Deaths in Nursing Homes during the COVID-19 Pandemic – Lessons from Japan*

COMMENTARY

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To date, 35% of coronavirus disease 2019 (COVID-19) deaths in the United States have occurred among nursing home populations (https://jamanetwork.com/journals/jama-health-forum/fullarticle/2763666), compared with 14% in Japan (Werner et al. 2020). How did Japan manage such a low proportion of COVID-19 deaths in nursing homes? The similarity in case-fatality rates among patients with COVID-19 in nursing homes in the two countries (both approximately 16%) suggests that the infection rate in nursing homes in Japan was much lower than in the United States. Therefore, the pandemic unmasked long-standing problems with the quality and financing of US long-term care (LTC) services (Grabowski 2020; Werner et al. 2020). We compare differences between the LTC systems of Japan and the United States, focusing on the measures adopted to protect against COVID-19 in Japan.

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There is a common misperception of Japanese culture that families take care of older persons at home and prefer not to send them to nursing homes. In reality, in 2016, the proportion of residents in nursing homes and residential care communities among individuals aged 65 or older in the United States was 3.8% compared with 7.8% in Japan (e-Stat 2020; Harris-Kojetin et al. 2019). Therefore, differences in the population prevalence of nursing home residents cannot explain the discrepancy in the number of COVID-19 cases in nursing homes in the two countries.

The higher proportion of nursing home residents in Japan reflects their longer life expectancy. However, the more important factor is the universal LTC insurance system introduced by the Japanese government in 2000 (Tamiya et al. 2011). Japan maintains a social insurance system with compulsory participation for people aged 40 years or older. The copayment for using LTC services is between 10% and 30% of expenses, based on means testing. Most LTC facilities in Japan are run by non-profit organizations (https://www.mhlw.go.jp/toukei/saikin/hw/kaigo/service16/index.html), whereas for-profit organizations are more common in the United States (Harris-Kojetin et al. 2019). In the US, Medicaid finances the largest part of paid LTC services, followed by Medicare, out-of-pocket payments by individuals and families, and private insurance (Harris-Kojetin et al. 2019). The fragmentation in financing for nursing home services has been long noted as a weakness of the US system, contributing to marked variations in the quality of services delivered (Grabowski 2020; Werner et al. 2020).

Nursing home staffing ratios (https://jamanetwork.com/journals/jama/fullarticle/2769437/) differ substantially between the two countries (Figueroa et al. 2020). In the USA, the number of beds per care worker is 2.0 in nursing homes and 3.4 in residential care communities, while in Japan it is 1.5 in LTC welfare facilities (e-Stat 2020; Harris-Kojetin et al. 2019). US federal regulations set the minimum number of licensed staff, such as registered nurses. However, minimum requirements for other care workers in nursing homes are regulated according to state standards. In one quarter of US states, no minimum number of care workers is specified.

In Japan, to maintain the number of care workers, subsidies for wage increases for staff in LTC facilities were distributed from 2009 to 2012. The average monthly wage for LTC workers in Japan has increased to $2,718, (e-Stat 2020), while in the United States it remains as low as $2,203. Investments in the LTC workforce in Japan created more capacity to implement infection control measures during the pandemic.

The size of LTC facilities is also correlated with the spread of infection (Abrams et al. 2020). In US nursing homes, the average number of beds per facility is 106 compared with 69 in Japan (e-Stat 2020; Harris-Kojetin et al. 2019). Furthermore, the Japanese government financially supports facilities to provide care in a unit format in which all rooms are private and each unit has no more than 10 residents.

The supply of care workers and quality of nursing homes, especially their response to infectious diseases, is a critical factor in COVID-19 prevention. Guidelines published by the US Centers for Disease Control and Prevention (https://www.cdc.gov/coronavirus/2019-ncov/hcp/nursing-home-long-term-care.html) and the Japanese Ministry of Health, Labour, and Welfare (https://www.mhlw.go.jp/stf/seisakunitsuite/bunya/hukushi_kaigo/kaigo_koureisha/taisakumatome_13635.html) are similar with regard to infection control in nursing homes. However, the enforcement of standards

varies between the two countries. Under Japan's LTC insurance system, nursing homes are required to convene infection control committees at least once every three months to prevent outbreaks of infectious diseases such as influenza. In a random survey of 2500 facilities (https://www.mri.co.jp/knowledge/pjt_related/roujinhoken/dia6ou00000204mw-att/H30_098_2_report.pdf) across Japan conducted by the Mitsubishi Research Institute in 2019, 99.7% of facilities reported having an infection control committee, and 94.2% held infection control training for staff. In contrast, according to a US Government Accountability Office report (https://www.gao.gov/products/gao-20-576r), 13,299 of 16,266 surveyed nursing homes (82%) received a deficiency citation for infection control from 2013 through 2017.

Swift government action in Japan also contributed to the low number of COVID-19 cases among residents of nursing homes. On January 31, 2020, when only 12 cases were reported in the country, the Japanese government initially informed LTC agencies about how to respond to COVID-19. On February 24, the government ordered LTC facilities to be locked down.

Finally, the Japanese LTC delivery system flexibly switched to in-home services instead of day and short-stay services. Compared with the previous three years, the number of day and short-stay service users during the COVID-19 pandemic dropped from April to June, while use of in-home bathing services increased starting in May (e-Stat 2020). These trends coincided with the timing of the Japanese government's declaration of a state of emergency from April 7 to May 25. During this period, many day and short-stay services, mainly in endemic areas such as Tokyo, had voluntarily closed their doors and switched to in-home services. The decline in the use of day and short-stay services contributed to preventing COVID-19 infection in nursing homes.

What lessons can be learned from the nursing home experiences in Japan? As short-term measures, strengthening infection control protocols (e.g., mandating infection control committees and training of staff) remains essential for preventing outbreaks in conjunction with vaccine distribution and maintaining adequate supplies of personal protective equipment. As medium- to long-term interventions, the experience from Japan suggests the need for the United States to shift toward smaller, unit-based facilities, with higher staff ratios, higher wages for care workers, more consistent enforcement and supervision of nursing home standards and guidelines, and flexible deployment of home- and community-based services under a comprehensive LTC system.

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