# Ageing and Ageing Populations

**Elaine Francis** 

Northumbria Healthcare NHS Foundation Trust, Northumberland and North Tyneside, UK

#### LEARNING OUTCOMES

After reading this chapter, the reader will be able to:

- 1. Outline international and national population change
- 2. Discuss the concepts of ageing and ageing well
- 3. Appreciate the impact of ageism and assumptions within care for older people
- 4. Understand the need for a comprehensive, person-centred approach to care for older people
- Consider and examine their own values, assumptions and perspectives of ageing

### Introduction

Chapter 1 explores ageing populations as a foundation for understanding and exploring the specialism of caring for the older person. This chapter outlines significant worldwide and national demographic change and invites you to explore the concept of ageing, representations of ageing and older people and realities of health inequality.

There is an urgency to act now to improve the lives of older people. Reading the chapter, you are encouraged to reflect on your own beliefs, viewpoints and experience and consider the experience of your own ageing population.

A chapter within a book, it is always the case that there will be omissions, and many more words could be spent exploring ageing in hard-to-reach populations. Key considerations around caregivers and frailty are detailed elsewhere. Consideration has been taken to add reference to widely available comprehensive data and reports, so you are able to question these with your own local populations in mind.

While the chapter may raise more concerns than offer solutions, these solutions are abundant within the chapters that follow. Consent has been received for case studies; however, details have been changed to protect anonymity.

# What Is Ageing?

Ageing is a multifaceted phenomenon. Biologically, it is 'the time-related deterioration of the physiological functions necessary for survival and fertility' [1]. The World Health Organization [2], when applying ageing to people, broadens this definition to 'the process of growing older, characterised by a progressive decline in functional capacity and increased vulnerability to disease and disability'.

Physically, the ageing process has a deleterious effect on the functioning of bodily systems, from urinary and gastro-intestinal systems to declining sensory systems. These, in turn, impact psychological performance.

Ageing encompasses not only physical, cognitive, functional and psychological changes but also social and environmental dimensions. During the 1980s, there was a shift from a biomedical focus on ageing towards considering more holistic 'successful ageing'. While there are numerous definitions for what 'successful' means, they typically focus on how to increase healthy, functional or fulfilling years for both an individual and a population [3].

This new direction had widespread implications for clinical research and policy across the world. Within the United Kingdom, this concept formed the basis of the 'Ageing Well' discourse, as seen in the NHS Long Term Plan [4].

## What Age Is 'Old Age'?

An adult is defined as an 'older person' when they reach a certain chronological 'threshold' age. These are the ages at which physical and psychological changes tend to occur. The World Health Organization typically uses a threshold age of 60 or 65 years. Within the NHS, typically, anyone over the age of 65 years may be considered an older person [5].

However, if measurements of ageing considered faster increases in life expectancy, it would show slower rates of population 'ageing'. An age marker such as 65 years could be replaced by a measure of prospective age, for example, a future life expectancy of 15 years. Applied in practice, for the US population as of 2018, this threshold age would be 71.5 years. In Japan, it is 74 years; in Nigeria, it is 58 years. Take the example of a 60-year-old man living in Western Europe and ask – is he old? In today's society, 93% of men survive until their 60th year, whereas 150 years ago, less than 25% would [6].

Functional age is an alternative or adjunct to chronological age, which considers the ability to carry out a task and participate in activities essential to independent living. The benefits of integrating functional ageing include links with healthy ageing and developing and maintaining functional ability to enable well-being in older age [7].

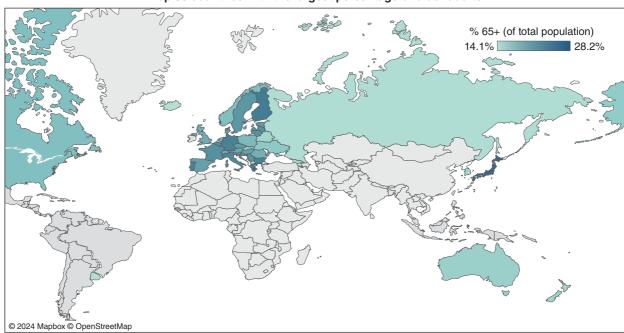
Neither chronological nor functional age considers how a person may feel. Psychological theories of ageing discuss developmental stage theories and changes in cognition, emotion and behaviour [8]. In psychosocial theory, Erikson's model of development can be used to understand the older person's health and care needs. This model portrays a conflict between 'integrity' vs 'despair', highlighting the ability to reflect on one's life with satisfaction, and for it to continue to feel meaningful. Reflecting the ageing well narrative, we are social beings, and to thrive, we need a sense of self-worth and belonging [9].

# Trends in Population Ageing

Population ageing, where older people become a larger demographic share of the total population, is poised to become one of the most significant social transformations of the twenty-first century.

For the first time in human history, there are more people living in the world who are aged 65 years and over than under 5 years. The United Nations project that by 2050, the number of people aged 65 years and over will be double that of children under the age of 5 years and almost the same as those under 12 years. Between 2015 and 2050, the proportion of the world's population over 60 years will nearly double from 12% to 22% [10].

In addition, for a large majority of countries in the world, their populations are irreversibly ageing. 'Super age' populations, where 20% of a population are over the age of 65 years, are a global phenomenon that requires attention and action on an international scale. Europe is the world's oldest continent, with 21.1% of its adult population aged over 65 years in 2022 and predicted to reach half a million centenarians by 2050 [11].



Top 50 countries with the largest percentage of older adults

FIGURE 1.1 The countries with the oldest population in the world. Source: Countries With the Oldest Populations in the World / PRB / CC BY 3.0.

Today's pace of population ageing is much faster than in the past. While it took France 150 years to become a superpopulation, an increase from 10% to 20% of the population aged over 65 years, this same demographic change is predicted to take only 20 years in China, India and Brazil. Figure 1.1 shows countries with the oldest populations in the world.

The UK population is ageing. This is due to rapid improvements in survival and decline in mortality rates, in particular, cardiovascular disease and IHD and fertility trends [12]. Over the 15 years between 2021 and 2036, the size of the UK population aged 85 years and over is projected to increase from 1.6 million (2.5% of the total population) to 2.6 million (3.5%). By 2039, the number of people aged 75 years and over is expected to double from 5 million to nearly 10 million [13].

Across the UK regions, Wales has the largest proportion of people aged over 70 years (15.4%), followed by England (13.5%) and Scotland (13.8%), with Northern Ireland having the smallest at 12.1% [14].

The 2021 Census for England and Wales recorded more people than ever before in older age groups. Over 11 million people, 18.6% of the total population were aged 65 years or older, compared with 16.4% in 2011. In England, almost 40% of people are over 50 years with almost 20% over 65 years, and the number of people aged 80 years and older is predicted to double in the next 40 years. Older people are more likely to live in rural and coastal areas, while younger people live in cities, with the most ageing local authorities on the south and east coast [15].

Population ageing, however, can vary significantly across small geographic areas and local authorities, often where there is a densely urban university city next to a much more rural local authority. To recognise this, the Office of National Statistics [16] created a subnational ageing tool to compare different local authorities and regions in the United Kingdom.

While increasing longevity is to be celebrated, for some, the average time living in good health has not improved. Social determinants of health are the main driver of health inequalities. Social isolation and loneliness are important but often neglected social determinants of health, with health effects exceeding those of smoking 15 cigarettes per day or obesity [17]. Two million older people in the United Kingdom are living in poverty, and more than half experience deep poverty, unable to meet the most basic needs for a decent quality of life [18]. Power imbalances within inequality and the benefits of technology may be limited to those who have the means to pay for them [19].

#### **Reflection Point**

New technologies and robotic assistance.

What is the future of ageing? There is growing interest in how new technologies and robotic assistance can support older people with their activities of daily living and instrumental activities of daily living, potentially enabling older people to live independently in their own homes [19]. This raises an interesting question about how valid a process of chronological and functional ageing is, as it is open to further reinterpretation and reconstruction.

- · What are your views about robotic assistance?
- Who will be able to access technologies?
- What may be some of the challenges?

The Chief Medical Officer's annual report discusses health in an ageing society and makes recommendations in line with World Health Organization's strategic pillars for health ageing [15, 20]. The report showcases a positive approach to improving quality of life rather than longevity, maintaining independence through reducing disease, preventing and slowing the progression of frailty, tackling inequalities, and adapting environments. Increases in health expectancy can be credited to a great degree to education, where, on average, people with a low level of education can expect to live 6 years less than those with a high level of education [21].

Health inequalities will persist over the next two decades. In 2040, over 50% of people in the most deprived areas could be expected either to be living with a major illness or to have died by the age of 70 years. The majority is due to a small group of long-term conditions: chronic pain, chronic obstructive pulmonary disease (COPD), type 2 diabetes, cardiovascular diseases, anxiety and depression. Rates of frailty are affected by inequalities, with worse health outcomes across the life course and increased levels of frailty from lower socio-economic groups, beginning from younger ages [22].

The Chief Medical Officer's annual report is clear that we need to be prepared for our ageing ethnic populations and increase in diversity such as sexual orientation [15].

## Exploring Representations of Ageing and Older People

In Ageism Unmasked: Exploring Age Bias and How to End It, Gendron [23] describes how meanings we assign to 'being old' are socially constructed. Older people are seen as a 'homogeneous group comprising people who are frail, dependent, problematic, and fast on their way to becoming incompetent or irrelevant.' (p. 3). This meaning causes unique challenges that have a significant impact on the health and well-being of older people.

Ageism is seen through our attitudes: discriminatory stereotypes (how we think), prejudice (how we feel) and discrimination (how we act) towards others or oneself based on age. Figure 1.2 summarises different types of ageism. Consider again the definitions of ageing used at the start of the chapter. Is the process of ageing seen in a neutral, positive or negative light? Within the biomedical model, ageing is seen as a problem rooted in 'decline', with underlying perceptions of weakness, illness and dependency.

Age is one of the nine personal characteristics that cannot be used as a reason to discriminate against someone under the Equality Act 2010; however, it remains one of the last socially acceptable prejudices [24]. Ageism is often dismissed as being harmless; however, evidence shows that it causes significant damage to individuals, the economy and society. Society is steeped in ageism, from birthday cards that joke about advancing age to headlines warning of 'bed blockers' or the impending 'silver tsunami' timebomb. The top ten most frequently used words across UK media in relation to older people include 'help', 'care', 'support', 'dementia' and the 'NHS' [23].

Mary's story in Box 1.1 demonstrates how a positive, inclusive approach to ageing and care can have a lasting impact.

## How ageism affects us

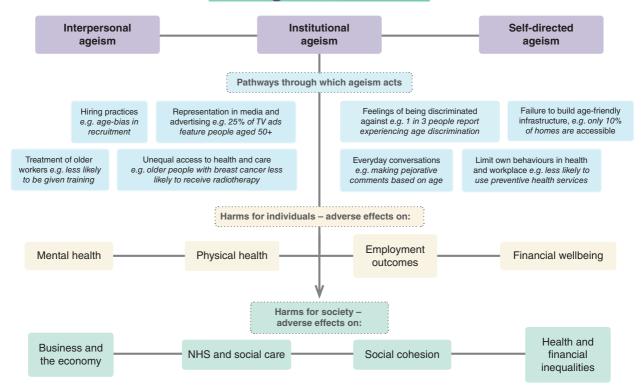


FIGURE 1.2 Summarises how ageism affects us. Source: Ageism: What's the harm?, https://ageing-better.org.uk/sites/default/files/2023-02/Ageism-harms.pdf, last accessed on 26 November 2024 / Centre for Ageing Better.

#### BOX 1.1 What Matters to Me - Mary's Story

Mary, an 80-year-old woman, was an inpatient in an orthogeriatric ward after falling at home, where she lived alone. She had always kept active, but a series of falls had knocked her confidence.

Mary's ward employed 'Active Ward champions', staff dedicated to keeping patients engaged, motivated, and active during their hospital stay. The role is designed to combat loneliness and provide a positive experience for patients. Mary did not want to join in at first but then started tapping her foot to the beat of the music and before she knew it, she was joining in with regular Active ward interventions. During the ward round, Mary asked the Consultant to write down that:

'This admission has changed my life. It has made me more motivated to be up and mobile. I have been inspired by staff to be more mobile when I go home'.

Mary was inspired and kept motivated on the ward and went home with a pack of further exercises she planned to follow.

## Interpersonal Ageism

Globally, one in two people are ageist towards older people [25]. While there is broad agreement that ageism negatively impacts health, there is no consensus on what brings about a country or culture's attitude towards age [26].

Ageism is extremely prevalent in the United Kingdom. A higher proportion of British adults have reported experiencing prejudice based on their age (26%) than on any other characteristic [27]. Research into perceptions of ageing suggested that ageing was perceived as relating to a decline in physical attractiveness, the ability to perform everyday tasks

and new learning and perceived increases in wisdom, knowledge and received respect and life satisfaction. In one study, from 26 cultures, only 5 cultures perceived ageing in a positive light (Malaysia, India, China, Russia and New Zealand), and of the rest, the most negative societal views of ageing were held by Serbia, Czech Republic and the United Kingdom [28].

'She's a sweet old dear! No bother at all, she's a faller, can be a bit confused!'

This is an example of interpersonal ageism in healthcare; attitudes seen in social interactions involving two or more individuals suggest that someone is less valuable or less able to contribute because of their age. While on the surface this seems positive, this attitude is allied to an assumption that the person is less competent. This can further disempower the person, leading to assumptions about mental capacity, infantilising and reduced shared decision-making. If Mary (Box 1.1) had been perceived as a 'sweet old dear' and destined to keep falling, her hospital admission could have been very different.

Language matters. The British Geriatric Society has compiled a list of preferred and non-preferred terminology to promote the use of language which is free from judgement, non-reductionist and reflective of the lived experience of the individual [29].

# Self-directed Ageism

Self-directed ageism refers to ageism turned against oneself. This can be seen in assumptions that you cannot achieve because you are 'too old' or blaming health problems on old age. Take a minute now to read Box 1.2 and explore your own attitude to ageing, and consider at what age you would or did consider yourself to be 'old'. Has this changed as you have aged? Across generations, the age at which people are perceived as 'old' has increased, and as people get older themselves, their perception of what constitutes being 'old' may also shift upward [30].

Subjective age, the age that describes how old a person feels, rather than their chronological age, is an important indicator of individual ageing experience. How old an individual feels is an important predictor of health outcomes across the lifespan [31]. Self-ageism can impact levels of exercise and healthy eating and whether people seek and accept help. Levy, in Breaking the Age Code, discusses how age is a self-fulfilling prophecy, detailing research that holding positive age beliefs could extend your life expectancy by 7.5 years [32].

## Institutional Ageism

Institutional ageism refers to the laws, rules, social norms, policies and practices of institutions that unfairly restrict opportunities and systematically disadvantage individuals because of their age. The World Health Organization Global Report on ageism provides a comprehensive report on institutional ageism, why it happens, its impact across all areas of society and the preventative strategies [25]. The report shows how ageism pervades many institutions and sectors of society, including those providing health and social care, the workplace, the media and the legal system.

#### BOX 1.2 Activity Explore Your Own Attitude to Ageing

#### **Explore Your Own Attitude to Ageing**

- Would you be concerned that a shop has a sign behind the till that says, 'if you are lucky enough to look under the age of 25, we may ask you for ID'?
- Would you choose a birthday card that makes a joke about the person's advancing age, physical decline or their sex life?
- Would you assume that becoming incontinent or frail is an inevitable part of ageing?

The Age Without Limits campaign reveals that most people have ageist beliefs and suggests ways that these can be limited or overcome. These tools can help you explore your personal unconscious bias and beliefs about ageing:

Ageing Without Limits campaign quiz, which asks five questions https://www.agewithoutlimits.org/challenge

Access to healthcare accounts for just a small part (10% in some estimates) of our health outcomes. The rest is shaped by the wider circumstances of our lives, including our homes, jobs and where we live [27].

Institutional ageism within the NHS includes:

- Widespread healthcare rationing based on age, with older people less likely to receive surgical treatment for their conditions
- Depression and anxiety in older people are often overlooked; they are less likely to be referred for talking therapies compared to younger adults
- Fewer older people in treatment for alcohol misuse, despite increased risk of harm peaking among people in their 50s and 60s
- Older people have historically been excluded from drug trials, clinical trials and data collection efforts [33].

## Ageing, Health and Society

There are major challenges in ensuring that health and care systems and their workforce are ready to meet the demands and opportunities of ageing populations. There is no homogenous 'older person'. Older individuals vary significantly in their experience of ageing. However, older people are not younger people and have different needs. Garrett et al. illustrate the adverse care rule, whereby people with the greatest need often have the greatest difficulty accessing and receiving appropriate care and support [34]. The COVID-19 pandemic identified that ageism was a reality in society [35]. Box 1.3 highlights the issue of ageism and COVID-19.

The importance of a whole system approach for older people is not new; this coordination across primary and secondary care is the foundation of the comprehensive geriatric assessment (CGA). A positive approach to demographic change can be achieved through the creation of age-friendly environments across regional integrated initiatives that systematically review the needs and agree on priorities to improve health and well-being and reduce inequalities [37–39]. One of the keys to a successful whole system approach is making sure that older people are co-design partners. Box 1.4 asks that you consider what matters to older people.

#### BOX 1.3 Ageism and COVID-19

#### COVID-19

The COVID-19 pandemic demonstrated and amplified the inherent ageism in society. Narratives often reported that older people were a homogeneous group, uniformly frail and vulnerable, while younger people were invincible or irresponsible [35].

Evidence produced for the UK Covid-19 Inquiry reported discussions among senior UK Government politicians and officials which suggested that it was not worth protecting older people most at risk. Their deaths were rendered acceptable. For those in long-term care, decisions were slow and possibly even negligent in preparing a response to COVID-19 that could have reduced the number of victims [36].

#### BOX 1.4 Who Decides 'What Matters to Older People?'

Organisations and services need to actively seek and learn from older people about what matters to them. These should not be assumed.

This should include real-time feedback from those being cared for and their significant others, patient-orientated outcomes measures and strategic participation. Co-design with 'older people' representatives brings a broad range of expertise and experience that includes an understanding of patient safety and quality improvement, issues related to health inclusion and inequalities and championing improvements centred around patient and community needs.

- · How do you know what matters to older people?
- Within your workplace are services co-designed with older people?
- How do you ensure that the 'voice of the older person is heard'?

Reducing inequalities in health and health care is a priority for the NHS. Systems need to align with the complex and multifactorial needs of older people. However, ageism is a major barrier to enacting effective policies and taking action. Older people living in care homes, for example, are an underserved population with complex health needs, with 75% living with dementia and at least one other health condition and 50% in the last year of life [40]. The 'disadvantaged dying' have a high level of unmet palliative care need, disadvantaged access to specialist services and assumptions around social isolation.

The mental health of people in later life has been overshadowed by systemic and interpersonal ageism, impacting individual care and health and care systems [41]. The concept of parity of esteem, which emphasises equal priority for mental health and physical health, was written into law by the Health and Social Care Act 2012; however, people with severe mental illness continue, on average, to have 15–20 years shorter life expectancy than the general population, often living with chronic ill health.

Ageism often intersects and compounds other forms of stereotypes and discrimination, including mental health stigma, ableism, classism, sexism, homophobia and racism. Underserved, hard-to-reach and marginalized groups within society have unique challenges that impact their experience of ageing. These include, but are not limited to, LGBTQ+ individuals, the Traveler community, people from minoritised ethnic groups, people with substance abuse issues, homeless individuals, veterans, refugees and asylum seekers and informal caregivers [34]. His Majesty's Prison and Probation Service uses an age of 50 years to define older adult, suggesting that at 50 years, a prisoner may have the healthcare needs of a 60-year-old non-prisoner [42]. Challenges are compounded by factors such as discrimination, inequality and lack of access to resources. This highlights the importance of maintaining culturally sensitive care and outreach programs and the creation of inclusive environments to ensure equitable access to healthcare services.

## Conclusion

Every country in the world is experiencing growth in the numbers and the proportion of older people in the population. There is no 'typical older person' or a single experience of 'ageing'; however, growing older in our society creates increased physical, psychological and social challenges. There is inextricable evidence that the impact of society has on ageing and the experience of older people. Ageism can be individual, internalised and institutional. Inherent ageism in our institutions, systems and attitudes means that everyone has a responsibility to act to counter this, from reflecting on their own values to advocating for equity and for people who live with frailty. There is a need to challenge stereotypical views and champion societies that promote healthy ageing and enhance the quality of life.

## References

- 1. Gilbert, S.F. (2000). Aging: The Biology of Senescence. Nih.gov. Sinauer Associates. https://www.ncbi.nlm.nih.gov/books/NBK10041/.
- 2. World Health Organization *Global Strategy and Action Plan on Ageing and Health*. World Health Organization. https://www.who.int/ageing/WHOGSAP-2017.pdf?ua=1.
- 3. Annele, U., Satu, K.J., and Timo, E.S. (2019). Definitions of successful ageing: a brief review of a multidimensional concept. *Acta Bio Medica: Atenei Parmensis* 90 (2): 359–363. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6776218/.
- NHS (2019). The NHS long term plan. https://www.longtermplan.nhs.uk/wp-content/uploads/2019/08/nhs-long-term-plan-version-1.2.pdf (accessed 13 February 2025).
- 5. WHO (2017). World health organization global strategy and action plan on ageing and health. https://www.who.int/publications/i/item/9789241513500 (accessed 13 February 2024).
- 6. Sanderson, W.C. and Scherbov, S. (2020). Choosing between the UN's alternative views of population aging. Gemmill A, editor. *PLoS One* 15 (7): e0233602.
- 7. Frangos, E., Graf, C., and Samaras, N. (2023). Functional aging: integrating functionality to a multidimensional assessment of healthy aging. Malavolta M, editor. *Current Gerontology and Geriatrics Research* 2023: 1–6.

- 8. Wernher, I. and Lipsky, M.S. (2015). Psychological theories of aging. Disease-a-Month 61 (11): 480-488.
- 9. Allen, K.A., Kern, M.L., Rozek, C.S. et al. (2021). Belonging: a review of conceptual issues, an integrative framework, and directions for future research. *Australian Journal of Psychology* 73 (1): 87–102. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8095671/.
- 10. United Nations (2024). World Population Prospects Population Division United Nations. United Nations. https://population.un.org/wpp/Download/Standard/Population/.
- 11. Eurostat (2020). Ageing Europe statistics on population developments statistics explained. ec.europa.eu. https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Ageing\_Europe\_-\_statistics\_on\_population\_developments (accessed 13 February 2025).
- 12. Piggott, J. and Woodland, A.D. (2016). Handbook of the Economics of Population Aging. Amsterdam: Elsevier.
- 13. Office for National Statistics (2021). Census office for national statistics. Ons.gov.uk. https://www.ons.gov.uk/census (accessed 13 February 2025).
- 14. Office for National Statistics (2022). Estimates of the population for the UK, England and Wales, Scotland and Northern Ireland Office for National Statistics. https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/population estimates/datasets/populationestimatesforukenglandandwalesscotlandandnorthernireland (accessed 13 February 2025).
- 15. Department of Health and Social Care UK (2023). Chief Medical Officer's Annual Report 2023: Health in an Ageing Society. London: Gov.UK. Chief Medical Officer's Annual Report 2023 Health in an Ageing Society (accessed 6 February 2025).
- 16. Office for National Statistics. Census 2021 Subnational ageing tool. Subnational ageing tool Office for National Statistics (accessed 6 February 2025).
- 17. Holt-Lunstad, J. (2017). The potential public health relevance of social isolation and loneliness: prevalence, epidemiology, and risk factors. *Public Policy & Aging Report* 27 (4): 127–130. https://academic.oup.com/ppar/article/27/4/127/4782506.
- 18. Reeves, C., Islam, A., and Gentry, T. (2024). *The state of health and care of older people in England 2024*. Age UK. https://www.ageuk.org.uk/globalassets/age-uk/documents/reports-and-publications/reports-and-briefings/health--wellbeing/state-of-health-and-care/state\_of\_health\_and\_social\_care\_24.pdf.
- 19. Mois, G. and Beer, J.M. (2020). The role of healthcare robotics in providing support to older adults: a socio-ecological perspective. *Current Geriatrics Reports* 9 (2): 82–89.
- 20. World Health Organisation (2022). Decade of healthy ageing (2020-2030). www.who.int. https://www.who.int/initiatives/decade-of-healthy-ageing (accessed 13 February 2025).
- 21. Cristea, M., Noja, G.G., Stefea, P., and Sala, A.L. (2020). The impact of population aging and public health support on EU labor markets. *International Journal of Environmental Research and Public Health* 17 (4): 1439. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7068414/ (accessed 13 February 2025).
- 22. Raymond, A., Watt, T., Douglas, H. et al. (April 2024). REAL Centre Insight report April 2024 Health inequalities in 2040: current and projected patterns of illness by deprivation in England. https://www.health.org.uk/sites/default/files/upload/publications/2024/Health%20inequalities%20in%202040.pdf (accessed 13 February 2025).
- 23. Gendron, T. (2022). Ageism Unmasked: Exploring Age Bias and How to End It. S.L: Steerforth Press.
- 24. AGE UK (2024). Equality, discrimination and the public sector equality duty. https://www.ageuk.org.uk/globalassets/age-uk/documents/factsheets/fs79\_equality\_discrimination\_and\_the\_public\_sector\_equality\_duty\_fcs.pdf. (accessed 13 February 2025).
- 25. World Health Organisation (2021). *Global Report on Ageism*. Geneva: World Health Organization 9789240016866-eng.pdf (accessed 6 February 2025).
- 26. Ng, R. and Lim-Soh, J.W. (2021). Ageism linked to culture, not demographics: evidence from an 8-billion-word corpus across 20 countries. *The Journals of Gerontology: Series B* 76 (9): 1791–1798. https://doi.org/10.1093/geronb/gbaa181.
- 27. Centre for Better Ageing (2023). Ageism what's the harm? Exploring the damaging impact of ageism on individuals and society. Ageism-harms.pdf (accessed 6 February 2025).
- 28. Löckenhoff, C.E., De Fruyt, F., Terracciano, A. et al. (2009). Perceptions of aging across 26 cultures and their culture-level associates. *Psychology and Aging* 24 (4): 941–954. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2933107/pdf/nihms-215302.pdf.
- 29. British Geriatric Society (2024). Preferred language when referring to older people in a health context. Preferred language when referring to older people in a health context | British Geriatrics Society (accessed 6 February 2025)
- 30. Wettstein, M., Wahl, H.W., Drewelies, J. et al. (2023). Younger than ever? Subjective age is becoming younger and remains more stable in middle-age and older adults today. *Psychological Science* 34: 095679762311645.
- 31. Neupert, S.D. and Bellingtier, J.A. (2017). Aging attitudes and daily awareness of age-related change interact to predict negative affect. *The Gerontologist* 57 (suppl\_2): S187–S192.
- 32. Levy, B. (2022). Breaking the Age Code: How Your Beliefs About Ageing Determine How Long and Well You Live. London, UK: Vermilion.
- 33. Pitkala, K.H. and Strandberg, T.E. (2022). Clinical trials in older people. Age and Ageing 51 (5): afab282.

- 34. Garrett, J., Worrall, S., and Sweeney, S (2020). Reducing health inequalities for people living with frailty a resource for commissioners, service providers and health, care and support staff. Friends Families and Travellers. https://www.gypsy-traveller.org/wp-content/uploads/2020/10/health\_ineq\_final.pdf (accessed 6 February 2025).
- 35. Swift, H.J. and Chasteen, A.L. (2021). Ageism in the time of COVID-19. *Group Processes & Intergroup Relations* 24 (2): 246–252. https://doi.org/10.1177%2F1368430220983452.
- 36. Fraser, S., Lagacé, M., Bongué, B. et al. (2020). Ageism and COVID-19: what does our society's response say about us? *Age and Ageing* 49 (5): 692.
- 37. Local Government Association (2015). Ageing: the silver lining. The opportunities and challenges of an ageing society for local government. London: Local Government Association. https://www.local.gov.uk/topics/social-care-health-and-integration/adult-social-care/ageing-silver-lining-opportunities-and-challenges-ageing (accessed 6 February 2025).
- 38. The Health Foundation. Doing more for less? A mixed-methods analysis of the experience of primary care networks in socioeconomically deprived areas London. The Health Foundation. https://www.health.org.uk/publications/reports/doing-more-for-less (accessed 6 February 2025).
- 39. Northumberland County Council (2023). Ageing Well in Northumberland Director of Public Health Report 2023. https://www.northumberland.gov.uk/NorthumberlandCountyCouncil/media/Health-and-social-care/Public%20Health/Director-of-public-health-annual-report-2023\_1.pdf (accessed 6 February 2025).
- 40. Public health England (2019). Dementia: comorbidities in patients data briefing. GOV.UK. https://www.gov.uk/government/publications/dementia-comorbidities-in-patients/dementia-comorbidities-in-patients-data-briefing (accessed 6 February 2025).
- 41. Centre for Mental Health (2024). Mental health in later life understanding needs, policies and services in England. https://www.centreformentalhealth.org.uk/wp-content/uploads/2024/03/CentreforMH\_MentalHealthInLaterLife-1.pdf (accessed 6 February 2025).
- 42. British Geriatric Society (2020). End of life care in frailty: prisons. British Geriatrics Society. https://www.bgs.org.uk/resources/end-of-life-care-in-frailty-prisons (accessed 6 February 2025).