 doi:10.20944/preprints202209.0419.v1

Article

Shielding Without a Shield – Older People during COVID-19 a Comparison of Four Cities

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Abstract: As of July 7, 2022, the total number of confirmed cases caused by COVID-19 has reached 544,324 million, and the total number of 6.333 million deaths (WHO). Older people were globally the most vulnerable during the pandemic. This paper examined the mortality and psychological crisis of older people during the pandemic in four cities, namely Wuhan, Milan, London, and Hong Kong. The selection of cities was based on different degrees of social connectedness of older people and chronologically to cover the whole period of the outbreak from January 2020 to August 2022. Older people in Milan and Wuhan tended to rely on the close family relationship during times of crisis. Meanwhile, older people in Hong Kong and London were more dependent on social services. Both quantitative and qualitative approaches were employed to analyze the situations of older people under different government responses and the strengths and weaknesses of respective healthcare systems. Government reports and official statistics were used to illustrate the seriousness of each city's COVID-19 outbreak while stories reported by the press, NGOs, and journal articles were used to reflect the reactions of the older people. Interactions of social culture, health care provisions, and government responses to the pandemic were discussed from the perspective of health welfare regimes. On one hand, results showed that governments have not learned from the experiences of other countries. On the other hand, older people have not successfully coped with the life-threatening stress by breaking institutional boundaries and redefining cultural norms.

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

1. Introduction

Schmidt-Sane, Jones, & Tulloch (2020) discussed the concept of "Shielding" as referring to the effects and impact of protecting vulnerable groups as early as April 2020, and employed this term to illustrate that protection was a double-edged measure. 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 decisively implemented and effectively carried out. Up to August 12, 2022, the total number of confirmed cases caused by COVID-19 has reached 585,950,085 and the total number of deaths was 6,425.422, according to the COVID-19 Dashboard of the World Health Organization (WHO, 2020a). The WHO further pointed out that 71.66% of COVID-19 deaths were by people aged 65 or above, as of August 1, 2022 (See Table 1).

Table 1. Age and Gender Distribution of World COVID-19 Deaths (n=2311881).

Age	Female	Male	Sub-total	Percentage

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80+	433122	421803	854925	36.98
75-79	119816	170698	290514	12.57
70-74	113943	171581	285524	12.35
65-69	76392	149851	226243	9.79
above 65	743273	913933	1657206	71.68

Source: WHO (2020b).

In the UN-Habitat published by the COVID-19 Response Plan in April 2020, It was stated that crowded cities were hardest hit by this "urban humanitarian crisis" in which tens of thousands of lives lost were already lost affecting over two hundred countries (UN-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 2020a).

The United Nations (2020), early in its first Response released on 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 by 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 May 1, 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 was 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, 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 affected the lives and livelihood of older people in the world and what have governments done to protect the elderly is worth a thorough review. This paper aimed to study the situations of older people in five cities during the pandemic. They included Copenhagen of Denmark, London of the United Kingdom (UK), Hong Kong of China, Milan of Italy, and Wuhan of China. Official statistics and government reports were collected and examined to illustrate the facts and stories of how older people survived COVID-19 when it hit the cities hardest. Analysis was based on these secondary data and therefore the conclusions are more of an exploratory nature.

2. Literature Review

2.1. The issues of Vulnerability

The ways countries and cities responded to the challenge of COVID-19 were critical to halt the pandemic and laying the foundation for resilience and recovery. Certain groups were particularly vulnerable to this communicable disease. Including older people, those

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who do not have savings have 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. UCLA Center for Neighborhood Knowledge has developed a Vulnerability Index for residents in Renter Housing in Los Angeles, early in May 2020(Gonzalaz, 2020). Marvel et al., (2020) on a larger scale have 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. Health Protection and its ineffectiveness

In April 2020, the Health Ministers of G20 issued a joint statement after a virtual conference pointing out that "the COVID-19 pandemic has highlighted systemic weaknesses in health systems" (Reuters, 2020a). Indeed, the health and social care of cities and countries have different weaknesses when faced with the challenges of COVID-19.

The core issue of health care systems, however, is their financial sustainability. The Organization for Economic Co-operation and Development (OECD) opened up the debate on healthcare sustainability at the Paris Conference (2013). For example, Italy prided 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, has been unable to cope with the care of COVID-19 patients in the most affected regions (Prante, Bramucci & Truger, 2020).

2.3. Social distancing the choice of lesser evil

Social distancing, or even isolation, is one of the standard and oldest measures in communicable disease control. Tognotti, E. (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. Later this approach was also called the Venetian Model.

The University of Oxford developed the Government Response Stringency Index (GSRI) 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; and
6. International travel controls;

2.4. 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, Burns, Fitzpatrick, Pinfold, and Priebe, (2007) conducted a thorough review on 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 and depression (Santini et al., 2020). 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 U.S., U.K., Italy, Germany, Bangladesh, India, and other countries have been reported in mass media and psychiatric literature (Sher, 2020). Suicidal behavior is likely to be present for a long time after the pandemic.

3. Methodology

Social inclusion is poorly defined and there is no common understanding of the social experience of exclusion among psychologists. Wright and Stickley (2013) studied 36 peer-

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reviewed journal papers from the UK, Canada, Australia, and Scandinavia and their findings only confirmed the lack of conceptual clarity for social isolation.

This paper, instead of discussing the whole range of social connectedness, from social inclusion to social exclusion, focused on the negative effects of social isolation, under the social lockdown measures imposed by country and city governments.

With the advance in digital technology, the concept of social isolation is complicated by interactive social media through which older people can engage with governmental and non-governmental agencies, family members, and even total strangers. Light and Bend (2013) considered that Mediated Social Networking has a direct effect on social connectedness. Torres, J. L. et al. (2022) surveyed 4,431 participants aged 50 years and older in Brazil to study the relationship between loneliness and social disconnectedness during the pandemic. Interestingly, they found virtual talking connectedness could diminish loneliness despite steep outside-home disconnectedness.

Nevertheless, a lot of evidence has shown that isolation during COVID-19 is related to anxiety and depression (Robb, C. et al. 2021), social trust and stress (Jiang, Wu, and Cheng, 2022), and even suicide (Calati, R. et al. 2022).

3.1. Analyzing Health Welfare Regime

In this paper, the concept of a Health Welfare Regime is employed to indicate how older people can be "shielded" from the deadly COVID-19. Borrowing from the concept of social welfare regime, a health protection regime means a specific combination of health care services and individual actions, which comes out of the balance between public and private (family) responsibility in buffering against 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, Benassi, and Morlicchio (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.

Health Welfare Regime refers to the combination of social conditions including access to health care facilities and social cultures that shape the health-seeking behaviors or the consumption patterns of life-saving services.

3.2. Selection of cities

The cities of Wuhan, Milan, London, Copenhagen, and Hong Kong have different health care systems, levels of universal health coverage, and social welfare provisions for older people. The aging situations of these cities are shown in Table 2.

Table 2. Percentage of population over 65 in 2021.

City	Population	Aging rate	Older population
Wuhan	8.4M	11.61%	0.975M
Hong Kong	7.8M	19%	1.482M
Milan	10.8M	22.4%	2.419M
London	9.0M	11.9%	1.071M

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

One dimension of selecting sample cities is "public health crisis preparedness" in terms of health and social protection. Copenhagen of Denmark practiced the Nordic welfare system which is supposed to be the most comprehensive among the five cities. London, next to Copenhagen in terms of welfare spending, is often praised for its National Health Services. Italy provided universal health coverage and basic social welfare, but

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government budgets were diminishing since 2004. Hong Kong of China, following the British model, provided public and near-free hospital services. However, its housing provision for older people was inadequate. Most Hong Kong older people, regardless of whether or not they have children, lived in private residential care homes. In the case of China, government spending on social services for older people was very limited. The city government provided social subsistence to the neediest while the majority of older people relied on family support.

The selection of sample cities also aimed to reflect different degrees of social connectedness. Osborne (2020), speaking on COVID-19, referred to the concept of social cohesion, and on the other side of the coin social disconnectedness, proposed by Emile Durkheim in his famous studies of suicide back in 1987. Santini et al. (2021) have found correlations between social disconnectedness, isolation, and mental health among Danish youths. Torres et al. (2021) confirmed similar problems of disconnectedness during COVID-19 among Brazilians.

Older people in Italy preferred to live with their families, while older people in Wuhan also have very close ties with their sons and daughters and are dependent on their children socially and emotionally though not necessarily financially (Fonseca, Lukosch, & Brazier, 2019).

3.3. Timeframe of study

To reflect the severity of the attack of COVID-19, the data including the actual number of cases and the crude death rates were extracted from the WHO COVID-19 Explorer (WHO, 2022a). The country statistics were employed instead of the city statistics to reflect the larger national contexts and social psychological environments.

In *Figure* 1 showing the trends in China, the first wave of confirmed cases and deaths that appeared in the First Quarter of 2020 was mainly contributed by Wuhan, 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. Therefore, the time frame of study for Wuhan was the First Quarter of 2020, and that for Hong Kong was the First Quarter of 2022.

The first wave of COVID-19 in Italy (See *Figure* 2) appeared in the First Quarter of 2020 and happened mainly in Lombardy and neighboring areas of 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.

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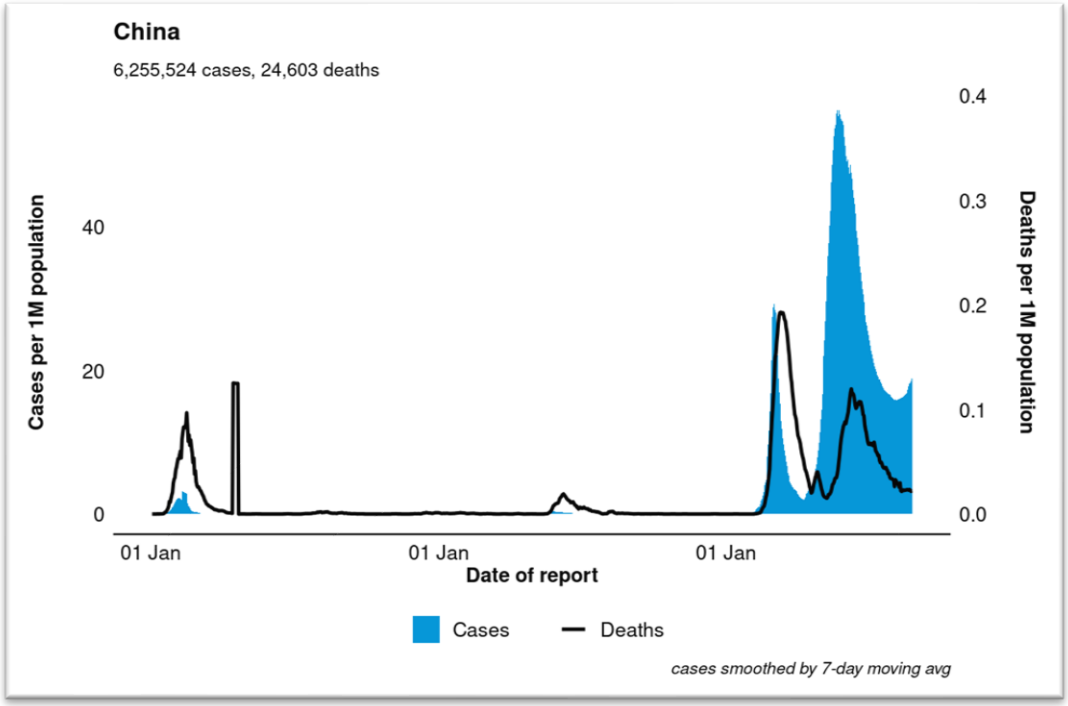

Figure 1. COVID-19 Trends in cases and deaths in Italy.

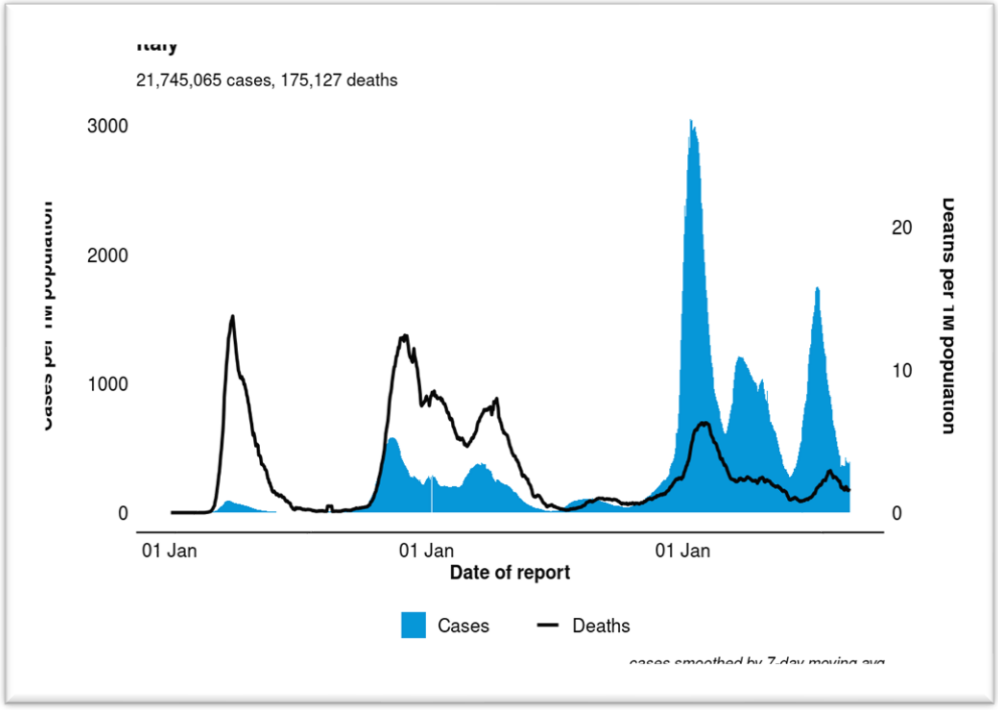

Figure 2. COVID-19 Trends in cases and deaths in Italy.

For the trends of confirmed cases and deaths caused by COVID-19 in the United Kingdom, there were three waves (See Figure 3). The number of deaths was spread from the first to the second wave. Therefore, the time frame of study for London was from March 2020 to March 2021.

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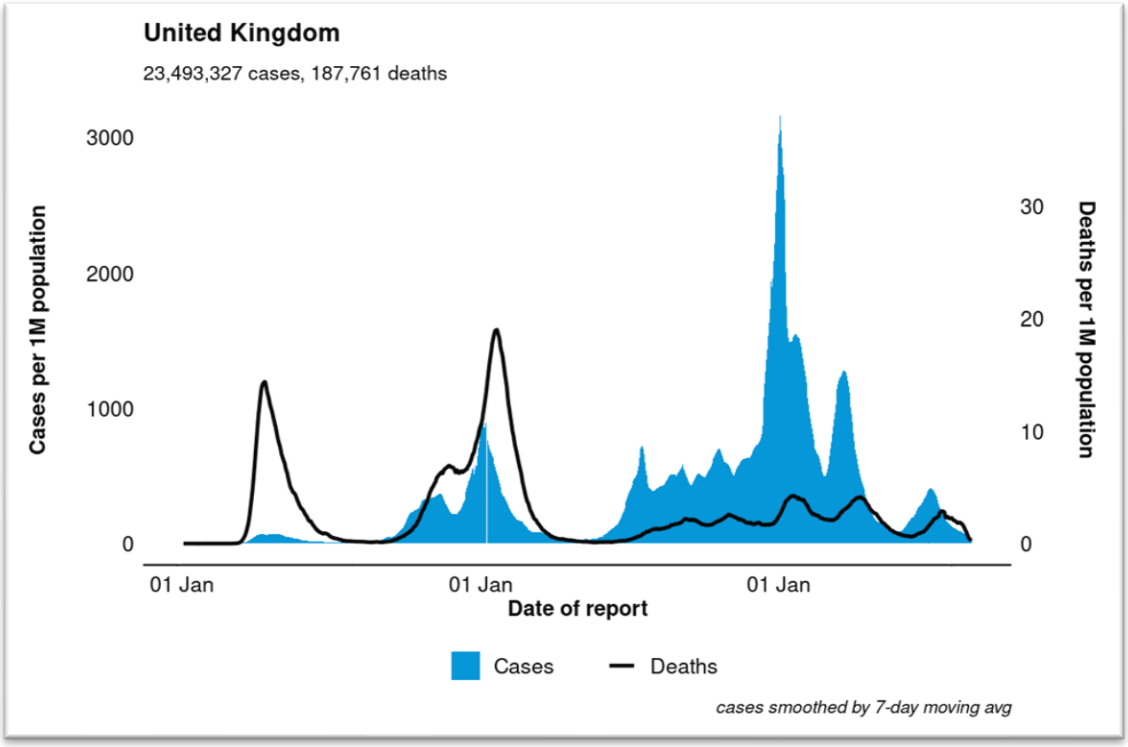

Figure 3. COVID-19 Trends in cases and deaths in the United Kingdom.

To summarize, the time frame of study for the four cities is detailed in Table 3.

Table 3. Time Frame of Study and COVID-19-related information.

City	Time Frame
Wuhan	Jan 2020 to May 2020
Milan	Feb 2020 to May 2020
London	March 2020 to March 2021
Hong Kong	Jan 2022 to June 2022

3.4. Degree of sickness severity

For a better understanding of the terms, a model developed by Yang (2020) was adopted to differentiate the terms *(Figure 4)*. 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.

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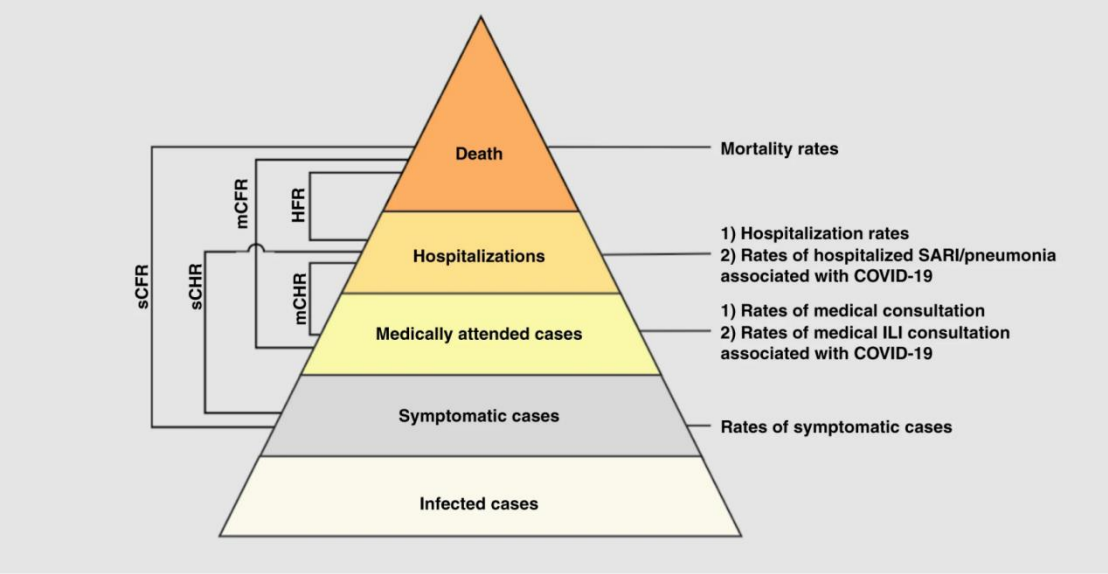

Figure 4. Degree of Severity in COVID-19 Illness (Yang, 2020).

4. Case One: Older People in the City of Wuhan under COVID-19

4.1. Mortality and case fatality rate for older people in Wuhan

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

On January 23, 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, 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.

Pan A. et al. (2020) further divided the outbreak into five sub-periods from December 2019 to March 2020. The first period was from December 8, 2019, to January 9, 2020, when there was no intervention. The second period, from January 10 to 22 in 2020, was characterized by massive human movements, and transmissions of communicable diseases, due to the Chinese New Year holiday. On January 23, 2020, the third period began as the city was shut down with full-scale home quarantine. Not until February 2, 2020, marking the beginning of the fourth period, was centralized quarantine and treatment adopted. Finally, the 5th 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.

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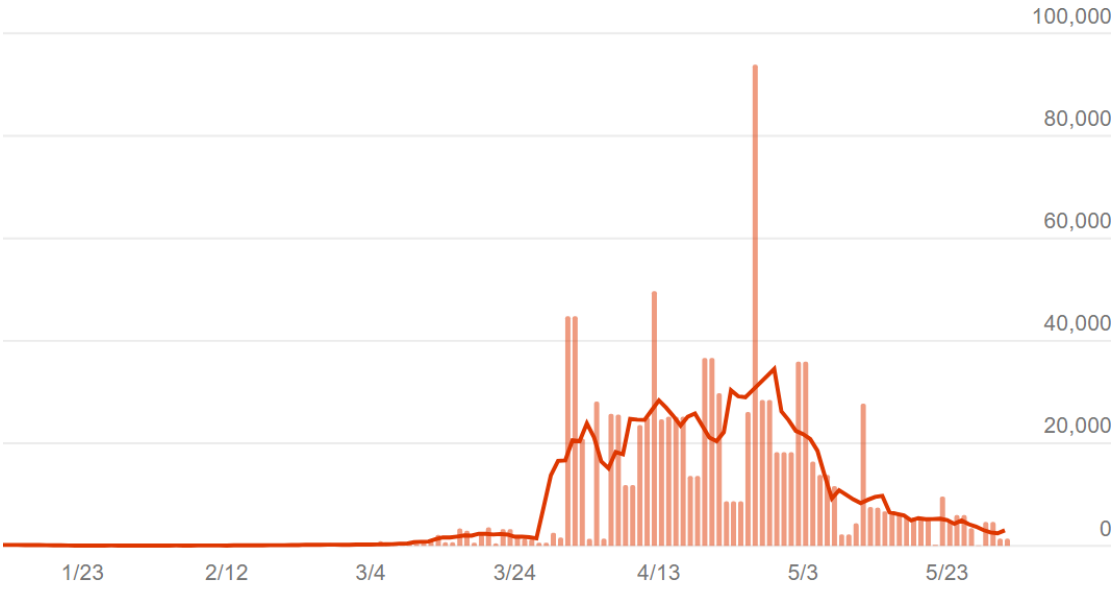

Figure 5. Confirmed cases of COVID-19 in Wuhan in 2020 (Wuhan CDC).

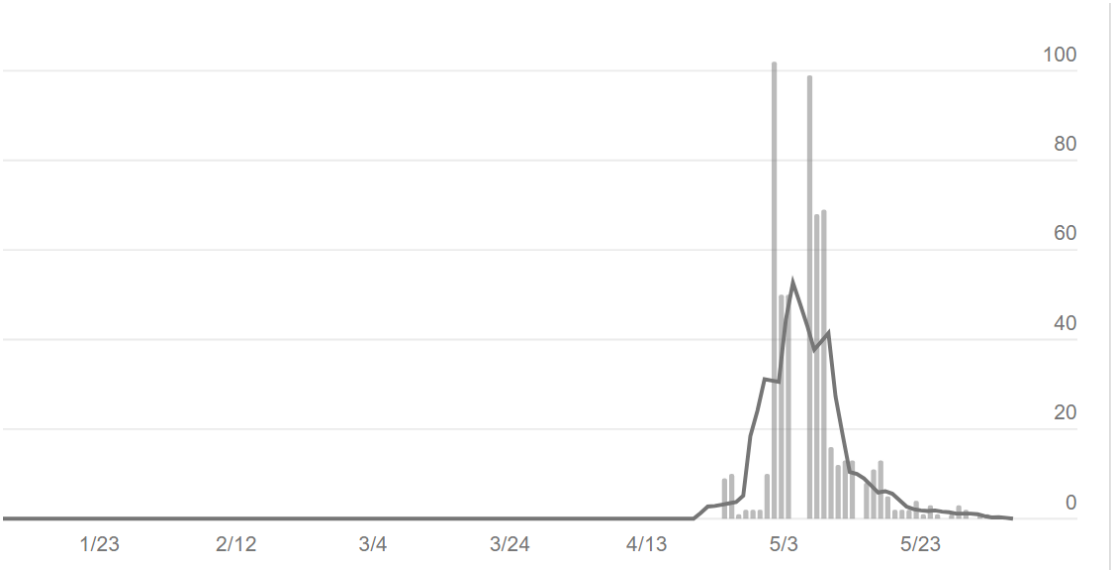

Figure 6. Number of deaths caused by COVID-19 in Wuhan in 2020 (Wuhan CDC).

The mortality rate analysis of the first wave of the epidemic in Wuhan sent a clear warning message to the world that older people were highly vulnerable.

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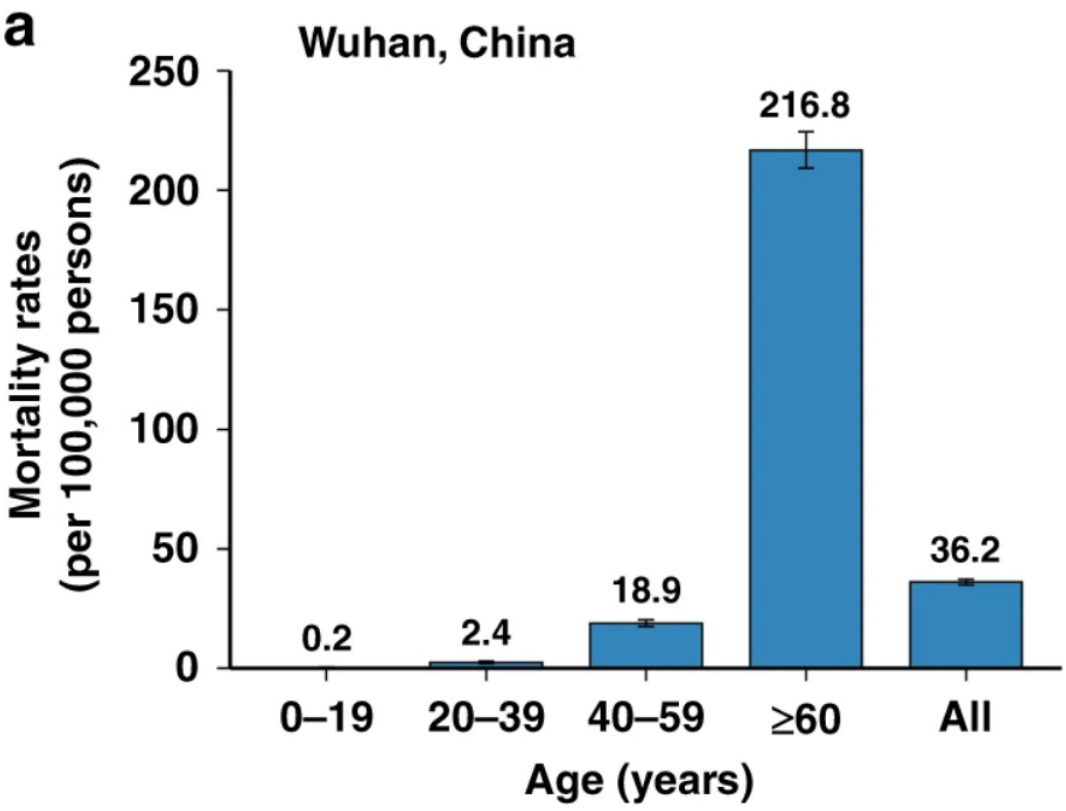

Figure 7. Wuhan COVID-19 Mortality Rate by age.

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 ≥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 ≥60 years than for the other age groups (9.09% vs. 0.36–1.97%). In other words, for older people who were diagnosed as having COVID-19 in hospitals, nearly 1 out of 10 died. With these hard facts, one could not refrain from asking the question: how did the Wuhan people and community react to such life-threatening realities?

4.2. Psychological impacts of the COVID-19

COVID-19 has the following characteristics:

a) It was a contagious disease that spread among social circles. A choir, composed of mainly older singers, went for a picnic and tens of them got sick, and some of them died. The impact of COVID-19 created among circles of acquaintance was very painful.

b) It was a family disease. In late 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.

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

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d) 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.

e) 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.

1) Psychological reactions and help-seeking behavior of older people

a) The Psychological Association of Hubei Province offered a 24 hours hotline since January 23, 2020. Its President, Mr. Xiao J. X. remarked that older people under isolation and young people in identity formation deserved special psychological attention (163.com, 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 Luo L. P. described a case of an older woman who was quarantined at home while her husband was hospitalized as a confirmed case. The counselor called the older woman 6 times before she answered. The client, worrying about how to take care of herself if she also got sick, still refrained from seeking help.

c) In the same news report counselor, Li Meng observed that at the beginning most inquiries were about information seeking. In the middle of February 2022, the tide changed. Psychological depression and pessimism began to dominate the consultations. One day she received 5 calls, all from older people who were living alone in Wuhan, as their sons or daughters worked in other cities. Mobility due to work among younger generations is a very common phenomenon in China. Physical "separation" of intergeneration family members created a lot of worries, anxieties, and a sense of guilt during the epidemic.

d) Statistics also 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 but often being heroized, was unexpected, according to Mr. Xiao. It also showed that the medical staff was not ready to seek professional counseling services.

e) 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). 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 time to end and no boundary to whom it could kill.

f) According to many psychological counselors, the challenge of COVID-19, as compared to the Wenchuan earthquake, was a 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. 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.

g) Dr. Kong G. Y., a professor at the School of Psychology, Hua Zhong University, commented 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. On the other hand, Dr. Kong admitted

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that the underlying psychological impacts of COVID-19 are beyond human knowledge because never were so many people, 10 million Wuhan residents, being "locked down" for so long. From Jan 23, 2020, the city was locked down till April 8, for a total of 77 days.

5. Case Two: Older People in the City of Milan under COVID-19

5.1. COVID-19 Explosion in Lombardy, Italy

On January 30, 2020, the World Health Organization (WHO) 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 February 20, 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 March 27, Italy surpassed China with more than 9,100 deaths 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 World Health Organization （2022a）

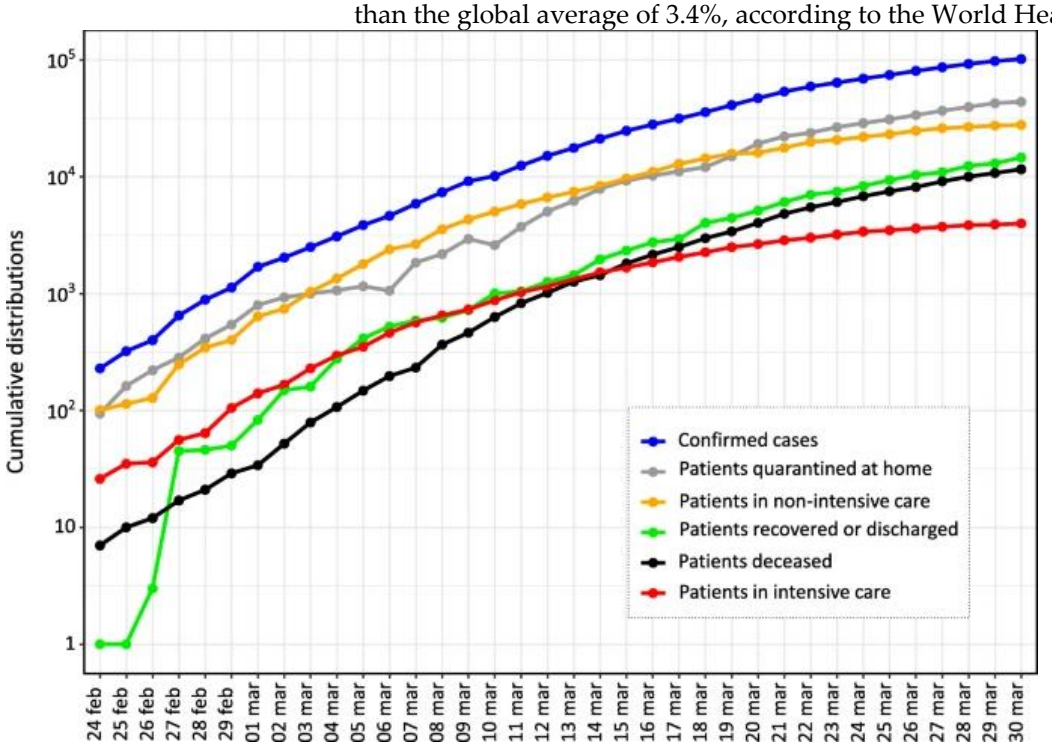

Figure 8. COVID-19 data in Italy for the first month (Megna, 2020).

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.

5.2. The high case fatality rate

The number of total deaths of older people in Milan from Jan 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 19921 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 (istat, 2022a). The increase in mortality for all causes 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%.

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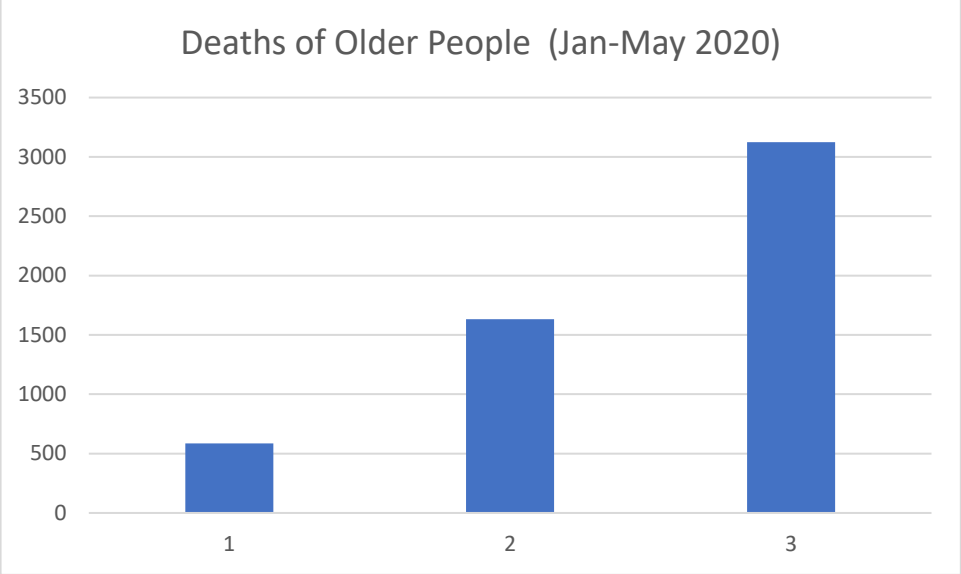

Figure 9. Covid-19 deaths in Milan (1=Age 65-74, 2=75-84, 3=over 85).

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 thousand 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 5,000 more deaths due to pneumonia and influenza were related to COVID-19.

5.3. Reasons to explain the high mortality

5.3.1. Demographic Factors

The Fifth Report, jointly produced by istat and the Istituto Superiore di Sanità (ISS), explained the main characteristics of the epidemic and the effects on total mortality, distinguishing between the first (February-May 2020) and the second (October-January 2021) epidemic waves (istat, 2021b).

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).

Another report from the Directorate General of Health, Lombardy Region, indicated that among the first 5830 confirmed cases, the median age was 69 years, (ranging from 1 month to 101 years). 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, D. et al., 2021).

5.3.2. Medical Factors

Ciceri et al. (2020) studied the patients admitted from February 25 to March 24, 2020, to the Emergency Unit of the San Raffaele Scientific Institute, 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

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treatment for cancer. As of May 1, 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.

5.3.3. Social Factors

From a historical point of view, the welfare system in Italy is characterized by its familistic orientation as the family plays a central role in assisting its senior members. This orientation, legitimizing the traditional definition of roles in the family, with men as the breadwinners and women not participating in the workforce, was fostered by the Catholic Church in Italian society. Care of seniors had limited support from external caregivers and even less from public institutions.

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 & Iannaccone, 2020).

5.3.4. Disaster Management Factors

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 F, Albanese E, & Fadda M., 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).

5.3.5. Political Factors

The weaknesses of its once reputable healthcare system were fully exposed. According to the Bloomberg ranking methodology for the evaluation of health care systems, in 2019, the Italian health system and the regional National Health Services (NHS) were ranked fourth place, 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 Figure 10 (Prante, Bramucci, & Truger, 2020).

Roberto Speranza, the Health Minister, also acknowledged that for 15 years, Italy, to control its national debt level, 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.

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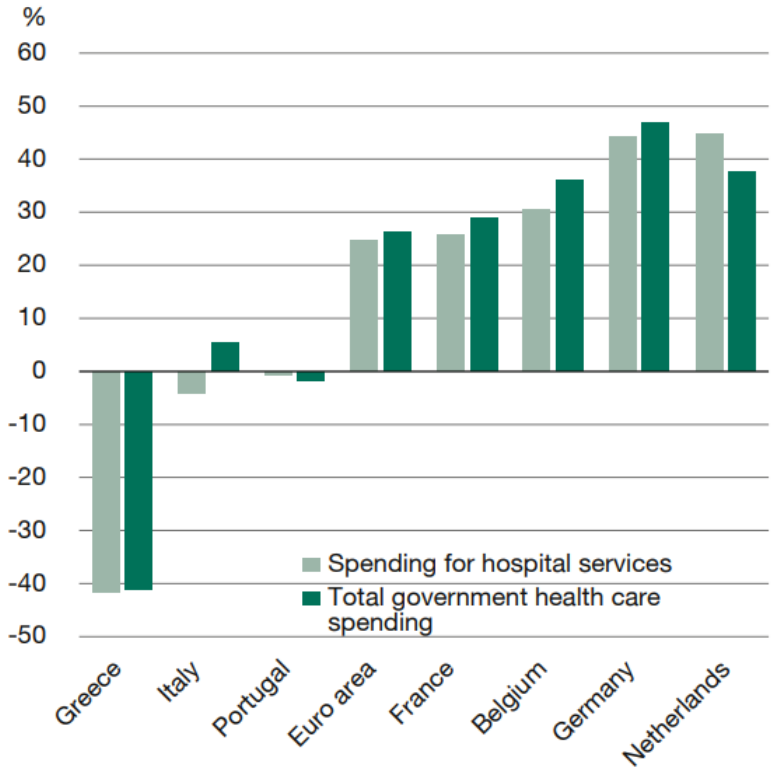

Figure 10. Percentage of Public Health Spending (2000-2018Psychological reactions of older people under COVID-19.

Galle et al. (2021), found a satisfactory level of knowledge about COVID-19 and related control measures in the sample of the Italian elderly examined. Their data are in line with other studies performed on older people and in the general population in China and the US, but higher than those reported in a sample of the Brazilian elderly affected by diabetes. However, the study also found a significantly higher risk of unhealthy habits in diet, physical activity, and worsening sleep quality in older people. Female respondents were affected more than males except in weight and smoking increases.

Guida, C. & Carpentieri, G. (2021) researched accessibilities of public and private primary health care facilities in Milan which showed that the usage of public transportation dropped significantly. 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.

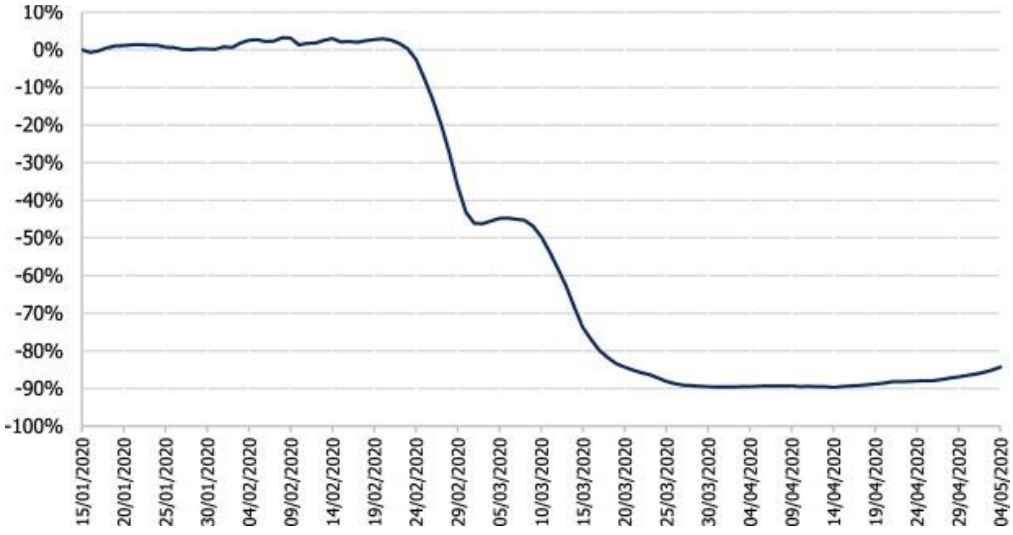

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Figure 11. Use of public transportation in Milan under the first wave.

Cesvi, an international NGO, launched an assistance program for older people over 65 in Bergamo and Milan by organizing home deliveries of groceries, urgent medication, balanced meals, and personal protective equipment, as well as providing transport for essential medical visits (Cesvi, 2020-03-19).

Thanks to the work of health and social workers and 450 volunteers in Bergamo, more than 1,000 requests for support and around 922 elderly people have been assisted. There were also requests for the delivery of clean clothing to hospitalized patients, collection of medical examination reports, and transportation for medical visits or examinations. Nicoletta Rossi, who worked on the project 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".

A similar project in Milan sponsored by the Cesvi called "Veniamo Noi da Te" (We Come To You) had a team of 15 social workers who assisted more than 200 over-65s, 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."

A study of suicides in Milan showed that the number of suicides in 2020 was lower than that in 2019 (Calati, Gentile, Fornaro, Tambuzzi, & Zoja, 2021). However, suicides in early 2021 rebounded to higher than 2019 levels (See Figure 10). It corresponded with the theory of 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 August 18, 2022 (Worldometers, 2022-9-2).

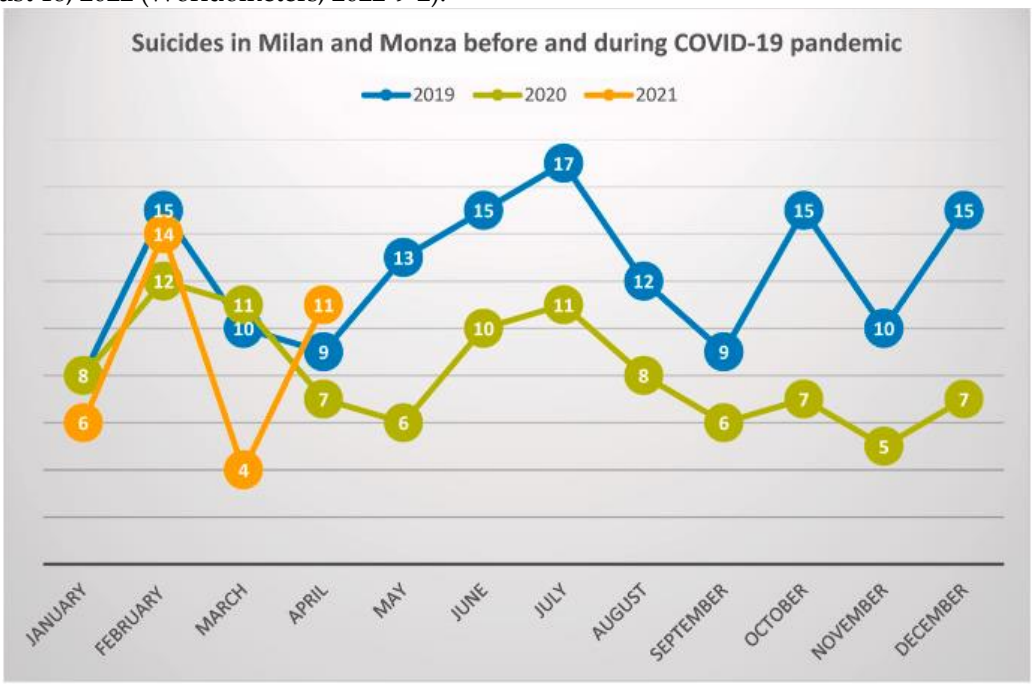

Figure 12. Suicides in Milan before and during COVID-19.

This is because many Southern Italian regions, which were spared by the first wave, were the hardest hit during the second wave. Relaxation of the severe lockdown measures, a decentralized national healthcare service with different regional responses,

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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, 2020-12-17).

6. Case Three: Aged Homes of London and its residents under COVID-19

6.1. Policy Ambivalence of the United Kingdom (UK) Response

If China followed strictly and straightly 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 March 13, 2020, and claimed that he was advised by Sir Patrick Vallance, the chief scientific adviser of the U.K. government.

Economic reasons were actually behind this herd immunity policy (Yan, Zhang, & Wu, 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.

John Rose at Yale estimated that the soonest date for the availability of a scientifically tested safe vaccine would be January 2021 (Belli, 2020). When Boris Johnson talked about herd immunity, he meant direct infection by the coronavirus for the British people. Scientists at the John Hopkins University (JHU) commented that the Herd Immunity Strategy for COVID-19 was not advisable because its death rate may be 10 times higher than general flu (JHU, 2020).

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

6.2. London COVID-19 deaths surpassed Milan

The first day of outbreak onset for London the UK was March 8, 2020, only 13 days after that of Milan. The total numbers of confirmed cases and deaths as of August 29, 2022, in the United Kingdom (UK) and Italy are rather comparable. Italy had 21,806,509 cases and 175,347 deaths, whereas the UK had 23,492,875 confirmed cases and 187,761 deaths. It is interesting to note that 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).

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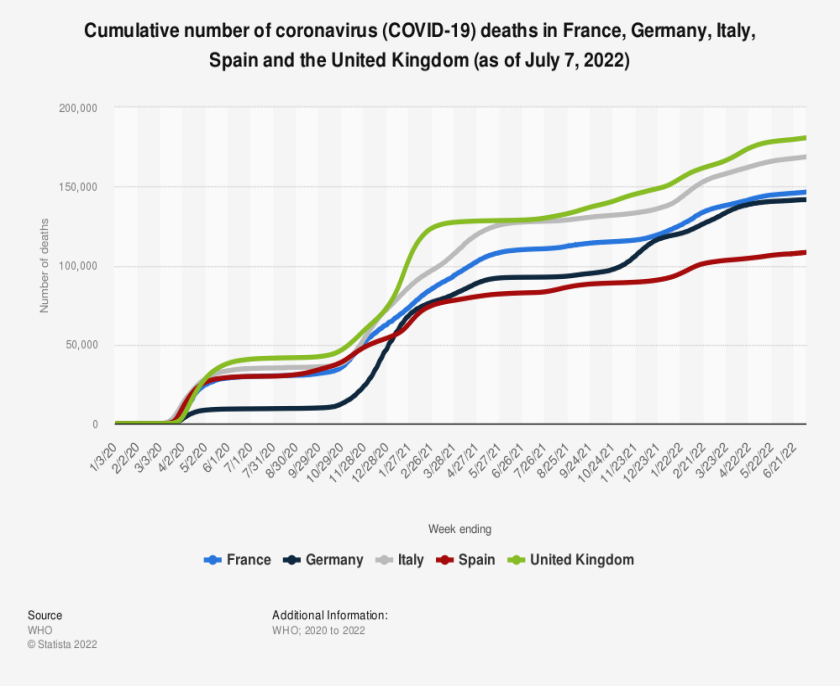

Figure 13. COVID-19 deaths in 5 European Countries (Statista, 2022a).

Death of a person who died within 28 days of a positive test, is classified in the UK as a coronavirus death. The crude death rate for the UK was 275.5 per 100,000 on August 18, 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.

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 over 65 years of age (11.9%) was smaller than in other parts of England. There 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 was **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 24000. The crude death rate of COVID-19 was 266.58 per 100,000.**

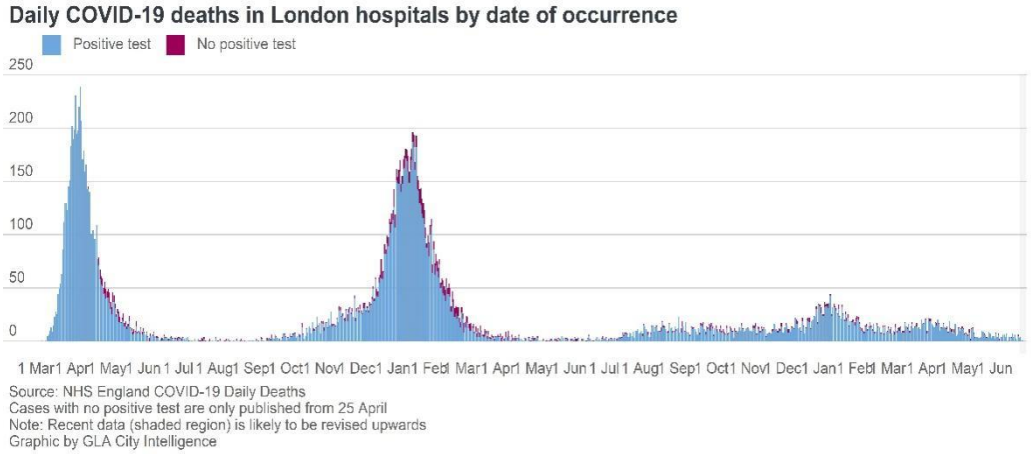

Figure 14. COVID-19 Deaths in London since outbreak onset.

6.3. Psychological Reactions of Older People in London

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Catherine Robb et al. (2021) 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 7,127 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. "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. 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 status of the female gender, single, widowed, and divorced were more likely to indicate feeling worse in both depression and anxiety. Reporting poor sleep, feelings of loneliness, and living alone were also related to worsening anxiety and depression.

A total of 40% of participants reported sleep disturbances. Circumstances surrounding the COVID-19 pandemic increased levels of stress. Worry and ruminating thoughts provoking cognitive arousal and disturbing cortisol homeostasis resulted 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 lockdown, and 14.7% of alcohol consumers reported that they had drunk more.

A later study in southern Italy carried out from June to August 2021 through a web-based survey found similar results. Of 1041 valid respondents of older people (Mean age 76.6, SD=6.5), 60% of participants reported decreased physical activity, worsening sleep, and weight gain due to improper dietary habits (Galle et al., 2021).

6.3.1. Older people in care homes of England

Of all COVID-19 deaths in the UK during the first wave, between outbreak onset and June 26, 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. COVID-19 deaths in care homes accounted for 47% in Scotland, 42% in Northern Ireland, 30% in England, and 28% in Wales. Counting residents of care homes who died within and outside care homes because of COVID-19, there were 51% in Northern Ireland, 50% in Scotland, 39% in England, and 34% in Wales, out of all COVID-19 deaths. 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).

Schtluze et al. (2022) reported as late as January 2022 of their study between February 2019 and March 2021 of 4,340,648 people aged 65 years or older, of whom 95212 or 2.2% were classified as residing in a care or nursing home.

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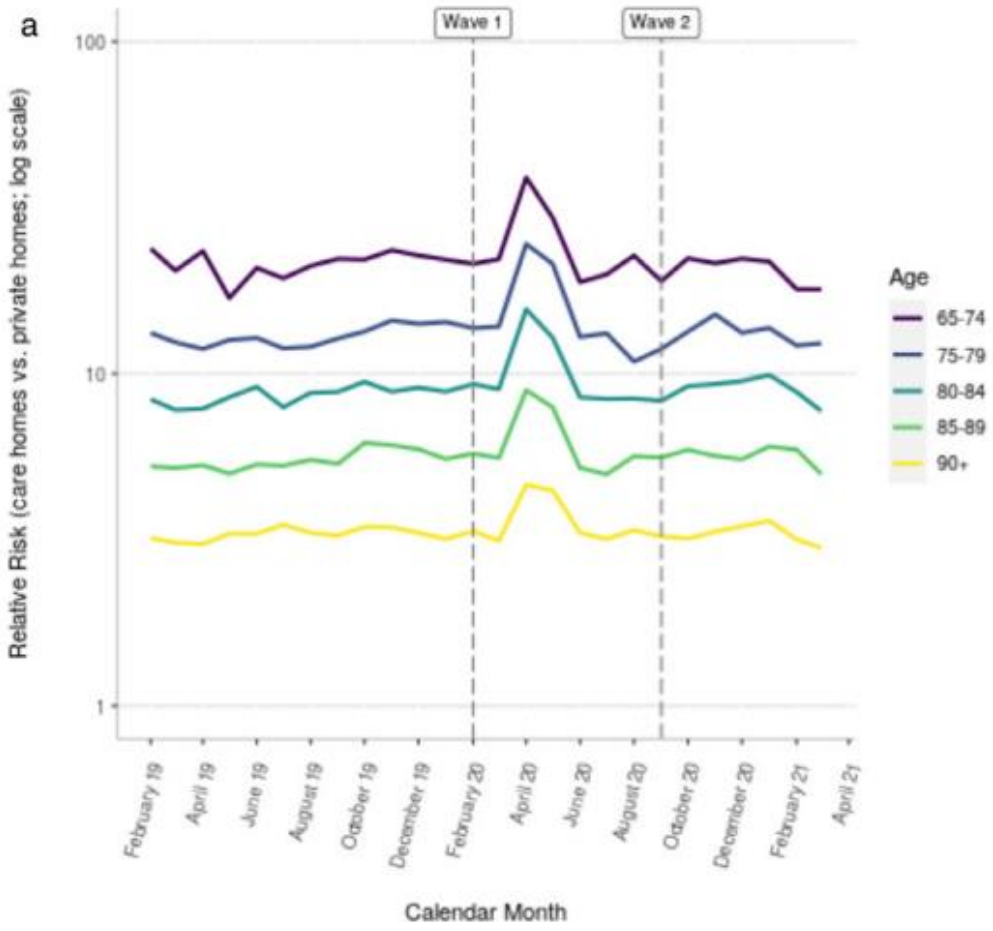

Figure 15. Relative Death Risks in care homes of England.

There were 1914 older people in aged homes in London alone. Even 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) = 10.59. However, in April 2020 these relative differences had increased to more than 17 times with CMFs of 17.57 (16.43, 18.79) among women and 18.17 (17.22, 19.17) among men. Fortunately, CMFs did not increase during the second wave, mortality risks went up to the same proportional degree.

Schtluze's report concluded that 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.

6.3.2. Shielding without a shield

In England, guidelines of preventative measures for aged 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 3rd of July 2020 (British Geriatric Society, 2022). All these setbacks may have

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contributed to the disproportionate high risks for older residents in care homes. It is also important to point out that in Figure 15, the highest relative risk happened in the range of 65-74, the youngest of the elderly. These healthier older people would not have died if they were better shielded.

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. Amnesty International considered the UK Government's decisions "shockingly irresponsible" and "put tens of thousands of older people's lives at risk".

Care Home residents were also denied access to 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 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."

7. Case Four: Older People in HKSAR (China) during COVID-9

7.1. Omicron outbreak in Hong Kong

Figure 16（World in Data, 2022）shows that the spread of COVID-19 in HKSAR was relatively mild in the early stages from Jan 2020 to Jan 2022. Unexpectedly, when the coronavirus mutated into the Omicron variant, hailed by the world for its high transmissibility and low fatality, HKSAR recorded its peak of COVID-19 deaths.

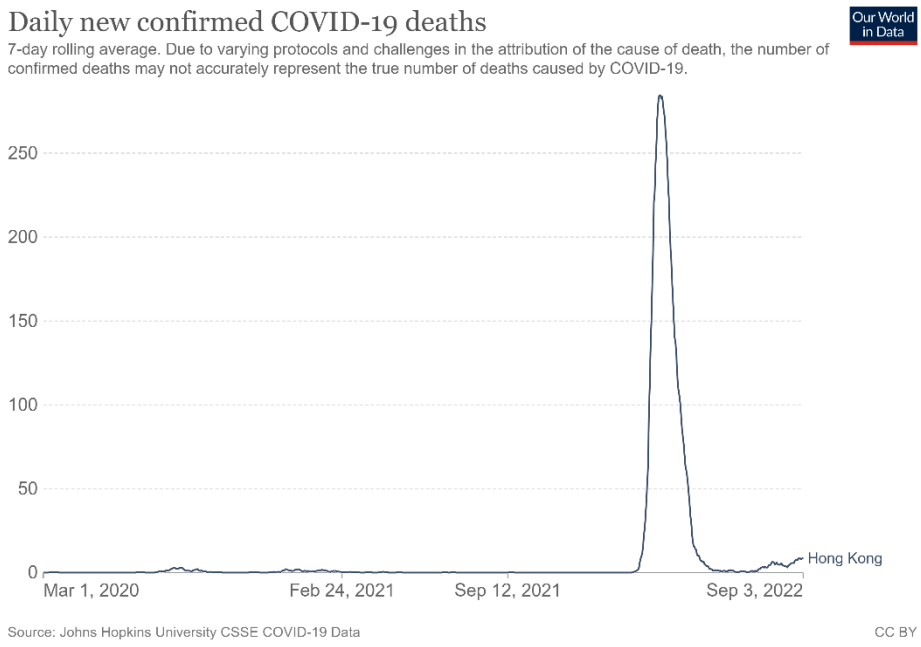

Figure 16. the period of COVID-19 Deaths in HKSAR.

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 August 31, 2022, Hong Kong has reported 1,283,514 confirmed cases and 9477 Coronavirus deaths (See Figure 17).

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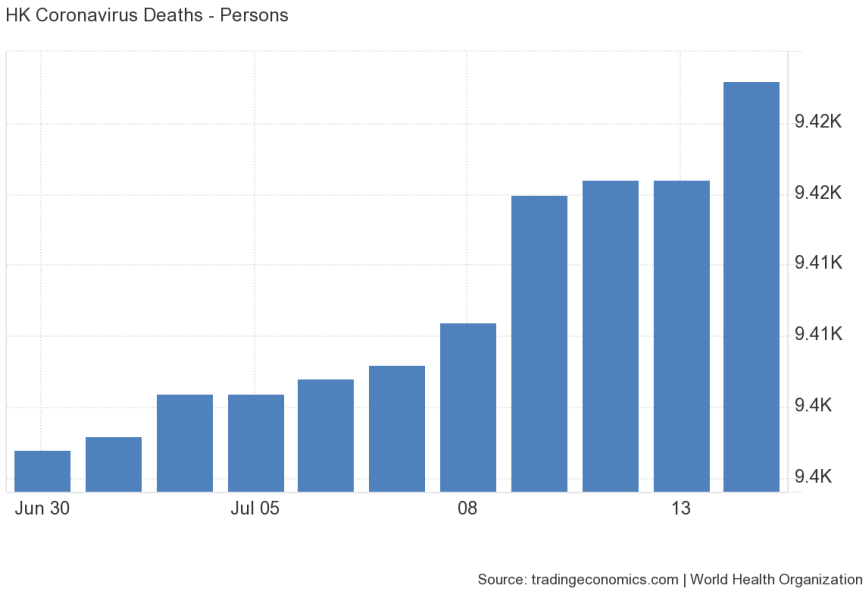

Figure 17. Accumulated COVID-19 deaths in HKSAR (as of July 2022).

Among the deceased, according to the HK Government (2022), the median age was 86, (R=0-112), with a male to female ratio of 1.42. The number of unvaccinated deaths was 6697, or 71%. Older people aged over 60 years made up 95% of all COVID-19 death cases. Moreover, 54% of the deaths came from Residential Care Homes (See Figure 18). As a rule, government officials blamed the high fatality rate on the old age and comorbidities of patients.

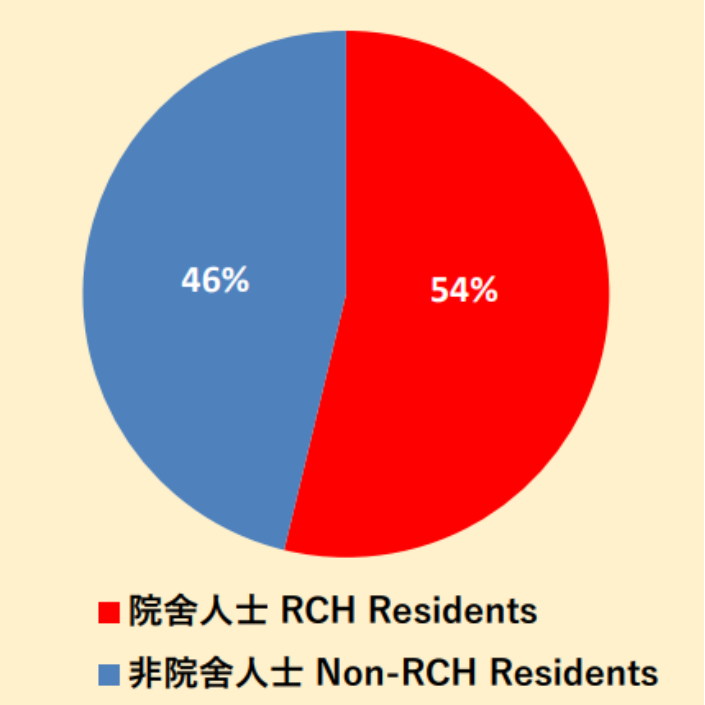

Figure 18. Residency of the COVID-19 Deaths in HKSAR.

7.2. Protection of Older People in Care Homes

7.2.1. The curse of vulnerability.

The question is, has the Hong Kong government learned from the COVID outbreaks in Wuhan, Milan, and London in the past two years? Older people were still not shielded

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properly and residential care homes still accounted for more than 50% of COVID-19 deaths.

7.2.2. The excusable under-vaccination

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% by March 21, 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 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%.

7.2.3. Lip services belayed

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, 75572, was recorded on March 4, and the greatest number of daily deaths, 294, was recorded on March 11.

Moreover, the HKSAR government did not offer any concrete assistance to the care homes and their older residents.

7.2.4. Vaccine hesitancy

Research has shown that Hong Kong citizens lack health literacy and have faith in physicians and public media (Kwok et al., 2020). Wendy Lam and her colleague (2022) conducted a qualitative research study where they interviewed 27 older people in Hong Kong. The major reasons for vaccine-hesitant and resistant attitudes were lacking decisional support from doctors, family, and the government, and reliance on the peripheral processing of vaccine-related information. Weak accessibility to medical consultation and inconvenient vaccination services were other important factors. Patients' illness perceptions and doctor shopping behavior in severe illnesses can be balanced and moderated (Huang, Guo, & Wang, 2022). Medical professionals have to speak in the same voice loudly and clearly if they want to help these older people at risk. Older people and their family members need direct medical guidance.

7.2.5. Elderly Welfare Regime in Hong Kong

He et al. (2022), mentioned above, compared the case fatality rates between Hong Kong and Singapore to explain the poor performance of the former. However, their analysis was based on a public health perspective that did not consider the broader social determinants of health. The concept of a welfare regime refers to the interplay among health, social, cultural, and economic factors. This concept can be used to analyze the difficulties faced by older people during the Omicron attack in Hong Kong.

During the pandemic, the Social Welfare Department (SWD) of the HKSAR provided social assistance, through the Social Assistance Allowance Scheme (SWD, 2022), to residents over 65 to maintain their daily subsistence. 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 are charging 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 can't live together with their parents. This was the direct opposite of the social habitation style of the Italians.

According to the 2020 HKSAR Government Census, there were 38,400 persons residing in private elderly homes. 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

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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). Chow thought that the lessons learned from SARS in terms of locking down the private homes would be remembered and used to good effect, but her hopes were in vain.

These homes were for-profit companies that capitalized on the social security money the government provided to the older people. Taxpayers' money was transferred by the market mechanism to the pocket of these private home operators. A few of them were even listed successfully. Due to irresponsible management, these private care homes are generally very crowded and understaffed. Most helpers of the homes did not have dormitories as this would decrease the incomes of the operators. 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 also unfeasible, given the over-crowded conditions in these homes and the limited human resources. In other words, even if the government wanted to impose strict social containment, private elderly homes were actually "unlockdownable".

8. Discussion

As stated at the beginning of the Hong Kong case analysis, 54% out of the 9477 deaths came from older people's homes. Therefore, there were 5118 COVID-19 deaths out of around 38400 residents of private homes. Its mortality rate was 13.33%. Could some lives be saved if the Hong Kong Community learned better from the lessons provided by the pandemic experiences of Wuhan, Milan, and London?

The number of COVID-19 deaths of older people was 2,114 in Wuhan, 19,921 in Milan, 19,102 in London, and 5,118 in Hong Kong (Table 4).

Table 4. COVID-19 Deaths and mortality of Older People.

City	Aged population	COVID deaths	Deaths per 100000
Wuhan	0.975M	2114	216.8
Hong Kong	1.482M	5118	345.34
Milan	2.419M	19921	823.52
London	1.071M	19102	1783.57

The major reasons for older people's deaths in the four cities were slightly 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 did not have better preparation time as compared to Milan. However, its performance was the worst among the five western European countries counting 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 the National Health Services. When it comes to 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. The good practices and traditions in the healthcare sector were lost, amidst political debates and professional narcissism. 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. The waiting time for clinical assessment and treatments increased. The needs of older residents in private aged homes were neglected. The medical and health sector should not shy away from promoting the social determinants of health (See Figure 19) as advocated by the WHO.

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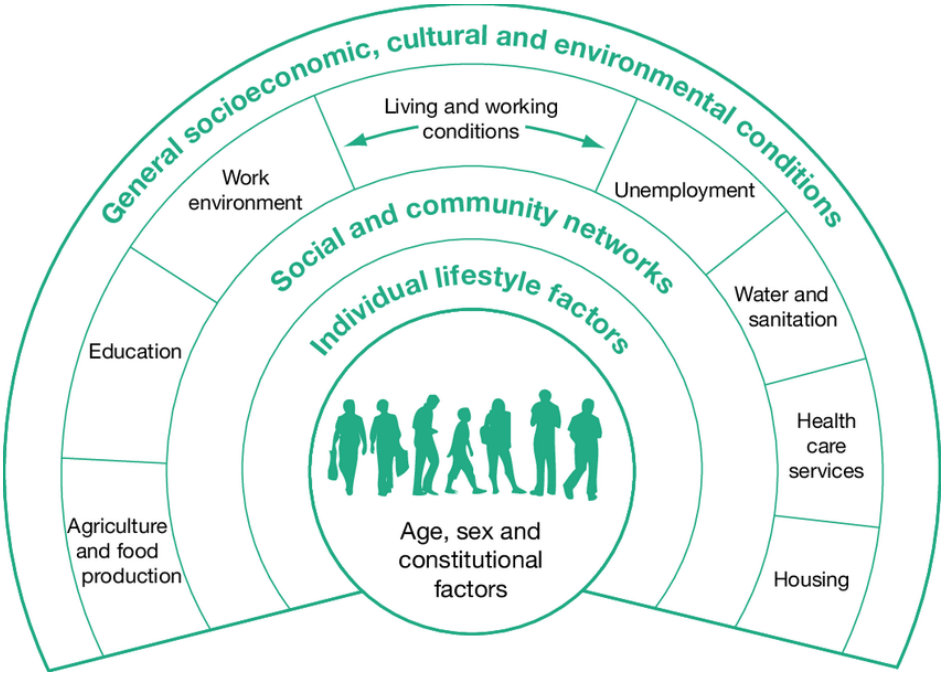

Figure 19. Social Determinants of Health (WHO).

Auyeung et al. (2020) reported this narrative of a senior geriatrician describing her experience in a surveillance ward 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 were 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, the frail, the silent, and the old have no voice. When the next epidemic comes, I do hope that we could have some elderly-friendly isolation wards.

9. Conclusions

This paper is descriptive and exploratory, not deterministic. Both quantitative and qualitative data and information are provided to understand the effects of the COVID pandemic on older people. It explored social factors to explain the high fatality rates among older people, especially those who lived in residential facilities. The UN Secretary-General, António Guterres, in May 2020, reminded the public to "not treat older people as invisible or powerless". In reality, that is exactly how they are treated. 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 (Gessa & Price, 2022). No one talked about the aims of shielding anymore, it is like the Emperor's New Clothes.

Author Contributions: Both authors have contributed equally to the conceptualization and analysis of data in this paper.

Funding: xxx

Institutional Review Board Statement: xxx

Informed Consent Statement: xxx
Data Availability Statement: xxx

Acknowledgments: xxx

Conflicts of Interest: xxx

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