

EDITED BY PATRICK LOVE

AGEING: DEBATE THE ISSUES



OECD Insights

Ageing

Debate the Issues

Edited by Patrick Love



This work is published under the responsibility of the Secretary-General of the OECD. The opinions expressed and arguments employed herein do not necessarily reflect the official views of OECD member countries.

This document and any 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.

Please cite this publication as:

OECD (2015), Ageing: Debate the Issues, OECD Insights, OECD Publishing, Paris. http://dx.doi.org/10.1787/9789264242654-en

ISBN 978-92-64-20660-1 (print) ISBN 978-92-64-24265-4 (PDF)

Series: OECD Insights ISSN 1993-6745 (print) ISSN 1993-6753 (online)

Corrigenda to OECD publications may be found on line at: www.oecd.org/about/publishing/ corrigenda.htm.

© OECD 2015

You can copy, download or print OECD content for your own use, and you can include excerpts from OECD publications, databases and multimedia products in your own documents, presentations, blogs, websites and teaching materials, provided that suitable acknowledgement of OECD as source and copyright owner is given. All requests for public or commercial use and translation rights should be submitted to rights@oecd.org. Requests for permission to photocopy portions of this material for public or commercial use shall be addressed directly to the Copyright Clearance Center (CCC) at info@copyright.com or the Centre français d'exploitation du droit de copie (CFC) at contact@cfcopies.com.

OECD Insights: Debate the Issues

OECD Insights are a series of reader-friendly books that use OECD analysis and data to introduce some of today's most pressing social and economic issues. They are written for the non-specialist reader, including interested laypeople, older high-school students and undergraduates. The books use straightforward language, avoid technical terms, and illustrate theory with real-world examples.

The OECD Insights: Debate the Issues series brings together a selection of articles from the OECD Insights blog (http://oecdinsights.org/) on major social and economic issues. Experts from inside the OECD and outside the Organisation present data, analysis and their personal views of the implications of these for our societies and policy making.

The collection on ageing follows a discussion at the 2014 OECD Forum IdeaFactory "A New Age" (*www.oecd.org/forum/about/ ideafactory.htm*). That discussion examined the consequences for pensions and health care, but also the implications of ageing with regard to migration, balancing family and working life and emerging business opportunities to respond to the needs of the elderly.

You can take part in the debate by sending us your comments on the articles on the Insights blog.

Table of contents

Introduction	7
Ageing in numbers	13
The new demography of death by Dr George W. Leeson	15
The future of development is ageing	21
Senescence in the Cityby Patrick Love	25
Health systems are still not prepared for an ageing population by Francesca Colombo	29
When you are old and grey and full of sleepby Patrick Love	33
Using big data in the fight against dementia	37
Smarter, greener, healthier and more productive: The new old	43
Work longer for a healthy economy and a happy home by Patrick Love	49
Ageing and pensions by Pablo Antolín-Nicolás	53
How can capital markets serve pension systems in the European Union? by Markus Schuller	59
No old person left behind? by Monika Queisser	65
How's life in old age? by Justin Dupre-Harbord	69

Introduction

Our societies are ageing

The Aeon Mall in the Japanese city of Funabashi offers pretty much everything you'd want in a mall – groceries, clothes, electronics and more. But it has a few extras, too – large-print signs, clinics offering diabetes tests, 5% discounts on pension day, slow-moving escalators, same-day deliveries of bifocal spectacles.

If you haven't guessed already, this is a mall with a mission – to sell to the elderly. Why? "These are the wealthiest, most active, healthiest and longest-living retirement generation in the history of the world", Aeon's Jerry Black told the *Financial Times*.

Welcome to your future...

Across the world, societies are ageing – there are fewer younger people and more older people. The numbers are striking: In Japan in 1963 only around 1 in 16 people was aged 65 or over; a half century later, in 2013, the proportion was 1 in 4. Over the same period, Italy saw its elderly population double from less than 1 in 10 to more than 1 in 5. These countries are not alone: Today, there are over 900 million people in the world over the age of 60. By 2050, that number is forecast to rise to 2.4 billion.

The ageing of our societies is a slow and gradual process and not one most of us really notice. But make no mistake, we will all feel its impact. This edition of OECD Insights: Debate the Issues examines how this great demographic shift will be felt in almost every aspect of our lives – in jobs, in healthcare, in pensions and personal finances, in economic growth, in transport and in rich countries and developing countries.

We're having fewer children...

There are two main reasons why our societies are ageing – fewer children are being born and people are living longer.

Birth rates have been falling across much of the world in recent years, and OECD countries are no exception. In 1970, the average woman in an OECD country had 2.7 children in her lifetime. Today, the figure is around 1.7. That number is significant because it now means that in all but one OECD country (Israel), birth rates have dipped below the replacement rate of 2.1 children that's needed to maintain a stable population size (excluding any impact from migration).

Birth rates are falling for numerous reasons – people are marrying later; women are waiting until they're older to start having children; and families are opting to have fewer children. All this, in turn, reflect broader social trends, in particular the fact that women in developed countries now typically match – and sometimes exceed – men when it comes to education and are making fast strides in the workforce. Other factors can also play a role, including the availability of childcare, the chances of well-paid work and whether or not families can find affordable housing.

Falling birth rates are not just a feature of life in rich countries – they're evident in many developing countries, too. In India in 1970, the average woman had 5.5 children; by 2012, this was down to 2.5 children. The reasons for these declines can mirror those found in developed countries, but other factors also play a part. These include the decline of subsistence agriculture, where a family's chances of survival can depend on having enough hands to work the fields. Some academics also argue that TV has played a role: Popular soap operas, they believe, may popularise a "modern" image of the family, where women work and are more involved in making decisions.

INTRODUCTION

... and we're living longer

The second key reason why our societies are ageing is simply that more of us are living for longer.

Average life expectancy at birth in Japan is now just over 83 years, rising to just over 86 for women (who live longer than men on average). Japan is a world leader in longevity, but it's by no means exceptional – in well over half of OECD countries, life expectancy is now above 80. The improvement over the past half century is striking. In 1960, Japanese average life expectancy was just over 68 years.

Look further back and the rise in life expectancies is even more striking. In France, for example, it's estimated that a child born in the middle of the 18th century could expect to live to only the age of 25. By the start of the 21st century, she could expect to live to over 80. However, it's easy to misread these figures. Even back in the 18th century, many people would have lived well into their 60s and even 70s. The reason the average figure is so low is that very high numbers of children died in birth or in the first five years of their life.

Indeed, much of the major rise in life expectancy in the early and middle 20th century in wealthy countries reflected the fact that more and more children were surviving birth and living into adulthood. But that wasn't – and isn't – the only factor in rising longevity. Major improvements in nutrition and access to clean water as well as in healthcare, such as mass vaccination, now mean that many people alive today can expect to live well into their 90s, and even beyond.

Ageing means we may need to work for longer...

There's much to be said for people living longer. For individuals, it offers the prospect of pursuing multiple careers followed by a long retirement with time to travel, opportunities to pursue pastimes, and more time with the grandkids. Societies benefit, too: Many older people are willing volunteers and can also be a great resource for their families, offering wise advice, stability – and free childcare. And they contribute to the economy, both as workers and consumers – according to one estimate, the over-50s account for over 60% of consumer spending in the United States.

But there are downsides. Even though more elderly people are continuing to work past 65, the coming decades will still see a significant shift in "dependency ratios", the balance between people of working age and people of non-working age – i.e. young people and, increasingly, retirees. For example, in Spain in 2010, there were about two workers for every dependent person; by 2050, the OECD forecasts that the ratio will fall to one for one. Similar trends are forecast for all OECD countries and many emerging economies.

That shift has implications for the funding of pensions and our own personal finances. It's also likely to create intergenerational stresses. These will be felt at the family level – who will care for grandma? – and across societies: If a shrinking workforce is supporting a growing elderly population, will there be enough left to invest in young people?

In response, many governments are raising the retirement age. Some countries have room for manoeuvre to encourage more people to work longer. For example, between the age of 25 and 54, roughly equal numbers of people are working in Japan and France – about 8 out of 10 people. But above the age of 55, a sharp gap emerges: In Japan, just under 7 out of 10 are still working, but in France the proportion falls to below 5 out of 10.

... and may raise health spending.

Even if they may complain of occasional aches and pains, around 2 out of 5 older people in OECD countries (65 and over) report being in good health, a proportion that rises to an impressive 4 out of 5 in New Zealand. Still, there's no doubt that as people age, health problems loom larger. According to data from Europe, while women at the age of 65 can on average expect to live around another 20 years, only around half of that period will be lived in good health.

In the coming decades, the impact of this will be at least partly reflected in rising healthcare costs. Spending on health is already substantial in OECD countries, accounting for at least 8% of GDP in most countries and rising to almost double that in the United States. Spending has been rising steadily in recent decades and is likely to continue growing.

Of course, ageing will be only one factor in driving up health costs. Costly new medical technologies and the spread of lifestyle diseases like diabetes will also play a role. Still, ageing, and associated conditions like Alzheimer's, will certainly add to the burden of funding healthcare and long-term care. The challenges go beyond funding – health systems will need to be rethought to better serve the needs of an ageing population, focusing more on treatment of chronic conditions rather than medical emergencies.

But there will be a powerful upside to health spending, too. Thanks to new forms of treatment, more and more older people will continue to lead active lives well into their 70s and beyond. Innovations in other areas, including transport, will also go some way to ensuring that population ageing is not just a challenge but also an opportunity.

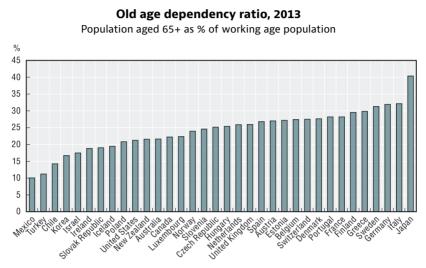
References

- Cohen, N. (2014), "The Silver Economy: Healthier and wealthier", The Financial Times, www.ft.com/cms/s/2/08bff556-52c7-11e4-a236-00144feab7de.html#slide0.
- Economist, The (2009), "Falling fertility: Astonishing falls in the fertility rate are bringing with them big benefits", The Economist, www.economist.com/node/14744915.

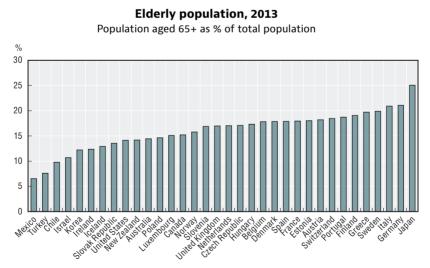
- INED (2006), "Life expectancy in France", Graph of the month [sic], Institut national d'études démographiques, No. 5, www.ined.fr/en/ everything_about_population/data/france/deaths-causes-mortality/lifeexpectancy/.
- Japan Times, The (2012), "Aeon opens mall geared toward seniors", The Japan Times, www.japantimes.co.jp/news/2012/04/26/business/aeonopens-mall-geared-toward-seniors/.
- Jensen, R. and E. Oster (2009), "The power of TV: Cable television and women's status in India", The Quarterly Journal of Economics, Vol. 124/3, President and Fellows of Harvard College and the Massachusetts Institute of Technology, pp. 1057-1094.
- Lucas, L. (2012), "Retailers target grey spending power", The Financial Times, 14 August.
- OECD (2014), "Fertility", in OECD Factbook 2014: Economic, Environmental and Social Statistics, OECD Publishing, Paris, http://dx.doi.org/10.1787/ factbook-2014-en.
- OECD (2014), "Ageing (Un)equally?", OECD Forum 2014, Paris, www.oecd.org/ forum/.
- OECD (2014), OECD Factbook 2014: Economic, Environmental and Social Statistics, OECD Publishing, Paris, http://dx.doi.org/10.1787/factbook-2014-en.
- OECD (2013), "Dependent population", in OECD Factbook 2013: Economic, Environmental and Social Statistics, OECD Publishing, Paris, http:// dx.doi.org/10.1787/factbook-2013-en.
- OECD (2013), Health at a Glance 2013: OECD Indicators, OECD Publishing, Paris, http://dx.doi.org/10.1787/health_glance-2013-en.
- OECD (2013), "What Future for Health Spending?", OECD Economics Department Policy Notes, No. 19, OECD, Paris, www.oecd.org/eco/growth/ aaaaaawhatfuture.pdf.
- OECD (2006), Live Longer, Work Longer, Ageing and Employment Policies, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264035881-en.

See also: OECD work on elderly populations, http://data.oecd.org.

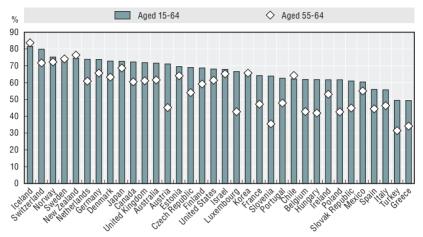
Ageing in numbers



Source: OECD (2014), Labour Force Statistics: Summary tables, OECD Employment and Labour Market Statistics (database), http://dx.doi.org/10.1787/data-00286-en.

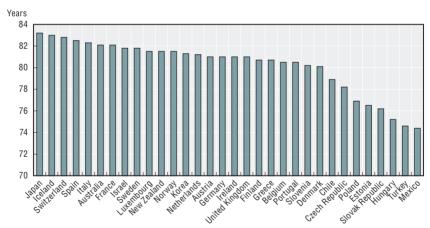


Source: OECD (2014), Labour Force Statistics: Summary tables, OECD Employment and Labour Market Statistics (database), http://dx.doi.org/10.1787/data-00286-en.



Employment rates of older workers and of prime age workers, 2014

Source: OECD (2015), Labour market statistics, Main Economic Indicators (database), http:// dx.doi.org/10.1787/data-00046-en.



Life expectancy at birth, 2012

Source: OECD (2015), Life expectancy at birth (indicator), http://dx.doi.org/10.1787/27e0fc9d-en.

The new demography of death

by

Dr George W. Leeson, Oxford Institute of Population Ageing (OIPA)

In Europe, population ageing continues and brings with it increasing numbers of centenarians and supercentenarians as well as a new demography of death. In the mid-19th century, European populations were young and short-lived with high levels of infant mortality. More than half of the almost 370 000 deaths in England and Wales in 1850 would have occurred among people aged less than 60 years. By the early 21st century, these same populations have become old and long-lived, and almost 90% of the deaths in England and Wales now occur among people aged over 60 years.

Of course, the absolute number of deaths as a demographic measure is not a helpful measure, but in this context we are considering mortality in simple absolute terms to reveal the changing composition of the demography of death behind the story of improving survivorship which is a part of population ageing. In the middle of the 19th century, the absolute number of deaths per year in England and Wales was increasing from around 350 000 to around 600 000 by the end of the 19th century. The number peaked in 1918 at just over 610 000, after which deaths in absolute terms declined to around 440 000.

An element of the dramatic changes in the structural development of death and the demography of death was the decline in infant mortality in England and Wales throughout the 20th century. At the turn of the 20th century, infant mortality had been as high as 154 deaths under 1 year per 1 000 live births. This rate has been halving every 25 years roughly except for the period from 1975 to 1990, where the halving time decreased to around 15 years, returning thereafter to be on track for 25 years halving again, ending at just 4.4 deaths under 1 year per 1 000 live births in 2011.

Declines in mortality among the extreme aged have been striking. One hundred and seventy years have seen late-life life expectancy increase by just over 7 years for males and almost 9 years for females – something of an achievement given the previous conviction that mortality at older ages was intractable.

Population ageing is often equated with an increasing number and proportion of frail, dependent older people who become an increasing burden on society and family. The numbers themselves are a warning that societies need to change with the changing demography. One consequence of the numbers change is the new demography of death. Mortality at advanced ages is being delayed and although the future remains difficult to predict, there does seem to be an increasing body of evidence that around the world lives will continue to be extended for some time to come. By the turn of the next century, life expectancies at birth are predicted to be 93 years for males and 95.6 years for females in England and Wales, while at age 65 years, life expectancies are expected to be 29.9 years for males and 31.1 years for females.

The number of people aged 100 years and over in England and Wales increased from less than 200 in 1922 to 570 in 1961. By 1981, this number had climbed to 2 418 and to 12 318 in 2012 and by the middle of the century the number is expected to be close to 300 000 and more than 1 million by 2100.

So more people are living longer and the longest lived are living longer too.

What then of the future and the new demography of death?

The development of this demography of death over 200 year period from the mid-19th to the mid-21st century is striking. The total number of deaths in England and Wales increases from 342 760 in 1838, when 50% of a cohort was dead by age 45 years, to almost twice that number, 666 253 in 2050, when 50% of a cohort will be surviving to age 90 years.

It is the structure of this new demography of death that is interesting.

Since 1959, death has been dominated by deaths of people aged 60 years and over and this domination has increased, and will continue to increase, at least until the middle of this century. In 1959, 78% of deaths were people aged 60 years and over. This had increased to 88% by 2009 and is predicted to reach 94% by 2050. And in line with the ageing of the population of England and Wales, the proportion of the 60-plus deaths aged 80 years and over has also increased and continues to increase from 34% in 1959 to 60% in 2009 and 78% in 2050.

While this is in all respects a natural consequence of the ongoing demographic development in England and Wales and similar developed economies, there remains the question: are we prepared for this new demography death, its scale and structure, as individuals, families, communities, and societies?

The ageing of European populations in the latter part of the 20th century was a demographic surprise brought about by a combination of demographic resistance to dismissing the idea of a limit to human longevity and the creeping decline in mid- and late-life mortality as the prevention and treatment of, for example, heart disease improved. Experience proved we had pushed old age into our 80s. The future could be an equal demographic surprise if we ignore the evidence of the new demography of death, which also would suggest that the lives of more and more people will continue to be extended and centenarians and supercentenarians would comprise an increasing number and proportion of our populations.

The new demography of death is also a 21st century challenge for the emerging economies of the world, where life expectancies continue to increase. However, these economies are challenged additionally by the speed of their fertility transitions, which in many instances are occurring in one or at most two generations.

How could/should we begin to prepare ourselves for this new demography of death?

It is clearly a challenge to longstanding concepts of old age and retirement – indeed one could ask whether retirement even at age 75 years is sustainable. Family dynamics will be challenged by the survival of extreme aged generations delaying intergenerational succession and depending on smaller families for support in frail and dependent old age. The additional and confounding prospect of declining population size raises different issues as the workforce contracts. This would lead to policy discussions about controlled labour immigration, perhaps, to compensate for the declining local workforce.

Buried in this demography of death is, however, a success story of survival. Let us not be dismayed by that but let us begin to discuss what it means.

Useful links

- Original article: Leeson, G.W. (2015), "The new demography of death", OECD Insights blog, http://wp.me/p2v6oD-20N.
- Saito, K. (2014), "Solving the super-ageing", OECD Forum 2014, OECD, Paris, www.oecd.org/forum/.

The future of development is ageing

by

Ken Bluestone, Political and Policy Adviser for Age International, a charitable subsidiary of Age UK and a member of the Help Age global network Two themes that resonate strongly across the OECD are the need to achieve sustainable development and the growing significance of population ageing. It is rare, however, that these two agendas are brought together to consider the importance of ageing for developing countries.

It is all the more surprising given that population ageing is a global phenomenon acutely affecting developing countries. The numbers speak for themselves: in 2014, there were 868 million people over the age of 60 in the world – 12% of the total population. By 2030, this will increase to 1.2 billion or 16% of the population; and looking ahead to 2050, current estimates suggest there will be 2.03 billion older people worldwide – 21% of the population. By 2047, there will be more adults over the age of 60 than children 16 and under for the first time in human history.

This is a reality for developing countries today: 62% of people aged 60 and over live in developing countries and this is expected to increase to 80% by 2050. What is more important is the pace of the change taking place in lower and middle-income countries. The demographic landscape is changing radically in many parts of Asia and Latin America, offering little time for governments in these countries to adapt. Even in sub-Saharan Africa, given the trends of increased longevity and economic development, it should be fully expected that the "youth bulge" will become an "older person bulge" within a few short generations.

So what does this mean for efforts to tackle poverty, inequality and climate change? At its simplest, we need to be asking ourselves the question: does our understanding of development include older people? Not taking older people into account means excluding up to 20% of the world's population. In this regard, the post-2015 sustainable development goal (SDG) agenda marks a turning point in recognising ageing and older people as part of the development process. The SDG negotiations have already made it clear that addressing the rights and needs of older people is integral to the ambition of "leave no one behind". At a deeper level, it forces us to reconsider basic assumptions of what it means to be productive in society and what the role of older people is. All too often policy makers, planners and development practitioners assume that life takes place in three stages: childhood (dependency); adulthood (productivity); later life (dependency). This simplistic understanding could not be further from the truth and masks a huge diversity of economic activity and social interactions at all stages of life.

Hidden from view is the contribution grandparents who have pensions make to improving children's education and nutrition. There is no calculation that captures the economic value of an older nurse that provides healthcare services on a voluntary basis in her community, having already been identified as "retired" and "non-productive". There are no figures that adequately value care and support by and for people of all ages in lower and middleincome countries.

In the context of achieving the soon to be agreed SDG framework, the promise of a "data revolution" and the commitments to disaggregating data by age offer some hope that this situation can change. But any analysis must capture data at all stages of a person's life. Without a better understanding of ageing and development, we risk investing in development and building programmes that do not know where poverty and inequality lie. Disaggregating data by age, gender and disability is not an expensive add-on to the SDG framework, but is the very bedrock upon which effective decisions can be made and must be invested in.

Another critical lesson that the "leave no-one behind" agenda provides is that the essential building blocks for building sustainable, peaceful and equitable societies are the very individuals within those communities. Without a better understanding of ageing and development, we fail to capture adequately the potential of individuals of all ages and abilities within society. Living in better health longer allows older people to contribute more to building resilience in disaster-prone areas. Having access to finance can mean better income and nutrition for older farmers and their families. Getting appropriate healthcare for grandparents can mean children spending more time in education. Ageing is a development fact. There should be no value judgement attached to this statement or to a person's chronological age, whether they are young or old. Older people are carers, teachers, farmers, athletes, market traders, labourers, professionals, and Nobel laureates. Older people can also be frail and living with chronic illness, dementia or disability. The important thing is that we do not keep ageing hidden from view. We also need to have the courage to challenge our preconceptions of what getting older means to enable policies to emerge that are fit for purpose for our rapidly ageing societies.

Useful links

- Original article: Bluestone, K. (2015), "The future of development is ageing", OECD Insights blog, http://wp.me/p2v6oD-23K.
- Age International (2014), Facing the facts: The truth about ageing and development, HelpAge International UK, London, www.ageinternational.org.uk/Documents/Age%20International%20Facing %20the%20facts%20report.pdf.
- HelpAge (2015). The Disaster Risk and Age Index, HelpAge International UK, London, www.helpage.org/what-we-do/climate-change/disaster-riskand-age-index/.
- See also: OECD work on inclusive societies and development, www.oecd.org/development.

Senescence in the city

by Patrick Love, OECD Public Affairs and Communications Directorate Anecdote suggests there are loads of grumpy old men and women around. A new, evidence-based report from the OECD offers some clues as to why this should be. The media are full of articles about the best places to retire to, and the typical result is a small town in a largely rural county, near the sea and maybe a golf course. The reality, according to Ageing in Cities, is that nearly half of the over-65s in the OECD area live in cities. Compare that with surveys such as one by the UK travel group Saga in 2009 that found that the farther people lived from big cities, the happier they were. Just 0.5% of the 14 000 over-50s polled thought London was a desirable place to live.

Some old people are retiring to the countryside, but the trend is for the older urban population to grow, presumably due to ageing rather than migration from outlying areas. Japan is usually the top of the table in any list concerning ageing, but this time it's just behind Italy for older people as a share of the core metropolitan population, at just over and just under 22%, respectively. For areas away from the centre though, the "hinterland", Japan is at least five percentage points ahead of the rest, at 25%.

Even within a given metropolitan area, there can be wide discrepancies. When the babyboomers were starting their families, they favoured residential suburbs built in the 60s and 70s to offer cheap housing. Those young families have now grown up and the children have often tended to migrate towards city centres, rejuvenating the population and bringing a new dynamism to the economy. This is only one example of the upside of the demographic trends we're seeing in urban areas.

Ageing in Cities lists various other "opportunities" in ageing societies of particular relevance to metropolitan areas. The housing and construction sectors for instance could be boosted by the need to remodel homes to meet the needs of the elderly. The current and future generations of older people are healthier than previous ones, and likely to live many healthy years in retirement. Their abilities and experience could be useful in voluntary activities ranging from helping children with their homework to passing on high-level skills and knowledge. There are a number of problems (or "challenges" if you prefer) that could get worse though. For instance, increasing centralisation of services could leave many old people with inadequate access to health care, shops and social activities if transport planning does not take their needs into account. There could be social and political tensions around how to spend municipal budgets.

The priorities for policy makers will depend to a large extent on the stage of the demographic transition their city is going through: ageing cities with slow population growth where the share of the older population will eventually decline; young cities that are rapidly ageing; or young cities that are ageing slowly. Whatever the case, the report argues that a number of policy strategies can be useful. Outlawing the music, clothes, hairstyles and pastimes young people like would be an obvious first step for many old people, and that may be how they interpret "Visions for ageing societies should not exclusively target the older population".

The OECD, however, is not advocating a Bieber-ban. It proposes using a number of indicators (on health, housing, transport, employment, etc.) that will help citizens, their representatives and public employees to understand the demographic shifts and decide how best to deal with them, or better still, anticipate them.

Ageing in Cities is full of interesting examples of what different places are actually doing already. The Yokohama Walking Point Programme for instance encourages people of all ages to improve their health by walking more using the "frequent flyer" model of airlines: the more you walk, the more points you get and these can be converted into discounts at local shops.

A change of attitude towards old people, and even what "old" means, is central to many of the policies discussed. It's customary to bemoan the lack of respect for older generations, but as the French historian Philippe Ariès pointed out, this has changed over time. From the Middle Ages until the end of the 17th century, the old were held in contempt. At best, they were expected to "retire" into a life of contemplation and study, and if possible, die quickly so their eldest son could take over (and not have to kill them). If they didn't, they were like Molière's "barbons" (greybeards), old men in their 40s

ridiculed for not knowing when to quit. That changed in the 18th century when the classical Greek and Roman ideas of noble elders became fashionable again, to the extent that cheap American engravings of the time showed Christ as a white-haired oldie.

The largely positive associations persisted throughout the following century, even if there was still a strong negative undertone. The 20th century would see another major shift, with the growing popularity of retirement homes (and even communities) and other means of hiding the old and separating them from the rest of society.

It's interesting to see a return to the 17th century ideal in some of the OECD proposals. It doesn't actually call for a life of study, but it cites Lisbon's Senior University where "senior" volunteers offer lectures to anybody aged over 50. It calls even less for a life of quiet contemplation, since the goal of such initiatives, like that of the Rakuno School in Toyama, Japan, is to increase the employability of older people, keep them socially active, but also to make them as light a burden on society as possible.

Useful links

- Original article: Love, P. (2015), "Senescence in the City", OECD Insights blog, http://wp.me/p2v6oD-24d.
- Ariès, P. (1983), "Une histoire de la vieillesse ?", Communications, Vol. 37, pp. 47-54.
- OECD (2015), Ageing in Cities, OECD Publishing, Paris, http://dx.doi.org/ 10.1787/9789264231160-en.
- See also: Sustainable Urban Development Policies in Ageing Societies, www.oecd.org/governance.

Health systems are still not prepared for an ageing population

by Francesca Colombo, OECD Employment, Labour and Social Affairs Directorate That population is ageing across the world is well known. As fertility rates drop and life expectancy improves, a bigger share of the population is greying. At least one in four people will be aged over 65 by 2050 in about two-thirds of OECD countries. The share of those aged over 80 years will more than double, from 4% in 2010 to 10% in 2050. In Japan, Spain and Germany, this trend will be even more pronounced, with the proportion of the over-80s expected to triple, rising from 5% to 15% in Spain and Germany, and from 6% to 16% in Japan. The speed of ageing will be even more dramatic in some emerging economies. China, for example has taken only 40 years to increase life expectancy from 40 to 70 years, something that took Germany 80 years.

Such a demographic shift has an impact on societies and economies. The size of the workforce will shrink, putting pressure on governments to reform labour markets, pension entitlements and retirement age thresholds, so that older people can remain productive and employed longer. We're already seen employment rates of older people improving over the past decade in many G20 countries. Rising education levels and skills will help more people work for longer periods of time, although differences in opportunities throughout individual life-course trajectories will affect their ability to remain fit for work as they grow older. The experience individuals gain through education and work will help to raise productivity and keep economies growing as populations age. In the face of the speed of population ageing, though, our health systems are still too slow at reforming and remain ill-prepared for the consequences of greying societies.

The health care delivery model prevailing today has not kept pace with the changing epidemiology and health needs of the population. The focus often remains on building new hospitals, buying expensive new equipment and upgrading acute service delivery structures. The management of care processes remains to a large extent focussed around episodic care needs. However, population ageing requires a different approach, involving a shift from acute, episodic and hospital centric care to the management of chronic conditions, the delivery of continuity of care across different care settings and providers, and a strong role for primary care professionals such as general practitioners. A main challenge will be the management of complex combinations on chronic conditions. In many OECD countries, more than half of individuals aged over 65 have more than one chronic condition, and from age 75, many people will have three or more. Health and social care systems are still grappling with how to manage the diversity and uniqueness of this complex combination of diseases and care needs in an effective way, in relation to how to organise care teams, how to identify the right measurement metrics, or how to equip health professionals with the skills they need to address changing population structures and epidemiological profiles.

A compelling example of how health systems struggle to respond adequately to the rising complexity of population ageing is dementia. Dementia affects a growing number of people worldwide - currently estimated at 47 million but expected to rise to 76 million by 2030. In the OECD, France, Italy, Switzerland, Spain, Sweden and Norway have the highest prevalence rate, with 6.3% to 6.5% of the population aged 60 years and over now estimated to live with dementia. For a person affected by dementia, the outlook is pretty grim. For a start, there is no cure as yet nor disease-modifying treatment. Several clinical trials have failed miserably in the past. There is hope that international processes - started with the G7 Summit in London in December 2013, continued with G7 Legacy Events during 2014 and ending with an international Health Ministerial Conference hosted by the WHO with the support of the UK government and the OECD in Geneva in March 2015 - will bear some fruit.

But beyond changing incentives for public investment in research and encouraging private investment to finding a cure, the lives of people living with dementia remains poor in most countries. This must change through training doctors and caregivers, and equipping them with better tools to assess the needs of people with dementia; facilitating improved care co-ordination, particularly across health and social care services; and encouraging a better focus on measuring outcomes for people with dementia (such as quality of life, safety of services and medical products, effectiveness and responsiveness), as well as for the many families and friends who look after people with dementia. OECD work has shown 10 basic features that would make a difference, ranging from minimising the risk developing dementia to unleashing the potential of technology to support people with dementia, and helping people die with dignity.

Underpinning some of the difficulties of health systems in addressing population ageing is a failure to understand and monitor adequately the care processes through the data we have today. In an era of "big data", health systems remain poor at using the massive amount of administrative, clinical, population-based, and biological data that are routinely generated from the millions of contacts individuals have with different parts of the health system. Most often, such contacts remain unrecorded; or records are paper-based, not standardised, nor shared across the care pathway. To improve care for old patients with complex care needs, we need these data to be stored and linked so as to display a more granular picture of the quality of the care delivered to patients, especially those affected by chronic or multiple chronic conditions. Addressing weaknesses in the governance of this data infrastructure, including through generating better outcome measures to monitor care delivery and through enabling a privacy-respectful use of personal health data, will be key priorities for the future.

Useful links

- Original article: Colombo, F. (2015), "Health systems are still not prepared for an ageing population", OECD Insights blog, http://wp.me/p2v6oD-23V.
- WHO (2015), "WHO Health Ministerial Conference", World Health Organization, Geneva, www.who.int/en/.
- See also: OECD work on health policies and data, www.oecd.org/health.

When you are old and grey and full of sleep

by

Patrick Love, OECD Public Affairs and Communications Directorate

The hardest job I ever had was as a nursing assistant in a psychiatric hospital. On a typical shift, five or six of us would look after 60 patients or more. This was the usual staff/patient ratio throughout the establishment, except in the section for the "criminally insane". In such conditions, the care philosophy was brutally simple. As a colleague explained on my first day, "If they move, we give them drugs. If they don't move, we give them electric shocks".

The hospital had been built as a lunatic asylum in the 19th century, on a moor that was miles from the nearest village. It looked exactly as you'd expect: a grim fortress with bars on the windows and locks on the doors. Our job wasn't really to look after our patients, we looked at them to make sure there was the same number at the end of the day as at the start.

Except in the geriatric ward where I worked for a few months. Many of the patients were bedridden, and the nurses took great pride in the fact that not one of them ever got a bed sore. We even healed some horrific wounds that had become gangrenous. Some of the people I met there made me realise that in calling their institutions "asylums", the Victorians were stressing something positive. An asylum is a place of refuge, maybe a last resort, and some of our men (the regular staff always called them "our men", never our patients, inmates, cases, clients...) had nowhere else to go.

One man had lived on the road for nearly 30 years, making sure he got sent to prison for the winter until finally a magistrate told him he was too feeble to look after himself. The only place that would take him was the psychiatric hospital. Another man was paralysed by Parkinson's disease and his wife couldn't cope. A third had spent his whole life locked up after being abandoned as a baby because he had Down syndrome.

The majority of the men had a combination of psychiatric and other conditions – Alzheimer's, alcoholism, schizophrenia, various degrees of paralysis, and so on. What they had in common was the need for the long-term care the hospital provided. It's a need that's going to grow, with the number of people aged over 80 in OECD countries doubling between now and 2050. The share of the over-80s will rise from 3.9% of the population now to 9.1% in 2050, and from 4.7% to 11.3% in the EU27.

The OECD and the European Commission have just produced a report on monitoring and improving quality in long-term care. If you're worried about growing old, A Good Life in Old Age? will do nothing to reassure you: "... at least one in two people admitted to hospital from a care home setting are at risk of malnutrition... at least 30% of older people in acute hospitals and 40% of older people in care homes meet the clinical criteria for a diagnosis of depression... There is no sign of a consistent decline in the incidence of physical restraint use... two-thirds of LTC [long-term care] users in institutions were exposed to one or more medication errors... one old person dies due to a fall every five hours... Pressure ulcers are known to affect a large number of LTC recipients in nursing homes...".

So, what can be done, other than head north to cast yourself adrift on an ice floe before global warming melts them all? A Good Life in Old Age? suggests a combination of regulation; standardisation and monitoring; and incentives for providers and choice for consumers. However, most countries do not collect information on quality systematically, and if they do, their efforts are limited to information on aspects such as staffing and the care environment, what the report calls "inputs" rather than the outcomes for the person's health and well-being.

The OECD and EU are right about the importance of attitudes and behaviours in the quality of care, even if they use the hideous expression "leveraging consumer choice and centeredness" to say so. Apart from depression, I never came across any of the issues listed above, because the people I worked with were "consumer centred" even if the consumers in question had no choice.

That experience convinced me that it's possible to provide quality care even in a highly unfavourable setting. The OECD-EU report suggests that there are plenty of solutions to help do so now and in the future.

Useful links

- Original article: Love, P. (2013), "When you are old and grey and full of sleep", OECD Insights blog, http://wp.me/p2v6oD-1ut.
- OECD/European Union (2013), A Good Life in Old Age?: Monitoring and Improving Quality in Long-term Care, OECD Health Policy Studies, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264194564-en.

See also: OECD work on health, www.oecd.org/health/.

Using big data in the fight against dementia

by

Elettra Ronchi, OECD Science, Technology and Innovation Directorate

Our current model of innovation has so far failed to deliver the effective treatments that we urgently need for the 44 million people living with dementia worldwide. But there's a quiet revolution afoot: health data are increasingly collected, stored and used in digital form. Doctors, nurses, researchers, and patients are all producing on a daily basis huge amounts of data, from an array of sources such as electronic health records, genomic sequencing, high-resolution medical imaging, ubiquitous sensing devices, and smart phone applications that monitor patient health. In fact the OECD predicts more medical information and health and wellness data will be generated in the next few years than ever before.

The remarkable expansion of digital health data is largely driven by technological developments, not least the expansion of broadband access, smart mobile devices and smart ICT applications. Improvements in data analytics have also played a significant role, as has the provision of super-computing resources through cloud computing.

This revolution could prove particularly helpful for neurodegenerative diseases like dementia. Because of dementia's clinical and biological complexity, the studies needed to underpin drug discovery and develop new therapeutic strategies aimed at slowing disease progression will require massive and diverse data collection, storage and processing. And large quantities of broad and deep data are being generated across laboratories worldwide – the information is behavioural, genetic, environmental, epigenetic, clinical, administrative, and more. Harnessing this data, advocates argue, would present advantages across the board: for research, patient care, health system management, and public health.

So how can we foster this environment where data aids dementia innovation? Today, researchers' willingness to share data is often constrained by uncertainty. Several issues are at play.

First, ethical concerns need to be accounted for. Currently, informed consent permissions, which cover the consent for the use of the participant's data, tend to be limited to the research questions related to the primary study focus. This means they exclude potentially unrelated investigations that could follow from open access to these data in the wider research community. New tiered step-by-step or dynamic consent models are needed to meet ethical and legal requirements and at the same time accommodate the changes in data use and research practices.

Second, there are broader challenges to data sharing, related to the lack of an open data culture. Open science has an enormous potential to avoid wasteful duplication of effort, to enable the verification or scientific results and the re-analysis of data for different purposes, and to promote competition of ideas and research. In 2013, the G8 Science Ministers statement called for publicly funded scientific research data to be open.

Yet there are still considerable disincentives that researchers and scientists face with respect to the disclosure of data, particularly at the pre-publication stage. Credit sharing in the academic economy presents dilemmas for researchers. Publications by whole consortia or with numerous authors are a challenge for academics concerned about how these publications will be credited and recognised for career promotion by their institutions. This raises the question of the actions needed to promote data access and openness to boost research and innovation without discouraging data collection from individual researchers.

Third, there is a need for investment in order to harness the potential of data for dementia. The costs of collecting, storing, linking, organising, and analysing data require considerable investment and collaboration, and appropriate funding needs to be set aside. Sustaining the big data infrastructures will also require financing: for many big data projects, networks or federated research platforms, the most significant challenge once the initial funding runs out is the development of a sustainable business model, that as a bare minimum, would sustain the curation and maintenance of data in an accessible form.

Big data also requires large numbers of people who are very highly trained and in huge demand from other sectors. Data specialist skills could become the most critical enabler for big data dementia research. Incentives are needed to promote education and training of data analysts and bioinformatics experts to use big data effectively for health research.

Of course, the explosion of promising new technological opportunities and data generation will not automatically translate into new products and care solutions for dementia and other neurodegenerative diseases. In order to deliver this promise, these new developments will have to be accompanied by organisational, infrastructural and governance changes throughout the health innovation system. The current R&D process is fragmented, costly, unpredictable and inefficient. Funding for dementia and other neurodegenerative diseases accounts for less than 1% of research and development budgets in the G7. These, and other issues, will also need to be addressed.

Researchers in industry, hospitals and universities continue to make significant contributions to scientific understanding. But without better data sharing, interpretative capacity, and co-ordination of knowledge, we can make only limited progress in our understanding of the molecular basis of neurodegenerative diseases or whether treatments or interventions work. Radical improvements in information technologies and the increasing gathering and sharing of electronic health data not only make it timely to assess and improve global capacity to undertake multidisciplinary research – they make it imperative.

Useful links

- Original article: Ronchi, E. (2015), "Using big data in the fight against dementia", OECD Insights blog, http://wp.me/p2v6oD-240.
- Anderson, G. and J. Oderkirk (eds.) (2015), Dementia Research and Care: Can Big Data Help?, OECD Publishing, Paris, http://dx.doi.org/10.1787/ 9789264228429-en.
- Deetjen, U., E.T. Meyer and R. Schroeder (2015), "Big Data for Advancing Dementia Research: An Evaluation of Data Sharing Practices in Research on Age-related Neurodegenerative Diseases", OECD Digital Economy Papers, No. 246, OECD Publishing, Paris, http://dx.doi.org/ 10.1787/5js4sbddf7jk-en.

- OECD (2015), Addressing Dementia: The OECD Response, OECD Health Policy Studies, OECD Publishing, Paris, http://dx.doi.org/10.1787/ 9789264231726-en.
- OECD (2014), "Unleashing the Power of Big Data for Alzheimer's Disease and Dementia Research: Main Points of the OECD Expert Consultation on Unlocking Global Collaboration to Accelerate Innovation for Alzheimer's Disease and Dementia", OECD Digital Economy Papers, No. 233, OECD Publishing, Paris, http://dx.doi.org/10.1787/5jz73kumubub-en.

Smarter, greener, healthier and more productive: The new old

by

Tobias Vogt αnd Fanny Kluge, Laboratory of Survival and Longevity, Max Planck Institute for Demographic Research, Rostock, Germany

Ageing populations are a threat to the sustainability of modern societies. This is a dominant line of thought in the political, public and scientific discussion that warns us about the consequences of demographic change. It refers to the concern that the needs of an increasing share of older people have to be met by a decreasing number of younger members of our societies. These warnings must be taken seriously if current conditions prevail. The changes in the age structure will bring major challenges to public finances and the demand for an adjustment of current social policies, in particular, in countries with large public welfare programs for the elderly. Yet, the demographic future may not look as bleak as we generally think. The greying of a population may even embrace certain advantages simply because of the natural transformation of the age structure. This thought was the starting point for a, so far rare, project that focused on the potentials and chances of demographic change. In this case study we focused on Germany as the second oldest country worldwide in terms of its population's median age of 44.3 years, and identified five different areas that may benefit if observed trends of the past continue into the future.

To understand the anticipated challenges as well as the opportunities of demographic change, one has to keep in mind that they only result from a change in the age structure of a population. If we depict the current age composition in Germany or in most industrialized countries, it looks rather more like a tree than the usual population pyramid. Yet, this illustration will also only be a snapshot as the over-represented older age groups will become smaller and eventually disappear in the coming decades. Despite ongoing low fertility and a general population decline, this will result in a more stable age structure after 2040 than in the decades when the large baby boom cohorts reach retirement age. In the last decades the share of Germans above age 65 rose by 2 to 3 percentage points. Between 2020 and 2040 this share of Germans will increase by 10 percentage points from 23% to 33%. In the following two decades it will remain stable at this high level and go up slightly.

One major concern of this population structure is that fewer and older individuals are expected to be less productive. This assumption ignores the fact that certain productivity determinants among older individuals like education and health will not remain constant but change over time.

During the last decades participation rates in higher education have increased from cohort to cohort, which is reflected in the share of individuals in the labour force with tertiary education. In 2008, every fifth individual in the age groups 25-29 and over age 50 attained tertiary education. These shares will rise considerably. After 2050, every third individual in the respective age groups will have a tertiary education. If current labour force participation rates among these groups remain as they are, this would mean that 46% of the German labour force will hold a higher education degree compared to 28% today.

These changes in educational levels are accompanied by an improvement in individual health. Over the last 30 years, the age at which Germans report worsening subjective health has become later and later. If we forecast this trend into the future we find that not only average life expectancy as such will increase but also the number of years we live in good health. Already today Germans can expect to spend up to 60% of their life in good health. By 2050, this share will increase to 80%, which suggests that most of the years of gained life expectancy may not necessarily be years of bad health. Of course, this scenario is based on past developments and neglects potential future health threats like the consequences of increasing obesity levels and rising cognitive impairments at older ages. Nevertheless, fears of productivity losses may be partially absorbed by the improvements in individual health and education.

A smaller and older population may not only be more productive than expected but even cause less environmental pollution. When we observe individual consumption patterns and their ecological consequences, we find that over the life course younger individuals travel and consume more and, thus, cause higher CO_2 emissions than individuals at retirement age. This implies that if today's consumption behaviour prevails, older and smaller populations may generate substantial CO_2 reductions. We found that the change in population size and consumption preferences led to a 30% increase in emissions between 1950 and 2020. In the following decades, emissions could decline even to pre-1950s levels.

Apart from the challenges and opportunities on the population level, demographic change will certainly influence our individual lives and our family relationships. On average, we will live longer in good health and need care later, but there will be fewer younger individuals in our family network to support their elderly parents or other relatives. Whether changes in time use can make up for these missing individuals is questionable. We find that if the current work and leisure patterns prevail, individuals will spend slightly more time on leisure and housework and the share of work time drops from 14.5% to 11.9%. Whether the young really spend the additional time they have with the elderly remains to be seen. One important question in this respect is also how valuable the elderly will be in terms of resources they can provide. The wealth they pass on to the next generation will have to be shared with a smaller number of siblings and thus younger family members might be better off.

Certainly this study does not solve the challenges we face in the future, but it sheds some light on potential opportunities that ageing populations create. During the coming decades societal frameworks will change and individuals will adapt their behaviour to new expectations. The magnitude of the future effects is thus unknown, but we should start to discuss this potential, and favourable adaptations in our society. The future is not too bright, but also not as dark as sometimes argued and we do have the potential to change it.

Useful links

- Original article: Kluge, F. and Tobias Vogt (2014), "Smarter, greener, healthier and more productive: The new old", OECD Insights blog, http://wp.me/p2v6oD-1SD.
- Kluge, F. et al. (2014), "The Advantages of Demographic Change after the Wave: Fewer and Older, but Healthier, Greener, and More Productive?", PLoS ONE, 9(9), http://journals.plos.org/plosone/article?id=10.1371/ journal.pone.0108501.

OECD (2014), "Ageing (Un)equally?", OECD Forum 2014, Paris, www.oecd.org/ forum/.

See also: OECD work on employment, www.oecd.org/employment.

Work longer for a healthy economy and a happy home

by Patrick Love, OECD Public Affairs and Communications Directorate "There is no homogeneity in the solutions offered by industry to the two major issues of employment and retirement of the older worker, indicating not only the complex nature of the problem but also the lack of factual material upon which to base a solution." That's Dr W.M. Gafafer, writing in Public Health Reports in 1957. He filled the knowledge gap by looking at everything he could find, from employer surveys to "help wanted" ads in the papers. Some of what he reports sounds quaint today, like the retirement counsellors going round to see how ex-employees were getting on, but Gafafer's analyses and conclusions are as pertinent as ever. He points out the lack of a systematic approach to the issues that an ageing workforce was likely to raise, and calls for both an "effective use of the skills of the elderly worker" and "a full life in retirement".

Half a century later, the trends Dr Gafafer noted were more pronounced than ever. An OECD study called Live longer, work longer estimated that if work and retirement patterns didn't change, the ratio of older inactive persons per worker would almost double from around 38% in the OECD area in 2000 to just over 70% in 2050. In Europe, the ratio could reach almost one older inactive person for every worker over the same period. The OECD calculated that with unchanged participation patterns and productivity growth, the growth of GDP per capita in the OECD area would decline to around 1.7 % per year over the following three decades, about 30% less than its rate between 1970 and 2000.

Assuming unchanged anything is rarely a winning strategy though, and in 2007, the year after Live longer was published, growth of per capita GDP was wrecked not by the old, but by the bright young things in front of their computer screens in trading rooms around the world. A number of older works saw their private pensions wiped out or reduced to a pittance. Public pensions were hit by the austerity measures introduced to try to balance government budgets. The result was a number of older workers having to work longer whether they liked it or not, if they could find a job.

Even before the crisis, older workers had to fight a number of prejudices that the OECD argued were based on myth rather than evidence. As well as reducing employment opportunities for individuals these myths could hamper reform efforts and the adoption of age-friendly employment practices. For example, the claim that fewer jobs for older workers results in more jobs for younger workers is unfounded. Likewise, the claims that working capacity systematically deteriorates with age is not supported by the many studies of employers and older workers the OECD carried out in country reviews. Older and younger workers each have relative strengths and weaknesses, a point made by Gafafer too, who found for example that employers looking for highly-skilled workers never mentioned age as a barrier to recruitment.

There is little evidence that work intensification in existing jobs is exerting pressure to retire early, or that older workers are just "too tired" to carry on working, although better-designed workstations and workflows would help them significantly (and other workers too). Live longer, work longer paints a broad picture, and given the differences from one place to another, the OECD launched a series of in-depth country studies called Working better with age. We're not talking about a return to the situation in the US in the 1890s Gafafer describes, where 68% of men aged 65+ were still working. Working better looks at people aged 55-64. In the OECD as a whole, 57.5% of this age group is employed, but the figures vary considerably from one country to another. The most industrious elders are to be found in Iceland, where 83.6% of them still have a job, followed by New Zealand (76.3%), Sweden (74%), Norway (72.2%), and Switzerland (71.5%). At the other end of the scale, the score drops to 31.4% for Turkey, 33.7% for Greece, and 35.8% for Slovenia.

Given the large differences between countries, the Working better reports focus on specific national characteristics and issues, but the report on Norway does give a brief summary of the opinion that underlies the various proposed reforms: "It is sometimes argued that the consequences of ageing could be offset by policies to encourage greater immigration, higher fertility, or faster labour productivity growth. While these developments would all help, they need to go hand in hand with attempts to better mobilise available labour reserves so as to sustain economic growth."

Of course all this is looking essentially at the macroeconomics of ageing and employment. Marco Bertoni and Giorgio Brunello of

Padua University studied the impact of retirement on what happens at home. They analysed interviews with nearly 840 Japanese women from the Osaka University Japanese Preference Parameters Study, a panel survey on behaviours, risk attitudes, habits formation and time preferences of the Japanese population. This provides empirical data on the "Retired Husband Syndrome" (RHS) that affects the mental health of wives of retired men around the world. "We have found that the husband's retirement and its duration significantly affected the wife's RHS, measured by increased stress, higher depression or inability to sleep. We have estimated that adding one year to the time spent by the husband in retirement increases the probability that the wife develops RHS symptoms by 5.8 to 13.7 percentage points, a sizeable effect."

Useful links

- Original article: Love, P. (2015), "Work longer for a healthy economy and a happy home", OECD Insights blog, http://wp.me/p2v6oD-24G.
- Bertoni, M. and G. Brunello (2014), "Pappa Ante Portas: The Retired Husband Syndrome in Japan", IZA Discussion Paper Series, No. 8350, Bonn, Germany.
- Gafafer, W.M. (1957), "Employment and Retirement of Elderly Workers", Public Health Reports, 72(12), pp. 1060-1066.
- OECD, "Working better with age OECD review of policies to improve labour market prospects for older workers", OECD, www.oecd.org/ employment.
- See also: OECD work on ageing and employment policies, www.oecd.org/ els/emp.

Ageing and pensions

by Pablo Antolín-Nicolás, OECD Directorate for Financial and Enterprise Affairs Pension systems are facing crucial and far-reaching challenges because of demographic trends, the continuing impacts of the crisis, and low growth, low returns and low yields. As a result, meeting pension commitments and having adequate pensions could become quite a challenge. The OECD Pensions Outlook 2014 discusses ways in which countries are addressing all these challenges, including the demographic challenge.

Ageing is the result of lower fertility rates and, especially, higher life expectancy, which results in an increase in the average age of the population. The impact of population ageing on pensions can be separated into the "baby boom", a temporary factor, and improvements in mortality and life expectancy, a more permanent factor. Once the "baby boom" generations pass away their impact is gone. However, improvements in mortality and life expectancy are here to stay.

Most people would consider living longer a good thing, so let's prepare for it. An increase in life expectancy while keeping the number of years saving for retirement constant means that the ratio of years contributing to finance retirement to years in retirement will fall. Therefore, the same amount of savings will have to finance more years, and unless someone assumes that cost (e.g. governments through defined benefit public pensions or employers through defined benefit funded pensions) people will have lower annual pensions, although the sum of all pension payments throughout retirement will remain constant.

In the case that governments and/or employers assume the extra cost of more years in retirement relative to years saving for retirement, they may suffer problems of solvency or fiscal sustainability. There will be a problem of adequacy when people accumulate assets to finance retirement in defined contribution pension plans and they bear the risk of living longer. If they buy a life annuity the risk is transferred to the annuity provider.

Therefore, as the Pensions Outlook shows, population ageing and, in particular, the continued improvements in mortality and life expectancy, create problems of adequacy in defined contribution pensions, solvency in defined benefit funded pensions, and financial sustainability problems in PAYG-financed public pensions.

AGEING AND PENSIONS

The Outlook argues that contributing more and for longer, especially by postponing retirement as life expectancy increases, is the best approach to face these challenges. The way to address the problems posed by improvements in life expectancy is to maintain the ratio of years saving for retirement to years in retirement constant, increasing contribution periods as life expectancy increases; or to increase overall contributions. So what are countries doing? Many countries have responded to population ageing by increasing the statutory age of retirement. Some have linked retirement age to life expectancy.

The fairness of this solution, however, can be questioned when we look beyond the average. Gains in life expectancy have not necessarily been distributed equally across society. A skilled executive, for example, can expect to enjoy nearly four additional years in retirement compared to a manual labourer; this assuming that "retirement" begins at age 65. The inequality becomes more apparent when considering the period before retirement. Not only can the manual labourer expect to receive his pension for fewer years, but he can also expect to have made contributions to the system from an earlier age, as the highly skilled worker likely spent a number of years in higher education and began working later. Given the same retirement age, the unskilled labourer pays relatively more into the system to receive his pension for a shorter amount of time.

Mechanically linking retirement age to increases in life expectancy across the board may therefore be regressive. Life expectancy, time of entry in the labour market and improvements in life expectancy are not homogenous across the population, they vary across different socio-economic groups (e.g. low skill, low income groups). Hence, the best approach may be to link the number of years contributing to life expectancy. Unfortunately, the data needed for this is not available across all countries and the application across different socio-economic groups may be far from straightforward. To compound the problem, future improvements in mortality and life expectancy are uncertain. Gains may continue as in the past, they may accelerate or decelerate. Improvements vary across different population sub-groups; they may converge or diverge further. In defined contribution pension plans individuals bear the risk of outliving their resources in old age. They can insure themselves against this longevity risk by transferring the longevity risk to annuity providers, e.g. life insurers, as we said above. The OECD *Roadmap for the Good Design of DC Pension Plans* recommends default partial annuitisation to provide protection from longevity risk. In defined benefit pension plans (e.g. PAYG financed public pensions or funded pension) the government, pension funds or employers assume the longevity risk.

Pension funds and annuity providers need financial instruments to mitigate the longevity risk. The OECD work on Mortality Assumptions and Longevity Risk examines the longevity risk that pension funds and annuity providers may be exposed to by looking at the (regulatory) mortality tables used to provision for future improvements in mortality and life expectancy and, in this way, be able to fulfil their pension promises. This OECD work also discusses several approaches for pension funds and annuity providers to manage longevity risk.

The first step is to recognise the existence of longevity risk and provision accordingly. For this, regulators and policy makers should ensure that pension funds and annuity providers use regularly updated mortality tables that incorporate future improvements in mortality and life expectancy. In addition, these mortality tables should be based on the mortality experience of the relevant population.

The regulatory framework could also help to ensure that capital markets offer additional capacity to mitigate longevity risk, for example recognising the reduction in risk exposure of using index-based financial instruments to hedge longevity risk, and by publishing a longevity index to serve as a benchmark for the pricing and risk assessment of longevity hedges, improving the standardisation, transparency and liquidity of these markets.

The issuance of a longevity indexed bond could be considered, though with care. While it may be helpful in kick-starting the market for longevity hedging instruments by providing standardisation, a benchmark for pricing and liquidity, it would also significantly increase the exposure of the government to longevity risk, while many governments already have significant exposure on their balance sheets.

Demand for protection against longevity risk will only increase as individuals are expected to live longer, and the sustainability of pension funds and annuities providing this protection for individuals has to be ensured. Sufficient provisioning for longevity is essential to guarantee that future payments will be met, and the ability for providers to manage and mitigate this risk will allow them to continue offering protection in the future.

Useful links

- Original article: Antolín-Nicolás, P. (2015), "Ageing and pensions", OECD Insights blog, http://wp.me/p2v6oD-24C.
- OECD (2014), Mortality Assumptions and Longevity Risk: Implications for Pension Funds and Annuity Providers, OECD Publishing, Paris, http:// dx.doi.org/10.1787/9789264222748-en.
- OECD (2014), OECD Pensions Outlook 2014, OECD Publishing, Paris, http:// dx.doi.org/10.1787/9789264222687-en.
- See also: The OECD Roadmap for the Good Design of DC Pension Plans, www.oecd.org/finance.

How can capital markets serve pension systems in the European Union?

by Markus Schuller, Panthera Solutions The global financial stock quadrupled between 1990 and 2010. As capital markets exist to serve society and not the other way round, how can the changing demographics in the EU28 be better managed through benefitting from capital market access and techniques? As a consequence, how can we strengthen the three pillars of pension provision in times of rising inequality, equity market/risky assets discrediting, low interest rates, and the dominance of non-value adding financial instruments? (The "pillars" come from a 1994 World Bank definition: "a publicly managed system with mandatory participation and the limited goal of reducing poverty among the old; a privately managed mandatory savings system; and voluntary savings").

In my OECD Financial Round Table contribution of autumn 2014, I highlighted the lack of a risk equity culture across Europe as an important obstacle in benefitting from rising risky asset prices. In Germany, only 13.8% of the population invests directly or indirectly in listed equity securities, compared with around 50% in the US. In 2012, just over a quarter of the EU population (26%) – around 130 million people – received at least one pension. In Eurostat's 2013 population projections the EU28's population is projected to increase to peak at 525.5 million around 2050 and gradually decline to 520 million by 2080. People aged 65 years or over will account for 28.7% of the EU28's population by 2080, compared with 18.2% in 2013.

Governments have defined "adequacy of pensions" as one of their primary goals for the first pillar of their pension systems. In pay-as-you-go public schemes governments tend to finance possible gaps between contributions and payoffs out of their public budgets. In Austria for example, more than 22% of the government budget is dedicated to first pillar pension gap payments for a system that is supposed to finance itself.

Even if EU28 governments express the political will to keep financing the gaps, the increasing demographic pressure and tight public budgets will force them into reducing pension claims by reducing gross pension replacement rates (ranging between 33% in the UK and 91% in the Netherlands), by lowering gross pension payments – at least their purchasing power – or by increasing the retirement age. All together this will redefine what "adequate income in retirement" means for first pillar payments.

The first pillar is becoming more and more an anti-poverty provision, leaving it to the second and third pillars to secure an adequate retirement income. So how can we stimulate Pillars II and III?

A total of ≤ 1717 billion (gross) was spent across the EU on pensions in 2012, representing 13.3% of EU GDP. Greece spent 17.5% of GDP on pensions in 2012, more than any other country, while three others (Italy, France and Austria) also spent over 15% of GDP. Estonia, Ireland and Lithuania, meanwhile, spent 7.9%, 7.3% and 7.7% of GDP respectively on pensions.

The EU Commission and EU regulators are increasingly taking on the task to regulate and stimulate the use of Pillars II and III. In July 2014, the EC asked the European Insurance and Occupational Pensions Authority (EIOPA) for advice on the development of an EU single market for personal pension products. EIOPA will publish its advice by February 2016. The Commission and EIOPA are currently trying to understand the market for personal pension products. The EC is asking the right questions in this document, from a push towards an EU-wide framework to a push for multi-pillar diversification. To support the EU institutions in their orientation phase, I suggest the following for the third pillar.

Include a single market for personal pensions in the Capital Markets Union (CMU) framework. The Green Paper on establishing a Capital Markets Union until 2019 currently focuses on 5 aspects to facilitate capital market based debt financing for SME and infrastructure investments. Rightly so. Ensuring adequate income in retirement through direct capital market exposure is equally important. So far, the Green Paper does not even mention the third pillar. It only touches the second pillar lightly in two short paragraphs. The hopefully bold proposals from the "EIOPA Task Force on Personal Pensions" on how to strengthen the third pillar in EU28 need to be added to the CMU framework. Product Structures in the Client's Interest. Up to now, third pillar products like the Riester Rente (Germany) or the Private Pensionsvorsorge (Austria) are based on the belief of the Greater Fool Theory. Product managers and distributors hope to find an even greater fool that signs up for a fee-overloaded, inflexible, non-transparent and strategy-constrained financial instrument. Consumers are taking the bait of a minor government subsidy while ignoring the significant downside of those products. Instead, consumers need to be offered a low-cost, transparent, flexible and strategy-unconstrained vehicle to participate in the long-term rise of the global capital stock. US FinTech providers show the way. Traditional capital market access via costly gatekeepers like IFAs, Banks and fund managers needs to be avoided.

Regulatory Approach. Personal pension plans (PPPs) are covered by many sectoral EU-laws, or none (21 out of the 80 PPP's surveyed in the EIOPA database have no EU legislation applicable). PPPs should have their own simple and clear regulatory approach. It should facilitate competition amongst financial services providers to offer a low-cost, transparent, flexible and strategy-unconstrained PPP-vehicle. It also needs to overhaul incentive structures to solve currently pressing principal-agent issues.

Capital Markets Education and Cultural Change. Without educating the private investor on capital markets know-how, PPPs will not achieve the reach and level of acceptance required. This education needs to take place in a cultural environment in which capital markets are not demonized by governments. This is a rather selfevident insight, though not necessarily followed by continental European politicians. Even if education and societal sentiment are in place, the inequality momentum will restrain large parts of the population from being able to sufficiently save money for capital market investments. Governments need to offer more significant tax shields – e.g. by automatically transferring parts of the paid income tax to the third pillar account of the citizen.

Civil Society Research Support. Despite significant research being conducted on EU28 first pillar pension systems, the databases and research publications on PPP are nascent. In addition to EIOPA's current effort to establish the research infrastructure, civil society support should be facilitated to help conduct research and raise public awareness. Is it via lobby-like institutions like a *www.thecityuk.com* for PPP topics or by installing a "Kapitalmarktbeauftragten" (capital markets commissioner) like in Austria – where a good idea failed due to political reasons? Such a commissioner could be appointed by the parliament and equipped with sufficient freedom and budget to promote the topic through new initiatives.

Useful links

- Original article: Schuller, M. (2015), "How Can Capital Markets Serve Pension Systems in the EU28? Part 1", OECD Insights blog, http://wp.me/p2v6oD-22Z.
- European Commission (2015), "Green Paper: EU Capital Markets Union", http://ec.europa.eu/finance/consultations/2015/capital-markets-union/ index_en.htm.

See also: OECD work on pensions, www.oecd.org/pensions.

No old person left behind?

by Monika Queisser, OECD Employment, Labour and Social Affairs Directorate What will matter to you in old age? A healthy body and mind, above all. But also a comfortable home in a nice place to live. Family and friends close by. And enough money to benefit from all those good things in life, like travel, books, movies and museums and the other pleasures one never has enough time to enjoy while working and bringing up a family.

Chances are that if you were fortunate enough to get good education and the skills you needed, and if you found and kept a good job, both in terms of pay and working conditions, your life in retirement will be pleasant. Even if you need long-term care and personal help, you are likely to have access to good quality services because you are insured and you can pay for them.

But what about those among us who had a less fortunate start to their working lives, who lost their jobs once or more during their active years, who worked part-time and were paid little, who had physically demanding jobs taking a toll on their health? For all these people, retirement and old age risks being much less enjoyable.

OECD data from Pensions at a Glance 2013 show that today, the majority of pensioners enjoy as good living standards as the average population. Of course, this is not the case for everybody, but at the moment, elderly groups are the least unequal part of the population. This is not surprising: Most of today's retirees, at least men, have worked all their lives in stable jobs. However, a "job for life" and even a "career for life" are rare commodities for people starting out today. These future retirees will be a much more diverse group, some will have experienced long spells of unemployment and low wages, while others continue to enjoy stability and higher earnings. Capital income, such as interest from savings, shares and other investments, is more concentrated and the gap between high earners and low earners is widening.

Poorer people are also less healthy and die younger than rich people. Many of the future elderly may move into older ages with disabilities, in bad health, and a limited ability to keep working and contributing to society. The experience of old age for today's younger generations could change dramatically compared to their parents, with improved living standards and a longer life for some, and a shorter, sicker and more poverty-ridden life for others.

Society should tackle increasing inequality as populations age. Apart from a moral imperative not to leave older persons by the wayside, there are also hard economic reasons why letting unequal ageing happen is bad policy. A growing divide in the well-being of older people will increase the stress on social protection. And it will jeopardize the effectiveness of recent reforms of labour markets, pension and long-term care systems. Governments could make substantial savings if income, wealth and health inequalities were picked up earlier and tackled as they occur.

Today's young people are the older people of tomorrow. The best policy for older persons is a policy that addresses problems when they start. Asking social protection and health systems to fix the situation late in life is not the best option – systems are ill-equipped to compensate for everything that went wrong during a working life if they wait until the problems have accumulated. Identifying and tackling risks as they arise will enable governments to design sustainable and cost-effective policy approaches towards demographic ageing.

Youth unemployment is at record levels today in many OECD countries. This could have long-term consequences for young people's future careers and well-being at all ages, including in old age. We need to give young people the best chances to realise their full potential. We need to rethink our systems of social protection to accompany people throughout their increasingly diverse life courses and thus make retirement a well-earned reward.

Useful links

- Original article: Queisser, M., "No Old Person Left Behind?", OECD Insights blog, http://wp.me/p2v6oD-1Ql.
- OECD (2013), "Chapter 8: Ageing and Long-term Care", in Health at a Glance 2013: OECD Indicators, OECD Publishing, Paris, http://dx.doi.org/ 10.1787/health_glance-2013-en.

- OECD (2013), Pensions at a Glance 2013: OECD and G20 Indicators, OECD Publishing, Paris, http://dx.doi.org/10.1787/pension_glance-2013-en.
- See also: OECD data on gender equality, www.oecd.org/gender; OECD work on ageing and employment, www.oecd.org/els/emp; OECD work on inequality, www.oecd.org/social.

How's life in old age?

by Justin Dupre-Harbord, OECD Public Affairs and Communications Directorate For many young people there is no time like the present when thinking about their life. When we are young we tend to think about how happy we are now and not ponder too much on what our quality of life will be like later. Most people using the OECD Better Life Index are below 65 years-old, and people of working age (20-64 year-olds) make up the largest part of the population, outnumbering the elderly (65+ years) four to one.

But a look into the future gives a very different picture. Life expectancy at birth is already approximately 80 years among OECD countries, a gain of more than 10 years since 1960, and the average fertility rate of 1.74 is below the replacement rate. This means that the population is getting older and it is projected that by 2060 there will be fewer than two people of working age for every one of pension age. So instead of just thinking about how our life is now, we should start thinking about how it will be in the future.

A look at how life is for the elderly of today gives us a mixed picture. OECD *Pensions at a Glance* 2013 identifies income as a crucial factor in determining how life is going to be in our twilight years. Recently, OECD countries have had some success in this domain, with the average poverty rate among the elderly falling from 15.1% in 2007 to 12.8% in 2010, in spite of increasing poverty rates suffered by the rest of the population due to the crisis.

Incomes of people aged 65 years and older in OECD countries reach about 86% of the level of disposable income of the total population. But just as for other issues, there is a gender gap among the elderly. As women live longer, they are more likely to end up living alone on a low income in their old age, and are therefore more at risk of poverty.

Our health and social support networks (friends and family) are other important measures that affect our well-being later on in life. Not surprisingly, the elderly are among the least satisfied with their health. But they are also the least likely hang out with friends, with 20% of people aged 65 and over reporting no contact with friends. Access to public services is particularly important for our older people, as they need more care than the rest of the population. With spending on long-term care sometimes exceeding 60% of disposable income, we have to find new ways to sustain ourselves in old age. In some cases this has led to some rather drastic solutions. In Switzerland, the prices for care are so high (between USD 5 000 and USD 10 000 a month), some families have resorted to the rather controversial solution of exporting Grandma and Grandpa abroad to more affordable retirement homes as far away as Thailand. Coincidentally, Switzerland also has one of the highest old-age income poverty rates (22%) in the OECD.

In Korea, where the population is ageing rapidly, families have come up with a less extreme alternative. They have managed to work around the strains of taking care of their older relatives by using the new Ubiquitous Health House system (uHouse) that relies on Internet technology to monitor their loved one's health. This allows families and the elderly to maintain privacy and independence while facilitating family care, and is designed to substitute for hospital service. So as an ageing population and the effects of the crisis continue to put pressure on pensions and the quality of life of the elderly, we should all be asking ourselves, how life will be when we are older?

Useful links

- Original article: Dupre-Harbord, J. (2014), "How's life in old age?", OECD Insights blog, http://wp.me/p2v6oD-1MU.
- OECD (2013), Pensions at a Glance 2013: OECD and G20 Indicators, OECD Publishing, Paris, http://dx.doi.org/10.1787/pension_glance-2013-en.
- OECD (2013), How's Life? 2013: Measuring Well-being, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264201392-en.

See also: The OECD Better Life Index, www.oecdbetterlifeindex.org.

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

The OECD is a unique forum where governments work together to address the economic, social and environmental challenges of globalisation. The OECD is also at the forefront of efforts to understand and to help governments respond to new developments and concerns, such as corporate governance, the information economy and the challenges of an ageing population. The Organisation provides a setting where governments can compare policy experiences, seek answers to common problems, identify good practice and work to co-ordinate domestic and international policies.

The OECD member countries are: Australia, Austria, Belgium, Canada, Chile, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, the Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States. The European Union takes part in the work of the OECD.

OECD Publishing disseminates widely the results of the Organisation's statistics gathering and research on economic, social and environmental issues, as well as the conventions, guidelines and standards agreed by its members.

Ageing: Debate the Issues

Ageing has a wide range of impacts on individuals and society as a whole. But the consequences for health care, working life, income and well-being in general are not always what many people imagine. *Ageing: Debate the Issues* discusses the problems, challenges, and opportunities that ageing brings to citizens and governments in developed and developing countries. Experts on demography, medical research, pensions, employment and other domains from inside and outside the OECD present their latest analyses and views on one of the most important trends shaping our societies.

Visit the Insights blog at: www.oecdinsights.org





