Shielding without a Shield—Older People under COVID-19: A Comparison of Four Cities

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Abstract: Older people were globally the most vulnerable during the pandemic. This paper examines the mortality and psychological crisis of older people during the pandemic in four cities, namely Wuhan, Milan, London, and Hong Kong, in order to explain their high death rates. The sample cities were purposefully selected to cover different degrees of social connectedness and outbreak periods. Quantitative data were employed to account for death and suicide data. Qualitative data analyses in government reports, public press releases, NGO announcements, and journal articles were used to study government responses and disruptions of essential healthcare services. Published scientific studies provided important information on the psychological stress and resilience of older people. Findings based on a welfare regime perspective showed that society and governments have not learned from the experiences of other countries, which resulted in high numbers of preventable deaths. Older people have successfully coped with living difficulties while serious psychological disturbances and suicidal ideations were absent at least for the period up to 2022. Older care home residents, unfortunately, were not protected with proper shielding and available vaccinations. Public inefficiency and negligence contributed to a disproportionately high rate of mortality in nursing homes.

Keywords: COVID-19; social determinants of health; older people vulnerability; health welfare regimes

1. Introduction

Schmidt-Sane et al. (2020) discussed the concept of “Shielding” as protecting vulnerable groups as early as April 2020 and illustrated that “Shielding” must be supplemented by supportive measures. For them:

“Shielding is a term used to describe the protection of individuals at high risk of severe COVID-19 illness by separating them from the general population. When considering shielding, it is important to plan for socioeconomic impacts on the shielded, including psychosocial well-being, income generation, food access, and health service access. These are trade-offs that communities and individuals must weigh against the positive effects of shielding in the broader context of COVID-19 containment measures”.

Unfortunately, “Shielding” for older people was not effectively carried out. Up to 12 August 2022, the total number of confirmed cases caused by COVID-19 has reached 585,950,085, and the total number of deaths has reached 6,425,422, according to the COVID-19 Dashboard of the World Health Organization (WHO 2022a). The WHO further pointed out that 71.66% of COVID-19 deaths were by people aged 65 or above, as of 1 August 2022 (See Table 1).
Table 1. Age and gender distribution of world COVID-19 deaths (n = 2,311,881).

<table>
<thead>
<tr>
<th>Age</th>
<th>Female</th>
<th>Male</th>
<th>Sub-Total</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>80+</td>
<td>433,122</td>
<td>421,803</td>
<td>854,925</td>
<td>36.98</td>
</tr>
<tr>
<td>75–79</td>
<td>119,816</td>
<td>170,698</td>
<td>290,514</td>
<td>12.57</td>
</tr>
<tr>
<td>70–74</td>
<td>113,943</td>
<td>171,581</td>
<td>285,524</td>
<td>12.35</td>
</tr>
<tr>
<td>65–69</td>
<td>763,92</td>
<td>149,851</td>
<td>226,243</td>
<td>9.79</td>
</tr>
<tr>
<td>above 65</td>
<td>743,273</td>
<td>913,933</td>
<td>1,657,206</td>
<td>71.68</td>
</tr>
</tbody>
</table>

Source: WHO (2022b).

In the COVID-19 Response Plan published by UN-Habitat in April 2020, it was stated that crowded cities were hardest hit by this “urban humanitarian crisis” in which tens of thousands of lives were already lost, affecting over two hundred countries (United Nations Habitat 2020). These observations were in agreement with the statement by the WHO that megacities connected internationally had facilitated the first transmissions of the pandemic (WHO 2022b).

The United Nations (2020), early in its first Response released in June 2020, stated that:

*Policies must take into account the most affected and least resilient. At a national level, this entails dedicated measures to address the needs and rights of women, older people, children, low-wage earners, persons with disabilities, and vulnerable groups. At a global level, it requires a comprehensive stimulus package amounting to at least ten percent of global GDP and massive support to developing countries in the form of an across-the-board debt standstill, debt restructuring, and greater support through international financial institutions.*

The UN released a second issue of the Response Report in September 2020 and then a third Response Update in November 2021. The UN has also developed a special Policy Brief on older people. The UN Secretary-General, António Guterres, wrote the Policy Brief himself on 1 May 2020, and remarked that:

*The COVID-19 pandemic is causing untold fear and suffering for older people across the world. The fatality rate for older people is higher overall, and for those over 80, it is five times the global average. Beyond its immediate health impact, the pandemic is putting older people at greater risk of poverty, discrimination, and isolation. It is likely to have a particularly devastating impact on older people in developing countries.*

COVID-19 fatality was most severe in those over 80 years old, who were dying at five times the average rate. A United Nations Sustainable Development Group (UNSDG) Policy Brief on “The Impact of COVID-19 on Older Persons” suggested that this was due to underlying conditions, which affected 66 percent of those aged 70 and over (UNSDG (United Nations Sustainable Development Group) 2020).

Older people were not only weaker physically to fight the virus, but they also lacked accessibility and capability, in terms of social, economic, cultural, and political determinants of health. António Guterres (2020) reminded the world “Let’s not treat older people as invisible or powerless”.

Two and a half years have elapsed since the pandemic was first discovered in China. How it has affected lives and the livelihoods of older people in the world and what governments have done to protect the elderly are worth a thorough review.

This paper aimed to study the situations of older people in four cities during the pandemic, London in the United Kingdom (UK), Hong Kong Special Administrative Region of China, Milan in Italy, and Wuhan in China, to explore and explain the high COVID-19 deaths among old people. Official statistics and government reports were collected and examined to illustrate the facts and stories of how older people periled under COVID-19 when it hit the cities hardest. Analysis of social and administrative determinants was based on secondary data, and therefore, the conclusions are more of an exploratory nature.
2. Literature Review

2.1. Issues of Vulnerability

The ways countries and cities responded to the challenge of COVID-19 were critical to halt the pandemic and lay the foundation for resilience and recovery. Certain groups were particularly vulnerable to this communicable disease. Including older people, those who did not have savings had to find means to meet subsistence needs, disregarding orders to stay at home. Immediately after the outbreak of COVID-19, efforts were made to compile information on vulnerable groups. The UCLA Center for Neighborhood Knowledge developed a Vulnerability Index for residents in Renter Housing in Los Angeles, early in May 2020 (Gonzalez 2020). Marvel et al. (2020), on a larger scale, demonstrated how a vulnerability map could be useful for public health responses in the United States. The issue of social vulnerability to public health has become a major international concern.

2.2. Disrupted Healthcare Services

In April 2020, the Health Ministers of G20 issued a joint statement after a virtual conference pointing out that “the COVID-19 pandemic [had] highlighted systemic weaknesses in health systems” (Reuters 2020a). Essential health and social care in cities continued to face serious disruptions under the challenges of COVID-19 (WHO 2022c).

The prominent weakness of most healthcare systems, however, is their financial unsustainability. The Organization for Economic Co-operation and Development (OECD) opened up the debate on healthcare sustainability at the Paris Conference 2013. For example, Italy, praised as one of the more advanced countries in terms of health care services provided through the Italian national health system (Sistema Sanitario Nazionale, SSN) provisions, was unable to cope with the care of COVID-19 patients in the most affected regions (Prante et al. 2020).

2.3. Concept of Health Welfare Regime

Health services and social care are a continuum, particularly for older people. Older people frequently need hospital services because of multi-morbidities. In their later life stage, they need nursing homes that provide long-term care. In the United Kingdom, health and social care are placed under one umbrella of administration.

Health welfare regime refers to the combination of social conditions, including access to healthcare facilities and social cultures that shape health-seeking behaviors, consumption patterns of life-saving services. In this study, the concept of a health welfare regime was employed to indicate how older people could be “shielded” from the deadly COVID-19. Similar to the concept of social welfare regime, a health protection regime means a specific combination of health care services and individual actions, which arises from the balance between public and private (family) responsibility in buffering health risks. For instance, in 2020, the crude mortality rate of COVID-19 in China was very low overall, but it was rather high in Wuhan alone during the first wave. There was also a big difference between older people living in public hostels and those in private flats with spouses. Italy and the United Kingdom are considered more developed countries with good healthcare facilities. Older people in Italy tended to live with family members regardless of their income background. Saraceno et al. (2021) illustrated the concept of the poverty regime by showing that in Italy, households with dependent children had a higher risk of poverty than childless households (24.8% against 16.2%), while in Denmark the reverse was true (8.3% against 15.9%). In Denmark, the highest risk of poverty (33.4%) was in adults aged under 65 who lived alone, a figure that amounted to “only” 25.9% in Italy.

2.4. Social Distancing and Its Psychological Resistance

The University of Oxford developed the Government Response Stringency Index (GRSI) with 17 indicators, among which the following are related to social distancing (University of Oxford 2020):

1. School closure;
2. Workplace closures;
3. Public event cancellation;
4. Public transport closure;
5. Restriction on internal movement;
6. International travel controls;

Stringent measures to minimize the spread of COVID-19 were adopted by governments around the whole world, following the recommendations of the World Health Organization (WHO 2022d). Countries’ impositions of social distancing measures varied to different degrees at different time spans as reflected by the COVID-19 Government Response Track—OxCGRT (University of Oxford 2020).

Social distancing, including compulsory physical isolation, is one of the standard and oldest measures in communicable disease control. Tognotti (2013), in a historical review of quarantine measures, found that isolation was first introduced in 1377 in Dubrovnik on Croatia’s Dalmatian Coast. The first permanent lazaretto, or plague hospital, was opened in 1423 on the small island of Santa Maria di Nazareth, by the Republic of Venice. Since its inception, the social distancing approach, although rational, has never been fully approved by the public, for psychological reasons.

For example, in a study with 681 residents in Northern London, 92.8% of them did not adhere to all social distancing rules, and 48.6% even engaged in intentional non-adherence to rules (Hills and Eraso 2021). Non-adherence also happened more within marginalized groups (Wilkinson and Fairhead 2016).

As explained by the Psychological Reactant Theory, refusal of public requirements allow the person to feel a sense of individualism and freedom (Brehm and Brehm 1981). Social resistance to public health regulations can also be regarded as a form of social denial, as part of psychological reactions to shock. On CNN, a writer coined the term pandemic Denial to explain why so many people refused to wear a mask when so much information was available about the severity of the coronavirus (Marples 2020). It is frequently related to disagreement with scientific experts. A study in Germany after the first wave found that respondents could be divided into five groups with pandemic Denial (Ruthman et al. 2022): 8% of the 1575 respondents could be categorized as “Dismissive”, who showed low-risk assessment, low compliance with containment measures, and mistrust in politicians; another 19%, the “Doubtful” were characterized by low cognitive reflection, high uncertainty in the distinction between true and false claims, and high social media intake.

Different cultures and even different social groups in the same society exhibited different levels of adherence to regulations of social distancing (Kontokosta et al. 2022).

2.5. Fear, Anxiety, and Depression due to Social Isolation


The effects of social disconnectedness and isolation were already well documented before the COVID-19 outbreak. Morgan et al. (2007) conducted a thorough review of the evolution of the concept of social exclusions and respective methods of measurement.

Physical distancing and loss of usual social opportunities for older people, in general, are associated with a greater risk of anxiety, stress, social mistrust, and depression (Santini et al. 2020; Robb et al. 2020; Jiang et al. 2022). During a social lockdown, suicide risks of older people increased through a heightened sense of disconnectedness from society (Wand et al. 2020). Multiple cases of COVID-19-related suicides in the US, UK, Italy, Germany, Bangladesh, India, and other countries have been reported in mass media and psychiatric literature (Sher 2020). Suicidal behavior, with a delayed effect, is likely to be present for a long time even after the pandemic (Calati et al. 2021). The actual rise of suicides among older people deserves close monitoring.
2.6. Mediating Effects of Digital Technology on Psychological Impacts

Older people may be in a better position to cope with the COVID-19 pandemic because of their rich life experiences (Golant 2021). The advances in digital technology, allowing older people to communicate with family members, governmental and non-governmental agencies, and even total strangers, mediated the negative impacts of social isolation. Light (2013) considered that mediated social networking has a direct effect on social connectedness. Torres et al. (2021) surveyed 4431 participants aged 50 years and older in Brazil to study the relationship between loneliness and social disconnectedness during the pandemic. They found that “virtual talking connectedness” could diminish loneliness despite steep outside-home disconnectedness.

3. Methodology

There are many methodological limitations in conducting international comparative studies (Azarian 2011; Mills et al. 2006). To begin with, pros and cons exist in selecting small-N and large-N (Ebbinghaus 2005).

Social isolation as an extreme form of social distancing is poorly defined, and there is no common understanding of the social experience of exclusion among psychologists. Wright and Stickley (2013) studied 36 peer-reviewed journal papers from the UK, Canada, Australia, and Scandinavia, and their findings only confirmed the lack of conceptual clarity for social isolation. It creates a methodological problem in assimilating quantitative studies conducted in different countries.

This paper is an exploration of the situations of older people under COVID-19. It is beyond the capacity of the research team to review and discuss the impacts of the COVID-19 pandemic on older people in all countries. However, it would be useful to compare the situations in more than one country to provide insights into the influences of different cultures and government emergency responses. The small-N approach is adopted to allow for more in-depth analysis.

3.1. Framework of Study

The medical situations of older people during the pandemic, in a narrow sense, cover a wide range of healthcare treatments (See Figure 1), according to Yang et al. (2020). In a broader sense, it involves difficulties in maintaining subsistence and inadequate care of existing long-term chronic diseases. In this study, confined to the narrow sense of situations under COVID-19, the number of deaths, mortality rates, and suicidal cases were selected as key indicators.

Regarding government responses, two important areas were selected for study, namely, healthcare services disruptions and public health stringency in terms of social distancing measures. The latter is carried out to contain the spread of the disease. The former dictates the capabilities to save lives and reduce mortality.

Healthcare services disruption (HSD) cannot be measured by the absolute numbers of physicians, hospital beds, and ICUs, because it refers to the inadequacies created in the case of suddenly rising demands for hospitalization and acute emergency care created by COVID-19. This paper characterizes HSD by the overcrowding of hospitals and the evidence of burnout among medical staff due to the shortages of manpower.

Two intermediate factors also examined in this study are social resistance to stringency measures and public negligence to protect older people at homes or elderly care institutions. The following diagram explains the framework of this exploratory study (See Figure 2).

This study, which can only be an exploratory one, instead of discussing the whole range of social connectedness, from social inclusion to social exclusion, focused on the negative impacts of social isolation, under the social lockdown measures imposed by country and city governments, towards older people.
3.2. Selection of Cities

The cities of Wuhan, Milan, London, Copenhagen, and Hong Kong have different healthcare systems, levels of universal health coverage, and social welfare provisions for older people. The societal aging of these cities, as shown in Table 2, is comparable.

One dimension of selecting sample cities is “public health crisis preparedness” in terms of health and social protection. Wuhan was the city where the pandemic was first discovered; thus, it was included in this international comparison. China’s government spending on social services for older people was limited. The city government of Wuhan provided social subsistence to the neediest, while the majority of older people relied on family support. Milan was one of Italy’s major cities in the northern districts severely affected during the first wave. Italy provided universal health coverage and basic social
welfare, but government budgets had been diminishing since 2004. Meanwhile, London is praised for its National Health Services. Hong Kong of China, following the British model, provided public and near-free hospital services. The four cities of Wuhan, Milan, London, and Hong Kong are suitably diversified in healthcare provisions for comparison.

Table 2. Percentage of the population over 65 in 2021.

<table>
<thead>
<tr>
<th>City</th>
<th>Population</th>
<th>Aging Rate</th>
<th>Older Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wuhan</td>
<td>8.4 M</td>
<td>11.61%</td>
<td>0.975 M</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>7.8 M</td>
<td>19%</td>
<td>1.482 M</td>
</tr>
<tr>
<td>Milan</td>
<td>10.8 M</td>
<td>22.4%</td>
<td>2.419 M</td>
</tr>
<tr>
<td>London</td>
<td>9.0 M</td>
<td>11.9%</td>
<td>1.071 M</td>
</tr>
</tbody>
</table>

Source: World Bank; Office for National Statistics (UK); Institute of Statistics of Italy (istat).

The selection of sample cities also aimed to reflect different degrees of social connectedness, particularly in the family. Older people in Italy prefer to live with their families, Fonseca et al. (2019) found. Older people in Wuhan also have very close ties with their children, mostly single-child families, but they did not live together because the younger generations have to work in different cities. In Hong Kong, housing provisions for older people were inadequate. Most Hong Kong older people, regardless of whether or not they had children, lived in private residential care homes. Family ties were weakened, and some younger generations did not visit their parents regularly. In London, the majority of older people lived in the community independently, with only 2.2% living in care homes (Schultze et al. 2022). In terms of face validity, the four cities of Wuhan, Milan, London, and Hong Kong exhibit different degrees of family connectedness.

3.3. Timeframe of Study

Wuhan was the first city to report in January 2020 the outbreak of the pandemic. Milan of Italy was the first western country affected by COVID-19, at the beginning of March 2020. London as the center of the United Kingdom in all aspects witnessed heavy deaths in both 2020 and 2021. London deserved our attention because the government of the United Kingdom was the initiator of the herd immunity strategy. Finally, the Hong Kong Special Administrative Region of China was hardest hit from March to August 2022.

The time frame of study for the four cities starts from the beginning of the pandemic and covers its latest development, from January 2020 to August 2022 (See Table 3).

Table 3. Time frame of study and COVID-19-related information.

<table>
<thead>
<tr>
<th>City</th>
<th>Time Frame</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wuhan</td>
<td>Jan to May 2020</td>
</tr>
<tr>
<td>Milan</td>
<td>Feb to May 2020</td>
</tr>
<tr>
<td>London</td>
<td>March 2020 to March 2021</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>Jan to June 2022</td>
</tr>
</tbody>
</table>

3.4. Quantitative and Qualitative Mix

There are reliable quantitative data on COVID-19 deaths reported by the World Health Organization. However, there are still differences in the definitions of COVID-19 deaths. For example, England defined it as all who died within 28 days after testing positive. This definition did not account for those who never got tested.

Public information on older people’s suicide rates in the four cities during the time frame of the study was not as readily available as death data. This study can only refer to press publications and academic journals for suicide information.
Similar problems exist in finding quantitative data for health services disruptions and inadequate government protection. A possible method is to distribute questionnaires to medical staff and residents of the four cities. This method has to overcome manpower resources and language problems, even though sampling issues could be resolved by big data.

In this study, quantitative data were employed to describe COVID-19 deaths and government stringency responses. Suicide data were also quantitative but were not fully available for all four cities. To discuss healthcare disruptions, social resistance, and public protection for older people, secondary qualitative data from press releases of public health agencies, press reports of government health spokesmen, comments from university research centers, and reports of charity organizations were used.

Given the many methodological issues, the findings and discussions should be regarded as indicative rather than conclusive.

4. Findings

4.1. Overall Deaths Caused by the Pandemic

The actual numbers of cases and crude death rates were reported by the WHO COVID-19 Explorer (WHO 2022c). Both country and city statistics were employed to reflect the larger national contexts and the specific city situations.

4.2. China (Wuhan and Hong Kong)

In Figure 3, the first wave of confirmed cases and deaths in China that appeared in the First Quarter of 2020 was mainly contributed by Wuhan (See Figures 4 and 5), whereas the second wave recorded in the First Quarter of 2022 was due to the outbreak of omicron in the Hong Kong Special Administrative Region of China (See Figure 6).

![Figure 3. COVID-19 trends in deaths in China.](image-url)
The spread of COVID-19 in HKSAR was relatively mild in the early stages from Jan 2020 to Jan 2022 (See Figure 6). Unexpectedly, when the coronavirus mutated into the omicron variant, characterized by its high transmissibility and low fatality, HKSAR recorded the highest number of daily COVID-19 deaths.

A COVID-19 death case, similar to the UK's definition, is defined as the death of a person with a positive SARS-CoV-2 result within 28 days of the first positive specimen collection day. According to the WHO, as of 31 August 2022, Hong Kong reported 1,283,514 confirmed cases and 9,477 Coronavirus deaths.

Figure 4. Confirmed cases of COVID-19 in Wuhan in 2020 (Wuhan CDC).

Figure 5. Number of deaths caused by COVID-19 in Wuhan in 2020 (Wuhan CDC).

Figure 6. COVID-19 deaths in Hong Kong, China. Source: Worldometers (2022b).
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4.3. Italy (Lombardy and Milan)

The first wave of COVID-19 in Italy (See Figure 7) appeared in the First Quarter of 2020 and happened mainly in Lombardy and northern Italy, including the city of Milan. The second wave was recorded in the First Quarter of 2021 and was due to the spread of COVID-19 to the southern part of Italy. The city of Milan under study was affected mainly by the first wave in early 2020.

![Daily Deaths](image.png)

**Figure 7.** COVID-19 trends in deaths in Italy.

On 30 January 2020, the World Health Organization declared the coronavirus outbreak a public health emergency of international concern, and on March 11, a pandemic. Italy was the first European country to report a confirmed case in Lombardy on 20 February 2020. Milan is a northern Italian city and the capital of Lombardy. The city proper has a population of 1,404,431, the second largest in Italy after Rome (City of Milan Statistics Unit 2020).

On 27 March, Italy surpassed China’s COVID-19 death rate with more than 9100 daily deaths, according to Worldometers (2020). Its fatality rate of 10% (See Figure 8) was much higher than the global average of 3.4%, according to the WHO (2022a).
On 30 January 2020, the World Health Organization declared the coronavirus outbreak a public health emergency of international concern, and on March 11, a pandemic. Italy was the first European country to report a confirmed case in Lombardy on 20 February 2020. Milan is a northern Italian city and the capital of Lombardy. The city proper has a population of 1,404,431, the second largest in Italy after Rome (City of Milan Statistics Unit 2020). On 27 March, Italy surpassed China’s COVID-19 death rate with more than 9100 daily deaths, according to Worldometers (2020). Its fatality rate of 10% (See Figure 8) was much higher than the global average of 3.4%, according to the WHO (2022a).

Figure 8. COVID-19 data in Italy for the first month (Megna 2020).

Megna (2020), who analyzed the Italian case of the COVID-19 attack, pointed out that the country’s public health, the workload in hospitals, and economic damage were worrisome. Hospital beds, in particular in intensive care, were fully saturated in northern Italy. Many southern Italian regions, which were spared by the first wave, were hardest hit during the second wave. Relaxation of the severe lockdown measures, a decentralized national healthcare service with different regional responses, and differences in hospital capacity were reasons for a large number of deaths in the second and third waves. Consequently, the number of suicides continued to rise.

At the end of the year, Italy registered 65,011 COVID-19 fatalities since February, as compared to 64,170 in Britain, 57,911 in France, and 47,624 in Spain (Worldometers 2020).

4.4. The United Kingdom (London)

Confirmed cases and deaths caused by COVID-19 in the United Kingdom were distributed in three waves (See Figure 9). The largest number of deaths was reported in the second wave, which lasted longer than the first, and the spike in daily deaths of the second wave was the highest. Therefore, the epidemic period from March 2020 to March 2021 in London deserves greater attention.

The first day of the outbreak onset in London in the UK was 8 March 2020, only 13 days after that of Milan. Death of a person who died within 28 days of a positive test is classified in the UK as a coronavirus death. The total number of confirmed cases and deaths as of 29 August 2022, in the United Kingdom (UK), was 187,761 (Statista 2022a).
The southeast region of the UK, including London, had the highest number of first-episode confirmed cases. As London offered more job opportunities and attracted more young people, its population proportion over 65 years of age (11.9%) was smaller than in other parts of England. The percentages were 10% in Inner London and 13.8% in Outer London as compared to 19.6% in the rest of England. With data up to and including 27 June 2022, COVID-19 deaths reported in London hospitals of patients who had tested positive for COVID-19 were 19,102. As the number of patients who died in hospitals is estimated at 79% of the total by local authorities, the adjusted number of total COVID-19 deaths in London was around 24,000 (See Figure 10).

Figure 9. COVID-19 trends in deaths in the United Kingdom.

4.5. Comparing COVID-19 Deaths

The crude death rate for the UK was 275.5 per 100,000 on 18 August 2022. The crude death rate for Lombardy in April 2020 was only 112.9 per 100,000, much lower than that of the UK. The UK has had the highest number of deaths from coronavirus in Western Europe, followed by Italy, France, Germany, and Spain, in that order (See Figure 11).

![Cumulative number of coronavirus (COVID-19) deaths in France, Germany, Italy, Spain and the United Kingdom (as of July 7, 2022)](image)

Figure 11. COVID-19 deaths in 5 European Countries (Statista 2022a).

Italy had 21,806,509 cases and 175,347 deaths, whereas the UK had 23,492,875 confirmed cases and 187,761 deaths. South Korea also had 23,026,960 cases but only 26,618 deaths with a case fatality death (CFD) rate of only 0.116% (Statista 2022a).

To summarize, these were the key observations:

1. Although the case fatality rates of omicron were comparatively lower than its previous variants (Lorenzo-Redondo et al. 2022), the absolute number of deaths was higher in 2021 than in 2020 for Italy and the United Kingdom. The absolute number of deaths was higher in 2022 for Hong Kong and thus China, than the total in 2020 and 2021.

2. High infectivity of the omicron variant has led to a greater number of confirmed cases. This explained the higher crude death rates partially because proper vaccination and more experienced protection measures should have arguably lowered the death rate. Unfortunately, governments have not learned from the painful experiences of other cities. For example, larger death numbers were recorded in London in its second wave in 2021. A high number of deaths happening in Hong Kong as late as 2022 needs further analysis.

5. Mortality for Older People in the Four Cities

5.1. Wuhan

Wuhan deserved particular attention, as it formed a “base” case in assessing the impact of COVID-19. Its first wave, marked by the period from 1 December 2019 to 31 March 2020, ended cleanly with only seven sporadic cases reported between 24 March and 18 May.

On 23 January 2020, the Wuhan Epidemic Prevention and Control Headquarters declared a lockdown that without special reason citizens should not leave the city by land, water, or air. This was the beginning of the impact stage of the epidemic, as some
earlier signs of warning were neglected. Pan et al. (2020) reported that before the Wuhan lockdown, the province of Hubei had 444 confirmed and hospitalized cases, and among them, 17 died and 28 were cured. The ratio of confirmed cases to total infected persons was estimated at 14%. In other words, there should have been more than 3000 people infected with 86% undocumented.

Threatened by this unknown coronavirus, people desperate for a diagnosis flocked to the lobbies and corridors of city hospitals. Cross-infection exploded unintentionally and led to a further strain on inadequate medical facilities. Mortality statistics by age in Wuhan (See Figure 12) sent a clear warning to the world that older people were highly vulnerable.

![Crude mortality rates of COVID-19 by age in Wuhan.](image)

According to Yang et al. (2020), the mortality rate of people older than 60 in Wuhan was 216.8 per 100,000, while that for the age group between 40 and 59 was 18.9 per 100,000 and the average was 36.2 per 100,000. The mortality rate for adults \( \geq 60 \) was 5 times higher than average, 10 times higher than older adults (40–59 years of age), and almost 100 times higher than younger adults (20–39 years of age). Yang et al. (2020) found that the symptomatic case fatality rate (sCFR) of COVID-19 in Wuhan was also higher for adults aged \( \geq 60 \) years than for the other age groups (9.09% vs. 0.36–1.97%). In other words, 1 out of 10 older people diagnosed as having COVID-19 in hospitals died.

5.2. Milan

The number of total deaths of older people in Milan from January to May 2020 was 19921, as compared to the average of 3091 during the same period in previous years from 2015 to 2020. Among the COVID-19 deaths of older people, 920 of them were aged between 65 and 74, 2520 between 75 to 84, and 4828 of them were aged over 85 (Figure 13). The increase in mortality for all cases was 35% for ages between 65 and 74, 56% for ages between 75 and 84, and 85% for subjects above 85 years of age. The overall increase was 68.6%.

One factor affecting the country’s death rate may be the age of its population. Italy has the oldest population in Europe, with about 23% of residents 65 or older (Mazzola et al. 2015). For example, Gallaratese, the “oldest” urban neighborhood in Milan and Europe, has 33% of inhabitants aged 65 and over (Arup 2018). The Fifth Report, jointly produced by istat and the Istituto Superiore di Sanità (ISS), explained the main characteristics of the epidemic and its effects on total mortality, distinguishing between the first (February–May 2020) and the second (October-January 2021) epidemic waves (istat 2021b).
About 37% of cases in Lombardy were aged 70 and older, compared with 12% of cases in Wuhan, China. In Lombardy, 47% of the confirmed cases were hospitalized, out of which 17% required intensive care (Cereda et al. 2021).

According to the Annual Report of Istat (2021a), “The year 2020 saw the highest number of deaths since the Second World War: 746,146, i.e., over 100,000 more than the average for the previous five years. The sharpest increase was observed among people over 80, with almost 77,000 more deaths in the country than the 2015-2019 average”. The report stated that life expectancy in Italy at birth “decreased by 1.2 years, on a national basis, compared to 2019, thus marking a return to 2012 levels. Men were the worst affected: their life expectancy at birth fell by 1.4 years to below 80 years (79.7), while for women it fell by one year to below 85 years (84.4)”. Between March and April 2020, the initial two months of the pandemic, 29,000 deaths were directly attributed to COVID-19, and 5000 more deaths due to pneumonia and influenza were related to COVID-19.

5.3. London

Statistics showed that for the United Kingdom, the total number of deaths attributed to COVID-19 was 126,845 as of 5 October 2022. Among the deceased persons, 37.8% were aged between 60 and 79, and 53.7% were aged 80 or above (NHS 2022). The total number of COVID-19 deaths in London was estimated at 24,000 (See Figure 10). The age distribution of COVID-19 deaths in London is assumed to be similar to the overall distribution for the UK. Nazrroo et al. (2020) reported that only 8% of COVID-19-related deaths in London occurred among people aged under 65. Among older people, those aged 85 to 89 had more than eight times higher risk of COVID-19-related mortality than those aged 65 to 69.

5.4. Hong Kong

Among the deceased, according to the HK Government the median age was 86, (R = 0-112), with a male-to-female ratio of 1.42 (HKSAR 2022). The number of unvaccinated deaths was 6697, or 71%. Older people aged over 60 years made up 95% of all COVID-19 deaths (World-in-Data 2022).

5.5. Summary

All data from Wuhan, Milan, London, and Hong Kong confirmed that older people over 60 years of age constituted extremely high percentages of COVID-19 deaths. It was 95% for Hong Kong, and 92% or more for London.

Figure 13. COVID-19 deaths in Milan (1 = Age 65–74, 2 = 75–84, 3 = over 85). Source: (Istat 2022).
The warning of older people’s vulnerability was recognized as early as March 2020 by the age structure of COVID-19 deaths in Wuhan. It brought the United Nations and the WHO to vigorously emphasize the need to protect older people.

The usual explanation for these extraordinarily high mortality rates was comorbidities among older people. Without investigating the failure of healthcare services and the absence of shielding for older people, comorbidities became the obvious and the best excuse.

6. Government Responses and Disruptions of Essential Healthcare Services

6.1. Wuhan

Government Responses: the government of China has taken drastic action to lock down cities such as Wuhan, which has a population of over ten million. Across the country, everyone was told to stay home and minimize mobility with a prolonged Chinese New Year holiday. Pan et al. (2020) further divided the outbreak of Wuhan into five sub-periods from December 2019 to March 2020. The first period was from 8 December 2019, to 9 January 2020, when there was no intervention. The second period, from 10 to 22 January 2020, was characterized by massive human movements, and transmissions of communicable diseases, due to the Chinese New Year holiday.

HSD: On 23 January 2020, the third period began as the city was shut down with full-scale home quarantine. Not until 2 February 2020, marking the beginning of the fourth period, was centralized quarantine and treatment adopted. Finally, the fifth period lasted from February 17 to March 8 when universal symptom COVID-19 tests were conducted repeatedly for all residents in Wuhan. The city lockdown was reopened in April 2020.

In the early stages, healthcare system collapse was evident, as it was unable to provide tests, consultation, treatment, centralized quarantine, hospitalization, and intensive care services to all who were in need. Only after March 2020, when medical teams were sent from all over China to Wuhan’s rescue, did healthcare service disruptions stop and the number of newly confirmed cases significantly drop. It took China four months to beat the Coronavirus and start the “Zero-COVID policy”.

6.2. Milan

Government Responses: Mario C. Raviglione, a professor from the Global Health Department of the University of Milan, suggested that a four-year-old boy in Milan contracted the disease back at the end of November 2019, months before the first reported case (McPhee 2020). If COVID-19 was already widespread in the entire region before it was reported, this explained why a large number of critical cases surfaced in Lombardy within a very short time.

To limit the number of infections in the whole country, the Italian government was forced to impose a complete lockdown with the prohibition of non-essential activities and stopped almost all commercial activities from March to May 2020 (Ortenzi et al. 2020). Older people were once again victimized because of their incapability to adapt to the discontinuity of daily services. Physical activity decreased notably during the lockdown, especially among already inactive people (Füzéki et al. 2021).

Ciceri et al. (2020) studied the patients admitted to the Emergency Unit of the San Raffaele Scientific Institute from 25 February to 24 March 2020, a tertiary care academic hospital in Milan, Italy. Out of 500 confirmed cases, 410 patients were hospitalized with a median age of 65 (IQR 56–75) years and 72.9% being males. Obesity was reported in 75% of patients, 56.3% had comorbidities, with hypertension, coronary heart disease, diabetes, and chronic kidney failure being the most common, and 21 patients (4.2%) were under treatment for cancer. As of 1 May 2020, 23.1% (95) of patients had died, 5.9% (24) were still hospitalized and 71% (291) had been discharged.

Results showed that age over 65, history of coronary artery disease, active cancer, low lymphocyte count, and high Radiographic Assessment of Lung Edema score were related to a higher risk of mortality.
HSD: The weaknesses of Italy’s once reputable healthcare system were fully exposed by the pandemic. According to the Bloomberg ranking methodology for the evaluation of healthcare systems, in 2019, the Italian health system and the regional National Health Services (NHS) were ranked fourth place globally, after Hong Kong, Singapore, and Spain. Stefano Centani, professor of respiratory illnesses at Milan University, said that prolonged underfunding and constant cuts to health resources were partly to blame.

The reduction of resources in the operation of public hospitals in Italy has been going on for almost 30 years. From 1990 to 2018, public and compulsory health care expenditure per capita in Italy increased by less than 26.8%, which is the lowest value among the European countries, as shown in Diagram 10 (Prante et al. 2020).

Roberto Speranza, the Health Minister, also acknowledged that for 15 years, Italy, to control its national debt level, as shown in Figure 14 imposed a limit on personnel spending at 2004 levels minus 1.4% (Reuters 2020b). Under the attack of COVID-19, the shortage of medical and nursing staff became a crucial problem.

Figure 14. Percentage of Public Health Spending (2000–2018).

6.3. London

Government Responses: While China strictly followed the classical public health theory of confinement to combat the communicable disease of COVID-19, and Italy tried to impose the same policy but failed because of cultural resistance, the UK government had other priorities. The then Prime Minister of the UK, Boris Johnson, advocated for the “herd immunity strategy” on 13 March 2020, and claimed that he was advised by Sir Patrick Vallance, the chief scientific adviser of the U.K. government.

Economic reasons were largely behind this herd immunity policy (Yan et al. 2020). Peter Nilsson, from Internal Medicine and Epidemiology at Lund University, argued that the deaths from COVID-19 would be far less than the deaths caused by societal lockdown when the economy was ruined (Sputnik 2020). The “flexible restrictive strategy” allowed countries to keep the economy afloat and avoid a spike in unemployment rates.

Herd immunity can only be reached when a critical percentage of the population becomes resistant to an infectious disease either through vaccination or infection, explained Yonatan Grad, an epidemiologist at the Harvard T.H. Chan School of Public Health. He
estimated that the required percentage would be around 60% of the world population for COVID-19, according to its infectivity.

**HSD:** The herd immunity strategy did not receive full support in the UK as more than 200 scientists had written a letter to warn about the stress it would create for the UK National Health Service (Macmahon 2020). The UK government backed off from this herd immunity strategy and imposed closures of pubs, gyms, restaurants, and cinemas.

On March 17, four days after the WHO declared COVID-19 a global pandemic, the UK Government ordered the discharge of 25,000 patients from hospitals into care homes, including those infected or possibly infected with COVID-19. Hospital beds were not sufficient to handle COVID-19 demands in the National Health Services (NHS). Amnesty International UK (2020a) considered the UK Government’s decisions “shockingly irresponsible” because they “put tens of thousands of older people’s lives at risk”.

Care home residents were also denied access to the NHS. The son of one care home resident said that “From day one, the care home was categorical. . . . He only had a cough at that stage. He was only 76 and was in great shape physically. . . . The care home called me and said he had symptoms, a bit of a cough and that doctor had assessed him over a mobile phone and he would not be taken to the hospital. Then I spoke to the GP later that day and said he would not be taken to the hospital but would be given morphine if in pain . . . He died a week later.”

Protections of older people in care homes are by jurisdiction a responsibility of the government. It is related to the previous discussion of the health welfare regime. The UK is one of the founding countries of welfare states and takes pride in its NHS and well-monitored social care. However, the UK government made mistakes, such as ordering older patients to return to care homes without proper quarantine and medical follow-up services.

In England, guidelines for preventative measures for care homes focused mainly on testing staff and residents and were introduced only on March 30, 2020. Family visiting was banned since the national lockdown on 23 March 2020 but reopened after the first wave. However, the UK government’s COVID-19 action plan for adult social care was not published until 15 April 2020. There were widespread reports of limited availability of both testing and personal protective equipment (PPE) during the first wave. A policy of regular testing of staff and residents, regardless of symptoms, was not announced until the 3 July 2020 (British Geriatric Society 2022). All these setbacks may have contributed to the disproportionately high risks for older residents in care homes. The highest relative risk happened in the range of 65–74, the youngest of the elderly (Figure 15). These healthier older people would not have died if they were better shielded.

Of all COVID-19 deaths in the UK during the first wave, between outbreak onset and 26 June 2020, 17,127 (31%) occurred within care homes. As there were additional deaths in hospitals, care home residents may have represented 21,775 (40%) of deaths. Deaths in care homes accounted for 47% of all COVID-19 deaths in Scotland, 42% in Northern Ireland, 30% in England, and 28% in Wales. Including residents of care homes who died outside of care homes, the percentages were 51% in Northern Ireland, 50% in Scotland, 39% in England, and 34% in Wales. Excess Death Rates in care homes as compared to previous years were 79% in England, 66% in Wales, 62% in Scotland, and only 46% in Northern Ireland (Bell et al. 2020).

There were 1914 older people in aged homes in London alone (Greater London Authority 2022). Before the pandemic, because most aged home residents were above 80, age-standardized mortality risks were approximately 10 times higher among care home residents compared to those in private housing, with a comparative mortality figure (CMF) of 10.59. However, in April 2020, these relative differences had increased more than 17 times, with CMFs of 17.57 (16.43, 18.79) among women and 18.17 (17.22, 19.17) among men (Schultze et al. 2022). Fortunately, CMFs did not increase during the second wave, meaning mortality risks for care home residents and those in private housing increased by the same proportion.
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Figure 15. Relative death risks in care homes of England.

6.4. Hong Kong

Government Responses: On March 23, the then Chief Executive of the Hong Kong Special Administrative Region (HKSAR), Carrie Lam, said that control efforts in the ongoing epidemic and future waves would be focused on elderly care homes and their residents. Such a policy came too late as the greatest number of daily new cases, 75,572, was recorded on 4 March, and the greatest number of daily deaths, 294, was recorded on 11 March. Moreover, the HKSAR government did not offer any concrete assistance to the care homes and their older residents.

Theoretically, the Social Welfare Department (SWD) of the HKSAR provided social assistance to residents over 65 to maintain their daily subsistence through the Social Assistance Allowance Scheme (Social Welfare Department HKSAR 2022). Public hospitals and clinics provided free and sufficient services to welfare recipients. However, in 2019, around 44%, or more than 3.3 million residents, lived in public permanent housing (Vetter 2019). Since these housings charged a tokenistic rent, they were built small in size. The average living space of Hong Kong residents was only 13.5 square meters in 2021 (Statista 2022b). Therefore, married younger generations could not live together with their parents. This was the direct opposite of the social habitation style of the Italians.

The protection of older people living in care homes should be the number one priority of government actions. There were 38,400 persons residing in private elderly homes according to the 2020 HKSAR Government Census. Out of them, 64.2% were aged 80 and over, and the overall median age was 84 (HK Census and Statistics Department 2022). About 15% of older people (aged 80 and above) lived in care homes, one of the highest proportions in the world. In London, it was only 2.2%. Chow (2021) suggested that the
lessons learned from SARS in terms of locking down private homes would be remembered and used to good effect, and the guidelines on COVID-19 control were sufficient to prevent any outbreak. However, her predictions and optimism were in vain. Proper public health regulations and support for private home operators were not implemented.

The outcome was that 54% of the more than 9000 older people’s deaths came from residential care homes (See Figure 16). Government officials blamed the high fatality rate on the old age and multi-morbidities of patients.

Unvaccinated deaths accounted for 71% of all COVID-19 death cases. The high case fatality rate was due to the low vaccination rate. For older people in the HKSAR within the age range of 60 to 70, the full vaccination rate was 81.24% on 21 March 2022 (He et al. 2022). As a comparison, for older people of the same age range in Singapore, the full vaccination rate was 97%. Furthermore, the full vaccination rate for older people over 70 years of age was 56.82% in Hong Kong but 95% in Singapore (He et al. 2022). The case fatality rate (CFR) in HK for people over 70 was 4.46%, while the CFR in Singapore for the same age group was almost 10 times smaller at only 0.48%.

The concept of a welfare regime refers to the interplay among health, social security, housing, cultural behavior, and economic factors. This concept can be used to analyze the difficulties faced by older people in Hong Kong during the omicron attack. These homes were operated by for-profit companies that capitalized on the social security money the government provided to older people. Taxpayers’ money was transferred by the market mechanism to the pockets of these private home operators. Due to irresponsible management, these private care homes were very crowded and understaffed. Most helpers of the homes did not have dormitories, as this would increase the cost of operation. Quarantine camps set up by the government were unsuitable to private home residents who needed assistance in activities of daily living. On-site quarantine was unfeasible, given the over-

Figure 16. Residency of the COVID-19 deaths in HKSAR.
crowded conditions in these homes and the limited human resources. Unfortunately, the government did not have any emergency plans regarding older people’s protection.

6.5. Summary

London and Wuhan represented two extremes in public health policies for controlling COVID-19. China adopted the Zero-COVID policy while London adopted the herd immunity strategy and hastily relaxed its social distancing measures in July 2020. This may be one of the reasons that caused a larger number of deaths in London in 2021 as COVID-19 entered its second year.

Healthcare service disruptions happened in all four cities. Among the four cities, Wuhan probably suffered the shortest period of impact thanks to the total city lockdown. Milan was also caught unprepared when clinical knowledge of COVID-19 was still extremely limited. However, its social distancing measures were not as effective as hoped.

The numerous preventable deaths that happened in London and Hong Kong saddened all. They occurred because of the presence of societal denial of the fatality of the pandemic and the negligence on the part of governments regarding the need for shielding older people, particularly care home residents.

7. Psychological Impacts and Older People’s Resilience

7.1. Wuhan

Psychological Impacts: COVID-19 in Wuhan had the following characteristics:

(a) It was a contagious disease that spread among social circles. For example, a choir, composed of mainly older singers, went for a picnic where tens of them became infected, and some of them died. In January 2020, Wuhan was celebrating the Chinese Lunar New Year, a time of family gatherings and feasts. Over dinners, COVID-19 quietly spread between family members. Normally, older people passed away due to weaker resistance, leaving behind their sons and daughters to live under long-term guilt and loss.

(b) COVID-19 was a painful disease and death. It attacked the lungs of people and caused physical pain by making breathing difficult and sometimes impossible. Family members of the diseased knew well that the dying person was suffering under extreme physiological conditions.

(c) COVID-19 caused sudden deaths. Family members sent their infected relatives to the hospitals and were not allowed to visit. They were not even allowed the chance to say farewell. When family members were informed of the deaths of their relatives, they could only pick up the ashes and remains of their loved ones from the Crematorium.

(d) COVID-19 was a stigma-associated disease. It did not make life easier for the survivors. When they returned to the community after recovery and discharge, they were not welcome by neighbors. These reactions of the community could be described as a “sympathetic but scared” psychology. It was due to the lack of health knowledge about immunity after sickness and the fear of remained infectivity of the ex-patients.

7.2. Help Seeking, Coping, and Resilience of Older People

(a) The Psychological Association of Hubei Province offered a 24-h hotline starting on 23 January 2020. Its President, Mr. Xiao J. X. remarked that older people under isolation and young people in identity formation deserved special psychological attention (Hubei Psychological Association 2020). However, in terms of age, 31% of their inquiries came from young people, 50% from middle-aged persons, and only 19% from older people. Older people were not used to seeking help from strangers and professionals.

(b) Counselor Li Meng observed that at the beginning, most inquiries were about medical information. In the middle of February 2022, the tide changed. Psychological depression and pessimism began to dominate the consultations. One day she received five calls, all from older people who were living alone in Wuhan, as their sons or daugh-
ters worked in other cities. Mobility due to work among younger generations is a very common phenomenon in China. Physical “distancing” of intergeneration family members created a lot of worries, anxieties, and a sense of guilt during the epidemic. 

(c) Statistics showed that 50% of inquiries came from healthy populations, 30% from confirmed cases and their family members, 10% from people with mental health problems, and 5% from medical staff. The low call-in rate from medical staff who were under extreme work pressure showed that they were not used to seeking counseling help.

(d) In late February, organized by the China Center for Disease Control, 300 psychological staff headed by psychiatrists from all over the country were sent to provide support to Wuhan patients and medical workers. Dr. Wang Z., a psychiatrist, talked about an old male patient who refused to be discharged because he worried that his son might reject his return to their house (qq.com 2020).

(e) Dr. Wang also pointed out that people’s reactions to the coronavirus disease were different from earthquakes or fires because of its duration and scale. The communicable disease had no definite end and no boundary to whom it could kill. According to many counselors, the challenge of COVID-19 was its prolonged impact stage. It created anxiety and fear (ifeng.com 2020). It induced shame among the patients, a sense of guilt among their family members, and deep grief among the younger generations in the extended family.

(f) Dr. Kong G. Y., a professor at the School of Psychology, Hua Zhong University, pointed out that “final accompaniment”, with parents or senior members of the family through the last section of life, is very important in both Chinese and western culture. Condolence is important for the expression of grief and the ventilation of sad feelings. However, it was not allowed during COVID-19. Furthermore, Dr. Kong admitted that the underlying psychological impacts of COVID-19 are beyond human knowledge because never were so many people, 10 million Wuhan residents, “locked down” for so long (from 23 January 2020, until 8 April, a total of 77 days). Some studies suggested that self-compassion is an important means to help those who struggle with shame and self-criticism that can result from a large-scale epidemic (Gilbert 2009). Positive psychology may also help. However, collective community memories will not go away easily for Wuhan.

7.3. Milan
Psychological Impacts

(a) Cerami et al. (2020) started a psychosocial survey as soon as the COVID-19 outbreak hit Italy in March 2020. A total of 1163 Italian residents above 18 years of age all over Italy responded to this anonymous online survey between 14 and 21 March 2020. Among them, 99 respondents (8.5%) were aged over 65. The Italian version of the Depression and Anxiety Scale and the Italian Version of the Loneliness Scale were used. To quote the authors:

“In line with this evidence, baseline findings of the PsyCOVID study suggest that COVID-19 will represent a psychosocial catastrophe. On the one side, healthcare workers face the emergency not only at the physical level, as they are continuously exposed to the contagion and engaged in patient assistance and care, but they have to cope with a huge psychosocial burden. This requires healthcare professionals to put into play enormous resources to adapt themselves to the new dystopic situation, managing the increasing distress while trying to bring out the most effective coping strategy. On the other side, quarantine and other social distancing measures imposed by Italian authorities to the majority of the population can exacerbate feelings of loneliness and lack of connectedness in socially fragile individuals, as well as enhance the risk of negative mental health outcomes”. (p. 5)

They concluded that the Italian general population may have moderate-to-severe psychological distress during the early phases of the COVID-19 emergency.
(b) Social distancing is in large contrast to Italian culture, which has a custom in which the young often live with the old, hence exposing them to the virus (Auriemma and Iannaccone 2020). This may increase psychological resistance among older people to social distancing policy and leads to anxiety.

(c) Italy is characterized by its familistic orientation in which the family plays a central role in assisting its senior members. This orientation, legitimizing the traditional definition of roles in the family, was fostered by the Catholic Church in Italian society. Although the social structure of the family in Italy was gradually transformed by the modernization of society (Blangiardo and Rimoldi 2014), the care of seniors had limited support from external caregivers and even less from public institutions (Gagliardi et al. 2022). During COVID-19 when home quarantine was imposed, it stirred up family conflicts.

(d) Guida and Carpentieri (2021) researched the accessibility of public and private primary healthcare facilities in Milan, which showed that the usage of public transportation dropped significantly (See Figure 17). Using GIS to measure pedestrian flow, the research confirmed that older people who needed health services regularly were significantly affected when the city regulated its transportation and designated some primary healthcare facilities as hubs for COVID-19 cases.

(e) Cesvi, an international NGO, launched an assistance program for older people over 65 in Bergamo and Milan. The project in Milan sponsored by the Cesvi was called “Veniamo Noi da Te” (We Come to You). It had a team of 15 social workers who assisted more than 200 elderly aged over 65, providing deliveries of necessities and carrying out errands, as well as psychological support through helplines for the elderly. “We meet people who tend to be alone, who don’t see anyone and are afraid”, explained Marina Malgeri, a worker on the project. “I meet about 4–5 elderly people every day and often at first they don’t agree to meet me because fear takes over them. But most of the time I find the front door open and that they want to have a chat and share their fears and hopes to ease the burden of loneliness”.

(f) Nicoletta Rossi, who worked on the project for Bergamo explained, “Often, those who call us are upset and confused. Behind every person is a story and I feel that it is my responsibility and duty to listen to and understand it to find the correct solution” (Cesvi 2020). With the help of 450 volunteers in Bergamo, more than 1000 requests for

![Figure 17. Use of public transportation in Milan under the first wave.](image-url)
support and around 922 elderly people were assisted on requests for home deliveries of groceries, urgent medication, balanced meals, and personal protective equipment, as well as providing transport for essential medical visits.

(g) Gallè et al. (2021) carried out a web-based survey from June to August 2021. Of 1041 elderly respondents, (mean age 76.6, SD = 6.5), 60% of participants reported decreased physical activity, worsening sleep, and weight gain due to improper dietary habits.

7.4. Help Seeking, Coping, and Resilience of Older People

(a) In the same survey by Gallè et al. (2021), it was found that respondents had a satisfactory level of knowledge about COVID-19. It showed that older people were also coping with the COVID-19 challenge by having active access to health information.

(b) Rossi et al. (2021) were interested in identifying the protective factors against mental distress caused by COVID-19. Their findings highlight that older adults reported lower levels of depressive symptoms, anxiety, and stress compared to the younger population. People aged 60 and over were more willing to follow more stringent measures than the others. They confirmed that age was negatively related to self-perceived stress ($r = -0.16, p < 0.001$) in the survey of 21,334 respondents. Unfortunately, only 3.5% of the respondents (748 respondents) were over 60 years of age. In other words, older people perform better in overcoming stressful life events such as the COVID-19 pandemic.

(c) A study of suicides in Milan showed that the number of suicides in 2020 was lower than that in 2019 (Calati et al. 2021). However, suicides in early 2021 rebounded to higher than 2019 levels (see Figure 18). This can be explained by the delayed effect of post-traumatic psychological disorder following disasters. To everybody’s surprise, the total number of deaths recorded in Italy reached 174,300 by 18 August 2022 (Worldometers 2022a).

![Suicides in Milan and Monza before and during COVID-19 pandemic](image)

Figure 18. Suicides in Milan before and during COVID-19.

7.5. London
Psychological Impacts

(a) Nazroo et al. (2020), in their report commissioned by the Greater London Authority, quoted the data of the London Community Response Survey (Greater London Authority 2020) that older people living in London were more likely to be shielded than younger age groups, with 10% of those aged 50 or older shielding in May 2020,
compared with 6% of 30–49-year-olds and 7% of 16–29-year-olds. The same survey showed that between April and May, there was a noticeable increase in the prevalence of loneliness for those aged 50 or older who were living in London (3% reported feeling recently lonely in April, rising to 8% in May). One factor that might be particularly relevant to this is that older people are less likely to be digitally connected, and this is particularly the case for poorer older people and older women (Age UK 2020).

(b) Robb et al. (2020) from the Imperial College of London surveyed older adults in London to explore the associations between social isolation, anxiety, and depression. Questionnaires were sent by email and 7127 voluntary participants (mean age = 70.7 (SD = 7.4)) were recruited from May to July 2020. The Hospital Anxiety Depression Scale (HADS) was used to measure changes during COVID-19. Poor sleep, feelings of loneliness, and living alone were also related to worsening anxiety and depression. “During the period of reduced social contact, have you experienced poor sleep (restless and unable to sleep)?” was the question designed to examine sleep problems. The sleep and loneliness questions were obtained from the Imperial College Sleep Quality questionnaire adapted from the Pittsburgh Sleep Quality Index and Centre for Epidemiologic Studies of Depression Scale.

(c) A total of 12.8% of participants reported feeling worse on the depression components of HADS (7.8% men and 17.3% women), and 12.3% reported feeling worse on the anxiety components (7.8% men and 16.5% women). Fewer participants reported feeling improved (1.5% for depression and 4.9% for anxiety). Social statuses of being female, single, widowed, and divorced were more likely to indicate feeling worse in both depression and anxiety.

(d) Furthermore, 40% of participants reported sleep disturbances. Circumstances surrounding the COVID-19 pandemic increased levels of stress. Worry and ruminating thoughts provoked cognitive arousal and disturbed cortisol homeostasis, resulting in poorer sleep. Furthermore, loneliness and poor sleep have a bi-directional relationship. In this study, 24.6% of those who smoke reported that they had smoked more since the lockdown, and 14.7% of alcohol consumers reported that they had drank more.

7.6. Help Seeking, Coping, and Resilience of Older People

(a) The Physiological Society and Centre for Ageing Better of the UK called for a National COVID-19 Resilience Program to support older people. It was believed that the program would mitigate the negative effects of lockdown and allow older people to take greater control of their health and well-being. This COVID-19 Resilience Program was tailored to the older age groups and included the following goals:

i. Encourage appropriate exercise;
ii. Support optimized nutrition;
iii. Enhance mental health and wellbeing;
iv. Influence behavior change.

(b) McKinlay et al. (2021) conducted a qualitative study by interviewing 20 elderly people aged over 70 in London. They found that participants were able to engage in activities and behaviors that helped to protect their mental health, including adopting a slower pace of life, maintaining a routine, and socializing. They drew on their resilience, life experience, and past coping skills to self-manage fear and uncertainty associated with the pandemic. The findings of their survey are similar to those conducted in the United States mentioned earlier.

7.7. Hong Kong
Psychological Impacts

(a) Zhao et al. (2020) reported that during the COVID-19 outbreak, from 1501 respondents, stress levels increased by 28.3%, the prevalence of anxiety increased by 42.3%, and depression symptoms and unhappiness doubled ($p < 0.001$) as compared to the Hong Kong Family and Health Information Trend Survey (FHITS) in 2016 and 2017.
Furthermore, their results showed that increases in stress levels among older and less educated respondents were significantly larger.

(b) Wong et al. (2020) confirmed in their study that there were significant increases in loneliness, anxiety, and insomnia after the onset of the COVID-19 outbreak. Their data were collected from 583 older (≥ 60 years) adults. Missed medical appointments over 3 months increased from 16.5% 1 year before the outbreak to 22.0% after the onset of the outbreak. In adjusted analysis, being female, living alone, and having > 4 chronic conditions were each independently associated with increased loneliness. Females were also more likely to have increased anxiety and insomnia.

(c) Wand et al. (2020) speculated in a commentary that the suicide rates in Hong Kong would rise under COVID-19. There was no research evidence, but the authors noticed that Hong Kong suffered from economic downturns and social unrest in the year 2019. A valid observation the authors made was that many people who were already in need of mental health services were not able to receive proper care because the city closed down for COVID-19 control. Nevertheless, the prediction of this commentary has yet to be verified.

(d) The first two studies above were conducted in early 2020 and have not taken into account the actual impact of the fifth wave of COVID-19 that happened in the spring of 2022. Furthermore, the third study has no empirical evidence.

7.8. Help Seeking, Coping, and Resilience of Older People

(a) In a follow-up study by Wong et al. (2020); Sit et al. (2022) found that in qualitative interviews of 20 older people, aged between 63 and 86, the use of digital tools and telecommunications contributed to maintaining social connection. At the same time, loneliness was aggravated by depleted family and community support. However, overexposure to digital media had led to a vicious cycle of anxiety and distress because of information overload.

(b) Lau et al. (2021), in their research, focused more on the resilience of Hong Kong people during COVID-19. In a descriptive list of eleven benefits of COVID-19, the two statements “I became more aware of the health of myself and my family/friends”, and “the pandemic enabled me to care more about my family and friends”, were most endorsed, by 761 respondents. The average scale score of perceived benefits was 4.64 (SD = 0.99).

7.9. Summary

Studies of social resilience in all four cities have changed our stereotyped impressions on older people. Instead of being shocked and depressed by the COVID-19, older people adjusted to the life challenges and bounced back better in their own ways. They reached out to seek help, in particular for reliable health information and medical assistance. It is the responsibility of the societies and governments to provide them the proper shields.

8. Discussion

8.1. Vulnerability Strategy in Public Health Disaster

Ninety percent or more of people who died of COVID-19 in the four cities were above 65 years of age. Auyeung et al. (2020) reported this narrative of a senior geriatrician describing her experience in a surveillance ward in Hong Kong caring for older patients:

Over the next two weeks, I continued to see patients who were critically ill, requiring noninvasive ventilatory support or intubation, but who was declined admission to the intensive care unit due to frailty or advanced diseases. Many of them were over 80. Some of them were from old age homes. In my brief experience in these isolation wards, I could truly grasp the meaning of “isolation”. In these purpose-built rooms, human contact is a rare entity. Separated by glass panes and hooked up to monitors, patients with communication barriers, be it technological or verbal, received an efficient yet dehumanizing medical processing. When the world is focusing on the safety of the masses,
It is common sense that older people are at risk. Data in all countries showed that people aged 60 or above constituted more than 90% of COVID-19 deaths and patients aged 80 or above had a death risk 20 times higher than that of adults. Statistics in the UK revealed that the less than 3% of all older people who lived in care homes in London represented 50% of COVID-19 deaths. The protection of older people in care homes is a public responsibility.

8.2. Older People Were Social Adherents

When Italy registered high COVID-19 deaths, close family ties and resistance to social distancing were blamed for infectivity. The findings from various countries showed that older people were more willing to adhere to the social distancing control measures. Older people in Milan and London demonstrated their coping abilities during the second wave.

The larger numbers of deaths were not due to social resistance or denials. In Italy, high numbers of deaths occurred in the southern part of the country. In London, most deaths were caused by increased infection and the lack of protection for older people residing in care homes.

In Hong Kong, care homes residents were hardest hit. The low level of vaccination rate was blamed, as a high vaccination rate in Singapore yielded a low fatality rate. However, vaccination resistance may not be a suitable explanation for low vaccination rates among older people in Hong Kong, as the government has the responsibility to provide education, motivation, and even regulations.

8.3. How to Offer Protection to Older People?

Research showed that Hong Kong citizens lack health literacy but have faith in doctors and public media (Kwok et al. 2020). Wendy Lam and her colleague (Lam et al. 2022) conducted a qualitative research study where they interviewed 27 older people in Hong Kong. The major reasons for vaccine hesitancy were lacking decisional support from doctors, family, and the government, and reliance on the peripheral processing of vaccine-related information. Patients’ illness perceptions and doctor-shopping behavior in severe illnesses can be balanced and moderated (Huang et al. 2022).

Older people and their family members should be fully informed of the benefits and disadvantages of vaccination. This is an important duty of the government and directives must come from its top leaders. There is no place for complacency, and the laissez-faire government policy during the pandemic has cost more than 10,000 lives.

8.4. Fail to Shield

The Outcomes of Protection Failure

The number of COVID-19 deaths of older people was 2114 in Wuhan, 19,921 in Milan, 19,102 in London, and 5118 in Hong Kong (See Table 4).

<table>
<thead>
<tr>
<th>City</th>
<th>Aged Population</th>
<th>COVID Deaths</th>
<th>Deaths per 100,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wuhan</td>
<td>0.975 M</td>
<td>2114</td>
<td>216.8</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>1.482 M</td>
<td>5118</td>
<td>345.34</td>
</tr>
<tr>
<td>Milan</td>
<td>2.419 M</td>
<td>19,921</td>
<td>823.52</td>
</tr>
<tr>
<td>London</td>
<td>1.071 M</td>
<td>19,102</td>
<td>1783.57</td>
</tr>
</tbody>
</table>

The key determinants for older people’s deaths in the four cities were different.

In Wuhan, older people were most vulnerable due to cross infections, hospital collapses, comorbidity, and slow time for emergency responses. In Milan, in addition to the
above problems, social familial orientation, cultural resistance to social distancing and inadequate healthcare capacities due to 20 years of budget cuts contributed to the higher death rates.

London, as compared to Milan, did not have more time to prepare for a better response. However, its performance was the worst among the five western European countries including Spain, Italy, France, and Germany. Its ambivalent government response strategy was to blame. Its continual and mutual referrals between old age homes and hospitals were abruptly interrupted. The poor performances of Milan and London cast doubts on the sustainability of their National Health Services. In Hong Kong, emergency responses were disappointing and alarming.

Hong Kong had ample time to learn from Wuhan, Milan, and London, and its own experiences with the SARS outbreak in 2003. However, older people were still not shielded properly, and residential care homes still accounted for more than 50% of COVID-19 deaths.

8.5. Effects of the Weakened Healthcare System

As the pandemic was prolonged, the weaknesses of healthcare systems were no longer negligible. Continuous budget cuts on healthcare expenditure particularly in Italy were considered the reason for inadequate facilities.

These arguments should be considered critically. In terms of healthcare facilities before COVID-19, London in the United Kingdom ranked the highest among the four cities. It was followed by Milan, Hong Kong, and Wuhan. The United States and the United Kingdom were ranked in 2019 as number one and two most well-prepared countries to handle public health crises by the Global Health Security Index—GHSI (https://www.ghsindex.org, assessed on 15 October 2022) jointly developed by the John Hopkins University, Economist Intelligence Unit and the Nuclear Threat Initiative (NTI 2022). However, they handled the pandemic relatively poorly, indicating that factors other than medical capacity were important.

8.6. Poor Public Health Emergency Responses

The decision to stop the regular connections between care homes and hospitals in the government of the United Kingdom raised loud and persistent human rights concerns (Amnesty International UK 2020b). The Joint Committee on Human Rights of the UK Parliament was forced to mend fences and looked for remedies to protect the individual’s basic right to life (UK Parliament 2022).

For Hong Kong, the high death rate in care homes was also related to weak accessibility to medical consultation and inconvenient vaccination services. It was simply a consequence of the decaying health and social care system. The average living space per capita in rental public housing was only 13.5 square meters. One-fifth of its population fell below the territory-defined poverty line. These deteriorating social determinants caused poor health. The waiting time for clinical assessment and treatments increased. In the past decade, the government has not attended to these problems. Good practices and traditions in the healthcare sector were lost, amidst political debates and administrative narcissism. In the end, insufficient public support was given to the private operators of the care homes, resulting in the disaster during the pandemic.

The rights to life of Hong Kong’s older residents in private aged homes are at stake.

8.7. The Pandemic Is Over?

The older people in Wuhan and the general population of China are cooperative with COVID-19 control. When the world is opening up, and the economic downturn is evident, the Chinese people are eager to see the end of the Zero-COVID policy. However, social governance and faith in medical experts still have the confidence of the people. Like in other countries, the marginal groups, particularly those of lower income who suffer from the recession, are the most non-adherent to social distancing measures.
The social psychological, economic, and political implications of the COVID-19 pandemic have yet to unfold.

8.8. Limitations of This Study

As stated repeatedly, international comparison of a public health disaster has many methodological limitations. There is research adopting a large-N approach, mainly employed by international agencies such as the WHO, OECD, the World Bank, and some reputable universities such as John Hopkins, Oxford, and others. Nevertheless, large-scale studies and exploratory studies serve different purposes. This study aims to employ the concept of welfare regimes to discuss the interactions of public health responses, health care capacities, social services, social resistance, social culture, psychological stress, and community resilience.

To do so, this study required both quantitative and qualitative methods. Unfortunately, due to manpower and resource handicaps, it is not possible to collect all qualitative, scientific, relevant, insightful, and analytical information to explain why the protection for older people against the death risks of COVID-19 failed.

An alternative approach is to conduct a systematic review (Manchia et al. 2022; Pathirathna et al. 2022). However, most literature on government responses available at present is informative rather than explanatory. Methodological limitations greatly hindered this study from making an explanatory analysis.

9. Conclusions

9.1. Preventable Deaths Should and Could Have Been Prevented

Findings suggested that a significant percentage of deaths of older people caused by COVID-19 in the past two years were preventable. Schluze’s report concluded that in London, the relative mortality of people living in care homes compared to private homes increased during the first but not the second wave. This suggests that the mortality peak observed during the first wave may have been avoidable. A drop in case fatality rates after the first wave was evident in London. In the case of Hong Kong, a great number of deaths could have been prevented if regular testing, centralized quarantine, and trustful medical advice were implemented.

9.2. Coping with Social Isolation Needs Supports

Older people coped better with social distancing measures because of life experiences and awareness of their greater death risks. They learned to use social and voluntary services to overcome daily living difficulties. For example, in Milan and Bergamo, older people sought assistance from charitable organizations and their volunteers for the distribution of daily utilities and transportation to hospitals.

Research in Italy showed that older people had less perceived stress. In all the cities studied, older people were confused at the beginning of the pandemic as the prolonged social isolation was unprecedented. However, older people demonstrated high resilience. There was no evidence of higher suicide rates during the pandemic. Suicide rates were not higher in 2020 and 2021 as compared with 2019. The above observations are consistent with international trends. For example, the Center for Disease Control and Prevention (CDC) also reported a decline in suicide rates in the United States (CDC 2021).

9.3. The Danger of an Ambivalent Public Policy

When Boris Johnson talked about herd immunity, he meant direct infection by the coronavirus for the British people. Shielding in the UK was reduced to a simple stay-at-home order, with no social or community support. This was considered harmful to mental health (Di Gessa and Price 2022).

Scientists at the John Hopkins University (JHU) commented that the herd immunity strategy for COVID-19 was not advisable because its death rate was estimated to be 10 times higher than the general flu (JHU (John Hopkins University) 2020).
In the end, the United Kingdom has the worst health outcomes in COVID-19 deaths compared to France, Italy, Germany, and Spain (Figure 11), and London has the highest older people death rate among the four cities at 1183.56 per 100,000 (Table 4).

9.4. Whole Government and Whole Community Approach

Politics should go along with science. One of the shields for older people was vaccination. John Rose at Yale estimated that the soonest date for the availability of a scientifically tested safe vaccine would be January 2021 (Belli 2020). Older people in the four cities need medical protection from vaccines that are widely and fairly distributed.

Vaccination resistance could be and must be overcome. It relies on whole government enforcement and whole community promotion. These strategies were fully described in the Health Emergency Disaster Risk Framework of the WHO published in 2019 (WHO 2019).

Now that the pandemic is resolving, no one is talking about shielding anymore. In the management of disaster, preparedness is more important than response. In medicine, prevention is more important than cure. Following this pandemic, the governments of the four cities should begin to develop their public health disaster plans.

With recognized mythological issues, the findings and discussions cannot be regarded as confirmative.

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References


Cerami, Chiara, Gaia C. Santi, Caterina Galandra, Allesandra Dodich, Stefano F. Cappa, Tomaso Vecchi, and Chiara Crespi. 2020. COVID-19 Outbreak In Italy: Are We Ready for the Psychosocial and the Economic Crisis? Baseline Findings From the PsyCovid Study. *Front Psychiatry* 11: 556. [CrossRef]


Gagliardi, Cristina, Flavia Piccinin, Giovanni Lanura, Georgia Casanova, Paolo Fabbietti, and Marco Socci. 2022. The Burden of Caring for Dependent Older People and the Resultant Risk of Depression in Family Primary Caregivers in Italy. *Sustainability* 14: 3375. [CrossRef]


Wand, Anne Pamela Frances, Bao-Liang Zhong, Helen Fung Kum Chiu, Brian Draper, and Diego De Leo. 2020. COVID-19: The Implications for Suicide in Older Adults. *International Psychogeriatrics* 32: 1225–30. [CrossRef]


