


Original Research Article

COVID-19 in aged care homes: a comparison of effects initial government policies had in the UK (primarily focussing on England) and Australia during the first wave

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Received 15 November 2020; Editorial Decision 13 February 2021; Revised 1 February 2021; Accepted 1 March 2021

Abstract

Background: COVID-19 pandemic has had a major impact globally, with older people living in aged care homes suffering high death rates.

Objectives: We aimed to compare the impact of initial government policies on this vulnerable older population between the UK and Australia during the first wave of attack.

Methods: We searched websites of governments in the UK and Australia and media outlets. We examined the key policies including the national lockdown dates and the distribution of some important resources (personal protective equipment and testing) and the effects of these initial policies on the mortality rates in the aged care homes during the first wave of attack of COVID-19.

Results: We found that both countries had prioritized resources to hospitals over aged care homes during the first wave of attack. Both countries had lower priority for aged care residents in hospitals (e.g. discharging without testing for COVID-19 or discouraging admissions). However, deaths in aged care homes were 270 times higher in the UK than in Australia as on 7 May 2020 (despite UK having a population only 2.5 times larger than Australia). The lower fatality rate in Australia may have been due to the earlier lockdown strategy when the total daily cases were low in Australia (118) compared to the UK (over 1000), as well as the better community viral testing regime in Australia.

Conclusion: In conclusion, the public health policy in Australia aimed towards earlier intervention with earlier national lockdown and more viral testing to prevent new cases. This primary prevention could have resulted in more lives being saved. In contrast, the initial policy in the UK focussed mainly on protecting resources for hospitals, and there was a delay in national lockdown intervention and lower viral testing rate, resulting in more lives lost in the aged care sector.

Key words: COVID-19 outbreaks, government policies, public health, aged care homes, UK, Australia, lockdown

Introduction

The COVID-19 pandemic has affected the lives of all people, with mortality rates being highest in the population aged over 60 years,

ranging from about 3.6% (60–70 years) to 15% (80 years and over) [1]. Those living in confined environments, such as aged care homes, are especially vulnerable as prevention strategies such as physical

distancing, isolation and shielding may be difficult, and during an outbreak, coping strategies are undermined due to limited availability of personal protective equipment (PPE) and limited access to diagnostic viral testing [2–4]. There are few studies of COVID-19 in this community group [5]. How well care protocols [6, 7] stand up to the test of governmental policies (which dictate supply of critical resources such as PPE and testing) during the early phase of the pandemic has not been fully evaluated. Comparison of real-world experiences between the UK (primarily focussing on England) and Australia may be useful to shed light on improving practice.

UK (England) was chosen as it had one of the highest mortality rates especially in the older aged group and in the aged care facilities during the first wave. Australia was among the few western countries with a relatively lower death rate. Therefore, these two countries were chosen for comparison in terms of government policies and public health measures.

Both the UK and Australia have an ageing population (18% and 16% are aged over 65 years, respectively) [8], with comparable healthcare systems and provision of aged care homes for older residents, who constitute approximately 1% of the total population in both countries. The prevalence of dementia, co-morbidities and functional disability in the aged care home population is similar in both countries [9, 10] (notwithstanding that minor differences may confound the comparison). Overall, there are enough similarities to allow evaluation of the effects public health policies have had on mortality in aged care homes during the early part of the COVID-19 outbreak when resources were limited. An arbitrary census date was selected as 7 May to cover the effects of the early government policies (including lockdown) when the daily new cases were either stabilized or had begun to fall in both countries.

Methods

We searched the government websites for key policies announced in the UK and Australia during the first wave of attack of COVID-19. Websites of government, media outlets and published literature were used with a focus on aged care facilities. Key policies searched including the national lockdown dates and the distribution of some important resources (PPE and testing) were then analysed against impacts focusing on mortality in aged care homes during the first wave of the pandemic in each country. Other factors such as economic consideration or mental health impact were excluded from our study.

Results

The UK experience (with a primary focus on England) during first wave (census date 7 May 2020)

From the outset, the UK government policy was to ‘protect the NHS’ as evidenced by government and National Health Service (NHS) England plans from 17 March to free up NHS capacity via rapid discharge into the community [11]. The Coronavirus Act 2020 [12] and the COVID-19 Discharge Guidance [13] were widely interpreted as requiring adult social services to urgently free up hospital capacity by moving out patients deemed medically fit but who required aged care home placement or who were awaiting home care (some of the latter were ‘temporarily’ placed in care homes, if their home care was not available). Consequently, prior to 16 April, hospital patients transferred to an aged care home were not tested for COVID-19 [14]. Therefore ‘policies designed to prevent hospitals from being overwhelmed had pushed a greater burden onto aged care homes which

struggled to get access to tests and protective equipment’ [4]. Furthermore, aged care homes often found it hard to isolate possible infected residents, especially those with dementia who were ambulant [15].

On 23 March 2020, the UK government eventually announced a national lockdown that restricted public movement to ‘essential’ reasons, which did not include visits to aged care homes. However, some aged care home providers had already closed their doors to visitors [16].

There are around 411 000 older and disabled people in 15 517 aged care homes in England and Wales. On 14 April, the UK government confirmed there had been outbreaks in more than 2000 aged care homes in England. This is unsurprising, given the government’s initial position that discouraged the use of masks in aged care home settings [17]. Aged care home providers had expressed concern that the provision of PPE to care homes lagged well behind the NHS and that their staff could not follow guidelines [18] on how to work safely due to inadequate supplies of PPE [19].

The testing rate for COVID-19 had been low in the UK. By 24 April, a total of 612 031 tests had been carried out in 444 222 individuals, falling far short of the government goal of 100 000/day by the end of April. Consequently, the actual number of infected cases is likely to have been much higher than recorded. Furthermore, most tests were done in hospitals, with the government only extending availability of testing to other groups, which included aged care homes, in the last week of April. On 26 April, 159 of 210 aged care providers interviewed by the BBC stated that none of their staff had been tested and 127 stated that none of their residents had been tested [19]. Additionally, testing in aged care homes had been restricted to the first five symptomatic residents to confirm whether there was an outbreak or not (2 April) [14]. So the true toll in aged care homes would be expected to be higher than the official figures.

The UK government only started to release death toll data from aged care homes on 29 April. On 28 April, the Office for National Statistics using its data for 17 April and that from the Care Quality Commission (CQC) for 24 April showed the true impact of COVID-19 in aged care homes in England and Wales, with 4343 deaths attributed to COVID-19 (22.6% of total deaths in England and Wales) [20]. By 6 May, the death toll in England and Wales had risen to 30 076, of which over 20% were estimated to be from aged care homes [21].

The Australian experience during first wave (census date 7 May 2020)

On 18 March [22], shortly after the first cluster outbreak in an aged care home in Northern Sydney, the Australian federal government put forward a national lockdown policy that included restrictions on visits to aged care homes [23]. This prohibited visits from families or friends with respiratory symptoms, who had been in contact with COVID-19 patients or who were in quarantine after returning from overseas. It recommended virtual contacts over physical visits. Visits were limited to a maximum of two people at a time per day and to occur in designated places (e.g. private rooms) rather than communal areas and required proof of up-to-date flu vaccination. This was followed up by additional state restrictions and care home-level restrictions. Some aged care homes imposed extreme measures of total lockdown (no visiting except for dying residents), while others had partial lockdown practices (as per government policy).

Government policy also encouraged aged care homes infected with COVID-19 not to send infected residents to hospital despite hospital beds being available [24]. The inability of aged care homes to properly isolate infected residents, their shortage of PPE and lack

of oxygen could be a recipe for undesirable outcomes. In addition, governmental policies prioritized resources (including PPE and viral tests) in favour of hospitals over care homes. The shortage of PPE and viral testing added to the challenges of containing the spread of any outbreak in care homes.

By 7 May, there were officially 6896 confirmed COVID-19 cases nationwide, with 97 deaths [25]. A total of 63 residents and staff of care homes were infected, with 26 fatalities [25]. Most of the deaths were from 3 cluster outbreaks in aged care homes (all in Sydney), resulting in 24 lives lost [25].

There are similarities in the three cluster outbreaks. Firstly, some infected staff and residents were asymptomatic when tested and had they not been detected in time and isolated would have put other

residents and staff at risk. Secondly, despite being in an outbreak, not all staff and residents were tested. Diagnostic viral tests for COVID-19 were restricted, and people in close contact were not automatically screened; this initial public health policy is a concern. Australian experience in the cluster outbreaks is in concordance with US experience that asymptomatic (and pre-symptomatic) transmission is an important aspect of COVID-19 spread in aged care homes [26]. Finally, lack of PPE, with some workers not having PPE to wear or to change, compounded the problem.

There are 2695 Australian aged care homes [27], with a total of 182 705 residents [28]. During the first wave, only 26 deaths from aged care home residents had been reported up to 7 May. The number of deaths and outbreaks in care homes was low, suggesting that

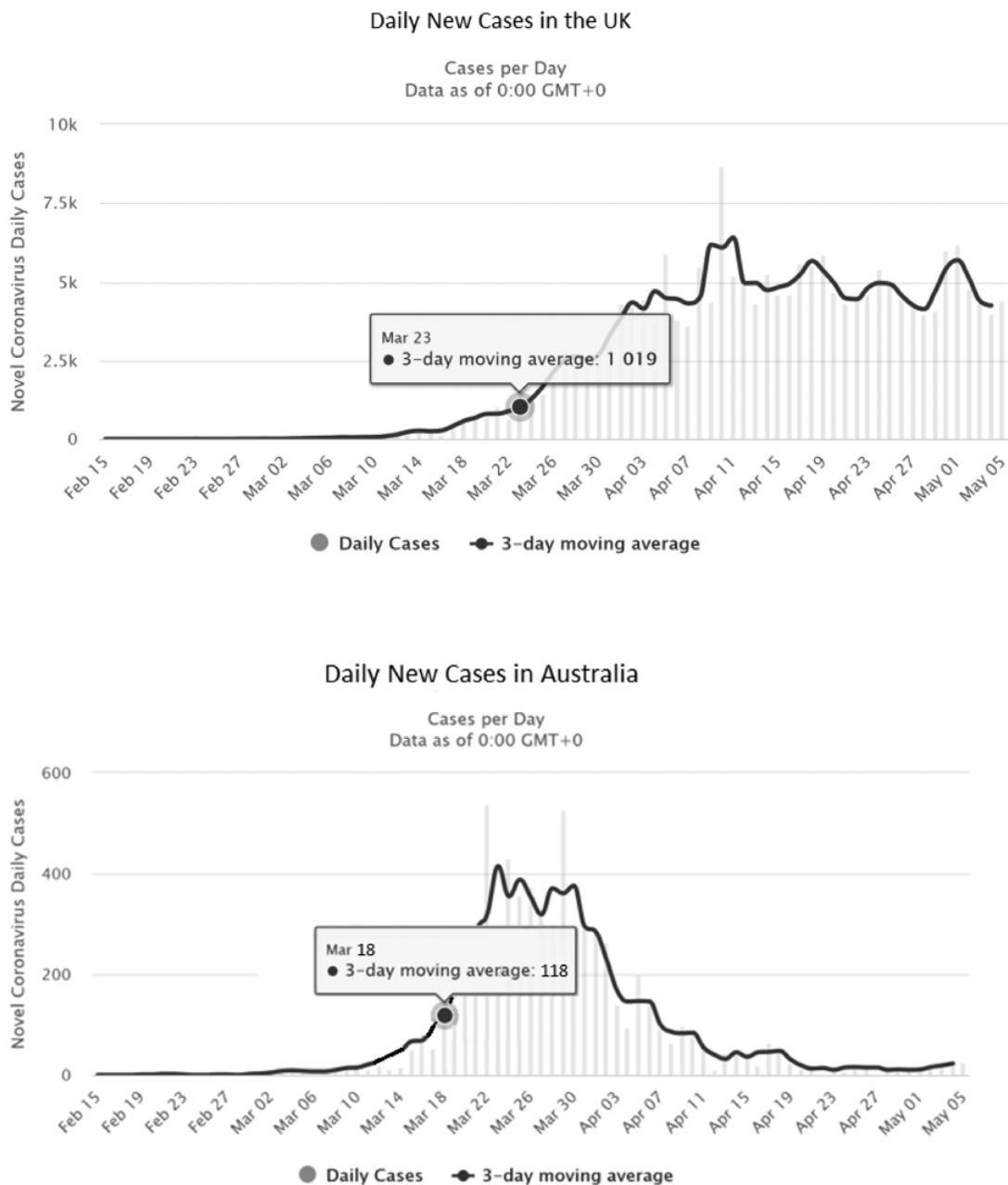


Figure 1 Lockdown dates (in textbox) and daily new cases in the UK and Australia.

the early introduction of isolation by lockdown on 18 March was successful (Figure 1), albeit deaths still making up 27% of the total national mortality. In addition, the availability of COVID-19 diagnostic tests for the general public and hospitals up to the census date was amongst the highest in the world [1], which might have had an indirect effect on reducing the risk of infections in aged care homes.

Discussion

Strengths and limitations

Literature that studied governmental policies and their impact on aged care homes is scarce. This forms a limitation in our study as we have no benchmark to base our evaluation. There were fewer published data in literature on the availability of PPE and viral testing in the early days, and we have to rely on data provided by websites (e.g. Worldometer) although attempts had been made to counter-check data from various sources whenever possible. Furthermore, government policies might have been affected by limited knowledge at the start of the pandemic. For instance, the lack of scientific proof that pre-symptomatic transmission could occur in the early days of the pandemic might have meant that the policy of limiting precious resources such as viral testing to symptomatic cases only was not totally unreasonable. Furthermore, other aspects of important impact such as mental health issues caused by national lockdown were omitted due to our pre-determined focus on mortality as an outcome.

Another possible limitation in making comparisons is that on average, the Australian aged care home has a larger number of residents per facility (67.8) when compared to the UK (26.5), which may raise the questions of less frail elderly in Australian care homes or better equipped care homes due to larger capacity. The differences in frailty issue remain a possibility and are difficult to prove without objective data. Regardless, neither Australian nor UK aged care homes have been designed or equipped to care for sick older people during the pandemic (as described in the Melbourne experience later).

The strength of our study is that we have based our evaluation on two countries with similar healthcare systems, similar demographics and similar aged care home settings. Efforts were made in taking into account major policies that could influence mortality albeit possible that some minor policies were missed unknowingly.

Interpretation within context of literature

Bearing in mind the limitations, there is sufficient evidence to suggest that in both countries, the impact of some policies during the early days of the pandemic (including prioritization of PPE and testing) served to worsen the cluster outbreak crisis in aged care homes, putting lives at risk. The combination of high transmissibility, asymptomatic carriers who are capable of spreading the virus quickly, along with the confined environment in aged care homes means that large cluster outbreaks have a higher chance of occurring and, when they do, going unchecked due to shortage of testing. Care home staff are lowly paid and often have employment in other aged care homes, meaning the aged care sector spread can easily get out of control.

Principal findings

Furthermore, both countries seem to have given lower priority for hospitalization of aged care home residents (e.g. discharging without

testing for COVID-19 or discouraging admissions). These policies contributed to over 2000 aged care homes in the UK having outbreaks and about 7000 of the 30 000 plus deaths being residents of care homes, as of our census date (7 May). Compared to the UK, only 26 residents of aged care facilities had died out of a national toll of 97 (7 May) during the first wave in Australia. The UK outbreak was around 270–300 times worse in fatality than that in Australia in aged care homes and nationwide, respectively (despite the UK population of 67 million being only 2.5 times larger than that of Australia's 25 million). The lack of priority of hospital admission for older residents has now been subsequently changed in both countries.

Despite residents in aged care homes constituting about 1% of the population in both countries, deaths in aged care homes constitute about 27% and 23% of the national toll in Australia and the UK, respectively, during the first wave, a reflection of the vulnerability of care home residents.

Our analysis suggests that the earlier national lockdown policy (when 3-day moving average of new cases were only 118 in Australia versus 1019 in the UK—Figure 1), the earlier restriction of visiting practice in aged care homes and the wider availability of diagnostic viral testing in Australia (28 889/1 million population in Australia versus 22 605/1 million in the UK as of 7 May [1]) in the early days may have contributed to the large difference in mortality [1] during the first wave in both countries.

Implications for policy and practice

Compared to the UK, the earlier national lockdown in Australia before the healthcare response capacity reached breaking point could have been a main contributing factor to the big difference in mortality, especially among residents in aged care facilities. Once the daily new cases exceed the response capacity of the healthcare sector, (e.g. the availability of testing, contact tracing, PPE and hospital beds), the sector would become overstretched, which, in turn, would lead to sustained escalation of cases, disproportionately affecting the aged care homes, resulting in higher mortality rates. This assertion is reflected in the July–September second wave in Melbourne, Victoria (Australia). The daily new cases had reached 191 before the Victorian state government decided to implement a lockdown on 9 July [29]. This delay in lockdown of the state had caused the daily new cases to rise to a peak of over 700, resulting in 89 additional deaths of aged care residents by 1 August in Victoria [30].

Lastly, we live in an inter-connected society. The safety of a population group also means the safety of the whole population. This was exemplified by community transmissions of the virus from those who worked or visited the aged care facilities with infected residents. Similarly, it can be argued that less wealthy nations need the help of wealthier ones during the pandemic for resources such as PPE and vaccines. Fortunately, some developing countries have better results during the first wave due to their early implementation of basic public health measures, such as physical distancing, isolation of the infected and border closure (or lockdown), and the co-operation of the population in the implementation of these policies. These results have already been alluded to in multiple publications [31–33].

Conclusion

The policies of resource distribution and hospitalization can have detrimental effects on the lives of older aged care home residents, but early lockdown and availability of viral testing to the general public seem to have contributed to (or been associated with) a lower absolute number of fatalities in this vulnerable population. The lessons

learnt from public health policies during the first wave and the improved availability of resources can hopefully help us protect our vulnerable senior citizens better in the aged care sector in the future, if the lessons are heeded.

Acknowledgement

We thank Dr Jun Dai for helping with Figure 1.

Funding

None declared.

Contributorship

D.K.Y.C. conceived the study and contributed to the paper overall, especially the Australian part of the study. D.R.F. contributed to the UK part of the study and also to the overall writing of the paper. M.L.M.L. revised and made suggestions overall.

Data availability statement

No new data were generated or analysed in support of this review.

Ethics and other permissions

Not applicable to this study.

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