

# Chapter 2

## COVID-19 Impacts on Long-term Care for Older Persons

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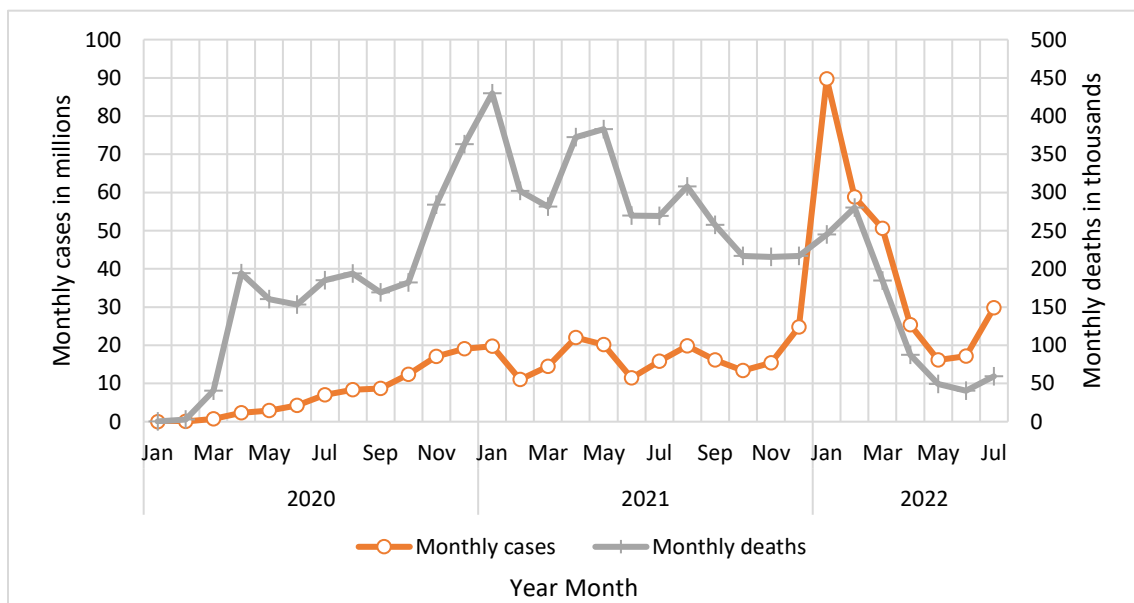
## Chapter 2

### COVID-19 Impacts on Long-term Care for Older Persons

#### 1. Background

Three years have already passed since the novel coronavirus disease (COVID-19) pandemic started. Different variants of COVID-19 and human responses during the period created different disease impacts. In the first year, the alert was high, and many countries implemented states of emergency and lockdowns. The number of cases and deaths rose, especially in Europe and America. Vaccines became available in the second year in 2021, but the number of cases and deaths increased much more than in the previous year. In the third year in 2022, due to the rapid spread of the Omicron variant at the beginning of the year, the number of cases rose sharply, but the increase in deaths was modest. Throughout the period, from January 2020 to July 2022, several waves occurred, but the total number of deaths gradually declined (Figure 2.1). It is hoped that the overall trend of the gradual decline of deaths will continue in line with humans gaining herd immunity.

Figure 2.1. COVID-19 Monthly Cases and Deaths (World)



Source: WHO Coronavirus (COVID-19) Dashboard (2022a).

Due to the high COVID-19 mortality amongst the elderly, COVID-19 prevention amongst older persons, especially in a collective living setting is important. However, the living arrangements of older persons differ from country to country, and the COVID-19 risk should be understood accordingly. This chapter firstly examines the age-specific prevalence and mortality of COVID-19. Secondly, the place

of death of COVID-19 will be analysed to verify whether there was a concentration of deaths in long-term care facilities in countries with data.

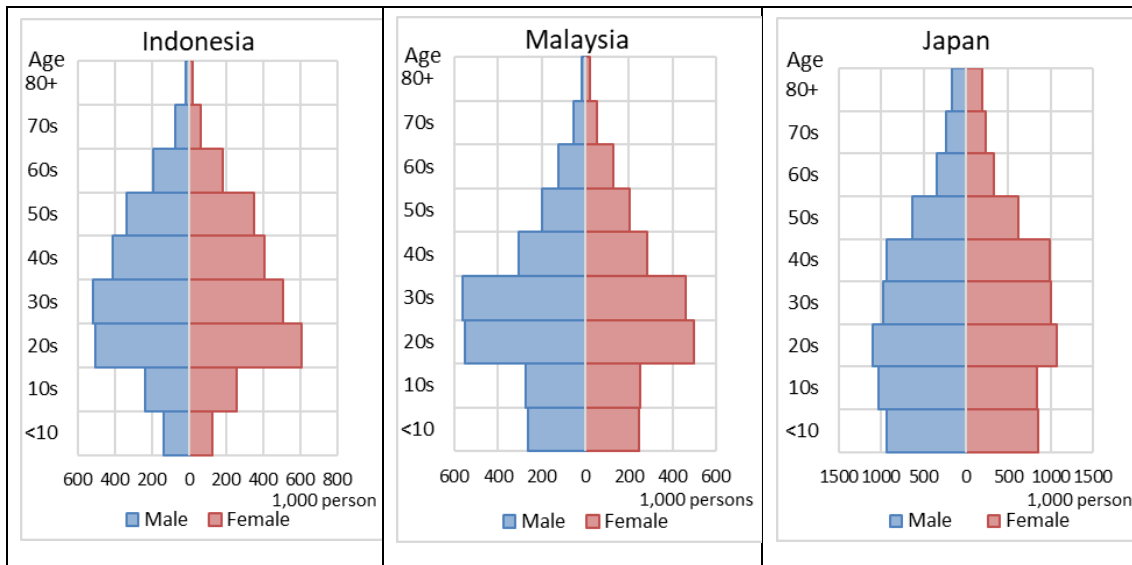
## **2. Age-specific Prevalence and Mortality by COVID-19**

Due to the global spread of COVID-19 and raised awareness, almost all countries are conducting epidemiological surveillance on COVID-19. Thus, the total number of cases and deaths are relatively easy to get. However, these data are not always gender and age-disaggregated. Amongst reported cases and deaths of COVID-19 to the World Health Organization (WHO), 48.8% of cases and 38.6% of deaths are with age information (WHO, 2022a).

As for the COVID-19 cases, the typical structure is that they are concentrated amongst the younger age groups, especially those in their 20s. Figure 2.2 shows the examples of Indonesia, Malaysia, and Japan. As for deaths, the concentration is found in older age groups. Amongst those older than 60, the peak age varies; the 60s in Indonesia and Malaysia, but over 80 in Japan (Figure 2.3). It is due to the difference in the exposed population; in Japan, older persons are older than in Indonesia or Malaysia. The smaller number of deaths in the 70s and 80s age groups are due to the smaller population of those ages. The death rates by age show an increasing trend for all three countries (Figure 2.4).

The level of COVID-19 mortality differs between the three countries. For all ages, the mortality was 57.7 per 100,000 population in Indonesia, 110.1 in Malaysia, and 25.9 in Japan. By age, the mortality is similarly different; Japan is half of Indonesia, and Indonesia is half of Malaysia. The difference is due to the severity of the infection or the effectiveness of countermeasures taken in each country. However, the lower mortality in Indonesia compared with Malaysia could also be due to the deaths not diagnosed as COVID-19. As the vital statistics based on the registration are absent in Indonesia, the impact of COVID-19 is difficult to be assessed correctly.

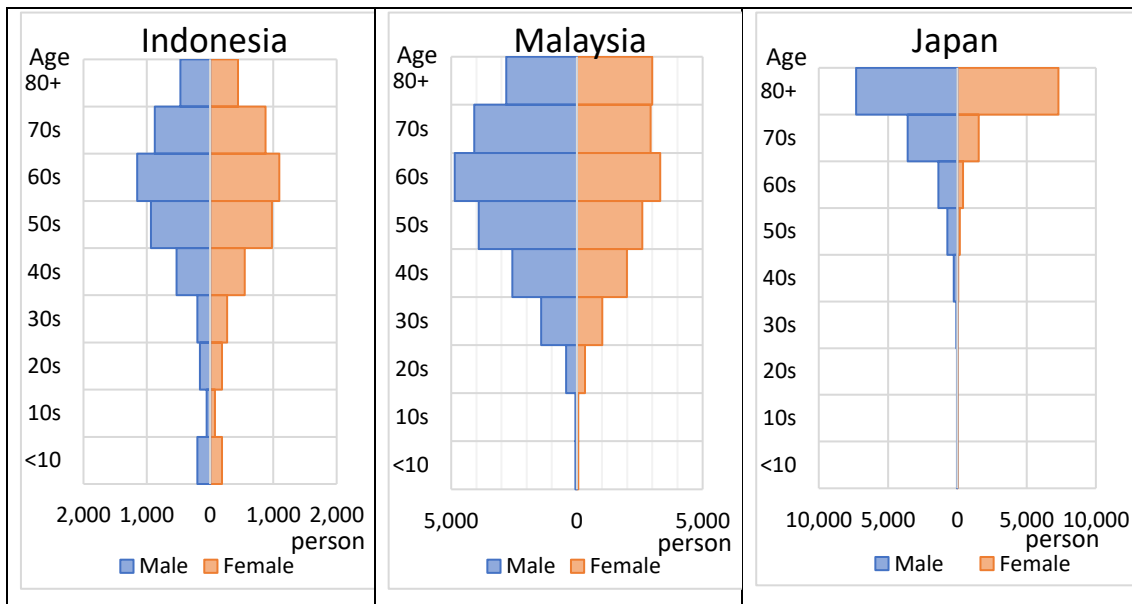
**Figure 2.2. Age and Gender of COVID-19 Cases**



Notes: From 30 December 2019 to 25 July 2022 for Indonesia and Malaysia, to 1 August 2022 for Japan. The above charts are drawn from data that are gender and age-disaggregated; the coverage amongst the total reported cases is 79.8% for Indonesia, 95.9% for Malaysia, and 99.1% for Japan.

Sources: WHO COVID-19 Detailed Surveillance Data Dashboard (2022b) for Indonesia and Malaysia, Visualizing the Data: Information on COVID-19 Infections (Ministry of Health, Labour and Welfare, 2022) for Japan.

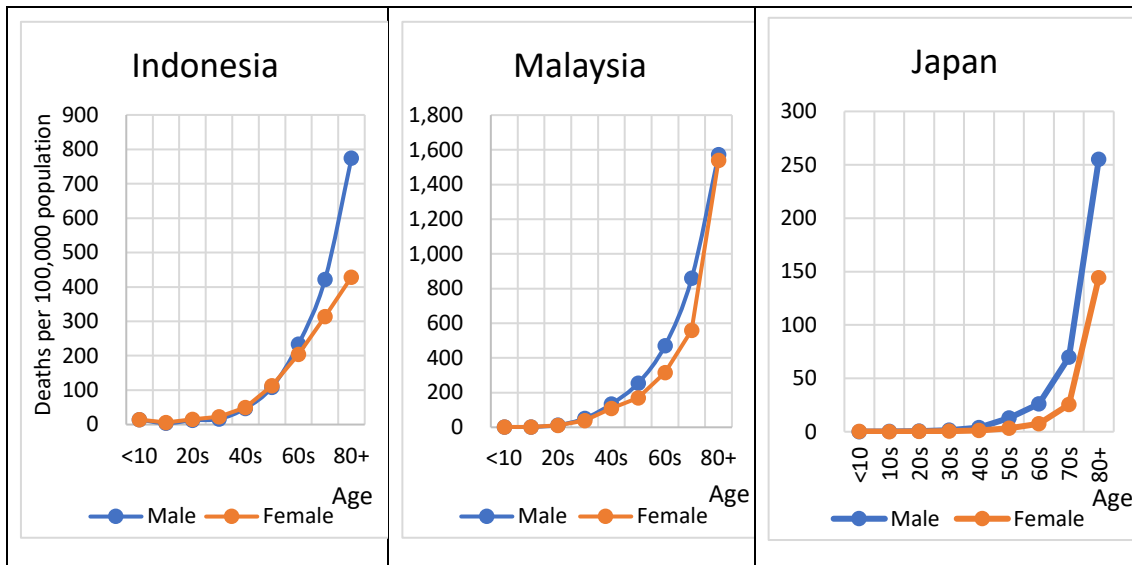
**Figure 2.3. Age and Gender of COVID-19 Deaths**



Notes: From 30 December 2019 to 25 July 2022 for Indonesia and Malaysia, to 1 August 2022 for Japan. The above charts are drawn from data that are gender and age-disaggregated; the coverage (proportion of these age and sex disaggregated deaths amongst the total reported deaths) is 5.9% for Indonesia, 98.6% for Malaysia, and 70.0% for Japan.

Sources: WHO COVID-19 Detailed Surveillance Data Dashboard (2022b) for Indonesia and Malaysia, Data on COVID-19 (National Institute of Population and Social Security Research, 2022) for Japan.

**Figure 2.4. Age and Gender-specific COVID-19 Mortality**



Notes: From 30 December 2019 to 25 July 2022 for Indonesia and Malaysia, to 1 August 2022 for Japan. The coverage rates of 5.9% for Indonesia, 98.6% for Malaysia, and 70.0% for Japan are applied to the observed mortality (The death rates shown in the figures are calibrated to the level that the gender and age information are provided for all deaths assuming that missing information are evenly distributed between age groups).

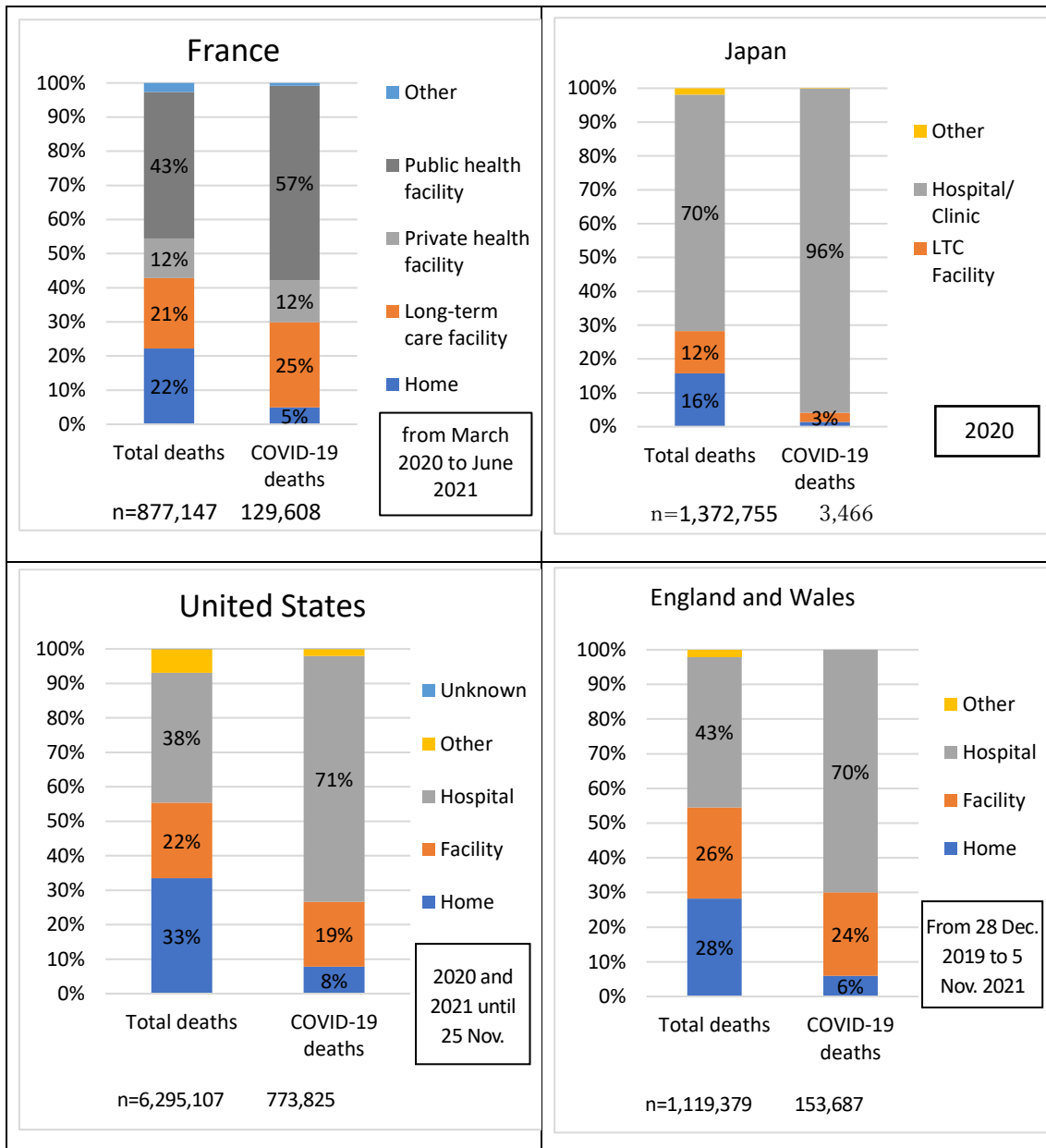
Sources: COVID-19 deaths by WHO COVID-19 Detailed Surveillance Data Dashboard (2022b) for Indonesia and Malaysia, data on COVID-19 (National Institute of Population and Social Security Research, 2022) for Japan. Population by Age Group, Sex and Ethnic Group, Malaysia (DOSM, 2022) for Malaysia, World Population Prospect 2022 (UN, 2022) for Indonesia, and Population Census 2020 (Statistics Bureau) for Japan.

### 3. COVID-19 Mortality in Long-term Care Facilities

The higher mortality amongst older persons raised the concern of infections in the collective living setting in long-term care facilities (LTCFs). The media argued that one-third of COVID-19 deaths in the United States (US) were linked to nursing homes (New York Times, 2021), and 14% of COVID-19 deaths in Japan were happening in LTCFs (47 News, 2020).

The vital statistics based on the registration numbers usually included the information on the place of death by cause. As of March 2022, such information was available in France, Japan, US, and England and Wales (Figure 2.5). According to the data, COVID-19 deaths were not concentrated in LTCFs in Japan, US, and England or Wales. In Japan, 12% of total deaths occurred in LTCFs, whereas only 3% of COVID-19 deaths occurred there. The same contrast was found as 22% vs. 19% in the US and 26% vs. 24% in England and Wales. In France, 21% of total deaths occurred in LTCFs, whereas it was a bit higher, 25%, for COVID-19 deaths. However, the difference is not large. In all four countries, there is a common tendency for COVID-19 deaths to occur more in hospitals and less at home compared to deaths caused by other causes. COVID-19 is the designated infectious disease, and public health measures intervene, not the private health sector. The public hospitals were in charge of the patient, and thus more deaths occurred in the public hospitals. The wide media coverage of the abundance of COVID-19 deaths at LTCFs was not confirmed by vital statistics.

**Figure 2.5. Comparison of Place of Death between Total Deaths and COVID-19 Deaths**



LTC = long-term care.

Sources: Vital statistics by CépiDc (2022) for France (2022), Ministry of Health, Labour and Welfare (2022) for Japan, NCHS/CDC (2022) for the United States, and ONS (2022) for England and Wales.

#### **4. Policy Implications**

COVID-19 is ongoing and the number of cases is increasing. With the continuous arrivals of new variants that are more contagious and less lethal than the previous ones, it seems that the virus took the course to slow down. It is hoped that the severity of the disease will eventually be lowered to ordinary influenza or seasonal flu. At the beginning of the pandemic, there were no vaccines and people followed the coercive activity limitations. As time passed, vaccines were available and the number of people who contracted COVID-19 increased. People are tired and the negative economic impact due to the activity limitation started to be intolerable. Towards the end of COVID-19, the health and long-term care system has to remember the experiences gained through the fight against COVID-19 and keep in mind how to balance infection control with the economic and social activity of society. COVID-19 infection occurs mostly in active young people but the risk of dying from the disease is higher amongst older persons. This fact has not changed from the beginning of the pandemic until now. It became compulsory that the health and LTC for older persons are equipped with a proper infection control system, which is discussed in this research project.

During the time of the pandemic, the COVID-19 case and death data are collected daily in many countries, but this system will be integrated into the regular weekly updates with other infectious diseases when the threat is lower. The upgraded surveillance capacities were a side-product of the COVID-19 pandemic, but at the same time, it was revealed that the existing death registration system was not sufficient. Those countries without a death registration system suffer from random 'findings' by ad-hoc media coverage, making it hard to elaborate a policy needed to avoid COVID-19 deaths effectively. In the Association of Southeast Asian Nations (ASEAN), some countries, such as the Philippines and Malaysia, are making progress in producing vital statistics, including data on the cause of death information (Hayashi and Komazawa, 2022). The efforts should be continued and spread to more countries.

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\*All internet web addresses (URL) were accessed on 7 August 2022.