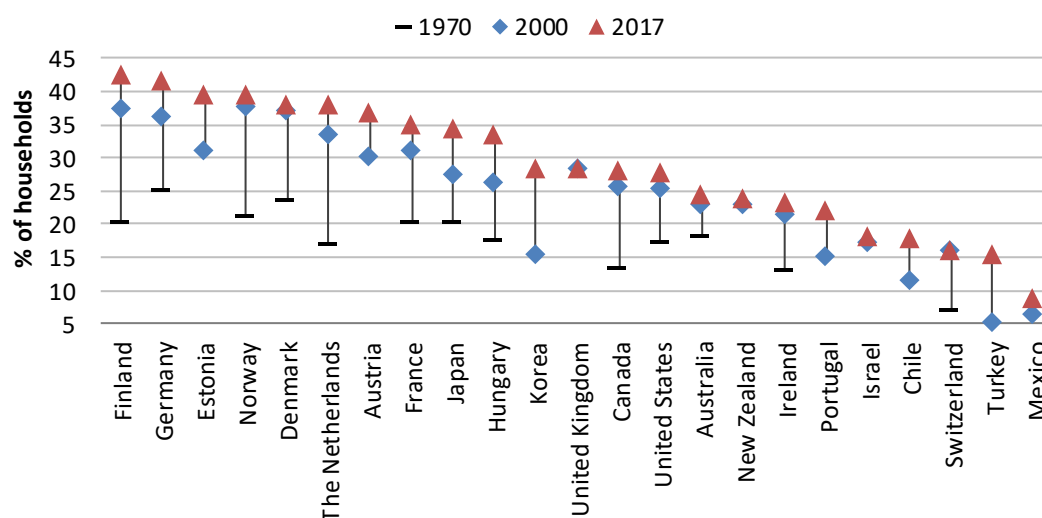
About 19 million people, or 15 out of 1 000 on average across OECD countries, suffered from dementia in 2017. Dementia is a progressive degenerative disorder of the brain and one of the fastest-growing causes of death. Its prevalence rises rapidly with age: about 2% of people between 65-69 years suffer from dementia, but this increases to more than 40% for those over 90 years old. Dementia impacts the life of the individual, but also the many relatives and other informal carers around them. It is a growing burden for health and care systems, and its prevalence is expected to rise further in the decades to come as the share of people aged over 80 keeps growing.

The number of people living alone is growing. A large proportion of single person households is composed of older adults in many OECD countries. On the one hand, this reflects the fact that elders are more and more capable of living autonomously until an

advanced age. However, living alone entails the loss of certain advantages that are not always easy or possible to substitute, such as economic support and company. Unsurprisingly, the quality of social relations is strongly related to the perception of loneliness regardless of age. Isolation and loneliness are linked to a number of issues including higher depression rates, lower levels of daily activity and mobility, and an increased risk of death. As more people find themselves living alone, loneliness might become more prevalent. This could be especially true for the elderly as they experience shrinking social circles and the death of peers. Social and emotional skills developed through education can support individuals in developing stronger and more meaningful social relations over their lifetime. Engaging in lifelong learning (e.g., taking community courses) can also help provide opportunities for seniors to connect with others.

Figure 4.4. A loneliness epidemic in the making?

Share of households inhabited by a single person, selected OECD countries, 1970, 2000 and 2017



Note: Where data were unavailable, figures from the closest year are used (see StatLink for full information). Data from the respective national statistics offices has been used by the OECD to produce this figure.

StatLink  <https://doi.org/10.1787/888933888868>

And education?

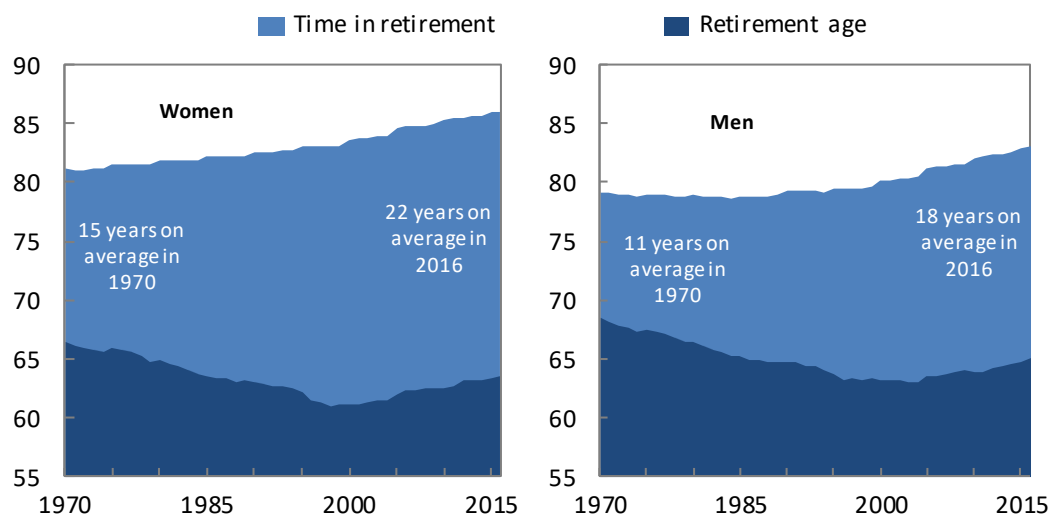
- What is the role of formal and informal education in reducing solitude and social isolation? Should schools more actively promote intergenerational exchange as a way to promote social cohesion?
- What kind of training do public officials and carers need to foster well-being among the elder segments of the population?
- How can education help improve well-being in older adulthood? What is the best way to strengthen health literacy in the 80+ age group, for example? What about other learning and cultural needs of older members of the population?

ACTIVE ELDERS

Active and healthy seniors are working longer. Even so, most people will spend close to two decades in retirement. This raises profound questions about the sustainability of pensions as well as perceptions of life after work. While some individuals are unwilling or unable to work until the statutory pension age, others capitalise on their professional networks and continue working well into their seventies and eighties and beyond. In this context, OECD countries have started introducing flexible pensions that increasingly blur the line between work and retirement. How can we support individuals to adapt their skill set over longer working lifetimes? Can education and training play a role in fighting stereotypes of “the elderly” within and outside the world of work?

Figure 4.5. Time to retire?

Average years in retirement across all OECD countries, 1970-2016



Source: OECD (2017), *Pensions at a Glance 2017: OECD and G20 Indicators*, https://doi.org/10.1787/pension_glance-2017-en.

StatLink  <https://doi.org/10.1787/888933888887>

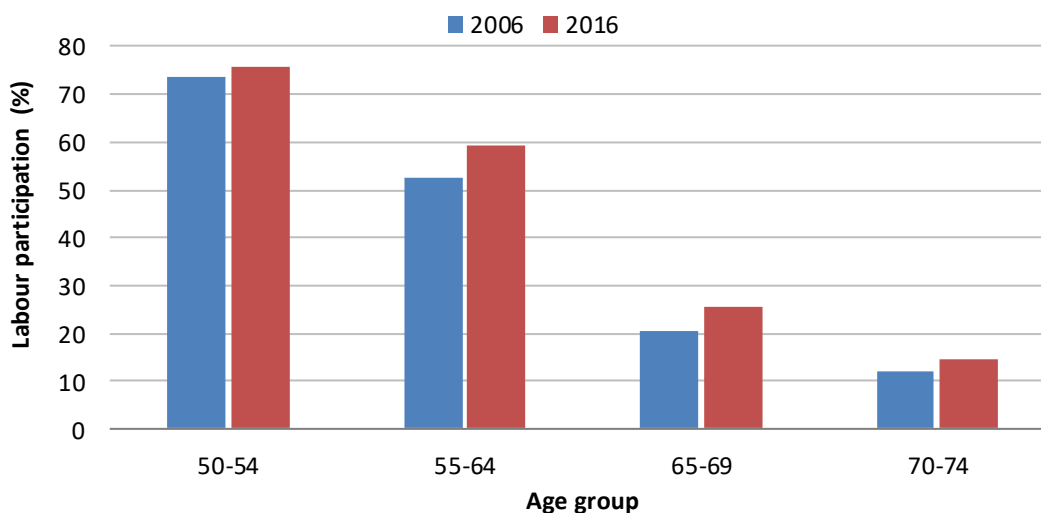
Although the average retirement age in OECD countries has remained relatively stable since 1970, greater life expectancy has increased the amount of time in retirement, from an average of 13 years (for women and men) in 1970 to 20 years in 2015. This threatens the financial sustainability of pension systems and has resulted in policies such as the end of early retirement and the increase of official retirement ages. Furthermore, many countries have started introducing flexible or partial retirement schemes, and building automatic adjustment mechanisms for increases in life expectancy. These are intended to enable older workers to remain active in the workforce by reducing their working time and compensating income lost with benefits or a partial pension.

Under these circumstances, people are indeed working to an older age. The effective labour market exit age rose from 62 to about 64 years on average across OECD countries

between 2006 and 2016. At the same time, employment rates for individuals aged 55 to 64 increased from 53 to 59%, and similarly, for those aged 65 to 69, from 20 to almost 26%. Even the oldest workers (70 to 74 years old) showed a modest 3% increase in their labour force participation. Linear career paths and clear distinctions between working and non-working time might be things of the past, and not only for older citizens. Education and training systems need to adapt to these flexible, ever-evolving lives.

Figure 4.6. Working later in life

Senior and older (50-74 years) labour participation rates (% of the age group), 2006 and 2016



Source: OECD (2016), “OECD Older Worker Scoreboard 2016”, www.oecd.org/els/emp/older-workers-scoreboard-2016.xlsx.

StatLink  <https://doi.org/10.1787/888933888906>

And education?

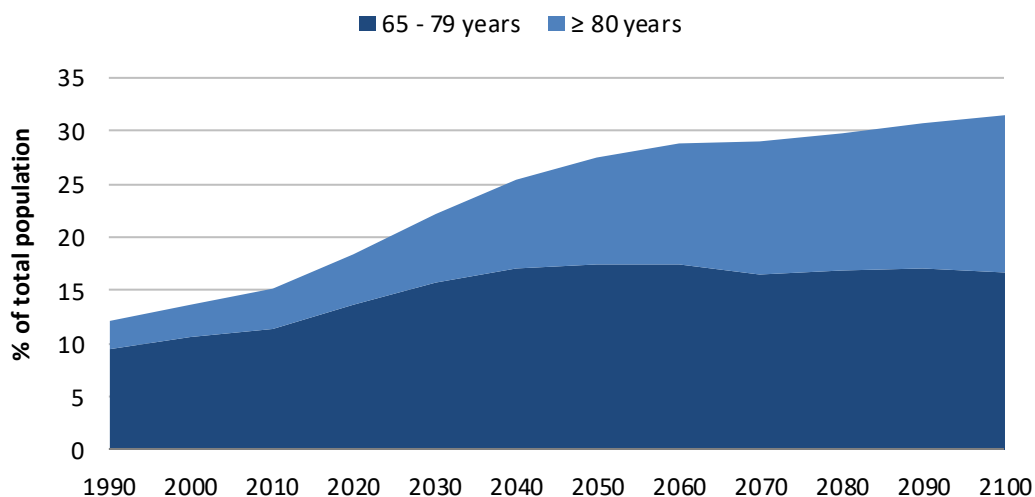
- Longer working lives and rapidly changing skill demands increase the need for continuous learning throughout life. Should some form of lifelong learning be compulsory? Should lifelong learning become a right?
- Do experience and savoir-faire always correlate with age? What is the best way to organise junior-senior teacher relations for professional innovation and improvement, especially in the ever-changing technology sector?
- What is the role of technology in improving skills attainment and certification for youngsters and adults (e.g. micro-certifications)? What are the implications of emerging forms of digital education provision for quality assurance?

THE SILVER ECONOMY

Seniors are living and working longer. This opens up the possibilities of a “silver market” aimed at the specific needs and services of this group. Digital solutions linked to mHealth, new care services, or innovation in mobility in and outside of the home are some examples. In addition, healthier ageing opens up a new life phase of exploration and civic, social and cultural engagement. Seniors are relatively richer on average, and markets related to tourism and entertainment, education and cultural products and services for more active elders are on the rise. What are the skills that will be needed in these emerging markets? How can education institutions better serve the educational demands of this segment of the population?

Figure 4.7. Ageing societies, ageing markets?

Population 65+ as percentage of the total population, OECD average, 1990-2100



Note: Data for 2015-2100 are projections, median prediction interval.

Source: United Nations (2018), *World Population Prospects: The 2017 revision* (database), <https://esa.un.org/unpd/wpp/>.

StatLink  <https://doi.org/10.1787/88893388925>

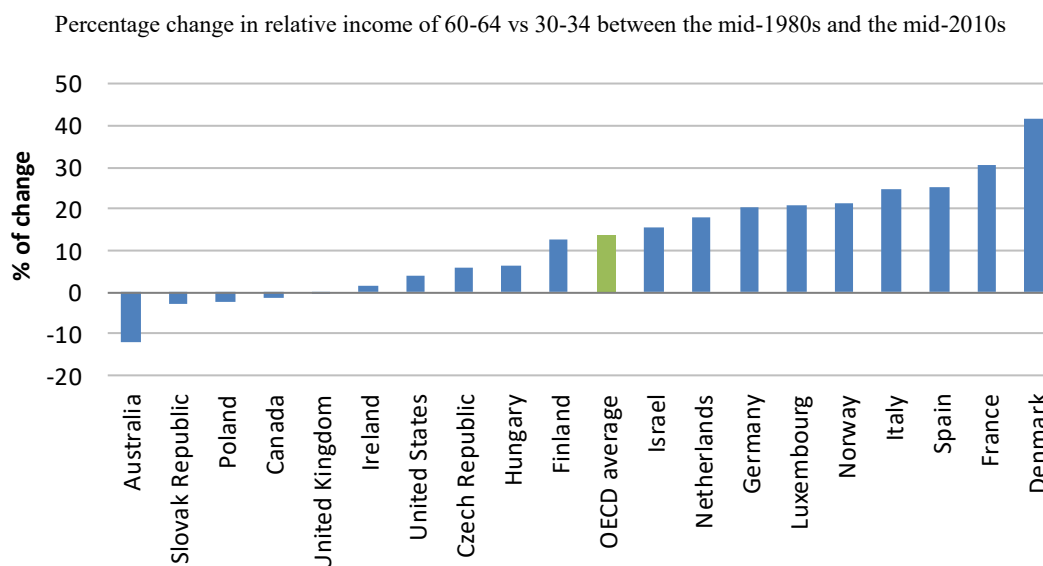
Across the OECD, the percentage of people aged 65 or above will reach almost 20% in 2020, an increase of ten percentage points in the 50 years since 1970. By 2070, this figure is expected to increase 30% according to United Nations estimates. Increased and healthier life expectancy means that many of these elders will be aged 80 years or older. This trend is not limited to OECD countries: While the share of the total world population aged 80+ was about 3% in 1990, it is now almost 5%, and is expected to reach 15% by the turn of the 22nd century.

Elders are not only more numerous, they are also relatively richer than they used to be. In the last thirty years individuals aged 60-64 years old have on average seen their income increase by about 13% more than their counterparts aged 30-34. There is

variation across countries however, with the biggest increases observed in Denmark, France and Spain, and Australia showing a reverse trend.

The silver economy refers to the expanding markets linked to healthier and more autonomous seniors, who have distinct needs and purchasing preferences compared to younger adults. Despite this trend, it cannot be forgotten that the frailest seniors remain one of the age groups most vulnerable to the risk of poverty, and therefore need special care. Education and training systems need to think carefully about the knowledge and skills that individuals require to leverage the opportunities these changes bring about.

Figure 4.8. Elders' expenditure power



Note: OECD average includes 19 countries (see StatLink for full information).

Source: OECD (2017), *Preventing Ageing Unequally*, <https://doi.org/10.1787/9789264279087-en>.

StatLink  <https://doi.org/10.1787/888933888944>

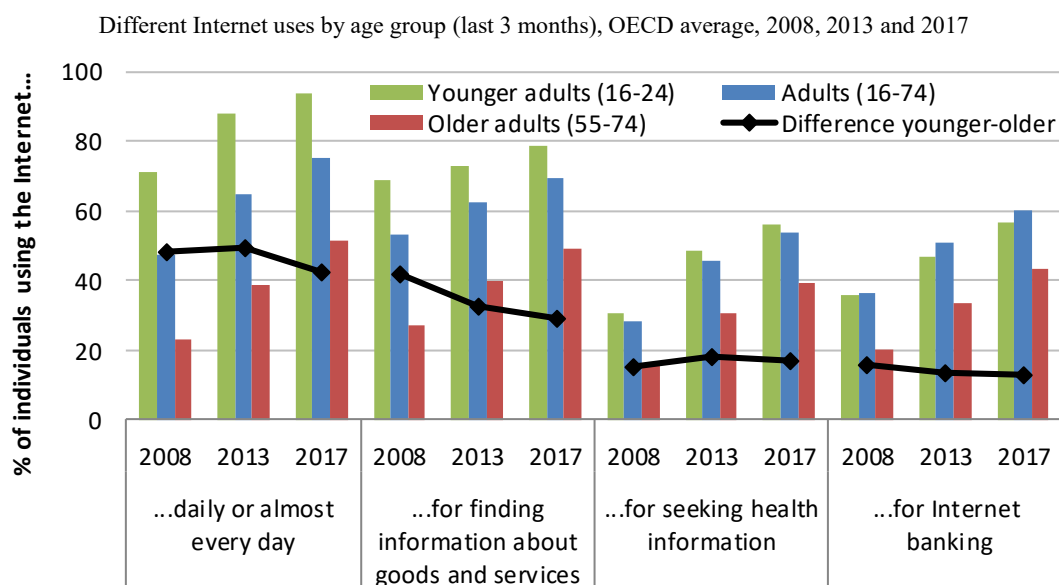
And education?

- The “silver” economy requires a workforce sensitive to the needs of its consumers. Will there be substantial changes in skill demand linked to the rise of silver markets? What would this mean for education provision?
- More active seniors could mean new demands for education and skill retraining. What would this mean for formal and informal education? Work? More senior internships, perhaps?
- How can our societies better accommodate the growing learning needs of all age groups? Should existing institutions be radically re-purposed? Teaching and learning methods redefined? Facilities reimagined?

THE DIGITAL AGE(S)

The Internet is used today in many different aspects of our daily lives, from shopping and connecting with friends and family to managing household finances and informing our health decisions. Digital engagement is growing across all age groups, reducing concerns about older populations being excluded due to lower participation rates. Yet, spending more time online comes with a higher exposure to digital risks, and senior citizens are the most vulnerable group. How can education support older adults in accessing the benefits of digitalisation while lowering its associated risks? Furthermore, how can individuals of all ages better prepare to cope with the fast pace of technological change?

Figure 4.9. Going digital



Note: OECD average is based on data for 26 OECD countries (see StatLink for full information).

Source: OECD (2018), *ICT Access and Usage by Households and Individuals* (database), <https://stats.oecd.org/>.

StatLink  <https://doi.org/10.1787/888933888963>

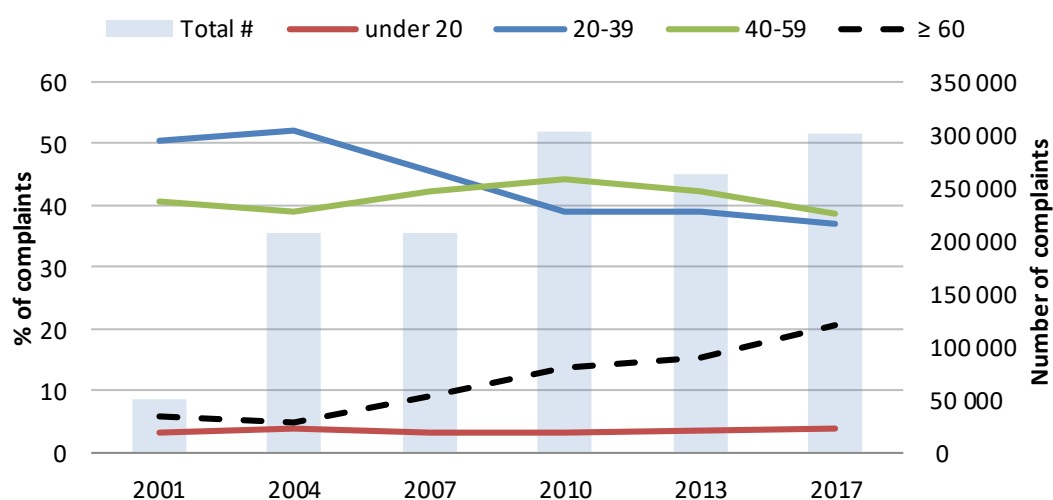
Three out of four Internet users (16-74 years old) used the Internet daily or almost every day in 2017. Their purposes were diverse: connecting with friends and social networks, looking up information, and accessing a variety of services online, such as Internet banking. Digital engagement is generally higher for younger adults than for older ones, although the differences between age groups are less pronounced today than they were 10 years ago. Twice as many adults aged 55-74 used the Internet daily or almost in 2017 compared to 2008, and the difference between this age group and the youngest one (16-24) decreased by seven percentage points.

Digital opportunities come with threats. Online fraud, for example identity theft, loan collection hoaxes and suspicious offers of access to fortune in exchange for personal

bank details, is a serious concern. The numbers and types of reported online fraud are constantly evolving. While everyone is vulnerable, it can be especially worrisome for older citizens, who might not always feel as confident as youngsters in their digital skills. In 2001, individuals aged over 60 years of age represented less than 6% of the complainants to the FBI's Internet Crime Center; by 2017, this had grown to almost 20%. Helping the oldest members of society detect potential fraud and protect themselves is especially important, given the constant and rapid pace of change of technology. For all ages, permanent vigilance, caution, and educating oneself and others are essential. It is also important to report experiences of fraud to the appropriate authorities so that the types, volume and strategies of Internet fraud can be monitored and dealt with appropriately.

Figure 4.10. Digital crime

Internet fraud complaints, total number (right axis) and percentage by age group (left axis), 2001-2017



Note: Complaint data are derived from United States figures but the Internet crime may originate anywhere in the world.

Source: IC3 (2017), "Internet Crime Report" series 2001-2017, www.ic3.gov/media/annualreports.aspx.

StatLink  <https://doi.org/10.1787/88893388982>

And education?

- How can formal and informal education help bridge gaps in ICT use, skills and attitudes across different age groups? Is there a role for intergenerational learning in this process?
- Vocational education and training and adult education providers prepare many of the current and future workers in society. Are they using state-of-the-art technology? If not, what is the best way to change this?
- Given the speed of technological change, the most effective protection against cyber risks often comes from the private sector. Are education systems able to partner with these actors in mutually beneficial ways?

AGEING SOCIETIES AND EDUCATION: MOVING FORWARD

What are some of the ways ageing trends interact with education, and how can education affect these trends? Some answers are obvious and immediate, for example, the impact of dementia, and conversely, the need for further research on brain diseases. Others possess an importance in the longer term, for example increasing life expectancy at birth and the time spent in retirement.

Connecting education and ageing

Lifelong learning

- Fostering public and private initiatives to reskill and upskill individuals throughout their working lives
- Ensuring all age groups have access to education that covers their learning and life needs, including health, financial and digital literacy skills
- Promoting continuous professional development of teachers and school leaders via in-job training and peer learning (e.g. peer evaluation, professional networks)

Social and emotional well-being

- Teaching and learning about emotions and social skills for all ages
- Providing targeted initial teacher education and continuous professional learning that addresses holistic well-being of children and adults
- Combating loneliness and isolation and challenging prejudices and age discrimination

Physical health and lifestyles

- Addressing obesity, smoking, sleep deprivation and other public health concerns through collaboration between local education institutions and healthcare providers
- Offering education and training in caring for fragile elders and other expanding job markets
- Supporting excellence in medical research and science

Intergenerational contact and learning

- Partnering with local actors to engage students of all ages in addressing community needs through service and volunteering
- Developing formal partnerships as well as informal opportunities to share the wisdom of older generations (e.g. grandparents in the classroom)
- Supporting innovative learning arrangements within schools and communities, such as one-to-one tutoring, mentoring programmes, digital skills and resilience for the elderly

Future thinking: preparing for uncertainty

Despite the best laid plans, the future is inherently unpredictable. This section explores some examples of uncertainties surrounding the trends discussed in this chapter.



SHOCKS & SURPRISES

Supercentenarians?

- A series of medical breakthroughs could occur in coming years, allowing a dramatic rise in life expectancy far beyond the steady increases we have seen recently. The result could be far greater numbers of people reaching their 110th birthday, so-called supercentenarians.
- *Is education ready for a dramatic demographic shift, with increasingly larger numbers of students of all ages? What does 110 years mean for lifelong learning?*



CONTRADICTIONS

Not so old before we die?

- People are increasingly likely to live to a grand old age. Nevertheless, the process of ageing may make a person so frail that they are no longer able to live well. People disagree about whether and when it is biologically and morally desirable to keep people alive in spite of poor quality of life. If these dilemmas become much more commonplace, it may lead to policy changes like easier access to euthanasia.
- *Should education provide a context in which to discuss potential future ethical debates before they become widespread concerns in society?*



DISCONTINUITIES

Ageing: a cognitive win-win?

- Many researchers and medical professionals work on cures for dementia and other cognitive declines associated with ageing. If they are more successful than expected, to what extent would this enhance the mental capabilities of our elders? Could such breakthroughs combine with the experience of years to result in superhuman or at least much improved cognitive abilities throughout our lives?
- *What could be the role of lifelong learning in helping highly active senior generations meet the challenges and opportunities of a fast-changing world?*



COMPLEXITY

Are friends the new families?

- More people live in cities and housing prices are rising quickly. At the same time, fewer people marry nowadays. Could cohabiting, quite common among youth, extend to all segments of the population? Is this a potential cure for loneliness?
- *How would education support such a change, and how could it help all ages make the most of the benefits? What impacts could this have on children's education, for example, in terms of establishing the names of guardians permitted to escort young children and make important decisions on their behalf?*

FIND OUT MORE

Relevant sources

- Eurofound (2016), “Extending working lives through flexible retirement schemes: Partial retirement”, Publications Office of the European Union, Luxembourg, <https://publications.europa.eu/>.
- [IC3] US Internet Crime Complaint Center (2017), “Internet crime report” series 2001-2017, www.ic3.gov/media/annualreports.aspx.
- ILO (2018), *World Employment and Social Outlook: Trends 2018*, International Labour Office, Geneva, www.ilo.org/global/research/global-reports/weso/2018/lang--en/index.htm.
- OECD (2018), *Care Needed: Improving the Lives of People with Dementia*, OECD Health Policy Studies, OECD Publishing, Paris, <https://doi.org/10.1787/9789264085107-en>.
- OECD (2018), *ICT Access and Usage by Households and Individuals* (database), <https://stats.oecd.org/> (Accessed 25 April 2018).
- OECD (2017), *Health at a Glance 2017: OECD Indicators*, OECD Publishing, Paris, http://dx.doi.org/10.1787/health_glance-2017-en.
- OECD (2017), *Pensions at a Glance 2017: OECD and G20 Indicators*, OECD Publishing, Paris, https://doi.org/10.1787/pension_glance-2017-en.
- OECD (2017), *Preventing Ageing Unequally*, OECD Publishing, Paris, <https://doi.org/10.1787/9789264279087-en>.
- OECD (2016), “OECD Older Worker Scoreboard 2016”, www.oecd.org/els/emp/older-workers-scoreboard-2016.xlsx.
- OECD (2015), *Addressing Dementia: The OECD Response*, OECD Health Policy Studies, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264231726-en>.
- Varnai P., et al. (2018), “The Silver Economy”, European Commission, Technopolis and Oxford Economics, Publications Office of the European Union, Luxembourg, <https://publications.europa.eu/>.
- United Nations (2018), *World Population Prospects: The 2017 revision* (database), United Nations, Department of Economic and Social Affairs, Population Division, <https://esa.un.org/unpd/wpp/> (accessed 15 October 2018).
- WHO (2018), *Global Health Observatory* (database), www.who.int/gho/en/ (accessed 11 September 2018).
- WHO (2015), *World Report on Ageing and Health*, World Health Organisation, Geneva, www.who.int/.

Glossary

- **Communicable diseases:** Diseases transmissible from one person to another. Either by direct contact with an affected person or indirect, e.g. via a medium such as air, water, blood or an insect bite.
- **Dementia:** A group of symptoms reducing a person's ability to do everyday activities. Associated symptoms are a decrease in the ability to think and remember and difficulties with language, motivation as well as emotional problems.
- **Depression:** Medical illness negatively affecting the way people feel, think and act. Symptoms often include feelings of sadness and a loss of interest in activities, changes in appetite and sleeping patterns as well as increased fatigue.
- **Diabetes:** Disease affecting one's ability to produce insulin. Insulin is a hormone necessary for the transport of glucose, i.e. sugar, within the body. Type 1 diabetes describes the inability of the pancreas to produce insulin, whereas Type 2 diabetes refers to an insufficient production or the inability of cells to use insulin properly, also referred to as insulin resistance.
- **Flexible or partial retirement:** Ability to draw a pension benefit – full or partial – while continuing in paid work, often with reduced working hours. This is also known as “gradual”, “phased” or “partial” retirement.
- **Health-adjusted life expectancy:** The number of years that people can expect to live in “full health” by taking into account years lived in less than full health due to disease and/or injury.
- **Household:** One person or a group of persons living in one dwelling on a permanent basis most of the week, and having a common expense budget for food. A household may include people who are not a family.
- **Identity theft:** A deliberate use of another person's name and identification, usually to benefit financially (for example to buy goods and services or acquire other benefits in the other person's name).
- **Life expectancy at birth:** Average number of years a newborn could expect to live if mortality patterns at the time of birth remain constant in the future.
- **Mobile health or mHealth:** The use of mobile and wireless devices to improve health outcomes, healthcare services and health research.
- **Progressive degenerative disorder:** A condition leading to deteriorating cell changes associated with a progressive loss of functions.



From:
Trends Shaping Education 2019

Access the complete publication at:
https://doi.org/10.1787/trends_edu-2019-en

Please cite this chapter as:

OECD (2019), "Living longer, living better", in *Trends Shaping Education 2019*, OECD Publishing, Paris.

DOI: https://doi.org/10.1787/trends_edu-2019-7-en

This document, as well as any data and map included herein, are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area. Extracts from publications may be subject to additional disclaimers, which are set out in the complete version of the publication, available at the link provided.

The use of this work, whether digital or print, is governed by the Terms and Conditions to be found at <http://www.oecd.org/termsandconditions>.