Expert Report for the UK Covid-19 Public Inquiry

Module 2: Inequality, Later Life and Ageism

Author: Professor James Nazroo

About the author

James Nazroo (MB.BS PhD) is a Fellow of the Academy of Social Sciences (FAcSS), a Fellow of the British Academy (FBA) and Professor of Sociology at the University of Manchester. Previously he was Professor of Medical Sociology at University College London. For more than thirty years he has conducted research on issues of inequality, social justice, and health, with a focus on ethnicity/race, ageing, gender, and the interrelationships between these. He is founding and Deputy Director of the ESRC funded research Centre of Dynamics of Ethnicity (CoDE), was co-PI of the Synergi Collaborative Centre, which investigated ethnic inequalities in severe mental illness, was PI of the fRaill programme, an interdisciplinary study of inequalities in later life, is co-PI of the English Longitudinal Study of Ageing, and is founding and co-Director of the interdisciplinary Manchester Institute for Collaborative Research on Ageing (MICRA). He is a member of the Governing Board of the NHS Race and Health Observatory and co-Chair of its Academic Reference Group.

Author statement

I confirm that this is my own work and that the facts stated in the report are within my own knowledge. I understand my duty to provide independent evidence and have complied with that duty. I confirm that I have made clear which facts and matters referred to in this report are within my own knowledge and which are not. Those that are within my own knowledge I confirm to be true. The opinions I have expressed represent my true and complete professional opinions on the matters to which they refer.

Professor James Nazroo

19th September 2023

Table of Contents

Preamble 3

Topic 1: Vulnerability of older people to a pandemic caused by a respiratory virus 5

Topic 2: Which subgroups of the older population are particularly at risk? The patterning of inequality within the older population 7

Topic 3: Vulnerability of older people living in care homes and those awaiting discharge from hospital to a pandemic caused by a respiratory virus 12

Topic 4: The risk of adverse outcomes resulting from Non-Pharmaceutical Interventions (NPIs) and inequalities in this risk across the older population. 14

Topic 5: Ageism and its impact on access to health and social care, and social inclusion 17

Topic 6: Missed opportunities 20

Annex 1: References 23

Preamble

1. In this report I summarise evidence produced prior to January 2020 on inequalities in health, social and economic factors experienced by older people and how this varies across the older population. The primary focus is on those aged 65 or older, although in some places I also draw on evidence relating to adults in the 50 and over age bracket. This primary focus on those aged 65 and over means that I do not discuss issues related to employment.

2. In addition, to illustrate the significance of these inequalities, in various places I document how they unfolded through the course of the pandemic.

3. In addition to discussing the vulnerable situation of poorer older people and ethnic minority older people (only touched upon, because ethnicity is the focus of another expert report), this report details the inequalities and vulnerability faced by older people living in care homes or awaiting discharge from hospital into care homes.

4. It is worth noting that much of the evidence I present in relation to care homes was covered in a review paper authored by Professor Sir Jonathan Nguyen-Van-Tam and others, published in 2017, just over two years before the start of the Covid-19 pandemic (Lansbury et al., 2017).

5. The role of ageism is highlighted in this report. By this I mean the stereotypes and prejudice attached to older people, old age and the ageing process. This is particularly the case for vulnerable older people. Such stereotypes portray older people as frail, dependent and passive, and they inform policies and practices that both ignore and discount their decision-making and their needs.

6. The evidence reviewed in this report is primarily from England, although in places evidence from other countries in the UK is used in combination with the evidence from England. This reflects the much greater availability of evidence on inequalities in later life from England. Administrative data (including the Census) across all four nations are similar, so comparisons can be drawn using such data. However, they do not allow for a thorough documentation of inequalities in later life. Consequently, to examine such inequalities it is necessary to rely on analyses of robust survey data, and focused qualitative studies. Relevant data for England is provided by the English Longitudinal Study of Ageing (ELSA), which began in 2000 and covers multiple dimensions of people's lives and wellbeing. This provides high quality data and has been used in numerous pieces of academic and policy research. The only equivalent to ELSA in other UK nations is the Northern Ireland Cohort for the Longitudinal Study of Ageing (NICOLA), which completed its first sweep of interviews in 2016 and published its first report in 2017. As a consequence of being relatively recent, its data have been only partially used to document inequalities – although the pattern of findings replicates those for England. The equivalent study in Scotland, Health Ageing In Scotland (HAGIS), has only conducted pilot work (mainly to link administrative records together) and some specific investigations on the impact of the Covid-19 pandemic. There is no equivalent study in Wales, and while Wales has a regional study of older people investigating Cognitive

Function (CFAS Wales) that has equivalents in three regions of England, this does not allow a comparison in relation to inequalities experienced within the older population.

7. There is considerable evidence that the patterning of health for the population as a whole varies across the nations of the UK, as it does across geographical regions within the nations of the UK. This has been clearly documented for many decades. However, within nations and regions the presence of inequalities in health, social and economic outcomes is remarkably consistent. For example, poorer people in more deprived areas have worse health than richer people in equivalently deprived areas, and within each nation of the UK poorer people have worse health than richer people.

8. It is, of course, possible that there is variation in the magnitude of the inequalities across the nations of the United Kingdom, but nevertheless, the inequalities are present in each nation, even if not thoroughly documented in each nation. So, although evidence from Scotland, Wales and Northern Ireland is relatively sparse, there is no evidence to suggest that inequalities experienced in later life are different in those nations. This interpretation is strengthened by detailed evidence from across Europe, North America and Australia (all with quite different health, social care and pensions systems) that strongly echoes evidence from England on inequalities in later life.

9. Consequently, in my considered opinion it is very unlikely that there will be meaningful differences across the nations of the UK in relation to the issues discussed in this report, and that the evidence produced in this report and the conclusions drawn are relevant for each nation of the UK.

Topic 1: Vulnerability of older people to a pandemic caused by a respiratory virus

10. The increased vulnerability of older people to a pandemic caused by a respiratory virus has been thoroughly documented.

11. This is recognised in the recommendation that those aged 65 and over, those living in a residential or nursing home and those who are the main carer of an older or disabled person should receive an annual influenza vaccination, because of high risk of complications (other broad groups recommended to receive an influenza vaccination are children aged 2–3 years, pregnant women and frontline health or social care workers) (UK Health Security Agency, 2022).

12. In addition, an annual influenza vaccination is also recommended for certain clinical groups. Those diagnosed with: a heart problem; a chronic respiratory disease; a kidney or liver disease or spleen disorder; a stroke or transient ischaemic attack; diabetes; some neurological conditions hematologic disorders; those who are immunocompromised and those who are seriously overweight (UK Health Security Agency, 2022). Of these criteria, almost all are more likely to be present for older people.

13. Studies that have examined the burden of influenza have identified that those aged 75 or older are especially at risk. It is estimated that in the UK those aged 75 or older account for just over a third (36%) of all influenza-attributable respiratory hospitalisations, and for almost three quarters (74%) of all influenza-associated deaths (Matias et al,. 2016). Data specific to England indicates that those aged 75 or older account for around half (52%) of influenza related hospital bed occupancy days and two thirds (69%) of excess bed days (Flemming et al., 2003).

14. The greater risk of influenza-related complications and mortality faced by older people is a consequence of a combination of factors, such as the greater prevalence of chronic illness, reduced immunity and, more generally, frailty. Frailty is a consequence of age-related declines in biological systems that results in a range of physical, psychological and cognitive impairments (Rockwood et al., 2006). It results in a greater risk of adverse outcomes, such as falls, fractures, hospitalisation, moving into long term care and mortality (Rockwood et al., 2006). As such, it can be used to identify individuals, and segments of the population, that are at greater risk of an adverse event, including in the context of a pandemic.

15. In the context of influenza, research suggests that although the risk of infection is similar for people aged 65 and over with and without a diagnosis of a chronic illness, the risk of pneumonia and hospitalisation is much greater for those with a chronic illness (Mauskopf et al., 2013; Falsey et al., 2005). Older people without a chronic illness have a low risk of influenza complications.

16. In this regard, it should be noted that initial planning for the Covid-19 pandemic was shaped by existing planning for an influenza pandemic (see minutes from SAGE meetings conducted in early 2020).

17. When initial COVID-19 outcome data were made available from the early stages of the pandemic in China, older age was quickly identified as a predictor for mortality (Verity et al., 2020, published 30th March 2020). On the 11th February 2020 a short document that described the age distribution of infections and mortality in China, up to 29th January 2020 (Ferguson et al, 2020), was considered by SAGE. This showed relatively small age variations in risk of infection among the adult population, but that those aged under 50 had a negligible risk of mortality compared with those aged 50 to 69, while those aged 70 and over had a greatly elevated risk of mortality compared with those aged 50-69.

18. The consequences of this age-related vulnerability can be seen in the age distribution of Covid-19 related deaths in England and Wales. Data recently published by Office for National Statistics (ONS, 2023) indicate that over the period March 2020 to June 2023, of those deaths that were classified as 'Due to Covid-19', 59.6% occurred in the age group 80 and over, 22.4% occurred in the age group 70 to 79, 10.6% occurred in the age group 60-69, 6.6% occurred in the age group 40 to 59, with less than 1% occurring below age 40 (authors calculations). Analysis from the Public Health England review showed that once infected, those aged 80 and over were seventy times more likely to die than those aged 40 (Public Health England, 2020).

Topic 2: Which subgroups of the older population are particularly at risk? The patterning of inequality within the older population

19. In this section I briefly summarise evidence suggesting an increased risk faced by two segments of the population, older people in poorer socioeconomic positions and ethnic minority older people.

20. At the outset, it is worth noting that there are marked socioeconomic inequalities within the older population. For example, survey data (which typically do not cover the poorest and the richest in society) show that while the mean level of non-pension wealth for those aged 50 and over is £463,700, half the population have less than £286,000, and a quarter have less than £129,100, while the poorest 10% of the population have less than £2,500 and the richest 10% have more than £886,100 (Oldfield, 2018).

21. There is also evidence to suggest that in the years leading up to the Covid-19 pandemic there was an increase in inequality for retired households. Using the Gini coefficient as a measure of inequality, the Office for National Statistics (ONS) reported that compared with 2009-2010, inequality in levels of disposable income amongst retired households increased significantly (by 3.7 percentage points) to the period 2016-2017, bringing it close to the level of inequality that was seen in the late 1980s, and not much lower than the level of inequality seen among those who are not retired (4.5 percentage points lower compared with 9.3 percentage points lower in 2009/10) (ONS, 2018). ONS suggests that this is, in part, a result of the difference between those with and without income from private pensions.

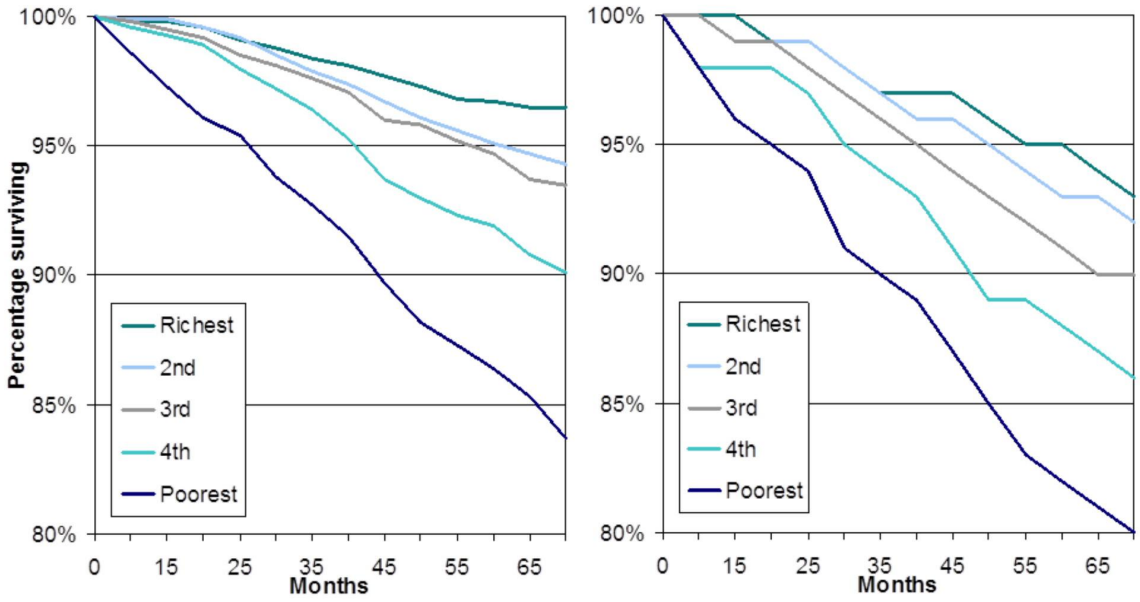
22. Socioeconomic position is strongly related to health, even in older ages, and consequently socioeconomic position is related to risk of complications and mortality in the context of a pandemic.

23. For example, cross-sectional descriptions of the population aged 65 and older show the inverse relationship between markers of socioeconomic position, such as wealth and occupational class, and a range of markers of health (Banks et al., 2006; Marmot et al., 2003; Nazroo et al., 2008). Although the strength of the relationship reduces with increasing age, this reduction appears to be largely a consequence of higher mortality rates among the most vulnerable in less affluent socioeconomic groups, with consequent reduced socioeconomic differences among survivors (McMunn et al., 2009). That is, the reduced inequality at the oldest ages reflects higher premature mortality of the most vulnerable in the poorest groups. That is to say, the reduced inequality amongst those with the greatest age reflects the fact that the most vulnerable, who are more likely to be in the poorest group, had already died at a younger age.

24. Figure 1 (Nazroo et al., 2008) shows one example of the relationship between socioeconomic position and health. It presents survival curves for men and women aged 50 or older over a six-year period by wealth. Around 16% of women in the least affluent fifth of the population do not survive over this six-year period compared with only around four percent of women in the most affluent fifth of the population – a four-fold difference. Similarly, 20% of men in the least affluent fifth of the population do not survive compared with only seven percent of men in the most affluent fifth of the population.

25. Note that Figure 1 does not present an analysis of causal processes – factors associated with wealth, such as the differing prevalence of chronic illness, health behaviours, and levels of status and stress contribute (Nazroo et al., 2008; McGovern and Nazroo, 2015).

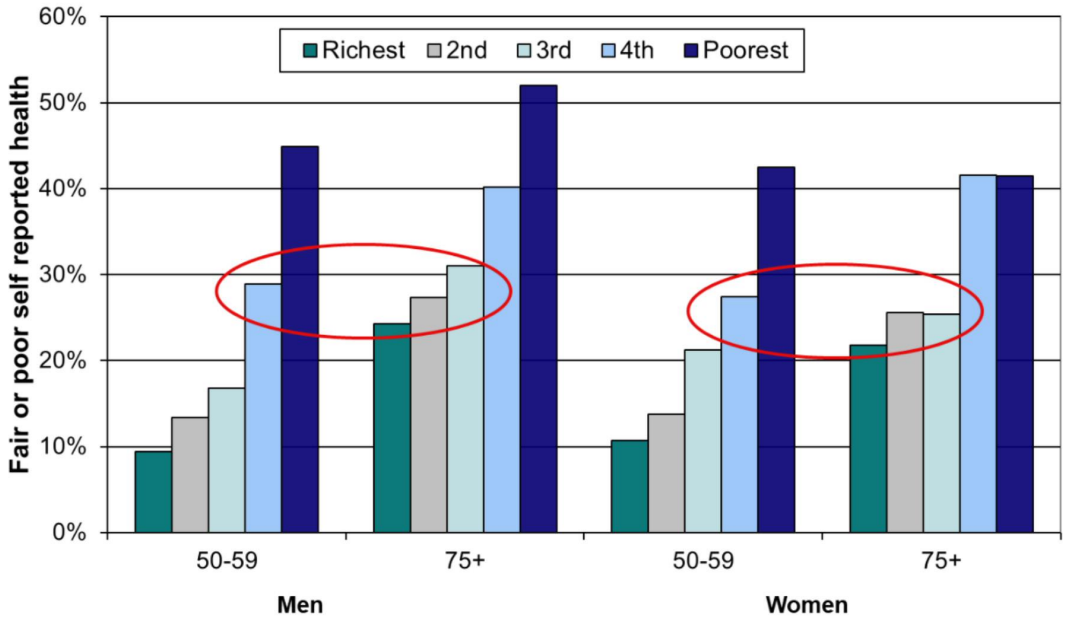
Figure 1. Survival rates stratified by wealth quintile: women and men aged 50 or older.



Source: Nazroo et al. (2008)

26. Underlying this are marked inequalities in morbidity. This is shown in Figure 2, which shows levels of self-report fair or poor health by wealth and age for men and women in two age groups (Banks et al, 2003). The poorer health for those with lower levels of wealth is apparent. The red ovals in Figure 2 illustrate the equivalence between the health of the richest in the oldest age group and that of the poorest in the younger age group.

Figure 2. Wealth and self reported fair or poor health for men and women in two age group



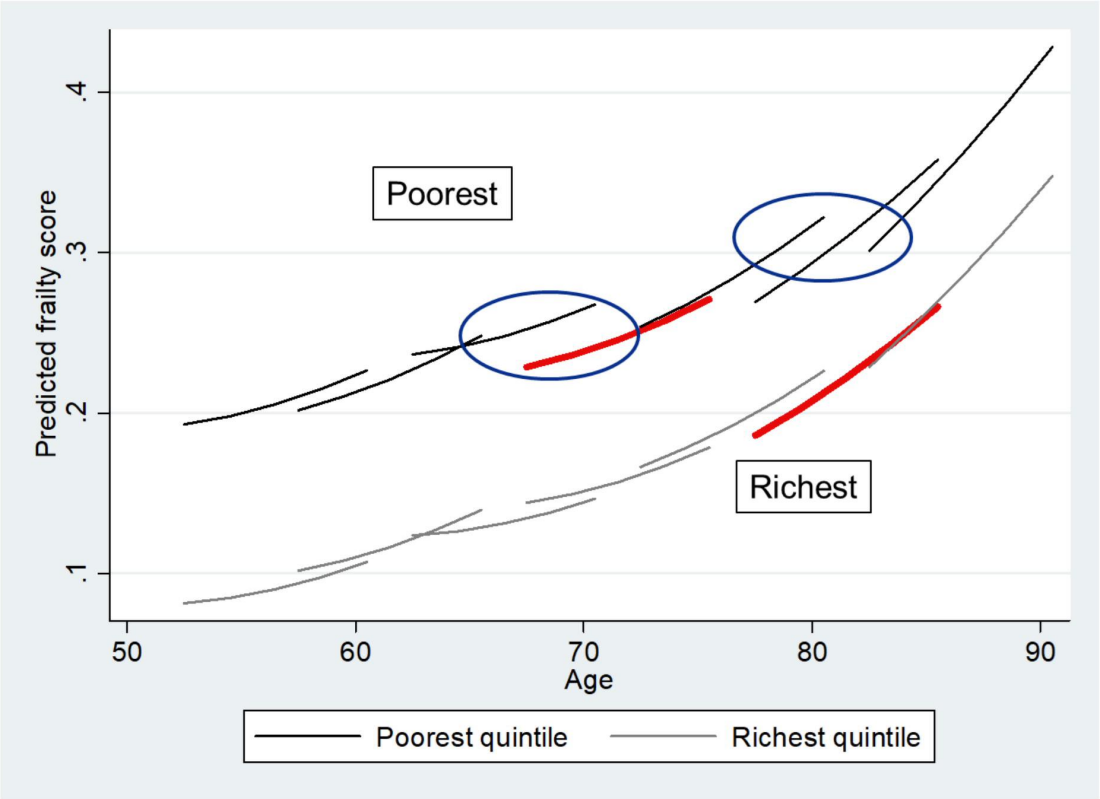
Source: Banks et al. (2003).

27. Inequalities between the richest and poorest are also large for mental health. For example, levels of depressed mood for the most affluent fifth of the population at age 85 and over, when they are at their highest level, remain below those for the least affluent fifth of the population at age 65–70, when they are at their lowest level (Jivraj et al., 2014).

28. Similarly, there are marked differences in the levels of frailty across socioeconomic groups. Figure 3 (Marshall et al., 2015) shows that the trajectory of frailty for an individual in the least affluent third of the population is comparable to that for those aged ten or more years older in the most affluent third of the population – compare, for example, the two red lines. This analysis also suggests that inequalities in levels of frailty are widening over time (the gap between the frailty trajectories for the wealthiest and least wealthy categories are wider at younger compared with older ages).

29. This evidence, alongside the evidence indicating low risk of influenza-related complications and mortality among older people who are healthy (see paragraph 12 (Mauskopf et al., 2013; Falsey et al., 2005)), indicates that those older people who are in poorer socioeconomic positions would be at much greater risk during a pandemic caused by a respiratory virus.

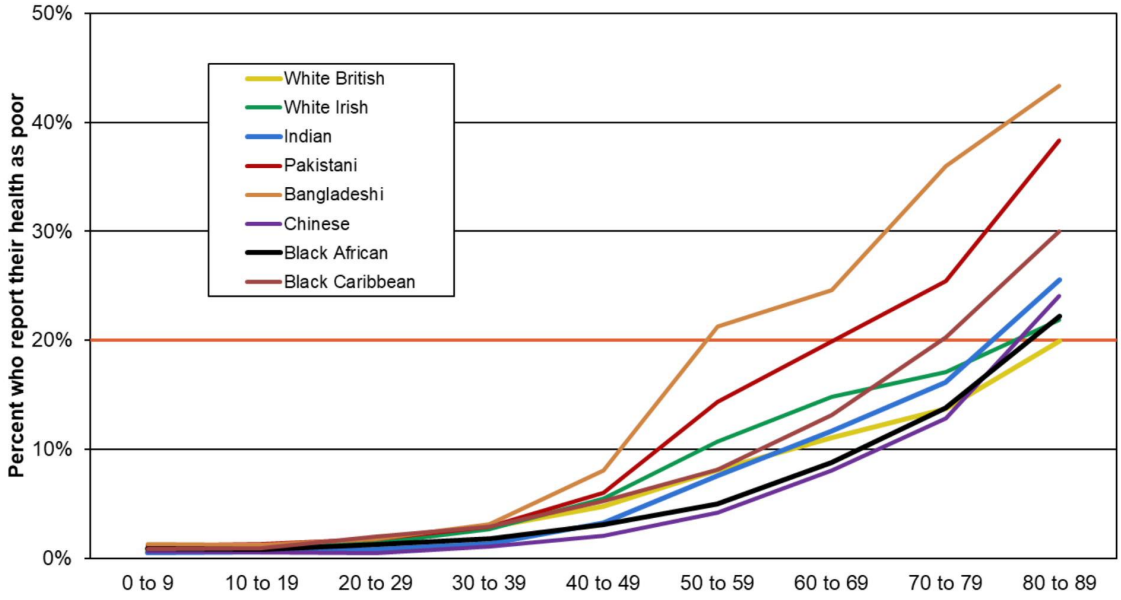
Figure 3. Wealth and level of frailty for different age cohorts.



Source: Marshall et al. (2015).

30. As described in the evidence presented by Nazroo and Bécares in their submission to the Inquiry on 'Ethnicity, Inequality and Structural Racism', older ethnic minority people are also at much greater risk of poor health. Figure 4 is drawn from that evidence. In commenting on the figure they say that it: 'shows the patterning of fair or poor self-reported health by ethnicity and age, using data from the 2011 UK Census (perhaps the most comprehensive assessment) (Stopforth et al., 2023). Inequalities across ethnic groups begin to emerge in middle adulthood and for three groups – Bangladeshi, Pakistani and Black Caribbean people – become large by early old age and continue to widen for older groups. For example, just over 20% of Bangladeshi people report having fair or poor health in their 50s, while this is the case for almost 20% of Pakistani people in their 60s, for 20% of Caribbean people in their 70s and almost 20% of White British people in their 80s. According to this measure, the health of Bangladeshi people in their 50s is equivalent to that for White British people in their 80s. Indeed, it has been estimated that Bangladeshi, Pakistani and Black Caribbean people have between six and nine fewer years of disability-free life expectancy than do White British people (Wohland et al., 2015). For the other groups included in the graph, inequalities are either small (the Indian and White Irish group), or not present (Black African and Chinese groups).' They also note that this figure echoes findings from previous analyses (Becares, 2015; Evandrou et al., 2016; Nazroo, 2004).

FIGURE 4. ETHNIC DIFFERENCES IN FAIR OR POOR SELF-REPORTED HEALTH BY AGE – FINDINGS FROM THE 2011 CENSUS



Source: Stopforth et al. (2023).

31. The interpretation is that age-related declines in biological systems begin to occur at a much younger age for some ethnic minority groups than for the White British group. As described earlier, such changes amplify risk for complications and mortality resulting from a respiratory virus infection.

Topic 3: Vulnerability of older people living in care homes and those awaiting discharge from hospital to a pandemic caused by a respiratory virus

32. In this section I focus on the particular vulnerabilities faced by older people living in care homes and older people who are medically optimised and awaiting discharge from hospital (often to a care home), and the factors underlying those vulnerabilities. I do not cover younger people who live in care homes, nor on younger people who may be awaiting discharge from hospital.

33. Care homes provide a range of residential and, in some cases, non-residential services to people with chronic conditions and functional limitations. Those who are resident in care homes have significant needs for health and social care support (Gordon et al., 2014). Indeed, a study examining predictors of movement into a care home described an increase in the number of health conditions and functional deficits amongst older people prior to entry into a care home (Green et al., 2017).

34. There are two main categories of care home, those providing nursing services and those that only provide residential care. Nursing homes typically host people who have serious or complex medical needs. Residential homes typically host people who require personal care and who have medical needs that are more straightforward to meet. Often a care home will provide accommodation both for those needing nursing services and for those who only require residential care.

35. Relatively recent analysis indicates that the levels of chronic illness among those living in care homes are very high (Barker et al., 2021), with around half experiencing multimorbidity, around four out of five experiencing severe disability, almost all having at least one functional impairment, and around a third being chair or bed bound. In relation to specific illness, around a third had experienced a stroke, around half had cardiovascular disease, around half had a respiratory condition, about a fifth had an endocrine condition (mainly diabetes) and around a half had a musculoskeletal condition (mainly arthritis). In addition, more than four in five care home residents experience a problem with cognition.

36. In addition, the evidence suggests that the level of dependency for older people living in residential care has grown over time (Green et al., 2017; Matthews et al., 2016; Barker et al., 2021).

37. People living in care homes are, therefore, a population who are at particular risk of complications or mortality if they experience a respiratory virus infection. This is particularly the case for those living in nursing homes, because of their higher level medical need.

38. Residents in care homes are also at much greater risk of infection compared with those living in private accommodation (Lansbury et al., 2017). This is because of close quarter living arrangements, shared caregivers (including caregivers working in more than one facility), other workers in care homes also potentially working in more than one facility (cooks, cleaners, maintenance workers), visitors coming in and out of the care home,

and resident transfers from one setting to another (for example, from care home to hospital and back).

39. These risks were summed up in a review article authored by Nguyen-Van-Tam and others in the following way: ‘Long-term care facility environments and the vulnerability of their residents provide a setting conducive to the rapid spread of influenza virus and other respiratory pathogens. Infections may be introduced by staff, visitors or new or transferred residents, and outbreaks of influenza in such settings can have devastating consequences for individuals’ (Lansbury et al., 2017).

40. Indeed, these authors point out that: ‘Outbreaks of influenza caused by both influenza A and B viruses are well documented in LTCFs [care homes], and may be explosive … with high mortality, highlighting the need for early recognition and prompt initiation of control measures’ (Lansbury et al., 2017).

41. It is estimated that around 400,000 people live in care homes (Social Care Institute for Excellence, 2022). The summary of the evidence presented so far in this section make clear the increased risk they face of infection and of complications and mortality resulting from infection, during a pandemic caused by a respiratory virus.

42. The Care Quality Commission (CQC) recorded 39,350 deaths in care homes that were directly attributed to Covid-19 during the period April 2020 to March 2021 (Social Care Institute for Excellence, 2022). It is estimated that deaths in care settings comprised about 40% of all deaths during the first wave of the Covid-19 pandemic in the UK (Gullette, 2022), and for around 25% of all deaths for the second and third waves of the Covid-19 pandemic in the UK (Curry 2021).

43. Those older people who are hospital in-patients but classified as medically fit, or medically optimised, and ready for discharge face equivalent risks to those resident in care homes. Although they are evaluated as medically fit for discharge out of an acute hospital setting, they nevertheless are likely to have one or more of ongoing physical and mental health conditions (commonly one or more of diabetes, heart disease, respiratory problems, neurological problems, and arthritis), cognitive impairment, chronic pain, and significant mobility issues (Davy et al., 2021; Moore et al., 2018).

44. Older medically fit patients awaiting discharge from hospital are also likely to be in a poorer socioeconomic position, so unable to afford to self-fund a move into a care home, or to pay for ongoing care in their own home (Davy et al., 2021).

45. And, because they are in-patients, they are at increased risk of exposure to infection in the context of a pandemic caused by a respiratory virus.

Topic 4: The risk of adverse outcomes resulting from Non-Pharmaceutical Interventions (NPIs) and inequalities in this risk across the older population.

46. Here I briefly summarise the likely implications of pre-existing inequalities across the older population for adverse consequences of Non-Pharmaceutical Interventions (NPIs), notably social distancing and lockdowns, which are likely to increase the risk of social isolation and exclusion, and lead to poorer access to key services and facilities. Older people, given their greater vulnerability, are more likely to be instructed to socially distance, and to stay at home, during a pandemic.

47. During a pandemic social distancing and 'lockdown' measures may be introduced with the intention of reducing on average the risk of infection and reducing the impact of the pandemic on the NHS by protecting its capacity to provide care for people who become seriously ill. Such measures are acknowledged to have negative economic, social, psychological and health impacts. However, these negative impacts are judged to be, on average, worth the estimated direct health benefits of NPIs.

48. The situation facing poorer older people is on average far more precarious than 'the average', meaning that these measures could be predicted to almost certainly have a more negative impact on older people who are already disadvantaged, thereby further exacerbating inequalities in relation to social exclusion, isolation and access to services.

49. Research evidence indicates that the risk of social exclusion (access to services and amenities; participation in civic, cultural and leisure activities; and active engagement in relationships with family and friends) is higher for particular groups of older people. Overall, amongst the older population, rates of social exclusion are higher for men, poorer people, those with lower levels of education, those with poorer health and those who are aged 80 and over (Prattley et al., 2020). Rates of social participation and positive social relationships are also lower for older people with visual impairments (Zimdars et al., 2012; Matthews et al., 2017) and those with hearing impairments (see the recent review by Chaintré et al. 2023). It is important to note, that the risk of both visual and hearing impairments in later life is strongly related to socioeconomic position, although the quality of healthcare systems and consequent availability of interventions is also relevant (Whillans and Nazroo, 2016; Maharani et al, 2020).

50. The risk of social exclusion is also higher for those who live in deprived communities (Prattley et al., 2020), which are characterised by lower than average incomes, and high rates of unemployment, poor health, disability, crime and environmental decline (Rae et al., 2018). Older people living in these neighbourhoods have higher levels of social exclusion, independent of their individual risk factors. So, living in a deprived community has a wide-reaching negative impact across a range of social activities.

51. This relationship is also found to be present in studies that have examined the risk of becoming socially excluded over time. For example, compared with the poorest fifth of the population, the risk decreases progressively with increasing wealth, and does so to such an extent that the chance for those in the richest fifth of the population to move into social exclusion is approximately 20% of the chance of those in the poorest fifth (Jivraj et al., 2012). Similarly, there is evidence indicating that there is a faster increase in the level

of social exclusion for people living in the most deprived fifth of areas compared to those living in the least deprived fifth of areas (Prattley et al., 2020). These findings indicate that poorer people and those living in more deprived areas are particularly vulnerable not only to a higher risk of social exclusion, but also for that higher risk to increase over time, suggesting that they may be at particular risk in the context of policies that aggravate the chance of social exclusion and loneliness.

52. In relation to older people being more likely to be instructed to use social distancing measures or to stay at home during a pandemic, those who are poorer are also likely to spend more time in poor quality homes. It is estimated that ten million people are living in 'nondecent homes' (those that are in a state of disrepair or having insufficiently modern facilities) in England, of whom two million are aged 55 and over (Centre for Ageing Better, 2020).

53. In relation to health, NPIs are likely to create additional harms as a result of discontinuity in the clinical management of pre-existing chronic diseases, which are more prevalent among older people and particularly among poorer and ethnic minority older people.

54. In relation to social care, for those older people who are not resident in care homes, it is likely that NPIs would lead to reduced access to formal care services and increased reliance on informal care provided by relatives, friends and neighbours.

55. More than 6.5 million people provide informal care for one or more older relatives or friends (Social Care Institute for Excellence, 2022). Many carers are older themselves and among carers women provide more hours of care (Social Care Institute for Excellence, 2022). In the context of NPIs, it is likely that such carers will spend more time caring, and many others will take on new caring roles, to compensate for older people's reduced access to services.

56. Also relevant to social and psychological wellbeing, social distancing and lockdown measures have a particularly negative impact on those who do not have access to digital devices and high quality broadband, because these can be used to maintain connections with family, friends and community supports. Digital access is a crucial resource to maintain social connections and connections with services in the context of advice to socially distance or stay at home.

57. In relation to access to services, since the Government's proposal to adopt 'digital by default' in 2010 and the establishment of GOV.UK in 2012, there have been progressive moves towards providing a range of services relevant to older people on-line, including taxation, welfare provision, carer allowances, pensions, and vehicle licensing. Progress has been swift, and in October 2020, the OECD ranked the UK second out of 31 countries on the Digital Government Index, a measure of digital by default across multiple public sectors (OECD, 2020). Similar moves have also occurred in relation to utility providers, banking and most, if not all, other commercial and non-commercial services.

58. However, older people are more likely not to be using the internet. The Ofcom Annual Survey in 2020 estimated that 13% of adults in the UK do not use the internet, with a

sharp age gradient from 17% in those aged 55-64 years, through 30% of people aged 65-74, to 51% for those aged 75 and older (Ofcom 2020). An ONS survey (2020) found nearly 40 per cent of those aged 75 and older had never used the internet and Age UK (2020) report that many of those who had used the internet no longer do so.

59. Covid-19 pandemic evidence suggests that there were not substantially higher numbers of older people going online during the pandemic (Hall et al, 2022).

60. However, lack of use of the internet, lack of digital connectivity, is not uniform across the older population. Wealth is strongly related to use, with wealthier people more likely than poorer people to use the internet, more likely to begin using the internet if they had not previously, and less likely to stop using the internet as they grow older (Matthews et al. 2019; Green and Rossal 2013).

61. In addition to wealth, poor health is shown to be a key factor in shaping the trajectory of internet use over time (Charness and Boot, 2009).For example, declines in visual acuity, motor control and cognitive ability all impact on ability to use digital devices (Neves et al., 2015; Sayagoet al, 2011, Freese et al, 2006) and all are more commonly found among the older than younger people.

62. Those older people especially at risk of social isolation might, in the context of social distancing, benefit the most from being able to use digital technologies to, for example, maintain social connections when physical access to social and community networks, and resources, are restricted, or to access services that enable shopping, banking, and remote consultations with health and social care. However, this evidence suggests that these older people are those who are least likely to be able to use digital technologies.

Topic 5: Ageism and its impact on access to health and social care, and social inclusion

63. In this section I briefly define ageism, and then trace how ageism has led to increasing precarity for some sectors of the older population, which then has the potential to increase their vulnerability during a pandemic.

64. The World Health Organisation describes ageism in the following way: ‘Age is one of the first things we notice about other people. However, age is often used to categorise and divide people in ways that lead to harm, disadvantage and injustice and erode solidarity across generations. This is ageism: the stereotypes (how we think), prejudice (how we feel) and discrimination (how we act) towards others or ourselves based on age’ (WHO, 2021).

65. Such definitions acknowledge that this is not just about older age. The WHO goes on to say: ‘Ageism is pervasive, affects people of all ages from childhood onwards and has serious and far-reaching consequences for people’s health, well-being and human rights. Ageism can be found within institutions, in interactions between people and within ourselves. Globally, 1 in 2 people are ageist against older people and in Europe, younger people report more perceived ageism than other age groups’ (WHO, 2021).

66. Ageism was originally used in relation to older people. Robert Butler (who coined it) defined ageism as consisting of prejudicial attitudes toward each of older people, old age, and the ageing process (Butler, 1969). This and resulting stereotypes lead to discriminatory practices and policies against older people.

67. Such stereotypes are centred around vulnerability, impairment, frailty, incompetence, and passivity (Swift and Chasteen, 2021; Lewis et al., 2023). Older people are depicted as being unable to contribute and as presenting a burden to other people. This becomes particularly acute for those older people who are marginalised for other reasons (socioeconomic position, ethnicity, etc.) and who are consequently more likely to bear the physical markers associated with ageism (such as physical or cognitive impairments). As a consequence, older people, and especially some groups of older people, become disempowered and devalued. This, then, has implications for the ways in which social, economic and health policies and services are developed and implemented.

68. It is estimated that among those aged 50 and over, about a quarter consider themselves to have experienced age discrimination (Jackson et al., 2019). The estimated rates of experienced ageism were higher for older people, for poorer people, and for people who had poorer physical and mental health. It is striking that the elements of ageism that people experienced included: being treated with less respect or courtesy; being treated as if they were not clever; and receiving poorer service or treatment in medical settings; as well as receiving poorer service elsewhere (Jackson et al., 2019).

69. How ageism impacts on social, economic and health services can clearly be seen in the longstanding failure to invest adequately in the provision of social care services, including care homes, for older people. The stereotyping and devaluing of older dependent people also leads to a de-prioritisation of services for them and a devaluing of

the people who provide those services. Indeed, prior to the Covid-19 pandemic, the care home sector had been characterised as being in a fragile state with severe staff shortages and historic underfunding (Elias and Scobie, 2020).

70. It is estimated that there are 1.5 million workers in social care (Social Care Institute for Excellence, 2022). Most are women, a high proportion are members of ethnic minority backgrounds, and around a fifth are relatively recent migrants. Pay is low, with many receiving pay that, in effect, is below the minimum wage, and around a quarter are on zero-hours contracts without sick pay (Social Care Institute for Excellence, 2022).

71. In the context of a pandemic, such working conditions raise real risks for older people receiving social care or living in care homes. Those in precarious work, with zero-hours contracts, and without sick pay, will continue to work in a number of different settings if insufficient work is offered in just one setting, and will continue to work even though they have symptoms, because they cannot afford not to work.

72. A review by Nguyen-Van-Tam and others of employment related risks in the context of influenza noted that care workers are at risk of infection, because of the nature of their jobs, and therefore may pose a risk to the 'frail elderly people' that they care for (Lansbury et al., 2017). They also note that research suggests that even in a mild influenza season almost a quarter (23%) of carers had an infection and many continue to work. They note 'in reality the employment status of many LTCF [care home] staff is often precarious and taking unpaid sick leave may result in adverse economic consequences' (Lansbury et al., 2017).

73. We can trace the influence of ageism in the NHS/Government response to the Covid-19 pandemic, where, despite the well documented risks faced by those living in care homes and those medically optimised inpatients who were awaiting discharge, decisions were made that further increased, rather than mitigated, the risks they faced.

74. On 17th March 2020 the Secretary of State for Health and Social Care instructed acute hospital trusts to discharge urgently all medically fit hospital patients to maximise inpatient and critical care capacity (NHS England and NHS Improvement, 2020). This involved transfer from the ward within one hour of being identified as medically fit, and discharge from the hospital as soon as possible afterwards (within two hours). Similar approaches were adopted in the other countries of the UK (see, for example, Welsh Government (2020)).

75. On 2nd April 2020, the Department of Health and Social Care told care homes that they needed to make their full capacity available and could admit patients with COVID-19 by isolating suspected or confirmed cases (House of Commons Public Accounts Committee, 2020). Some Local Authorities were pressurising Care Homes to take patients discharged from hospitals (House of Commons Public Accounts Committee, 2020). A policy to test patients for infection with Covid-19 before discharging them to care homes was not put in place until 15th April 2020 (House of Commons Public Accounts Committee, 2020), even though earlier minutes from SAGE meetings (10th March onwards) clearly indicated Covid-19 transmission within hospitals had been noted.

76. The National Audit Office reports that between 17 March and 15 April 2020 there were 25,000 discharges from hospital beds into care homes in England, many without being tested for Covid-19 (National Audit Office, 2020). Although this figure is often presented as an indicator of the capacity generated in acute hospital beds by this policy, it is somewhat misleading (Elias and Scobie, 2020). Overall discharges were lower than previous years, the National Audit Office estimates that there were 35,000 such discharges over the same period in the year preceding the Covid-19 pandemic, with the lower rate of discharge during the Covid-19 pandemic reflecting fewer hospital admissions compared with admissions that occurred in previous years. However, research that examined discharges for longer term hospital stays indicates that there were 6,780 additional (compared with previous years) discharges of patients who had been in hospital for 11 days or longer (Elias and Scobie, 2020). The increase in hospital capacity as a result of this policy was, therefore, relatively small.

77. Inevitably, the discharge of medically fit older people from hospital was coupled with restrictions on access to hospitals for residents in care settings (Calvert and Arbuthnot, 2021). One study reports that at the peak of the first wave of the Covid-19 pandemic only 2.5% of patients in intensive care were over the age of 80, and that many hospitals used some form of triage to restrict intensive care for those aged 60 and over (Calvert and Arbuthnot, 2021), which was modelled on a disseminated, but not implement, NHS ‘Covid-19 Decision Support Tool’ that used a combination of factors such as age, level of frailty and diagnosed medical conditions to place patients into recommended treatment pathways (see Financial Times, 2020). Similar conclusions can be drawn from data on hospital admissions in England published by Public Health England, which show that ‘Cases aged over 70 make up 65.5% and 67.6% of the patients in lower level of care among males and females, respectively; in critical care, those over 70 make up only 22.0% and 17.9% of the male and female patients, respectively. The overrepresentation of younger patients in critical care does not necessarily reflect increased severity in this group of patients alone but may also reflect critical care admission criteria’ (Public Health England, 2020, page 13).

Topic 6: Missed opportunities

78. Here I outline my assessment of how responses to the Covid-19 pandemic missed evidence-informed opportunities to mitigate inequalities experienced by older people in its impact.

79. Pandemic planning appears to have considered them a homogenous group, and to have not paid attention to which categories of older people might have been at particular risk. An investigation of which groups of older people were at particular risk of infection, complications and mortality, and at greater risk of adverse consequences of non-pharmaceutical pandemic control measures (NPIs), would have allowed targeted protections to be put in place. I note that in the early stages of the Covid-19 pandemic the SAGE committee asked for evidence on which groups of people were most at risk (meetings 4 and 6 of the committee). This evidence does not seem to have been produced, and the request does not seem to have been followed up.

80. Such evidence would have clearly indicated that three groups of older people were at a particularly high risk of clinical complications and mortality during the Covid-19 pandemic: those in poorer socioeconomic positions and those living in deprived areas; ethnic minority older people and, for some ethnic groups, people from a young age (50 and older); and those living in care homes or awaiting discharge from hospital. Where an age-cut off is deemed an appropriate way of implementing policy, it is notable that the large majority of influenza deaths occur among those age 75 or older.

81. As a result of NPIs, these groups were also at a particularly high risk of loneliness and isolation, and of experiencing poor access to social, economic and health services.

82. Given the geographical concentration of poorer older people and ethnic minority people in more deprived areas, targeting and adapting interventions to address the increased risks they faced would have been possible.

83. The development of lockdown rules and surveillance structures should have taken greater account of the fact of overcrowded poor-quality housing experienced by many poorer and more marginalised older people.

84. Social distancing and lockdown measures should have been implemented alongside interventions that minimised digital exclusion among the older population.

85. Prior to the pandemic the fragile state of social care had been clearly documented. The failure to build resilience and quality into the social care sector, including adequate rewards and security for the workforce, was inevitably going to lead to crisis during a pandemic.

86. As Professor Sir Jonathan Nguyen-Van-Tam and co-authors noted in relation to influenza: ‘The need for robust infection prevention and control practices will therefore remain of paramount importance if the impact of outbreaks is to be minimised’ and ‘The prevention and control of influenza in LTCFs [care homes] requires a multifaceted approach; vaccination and antiviral policies form an important part of this, but strong managerial leadership, outbreak planning, and a well-trained, educated and engaged

workforce are pivotal to the successful implementation of IPC policies' (Lansbury et al., 2017).

87. Straightforward access to acute hospital services was no longer possible for the most vulnerable older people, including those who were deemed medically optimised and consequently discharged from hospital. Evidence is also suggestive of older people being less like to receive critical care in hospital. This meant that those who were most at risk of complications and mortality could not access the care that they needed.

88. Discharging from hospital older people who had a high risk of having already been exposed to the Covid-19 virus, inevitably led to high rates of infection and mortality in affected care homes. It is somewhat surprising that the then current Chair of the Health and Social Care Select Committee, and former Secretary of State for Health and Social Care, Jeremy Hunt, is quoted as saying: 'The figures released by the NAO today confirm that 25,000 patients were discharged into care homes without being tested at the height of the epidemic. Whilst the impact of such discharges meant the NHS was never short of beds or ventilators it seems extraordinary that no one appeared to consider the clinical risk to care homes despite widespread knowledge that the virus could be carried asymptomatically' (Civil Service World, 2020). It is also worth noting that the figure of 25,000 does not reflect the extent of additional capacity generated as a result of the discharge of medically fit long stay patients (those who had been in hospital for 11 days or longer), that seems to have been closer to 6,780 additional beds (Elias and Scobie, 2020) (see the more detailed discussion of this in paragraphs 73 to 76).

89. Crucially, in relation to the risks faced by those living in care homes and the medically fit awaiting discharge from acute hospital settings, core political and administrative decision-makers missed an opportunity to implement the recommendations made in the review paper, published just over two years earlier, by Professor Sir Jonathan Nguyen-Van-Tam and co-authors in relation to influenza (Lansbury et al., 2017).

90. Indicators of the harms done are the much higher Covid-19 related mortality rates in England for care home residents compared with non-care home residents: for those aged 85 years and older the rate was more than 8 times higher for care home residents compared with non-care home residents; while it was more than 20 times higher for those aged 75-84 (authors calculations using data from ONS (2020b, Figure 8)). The extent of the difference was not as large in Wales, though still very high – for those aged 85 years and older the rate was more than 6 times higher for care home residents compared with non-care home residents; while it was more than 18 times higher for those aged 75-84 (authors calculations using data from ONS (2020b, Figure 9)). Of course, those in care homes are more vulnerable, but nevertheless these figures are striking.

91. It is also notable that excess deaths in care homes predominantly occurred in those homes that experienced at least one suspected/confirmed COVID-19 death (Morciano et al., 2021). Larger care homes, and those belonging to companies with several sites, also had a higher risk, perhaps because of the more flexible approaches to admissions and to staffing they inevitably had to take (Morciano et al., 2021).

92. More generally, in order to reduce inequalities in risk faced by particular segments of the older population, attention should be paid to the drivers of ageism, particularly in relation to the operation of health and social care sectors.

Annex 1: References

Age UK (2020) *Not riding a bike: Why some older people stop using the internet*. London: Age UK

Banks, J., Breeze, E., Lessof, C. and Nazroo, J. (2006) *Retirement, health and relationships of the older population in England: The 2004 English Longitudinal Study of Ageing*, London: The Institute for Fiscal Studies ISBN 1 903274 46 X.

Barker, R.O., Hanratty, B., Kingston, A., Ramsay, S.E. and Matthews, F.E. (2021) 'Changes in health and functioning of care home residents over two decades: what can we learn from population-based studies?', *Age Ageing*, *5*, 50(, 921-927. doi: 10.1093/ageing/afaa227.

Bécares, L. 2015. Which ethnic groups have the poorest health? *In:* JIVRAJ, S. & SIMPSON, L. (eds.) *Ethnic Identity and Inequality in Britain. The Dynamics of Diversity.* Bristol: Policy Press.

Butler, R.N. (1969) 'Age-Ism: Another Form of Bigotry The Gerontologist', 9, 4_Part_1, 243–246, https://doi.org/10.1093/geront/9.4_Part_1.243

Calvert, J. and Arbuthnot, G. (2021) *Failures of state: The inside story of Britain's battle with coronavirus*. London: HarperCollins

Centre for Ageing Better (2020) 'Homes, health and COVID-19: How poor-quality homes have contributed to the pandemic'. www.ageing-better.org.uk/sites/default/files/2020-09/Homes-health-andCOVID-19.pdf

Chaintré, A.P., Couturier, Y., Trang Nguyen, T.H. and Levasseur, M. (2023) 'Influence of Hearing Loss on Social Participation in Older Adults: Results From a Scoping Review', *Research on Aging*, doi: 0 10.1177/01640275231174561

Charness, N. and Boot, W. (2009) 'Aging and information technology use: potential and barriers', Current Directions in Psychological Science, 18, 5, 253-8

Civil Service World (2020) *Coronavirus: 25,000 people discharged from hospitals to care homes without tests at height of pandemic, NAO confirms*, https://www.civilserviceworld.com/professions/article/coronavirus-25000-people-discharged-from-hospitals-to-care-homes-without-tests-at-height-of-pandemic-nao-confirms

Curry, N. (2021) *Beyond Covid-19 wave two: What now for care homes?* London: Nuffield Trust.

Davy A, Hill T, Jones S, Dube A, Lea SC, Watts KL, Asaduzzaman MD. (2021) 'A predictive model for identifying patients at risk of delayed transfer of care: a retrospective, cross-sectional study of routinely collected data', Int J Qual Health Care, 29;33(3):mzab130. doi: 10.1093/intqhc/mzab130

Elias, L. and Scobie, S. (2020) *How did the NHS free up hospital capacity at the start of the pandemic?*, Nuffield Trust, https://www.nuffieldtrust.org.uk/news-item/how-did-the-nhs-free-up-hospital-capacity-at-the-start-of-the-pandemic-and-what-does-this-mean-for-future-outbreaks

Falsey AR, Hennessey PA, Formica MA, et al. (2005) 'Respiratory syncytial virus infection in elderly and high-risk adults', N Engl J Med, 352:1749-59

Ferguson, N. and colleagues (2020) *Age dependence in infection and fatality risk*, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1067136/S0177.pdf

Financial Times (2020) *NHS 'score' tool to decide which patients receive critical care*, Financial Times, 13th April, 2020, https://www.ft.com/content/d738b2c6-000a-421b-9dbd-f85e6b333684

Fleming D, Harcourt S, Smith G. (2003) 'Influenza and adult hospital admissions for respiratory conditions in England 1989-2001', Commun Dis Public Health, 6:231‑237.

Freese, J., Rivas, S. and Hargittai, E. (2006) 'Cognitive ability and Internet use among older adults', Poetics, 34, 4, 236–49.

Gordon AL, Franklin M, Bradshaw L, Logan P, Elliott R, Gladman JR. (2014) 'Health status of UK care home residents: a cohort study', Age Ageing, 43: 97–103.

Green I, Stow D, Matthews FE, Hanratty B. (2017) 'Changes over time in the health and functioning of older people moving into care homes: analysis of data from the English longitudinal study of ageing', Age Ageing, 46: 693–6.

Green, M. and Rossall, P. (2013) Digital inclusion evidence review. Age UK Digital Inclusion Evidence Report, Age UK, London.

Gullette, M. (2022) 'American eldercide', in T. Sugrue and C. Zaloom (eds) *The long year: A 2020 reader*. New York: Columbia University Press, pp 237–244.

House of Commons Public Accounts Committee (2020) Readying the NHS and social care for the COVID-19 peak, Fourteenth Report of Session 2019–21, https://committees.parliament.uk/publications/2179/documents/20139/default/

Jackson, S.E., Hackett, R.A. and Steptoe, A. (2019) 'Associations between age discrimination and health and wellbeing: cross-sectional and prospective analysis of the English Longitudinal Study of Ageing', *Lancet Public Health*, 4, 4, 200-208

Jivraj, S., Nazroo, J. and Barnes, M. (2012) 'Change in social detachment in older age in England', In *The Dynamics of Ageing: Evidence from the English Longitudinal Study of Ageing 2002-10*, Banks, J., Nazroo, J. and Steptoe, A. (eds.) London: The Institute for Fiscal Studies ISBN 978-1-903274-92-7, 48-97

Jivraj, S., Nazroo, J., Vanhoutte, B. and Chandola, T. (2014) 'Aging and subjective well-being in later life', *Journals of Gerontology, Series B: Psychological Sciences and Social Sciences*, *69*, 6, 930-941, doi:10.1093/geronb/gbu006

Lansbury LE, Brown CS, Nguyen-Van-Tam JS. Influenza in long-term care facilities. Influenza Other Respir Viruses. 2017 Sep;11(5):356-366. doi: 10.1111/irv.12464. Epub 2017 Jul 26

Lewis, C., Phillipson, C., Yarker, S. and Lang, L. (2023) *COVID-19, Inequality and Older People: Everyday Life during the Pandemic*, Bristol: Policy Press, ISBN: 9781447367468

Maharani, A., Dawes, P., Nazroo, J., Tampubolon, G., Pendleton, N. & Sense-Cog (2020) 'Healthcare system performance and socio-economic inequalities in hearing and visual impairments in 17 European countries', *European Journals of Public Health*, doi: 10.1093/eurpub/ckaa155

Marmot, M., Banks, J., Blundell, R., Lessof, C. and Nazroo, J. (2003) *Health, wealth and lifestyles of the older population in England: The 2002 English Longitudinal Study of Ageing*, London: The Institute for Fiscal Studies ISBN 1 903274 34 6.

Marshall, A., Nazroo, J., Tampubolon, G. and Vanhoutte, B. (2015) 'Cohort differences in the levels and trajectories of frailty among older people in England', *Journal of Epidemiology and Community Health*, *69*, 316-321.

Matias G, Taylor RJ, Haguinet F, et al. (2016) 'Modelling estimates of age-specific influenza-related hospitalisation and mortality in the United Kingdom', BMC Public Health, 16:481.

Matthews, K., Nazroo, J. and Whillans, J. (2017) 'The consequences of self-reported vision change in later-life: Evidence from the English Longitudinal Study of Ageing', *Public Health*, *142*, 7–14 doi: http://dx.doi.org/10.1016/j.puhe.2016.09.034

Matthews FE, Bennett H, Wittenberg R, Jagger C, Dening T, Brayne C, et al. (2016) 'Who lives where and does it matter? Changes in the health profiles of older people living in long term care and the community over two decades in a high income country', PLoS One, 11: e0161705

Matthews, K., Nazroo, J. and Marshall, A. (2019) 'Digital inclusion in later life: cohort changes in internet use over a ten-year period in England', *Ageing and Society*, *39*, 9, 1914-1932. doi: 10.1017/S0144686X18000326

Mauskopf, J., Klesse, M., Lee, S. and Herrera-Taracena, G. (2013) 'The burden of influenza complications in different high-risk groups: a targeted literature review', Journal of Medical Economics, 16:2, 264-277, DOI: 10.3111/13696998.2012.752376

McMunn, A., Nazroo, J. and Breeze, E. (2009) Inequalities in health at older ages: a longitudinal investigation of onset of illness and survival effects in England, *Age and Ageing*, 181–87.

Moore G, Hartley P, Romero-Ortuno R. (2018) 'Health and social factors associated with a delayed discharge amongst inpatients in acute geriatric wards: A retrospective observational study', Geriatr Gerontol Int., 18(4):530-537. doi: 10.1111/ggi.13212

Morciano, M., Stokes, J., Kontopantelis, E. *et al.* (2021) 'Excess mortality for care home residents during the first 23 weeks of the COVID-19 pandemic in England: a national cohort study', *BMC Med*, 19, 71, https://doi.org/10.1186/s12916-021-01945-2

National Audit Office (2020) *Readying the NHS and adult social care in England for COVID-19*, Report – Value for money, https://www.nao.org.uk/reports/readying-the-nhs-and-adult-social-care-in-england-for-covid-19/

Nazroo J (2004) Ethnic disparities in aging health: what can we learn from the United Kingdom? In Anderson NB, Bulatao RA and Cohen B (eds). Critical Perspectives on Racial and Ethnic Differences in Health in Late Life. Washington, DC: The National Academies Press, pp. 677–702.

Nazroo, J., Zaninotto, P. and Gjonça, E. (2008) 'Mortality and healthy life expectancy'. In *Living in the 21st century: older people in England. The 2006 English Longitudinal Study of Ageing*, Banks, J., Breeze, E., Lessof, C. and Nazroo, J. (eds.), London: The Institute for Fiscal Studies, 253-28.

Neves, B. B., Franz, R. L., Munteanu, C., Baecker, R. and Ngo, M. (2015) 'My hand doesn't listen to me! Adoption and evaluation of a communication technology for the'oldest old', Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems. ACM, 1593-1602.

NHS England and NHS Improvement (2020) https://www.england.nhs.uk/coronavirus/wp-content/uploads/sites/52/2020/03/urgent-next-steps-on-nhs-response-to-covid-19-letter-simon-stevens.pdf

OECD (2020) *Digital Government Index: 2019 Results* https://doi.org/10.1787/4de9f5bb-en

Ofcom (2020) *Online Nation 2020 Report*: https://www.ofcom.org.uk/__data/assets/pdf_file/0027/196407/online-nation-2020-report.pdf

Oldfield, Z. (2018) 'Economics Domain Tables', In The Dynamics of Ageing: Evidence from the English Longitudinal Study of Ageing 2002-16, Banks, J., Batty, G.D., Nazroo, J., Oskala, A. and Steptoe, A. (eds.) London: The Institute for Fiscal Studies ISBN 978-1-912805-11-2

ONS (2018) *Household disposable income and inequality in the UK: financial year ending 2017*, https://www.ons.gov.uk/peoplepopulationandcommunity/personalandhouseholdfinances/incomeandwealth/bulletins/householddisposableincomeandinequality/financialyearending2017#gradual-decline-in-income-inequality-over-the-last-decade

ONS (2020a) *Internet users UK, 2020*. London: ONS

ONS (2020b) Deaths involving COVID-19 in the care sector, England and Wales: deaths occurring up to 12 June 2020 and registered up to 20 June 2020 (provisional): Provisional figures on deaths involving the coronavirus (COVID-19) within the care sector, in England and Wales. https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/articles/deathsinvolvingcovid19inthecaresectorenglandandwales/deathsoccurringupto12june2020andregisteredupto20june2020provisional

ONS (2023) *Single year of age and average age of death of people whose death was due to or involved coronavirus (COVID-19)*, https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/datasets/singleyearofageandaverageageofdeathofpeoplewhosedeathwasduetoorinvolvedcovid19, accessed 01/08/2023

Prattley, J., Buffel, T., Marshall, A., Nazroo, J. (2020) 'Area effects on the level and development of social exclusion in later life', *Social Science and Medicine*, *246*, doi: 10.1016/j.socscimed.2019.112722

Public Health England (2020) *Disparities in the risk and outcomes of COVID-19*, London: Public Health England, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/908434/Disparities_in_the_risk_and_outcomes_of_COVID_August_2020_update.pdf

Sayago, S., Sloan, D. and Blat, J. (2011) 'Everyday use of computer-mediated communication tools and its evolution over time: an ethnographical study with older people', Interacting with Computers, 23, 5, 543-54.

Sky News (2021) *COVID-19: Care sector widely disputes Matt Hancock's account of early handling of pandemic*, https://news.sky.com/story/covid-19-care-sector-widely-disputes-matt-hancocks-account-of-early-handling-of-pandemic-12329708

Social Care Institute for Excellence (2022) *Understanding the impact of COVID-19 responses on citizens*, London: SCIE, https://www.scie.org.uk/care-providers/coronavirus-covid-19/commissioning/impact-on-citizens

Stopforth, S., Kapadia, D., Nazroo, J. and Bécares, L. (2023) 'Ethnic inequalities in health in later life, 1993-2017: The persistence of health disadvantage over more than two decades', *Ageing and Society*, *43*, 8, 1954-1982 doi: 10.1017/S0144686X2100146X

Swift, H.J. and Chasteen, A.L. (2021) 'Ageism in the time of COVID-19', *Group Processes & Intergroup Relations*, 24(2): 246–252

The Health Foundation (2020) *What has been the impact of COVID-19 on care homes and the social care workforce?*, https://www.health.org.uk/news-and-comment/charts-and-infographics/what-has-been-the-impact-of-covid-19-on-care-homes-and-social-care-workforce

UK Health Security Agency (2022) *Guidance The flu vaccination: who should have it and why,* https://www.gov.uk/government/publications/flu-vaccination-who-should-have-it-this-winter-and-why/the-flu-vaccination-who-should-have-it-and-why, accessed 01/08/2023

Verity R, Okell LC, Dorigatti I, *et al.* (2020) 'Estimates of the severity of coronavirus disease 2019: a model based analysis', *Lancet Infect Dis*, 20:669–77. doi:10.1016/S1473-3099(20)30243-7

Watt, T., Firth, Z., Fisher, R., Thorlby, R. and Kelly, E. (2020) *Use of primary care during the COVID-19 pandemic Patient-level data analysis of the impact of COVID-19 on primary care activity in England*, The Health Foundation, https://www.health.org.uk/news-and-comment/charts-and-infographics/use-of-primary-care-during-the-covid-19-pandemic

Welsh Government (2020) *COVID-19 Hospital Discharge Service Requirements (Wales)*, https://www.gov.wales/sites/default/files/publications/2021-11/covid-19-hospital-discharge-service-requirements_0.pdf

Whillans, J. and Nazroo, J. (2016) 'Social Inequality and Visual Impairment in Older People', *Journals of Gerontology: Social Sciences*, doi:10.1093/geronb/gbv163

World Health Organization (2021) *Global report on ageism*. Geneva: World Health Organization, https://www.who.int/health-topics/ageism#tab=tab_1

Zimdars, A., Nazroo, J. and Gjonca, E. (2012) 'The circumstances of older people in England with self-reported visual impairment: A secondary analysis of the English Longitudinal Study of Ageing (ELSA)', *British Journal of Visual Impairment*, *30*, 1, 22-30 doi: 10.1177/0264619611427374