



Facilitator notes

Further information and useful resources



Sources: Our World in Data and ONS.

ourworldindata.org/life-expectancy

ourworldindata.org/age-structure

ourworldindata.org/why-do-women-live-longer-than-men

ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/lifeexpectancies/bulletins/nationallifetablesunitedkingdom/2018to2020

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Other interesting data:

ec.europa.eu/eurostat/statistics-explained/index.php?title=Healthy_life_years_statistics

gov.uk/government/publications/health-profile-for-england/chapter-1-life-expectancy-and-healthy-life-expectancy

Statement cards – further information

People worldwide are living longer than in the past, but their healthy years are more or less the same.

- People all over the world are living longer. Although decline of child mortality has contributed to this, life expectancy increased at all ages.
- Both 'healthy life expectancy' AND 'years lived with disability' have both increased in most countries - so healthy years have increased, but it is also true that improved treatments have also increased the number of years in which people live with a given disease burden or disability. This increase has, in most cases, been slower than the increase of healthy life expectancy.

Most people in the world can expect to live into their 60s and beyond.

- Since 1900 the global average life expectancy has more than doubled and is now above 70 years. In 2019, the country with the lowest life expectancy was the Central African Republic with 53 years.

By 2030, 1 in 6 people in the world will be aged 60 years or over.

- Yes. the world has an ageing population, and it is predicted that by 2030 at least 1 in 6 people will be over the age of 60.

Lifespan and healthspan (years in good health) vary from place to place and between men and women.

- Yes, different countries have different average lifespan and healthspan statistics. Lower-income countries with high fertility rates typically have

a younger population, and higher-income countries often have a larger elderly population.

- In every country the life expectancy of women is higher than the life expectancy of men. This is due to a range of biological, behavioural and environmental factors, some of which are well understood e.g. men smoke more often, whereas others are more complicated and not well understood.

In the UK, men spend on average over 16 years in poor health. For women this rises to 19 years.

- Although women live longer than men all over the world, the difference between countries is significant. E.g. In Russia women live 10 years longer than men; in Bhutan the difference is less than half a year.
- In the UK, although females live longer than males, the majority of these extra years of life among females were spent in poor health; females lived 3.6 years longer than males in 2013 to 2015, but only had 0.7 years longer in good health.
- Life expectancy at birth in the UK in 2018 to 2020 was 79.0 years for males and 82.9 years for females (about 4 years difference).
- In 2017 to 2019 healthy life expectancy (HLE) at birth in the UK for males was 62.9 years, compared to 63.3 years for females. In the same period disability free life expectancy (DFLE) in the UK was 62.3 years for males and 61.0 years for females.

How well you are ageing is poorly measured by age alone.

- These types of statistics are a great measure for understanding large groups of people, however they are not designed to help understand healthspan at an individual level.



Sources

Depression/loneliness

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evidence.nihr.ac.uk/alert/loneliness-strongly-linked-depression-older-adults/

Memory & brain function

nhs.uk/conditions/dementia/about/

alzheimers.org.uk/about-dementia/symptoms-and-diagnosis/how-dementia-progresses/is-it-getting-older-or-dementia

Statement cards – further information

Depression and loneliness are common in older adults.

- According to Age UK, more than 2 million people in England over the age of 75 live alone, and more than a million older people say they go over a month without speaking to a friend, neighbour or family member.
- But the data is complex. For example: In the UK, adults aged 65 to 79 year olds are most likely to report **high levels of life satisfaction**, worthwhile activities and happiness and low levels of anxiety, than those of working age. However, these proportions are **lower for the oldest old** (80 and above) with 3 in 10 of those aged 80 and over reporting being lonely. Those aged 80 and over have a higher average loneliness rating (3.3 out of 10) than the working age population (2.1) and the 65 to 79 age group (1.9).
- In the Community Life Survey, those aged 25 to 34 years and 16 to 24 years were significantly more likely to report feeling lonely “often/always”.

Mild forgetfulness is a normal sign of ageing.

- People often start to forget things more as they get older. Most often this is a normal sign of ageing.
- Dementia is a syndrome associated with an ongoing decline of brain functioning. Dementia is not only about memory loss. It can also affect the way people speak, think, feel and behave. Dementia is not a natural part of ageing.
- In the UK one in 14 people over the age of 65 have dementia, and the condition affects 1 in 6 people over 80.

A healthy lifestyle (diet & exercise) can help maintain good brain function.

- The relationship between lifestyle and brain function are complicated, but there is a growing body of research that suggests a healthy lifestyle can significantly increase the longevity of good brain function.

Sources



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- ncbi.nlm.nih.gov/pmc/articles/PMC1995805/
- nia.nih.gov/news/cognitive-super-agers-defy-typical-age-related-decline-brainpower
- ncbi.nlm.nih.gov/pmc/articles/PMC4552811/

Statement cards – further information

Older people cannot learn new things.

- Is it difficult to separate correlation and causation in research about learning new skills and acquiring new knowledge. Are people less in the habit of learning new things or are they less able to?
- Age is often associated with a decline in learning new skills. However, many forms of motor learning appear to be relatively well preserved with age, while learning tasks that involve short term memory association tend to be negatively affected.
- Some people in their 80s, 90s, and beyond, defy the common assumption that cognitive decline goes hand in hand with ageing. These ‘cognitive super agers’, have memory performance comparable to people 20 – 30 years younger. Research is ongoing to understand what sets these people apart to help others prevent (or reverse) age-related cognitive decline.



Sources

- <https://ourworldindata.org/causes-of-death>
- <https://ourworldindata.org/burden-of-disease>
- <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3582124/>

Statement cards – further information

Cognitive decline is a normal part of ageing

- People often start to forget things more as they get older. Most often this is a normal sign of ageing.
- Dementia is a syndrome associated with an ongoing decline of brain functioning. Dementia is not only about memory loss. It can also affect the way people speak, think, feel and behave. Dementia is not a natural part of ageing.

Ageing is the result of molecular and cellular damage over time.

- Yes. Molecular processes generally slow down, get less efficient and get less effective as we get older and this is summarised by the '[Hallmarks of Ageing](#)'. Eventually, this poorer biochemical performance and slowing down of cellular processes leads to cell damage or biochemical malfunctions.

Ageing results in a gradual decrease in physical and mental capacity and a growing risk of disease.

- Yes, there is a significant statistical correlation and causal links

Risk of disease is directly correlated with age.

- Yes, this is a trend we see worldwide.
- The sum of mortality and morbidity is referred to as the 'burden of disease' and can be measured by a metric called 'Disability Adjusted Life Years' (DALYs). One DALY represents one lost year of healthy life.
- Worldwide, rates of disease burden remain highest in the youngest and oldest in society. DALY rates in under-5s and those over 70 years old remain significantly higher than other age groups. They have, however, seen the most notable declines in recent decades.

An inevitable part of getting older is bad health.

- Often people assume that getting old is something to be endured, that frailty is an inevitability and that living with chronic conditions is a reality of getting older. However, advances in ageing research demonstrate that this does not have to be the case. As we gain a deeper understanding of the biology of ageing, we can reframe it, as a process that can be subject to intervention, either through diet, lifestyle, physical activity or medicines.

There is nothing you can do to influence whether you will get Alzheimer's.

- Environmental and lifestyle factors, e.g. exercise, diet, exposure to pollutants, can affect your risk for age-related diseases such as Alzheimer's.

Your genes determine your health.

- Genes are one statistically significant factor that influences your health. However, they do not pre-determine what your lifespan or healthspan will be, and more and more research show that environmental factors and healthy lifestyle can influence disease and health regardless of genes. So, genes are very important but not the only factor.

Your lifestyle (e.g. diet, sleep & exercise) play a bigger role in your overall health and longevity than your genes.

- Exercise is very important in ageing. For example, sarcopenia (muscle weakness) affects many older people, but those who stay fit are less likely to develop sarcopenia and therefore less likely to get related illnesses that are associated with inflammation. There are similar associations between better ageing and having a good diet and amount and quality of sleep.

Older people have a weaker immune system.

- One of the most recognised consequences of ageing is a decline in immune function. An important goal of ageing research is to define the cellular changes that occur in the immune system to find potential ways to rejuvenate the ageing immune system.
- While elderly individuals are by no means immunodeficient, they often do not respond efficiently to novel or previously encountered antigens e.g. explaining the increased vulnerability of individuals 70+ to influenza and lower response to vaccination.

Even though people with two or more illnesses urgently need new treatments, they aren't usually included in clinical trials

- True, clinical trials tend to include people with exclusively the disease they are studying in order to limit variables. However, this does not always reflect the reality of many suffering from those diseases.

Statement cards – further information



As people age, they need less sleep.

- Studies suggest there is a correlation between ageing and reduced sleep and reduced quality of sleep. However, they also seem to suggest that this is not because less sleep is needed.



Sources

<https://www.ethnicity-facts-figures.service.gov.uk/health/diet-and-exercise/physical-activity/latest>

<https://www.statista.com/statistics/934357/number-of-physically-active-people-by-age-group-in-england/>

<https://www.gov.uk/government/publications/physical-activity-applying-all-our-health/physical-activity-applying-all-our-health>

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Statement cards – further information

Older adults should avoid exercise so they don't get injured.

It is not possible to have a good level of fitness past 60 years old.

Inactivity speeds up the ageing process.

If you did not exercise regularly before you reached 60 there is no point in starting.

- Older adults should do some type of physical activity every day. It can help to improve health and reduce the risk of heart disease and stroke.
- Physical activity and exercise are well-established countermeasures against muscle aging.



Sources

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Statement cards – further information

A healthy diet can help prevent age-related diseases.

A healthy diet can increase your chances of living longer.

A healthy diet increases your chances of 'healthy ageing'.

Taking vitamins helps you age more healthily.

- Nutrition has important long-term consequences for health. It can contribute to the development and progression of chronic diseases thus effecting life span.
- Research shows that a healthy diet can potentially delay many diseases associated with ageing including cancer, diabetes, atherosclerosis, cardiovascular disease, and neurodegenerative diseases.
- The UK is experiencing an ageing population but this is not matched by a similar increase in healthy life expectancy. Some of the major biological life changes associated with ageing result from the accumulation of lifelong molecular damage to cells, but many health problems are attributable to lifestyle and environmental factors. Diet is one factor believed to play a key role in the prevention and treatment of chronic diseases associated with ageing. Diets that are high in total fat, saturated fat and salt, and low in fibre, fruits and vegetables, are central to the development of cardiovascular disease, type 2 diabetes and cognitive decline among elderly people. In contrast, under nutrition is also a major problem in this age group, with many elderly people having low intakes of essential vitamins and minerals.

Statement cards – further information



In the future, people will live even longer.

In the future, people will have a longer 'healthspan' (years in good health).

Some ageing drug treatments in development aim to reactivate biological processes that have stopped working properly in older age.

- The aim of therapeutics in this field is to prevent or delay the onset of multiple long term conditions and thereby improve the quality of life and health in older age. In addition, this approach could also contribute towards combatting issues associated with taking many medications in later life, creating an avenue for the development of one tablet to treat multiple conditions. This is an area of real promise, which has the potential to change all of our lives and reduce NHS costs.
- Building on research identifying the biological processes contributing to ageing, there is evidence from model systems (from small single celled organisms to non-human primates) that a number of medicines exist that could intervene in these processes and prevent or delay the onset of conditions associated with old age. The challenge now is whether we can develop medicines that have a similar effect, and are safe to administer to humans.