Resilient Long-term Care under the COVID-19 Pandemic in Indonesia, Japan, and Thailand

Edited by

Takeo Ogawa
Takuma Kato
Asuka Nagatani

ERIA

Resilient Long-term Care under the COVID-19 Pandemic in Indonesia, Japan, and Thailand

Preface

Since 1988, Keishin Gakuen has conducted research in Japan, Australia, China, Indonesia, amongst others, on the long-term care insurance system, the qualification system for long-term care workers, and the training of long-term care workers, which form the foundations of Japan's ageing population countermeasures, on the theme of the globally advancing ageing of society.

In 2019, a new research project was launched with the support of the Economic Research Institute for ASEAN and East Asia (ERIA), and research was conducted with the aim of applying the policy of employing foreign workers in Japan's long-term care labour market in response to the declining population and 'promoting cross-border circulation of long-term care workers', in accordance with Japan's Asia Health and Wellbeing Initiative (AHWIN).

Furthermore, in the current project running from 2021, on the theme of 'resilience' in the face of the novel coronavirus disease (COVID-19) pandemic, research has been conducted on how to protect people's lives and livelihoods, quickly restore businesses, and move on from there.

The global spread of the COVID-19 infection, which began in 2019, has had a tremendous impact on human survival and livelihoods. In Japan, where the population is ageing rapidly, many long-term care facilities for the elderly (especially nursing homes for the elderly, long-term care facilities for the elderly, day services, etc.) have been struggling to find ways to protect lives since the beginning of the spread of COVID-19.

In order to contribute to these efforts, the Keishin–ERIA project conducted international comparisons of COVID-19 infections and mortality from the perspective of resilience in long-term care homes for the elderly, as well as field surveys to identify effective infectious disease countermeasures being used in the long-term care business, and surveys on the actual situation of business continuity management and business continuity plans (BCPs) at long-term care facilities for the elderly.

It is envisaged that long-term care facilities for the elderly would be further developed and increased in number due to the advance in the ageing of societies in the countries of East Asia and the Association of Southeast Asian Nations (ASEAN) Member States, and consequently it will be necessary to establish resilience against the risk of new infections.

Support is necessary for various activities in the further development of East Asian and ASEAN countries, and in terms of support for long-term care facilities for the elderly, it is hoped that the various findings, analysis results, and data confirmed in this research can help in the development of new infectious disease control models that can be shared and used internationally.

I would like to express my sincere gratitude to Project Leader Professor Takeo Ogawa, who has made such great efforts on behalf of this research, Professor Reiko Hayashi, Professor Shun Ohno, Professor Kaysorn Sumpowthong from Thailand, and Professor Tri Budi Rahardjo from Indonesia, and other experts from many countries, and to Keishin Gakuen faculty staff and everyone involved.

MITSUTOSHI KOBAYASHI

President Mitsutoshi Kobayashi
Keishin-Gakuen Educational Group

Acknowledgements

It was heart-breaking that during our study that Professor Tri Budi Raharjo, the head of the Indonesian research team, lost her husband, son, and granddaughter in the COVID-19 pandemic. We would like to offer our condolences to her once again.

The fact that we were able to overcome numerous difficulties and complete the second phase of the research is thanks to the tireless efforts of each research team. At the same time, it is thanks to the cooperation of the managers and staff of long-term care service providers. The person in ERIA also changed due to personnel changes along the way, with Osuke Komazawa, and Sota Machida in the first phase of the survey, and Takuma Kato and Asuka Nagatani in the second phase, who advised after a smooth handover, gave enthusiastic advice. We would like to express our heartfelt gratitude to all the people involved.

List of Project Members and Authorship

Takeo Ogawa, PhD (Leader):
Professor Emeritus, Kyushu University and Yamaguchi University. Japan
Executive Summary, Chapter 1, Chapter 8

Katsuhiko Kikuchi, Mr (Co-researcher)
Professor, Seitoku University, Japan
Chapter 3

Hiromi Kinebuchi, Ms (Co-researcher)
Lecturer, Niigata University of Health and Welfare, Japan
Appendix 1

Reiko Hayashi, PhD (Principal Researcher)
Deputy Director-General, National Institute of Population and Social Security Research
Chapter 2, Chapter 4. First Authorship

Tomonari Yashiro, Doctor of Engineering (Advisor)
Professor, Institute of Industrial Science, The University of Tokyo, Japan
Chapter 4. Advisor

Yo Ishigaki, PhD (Advisor)
Project Associate Professor, The University of Electro-Communications, Japan
Chapter 4. Advisor

Minato Nakazawa, PhD (Advisor)
Professor, Graduate School of Health Sciences, Kobe University, Japan
Chapter 4. Advisor

Shun Ohno, PhD (Principal Researcher)
Professor, Seisen University
Chapter 5.1. First Authorship, 5.2, 5.4. Co-author

Yoichi Hiruma (Co-researcher)
Specially Appointed Associate Professor, Shizuoka University
Chapter 5.2. First Authorship

Yuko Hirano, PhD (Co-researcher)
Professor, Nagasaki University
Chapter 5.3. First Authorship

Mario Ivan Lopez, PhD (Co-researcher)
Associate Professor, Center for Southeast Asian Studies, Kyoto University
Chapter 5.4. First Authorship

Wako Asato, PhD (Co-researcher)
Associate Professor, Graduate School of Letters, Kyoto University
Chapter 5.5. First Authorship

Reiko Ogawa, Ms (Co-researcher)
Professor, Chiba University

Kazumi Murakumo, Ms (Co-researcher)
PhD graduate student, Graduate School of Humanities and Social Sciences, University of Tsukuba

Kaysorn Sumpowthong, Dr (Principal Researcher)
Assistant Professor, Faculty of Public Health, Thammasat University, Thailand
Chapter 6. First Authorship

Panicha Boonsawad, Dr (Co-researcher)
Assistant Professor, Dr of Fundamental Nursing and Nursing Administration Department, Srisavarindhira Thai Red Cross Institute of Nursing, Thailand
Chapter 6. Co-authorship

Anantachai Inthiraj, Mr (Co-researcher)
Researcher, College of Sports Science and technology, Mahidol University, Thailand
Chapter 6. Co-authorship

Pimpitcha Kangyang, Ms (Co-researcher)
Public Health Officer, Ministry of Public Health, Division of Health Economics and Health Security, Thailand
Chapter 6. Co-authorship

Tri Budi W. Rahardjo, PhD, drg.,M Si (Principal Researcher)
Universitus Respati Indonesia
Chapter 7. Co-authorship

Susiana Nugraha, Dr PH SKM, MN (Co-researcher)
Assistant Professor, Centre for Family and Ageing Studies, University of Respati Indonesia
Chapter 7. First Authorship
the Central for Family and Ageing Studies (CeFAS) URINDO

Dinni Agustin, SPd, M Kesos (Co-researcher)
Centre for Family and Ageing Studies, University of Respati Indonesia
Chapter 7. Co-authorship

Asyifa Robiatul Adawiyah, S.Ked, M.Kes (Researcher)
Centre for Family and Ageing Studies, University of Respati Indonesia

Putri Tresna Asih Handayani, SKM (Researcher)
Centre for Family and Ageing Studies, University of Respati Indonesia

Nadratul Laila, SKM (Researcher)
Centre for Family and Ageing Studies, University of Respati Indonesia

Lisna Agustina.,S.Kep.,Ners., M. Kep (Researcher)
Centre for Family and Ageing Studies, University of Respati Indonesia

Sudibyo Alimoeso, Dr, MA (Researcher)
Centre for Family and Ageing Studies, University of Respati Indonesia

Tri Suratmi, Dr, MPd (Researcher)
Centre for Family and Ageing Studies, University of Respati Indonesia

Lili Indrawati, Dr, MARS (Researcher)
Centre for Family and Ageing Studies, University of Respati Indonesia

Biben Fikriana, S.Kep., Ners., M. Kep (Researcher)
Centre for Family and Ageing Studies, University of Respati Indonesia

Table of Contents

List of Figures

List of Tables

List of Abbreviations and Acronyms

AHWIN	Asia Health and Wellbeing Initiative
ASEAN	Association of Southeast Asian Nations
BCI	Business Continuity Institute
BCM	Business Continuity Management
BCMS	Business Continuity Management System
BCP	Business Continuity Plan
CDC	Centers for Disease Control and Prevention
COVID-19	novel coronavirus disease
DCAT	Disaster Care Assistant Team
DMAT	Disaster Medical Assistant Team
DPAT	Disaster Psychiatric Assistant Team
DWAT	Disaster Welfare Assistant Team
EPA	Economic Partnership Agreement
FGD	Focus Group Discussion
GHQ	General Health Questionnaire
HEC	Health and Elderly Establishment Confederation (Thailand)
ICT	Information and Communication Technology
IoT	internet of things
IPC	Infection Prevention and Control
JICWEL	Japan International Corporation of Welfare Services
JLPT	Japanese Language Proficiency
KAP	Knowledge, Attitudes, and Practices
LED	light-emitting diode
LTC	Long-term Care
LTCF	Long-term Care Facility
LTCW	Long-term Care Worker
MCW	Migrant Care Worker

MHLW	Ministry of Health, Labour and Welfare (JPN)
MOLISA	Ministry of Labour, Invalids and Social Affairs (Viet Nam)
MOPH	Ministry of Public Health (Thailand)
MOU	Memorandum of Understanding
MOC	Memorandum of Cooperation
OJT	On the Job Training
OSHA	Occupational Safety and Health Administration
OTIT	Organization for Overseas Technical Intern Training
PCR	Polymerase Chain Reaction
POEA	Philippine Overseas Employment Administration
PPE	Personal Protective Equipment
SD	Standard Deviation
SISKOTKLN	System for Overseas Worker Management Services (Indonesia)
SOC	Sense of Coherence
SSW	Specified Skilled Worker
TITP	Technical Intern Trainee Programme
UNFPA	United Nations Population Fund
VHV	Village Health Volunteer (Thailand)
WHO	World Health Organization

Executive Summary

One of the common challenges in Asia is population ageing. As the population ages, the elderly population will increase, and the number of elderly people who need long-term care will increase accordingly. Long-term care is quoted from the World Health Organization (WHO) website as follows:

> Older people continue to aspire to well-being and respect regardless of declines in physical and mental capacity. Good-quality long-term care is essential to provide older persons with the care and support to maintain their functional ability consistent with their basic rights, fundamental freedom, and human dignity. (WHO, Data Platform, Ageing-Long-term Care for Older People. https://platform.who.int/data/maternal-newborn-child-adolescent-ageing/ageing-data/ageing---long-term-care-for-older-people)

Despite the ageing of the population, the working-age population is decreasing relatively and even absolutely in many Asian countries. With industrialisation and urbanisation, the working-age population would be employed as industrial workers, and older persons might no longer be dependent on traditional family care and community care. In that case, it would be necessary to 'de-family' and socialise long-term care. This would be where it becomes necessary to socially develop institutional care for the elderly. Originally, public institutional care has been provided only for the elderly who are unable to work, who are poor, and who are without relatives. This is still the same situation in many countries. However, as the population ages, older persons will seek long-term care services that anyone can use, even if they are wealthy or have a family, if their daily living ability declines. This is the reason why we focus on institutional care for the elderly.

The institutional care for the elderly in need of long-term care (LTC) is supported by trained and professional staff and equipped with housing facilities. Public institutional care, which only accepts the poor, people with no relatives and are unable to work, is provided by civil servants, employed workers, and volunteers. Furthermore, in places like Japan where a long-term care insurance system has been established, services are provided by a variety of employed workers, mainly long-term care professionals with national qualifications.

The institutional care for the elderly may be efficient, but it carries the risk of massive damage when faced with disasters and pandemics. Indeed, the novel coronavirus disease (COVID-19) has posed that challenge. In the early phase of COVID-19, clusters and deaths occurred in nursing homes in Italy and the United States. Compared to Europe and the United States, Japan that has developed institutional care to a certain extent has been able to contain the outbreak of infection clusters and the increase in mortality in long-term care facilities to at least the extent of the Omicron variant epidemic. However, compared to Asian countries, it is not always safe for the elderly in Japan.

What challenges has the long-term care for the elderly been posed by COVID-19, what vulnerabilities have it exposed, and what kind of resilience has born? We organised a research team to address and conduct research on this issue. Although our research was extremely difficult due to the pandemic, the research team conducted a multifaceted survey using each research method.

In Chapter 1, Takeo Ogawa provides an overview of the framework of this research study. Overviewing long-term care for the elderly in Asia, many countries rely on the care by family members and by residents. Few countries like Japan have shifted from a family care system to an institutional and community care system. Therefore, the resilience and vulnerability of LTC needs to be looked at from both institutional and community care perspectives. The resilience is defined as the ability to recover again after something difficult or bad has happened. For enhancing resilience of LTC, it is needed to clarify the conceptual diagram of resilience, he said.

In Chapter 2, Reiko Hayashi made an international comparison of the demographic impact of COVID-19 based on demographics. Whilst the infected cases of COVID-19 in older persons is not a particularly large number, it has shown that the mortality rate amongst the elderly is high. It also showed that the rate of COVID-19 deaths in Japanese facilities was extremely low. For understanding such facts, there needs to be and understanding of the death registration system. Hayashi emphasises such vital statistics as more reliable dataset should be disseminated in ASEAN countries.

In Chapter 3, Katsuhiko Kikuchi conducted interviews with managers of LTC facilities on business continuity planning (BCP) and business continuity management (BCM) in Japan. BCPs set out the resilience to ensure that critical businesses are not interrupted and restored in the short term in the event of a crisis such as COVID-19. BCM is to ensure the requirements for it. Through interviews with managers, it was confirmed that day-to-day management skills are necessary to achieve these issues. Furthermore, it will be needed to provide agile leadership in the initial response system and the multitasking of LTC jobs and smart care applying information and communication technology, etc. for resilience.

In Chapter 4, Reiko Hayashi's group conducted a survey in Japan and Indonesia to determine the ventilation state in a real room by measuring the concentration of carbon dioxide gas from the viewpoint of environmental health. Although telemetry is possible with a simple terminal and communication application, it was found that there are problems such as the lack of a Wi-Fi environment in which it can operate effectively.

In Chapter 5, Shun Ohno and his group conducted interviews with foreign care workers and students being training as certified care workers residing in Japan, group discussions, and the sense of coherence (SOC) survey as an indicator of resilience. In Japan, there are foreigners engaged in long-term care work with various residency status. They are conceptualised as migrant care workers (MCW) together. The author poses the questions: What kind of status of residence is advantageous for MCWs to engage in LTC jobs? What are the disadvantages? What was the impact of COVID-19? Was there social support? The chapter examines various aspects of the global market of MCWs.

In Chapter 6, Kaysorn Sumpowthong's group from Thailand conducted a knowledge, attitudes, and practices (KAP) survey and interviews with community volunteers and staff of long-term care facilities. The KAP survey is an integrated platform for users to collect, manage, and analyse data. KAP surveys originated in the 1950s in the fields of family planning and population research. Also known as knowledge, attitude, behaviour, and practice surveys, these are now widely accepted for the investigation of health-related behaviours and health-seeking practices. In Thailand, village health volunteers (VHVs) have been cited as key persons in providing proactive support and have successfully managed COVID-19 outbreak control. Bangkok and Patum-Tani Province were selected as field survey settings. VHVs had little knowledge of aerosol infections and did not wear masks at home, but they were highly resilient. Strengthened and upgraded VHVs became more involved in the area of community-based long-term care. Also, the Ministry of Public Health in Thailand launched new regulations in 2021 for private LTC facilities to monitor and supervise the services. Private facilities for the elderly have formed a federation to share information with each other. The Health and Elderly Establishment Confederation provides a variety of support and activities for LTC and works as a bridge to connect to government sectors. Then, a model for COVID-19 prevention and resilience for LTC was proposed.

In Chapter 7, Susiana Nugraha and Indonesian colleagues conducted a KAP survey of caregivers in facilities and in the community. Although caregivers in communities and care workers in facilities do not have rich literacy for infection prevention and control, they had made efforts for older persons to perform exercise and sunbathing in order to maintain their healthy life. The author recommends that policymakers establish a community based integrated care system, and for researchers to construct a training module for the infection prevention and control.

In Chapter 8, Takeo Ogawa summarises the findings revealed by these research studies, and based on the lessons learned, provides recommendations for building resilient care in response to infection crises. In the short term, policymakers and care professionals need to disseminate existing guidelines of infectious disease control, to support designing business continuity plans for public and/or private LTC service providers, and to engage in online training programmes aimed at improving the competencies of long-term care workers. In the medium term, policymakers and care professionals will need to address the challenges that long-term care administration has been unable to respond flexibly to COVID-19. After sorting out issues related to the existing division of labour, the standard of referrals, and monopolies of professional services, long-term care facilities and long-term care workers should be able to respond flexibly and promptly to changes. In the long term, the prolonged COVID-19 pandemic has highlighted structural weaknesses in existing aged care, including the ambiguous positioning of long-term care facilities within the community comprehensive care system, the unclear job description of care work, complex professional collaboration, the division of the infectious disease task force over each facility, the qualification framework of migrant care workers and in career development, deskilling risks, etc. To overcome these vulnerabilities and establish resilient long-term care, policymakers and care professionals should develop creative and alternative long-term care solutions.

Chapter 1

Introduction

1. Background and Objectives of the Project

1.1. Daily New Confirmed Covid-19 Cases per Million People

The novel coronavirus disease (COVID-19) caused a pandemic in the world and had a huge impact on the economy and society as a whole. It has repeated a long-term wavy epidemic since 2020 (Figure 1.1). Each country has dealt with policy execution, corporate efforts, and civic behavioural changes according to each situation.

COVID-19 has seen several waves of outbreaks. Our research covers the first wave up to the fifth wave of β mutants in Japan. It is not subject to research after the spread of the Omicron mutant strain from January 2022.

Figure 1.1. Transmission of COVID-19 Infection in Indonesia, Japan, and Thailand
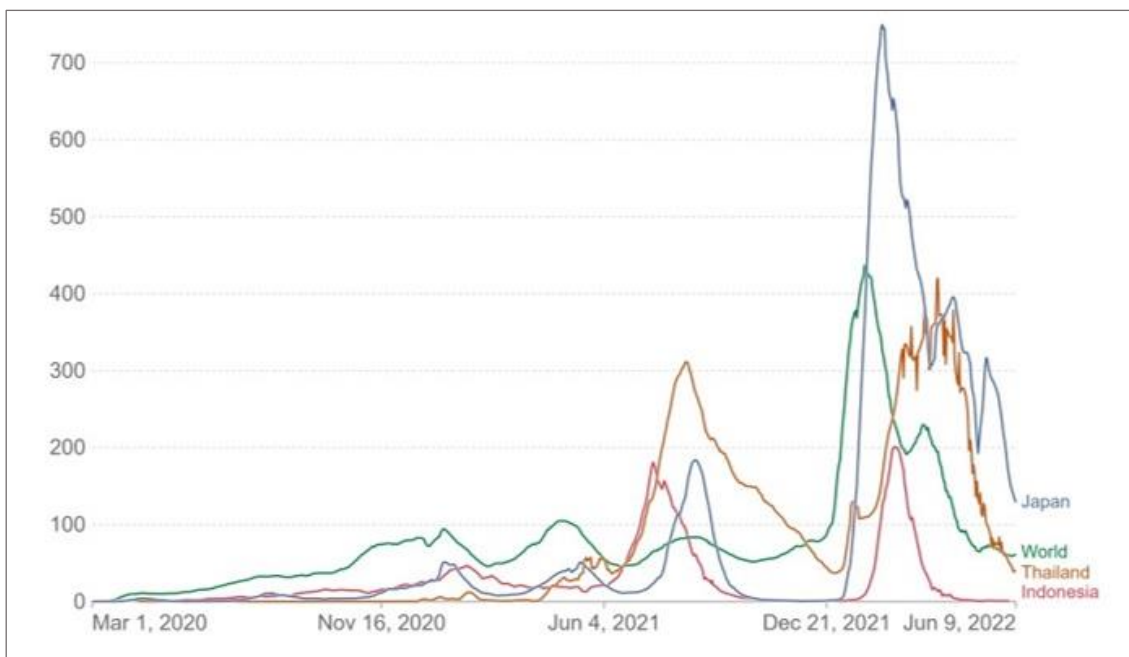
Note: Daily new confirmed COVID-19 cases per million people, 7-day rolling average. Due to limited testing, the number of confirmed cases is lower than the true number of infections.
Source: John Hopkins University Center for Systems Science and Engineering COVID-19 Data. https://ourworldindata.org/coronavirus (accessed 31 July 2022).

1.2. The Vulnerability of Older Persons to COVID-19

COVID-19 is causing enormous damage to vulnerable people. The actual situation is different from country to country. In addition, the damage situation according to gender and age is different in each country. According to the United Nations Children's Fund (UNICEF, 2022), Japan released statistics by gender and age of cases and deaths, Thailand released age-specific and gender statistics only for cases, and Indonesia has not released any of them.

In Japan, if persons infected with COVID-19 died in the pandemic, the prefecture reported it statistically as a 'COVID-19 death,' whether it was a direct or indirect cause of death in accordance with the public health law. Therefore, the figure is different from official vital statistics based on the doctor's death certificate under the Demographic Survey Order. Based on Japanese statistics, which are reported by prefectures, the age-based composition of COVID-19 deaths shows that more than 80% of the age groups were in their 70s and older, and the elderly were the most vulnerable (Figure 1.2).

Figure 1.2. Cumulative Deaths: Distribution by Age in Japan
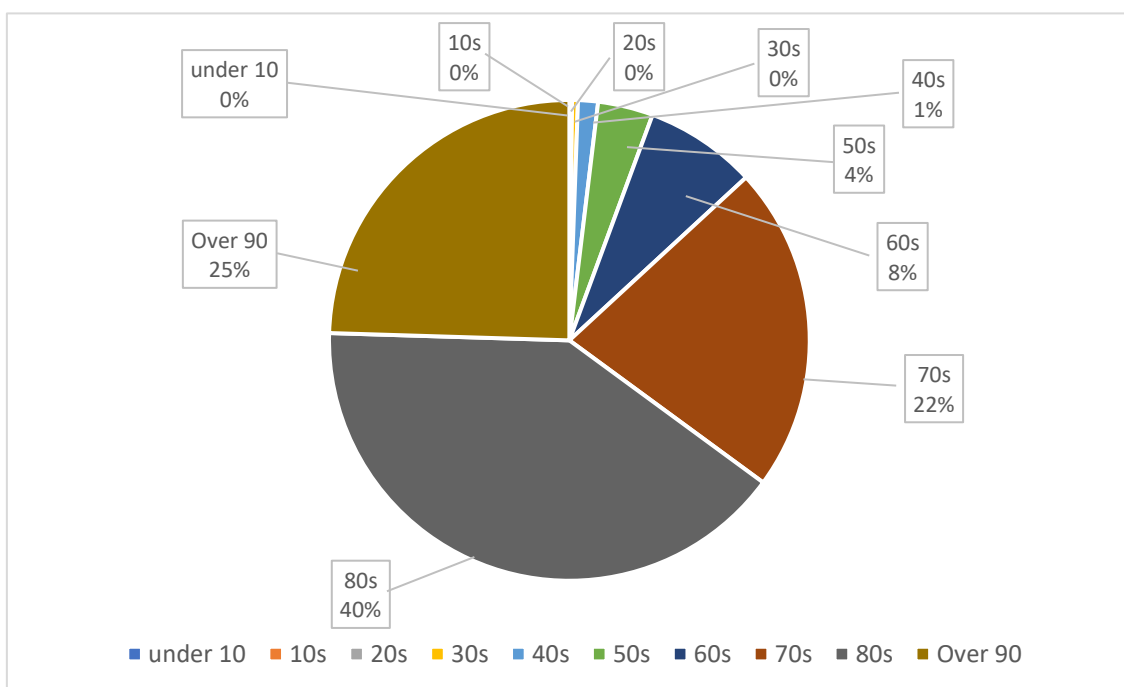
Source: Ministry of Health, Labour and Welfare (MHLW) Japan (2022). https:covid-19.mhlw.go.jp   (accessed 31 July 2022).

In the facilities where older patients were hospitalised, provided with day care, or institutionalised, mass infections of the elderly were likely to occur, and the fatality rate was also high. According to Japan's 2020 census, 6.3% of the population aged 65 and over lived in facilities.

In welfare facilities for the elderly, infectious diseases are prone to become epidemics because vulnerable elderly people live in groups. When COVID-19 spread in Europe and the United States, many elderly people in facilities died, which had a great impact on citizens. In Japan, mass infections of COVID-19 occurred in long-term care facilities (LTCF), but the number of deaths were not as high as in Europe and the United States (OECD, 2021).

In addition, the outbreak of such an infectious disease in the ageing population not only caused excess deaths, but the prevention of infection also hindered existing economic and social activities (Sanchez, 2021).

However, Japan was able to suppress infectious outbreaks amongst the elderly and to keep the mortality rate low compared to European and North American countries, even though Japan's population is ageing and there are many LTCFs for the elderly.

Figure 1.3. Global Comparison of COVID-19 Deaths
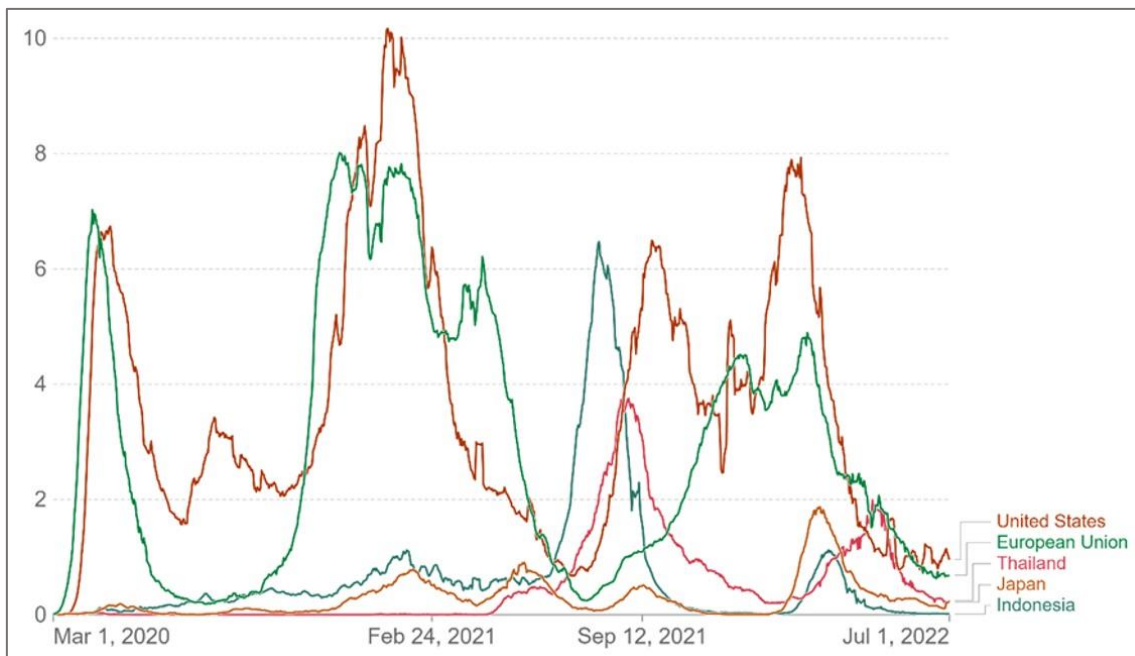
Note: Daily new confirmed COVID-19 deaths per million people, 7-day rolling average. Due to varying protocols and challenges in the attribution of the cause of death, the number of confirmed deaths may not accurately represent the true number of deaths caused by COVID-19.
Source: John Hopkins University Center for Systems Science and Engineering COVID-19 Data. https://ourworldindata.org/coronavirus (accessed 31 July 2022).

On the other hand, compared to countries in East Asia and the Association of Southeast Asian Nations (ASEAN), in Japan infection suppression of COVID-19 has not always been successful. The difference between East Asia and Japan may be related to the acceptance of lockdown measures in the initial response to infection, the presence or absence of live-in care staff, and the presence or absence of stationed doctors and nurses.

In ASEAN countries, care for the elderly is often entrusted to families and communities, so mass

infections in LTCFs may not be visible as a problem. However, with the ageing of the population, it will be necessary to develop resilience to prepare for infectious disease risks in the future when LTCFs will be established in ASEAN countries.

Japanese long-term care providers developed resilience experiences during COVID-19 as business continuity plans (BCP). There are three major management components of long-term care (LTC) in BCPs. One element is the management and operation of physical infrastructure such as facilities and equipment. The second element is the management and operation of human relations such as residents, working people, and visitors. The third factor is the management and operation of money. In this study, the management of the physical infrastructure and human relations are elements of a BCP in accordance with international standards. Therefore, this study will focus mainly on these two aspects.

The Japanese government recommends that BCPs in the situation of COVID-19 infection at the long-term care service providers be prepared with the following components: members of the BCP promotion task force; contact directory outside facilities and offices; body temperature and physical condition checklist of staff, residents and clients; infectious and high-risk contact persons (including suspected persons) management list; emergency contact network by staff of specified department; stockpiling list (personal protective equipment etc.); job classification for selecting priority work; and body temperature checklist at the time of visitor entry (MHLW, 2020).

Figure 1.4. Focusing Paradigm of Long-term Care Regime
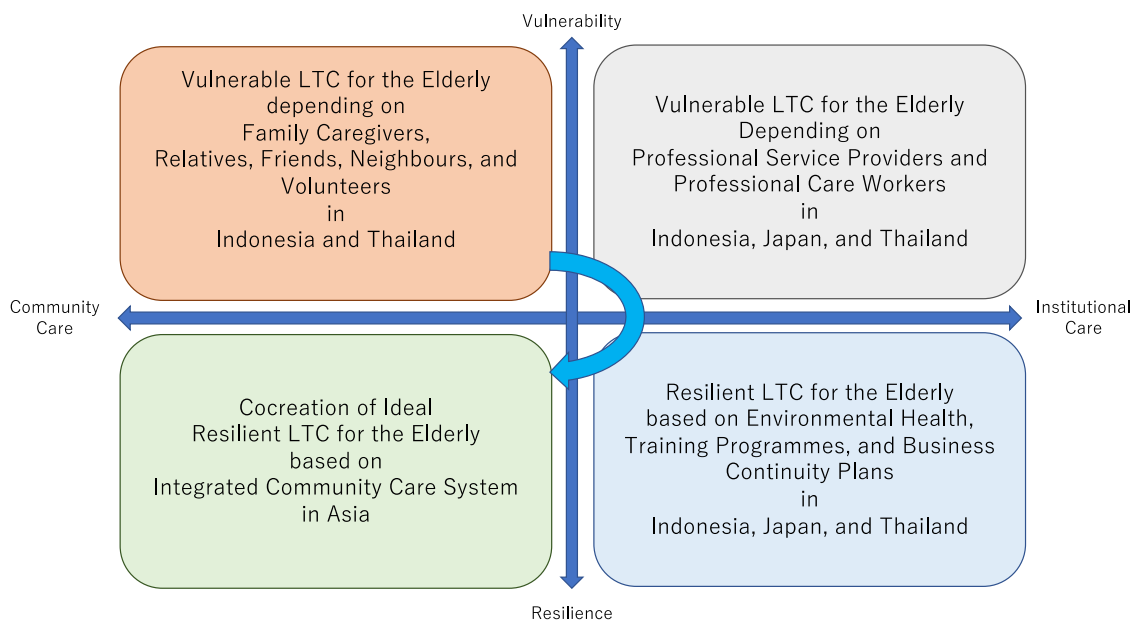
LTC = long-term care.
Source: Compiled by authors.

No matter how much we tried, the risk of mass infection (infection clusters) in elderly facilities was high. In Japan, some infection cluster occurred in the first wave. However, from the second wave to the fifth wave, infection cluster in LTCFs was controlled well. Since COVID-19 is a human-based infection, training is needed to cut off the infection path from the facility staff. Staff members are required to have knowledge, skills, and attitudes as the basic competency. Also, the maintenance of LTCFs on the environmental health approach is required much more than community-based care. Then, LTC service providers should make efforts to design a business continuity plan and management. It includes the need to not only to manage economic capital but also to manage human, social, and environmental capital. Long-term care workers (LTCW) must learn the knowledge, attitudes, and practical skills for infection prevention and control. Although Japanese certified care workers are trained as professionals, they were confused about the unknown causes of COVID-19 infection. They needed to renew their knowledge, attitudes, and practical skills for adapting new normal LTC for the elderly in their workplace, in crowds, and at home. They must prevent not only to be infected but also not to infect others. Long-term care workers in LTCFs are not nurses. However, they sometimes work as hospital nurses. They are regarded as essential workers. However, this recognition was delayed in COVID-19 infection.

Figure 1.5. COVID-19 Cluster Events by Week in Japan
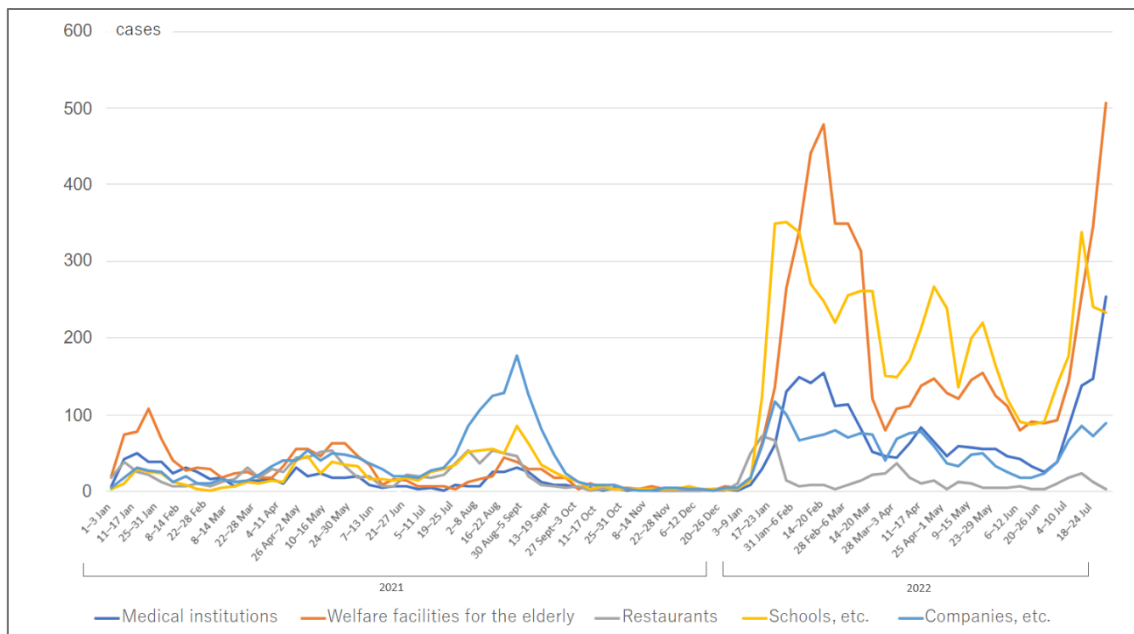
Source: Ministry of Health, Labour and Welfare (MHLW) Japan (2022). Visualising the Data: Information on Covid-19. https:covid-19.mhlw.go.jp (accessed 31 July 2022).

In addition, there was a problem in the training and use of foreign long-term care workers. In Japan, many foreign workers for the elderly are already working and learning. Through their eyes, it is necessary to evaluate how the resilience of long-term care for the elderly towards infectious diseases was realised in Japan, and to design and to shift it as a training module that can be widely used by

sending countries. International migrant care workers (MCW) are categorised in the status of residence of foreign care workers in Japan (Table 1.1.)

Table 1.1. Status of Residence of Foreign Care Workers in Japan

Status of Residence	Examples	Period of Stay
Medical Services	Physician, dentist, or registered nurse	5 years, 3 years, 1 year, or 3 months
Nursing Care	Certified care worker	5 years, 3 years, 1 year, or 3 months
Specified Skilled Worker	Foreign nationals engaging in work requiring skills which need considerable knowledge or experience belonging to specified industrial fields (LTC)	1 year, 6 months, or 4 months
Technical Intern Training	Technical intern trainees (LTC)	Period designated individually by the Minister of Justice (2 years or less)
Student	Student	Period designated individually by the Minister of Justice (4 years, 3 months, or less)
Designated Activities	Nurse and certified caretaker candidates under the Economic Partnership Agreement	3 years
Permanent Resident	Korean, Japanese, etc.	Unlimited
Spouse or Child of Japanese National	Article 817-2 of the Civil Code	5 years, 3 years, 1 years, or 6 months
Spouse or Child of Permanent Resident		5 years, 3 years, 1 year, or 6 months
Long-term Resident	Japanese, Brazilian etc.	5 years, 3 years, 1 year, 6 months, or a term designated by the Minister of Justice (5 years or less)

LTC = long-term care.
Source: Immigration Services Agency of Japan (2021).

2.   Methodologies of the Project: Frame of Reference

This research project is a study using a psychosocial approach on the initiatives for COVID-19. Biomedical approaches on COVID-19 are interested in high-risk targets that lead to individual deaths, such as the causes of infection, infection processes, prevention, isolation, and medical treatments (Zamora-Ledezma, et al., 2020).

In contrast, the psychosocial approach is interested in the spread of infections by a wide range of populations, including infected people, and also families who care for the infected, essential workers, nearby residents, colleagues, the public, and corporate citizens to prevent infection (Dubey, et al., 2020).

When considering Japan's efforts towards COVID-19 using the psychosocial approach, it is necessary to differentiate the macro-level, mezzo-level, and micro-level factors. The macro-level analysis was carried out by collecting data from national and international statistics and conducting online interviews (Wang, 2021).

The mezzo-level action entities are local governments, individual corporate organisations, and voluntary organisations. In the event of a natural disaster or pandemic, corporations, medical corporations, welfare corporations, and non-profit organisations, etc. which implement social and economic activities, will be forced to suspend their daily activities. It will cause great economic damage. At the same time, if the period of emergency evacuation is prolonged during a disaster or from the time of infection, recovery and reconstruction will be difficult. After such an emergency occurs, the possibility of business continuity will be questioned. Therefore, it is necessary for business establishments to have BCPs prepared in advance (Japan Federation of Kaio Business Providers, 2020; ILO, 2020; South Australian Government, Office for Ageing Well. 2021; Comas-Herrera, Ashcroft, and Lorenz-Dant, 2020; Giri, Chenn, and Romero-Ortuno, 2021.) A BCP will allow critically important business or work to continue even in the event of unforeseen circumstances.

In a BCP, it is necessary to increase resilience in two main aspects. One aspect is hygiene management related to the facility environment (improvement of the environment, cleaning of the facility, treatment of vomit, treatment of blood, and body fluids, amongst others). In the COVID-19 pandemic, problems such as ventilation, procurement of masks, gowns, and disinfectants, waste disposal, etc. emerged (UN HABITAT, 2021, WHO, 2017). The second aspect is human-related management such as staff, the elderly, and their families. With regards to staff management, the COVID-19 pandemic has been recognised as requiring tougher training and practice than ever before. The staff management of MCW is also an important issue (ILO, 2020; Periyasamy, 2021; WHO, 2020b; Comas-Herrera, Ashcroft, and Lorenz-Dant, 2020; Kiyota, 2021).

Figure 1.6. Our Research on Paradigm of Long-term Care Regime
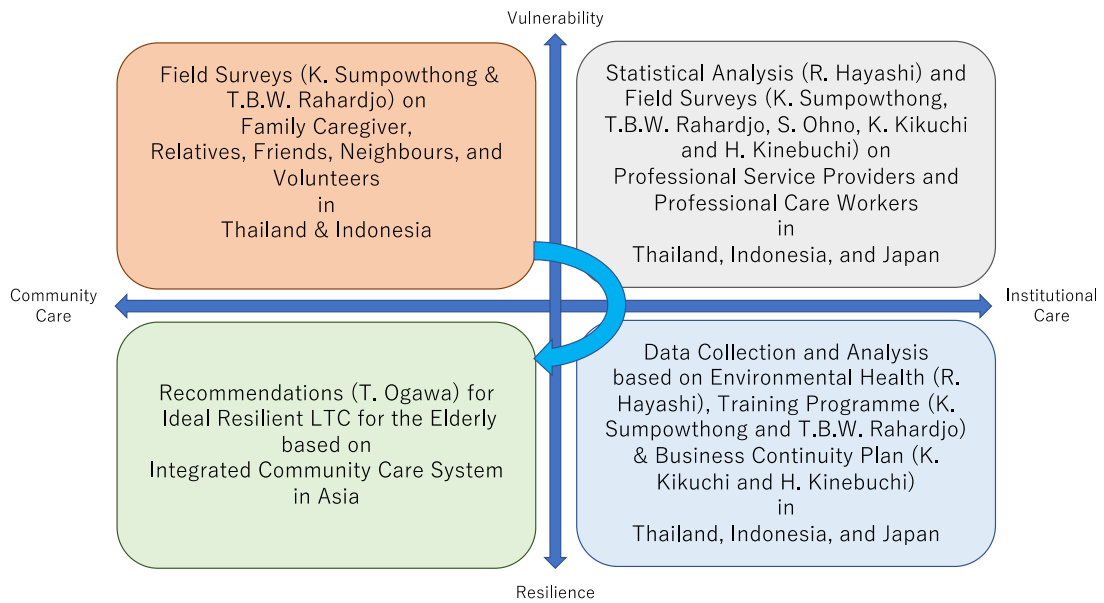
LTC = long-term care.
Source: Compiled by authors.

In ASEAN countries, care of the elderly is often handled by the informal sector. Therefore, improving resilience to pandemic clusters in long-term care facilities for the elderly, as in Japan, is not yet treated as a problem. However, it is important to share the knowledge of Japanese service providers about BCPs, as it is expected that the development of LTCFs in ASEAN countries will proceed in the future.

Figure 1.7. Research Approaches and Methods
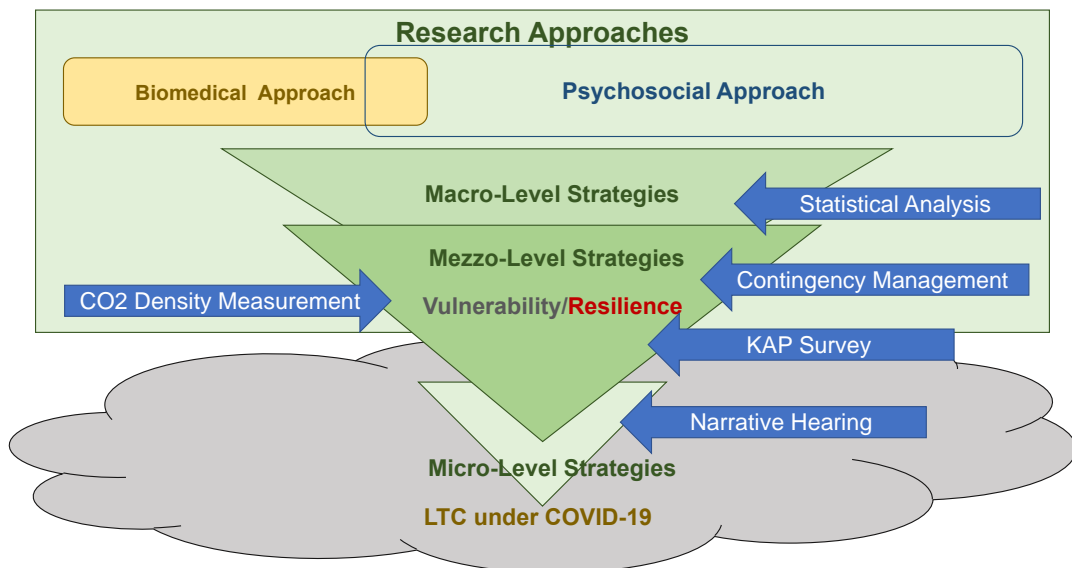
KAP = knowledge, attitudes, and practices, LTC = long-term care.
Source: Compiled by authors.

At the micro level, each individual is the subject of action. In Japan, the core human resources that support the problem-handling of long-term care are professionals. The professions that have attracted attention since the outbreak of COVID-19 began are those who are directly engaged in care work in addition to doctors, nurses, and co-medical workers. They are people who cannot avoid physical contact in the course of their duties even if they know that the risk of infection is high and have to go out to a client's place even if they are asked to stay home. Japanese care workers have been trained to deal with infectious diseases such as food poisoning and influenza every year, so they have been able to take some action. However, there were cases where it was not possible to cope with the new COVID-19 pandemic (OECD, 2020; Ide, 2020; Estevez-Abe and Ide 2021a, 2021b; Abe and Kawachi, 2021; Suzuki, Morikawa, and Wakabayashi, 2021).

People's ability to solve the challenges they face is measured by their knowledge, attitudes, and practices. A knowledge, attitudes, and practices (KAP) survey is a method (predefined questions formatted in standardised questionnaires) that provides access to quantitative and qualitative information. KAP surveys are often used in health surveys. They provide a baseline for family caregivers, volunteers, and care workers to discover, educate, enlighten, and train what they cannot do in reality. For enhancing the resilience of caregivers and care workers, we should understand their knowledge, attitudes, and practices in the current situation. This research aimed to investigate KAP amongst people involved in the care of the elderly in each country and contribute to the creation of training programmes for them.

Several efforts have been made to demonstrate the resilience to infectious disease in various sectors in each country against the current vulnerable state of long-term care. However, for realising the ideal 'ageing in place' for older persons, it will be necessary to gather the best practices and to design strategies and tactics for more effective prevention of infectious diseases (Tsuji, 2021; WHO, 2020d; Gleckman, 2020).

The COVID-19 pandemic, which has been spreading around the world since 2020, has disrupted people's daily and normal lives. In the face of this crisis, the vulnerability of people's daily lives and also the activities of various business establishments were highlighted. Nonetheless, there have been efforts by individuals and business establishments to overcome this vulnerability and demonstrate their resilience. Rather, it can be said that such resilience is the first step in building the new normal standard for the next era.

Figure 1.8. Conceptual Diagram of Resilience
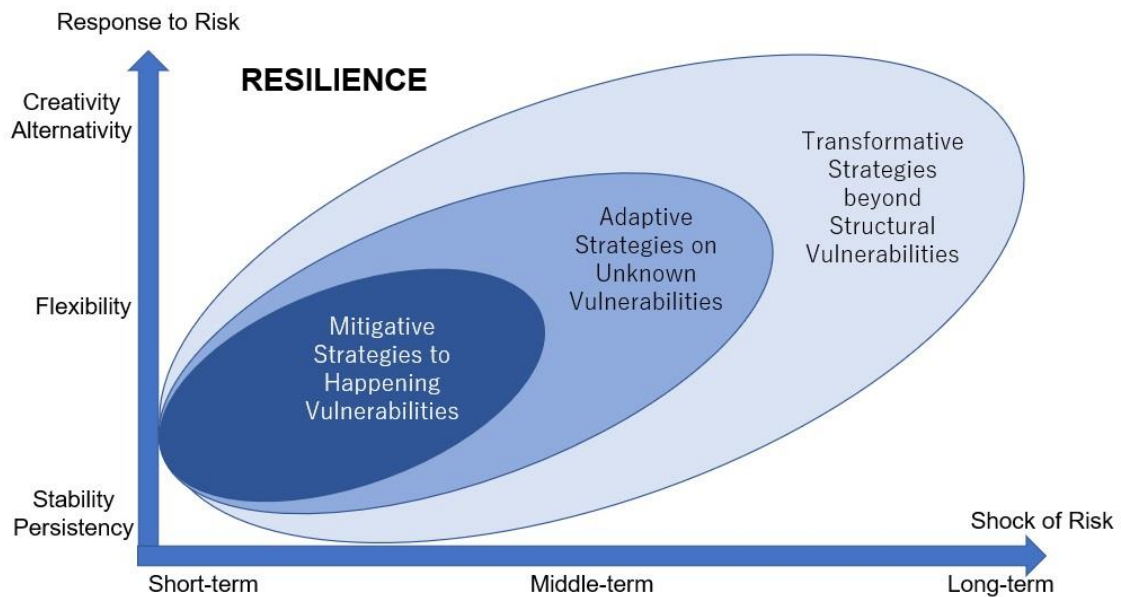
Source: Compiled by authors.

Therefore, we tried to focus on the world of LTC for the elderly, a common issue in ageing Asia, to uncover the vulnerabilities exposed by COVID-19 and the resilience explored from that. Let us define resilience here as the ability to recover again after something difficult or bad has happened.

In considering resilience, as shown in Figure 1.8., depending on whether the risk shock is short-term or long-term, resilient responses to risk can take on various aspects from maintaining stability, flexible adaptation, to alternative creative innovation. The resilience to maintain stability against short-term risks will be an effort to mitigate as much as possible the vulnerabilities that arise. The resilience to sustain middle-term risks will be a flexible approach to adapting to unexpected vulnerabilities. The resilience will be an alternative and transformative approach, which is different from existing responses, to emerging structural vulnerabilities exerted if risks persist for a long-term.

We researched LTCFs and community-based LTC in Japan, Thailand, and Indonesia. We found vulnerability and resilience of long-term care for the elderly during COVID-19. From the lessons learnt based on findings, we summarised the supportive policy for enhancing resilient LTC for the elderly. It is not only a focus on institutional care but also integrated community-based care. 'Ageing in Place' is common sense for realising the wellbeing of all citizens. Older people, their families, community volunteers, and professionals like LTCWs will have to be co-creators of an integrated community-based care system in ageing Asia.

3.   Implementation of our Project

This study was conducted in the midst of the prevalence of COVID-19 all over the world. For that reason, it was not possible to meet with the planned survey subjects, and it was hard to obtain cooperation at facilities that were busy with responses. Professor Tri Budi Rahardjo, who oversaw the Indonesian research team, suffered the misfortune that her husband, eldest son, and granddaughter died of COVID-19. In Japan, a mass infection occurred at the university where the research members belonged, and the research activities themselves were restricted. Due to such circumstances, the investigation schedule was extended. In addition, when going to an interview, we had to make an unexpected expense such as performing a polymerase chain reaction (PCR) test. In spite of these difficulties, each research team implemented the research by repeating the ingenuity as much as possible. Research studies conducted by each research team will be reported in detail in later chapters.

Although it was difficult to conduct research, unexpected changes occurred in the world of information transmission and sharing. With the spread of internet use, even if physical meetings were not possible, meetings and interviews were able to be conducted online. Therefore, for supervising the whole team, webinars were held every month with the aim of mutually learning and understanding the goals, research methods, and progress of each research. The materials are summarised as appendices at the end of this report.

4.   Review of Literature

4.1.   Preventing and Managing COVID-19 across Long-term Care Services

The World Health Organization (WHO) published 'Preventing and Managing COVID-19 across Long-term Care Services' as a policy brief in 2020. The brief provides 11 policy objectives and key action points to prevent and manage COVID-19 across long-term care. The 11 policy objectives are:

- Include LTC in all phases of the national response to the COVID-19 pandemic.

- Mobilise adequate funding for long-term care to respond to and recover from the COVID-19 pandemic.

- Ensure effective monitoring and evaluation of the impact of COVID-19 on LTC and ensure efficient information channelling between health and LTC systems to optimise responses.

- Secure staff and resources, including adequate health workforce and health products, to respond to the COVID-19 pandemic and deliver quality LTC services.

- Ensure the continuum and continuity of essential services for people receiving LTC, including promotion, prevention, treatment, rehabilitation, and palliation.

- Ensure that infection prevention and control standards are implemented and adhered to in all LTC settings to prevent and safely manage COVID-19 cases.

- Prioritise testing, contact tracing, and monitoring of the spread of COVID-19 amongst people

receiving and providing LTC services.

- Provide support for family and voluntary caregivers.

- Prioritise the psychosocial well-being of people receiving and providing LTC services.

- Ensure a smooth transition to the recovery phase.

- Initiate steps for transformation of health and LTC systems to appropriately integrate and ensure continuous, effective governance of long-term care services.

The WHO report 'Health Workforce Policy and Management in the Context of the COVID-19 Pandemic Response' was published in 2020. This guide consolidates COVID-19 guidance for human resources for health managers and policymakers at national, subnational, and facility levels to design, manage, and preserve the workforce necessary to manage the COVID-19 pandemic and maintain essential health services. The guide covers the following areas (WHO, 2020b, p. 3):

Supporting and protecting health workers:

Infection prevention and control, including use of and access to personal protective equipment.

Decent working conditions, including occupational health and safety.

Mental health and psychosocial support.

Remuneration and incentives.

Strengthening and optimising health workforce teams:

Building competencies through education and training.

Optimising roles.

Leveraging community-based health workers.

Increasing capacity and strategic health worker deployment:

Improving health worker availability through hiring and redeployment.

Activating partner networks.

Rationalising the health workforce distribution.

Ensuring a supportive work environment, including a manageable workload.

Health system human resources strengthening:

Improving health workforce information systems, including to track health worker infections.

Assessment and planning of health workforce needs.

Licensing and regulation reforms.

Strengthening governance and intersectoral collaboration mechanisms.

The WHO Western Pacific Region published 'Preparedness Checklist for Long-Term Care Facilities: COVID-19 Infection Prevention and Control' in 2020. This checklist can be used by facility

administrators, infection prevention and control focal points or staff, internal or external professionals. The seven elements of the checklist are (WHO Western Pacific Region, 2020a):

- Facility information
- Organisation and planning
- Safe and healthy work environment
- Equipment and supplies
- Cleaning, disinfection, and waste disposal
- Education and training (for staff, residents, and visitors)
- Communication

The WHO Western Pacific Region also published 'Communication Toolkit for Long-Term Care Facilities' in 2020. (WHO Western Pacific Region, 2020b).

The European Centre for Disease Prevention and Control did a surveillance of COVID-19 in LTCFs in the European Union/European Economic Area in 2021. It discussed limitations include difficulties in pooling or comparing national data due to differences in the national surveillance systems such as the participating types of LTCFs, testing policy, and surveillance definitions, among other caveats (ECDC, 2021).

4.2.   Review Articles of LTCFs and KAP Survey during COVID-19

The Health and Welfare Bureau for the Elderly, Japan Ministry of Health, Labour and Welfare, published 'Guidelines for Business Continuity at Care Facilities in the Event of COVID-19' in 2020 (MHLW, 2020). Achieving resilience for LTCFs during the COVID-19 pandemic is nothing less than ensuring business continuity. Characteristics of COVID-19 measures and the main points for business continuity are:

- Accurate information collection and quick and accurate decision making
- The key to business continuity is mainly adjustments in manning
- Prevention of staff infection in order to secure manpower

Therefore, LTCFs need to develop BCPs for infectious diseases. Points for preparing a BCP are described in the following items:

- Information sharing and division of roles with stakeholders, building a decision-making system
- Formulation of a response flow in the event of (suspected) infections
- Securing support personnel in anticipation of staff shortages
- Determining work priorities
- Making sure staff are informed and trained on the BCP during normal times so that it can be implemented when needed (MHLW, 2020).

Dykgraaf et al. published a review article titled 'Protecting Nursing Homes and Long-term Care Facilities from COVID-19: A Rapid Review of International Evidence' in 2021. The report pointed out that attention to ventilation and environmental management, digital health applications, and acute

sector support were also considered beneficial, although evidence for effectiveness was lacking. It also introduced the fact that staff represented substantial transmission risk and workforce management strategies were important components of pandemic response. Higher-performing facilities with less crowding and higher nurse staffing ratios had reduced transmission rates. It concluded that facility-level leadership, intersectoral collaboration, and policies that facilitated access to critical resources were all significant enablers of success (Dykgraarf, et. al., 2021).

Masoud et al. published 'KAP-COVID GLOBAL: A Multinational Survey of the Levels and Determinants of Public Knowledge, Attitudes and Practices towards COVID-19' in 2021. They concluded the following based on a cross-sectional study that assessed the levels and determinants of KAP towards COVID-19 in 22 countries (Masoud, et.al., 2021):

> The public in those countries had fair knowledge and good attitudes towards COVID-19, but one-third of our participants did not know that infected individuals can be asymptomatic, which increases their risk of exposure to the disease.

> Almost half of our participants held negative or uncertain attitudes about contacting Chinese people and more than one-third had similar attitudes towards doctors.

> 82% of respondents usually wear face masks in crowded places, but only 52% wear masks outdoors in general.

4.3. Findings and Lessons Learnt from Research on Long-term Care during COVID-19
Lessons Learnt Internationally

Global Union (UNI) published 'Most Dangerous Job: The Impact of COVID-19 on Long-Term, Care Workers in the US, UK, Canada, Ireland, and Australia' in 2021 and recommended the following:

- The working conditions and pay of LTCWs should be improved in all nations with the goal of improving employee retention and maintaining institutional knowledge. Reliance on temporary workers and workers that move amongst multiple care facilities should be minimised as much as possible by giving people full-time jobs with decent pay.

- Staff-to-resident ratios should be increased to safeguard the health of both.

- COVID-19 should be considered an occupational disease for all LTCWs.

- Investment in the LTC sector should be increased and tied to both worker and resident outcomes, providing incentives for investors, employers, and governments to follow the strictest safety protocols and best practices.

- Robust tracking systems should be developed and implemented to track coronavirus infections, hospitalisations, and deaths amongst workers on a national level. Ideally, these data should be broadly comparable internationally.

- Infectious disease training should be provided to all LTCWs on an annual basis.

- Health and safety structures, including worker or joint committees, should be used to address COVID-19 risks and to impose stronger measures that include infectious disease protocols,

access to personal protective equipment (PPE) and vaccines, among others. If they do not currently exist at a worksite, they should be created.

- Most importantly, workers must have a voice in decision-making in the workplace through unions and collective bargaining. And as part of the move towards empowering workers, each nursing home needs a worker health and safety committee and democratically elected worker safety representatives.

Kiyota published 'Elder Care Providers and COVID-19: Cross-Cultural Perspectives' in 2021. It reported lessons learnt based on interviews. The vulnerability of elder care settings during COVID-19 has highlighted systemic challenges that this sector faces. Lessons learnt include:

- Fostering Equity

  Eliminate global inequity such as tests, PPE, and technology.
  Share procedures and educational materials through global network.

- Learning from Experience

  Study experiences and share lessons globally.

- Protecting Human Rights

  Create balance between social interaction and infection control by developing a creative system.

- Supporting the Workforce

  Develop training and education
  Develop systems for awarding formal recognition

- Adapting the Physical Environment

  Design buildings for infection control: small-scale household units, private ensuite rooms, safe outdoor spaces, wide corridors, and enhanced ventilation.
  Minimise cross-contamination within buildings

- Developing Effective Policies and Guidelines

  Ensure that policies are relevant to elder care settings by including elder care providers in the development of those policies.

- Advocating for Elders and Caregivers

  Develop local support networks of elder care providers

Estévez-Abe et al published 'COVID-19 and the Long-Term Care system in Japan' in 2021 for International Long-term Care Policy Network. They found some traits of Japan's response towards COVID-19 (Estévez-Abe, et al., 2021b).

- Despite being the most aged society in the world and having a high population density, Japan maintained low rates of deaths from COVID-19.

- Japan locked down LTCFs during the first months of the pandemic, several weeks earlier than in

Europe and the United States. This helped protect the most vulnerable elderly population from infection risks.

- The well-established protocols of prevention and control of communicable diseases such as influenza and tuberculosis. In LTCFs proved to be effective in containing transmission of SARS-COV-2. The rate of compliance with the protocols has been high.

- The Japanese government's response to the pandemic has been primarily a routine bureaucratic response. The presence of public authorities exclusively devoted to the oversight of LTCFs contributed to swift institutional responses.

- The presence of effective channels of communication between the public authorities and LTCFs contributed to the swift implementation of government guidelines.

- The national government's unwillingness to make PCR tests widely available to LTCFs and the population at large has been a major obstacle in ensuring safety of residents in LTCFs and users of other LTC services. Japan has almost solely relied on lengthy lockdowns of LTCFs. This is not an ideal solution to a prolonged pandemic.

- The government campaign offer subsidies for domestic tourism (GoToTravel campaign) and eating out in restaurants (GoToEat campaign) led to the worst spikes in viral transmission during the final quarter of 2020.

- The pandemic has revealed the most vulnerable aspects of the Japanese LTC system. Particularly, two characteristics of the Japanese LTC system have proved to be highly vulnerable to transmission of SARS-COV-2: Japan's reliance on day care and homecare services and the large number of LTC facilities that provide both residential and non-residential care services.

The WHO published 'COVID-19 and the Decade of Healthy Ageing' in 2020 (WHO, 2020d). It focused on four action areas:

- Changing how we think, feel and act towards age and ageing.
- Developing communities in ways that foster the abilities of older people.
- Delivering person-centred, integrated care and primary health services responsive to older people.
- Providing older people who need it with access to LTC.

Sato and Dempster (2022) following recommended the following points:

Support migrants and their families during crisis:
- Ensure remittances are able to flow.
- Provide social protection for migrant workers abroad.
- Ensure migrants can access health systems.
- Focus on accommodation.

- Help critical workers deploy their skills.
- Do more to highlight role of 'low-skill' workers.

Build sustainable LTC systems:

- Take a systems approach which integrates the strengths of each sector.
- Implement policies which uplift the LTC sector and attract LTCWs.
- Develop robust insurance or financing mechanisms.
- Provide more information to choose the appropriate care.
- Focus on human resources for LTC, including migrant workers
- Collect and analyse data to understand skills shortages, both in quantity and quality, and enhance workforce planning.
- Recognise the need for more migration to meet demand.
- Take meaningful steps to recognise the qualifications of registered nurses, to prevent down-skilling.
- Provide LTC workers, including migrant LTCWs, with opportunities and training to advance their skills.
- Promote standardisation of qualifications to enhance migration opportunities for LTC workers.

Develop legal migration pathways for LTC:

- Countries of destination should create a multi-year visa for LTC work.
- Countries of origin should ensure mutual benefit from any legal migration pathways.
- Ensure such pathways are built with sustainability in mind.
- Enter into BLAs and MOUs which safeguard migrant rights.
- Ratify the Domestic Workers Convention and enact legislation to support domestic workers.
- Encourage regional collaboration.

Lessons Learnt in Japan

The Japan Care Work Foundation (Kaigo Rodo Antei Center) released a report of the 'Long-term Care Labour Fact-finding Survey (Special Survey)' in 2021. The survey found the following results:

- Between December 2020 and January 2011, COVID-19 caused 5.2% of staff in care facilities to take leave.

- 62.2% of institutional and residential care facilities had already formulated infection prevention measures and infection control policies. In addition, 73.3% of institutional and residential care facilities had formulated manuals of infectious disease control.

- 34.4% of institutional and residential care facilities started residents meeting with their families using an online meeting tool. About 19.2% of care facilities had introduced conferences using online meeting tools.

- The psychological burden on the staff working at LTCFs was heavy. The degree of burden varies depending on the job, and the people who felt the most burdened were life support advisors

(67.2%), physical therapists, occupation therapists, and speech therapists (66.0%), nursing staff (61.5%), care managers (60.3%), and LTC staff (56.4%).

- As a professional in Japan, certified care workers are trained in infectious disease prevention and control, so they have a certain level of knowledge and practical ability. Nevertheless, many LTCWs felt anxious about becoming infectious diseases by themselves (90.1%) and worried that they would bring the virus into the workplace (88.9%).

- Among those who work in institutional and residential care facilities, 43.9% said that ease of communication and consultation with superiors has deteriorated under the COVID-19 pandemic, while 32.0% said that it has actually improved. In addition, there were more people who improved (32.8%) than those who had a worse 'ease of communicating with other occupations' (24.3%).

- Despite experiencing difficult times, 64.2% of care workers expressed a willingness to continue working.

Lessons Learnt in Thailand

The Asian Development Bank's report on 'Country Diagnostic Study on Long-term Care in Thailand' in 2020 recommended the following (ADB, 2020, pp. 55–57):

- A supportive environment, health services, and social services in support of a LTC system for older persons.

- Governance and coordination.

- Financing long-term care.

- Registration and care standards for LTC establishments.

- Human resources development.

- Improvement of LTC service in homes and residential facilities.

The Asian Population and Development Association (2021) pointed out the following vulnerabilities of LTC in Thailand:

- As the incidence of gender-based violence has risen since the start of the COVID-19 pandemic, elder abuse must also be monitored as families are increasingly locked down together and more dependent on one another for social and economic support.

- The financial impact of significant loss of income on families who are also caring for older persons can cause added stress.

- Although older people may be unable to use online resources, posters and public awareness campaigns are being disseminated in many different forms of media.

- Older persons living at home to have one primary carer in order to limit their exposure to multiple people, and to essentially quarantine together.

This report recommended:

- Target advice to older persons to the country-context, whether more older persons live with their families or live in residential aged care.

- Utilise public health approaches tailored to the living conditions of older persons—for example, looking to community health workers to deliver important information, education, and supplies to older persons living in more rural areas, living with family members, or with less access to health information.

- Consider adopting a tax deduction as compensation for the additional risk healthcare workers have taken on during the COVID-19 pandemic.

- Consider classes of persons—especially older persons—who may be left out of stimulus payment programmes, such as informal workers and farmers, and develop programmes to provide these groups with cash assistance as well.

- Short-term and low-interest loans from the government to individuals and businesses can be an alternative to direct cash payments where government budgets do not allow for large cash payment programmes.

Delegates form the WHO and officials from Thailand's Ministry of Public Health discussed the COVID-19 response on 27 May 2022. After several days of consultation, it was concluded that Thailand has many strengths that contributed to the success of the pandemic response (WHO, 2022). Some highlights are:

- A high level of political commitment was essential and was exemplified by the Prime Minister leading the response.

- A robust health system established for decades provided the best platform for an effective response

- The covid-response involved many sectors and people from all walks of life. Adoption of the 'whole of society' approach and good collaboration between all sectors were essential.

- Strong community networks, in addition to the presence of more than 1 million village health volunteers ensured bottom-up support.

- Innovative solutions to problems encountered were developed quickly, such as cardboard beds in field hospitals. The 'Bubble and Seal' approach ensured Thai and migrant workers were kept safe whilst allowing factories to stay in business.

Areas that could be improved include:

- Better aligning population databases generated by different government agencies to record health and vaccination status.

- Addressing barriers in access to health care that were sometimes faced by some vulnerable populations, such as migrants.

- Enhancing universal health coverage through primary healthcare in urban areas.

- Strengthening measures to address pandemic fatigue and complacency.

- Developing strategies to sustain and share innovations.

- Improving arrangements for medical waste management.

The following recommendations were jointly proposed:

- Continue to invest in innovation and digital technology.

- Sustain the gains made during the pandemic response.

- Make healthcare more inclusive, especially for vulnerable populations.

- Strengthen domestic capacities for self-reliance to produce vaccines, reagents, diagnostics, and drugs.

- Further integrate databases.

- Continue to collaborate across sectors, including the management of medical waste.

- Share best practices and lessons learned from the pandemic response among different stakeholders in Thailand and with other countries.

Lessons Learnt in Indonesia

The report by Sani et al. (2020) 'The COVID-19 Long-Term Care Situation in Indonesia pointed out the following vulnerabilities:

- There is limited data and information on people needing LTC who are affected by COVID-19.

- Although the government of Indonesia has taken several measures to reduce the spread of the virus, it was very difficult to coordinate each administration of various side of LTC among several ministries.

- There has been no specific guideline or protocol regarding COVID-19 prevention and management or for LTC system users in general.

- LTC in Indonesia for older people is partially dependent on volunteers' home-care visits. Since the end of March 2020, all regular health programmes conducted by local health volunteers (*kader*) have been stopped.

Sani et al. said that the COVID-19 pandemic has exposed the urgent need for improvements in the health and social care systems in Indonesia. As the impact of the pandemic spans over multiple sectors, inter-programme and inter-sectoral coordination is required to effectively respond to the outbreak. The WHO and Ministry of Public Health wrapped up lessons learnt as follows:

- Short-term calls for action

  - Data from surveillance of COVID-19 cases in institutional care settings (both residents and staff) is needed to better understand the impact of this outbreak on this population.
  - An inter-ministry streamlined approach is needed to ensure support for LTC users especially during COVID-19.
  - Guidelines on self-quarantine and care for COVID-19 patients who live with disabilities are needed.

- Guidelines on care coordination especially regarding discharge from hospital to community and institutions are needed.

- Longer term policy implications

  - There is an urgent need to develop an integrated universal health and long-term care service based on the existing systems.

  - Surveillance of older people infected with COVID-19 and the availability of free rapid testing on a large scale is essential to obtain data to support long-term policy decision-making on vulnerable population.

  - Monitoring and evaluation of existing long-term care policy is fundamental to ensure effective implementation of the policy.

  - There is a strong cultural tendency to care for family members at home in Indonesia.

  - This calls for the strengthening of community and family-based long-term care through capacity building of caregivers and ensuring adequate government funding, including for older people recently discharged from hospitals.

Komazawa et al. reported in 2021 that economic and social support for older people should be maintained and continued even after the pandemic in Indonesia. It is crucial to minimise the negative impact of falls in income and social restrictions on the welfare of older people – such as decreased food quality, more limited access to healthcare facilities, and greater social isolation (Komazawa, 2021). As mandated in the Ministry of Health's 2020 'Guidelines for Older People Health Services in the COVID-19 Pandemic Era', the main priority is the prevention of COVID-19 amongst older people through effective and persistent efforts and collaboration with the government and the community, including family. However, the mitigation of the impact of economic distress and social isolation is also crucially important. The quick development of a comprehensive support system for older people is strongly encouraged. Such efforts would surely contribute to the accomplishment of the goals stated in the Concept of National Strategy on Ageing, which is to ensure independent, prosperous, and dignified lives of older people.

The report by Mahendradhata et al. (2021) on 'The Capacity of the Indonesian Healthcare System to Respond to COVID-19'. noted the following:

- Insufficient numbers of available medical staff.

- The pandemic has exposed the fragility of medical supply chains. Surges in the number of patients requiring hospitalisation have led to depleted medical supplies.

- The existing healthcare infrastructure is still inadequate to deal with the rise of COVID-19 cases.

- The COVID-19 pandemic has further exposed the weakness of the patient referral system and the limited capacity of the healthcare system to deliver essential health services under prolonged emergencies.

References

Abe, K. and I. Kawachi (2021), 'Deaths in Nursing Homes During the COVID-19 Pandemic—Lessons from Japan', *JAMA Health Forum*, 20212(2). https://doi.org/doi:10.1001/jamahealthforum.2021.0054

Asian Development Bank (ADB) (2020), *Country Diagnostic Study on Long-term Care in Thailand.* Manila: ADB. https://www.adb.org/publications/thailand-country-diagnostic-study-long-term-care

Asian Population and Development Association (2021), 'COVID-19 Legal and Policy Frameworks Affecting Older Persons in Thailand'. https://www.apda.jp/pdf/p06_jinkou_kaihatu/reviewthailand_2020_en.pdf

Comas-Herrera, A., E.C. Ashcroft, and K. Lorenz-Dant (2020), 'International Examples of Measures to Prevent and Manage COVID-19 Outbreaks in Residential Care and Nursing Home Settings'. International Long-term Care Policy Network. https://ltccovid.org/wp-content/uploads/2020/05/International-measures-to-prevent-and-manage-COVID19-infections-in-care-homes-11-May-2.pdf

Dubey, S. et al. (2020), 'Psychosocial Impact of COVID-19', *Diabetes and Metabolic Syndrome*,14(5), 779–788. https://doi.org/10.1016/j.dsx.2020.05.035

Dykgraaf, S.H. et al. (2021), Protecting Nursing Homes and Long-term Care Facilities From COVID-19: A Rapid Review of International Evidence. *Journal of Post-Acute and Long-Term Care Medicine* 22(10), 1969–1988. https://www.doi.org/10.1016/j.jamda.2021.07.027

Estévez-Abe, M. and H. Ide (2021a), 'COVID-19 and Japan's Small Death Toll in Long-Term Care Facilities'. https://programs.wcfia.harvard.edu/files/us-japan/files/margarita_estevez-abe_covid19_and_japanese_ltcfs.pdf

Estévez-Abe, M. and H. Ide (2021b), 'COVID-19 and Long-Term Care Policy for Older People in Japan', *Journal of Aging and Social Policy,* 33(4–5), pp.444–58. https://doi.org/10.1080/08959420.2021.1924342.

Estévez-Abe, M. and H. Ide (2021c), 'COVID-19 and the Long-Term Care system in Japan.' https://ltccovid.org/2021/03/12/new-report-covid-19-and-the-long-term-care-system-in-japan/

European Centre for Disease Prevention and Control (ECDC) (2021), 'Surveillance of COVID-19 in Long-term Care Facilities in the EU/EEA'. https://www.ecdc.europa.eu/en/publications-data/surveillance-COVID-19-long-term-care-facilities-EU-EEA

Giri, S., L.M. Chenn, and R. Romero-Ortuno (2021), 'Nursing Homes during the COVID-19 Pandemic: A Scoping Review of Challenges and Responses', *European Geriatric Medicine,* 12(6), 1127–1136. https://doi.org/10.1007/s41999-021-00531-2)

Gleckman, H. (2020), 'How To Redesign Long-Term Care For Older Adults After COVID-19'. Forbes. https://www.forbes.com/sites/howardgleckman/2020/06/09/how-to-redesign-long-term-care-for-older-adults-after-covid-19/?sh=dada4435d859

Global Union (UNI) (2021), 'Most Dangerous Job: The Impact of COVID-19 on Long-Term, Care Workers in the US, UK, Canada, Ireland, and Australia'. https://uniglobalunion.org/news_media/uploads/2021/02/the_impact_of_covid-19_fin.pdf

Ide, H. (2020),'Reasons Why the COVID-19 did not Infect in Long-term Care Facilities',

[介護施設で感染が拡大しなかった理由] https://www.covid19-jma-medical-expert-meeting.jp/topic/3430 (in Japanese)

International Labor Organization (ILO) (2020), 'The Six-step COVID-19 Business Continuity Plan for SMEs'. https://www.ilo.org/wcmsp5/groups/public/---ed_dialogue/---act_emp/documents/publication/wcms_740375.pdf

Immigration Services Agency of Japan (2021), '2021 Immigration Control and Residency Management. Data Section'. https://www.moj.go.jp/isa/content/001361701.pdf

Japan Federation of Kaigo Business Providers (2020), '全国介護事業者連盟. 新型コロナウイルス感染症に係る 経営状況への影響について『緊急調査』 集計結果'. [Survey Results about the Changing Financial Status under COVID-19 as of the end of March] (accessed 14 May 2020.) http://kaiziren.or.jp/wp/wp-content/uploads/2020/04/kinkyuutyousa20200422.pdf (in Japanese)

Japan Care Work Foundation (2021), '介護労働実態調査（特別調査）結果の概要について'. [Fact Finding Survey]. http://www.kaigo-center.or.jp/report/pdf/20210727r02_kekkagaiyou.pdf (in Japanese)

Kiyota, E. (2021), 'Elder Care Providers and COVID-19: Cross-Cultural Perspectives. Global Aging Network'. https://globalageing.org/wp-content/uploads/2021/02/Global-Ageing-Network-COVID-19-Research-Report.pdf

Komazawa, O., N.W. Suriastini, I.Y. Wijayanti, Maliki, and D.D. Kharism (2021), 'Elder People and COVID-19 in Indonesia'. Jakarta and Yogyakarta: Economic Research Institute for ASEAN and East Asia (ERIA), Ministry of National Development Planning, Republic of Indonesia, and SurveyMETER. https://www.eria.org/publications/older-people-and-covid-19-in-indonesia/

Mahendradhata, Y., et al. (2021), 'The Capacity of the Indonesian Healthcare System to Respond to COVID-19', *Frontiers in Public Health,* 7 July, 9. https://doi.org/10.3389/fpubh.2021.649819

Masoud A. T., et al. (2021), 'KAP-COVID Global: A Multinational Survey of the Levels and Determinants of Public Knowledge, Attitudes and Practices towards COVID-19,' *BMJ Open,* 11(2), e043971.

https://www.doi.org/10.1136/bmjopen-2020-043971

Ministry of Health, Labour and Welfare (MHLW) Japan (2020), '介護施設・事業所における新型コ
ロナウィールス感染症発生時の業務継続ガイドライン'. [Business Continuity
Guidelines in the Event of an Outbreak of the Novel Coronavirus Infection at Long-term
Care Facilities and Service Providers]
https://www.mhlw.go.jp/content/12300000/000817384.pdf (in Japanese)

MHLW Japan (2021), '介護職員のための感染対策マニュアル'. ['Infection Control Manual for Care
Workers]
https://www.mhlw.go.jp/content/12300000/000678255.pdf?msclkid=616d19fdce7011ec
8796ac912678e13c (in Japanese)

MHLW Japan (2022), Visualizing the Data: Information on COVID-19 Infections: Deaths by Age
(cumulative). https://covid19.mhlw.go.jp/en/

Organisation for Economic Co-operation and Development (OECD) (2020), 'Workforce and Safety in
Long-Term Care during the COVID-19 Pandemic'.
https://www.oecd.org/coronavirus/policy-responses/workforce-and-safety-in-long-term-
care-during-the-covid-19-pandemic-43fc5d50/

OECD (2021), Rising from the COVID-19 Crisis: Policy Responses in the Long-term Care Sector'.
https://www.oecd.org/coronavirus/policy-responses/rising-from-the-covid-19-crisis-
policy-responses-in-the-long-term-care-sector-34d9e049/

Our World in DATA .Corona Virus Pandemic (COVID-19). https://ourworldindata.org/coronavirus

Periyasamy, R. (2021),'Business Continuity for Healthcare Industry - A COVID-19 Manual'.
https://www.apty.io/blog/healthcare-business-continuity

Sanchez, J. M. (2021), 'COVID-19's Economic Impact around the World'.
https://www.stlouisfed.org/publications/regional-economist/third-quarter-
2021/covid19s-economic-impact-world

Sani, T. P., M. Tan, K. K. Rustandi, and Y. Turana (2020), 'The COVID-19 Long-Term Care Situation in
Indonesia'. International Long-term Care Policy Network. https://ltccovid.org/wp-
content/uploads/2020/06/The-COVID-19-Long-Term-Care-situation-in-Indonesia-30-
May.pdf

Sato, A., and H. Dempster (2022), 'COVID-19, Long-Term Care, and Migration in Asia', Center for
Global Development. Policy Paper 26.

South Australia Government, Office for Ageing Well (2021), 'COVID-19 Integrated Response

Framework for the Management of Multiple Outbreaks in Residential Aged Care Facilities in South Australia'. https://www.sahealth.sa.gov.au/wps/wcm/connect/7b16c3e5-a520-496d-ab0d-f49a79a158f5/Joint+Protocol+Management+of+COVID-19+Outbreaks+in+South+Australia+RACF.pdf?MOD=AJPERES

Suzuki, M., M. Morikawa, and M. Wakabayashi (2021), 'Healthcare Challenges for Elderly People in Japan During COVID-19 Pandemic: The Health Impact for Elderly People in Japan under COVID-19 and its Response'. Deloitte. https://www2.deloitte.com/jp/en/pages/life-sciences-and-healthcare/articles/hc/en-hc-covid19-02.html)

Tsuji, T. (2021), 'COVID-19 の高齢社会への影響について. 武見基金 COVID-19 有識者会議'. [Impact of COVID-19 on Ageing Society. Takemi Foundation COVID-19 Expert Meeting]. https://www.covid19-jma-medical-expert-meeting.jp/topic/2734 (in Japanese)

UN HABITAT (2021), 'Cities and Pandemics: Towards a More Just, Green and Healthy Future'. https://unhabitat.org/sites/default/files/2021/03/cities_and_pandemics-towards_a_more_just_green_and_healthy_future_un-habitat_2021.pdf

UNICEF (2022), 'COVID-19 Confirmed Cases and Deaths: Age- and Sex-disaggregated Data'. https://data.unicef.org/resources/covid-19-confirmed-cases-and-deaths-dashboard/

Wang, D., K. Krase, T. MacMillan, A. C. Fishman, Y. R. Witonsky, and C. Parris-Stingle (2021), 'Micro, Mezzo, and Macro Factors Associated with Coping in the Early Phase of COVID-19', *Journal of Human Behavior in the Social Environment*, 31(1–4), 60–69. https://doi.org/10.1080/10911359.2020.1838985

World Health Organization (WHO) (2017), 'One Health'. https://www.who.int/news-room/questions-and-answers/item/one-health

WHO (2020a), 'Preventing and Managing COVID-19 Across Long-term Care Services', https://www.who.int/publications/i/item/WHO-2019-nCoV-Policy_Brief-Long-term_Care-2020.1

WHO (2020b), 'Health Workforce Policy and Management in the Context of the COVID-19 Pandemic Response', https://www.who.int/publications/i/item/WHO-2019-nCoV-health_workforce-2020.1

WHO (2020c), 'Responding to Community Spread of COVID-19'. https://apps.who.int/iris/bitstream/handle/10665/331421/WHO-COVID-19-Community_Transmission-2020.1-eng.pdf

WHO (2020d), 'COVID-19 and the Decade of Healthy Ageing'. https://www.who.int/publications/m/item/decade-connection-series-no1

WHO (2021), International Statistical Classification of Diseases and Related Health Problems Ver.10：

ICD 10. https://icd.who.int/browse10/2019/en#/U00-U49

WHO (2022), 'Thailand Shares Lessons Learned from the COVID-19 Pandemic with WHO', 12 May. https://www.who.int/thailand/news/detail/12-05-2022-thailand-shares-lessons-learned-from-the-covid-19-pandemic-with-who

WHO Western Pacific Region (2020a), 'Preparedness Checklist for Long-Term Care Facilities: COVID-19 Infection Prevention and Control'. https://apps.who.int/iris/bitstream/handle/10665/333847/WPR-DSE-2020-028-eng.pdf

WHO Western Pacific Region (2020b), 'Communication Toolkit for Long-Term Care Facilities'. https://apps.who.int/iris/handle/10665/333848

Zamora-Ledezma, C., et al. (2020), 'Biomedical Science to Tackle the COVID-19 Pandemic: Current Status and Future Perspectives', *Molecules*, Oct 25(20), 4620. https://doi.org/10.3390/molecules25204620)

All internet web addresses (URL) were accessed on 31 July 2022.

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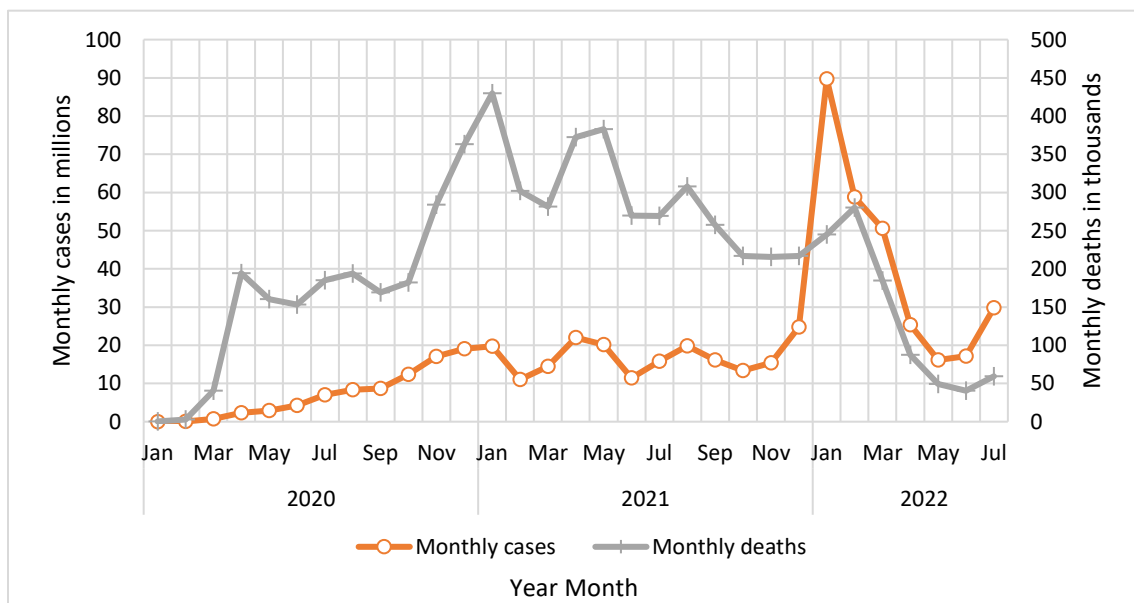
Source: WHO Coronavirus (COVID-19) Dashboard (2022a).

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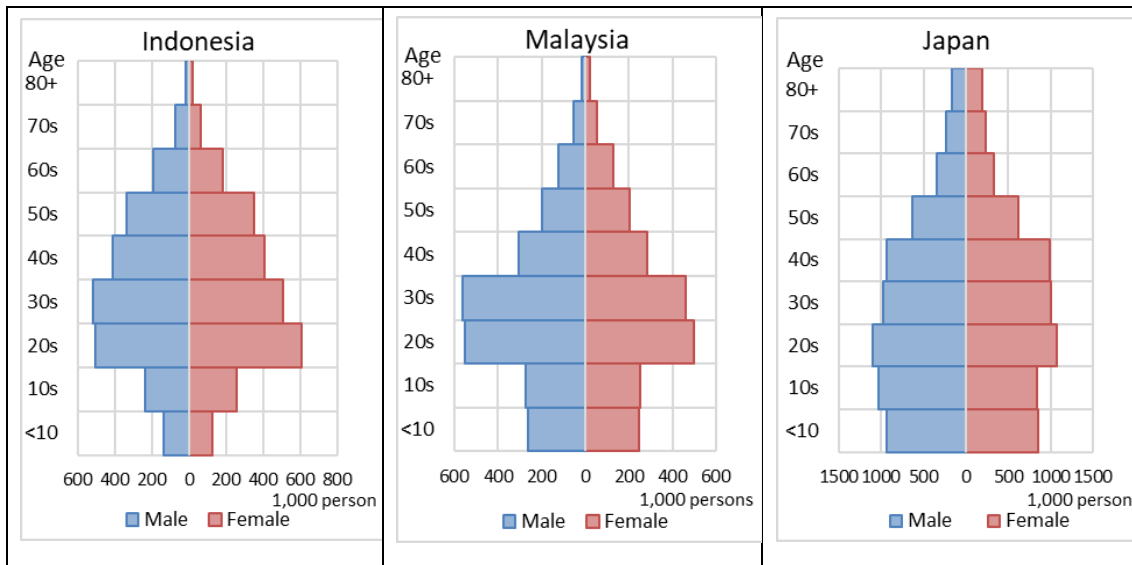
Notes: From 30 December 2019 to 25 July 2022 for Indonesia and Malaysia, to 1 August 2022 for Japan. The above charts are drawn from data that are gender and age-disaggregated; the coverage amongst the total reported cases is 79.8% for Indonesia, 95.9% for Malaysia, and 99.1% for Japan.

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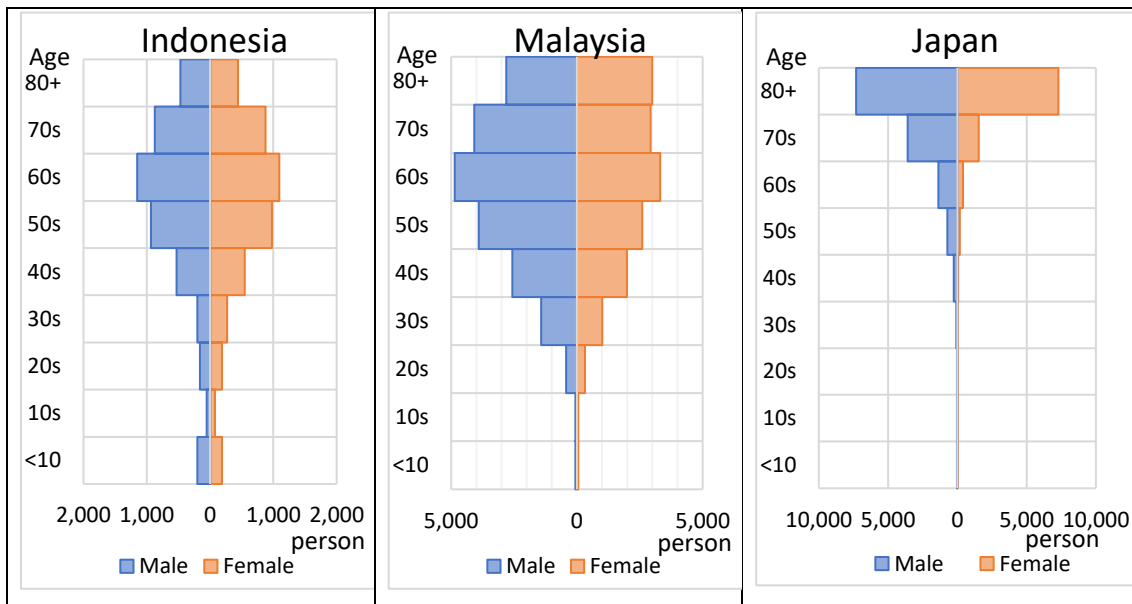
Notes: From 30 December 2019 to 25 July 2022 for Indonesia and Malaysia, to 1 August 2022 for Japan. The above charts are drawn from data that are gender and age-disaggregated; the coverage (proportion of these age and sex disaggregated deaths amongst the total reported deaths) is 5.9% for Indonesia,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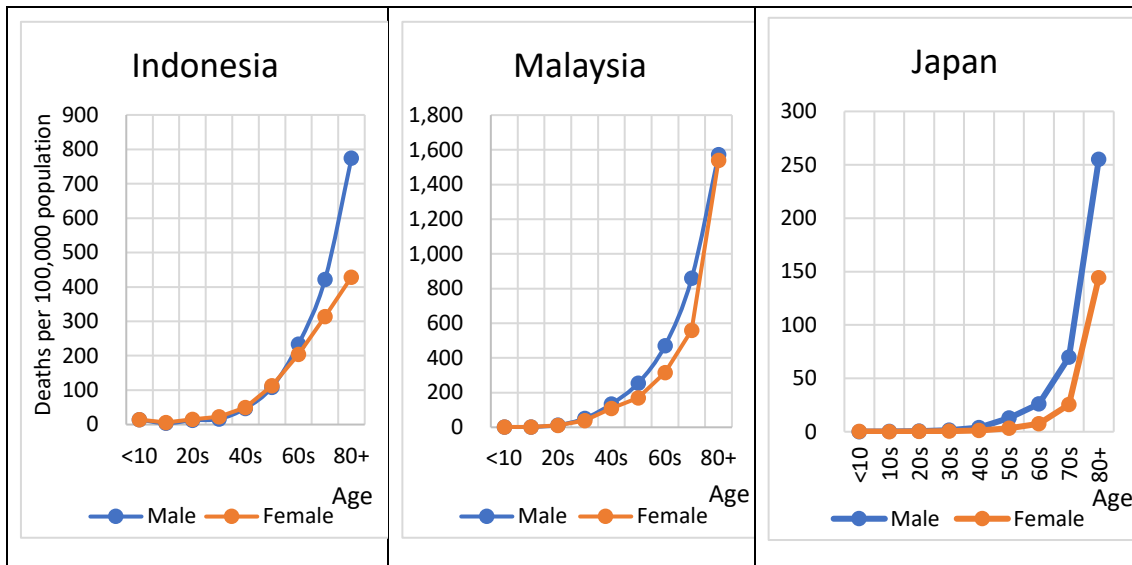
Notes: From 30 December 2019 to 25 July 2022 for Indonesia and Malaysia, to 1 August 2022 for Japan. The coverage rates of 5.9% for Indonesia, 98.6% for Malaysia, and 70.0% for Japan are applied to the observed mortality (The death rates shown in the figures are calibrated to the level that the gender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

France

	Total deaths	COVID-19 deaths
Other		
Public health facility	43%	57%
Private health facility	12%	12%
Long-term care facility	21%	25%
Home	22%	5%

from March 2020 to June 2021

n=877,147   129,608

Japan

	Total deaths	COVID-19 deaths
Other		
Hospital/Clinic	70%	96%
LTC Facility	12%	3%
Home	16%	

2020

n=1,372,755   3,466

United States

	Total deaths	COVID-19 deaths
Unknown		
Other		
Hospital	38%	71%
Facility	22%	19%
Home	33%	8%

2020 and 2021 until 25 Nov.

n=6,295,107   773,825

England and Wales

	Total deaths	COVID-19 deaths
Other		
Hospital	43%	70%
Facility	26%	24%
Home	28%	6%

From 28 Dec. 2019 to 5 Nov. 2021

n=1,119,379   153,687

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.

References

47 News (2020), 'Kaigo shisetsu de shibou zentai no 14% Shingata Korona, Kyototsushin jichitai chosa' [14% of COVID-19 Deaths in Long-term Care Facility, Municipality Survey by Kyodo Tsushin], 13th May. https://www.47news.jp/4808143.html (in Japanese)

Centre d'épidémiologie sur les causes médicales de décès (CépiDc) (2022), 'Données sur la Covid-19 du centre d'épidémiologie sur les causes médicales de décès de l'Inserm' [Data on COVID-19 from the Epidemiology Centre on the Medical Causes of Death from Inserm]. https://opendata.idf.inserm.fr/cepidc/covid-19/ (in French)

Department of Statistics Malaysia (DOSM) (2022), 'Population by Age Group, Sex and Ethnic Group, Malaysia'. https://www.data.gov.my/data/en_US/dataset/population-by-age-group-sex-and-ethnic-group-malaysia

Hayashi, R. and O. Komazawa (2022), 'Cause of Death Statistics in ASEAN+3 Countries', in *Health and Long-term Care Information in Ageing Asia.* ERIA Research Project Report FY2022 No. 07, Jakarta: ERIA, pp.1–33. https://www.eria.org/uploads/media/Research-Project-Report/RPR-2022-07/06_Part-A-Cause-of-Death-Statistics-in-ASEAN%2B3-Countries.pdf

Ministry of Health, Labour and Welfare, Japan (MHLW) (2022), 'Vital Statistics'. https://www.e-stat.go.jp/en/stat-search?page=1&toukei=00450011

Ministry of Health, Labour and Welfare, Japan (MHLW) (2022), 'Visualizing the Data: Information on COVID-19 Infections'. https://covid19.mhlw.go.jp/en/

National Institute of Population and Social Security Research (2022), Data on COVID-19. https://www.ipss.go.jp/projects/j/choju/covid19/index-en.asp

National Center for Health Statistics (NCHS), Centers for Disease Control and Prevention, US (2022), 'Provisional COVID-19 Deaths by Place of Death and State'. https://data.cdc.gov/NCHS/Provisional-COVID-19-Deaths-by-Place-of-Death-and-/uggs-hy5q

New York Times (2021), 'Nearly One-Third of U.S. Coronavirus Deaths Are Linked to Nursing Homes', 1 June. https://www.nytimes.com/interactive/2020/us/coronavirus-nursing-homes.html

Office for National Statistics (ONS), UK (2022), 'Weekly Provisional Figures on Deaths Registered in England and Wales'. https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/datasets/weeklyprovisionalfiguresondeathsregisteredinenglandandwales

Statistics Bureau of Japan (2020), Population Census. https://www.stat.go.jp/english/data/kokusei/

United Nations, Department of Economic and Social Affairs, Population Division (2022), *World Population Prospects: The 2022 Online Edition*. https://population.un.org/wpp/

World Health Organization (WHO) (2022a), WHO Coronavirus (COVID-19) Dashboard. https://covid19.who.int/

(WHO) (2022b), WHO COVID-19 Detailed Surveillance Data Dashboard. https://app.powerbi.com/view?r=eyJrIjoiYWRiZWVkNWUtNmM0Ni00MDAwLTljYWMtN2EwNTM3YjQzYmRmIiwidCl6ImY2MTBjMGI3LWJkMjQtNGIzOS04MTBiLTNkYzI4MGFmYjU5MCIsImMiOjh9

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

Chapter 3

Business Continuity Management to Ensure Resilience in the Long-term Care Business

1.   Background of Business Continuity Plans and Business Continuity Management for Long-term Care Facilities

Institutional care is an essential service for elderly care. Institutional care is designed to protect the lives of vulnerable older people. Nevertheless, many older people fell victim to the novel coronavirus disease (COVID-19) under institutional care. Furthermore, the COVID-19 pandemic has shaken the sustainability of facility management itself. Therefore, the resilience of institutional care in an emergency was once again questioned.

In response to the COVID-19 pandemic, the Japanese government mandated long-term care facilities to develop business continuity plans (BCPs) in 2021 to ensure resilient elderly care services even in times of emergency. Japan's Ministry of Health, Labour and Welfare (MHLW) required that BCPs of long-term care facilities (LTCFs) should be accomplished until March 2024 (MHLW, 2020a, 2020b, 2021, 2022). The BCPs formulated the rate for infectious diseases in LTCFs for the elderly was 33.5% in 2021. If formulating plans in the future are included, the figure was 89.2% in Japan (NTT Data Institute of Management Consulting, 2022).

A BCP will allow critically important business or work to continue even in the event of unforeseen circumstances, such as big earthquakes or other natural disasters, the spread of infectious diseases, terrorist incidents, major accidents, disruption in the supply chain, or other sudden changes in the business environment, and/or policies, systems, or procedures that enable a return to normal conditions as quickly as possible even if any discontinuation occurs.

However, what is more important is to be able to properly put the formulated plan into practice in an emergency. To that end, it is important, through the implementation of business continuity management (BCM), to continuously improve the BCP so that it is effective in practice.

BCM is the management of activities conducted in normal times, including the establishment, maintenance, and renewal of BCPs, the securing of budgets and resources for achieving business continuity, the implementation of preparatory measures, the implementation of education and training for expediting good practice, the promotion of inspections, and continual improvement.

In order to protect and maintain the lives of their residents, LTCFs have a duty to continue to provide services even in emergencies such as natural disasters and infectious disease pandemics. Even if the service is interrupted, it must be restored as soon as possible, and the interruption period kept to a minimum.

The World Health Organization's (WHO) report in 2020 'Responding to Community Spread of COVID-19' commented about the maintenance of essential services. Community transmission of COVID-19 may lead to an interruption of essential services in the communities affected unless tested business continuity plans are in place. The WHO recommended the following actions: adapt and implement national cross-sectoral emergency preparedness business continuity plans, where existing, to COVID-19; and work with United Nations' agencies and other partners to identify and support the continuation of critical functions (i.e. water and sanitation, fuel and energy, food, telecommunications/internet, finance, law and order, education, and transportation), necessary resources, and essential workforce.

Figure 3.1. Structure of Crisis Response Capability and Resilience in an Emergency (concept diagram)
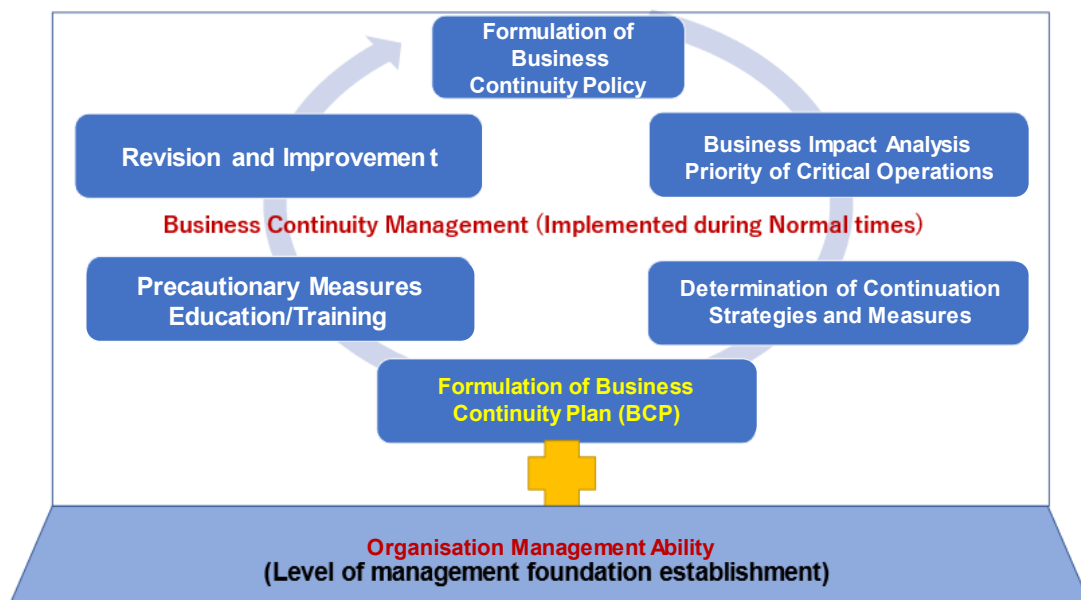
Source: Authors.

Japanese LTCFs require BCM to enable BCPs to be formulated. In order for the LTCFs to demonstrate BCM in emergency, it is necessary to determine whether they have sufficient organisational management skills from normal times.

As shown in Figure 3.1, the formulation of a BCP is one of the processes of business continuity management (the cyclical process from policy formulation, business impact analysis, selection of important operations to advance measures, education and training, and correction and improvement) from normal times. Furthermore, it will depend on the management capabilities of the organisation itself. The combination of 'BCM from normal times' and 'organisational management capabilities' enables LTCFs' resilience in emergencies.

However, Japan's LTCFs have been said to have weak 'organisational management capabilities' from the beginning. As many social welfare corporations, which are the main players in Japan's LTCFs, have not been able to transition or convert from 'institutional management' under the government safeguard system to 'corporation management' based on a contract system, their management functions are weak.

It is believed that this is due to the fact that, under the safeguard system, they were placed in a government-led business environment with no need for autonomous management. For example, there are rules that guarantee income based on the number of users at the beginning of the term, or that if the profit at the end of the term exceeds a certain amount, it must be returned to the government, but the system is such that there is no need for any effort to improve management efficiency or productivity. In addition, as one factor of the fragile management base, because social welfare corporations tend to be family-run, problems have been highlighted, such as 'the board of directors becoming a mere formality, poor audit functions, the careless diversion of corporate assets, the monopolisation of major posts by family members, the lack of human resources development, in-fighting among relatives, lack of ability of successors, etc.' (Tokyo Metropolitan Social Welfare Corporation, 2011).

As management challenges faced by LTCFs, a range of organisational and human resource management issues have been indicated, such as 'quick staff turnover due to immaturity in organisational management, personnel management, human resource development, etc.', 'a lack of organizational structuring and no clarification of job roles and responsibilities within the organisation', and 'failure to systemise career paths and link expertise with conditions and remuneration'. In addition, in a research project commissioned by the Ministry of Education, Culture, Sports, Science and Technology on the theme of human resource development in the LTC business, in which the authors participated, the following were extracted as management issues for LTCFs: conservative organisational climate in the field (resistance to change), principles and values of LTC business management not permeated, functions and roles of LTCWs not differentiated, failure to foster an organisational climate that nurtures people, etc. It is believed that these are also factors that have led to the vulnerability of LTC business management.

In line with Figure 3.2, it has been pointed out that the governance of the core management philosophy is weak, the management of human resources is particularly weak, and the management of operations is not well developed. On the one hand, Japan's LTCFs were able to operate stably in terms of finance, services, and marketing under the tradition of Japan's elderly welfare administration and the establishment of a long-term care insurance system. On the other hand, the COVID-19 pandemic forced LTCFs to respond to new challenges in facilities and information and communication technology with a different dimension of risk response. In other words, LTCFs exposed to the COVID-19 crisis are the domains coloured in Figure 3.2 (philosophy, human resources, operations, facilities, ICT, risks) and management issues are highlighted.

Figure 3.2. Management Map for the Long-term Care Business

Management Domains of Long-term Care Facilities		
Finance Financial Account Management Account	**Services** Provision of Services from the User's Perspective Enhancement and Improvement of Quality of Services	**Marketing** User Acquisition Promotion Service Development for Own Organisation Interaction Activities with Local Communities
Operations Challenges to Business Process, Agenda Setting, and Solution of Issues Task Inventory, Analysis, and Redesign Business Efficiency	**Philosophy** Clarification and Dissemination of Missions and Visions and Values ▼ **Strategies** Planning and Implementation of Strategies, Goal Setting, Leading Achievement, etc.	**Human Resources** Motivation, Competency/Level-up, Development, Communication (Build-up Social Capital) Empowerment (Entrust Jobs) Evaluation Diversity Management (Seniors, Foreigners, and Non-regular Employees) Team Building and Corporate Culture Reform Securing Human Capitals and Preventing Turnover
Facilities Facilities and Equipment Management	**ICT** Utilisation of ICT for Labour Saving and Work Efficiency Improving and Information Sharing Introduction and Effective Utilisation of Robots	**Risks** Accident Prevention and Incident Countermeasures Adjustment of Claims Mental Health of Staffs Compliance BCP/BCM

BCP = business continuity plan, BCM = business continuity management, ICT = information communication and technology.
Source: Keishin Gakuen Vocational Education Research and Development Center (2021).

In this study we listened, learned, and made recommendations by the managers of LTCFs in Japan, who developed advanced BCPs, and how they behaved amidst the COVID-19 pandemic.

2. Interview Research on LTCF Managers

2.1. Research Outline

For investigating business continuity management and the actual application of business continuity plans for COVID-19 infection in LTCFs for the elderly, and for clarifying effective efforts and improvement challenges, we conducted semi-structured interview surveys face-to-face and online during October 2021 to March 2022.

An interviewer was able to contact four corporations operating LTCFs for the elderly in Japan (in Tokyo, Saitama, Niigata, and Fukuoka) that matched the purpose of the survey. The subjects of the interviews were the persons responsible for COVID-19 infection control at each facility. Ethics applications were submitted to Keishin Academy and approval received (approval number: Keishoku 21-02). A request for research cooperation was presented in advance, and consent was obtained for the interview content, method, etc. before conducting the research.

Questions were asked about the following:

1) COVID-19 infection status

2) Effective measures to prevent infection

3) Improvement challenges for infection prevention

4) BCP formulation status

5) Efficacy and effects of BCP

6) Advance preparation for BCP operation in an emergency

7) BCP/BCM improvement challenges

2.2. Research Results

Facility A: Niigata Prefecture. Social Welfare Corporation

Table 3.1. Agile Response by Leader in Active Role

Item	Confirmed Details
1) Basic information, such as business overview and interviewee details, etc.	Type of business: Special care homes for the elderly, short stay, and residential long-term care support business Interviewee: Facility manager (Principal) Interview date: 22 October 2021
2) COVID-19 infection status	No infections at time of interview
3) Effective measures to prevent infection	・ Raise awareness and take infection control measures by promptly disclosing and sharing information according to changes in the infection situation (cluster outbreaks, instructions from the authorities, best practices of other companies to prevent infection, etc.). ・ Arouse awareness of infection prevention amongst staff. It is important to be conscious of 'not being too scared and being appropriately concerned'. ・ Thorough implementation of standard precautions. Since nurses have knowledge and skills of infection prevention measures that caregivers do not have, infection prevention guidance by nurses is effective. ・ No interaction with infection response teams. If support staff from other departments return to their original departments, there is a risk that infection may spread. Red zone staff and green zone staff shall be separated without interaction. ・ Use of ICT (online meetings, remote guidance, etc.). ICT literacy enables a quick and efficient response in administrative processing in emergencies.

Item	Confirmed Details
4) Improvement challenges for infection prevention	・ Each site leader cascaded down the response policies and measures decided by the organisation to their subordinates, but there were inconsistencies in the levels of subordinates' understanding. ・ In the event of an emergency, the presence of site leaders who can take command is important, but they are also afraid of infection. They too need care.
5) BCP formulation status	May 2021
6) Efficacy and effects of BCP	The actual response process was determined based on the BCP framework. The BCP was effective as a basis for deciding emergency responses.
7) Advance preparation for BCP operation in an emergency	・ It is necessary to routinely train site leaders to make judgements. In an emergency, judgement is required for atypical/irregular cases. In addition, the strength to stick to a decision is necessary. ・ BCP training was conducted using actual outbreak cases.
8) BCP/BCM improvement challenges	・ The wording of the BCP template prepared by the government is difficult and needs to be simplified.
■Key insights Findings recognised by interviewers as important for demonstrating crisis response capabilities and resilience	**Necessity of autonomous decision-making and action by group leaders in an emergency** In response to emergencies, in addition to the judgement and action of the chief executive, there are also situations where prompt judgement and action by site leaders is required. In the event of an emergency, the situation was changing and problems arise one after another, so it is difficult for the chief executive to make all decisions quickly. Group leaders often had to make decisions autonomously in their respective posts. For this reason, it is necessary to make efforts to foster and strengthen the leadership, judgement, and autonomy of group leaders in normal times.

BCP = business continuity plan, BCM = business continuity management, ICT = information communication and technology.

Source: Compiled by authors.

Facility B: Saitama Prefecture. Private Sector Company

Table 3.2. ICT Utilisation for Process Management

Item	Confirmed Details
1) Basic information, such as business overview and interviewee details, etc.	Type of business: Private senior long-term care home Interviewee: Deputy Principal Interview date: 12 November 2021
2) COVID-19 infection status	No infections at time of interview
3) Effective measures to prevent infection	・ The experience of having conducted field surveys when clusters occurred at other facilities within the corporate group was effective. Simulation of the outbreak of infection, such as dividing the red zones and green zones, successfully gave some hints on how to respond. ・ In response to the personnel shortage, managers were sent onsite, support was provided from other departments, and staff worked overtime. ・ Long-term care schedule management software was introduced, and we use the system to manage care plans for users, staff work duties, shift schedules, etc. and we are trying to provide visibility to our care work. Staff use their smartphones to keep track of their own work schedules and administer care to the users based on that schedule. It is linked with the long-term care work record system and the details of the care are also input, so the administrator can check whether care is being provided according to the care plan, whether the service is appropriate, and whether there are any problems at the site, etc., and can understand and manage the work status of all staff. ・ Based on this, it has also been confirmed that there are many tasks being done other than those that strictly should be performed, resulting in a situation of excessive workload. For example, excessive care was confirmed, such as providing Level 3 care to users with Level 1 care needs. We plan to identify and address these issues. ・ During the coronavirus crisis, being able to trace what kind of care work was provided in which room and at what time was effective in identifying routes and blocking the spread of the virus in the case of infection.

Item	Confirmed Details
4) Improvement challenges for infection prevention	・Nothing confirmed
5) BCP formulation status	・Formulated by corporate headquarters and started operation in April 2020.
6) Efficacy and effects of BCP	・BCP allowed us to build a framework for emergency response. In accordance with the BCP, new measures will be added as needed as notices from headquarters. ・Any time a person develops a fever, the response procedures are revised and improved repeatedly, in accordance with comments from staff at the site, thereby increasing their effectiveness.
7) Advance preparation for BCP operation in an emergency	・We regularly conduct infection control training at monthly staff meetings, regardless of whether there is an emergency or not (e.g. thorough hand washing, how to remove gloves, masks, aprons, how to transport items to be discarded, etc.) ・Simulation of infection is performed to improve processes.
8) BCP/BCM improvement challenges	・The amount of work that is different from normal times has increased, exceeding the allowable capacity. In response to this, we are studying the priority of tasks and reviewing what work is essential in an emergency.
■Key insights Findings recognised by interviewers as important for demonstrating crisis response capabilities and resilience	**Utilisation of ICT for long-term care staff work management and schedule management** By introducing a system in normal times that links the management of long-term care work and schedules with the input of long-term care work records, we can stay up to date on the work duties and action history of the long-term care staff as data. With this system, it is possible to visualise when, where, and what kind of work the long-term care staff performed, and to understand their actions, thus contributing to the prevention of the coronavirus infection within the facility. The system also makes it possible to optimize operations and improve operational efficiency during normal times.

BCP = business continuity plan, BCM = business continuity management, ICT = information communication and technology.

Source: Compiled by authors.

Facility C: Fukuoka Prefecture. Social Welfare Corporation

Table 3.3. Multitasking of Professional Jobs

Item	Confirmed Details
1) Basic information, such as business overview and interviewee details, etc.	Type of business: Special care home for the elderly Interviewee: General Manager Interview date: 23 December 2021
2) COVID-19 infection status	A total of three facility staff and users tested positive in July 2021.
3) Effective measures to prevent infection	・Increased opportunities for information sharing amongst employees (normally once per day increased to 3 times per day) ・The use of the intercommunication system (intercom) was effective in sharing information. Used more than usual. ・Since June 2020, the Corona Countermeasures Committee has held online meetings twice a month. At these meetings, we decide on what action to take. ・In the pre-revision BCP, it was stated that a countermeasures headquarters consisting of managers would be established. However, as a practical response, it was judged that the committee should include staff members also, and the Countermeasures Committee was set up. ・Assuming that there will be foreign care workers, we have prepared a guide for staff that illustrates the precautions to be taken to prevent infection. We tried to raise awareness by handing these out when we handed out the monthly salary slips. ・We conduct online meetings with users and their families. ・Fukuoka Prefectural Council of Elderly Welfare Facilities has a system of 'goods accommodation' through intra-regional cooperation. First, goods are procured via your own facility ⇒ if they are difficult to procure at your own facility, procure within the regional block ⇒ if difficult even in the regional block, procure from all blocks. ・Online conference system was introduced in May 2020 after the spread of COVID-19. ・Mental care for employees is important (for concerned employees, the supervising facility director provides individual consultations as and when necessary)

Item	Confirmed Details
4) Improvement challenges for infection prevention	・Nothing confirmed
5) BCP formulation status	Formulated before the coronavirus pandemic. Revised September–October 2020.
6) Efficacy and effects of BCP	・It proved realistic and effective to decide on rough guidelines without making too many detailed decisions in the BCP, and then leave the rest to an on-the-spot judgement according to circumstances. ・Information communication routes and the division of roles for high-priority tasks have been clarified. ・Effectiveness was improved by reflecting the details of the actual coordination with the competent administrative authorities and public health centres (e.g. the implementation of PCR tests) in the BCP, and by revising and making it more detailed.

7) Advance preparation for BCP operation in an emergency	・The organisational management policy implemented during normal times was 'total cooperation'. This eliminates sectionalism and builds a collaborative system that transcends occupations.
	・Promote multitasking in the process of reducing personnel numbers within the organisation.
	  - Rather than support and help, care is positioned as a job in charge even in non-care jobs. Therefore, nurses are included in care.
	  - Long-term care, nursing, and rehabilitation are all connected, and when other occupations are involved in long-term care work, they will be able to have a better understanding of what care work is.
	  - Since multitasking is explained to applicants at the time of recruitment selection, they accept it before joining the company.
	  - Promoting the creation of relationships within the organization that 'acknowledge each other', 'accept each other', and 'respect each other'. Good relationships remain effective in times of emergencies.
	  - Conduct training to spread the annual policy amongst all employees and review that training for all employees, including part-timers. Eight to nine people per group. 2 hours per session. These will lead to strengthening organisational management and affect resilience in the event of an emergency.

8) BCP/BCM improvement	・There is an issue about support from other nearby facilities when there is a staff shortage due to an infection amongst staff or a staff

Item	Confirmed Details
challenges	members has been in close contact with an infected person. This is because there is a risk of infection for supporters, and there is a similar shortage of personnel in all facilities in the area. ・There is a challenge in how to handle users with dementia while dealing with infection. There are no accommodation type medical institutions that can provide special care for dementia. ・It is necessary to develop site leaders and supervisors. In the event of an emergency, site leaders are required to make decisions autonomously. (Currently conducting leader training to re-acknowledge roles, identify workplace issues, and think about solutions.)
*Other	・Utilisation of YouTube is effective for activities targeting users. Very good user reaction. ・Communication within the organisation became very active through the response to the COVID-19 pandemic. Normally, we assume that matters are understood, and we often perform our duties without sharing problems. Since this is not possible in the coronavirus situation, communication will naturally become pro-active. ・In managing subordinates, 'listening' is especially important. ・ Nursing emphasises 'logic', and long-term care emphasises 'emotion'. According to one general manager of a facility, who was originally a nurse, if nursing placed more value on emotion and long-term care more value on logic, a better relationship could be built between the two. I think that it is an important viewpoint in the human resource management of the long-term care welfare business.
■Key insights Findings recognised by interviewers as important for demonstrating crisis response capabilities and resilience	**Cross-disciplinary collaborative system and multitasking introduced during normal times** In the situation of a pandemic infection, there will be a shortage of personnel due to the increase in care workers being designated as infected or as having been in close contact with infection, as well as the increase in irregular duties, but in response, a system has been established to assign other staff (from nursing, clerical work, etc.). Moreover, it is important to note that this is not positioned as helping with long-term care work, but that multitasking is part of their original duties. In many long-term care welfare facilities, roles are clearly divided according to occupation and section, but it is a big advantage in terms of organisational management that the spread and acceptance of

Item	Confirmed Details
	multitasking facilitates the smooth re-allocation of personnel, one of biggest challenges in an emergency situation.

BCP = business continuity plan, BCM = business continuity management, ICT = information communication and technology.
Source: Compiled by authors.

Facility D: Tokyo. Social Welfare Corporation

Table 3.4. Readiness and Prompt and Quick Response

Item	Confirmed Details
1) Basic information, such as business overview and interviewee details, etc.	Type of business: Special care home for the elderly Interviewee: Chief Operating Officer and General Manager Interview date: 31 March 2022
2) COVID-19 infection status	Infection amongst users occurred for the first time after the Omicron strain appeared in 2022. Until then, we had taken measures to ensure zero corona infections, but after this, we set a maximum number of people we could handle and switched to measures that did not exceed that limit.
3) Effective measures to prevent infection	・With regard to corona, from the time the unidentified virus was discovered in Wuhan, a surveillance system was implemented. ・On 7 January 2020, the Risk Management Office was established. In response to the confirmation of the first infections in Japan on 27 January, we started restricting visits by family members, non-essential contractors, and related parties. No outsiders were allowed in, and the staff inside the facility had as little contact with the outside as possible. ・In February, after receiving reports that a taxi driver had been infected with the coronavirus in a neighbouring area, staff were prohibited from using taxis from 14 February, and they were allowed to commute by private cars, which is not normally permitted. Back-office staff transitioned to telework. ・Crisis management experts were placed within the organisation. In addition, we had an expert on infectious diseases as an advisor and acted as we received their advice. ・The response manual was updated as needed, based on information related to the coronavirus.

Item	Confirmed Details
	・ For infection prevention measures, we generally follow the instructions and guidance of the public health centre, but since it may take time for the authorities to send information and make contact, we set our own stricter conditions and made our own judgements.(e.g. criteria for certifying close contacts, etc.) ・ After the outbreak of the Omicron strain, devices were deployed to negatively pressure users' rooms. By creating a negative pressure in the room, bacteria were prevented from exiting. ・ Not only dividing the area, zoning is also implemented, and when personnel move from the red zone to the yellow zone, a decontamination constructed from plastic sheets is set up, where personal protective equipment, gloves, etc. are removed before going out into the green zone.
4) Improvement challenges for infection prevention	・ Medical facilities have a hardware structure that allows them to be isolated in order to deal with infectious viruses and bacteria. The problem with long-term care facilities is that that their main purpose is to provide daily life support, and they are structured so that users may freely access them and may use shared areas. Therefore, if an infection occurs in a long-term care home, the infected person must be transferred to a medical institution immediately. Otherwise, the infection will spread rapidly within the facility. ・ In a situation where mutations occur continuously, it is difficult to incorporate the response for each mutation in the manual in a timely manner, and it takes time to update the information and spread it amongst the staff.
5) BCP formulation status	Formulated around 2009.
6) Efficacy and effects of BCP	・ The necessary items and their quantities are specified in the BCP. Against the backdrop of the gradual shortage of masks and disinfectants, as of February 2020, we made estimates for items that were likely to be in short supply and items whose prices were expected to rise and procured hygiene items such as masks, antiseptic solutions, and gowns and food that can be stockpiled for about 3 months.
7) Advance preparation for BCP operation in an emergency	・ Even before the coronavirus crisis, we established a crisis management countermeasures office and have been conducting risk management in normal times. Risk monitoring is carried out from a global perspective. ・ Ever since the outbreak of the H1N1 strain of influenza, small

Item	Confirmed Details
	amounts of chlorine dioxide have been sprayed inside the facility regularly to create a sterilised environment.
	・ Efforts are being made to develop management personnel even during normal times. In addition to in-house training, employees are required to attend training related to critical thinking and management at external educational institutions.
	・ Although there is no serious shortage of personnel, if there is a shortage of personnel in the future, administrative staff will be dispatched to the facility. So that they are able to do not only administrative work but also care work, we try to perform multitasking during normal times, and our employees understand and accept this.
	・ It is generally said that the ratio of effort required to formulate a BCP is 8:1:1, but in order to make it an effective BCP in practice, we feel the ratio should be revised to 20% documentation, 40% training and improvement, and 40% review.
	・ There are two types of training methods: desktop training and practical training. The former is to actually, physically move, confirm the need for any necessary equipment, etc., and make improvements. The latter is to discuss at the desk whether the countermeasures work. These are carried out by site leaders and above.
	・ In addition, when categorising by training content, there is event training and scenario training.
	・ We manage training participation on an individual basis, and record who received which training and when, and enable regular participation. Training should also be evaluated.
8) BCP/BCM improvement challenges	The Tokyo metropolitan government is trying to promote cooperation amongst local facilities in the case of emergency, but it is not realistic. It is not easy to go to the different facilities of other corporations and provide care for different users. There is also the risk of bringing in infections from other facilities. Another issue is the content of the partnership agreement that needs to be concluded in advance.
■Key insights Findings recognised by interviewers as important for demonstrating crisis response capabilities	Speedy initial response and fully functioning crisis management system during normal times ・The initial response, presumed to be the fastest in Japan, even before the corona pandemic was recognised, and the crisis management system routinely implemented to make it possible are unparalleled. Robust business continuity management systems are being built.

Item	Confirmed Details
and resilience	・ Risk management experts are being appointed, the cooperation of infectious disease experts enlisted, and BCM initiatives, formulation of BCP, training of staff, etc. are being carried out. ・ In terms of infection prevention measures, we established our own standards, which were stricter than the government's and implement these thoroughly. ・ We reckon that all efforts to ensure our crisis response capabilities and resilience to the coronavirus crisis are at the highest level both domestically and internationally.

BCP = business continuity plan, BCM = business continuity management, ICT = information communication and technology.

Source: Compiled by authors.

3.   Lesson Learnt from the Research

Based on the interview results, vulnerabilities of risk management, human resource management, facility and equipment management, ICT management, operation management, and governance were summarised. Table 3.5 shows the results.

Table 3.5. Vulnerability in Long-term Care Facilities

Target Area	Main Vulnerabilities
Risk management	・ BCP has not been formulated ・ Insufficient BCM effort ・ Although risks related to natural disasters, infectious diseases, information security, etc. are increasing, the risk awareness of employees is low.
Human resources (personnel and organisation) management	・ The organisation has not been properly structured (structures for allocating roles and responsibilities have not been developed). ・ Chronic shortage of personnel. As a result, many employees work overtime, and the workload is heavy. ・ Insufficient management and leadership education for managers and front-line leaders ・ Personnel evaluation and treatment based on it are not functioning properly
Facility and equipment management	・ The facility structure is not based on the premise of isolation, as in medical care (all users can access the common areas) ・ The facility structure is not user-oriented ・ Preparatory inventory of necessary goods is not secured

ICT management	• Little progress in the application of ICT in clerical work (employees' ICT literacy is low, and clerical work such as work recording, information transmission and sharing is inefficient.) • Little progress in the use of robots in care work.
Operation management	• There is no task assignment or division of roles based on expertise • Poor collaboration with other departments
Governance (philosophy, structure, and system)	• Weak management skills of top management and administrators • Management philosophy and management policy are not fully spread amongst employees • There is a discrepancy between the notion and the actual practice of care • Front line opinions are not reflected due to the top-down approach

BCP = business continuity plan, BCM = business continuity management, ICT = information and communication technology.

Source: Compiled by authors.

Similarly, resilience based on each domain is summarised in Table 3.6.

Table 3.6. Resilience in the Long-term Care Facilities

Target Area	Main Resilience
Risk management	• Mutual support between nearby facilities as a countermeasure for staff shortages • However, in an emergency, all facilities will be understaffed, and it will not be easy to dispatch staff to other facilities. In advance, it is necessary to discuss the rules for dispatching support staff at local facilities, and determine the work duties, roles, duration, remuneration, and compensation for damages in the event of infection. • To be thorough about business continuity management (BCM) • Formulation of a business continuity plan (BCP) is one of the processes of BCM. How realistic and effective a response system can be built for BCP execution in an emergency depends on the thoroughness of BCM in normal times. • Importance of initial response and timely modification of countermeasures. • In emergency management, the most important thing is a quick initial response. If the initial response is delayed, the damage will spread. Since the situation changes from moment to moment, it is also necessary to modify the response in a timely manner. Review while practicing emergency responses and make corrections as needed.

Target Area	Main Resilience
Human resources (personnel and organisation) management	• Create a collaborative system during normal times to deal with an increase in the amount of work in emergencies and staff shortages. ex, a system supported by occupations other than long-term care staff such as administrators, nurses, and administrative staff, introduction of multitasking during normal times, etc. • Strengthen the management system during normal times and develop front line leaders • If management is strong during normal times, they will be able to take appropriate measures even in times of emergency. Particularly, it is important to train front line leaders to assist the director of the facility. • In an emergency, it can be assumed that the front line leader will need to make decisions quickly for the unit they are in charge of, and that decisions will need to be made on behalf of the facility director if they are unable to work due to infection or some other reason.
Facility and equipment management	• Pre-emptively procure goods to prevent shortages of necessary goods. • In BCP, set sufficient spare inventory. • Recognise the effectiveness of ventilation in preventing infection and implement thorough ventilation measures. • Implement negative pressure countermeasures, sterilisation and sterile environment creation, etc., as seen in survey cases.
ICT management	• Promotion of smart care: ex, use of robots for monitoring, communication support, transfer and movement support, toilet support, etc., and ICT utilisation for contactless care. • Digitisation of long-term care work management: for example, introduction of a system that digitises work schedules, management of services provided, and work records, as seen in the survey cases. This makes it possible to visualise the work and fully understand the status of contact with the user. • Video conferencing systems (e.g. Zoom meetings) are effective for decision making, transmission of instructions, information sharing, etc. It is also possible for isolated managers to give instructions and participate in meetings from home.
Operation management	• Prioritise the services to be provided, for example, based on the staff availability rate (ex. 30%, 50%, 70%, 90%, etc.). Determine the services to be provided according to the service priority. • Introduction of contactless care, for example, using sensors in living spaces and on beds to monitor the users' movements, body temperature, pulse rate, etc., and to control room temperature, humidity, etc. remotely. • To be thorough about zoning.

Target Area	Main Resilience
Governance (Philosophy, structures and systems)	• Leadership of top management, quick and accurate judgement. • Clarification of the chain of command, prompt decision-making (system), and clear instructions to staff. • Thorough communication and sharing of information within the organisation. • Clarification of the substitution order in an event when the person in charge is absent.

BCP = business continuity plan, BCM = business continuity management, ICT = information communication and technology.

Source: Compiled by authors.

4.   Recommendations for Long-term Care Businesses to Prepare the Future Pandemic

In any case, during the pandemic, it is easy to fall into a reactive response by focusing only on LTCFs vulnerabilities and thinking about workarounds. However, it is well known in Japan that proactive responses are necessary in the event of a crisis such as a natural disaster. It can be said that this proactive response is also required when responding to an unknown infectious disease pandemic such as COVID-19.

The principle of proactive response is said to be the following three actions:

- **Act when in doubt**. Waiting until the situation becomes clear can make things worse. Even when the situation is unclear, we should start responding whenever there is a 'situation that triggers action', based on prior knowledge.

- **Act assuming the worst situation**. Wishful thinking will solve nothing. By always thinking about the worst in some corner of your head and act, you can expand your ability to respond.

- **Trying and failing can be forgiven, but inaction cannot be**. We should act proactively with 'inspiration from necessity', asking ourselves 'what is it that we should be doing now? even if it turns out that there was no actual damage or effect to be dealt with, our experience value increases and our capacity for action is improved. (Kimura, 2018).

Proactive response is the key to the operation of a resilient LTCF. To apply the lessons learned from this study to crises such as future pandemics, LTCF administrators should focus on the following:

4.1.   Risk Management

- It should be reaffirmed that the creation of BCPs to take emergency response measures is part of BCM. BCM should make more efforts not only in the preparation of documents like BCPs, but also in training and improvement of risk response. Since BCM and BCPs are part of risk management in organisational management, BCM should focus on training and improvement to raise and maintain the level of knowledge, attitudes, and practice of staff regarding infectious diseases in normal times.

- Agile initial response and timely tuning are important. Proactive measures should be taken.

4.2. Human Resource Management

- Employees should be instructed to avoid risks not only in the workplace but also outside the workplace. Staff are also worried about not just getting infected, but infecting others (Appendix 1). Efforts should be made to raise awareness of the attitude of 'not being too scared, but to be appropriately scared' against infectious diseases, and to care for those who care for the elderly.

- Staff should be prepared to become infected or close contacts and be unable to perform their duties. The possibilities and limitations of support agency measures from other departments, occupations, managers, and other facilities should be examined. Based on the reconfirmation of the job regulations, staff should be trained to understand and practice multitasking (performing multiple tasks simultaneously and simultaneously while switching between them in a short period of time) in crisis situations.

- Inspections should be carried out on the minimum tasks that should be secured and those that should be omitted as excessive in an emergency.

- Emphasis should be placed on mental health care for staff.

4.3. Facility Management

- Unlike medical institutions, LTCFs are considered to be places of life, so they are not supposed to have facilities and equipment such as quarantine spaces, zoning, negative pressure rooms, and ventilation equipment, but they should be able to respond to situations where they cannot transport patients to hospitals, accept discharged patients, and isolate and follow up for those who are close contact with patients.

- Especially, LTCFs should share knowledge that COVID-19 is transmitted through aerosol transmission and train in correct equipment installation and operation to control ventilation (See Appendix 1).

- Stockpiling of equipment necessary for infection prevention and mutual accommodation of equipment between facilities should be ensured.

4.4. ICT Management

- During the COVID-19 pandemic, advanced LTCF s experienced the effectiveness of online interviews, intercom communication, online meetings, telework, and YouTube utilisation. However, many LTCFs have not yet introduced ICT or care robots. Digital transformation of care should be promoted as soon as possible.

- Software for long-term care schedule management should be used to track actions in emergencies to identify infection routes and prevent infection.

- For establishing contactless care, efforts should be made to spread ICT literacy, job redesign, and build an ideal image of smart care.

4.5.   Operation Management

- Cascade down on infectious disease control (the process of strategically breaking down the goals set by the person in charge of a company or organisation and assigning them to subordinate groups and individuals) should be clarified. To this end, the job descriptions of each level of staff should be clarified, the scope of responsibility and discretion for each position should be clarified, and training should be conducted with clear output of the knowledge and skills necessary to achieve the competency.

- Efforts should be made to develop onsite leaders (core specialists) in normal times.

- For responding to the increased workload due to infectious disease control, the priority of work in normal times should be considered and essential operations should be reviewed.

- The introduction of contactless care using sensor technology should ease the burden and concerns on staff.

4.6.   Governance

- Risk management is an important strategic activity in the management of LTCFs. BCM, which is one of them, requires the efforts of the entire organisation. To this end, all employees should raise their risk awareness.

- Since top management is entrusted with the greatest responsibility and discretionary authority, they should make agile and accurate judgements on unexpected risks.

- Thorough cascade down procedures should be ensured.

- Information should be shared by all staff so that it does not become just a top-down approach.

- For making quick decisions, the substitute ranking in the absence of the top management should be clarified.

Since Japanese LTCFs are controlled under the public long-term care insurance system, this study did not discuss the impact of COVID-19 on the management of finances, services, and marketing. Of course, these remaining issues are important for BCM of LTCFs. However, due to the different political and economic backgrounds of each country, it is difficult to share the financial, service, and marketing challenges of Japanese LTCFs at this time. On the other hand, LTCF managers in each country can share lessons learnt from the experiences of Japanese LTCFs during COVID-19 regarding risk, human resources, facilities, ICT, operations, and governance.

References

Keishin Gakuen Vocational Education Research and Development Center (2020), 'Training Module for Managers of Long-term Care Provider. A Project to Build a Modular Learning System by Utilizing E-learning to Train Managers of Long-term Care and Welfare Services'. Reiwa FY2 Specialized Training School Recurrent Education Comprehensive Promotion Project commissioned by the Ministry of Education, Culture, Sports, Science and Technology (MEXT). https://keishin-group.jp/pdf/report34.pdf (in Japanese)

Keishin Gakuen Vocational Education Research and Development Center (2021), 'Training Module for Managers of Long-term Care Provider. A Project to Build a Modular Learning System by Utilizing E-learning to Train Managers of Long-term Care and Welfare Services. Reiwa FY2 Specialized Training School Recurrent Education Comprehensive Promotion Project commissioned by the Ministry of Education, Culture, Sports, Science and Technology (MEXT). https://keishin-group.jp/pdf/report40.pdf (in Japanese)

Kimura, R. (2018), 'How to Increase 'Personal Awareness' of Disasters - Focusing on Evacuation Behavior'. No. 2 Research Information Magazine ECPR.

Ministry of Health, Labour and Welfare (2020a), 'Guidelines for Business Continuity at Long-term Care Facilities and Providers in the Event of COVID-19.'

Ministry of Health, Labour and Welfare (2020b), 'FY2019 Subsidies for Work Preparation Support for Those in Need. Social Welfare Promotion Project Survey and Research Project on the Usefulness of BCP in Social Welfare Facilities.' MS&AD InterRisk Research & Consulting, Inc.

Ministry of Health, Labour and Welfare (2021), 'Points for Creating a Business Continuity Plan (BCP) in the Event of a New Coronavirus Infection Outbreak at Long-term Care Facilities and Providers -Common Matters'. https://www.mhlw.go.jp/content/000744335.pdf (accessed 31 July 2022). (in Japanese)

Ministry of Health, Labour and Welfare (2022), 'Guidelines for Business Continuity at Long-term Care Facilities and Providers in the Event of COVID-19' (revised). https://www.mhlw.go.jp/content/000922077.pdf_1_Aug.2022 (accessed 31 July 2022). (in Japanese)

NTT Data Institute of Management Consulting, Inc. (2022), 'Survey and Research Project on Business Operators' Efforts on Infectious Disease Countermeasures and Business Continuity'.

Tokyo Metropolitan Social Welfare Corporation Management Optimization Study Group (2011), 'Towards Optimal Management of Social Welfare Corporations'.

World Health Organization (WHO) (2020), 'Responding to Community Spread of COVID-19'. https://apps.who.int/iris/bitstream/handle/10665/331421/WHO-COVID-19-Community_Transmission-2020.1-eng.pdf (accessed 31 July 2022).

Chapter 4

Environmental Health Resilience: Monitoring CO_2 in Health and Long-term Care Facilities

1.   Background

Ventilation is one of the crucial elements of the novel coronavirus disease (COVID-19) prevention. The Japanese government launched the 'Avoid the Three Cs (*Sanmitsu-Kaihi*)' (crowded places, close-contact settings, and confined and enclosed spaces) approach at the beginning of the pandemic in March 2020, which was further endorsed by the World Health Organization (WHO) in July 2020. Through this approach, it was recommended to open windows and doors for ventilation (Figure 4.1). With the growing awareness of the mode of transmission of COVID-19, in December 2021, the WHO acknowledged that COVID-19 spreads not only by droplet transmission but also by airborne transmission (WHO, 2021). In a closed place where many people stay, such as in classrooms, meeting rooms, buses, trains, airplanes, or restaurants, the virus, if present, would remain in the air and infect others who are in the same closed space. Ventilation to evacuate contaminated air eliminates COVID-19 and prevents infection.

Figure 4.1. Avoid the Three Cs
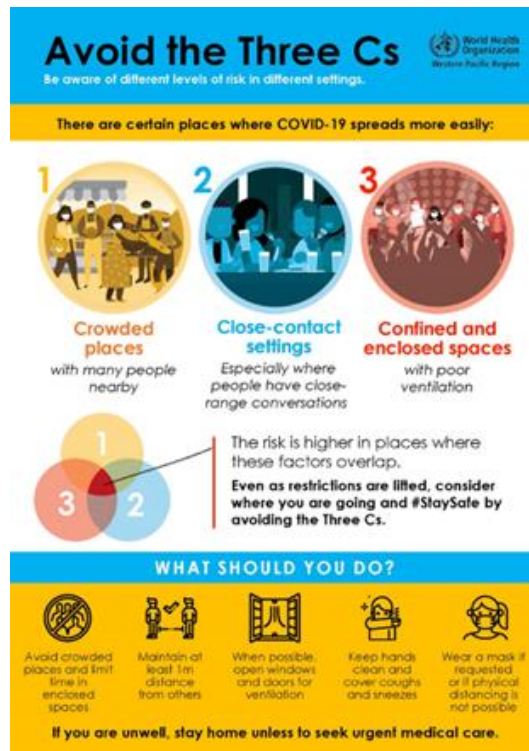
Source: WHO (2020).

In this research project, a system to monitor the carbon dioxide (CO_2) level as the proxy of air ventilation was implemented in health and long-term care facilities, and the system installation process was observed.

2. Methods and Findings

The CO_2 monitoring system comprises a CO_2 monitor, smartphone/PC, and an internet of things (IoT) service (Figure 4.2). A 'pocket CO_2 sensor'[1] was chosen because it is small and lightweight, has in-built Wi-Fi, is relatively affordable, and has multiple data handling systems in cloud storage, smartphones, and with an attached light-emitting diode (LED) panel. 'Ambient Free Cloud'[2] was used for data storage and visualisation if the sensor was successfully connected to Wi-Fi and the internet. If not, the sensor was connected to a smartphone, and the data are stored in the app together with location information obtained from the smartphone's global positioning system (GPS). If the sensor could not be connected to the internet or smartphone app, the CO_2 level was checked from the LED display on the sensor.

Figure 4.2. **CO_2 Monitoring System**
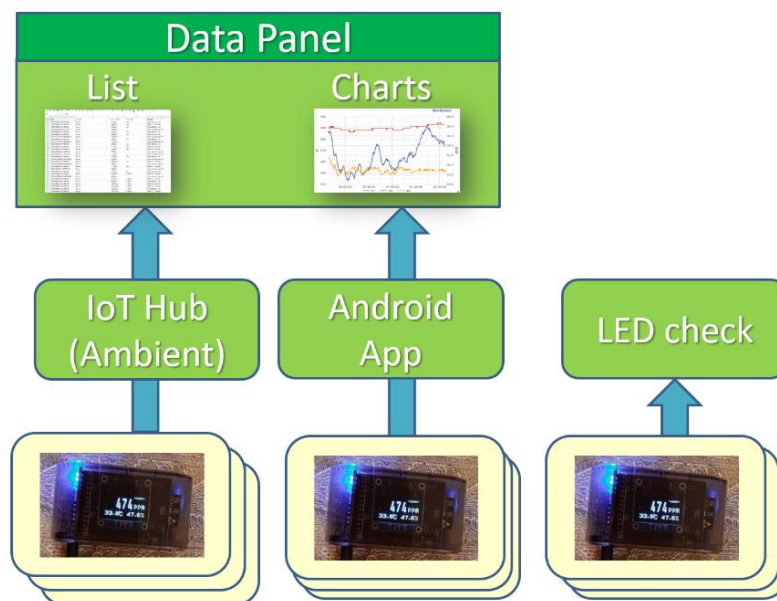
IoT = internet of things, LED = light emitting diode.
Source: Authors.

The CO_2 level of outside air is around 400 parts per million (ppm), and exhaled air from a person is around 45,000 ppm. Thus, when the number of people increases and the length of stay becomes longer, the CO_2 exhaled from persons in the space will increase the CO_2 level if there is no ventilation mechanism. The CO_2 level is recommended to be below 1,000 ppm by the Japanese Ministry of

---

[1] The detailed explanation of the sensor is available at https://sites.google.com/view/pocket-co2/
[2] The service is accessible from https://ambidata.io/

Health, Labour and Welfare (MHLW, 2022) and the United Kingdom's Health and Safety Executive (HSE, 2022).

The CO_2 monitoring system was prepared by the research team to be implemented in health and long-term care facilities in Japan, Thailand, and Indonesia. Amongst the 19 locations contacted, two in Japan successfully implemented the IoT data cloud system, 10 in Indonesia stored the data in the smartphone app, and seven in Japan and Thailand used an LED display only. The example of the data obtained in the cloud or app is shown in Figure 4.3. In charts A and B, several different patterns are observed. It is because the sensors were carried from room to room to check the ventilation. Chart C only shows data in one location, but the CO_2 level fluctuates. When the number of people increases in the monitored room, or when the exhaled air hits the sensor, the CO_2 level increases. The CO_2 level fluctuates according to the situation. No location recorded a CO_2 level exceeding 1,000 ppm.

Figure 4.3. Examples of CO_2 Monitoring
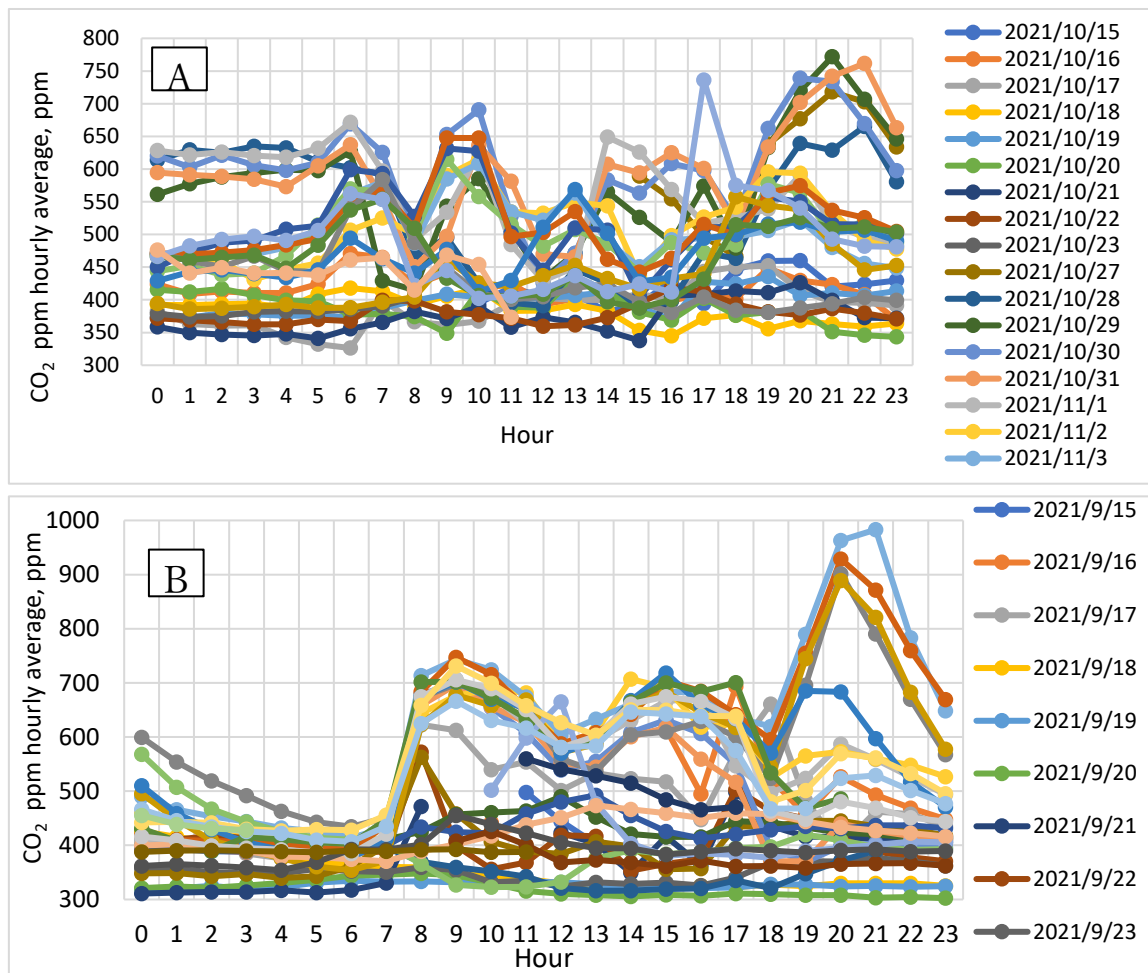
Figure 4.3. *Continued*

CO$_2$ = carbon dioxide, ppm = parts per million.
Source: Authors.

3.   Lessons Learnt

Monitoring the CO$_2$ level continuously and automatically via IoT is the optimal way. However, it is not easy to implement without a specialised technician. Under the high alert of COVID-19, many facilities restricted the entrance of non-residents, and it became difficult to install and configure the sensors to be connected by Wi-Fi to IoT. The android app was easier to implement and adds geographical location information but will be used only when the smartphone is available. The LED display is a simple but quick way to check the CO$_2$ level, but it does not record cumulative data. For the dissemination of CO$_2$ monitoring, easy-to-install devices, such as built-in monitors attached to the air-conditioning switches, would be helpful.

In this experiment, no locations recorded CO$_2$ levels of more than 1,000 ppm. There are biases, such that those who participated in this experiment were well aware of the importance of ventilation and might have responded quickly to a rising CO$_2$ level. Also, in Indonesian long-term care facilities, the rooms are not equipped with air-conditioning; thus, they keep windows and doors open (Figure 4.4). It must have reduced cluster infection in long-term care facilities in Indonesia.

Figure 4.4. Well-ventilated Long-term Care Facilities in Indonesia

Source: Authors.

4.   Recommendation to Policymakers and Long-term Care Professionals

Before COVID-19, the importance of ventilation was somewhat neglected. With COVID-19, ventilation has become a crucial component for infection control, and CO_2 monitoring has become an effective tool. This time, we conducted a trial experiment on how the CO_2 monitoring system would be accepted and used in health and long-term care facilities in Asian countries. Like temperature and humidity, the level of CO_2 should be monitored regularly in a space where humans live, especially in health and long-term care facilities. The system needs to be simple so that it would be utilized widely. The small sensor that is easy to carry could detect the CO_2 in different rooms in different locations instantly, raising awareness of air quality and ventilation.

References

Health and Safety Executive (HSE) UK (2022), 'Ventilation in the Workplace. Using CO_2 Monitors'. https://www.hse.gov.uk/ventilation/using-co2-monitors.htm

Ministry of Health, Labour and Welfare (MHLW), Japan (2022), 'Kenchikubutsu Kankyou Eisei Kanri Kijun ni Tsuite' (On the building environmental hygiene management standards). https://www.mhlw.go.jp/bunya/kenkou/seikatsu-eisei10/

World Health Organization (WHO) (2020), 'Avoid the Three Cs'. https://www.who.int/brunei/news/infographics---english

WHO (2021), 'Coronavirus Disease (COVID-19): How is it Transmitted?' https://www.who.int/news-room/questions-and-answers/item/coronavirus-disease-covid-19-how-is-it-transmitted

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

Chapter 5

Navigating Resilience and Vulnerability: Everyday Lived Experiences of Migrant Care Workers in Japan During the COVID-19 Pandemic

1.   Background of Migrant Care Workers in Japan

In recent years, the number of foreign workers in Japan has rapidly increased, especially in health and welfare services. According to the Japanese Ministry of Health, Labour and Welfare (MHLW), as of the end of October 2021, the number of foreign workers in Japan stood at 1,727,221, 1.6 times larger than that at the end of October 2016. Amongst those, 17,434 foreign nationals were engaged in medical and social welfare services at the end of October 2016, increasing to 57,788 at the end of October 2021 in the same sectors: 3.3 times more than in the past 5 years (Figure 5.1). Amongst these, Filipinos and Vietnamese (Figure 5.2) constitute the majority engaged in the field of elderly care.

The residence status of these workers is diverse. They comprise permanent residents, long-term residents, the spouses or children of Japanese nationals, designated activities, technical intern training, nursing care, and specific skilled workers (hereafter, abbreviated as SSW), amongst others. The latter visa categories were established after 2016 in response to a severe shortage of elderly-care workers in Japan (Figure 5.3).

In February 2020, the novel coronavirus disease (COVID-19) pandemic spread within Japan and significantly impacted long-term care facilities located across the country, many of which employ migrant care workers. Within these, cluster infections occurred in a substantial number.

Most long-term care facilities restricted visits, including the relatives of elderly residents and required staff to constantly wear masks and other personal protective equipment (PPE) in the workplace and maintain frequent disinfection and ventilation. This 'new-normal' led to the rise of new workstyle patterns that were accompanied by transformation in the lives of the elderly and those employed to care for them.

To ascertain what kinds of transformation occurred, our research team (Shun Ohno, Yuko O. Hirano, Mario Ivan Lopez, Wako Asato, Yoichi Hiruma, and Reiko Ogawa) conducted fieldwork and research just after COVID-19 was declared a 'pandemic' by the World Health Organization (WHO) on 11 March 2020.

Figure 5.1. Transition of Numbers of Foreign Workers Engaged in Medical and Welfare Services in Japan (October 2016–October 2021)
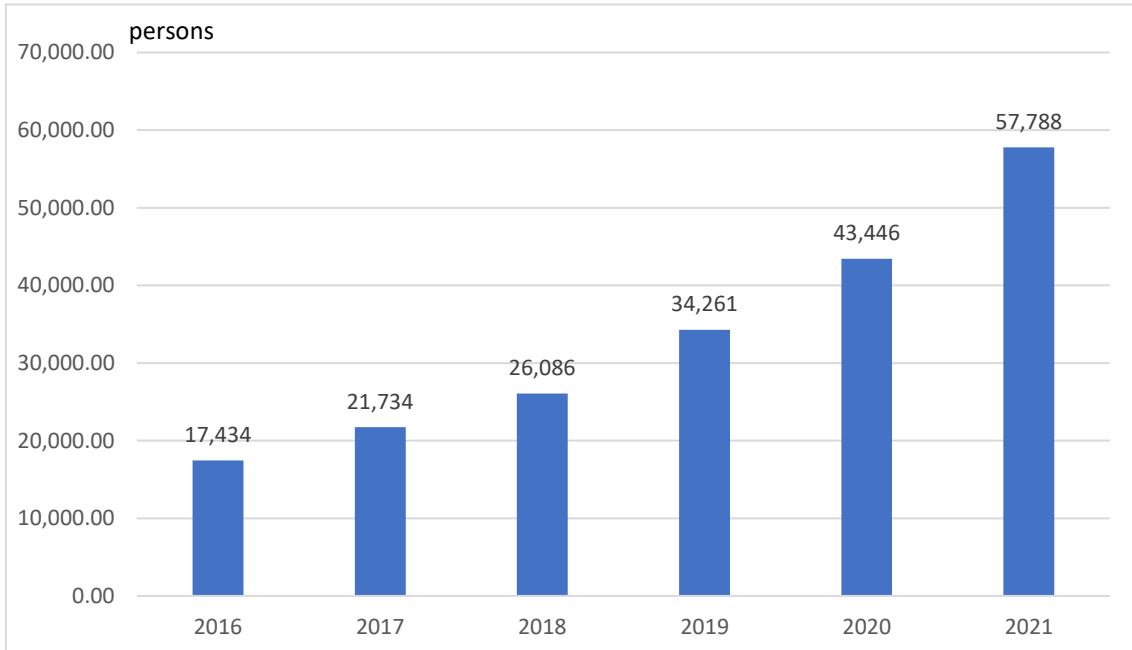
Source: Drafted by the authors based on data obtained from the Ministry of Health, Labour and Welfare (MHLW) (2022a).

Figure 5.2. Breakdown of Foreign Workers Engaged in Medical and Welfare Services by Nationality (as of October 2021)
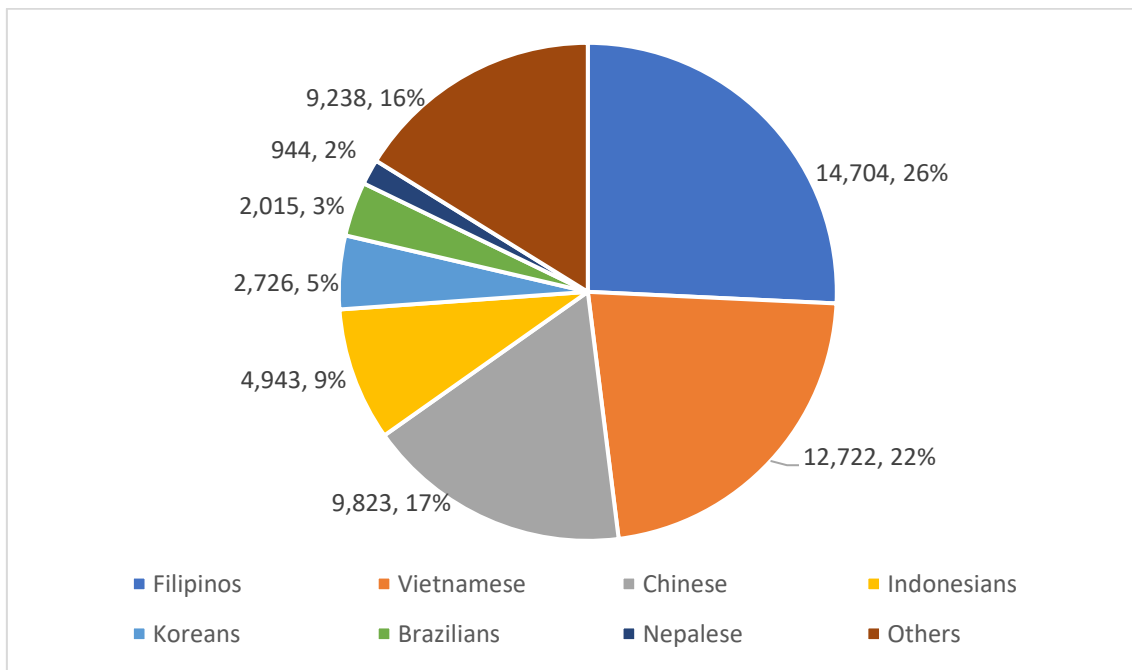
Source: Drafted by the authors based on data obtained from MHLW (2022a).

1.1.   Outline of Research

Research team members investigated the multiple problems that migrant care workers encountered working in long-term care facilities during the pandemic and conducted interviews on a wide range of issues such as transformation in employment; changes that impacted daily private life and mental health; individual resilience, and future plans under the prolonged pandemic.

Onsite and online interviews were conducted with a total of 60 migrant care workers. These included certified care workers (*Kaigo-fukushishi* in Japanese) technical intern trainees, specific skilled workers, and part-time working 'care students' studying at vocational schools for certified care workers. Interviews were also conducted with long-term care facility employers, Japanese co-workers, city government officials as well as the directors of the Japan International Corporation of Welfare Services (JICWELS) who nationally coordinate projects concerning the movement of care and nursing workers under Japan's economic partnership agreements (EPAs) with Indonesia, the Philippines, and Viet Nam.

As Vietnamese workers occupy the largest group of migrant care workers in Japan, our team paid particular attention to their conditions. From December 2021 to January 2022, Hiruma and his partner scholars conducted questionnaire surveys with 54 technical intern trainees in the Chubu region including follow-up interviews. Additionally, in July 2022, focus group discussions were conducted with technical intern trainees as well as care students from Viet Nam in the Kansai region. These discussions intended to clarify Vietnamese participants' awareness of problems they faced during the pandemic and identify any differences between the experiences of technical intern trainees and care students. The outcomes of these surveys are reported in the following sections.

An additional focus of research was to examine the resilience and vulnerability of migrant care workers during this pandemic. To this end, in July 2022, our team conducted questionnaire surveys with 219 international students studying at three vocational schools for certified care workers located in the Kanto and Kansai regions. The surveys assessed a range of factors, including respondents' social demographic characteristics, sense of coherence (SOC), and a general health questionnaire (GHQ). Results and analyses are presented in Section 3.

To gain a deeper understanding of the experiences of migrant care workers, employees and local officials in Fukuoka City and its surrounding areas, research members – consisting of Ohno, Lopez, and Hirano – conducted a series of onsite interviews in October 2020 and December 2021. As one of the cities in northern Kyushu that has actively recruited foreign care workers in response to a shortage of Japanese care workers, Fukuoka provided a particularly informative site for our study. Through intermittent surveys, we sought to document changes in employment conditions and shifts in awareness of critical issues amongst migrant care workers during the pandemic. Our findings, which shed light on the lived realities of these workers and their communities, are presented in Section 4.

1.2.   Diversification of Migrant Care Workers in Japan

In this section we examine the changing landscape of migrant care workers and how they have started to diversify in Japan in recent years. Since 2008, through EPAs concluded with three Southeast Asian

countries – Indonesia, the Philippines, and Viet Nam – Japan has been accepting 'candidates'[1] for certified care workers (Indonesia 2008, Philippines 2009, and Viet Nam 2014). The Japanese government has allocated a substantial budget for training candidates, who are granted a 'designated activities' status to let them pass the national licensure examination for certified care worker. Each year, respective sending countries can send no more than 300 care workers. Candidates are required to return to their country if they do not pass the examination within 4 to 5 years after arrival in Japan. As of 2022, 2,950 EPA candidates have passed exams (Ministry of Health, Labour and Welfare, 2022b). However, it is worth noting that due to various reasons, a substantial number of those who have passed the exam have already left Japan. Our analysis sheds light on these trends and their implications for the field of migrant care work in Japan.

Table 5.1. Outline of Diversified Statuses of Residence for Migrant Care Workers in Japan

Status of Residence	Aim	Beginning Year	Certified Care Worker (CCW) Qualification	Future Prospect
Designated activities	Japan's economic partnership agreements (EPAs) – including the provision of movement of care and nursing workers – with Indonesia, the Philippines, and Viet Nam aim to strengthen their economic partnerships, but do not intend to respond to Japan's labour force shortage in the sectors concerned.	2008 in the case of EPA projects	The aim is to pass the national licensure exam for CCWs and obtain CCW qualifications within 4–5 years after arrival in Japan.	CCWs under the EPAs can extend their status of residence as many times as they want as long as they continue to work as CCWs. They have the right to have family members accompany them to Japan. Permanent residency is possible.
Nursing care	Aims to grant stable working status in Japan to migrants who graduated from CCW training schools or who obtained CCW licensure by other methods.	2017	Training school graduates who wish to work as CCWs for more than 5 years are required to pass the national exam for CCWs within 5 years after their	Nursing care visa holders can extend their status of residence as many times as they want as long as they continue to work as CCWs.

---

[1] Japan's EPAs with Indonesia, the Philippines, and Viet Nam allow Southeast Asian care workers to become certified care workers after they pass the national licensure examination in Japan. Before they pass the exam, they are called 'candidates for certified care workers'.

			graduation. They can hold a CCW licensure even if they fail the exam and they can continue to work as care workers for more than 5 years.	They have the right to have family members by accompany them to Japan. Permanent residency is possible.
Technical intern training	The aim is to transfer their skills obtained in Japan to their home country. Basically, trainees are not allowed to change workplaces. Family members are not permitted to accompany them to Japan.	2017	If the trainees fulfill some requirements, they can take the CCW exam. If they pass, they can change status from residence to nursing care worker.	The total length of stay in Japan is 5 years in length. Those who passed the CCW exam can change status of residence to nursing care worker and continue to work in Japan.
Specified skilled worker(i)[2]	Aims to fill labour force vacancies in selected industrial sectors. Granted to certain-level skilled workers. EPA candidates who could not pass the CCW exam within 4–5 years can receive this status as long as they fulfill some requirements. Family members are not permitted to accompany them to Japan.	2019	If the workers fulfill some requirements, they can take the CCW exam. If they pass, they can change status of residence to nursing care worker.	The total length of stay in Japan is 5 years at length. Those who pass the CCW exam can change status of residence to nursing care worker and continue to work in Japan.

Source: Prepared by the authors based on data from Ministry of Health, Labour and Welfare (MHLW).

Despite the EPAs that Japan has established, the flow of care workers has not ameliorated the serious shortage of workers. In 2016, the Japanese government took active measures, introducing new initiatives to increase the number of foreign workers. This included the addition of nursing care for

---

[2] The 'Specified skilled worker' has two types: Specified Skilled Worker (i) and Specified Skilled Worker (ii). The latter is a status of residence for foreign nationals engaged in jobs that require proficient skills in specified industry fields. These fields do not include nursing care.

technical intern training programmes, the creation of a new residency status for graduates of schools for certified care workers called 'nursing care', and the establishment of a 'specified skilled worker' (SSW) category for those who have higher skills and Japanese language proficiency than technical intern trainees (Table 5.1).

Following the introduction of new residency status and training programmes, there has been a significant increase in the number of foreign care workers in recent years. Notably, this trend continued even after the COVID-19 pandemic was declared by the World Health Organization (WHO) in March 2020 (Figures 5.3 and 5.4), with a substantial increase in technical intern trainees and SSWs.

Figure 5.3. Transition of Numbers of Approved Technical Intern Training Plans in Nursing Care[3] (March 2019–March 2021)
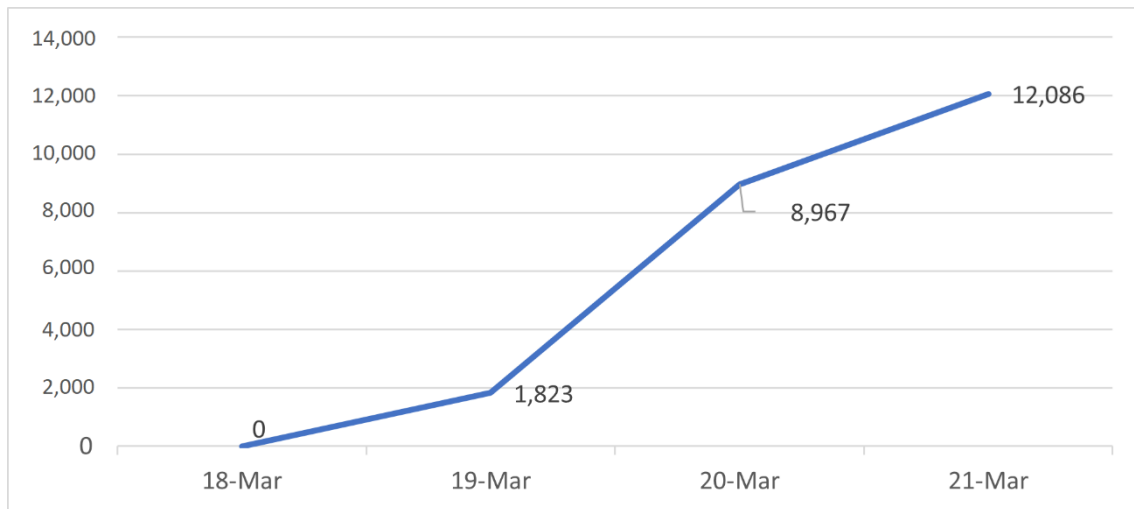
Source: Drafted by the authors from data of the Organization for Technical Intern Training (OTIT) (2021).

---

[3] The number of approved technical intern training plans is not exactly same as that of technical intern trainees residing in Japan since the former includes the number of approved trainees who did not enter Japan.

Figure 5.4. Transition of Numbers of Specific Skilled Workers in Nursing Care (June 2019–March 2022)

Persons
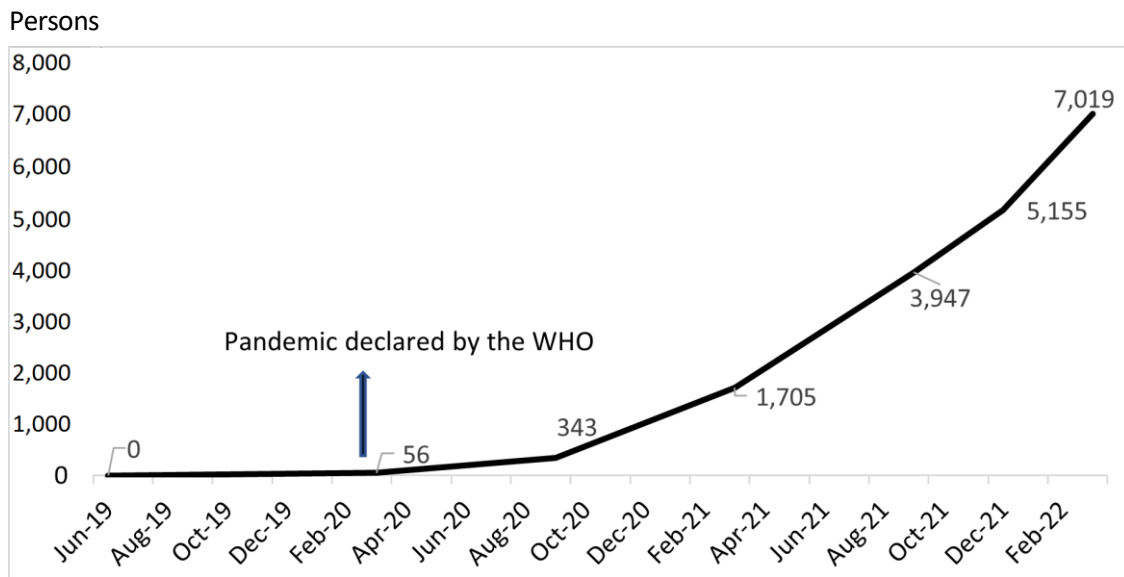
WHO = World Health Organization.
Source: Drafted by the authors based on date obtained by the Immigration Services Bureau of Japan (2022).

Another group of foreign workers in the care industry, known as 'care students,' those international students studying elderly care at schools for certified care workers, have also seen an increase from 2017 since the introduction of the 'nursing care' residency status for graduates of those schools. However, due to the impact of the pandemic, this growth showed a slight decrease in fiscal years 2021 and 2022 possibly due to the pandemic (Figure 5.5).

Figure 5.5. Transition of Numbers of Foreign Enrolled Care Students Studying at Schools for Certified Care Workers (2017–2022)
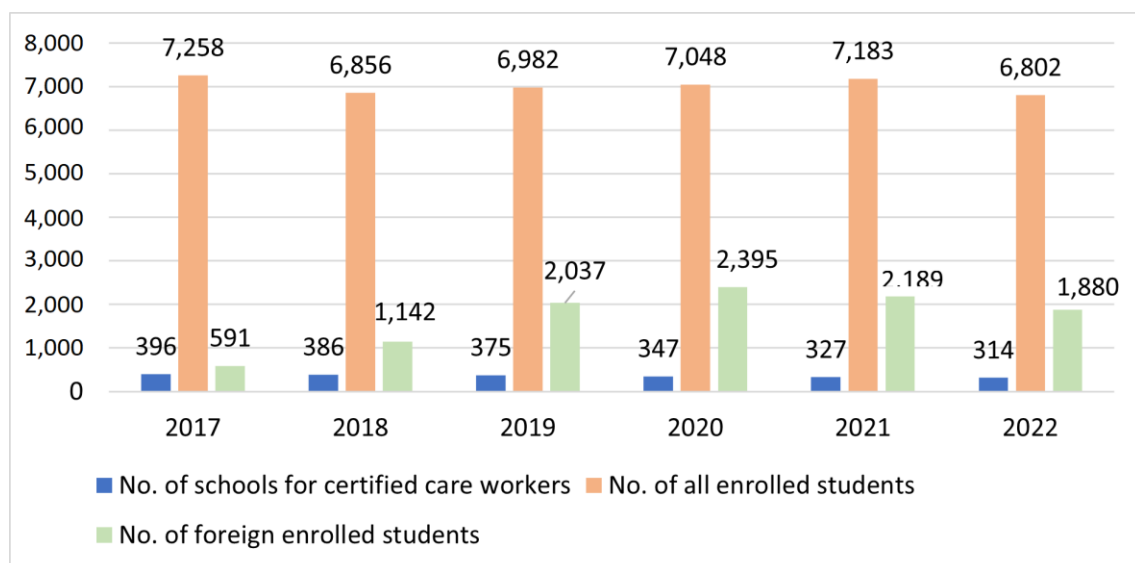
Source: Drafted by the authors from data of the Association of Educational Facilities for Certified Care Worker (2022).

In recent years, the number of Vietnamese care workers entering Japan has increased significantly, making them one of the largest groups of new foreign care workers. As of March 2021, 43% of all nursing care trainees (out of 12,068) were Vietnamese technical intern trainees (5,152) (OTIT, 2021). Moreover, as of September 2021, 52% (2,062) of all SSWs engaged in nursing care (3,947) were Vietnamese (Immigration Services Bureau of Japan, 2022). Additionally, they constitute the largest group amongst enrolled foreign students studying at schools for certified care workers accounting for 34.3% (750) of the total registered international students studying at schools for certified care workers all over Japan (2,189) (Association of Educational Facilities for Certified Care Worker, n.d.).

As a result of the diversification of residential statuses, our research team decided to concentrate on the dynamics and experiences of this growing group of care workers. In section 2, we clarify what problems they faced as well as their aspirations for the future during the pandemic as categorised by status of residence (visa category) through focus group discussions. In Section 5, Wako Asato examines the reasons behind the popularity of technical intern trainee projects and the less popular EPA projects amongst Vietnamese and other migrant care workers during the pandemic.

The accounts of care migrants reveal that most of them were able to overcome those difficulties they faced relating to COVID-19 and these seem to indicate their mental resilience. Given the relative stability of the elderly care industry, employment insecurity did not emerge as a major problem under the pandemic. As such, many migrant workers have remained in Japan to work longer than their initial plans. The following sections present their narratives.

2. Vietnamese Technical Intern Trainees in Nursing Care and International Students Studying at Vocational Schools for Certified Care Workers

2.1. Research on Vietnamese Technical Intern Trainees and International Students

As noted in the opening section of this chapter, Vietnamese technical intern trainees and care students studying at certified care worker schools make up a significant proportion of migrant care workers in Japan. There is a need to pay more attention to this population and identify the challenges they face to improve the current acceptance and training system in Japan.

This section sheds light on the perceptions of technical intern trainees based on a questionnaire survey conducted by Hiruma, and subsequent in-depth interviews in the Chubu region from February to May 2022 (Survey 1). The survey aimed to understand the trainees' reasons for choosing to work as technical intern trainees, and the problems they encountered 2 years after their arrival in Japan.

Data obtained from focus group discussions with Vietnamese technical intern trainees and care students (conducted by Ohno and Hiruma) in the Kansai region in July 2022 (Survey 2) present the impact of the pandemic on both groups' everyday lives and other issues.

Every year the Ministry of Health, Labour and Welfare and the Organization for Overseas Technical Intern Training conduct a large-scale questionnaire to gather information on the number of approved technical intern training programmes throughout Japan. However, there is limited information on the technical intern trainees' conditions and problems by nationality. To respond to this, we conducted a survey of Vietnamese technical intern trainees. Whilst there is one report dealing with the impact of the COVID-19 pandemic on migrant workers in Japan (Sasaki 2020), other similar studies remain scarce.

2.2. Questionnaire Survey with Follow-up Interviews with Technical Intern Trainees

Hiruma conducted Survey 1 by administering a questionnaire to 110 Vietnamese technical intern trainees at 55 care facilities employing trainees in the Chubu region. These were distributed to each facility and collected via mail between December 2021 to January 2022, with a collection rate of 49% resulting in 54 valid responses) (Figure 5.6). To follow up on the results, in-depth online separate interviews were conducted with four respondents in May 2022.

According to the results (54 respondents), many technical intern trainees (30 respondents) were graduates of nursing colleges and universities, similar to EPA-certified care worker candidates, and a majority of them (51 respondents) were willing to take the national examination and obtain a certified care worker licence (Figure 5.6).

Figure 5.6. Breakdown of Vietnamese Technical Intern Trainee Respondents by Nursing Graduation School
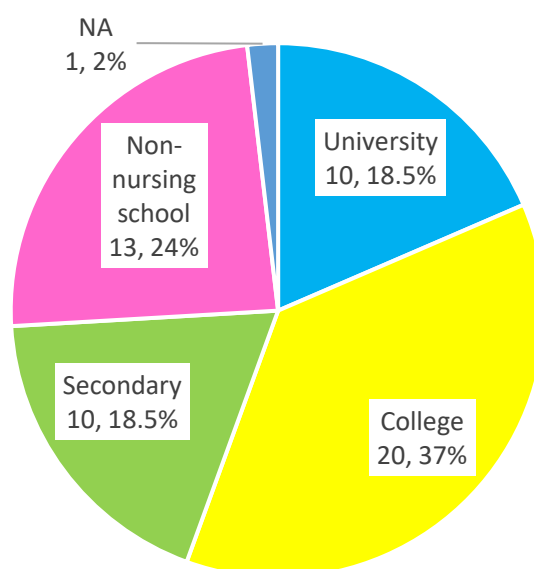
NA = no answer.
Source: Drafted by the author based on data obtained from Hiruma et. al. (2022).

During the follow-up in-depth interviews with four Vietnamese technical intern trainees, four reasons emerged regarding their choice of technical intern trainee programme over the care student programme:

1. They wanted to start working sooner as they had already graduated from a nursing college or university in Viet Nam.
2. They wished to send money to their family sooner.
3. They were unable to shoulder high costs associated with studying in Japan (it costs approximately twice that of the cost for coming to Japan as a technical intern trainee).

4. The programme for care students usually requires approximately 9-years stay in Japan, which is too long for them. Care students usually have a contract with their financial sponsor who requires them to work at a facility for at least 5 years after graduation from their school for certified care worker.

Interviews (with three females and one male, average age 25 years) indicated that, overall, their level of Japanese language proficiency and knowledge in nursing care amongst Vietnamese technical intern trainees in nursing care was lower than that of the Vietnamese care students.

2.3. Focus Group Discussions with Care Students and Technical Intern Trainees

On 11 July 2022, face-to-face focus group discussions (hereafter, abbreviated as FGDs) were also conducted with six Vietnamese care students studying at a vocational school in the Kansai region and five technical intern trainees (including one former technical intern trainee who recently changed her visa to specified skilled worker [SSW]) working at care facilities in the same region (Table 5.2). These were done to compare the two groups' experiences and future plans during the pandemic. The vocational school and care facilities are owned by a social welfare corporation.

Table 5.2. Details of Focus Group Discussions

	FGD 1	FGD 2
No. of participants (maximum length of discussions)	6 (70 minutes)	5 (60 minutes)
Status of residence	student	technical intern training (4) specified skilled worker (1)
Gender	3 females, 3 males	all females
Age range (Average age)	21–33 years old (24.8 years old)	23–32 years old (25.6 years old)
No. of participants who graduated from nursing college or university	1	5

FGD = focus group discussion.
Source: Original data of the authors.

During the FGD 1, six care students stated that the impact of the pandemic was more severe on care students than on technical intern trainees. This is because care students are typically part-time workers and were viewed as expendable when employers needed to make employment adjustments. As a result, when employers experienced lost income and had to reduce their labour force, they tended to layoff part-time and irregular workers, including foreign students.

In one interview, a 33-year female student related, 'If we were infected (with COVID-19), we would be fired and lose our income.' This understanding was commonly shared by other students of different nationalities studying at the same vocational school. In contrast, a 32-year female SSW

stated, 'when I became positive after the corona infection broke out at our workplace, I was quarantined at a nearby hotel. During that time, our corporation (her employer) always helped me'.

Vietnamese technical intern trainees were also safeguarded as regular workers through the labour contracts they had with their employers. Three technical intern trainees who participated in the FGD 2 stated that the risk of infection was higher for care students because they moved around a lot and due to the large pool of people who they came in contact at school or through part-time jobs. However, the risk was lower for technical intern trainees as their workplaces were fixed and thus movement limited. Moreover, their care facilities took relatively strict infection control measures including frequent PCR tests for workers whereas care students had less opportunities to receive them (as narrated by a 32-year female SSW). Whilst Sasaki's previous study suggested that the overall economic impact of the pandemic on care students was limited (Sasaki, 2020), our FGD data highlighted the vulnerability of care students, not only in terms of economic impact, but also in terms of infection risk.

One distinctive aspect relates to care workers' inability to go back to their home country for temporary visits during their stay in Japan. A 24-year male student shared his experience stating that 'during my stay in Japan for the last 5 years, I was not able to return to Viet Nam. So, I feel so lonely. I long to go back this summer, but there is still a risk to not return to Japan due to corona (strict border controls).'

On the other hand, one 23-female technical intern trainee stated that she had no changes to her plan due to the pandemic. She related that she knew that she could not return home during her 3-year contract with her employer. This defines that technical intern trainees have basically no rights to return for a temporary visit. When asked if their expectations had been disappointed due to the COVID-19 pandemic, three technical intern trainees replied with a spontaneous no.

During the FDGs, participants were also asked about their future plans after experiencing difficulties due to the pandemic. All of them kept their initial plans to work for a least 5 years after graduation from the vocational school since they had agreements with sponsors paying schooling fees and that these would be not required to be repaid on the condition that they have worked at care facilities for more than 5 years. Moreover, after getting used to the 'new normal,' most of them expressed a desire to stay in Japan beyond the 5-year work at their sponsors' facility. For example, one 25-year male related, 'I wish to live in Japan for a long time since I found that Japan to be a comfortable place to stay. We can earn our livelihood even by working part-time.' Another 26-year female expressed, 'I wish to be a manager of a care facility after living and working in Japan.'

These desires were shared by other technical intern trainee participants. All five expressed a desire to reside and work in Japan even after 3-year work experience as technical intern trainees No.1 and No.2. If they wish to continue to work in the same workplace for more than 3 years, they are required to change their visas to technical intern trainee No.3 or specified skilled worker. One participant had already changed hers to SSW and others also expressed a desire to work as technical intern trainee No.3 or SSW. Additionally, a 23-year participant also stated that she would like to sit the national examination for certified care worker during her stay in Japan. Table 5.3 presents the differences between both groups in terms of their experiences during the COVID-19 pandemic.

Table 5.3. Summary of Comparison of COVID-19 Related Responses by Status of Residence

	International Students	Technical Intern Trainees
Employment	Unstable and sometimes no income（treated as 'adjustment valve'）	Stable (treated as regular staff)
Responses to COVID-19 infection	No or a little support (sometimes given by their school)	Full support given by their employer
Inability to return home for temporary visit	Beyond expectations	Within expectations
Future life plan	Longer stay and work in Japan than their initial plans in most cases	Longer stay and work in Japan than their initial plans in all cases

Source: Original data of the authors.

2.4. Findings and Lesson Learnt from Vietnamese Migrant Care Workers

The research enabled us to identify multiple patterns amongst Vietnamese migrant care workers (including care students) under the pandemic.

1. The risk for infection and loss of stable income tended to be higher for Vietnamese and other migrant care students during infectious disease outbreaks due to their unstable employment and higher mobility. This is an important lesson learnt from their past and current problems.

2. Some technical intern trainees who have been in Japan for 2–3 years now realise that their Japanese language skills and nursing care knowledge are lower than those of foreign care students. They expressed that they would have chosen the care student programme if they had the financial ability to pay for tuition before coming to Japan. This highlights an important lesson for future migrant care workers planning to come to Japan.

3. It is important to address and give serious consideration to the gap between the implementation of the purpose of the technical intern trainee system (skill acquisition and transfer) and the career aspirations of technical intern trainees (taking the national examination and obtaining a certified care worker licence).

This survey has some limitations. First, in Survey 1, the pool of in-depth interviewees was small (two were from the same nursing college), which resulted in sampling bias. Second, Survey 2 was limited to FGD participants only from 'good workplaces.' Therefore, more research is needed to include care migrants employed in facilities that are considered to not be good workplaces.

4. One of the most important needs amongst technical intern trainees is to improve not only their skills, but also their level of Japanese language proficiency and knowledge in nursing care, as well as to obtain a certified care worker licence as soon as possible. Public support should be

considered to help host institutions, corporations, and supervising organisations to meet these needs, such as through cooperation with schools for certified care workers.

5. An important need amongst foreign care students is to ease the stressful situation of balancing school activities and part-time work. Due to their positions as part-time workers, they are more vulnerable than technical intern trainees and tend to be easily laid off as a 'employment valve' under economic recession triggered by the pandemic. For this reason, the government and their Japanese sponsors need to support financially distressed care students more than before realising their desires to become certified care workers.

In conclusion, we strongly advocate for the establishment of a new system for accepting migrant care workers that maximises the advantages and minimises the drawbacks of current residency statuses. This system should also enhance resilience against disasters such as pandemics.

3. Resilience of International Students Enrolled at Vocational Schools for Certified Care Worker in Japan during the COVID-19 Pandemic

3.1. Research Agenda of International Students

Previous studies have indicated that COVID-19 increases perceived stress and health outcomes (Tanaka et. al., 2021). Therefore, strengthening the resilience of individuals has been key to a successful coping strategy to survive under a 'new normal' where everyone is required to adjust to daily life under a pandemic. However, to date, no studies on the resilience of non-Japanese healthcare providers who provide care in Japan have conducted.

In this study, we investigated the resilience of international students enrolled at vocational schools for certified care workers in Japan by testing the association between sociodemographic characteristics, social support, and mental health outcomes. We employed the Sense of Coherence (SOC) framework, conceptualised by Antonovsky (1987), as a marker of resilience. SOC is defined as 'a global orientation that expresses the extent to which one has a pervasive, enduring though dynamic feeling of confidence that (1) the stimuli deriving from one's internal and external environments in the course of living are structured, predictable, and explicable; (2) the resources are available to one to meet the demands posed by the stimuli; and (3) these demands are challenges, worthy of investment and engagement' (Antonovsky, 1987).

3.2. Methodology

An eight-page questionnaire was developed in Japanese and distributed to 219 international students studying at three vocational schools for certified care workers in the Kanto and Kansai regions in July 2022. Out of these, 217 replied (respondent rate: 99.1%). The questionnaire contained the following items: social demographic characteristics of the student, SOC, and a general health questionnaire (GHQ). SOC comprised 13 items, which are categorised under the three subcategories of meaningfulness, manageability, and comprehensibility. The higher they mark, the stronger resilience they have. The GHQ consisted of 12 items. The higher they mark, the lower mental health they have had in the last 2 to 3 weeks.

3.3. Results

3.3.1. Participant Characteristics

Sixty-six of the participants were male (24.4%) and 199 female (73.4%). By nationality, Thai students (32.5%) comprised the largest group, followed by Vietnamese (28.4%) and Chinese (14.4%) (Table 5.4). The mean age of the participants was 26.03 (SD:4.53) years old. The average length of stay in Japan was 23.1 (SD:15.34) months. The average length of education prior to Japan was 14.51 (SD:2.53) years. On average, the length of working in care facilities in Japan was 14.77 (SD:10.36) months.

Table 5.4. Characteristics of the Participants

		Number	(%)
Gender	Male	66	(24.4)
	Female	199	(73.4)
	NA	6	(2.2)
Country of origin	Thailand	88	(32.5)
	Viet Nam	77	(28.4)
	China	39	(14.4)
	Philippines	34	(12.5)
	Other countries	30	(11.1)
	NA	3	(1.1)
Nursing education	Yes	29	(10.7)
	No	242	(89.3)
JLPT level	N1	7	(2.6)
	N2	56	(20.7)
	N3	83	(30.6)
	N4	47	(17.3)
	N5	17	(6.3)
	Have not taken yet	59	(21.8)
	NA	2	(0.7)
Enrolled school year	Freshman	145	(53.5)
	Sophomore	126	(46.5)
Married	Yes	24	(8.9)
	No	240	(88.6)
	NA	7	(2.6)
Living with others	Yes	170	(62.7)

		Number	(%)
	No	94	(34.7)
	NA	7	(2.6)
Have lived with COVID-19 infected person(s)	Yes	42	(15.5)
	No	127	(46.9)
	NA	102	(37.6)
	Intensive Care Home for the Elderly	77	(28.4)
	Long-Term Care Health Facilities	52	(19.2)
Type of care facilities	Others	121	(44.6)
	Not working in care facilities	5	(1.8)
	NA	16	(5.9)
Have cared COVID-19 infected person(s)	Yes	42	(15.5)
	No	213	(78.6)
	Not working in care facilities	5	(1.8)
	NA	11	(4.1)
	Yes	55	(20.3)
Have been infected by COVID-19	No	209	(77.1)
	NA	7	(2.6)
	Not affected at all	10	(3.7)
	Not affected	15	(5.5)
	Neither affected or not	17	(6.3)
Level of COVID-19 impact on daily life	Affected	82	(30.3)
	Strongly affected	139	(51.3)
	NA	8	(3.0)
	Not worry at all	5	(1.8)
	Not worried	17	(6.3)
	Neither worried or not	25	(9.2)
Level of worried about pandemic	Worried	110	(40.6)
	Worried very much	107	(39.5)
	NA	7	(2.6)
Level of difficulties in adapting online class	Not difficult at all	16	(5.9)
	Not difficult at all	24	(8.9)
	Neither difficult or not	29	(10.7)
	Difficult	87	(32.1)
	Difficult very much	107	(39.5)

	Number	(%)
NA	8	(3.0)

JLPT = Japanese Language Proficiency Test, M = mean score, SD = standard deviation, NA = no answer.
Source: Original data of the author.

3.3.2. Source of Participants' Social Support

More than 80% of participants answered that family or friends were the main source of social support, regardless of type (Table 5.5).

Table 5.5. Social Support of the Participants (very much/much)

	Number	(%)
Can frankly speak to		
1.Instructors in care worker school	148	(54.6)
2.Superiors in workplace	141	(52.0)
3.Colleagues in workplace	167	(61.6)
4.Family/friends	233	(86.0)
Can rely on when in trouble		
1.Instructors in care worker school	147	(54.2)
2.Superiors in workplace	109	(40.2)
3.Colleagues in workplace	121	(44.6)
4.Family/friends	229	(84.5)
Can ask for advice for personal problems		
1.Instructors in care worker school	134	(49.4)
2.Superiors in workplace	79	(29.2)
3.Colleagues in workplace	96	(35.4)
4.Family/friends	233	(86.0)

Source: Original data of the author.

3.3.3. Distribution of SOC and Subscales

The mean score of SOC was 54.17 (SD:10.73) points, which was closer to that of Japanese healthcare workers' study (Tanaka et. al., 2021) (Table 5.6).

Table 5.6. Sense of Coherence Scores and Subscales

	M	SD
SOC total score (range: 13–91)	54.17	(10.73)
Meaningfulness (range: 4–28)	17.98	(3.86)
1. Do you have a feeling that you really don't care about what is going on around you?	4.12	(1.60)
4. Until now your life has had: no clear goals or very clear goals and purpose	5.15	(1.48)
7. Doing the things you do every day is: a source of deep pleasure and satisfaction or a source of pain and boredom	4.31	(1.61)
12. How often do you have the feeling that there is little meaning in the things you do in your daily life?	4.40	(1.87)
Manageability (range:4–28)	16.12	(4.16)
3. Has it happened that people whom you counted on disappointed you?	4.09	(1.65)
5. Do you have the feeling that you are being treated unfairly?	3.84	(1.75)
10. Many people, even those with a strong character, sometimes feel like losers in certain situation. How often have you felt this way in the past?	4.39	(1.71)
13. How often do you have feelings that you are not sure you can control?	3.79	(1.64)
Comprehensibility (range: 5–35)	20.07	(4.86)
2. Has it happened in the past you were surprised by the behaviour of people whom you thought you knew well?	4.19	(1.58)
6. Do you have the feeling that you are in an unfamiliar situation and do not know what to do?	3.85	(1.57)
8. Do you have very mixed-up feeling and ideas?	3.81	(1.69)
9. Does it happen that you experience feelings that you would rather not have to endure?	3.77	(1.54)
11. When certain events occurred, have you generally found that you overestimated or underestimated their importance – you assessed the situation correctly?	4.45	(1.45)

M = mean score, SD = standard deviation, SOC = Sense of Coherence.
Source: Original data of the author.

3.3.4. Distribution of GHQ and Subscales

The mean score of GHQ was 27.12 (SD:4.95) points. The highest items marked by the participants was 'felt constantly under strain', whose average was 2.72 (SD:.899) points, followed by 'been losing confidence in yourself', which was 2.68 (SD:.804) respectively (Table 5.7).

Table 5.7. General Health Questionnaire Scores and Subscales

	M	SD
1.Been able to concentrate on what you are doing	1.98	(.744)
2.Lost much sleep over worry	2.57	(.907)
3. Felt you were playing a useful part in things	1.93	(.752)
4. Felt capable of making decisions about things	2.02	(.713)
5. Felt constantly under strain	2.72	(.899)
6. Felt you couldn't overcome your difficulties	2.57	(.764)
7. Been able to enjoy your normal day-to-day activities	1.96	(.797)
8. Been able to face up to your problems	1.84	(.707)
9. Been feeling unhappy and depressed	2.51	(.880)
10. Been losing confidence in yourself	2.68	(.804)
11. Been thinking of yourself as a worthless person	2.22	(.877)
12. Been feeling reasonably happy, all things considered	2.12	(.671)
Total GHQ score (range: 12–48)	27.12	(4.95)

GHQ = general health questionnaire, M = mean score, SD = standard deviation.
Source: Original data of the author.

3.3.5. Association with SOC Scores

There was a gender variance in SOC and comprehensibly mean scores. Male students scored higher with SOC 56.09 (SD:12.45) for comprehensibility 21.00 (SD:5.68) higher than females 53.56 (SD:10.17) and 19.80 (SD: 4.58), respectively (Table 5.8).

Table 5.8. Association between Sense of Coherence Score and Characteristics of the Participants

		SOC (range: 13-91)			meaningfulness (range: 4-28)			manageability (range: 4-28)			comprehensibility (range: 5-35)		
		M	SD	p	M	SD	p	M	SD	p	M	SD	p
Gender	Male	56.09	(12.45)		18.30	(4.18)		16.79	(4.64)		21.00	(5.68)	
	Female	53.56	(10.17)	.015	17.91	(3.76)	.142	15.86	(4.00)	.065	19.80	(4.58)	.028
Nursing education	Yes	54.10	(9.77)		18.55	(3.09)		15.79	(4.21)		19.76	(4.60)	
	No	54.18	(10.86)	.159	17.92	(3.94)	.032	16.15	(4.17)	.605	20.11	(4.90)	.392
JLPT level	N1	65.00	(10.49)		21.43	(2.37)		19.57	(4.58)		24.00	(4.69)	
	N2	56.71	(12.08)		19.25	(3.90)		16.64	(4.72)		20.82	(5.59)	
	N3	55.21	(9.95)	.009	18.62	(3.44)	.000	16.35	(3.97)	.302	20.23	(4.63)	.018
	N4	55.85	(8.85)		17.70	(3.67)		16.83	(3.33)		21.32	(4.28)	
	N5	48.76	(9.97)		15.53	(3.20)		15.76	(3.94)		17.47	(4.32)	
Enrolled school year	Freshman	53.25	(10.64)		17.97	(4.01)		15.52	(4.04)		19.76	(4.84)	
	Sophomore	55.22	(10.77)	.914	18.01	(3.69)	.271	16.79	(4.22)	.407	20.43	(4.88)	.608
Married	Yes	62.22	(12.50)		20.30	(4.35)		18.52	(4.59)		23.39	(5.17)	
	No	53.23	(10.25)	.068	17.69	(3.73)	.265	15.83	(4.05)	.256	19.75	(4.76)	.368
Living with others	Yes	53.34	(10.34)		17.57	(3.89)		15.82	(4.12)		19.95	(4.58)	
	No	55.34	(11.37)	.322	18.55	(3.71)	.834	16.51	(4.22)	.733	20.28	(5.43)	.205
Have lived with COVID-19 infectees	Yes	53.05	(10.19)		17.29	(3.70)		15.37	(4.22)		20.39	(4.70)	
	No	53.48	(10.46)	.625	17.67	(3.98)	.427	15.97	(4.11)	.840	19.83	(4.56)	.943
Type of care facilities	Intensive Care Home	54.92	(9.86)	.406	18.32	(3.68)	.470	16.69	(3.86)	.243	19.91	(4.83)	.472

		SOC (range: 13-91)			meaningfulness (range: 4-28)			manageability (range: 4-28)			comprehensibility (range: 5-35)		
		M	SD	p	M	SD	p	M	SD	p	M	SD	p
	for the Elderly Long-Term Care Health Facilities	52.33	(11.70)		17.49	(4.19)		15.47	(4.13)		19.37	(5.46)	
	Others	54.17	(10.96)		17.88	(3.74)		15.93	(4.44)		20.36	(4.76)	
Have cared COVID-19 infectees	Yes	53.50	(10.51)	.395	17.83	(4.14)	.922	15.76	(3.91)	.644	19.90	(4.98)	.871
	No	54.18	(10.89)		17.93	(3.81)		16.14	(4.25)		20.11	(4.93)	
Have been infected by COVID-19	Yes	51.67	(10.27)	.066	17.56	(3.55)	.432	15.02	(4.03)	.037	19.09	(5.05)	.100
	No	54.68	(10.80)		18.02	(3.93)		16.34	(4.17)		20.32	(4.83)	

JLPT = Japanese Language Proficiency Test, M = mean score, SD = standard deviation, SOC = Sense of Coherence, p = p value.
Source: Original data of the author.

The older the participants, the higher the SOC, meaningfulness, manageability, and comprehensibility were marked (r=.206, p=.001, r=.122, p=.046, r=.233, p<.001, and r=.159, p=.009), respectively. In particular, the length of stay in Japan was significantly associated with manageability (r=.153, p=.012). The longer the stay in Japan, the higher SOC was registered.

The level of COVID-19 infection impact on daily life was negatively associated with SOC, meaningfulness, and comprehensibility (r=-.185, p=.003, r=-.147, p=.017 and r=-.189, p=.002). There was no significant association observed between SOC and its subscales, and level of difficulties in adapting to online classes.

The level of Japanese Language Proficiency Test (JLPT) was significantly associated with SOC, meaningfulness, and comprehensibility (p=.009, p<.001, and p=.018 respectively). The higher their Japanese proficiency, the stronger their SOC registered (Table 5.6).

Those who were infected by COVID-19 marked a lower manageability score of 15.02 (SD:4.03) than those who had not being infected; 16.34 (SD: 4.17) (p=.037). However, no significant association was observed between those who have cared person infected with COVID-19 and those who didn't have any association of SOC and its subscales scores, nor whether they had lived with those infected by COVID-19 or not (Table 5.6).

Regarding the source of social support, participants who were able to speak frankly with instructors in care worker schools, had significantly higher scores in SOC (55.05, SD:9.50) and a meaningful score (18.21, SD: 3.44) compared to those who were not able to (52.87, SD:12.17) and 17.53 (SD:4.32), respectively. Supervisors at the workplace whom the participants could talk to frankly, was another source of social support, which strengthened the SOC and comprehensibility score (54.60, SD:9.38) and 20.52 (SD:4.42), respectively, than those who could not 53.61 (SD:12.24) and 19.61 (SD:5.38), respectively (Table 5.9).

Table 5.9. Association Between Sense of Coherence/Subscales and Social Support

		SOC (range: 13-91)			meaningfulness (range: 4-28)			manageability (range: 4-28)			comprehensibility (range: 5-35)		
		M	SD	p	M	SD	p	M	SD	p	M	SD	p
Can frankly speaking to													
Instructors in care worker school	Yes	55.05	(9.50)	.033	18.21	(3.44)	.018	16,44	(3,81)	.126	20.39	(4.53)	.070
	No	52.87	(12.17)		17.53	(4.32)		15.65	(4.58)		19.69	(5.33)	
Superiors in workplace	Yes	54.60	(9.38)	.017	17.93	(3.70)	.362	16.14	(3.86)	.289	20.52	(4.42)	.017
	No	53.61	(12.24)		17.92	(4.05)		16.08	(4.52)		19.61	(5.38)	
Colleagues in workplace	Yes	54.94	(10.08)	.177	18.20	(3.73)	.249	16.17	(4.13)	.854	20.57	(4.51)	.054
	No	52.72	(11.83)		17.43	(4.05)		16.02	(4.25)		19.27	(5.45)	
Family/ friends	Yes	53.76	(10.69)	.760	17.89	(3.82)	.286	15.97	(4.20)	.568	19.90	(4.87)	.689
	No	56.83	(11.03)		18.34	(4.22)		17.00	(3.84)		21.48	(4.91)	
Can rely on when in trouble													
Instructors in care worker school	Yes	54.92	(10.52)	.296	18.40	(3.80)	.822	16.45	(4.08)	.922	20.07	(4.84)	.516
	No	53.01	(11.10)		17.30	(3.87)		15.64	(4.28)		20.08	(5.01)	
Superiors in workplace	Yes	54.68	(10.72)	.704	17.86	(3.92)	.632	16.49	(4.13)	.928	20.33	(4.94)	.939
	No	53.75	(10.85)		17.98	(3.83)		15.85	(4.20)		19.93	(4.88)	
Colleagues in workplace	Yes	54.67	(10.53)	.518	17.87	(3.79)	.609	16.26	(4.13)	.938	20.55	(4.83)	.742
	No	53.68	(11.03)		17.99	(3.94)		15.99	(4.23)		19.70	(4.95)	
Family/ friends	Yes	54.00	(10.83)	.626	17.91	(3.92)	.206	15.98	(4.21)	.367	20.11	(4.92)	.551
	No	54.76	(10.34)		18.12	(3.50)		16.79	(3.86)		19.85	(4.77)	

		SOC (range: 13-91)			meaningfulness (range: 4-28)			manageability (range: 4-28)			comprehensibility (range: 5-35)		
		M	**SD**	**p**	**M**	**SD**	**p**	**M**	**SD**	**p**	**M**	**SD**	**p**
Can ask advice for your personal problems													
Instructors in care worker school	Yes	55.88	(10.47)	.684	18.73	(3.97)	.099	16.59	(3.99)	.550	20.57	(4.81)	.682
	No	52.23	(10.77)		17.11	(3.58)		15.55	(4.30)		19.56	(4.94)	
Superiors in workplace	Yes	55.57	(10.69)	.991	18.77	(3.95)	.638	16.52	(4.18)	.901	20.28	(5.25)	.411
	No	53.53	(10.77)		17.55	(3.76)		15.94	(4.16)		20.03	(4.75)	
Colleagues in workplace	Yes	54.55	(10.70)	.663	18.17	(3.89)	.824	16.06	(4.15)	.955	20.32	(5.05)	.558
	No	53.91	(10.83)		17.78	(3.84)		16.15	(4.20)		19.98	(4.82)	
Family/ friends	Yes	54.40	(11.02)	.149	17.98	(3.92)	.368	16.16	(4.25)	.270	20.26	(5.00)	.093
	No	51.57	(8.15)		17.39	(3.24)		15.54	(3.49)		18.64	(3.76)	

M = mean score, SD = standard deviation, p = p value, SOC = Sense of Coherence.
Source: Original data of the author.

A strong negative association was found between SOC and GHQ scores (r=-.511, p<0.01), meaningfulness (r=-.410, p<0.01), manageability (r=-.430, p<0.01), and comprehensibility (r=-.435, p<0.01) (Table 5.7).

3.4. Findings and Lesson Learnt on International Students

SOC and its subconstructs were associated with some sociodemographic characteristics of foreign students enrolled at schools for certified care workers, such as gender and Japanese language abilities, whilst marriage and residence status were not significantly associated with SOC. Rather, SOC and its subconstructs are likely to be influenced by social support, such as the one given by instructors at school for certified care workers and superiors in the workplace, whom the students can speak to openly. Thus, it is crucial to establish support systems for foreign students to strengthen SOC and lower health risks associated with stress and loss of confidence.

4. Diversified Strategies for Procurement of Migrant Care Workers under the Pandemic: A Case Study in Fukuoka

Fukuoka Prefecture was chosen as a research site as it has some of the worst shortages in the care sector and subsequently in response to this has seen a diversification of migrant streams for care work. Fieldwork in Fukuoka Prefecture was conducted in October 2020 and December 2021 when COVID-19 infection rates were relatively low and aimed to understand the current situation and conditions and how different actors, institutions, and care workers themselves responded under the pandemic.

4.1. Current Welfare Conditions of Fukuoka

Fukuoka Prefecture has been ageing in line with the national trend and by 2040 the population is expected to decrease by just under 14% and the proportion of the elderly (65 years old and above) is projected to continue to grow, increasing to 35.3% (image shown in Figure 5.7). By 2025, there will be a forecast need of 95,246 care workers. During the pandemic, the prefecture experienced a significant reorientation in the procurement and placement of different types of workers as covered in the following sections.

Figure 5.7. Population Changes for Fukuoka Prefecture (2010–2040)
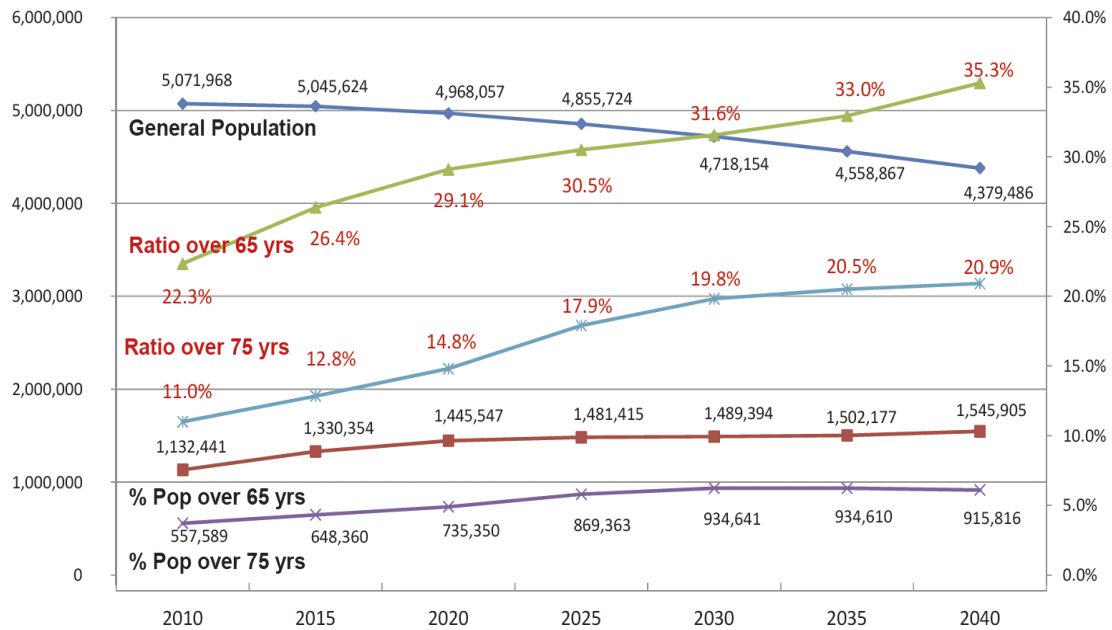
Source: English draft by the author based on data from Fukuoka Prefecture (2017, p.15).

4.2.   Local Government Initiatives

At present, both the prefecture and city suffer from chronic shortage of care workers, 9,500 within the prefecture and 5,500 within the city (Fukuoka City, 2020, p.30). To respond to this, the city is developing a three-point plan and wants to (i) promote the entry of caregivers into the market, (ii) prevent the turnover of workers and aim for retention of care workers, and (iii) improve the overall quality of care. To foster a higher degree of retention, through collaboration with academics, non-profit organisations, and other stakeholders, another approach has been to introduce the idea of 'kanryu' (a form of circulation), to cultivate Fukuoka as a model city where workers can come, train, work, and learn. Those who leave would circulate knowledge via their networks bolstering the recognition of the city within Asia.

In order to achieve this, the local government has instituted a working group of different organisations and stakeholders to promote the appeal of nursing care, increase workers, improve business efficiency, and the quality of workers. This also led to a campaign to further the visibility of the city within Asia through a promotional video targeting international students[4] and implement a platform to circulate information between different stakeholders who require help in securing care workers, especially those from overseas (Fukuoka City, 2022).

---

[4] Internal figures were provided by the Department of Human Resources for Long-term Care, Elderly Affairs Policy Section, Fukuoka City.

4.3. Parallel Private Sector Initiatives: International Student Recruitment

Within the prefecture, there are presently 15 vocational schools and other institutions for training foreign students. These have a degree of flexibility in that they can switch their residence status to 'nursing care' upon graduation and obtain a nursing care worker visa. Research ascertained that the ongoing impact of the pandemic led to a collapse of work opportunities in the food, retail, and hotel industries where many worked part-time. A recent trend before the pandemic saw migrant working students (*dekasegi ryūgakusei* in Japanese) come to train and work in Japan as part of a temporary floating buffer workforce, but this did not tackle the concrete issue of how to secure a more long-term source of care labour. Some trainers at college offering packages shared their frustration on Japan's current migration regime a 'halfway measure' and expressed a desire for an open discussion on migration policy in Japan. Research clarified that there was a rise in foreign students and technical intern trainees despite the impact of the pandemic. The research clarified the following:

- A number of schools and vocational training colleges that were training international students for care picked up the slack from other industries where demand for workers stalled during the pandemic.
- Some students were shuffled around within the economy for an undersupplied market by recruiting students.
- A public–private nexus between businesses, care facilities, schools, and local government collaborated to assure a diversifying stream of care workers into the prefecture to ameliorate a shortage of workers.

What can be inferred from these trends is a diversification of strategies to procure workers during this a period of instability between 2019–2021.

4.4. Migrant Care Workers Appraisal under the Pandemic

A number of care facilities we visited presented the challenges they faced under the pandemic but provided some lessons on what is happening on the ground. One care facility A, part of a group home located just outside Fukuoka City, has employed care workers actively from four different streams and various nations (Table 5.10) with different employment status across the group (Table 5.11).

Table 5.10. Social Welfare Corporation Special Nursing Home Group in Fukuoka Prefecture: Changes in Employment of Foreign Staff (October 2020 to August 2022)

	EPA	Vocational School Graduates (certified care workers)	Foreign Students	Internship Programme***	Technical Intern Trainees***
Facility A	3 (-1)**	4 (+1)	1 (-2)	2	3 (+4)
Facility B	0	2	0		1 (+2)
Facility C	0	1 (+1)	1 (-1)	1	4 (+2 Pending Entry)

EPA = Economic Partnership Agreement.
Notes: + - Change from previous year including entries in 2021 and 2022. Current as of August 2022.
1 with approved caregiver certification;   ***pending entry; * care workers on internship programme with Vietnamese Nursing University.
Source: Juseien, Imayama-kai Group Home.

Table 5.11. Employment Status of Foreign Workers across Facilities (by Country)*

	Myanmar	Philippines	Nepal	Sri Lanka	Vietnam
Certified Care Worker		1	5	4	
EPA Certified Care Worker Candidate		1			
Specific Skills Care Worker	5				
Technical Intern Care Worker	6		4		
Internship Programme					3
Foreign Student					1
Totals	11	2	9	4	4

EPA = Economic Partnership Agreement.
Note: * Current as of August 2022.
Source: Juseien, Imayama-kai Group Home.

At some elderly-care facilities, foreign care staff, especially those with nursing educational background and clinical knowledge, were highly appraised for the professional capacity that they displayed whilst the pandemic played out. It provided a positive opportunity to reappraise the role of migrants as essential key workers who have fulfilled some vacancies of shift work caused by the absence of Japanese co-workers due to the pandemic, and thus sustained the healthcare system of their workplaces during a time when it was tested.

Additionally, to diversify care worker streams, the above-mentioned facility A is fostering a partnership with a Vietnamese nursing college through an internship exchange programme, increase knowledge cultivation and circulate human resources within the group home with a secure supplier.

Several findings from this case study were identified:

- The pandemic provided an opportunity for Japanese staff to acknowledge and appraise migrant co-workers as valuable and essential workers. Migrant care staff's presence has been evaluated positively more than before. Such recognition was commonly shared with key officials of the International Welfare Service Corporation (JICWEL) that is responsible for the EPA projects for nurses and care workers from Southeast Asian countries.[5]

- The facility's experience provides an example of the challenges that care homes face in maintaining and training a diverse pool of workers from different countries and migration streams.

- A pragmatic approach aligns with a model of knowledge circulation that local government has been fostering in the hope of creating a system which can be replenished by future migration streams.

4.5. New Trends of Employment and Mobility under the Pandemic

Facilities such as those mentioned above, are part of an information sharing network, the Kyushu Committee for Development of Overseas Human Resources, set up and coordinated by a local training company for care work. The authors (Ohno and Lopez) are both active members of the committee, a broad coalition comprising nursing care facility directors and managers based in Fukuoka, technical training supervision organisations, the heads of non-profit organisations, executives of the Fukuoka Prefecture legal specialists, and academics (Japanese and foreign). One online discussion meeting with other participating members that took place on 4 December 2021 clarified several important issues for committee members.

- There exists great difficulty in procuring professional migrant care workers to work in semi-rural areas far from larger urban areas.

- Skilled workers who already have a national licensure for certified care worker such as EPA workers are difficult to retain for a long time due to lower wages in Fukuoka. Many have moved to higher paying regions such as Tokyo and Osaka.[6]

- The pandemic exacerbated a shift from EPA professionals to technical intern trainees as part of a strategy to diversify the pool of available workers to avoid the 'brain drain'.

- Career paths in care work have concrete limitations. With migrant care workers who switch over to the specified skills worker visa, the system offers flexibility, but it means that employers run the risk of a high turnover of workers.

Several participants related the challenges that they face, including a turnover of workers due to stagnation. One social welfare provider instituted their own criteria for evaluating work and language

---

[5] Our research team hosted an online meeting with three directors of the JICWEL in charge of EPA projects on 13 January 2022. They noted that EPA personnel and other foreign care staff had filled vacancies due to the resignation of Japanese staff and the latter's absence due to their fear of corona infection.

[6] Tokyo Metropolis ranks its highest annual income for care workers affiliated with social welfare facilities in Japan (¥4.01 million=$34,870). On the other hand, Fukuoka Prefecture ranks 31st (¥3.29 million= $28,610) amongst 47 prefectures in Japan and is 82% of the annual income in Tokyo. Data are based on surveys conducted by Japan's Ministry of Health, Labour and Welfare (MHLW) in 2019.

proficiency and created an appraisal system that reflects in the salaries workers receive as well as introducing a mentor system where more experienced workers (Vietnamese) help those who are still training to communicate. Some organisations are developing more dynamic approaches to the circulation of knowledge, but only at the initiative of the organisation, rather than that built into the criteria of the specified skilled worker visa. Such an approach presents a pragmatic strategy that acknowledges the limits of visa system in place. Due to this, in the long term, shifts to different streams may ultimately impact the quality of care in facilities.

4.6. Findings and Lessons Learnt from Fukuoka's Case

Our research found that Fukuoka provides a clear case of issues that are converging and require attention. First, to recognise the current ways in which migrant streams were reorganised due to the socioeconomic impact of the pandemic. Second, to further evaluate and appraise the local initiatives that care providers have taken to secure care labour streams. Third, to not only recognise the appraisal of foreign migrant care workers in care facilities, but also rethink what kind of systems can allow more upwards career mobility and more incentives to retain professional migrant care workers at their workplaces in reginal cities and towns. Finally, this will provide a clearer career path opportunities for highly skilled workers and improve the visibility of industry needs and opportunities domestically and overseas.

5. Failure of the International Labour Market: Examining the Case of Migrant Care Workers

5.1. International Market and Migrant Care Workers

In 2015, there was a significant transformation in the migration patterns of care workers in Japan. During that year, housekeepers began to be accepted as one migrant stream and 'nursing care' was established as a new status of residence for elderly care. In 2017, the Technical Intern Training Programme (TITP) was extended to nursing care, then subsequently the Specified Skilled Worker (SSW) programme was introduced in 2019. The latter programme aimed to recruit a substantial number of care workers and was intended to accept a maximum of 350,000 people across 17 selected industry sectors. However, the significant expansion caused several problems within the international labour market resulting in a process called 'adverse selection,' where an appropriate recruitment system was not implemented. Adverse selection can occur due to information asymmetry in the market, negatively impacting rational choices. This is what is happening in the contemporary international labour market of care workers in Japan. The following section will focus and illustrate this point.

5.1.1. Zero Placement Fees Less Selected

Let us begin by examining the recruitment process across different recruitment channels. One such channel is the acceptance of care workers under the EPA implemented in 2008. A basic requirement for accepting care workers from Indonesia and Viet Nam is graduation from a nursing school, and for the Philippines, graduates must have completed 4 years of university study and hold caregiver qualifications. The EPA aims to facilitate candidates to obtain a certified care worker license in Japan and provides about 1 year of training in the Japanese language and multiple subjects on elderly care

before and after their arrival in Japan at the expense of the Japanese government. Moreover, accepting facilities are mandated to provide education assistance for the licensure examination, which is financially supported by local governments. JICWEL handles the matchmaking and coordination for EPA without imposing any financial burden on the workers.

For this section, the author (Wako Asato) estimates that the total public support per care worker is around ¥2.5 million based on the government's total budget. The EPA regulations stipulate that placement fees should not be charged to incoming workers but should be shouldered by the accepting organisation. The organisation that accepts applicants for EPA may have implemented an effective recruitment system, leading to high levels of satisfaction amongst accepted candidates. Additionally, Vietnamese applicants may have a high passing rate of the national licensure examination, exceeding 90%, which is higher than the passing rate for Japanese applicants. This could be attributed to the effective recruitment system in place. However, the number of applicants for this framework continues to decline, particularly those from Viet Nam, which has a high reputation amongst accepting organisations. As a result, the EPA quota of 300 persons per country per year is not being met and the accepted number of care workers peaked at 773 persons in 2018.

5.1.2. Money Attracts People and Politics

Let us examine TITP trends. Of the four migrant care worker streams that exist such as the EPA, international care students, the TITP, and the SSW programme, the number of incoming care workers coming through the TITP have increased greatly. There were less than 2,000 entrants 2,000 in 2018, but the number shot up to 12,000 by 2020.

Out of the total number of TITP participants, Viet Nam comprises the largest number of 653 in 2018 to 5,142 in 2020, accounting for 43%, an overwhelming popularity amongst receiving facilities. Despite the Philippines having a long history of providing workers for domestic work, elderly care, and nursing in the international labour market, they have only accepted 13 to 917 under the TITP. This is noteworthy as the Philippines bans the collection of placement fees from workers under the TITP, whereas in Viet Nam the legal placement fee is US$3,600. According to the author's calculations examining TITP applicants to Japan in 2019, the actual payment of workers reached US$7,000. There are several reasons behind the negative impact of high placement fees. One is the high rate of 'absconding'[7] trainees, which stands at about 2.79% amongst Vietnamese technical intern trainees, whilst the ratio was less than 0.47% amongst Filipinos in 2019 (Table 5.12).

---

[7] The term 'absconding' or 'abscondence' is controversial amongst scholars and activists who sympathise with technical intern trainees as in general, they are not allowed to change their workplace under related laws. The Japanese government has confirmed numerous cases of labour law violations and human right violations at workplaces in the past. Therefore, some scholars argue that abscondence should be referred to as an 'emergency evacuation' to better capture their situations and circumstances.

Table 5.12. Technical Intern Trainee Absconders by Nationality

Nationality	Ratio of abscondence by nationality	Ratio of abscondence in 2019 (estimate)	Amount of legal placement fee	Average of placement fees for absconding migrants (¥ thousand)
Philippines	NA	0.473%	zero	222
Indonesia	3.50%	0.867%	no upper ceiling	408
Myanmar	3.90%	2.65%	US$2,800	---
Cambodia	5.30%	4.85%	no upper ceiling	700–800
China	15.10%	1.61%	no upper ceiling	837
Viet Nam	**69.40%**	**2.79%**	**US$3,600**	**1,028**

NA = not available.
Note: The ratio of abscondence is determined by the number of absconders in 2019 divided by the number of technical intern trainees in 2019. Even though the Philippines is included with the others, the author applied the number of absconders of other countries divided by technical intern trainees from the Philippines. Legal placement fees are noted from the governments of sending countries and interviews with stakeholders. Also see Mekong Migration Network (2019a 2019b).
Source: Ministry of Justice (2022).

There are two points of importance here. First, the annual quota of 900 workers in the placement-fee-free EPA has not been met, whilst the number of technical intern trainees, which typically come with higher costs, increased by 10,000 over the past 2 years. Second, although the Philippine government prohibits the collection of placement fees, the number of interns from the Philippines remains low. In summary, the higher the placement fee onto the worker, the greater the number of placements. This can be interpreted as a higher placement fee becoming the recruitment incentive force in the labour market. In Viet Nam, each placement has a direct economic impact of at least US$3,600, whilst the ripple effect in the sending country is extremely limited as with the case of EPA personnel and technical intern trainees from the Philippines due to the lack of a recruitment fee.

The average placement fee for those who abscond is an estimate from the surveys on those absconding from accepting organisations. The average placement fee for Cambodian absconders is not available from the survey. However, according to the Manpower Association of Cambodia (MAC) the typical placement fee is more than US$6,000. Therefore, the placement fee for absconders is considered higher than this.

The EPA and the TITP are under the jurisdiction of Viet Nam's Overseas Labor Administration of the Ministry of Labor, Invalids and Social Affairs and the Department of Migrant Workers[8] respectively. TITP sending agencies authorised by the Viet Nam government receive a minimum of US$3,600 from one to-be-worker and are motivated to attract people to work in Japan by providing extensive

---

[8] The Philippines' Department of Migrant Workers was created in February 2022. It now assumes and performs all the powers and functions of seven merged agencies of the Department of Labor and Employment (DOLE) and Department of Foreign Affairs such as the Philippine Overseas Employment Administration (POEA) of the DOLE (Department of Migrant Workers, 2022).

Japanese language training, prompt procedures, welcoming hospitality, and kickbacks to satisfy clients from Japan. In contrast, the EPA programme cannot expect any economic effect on sending agencies and government bodies since the agreement prohibits the collection of any placement fee. Furthermore, since there is no economic incentive to do so, popularity has been gained by the TITP.

The slow progress in sending technical intern trainees from the Philippines to Japan is due to the fact that the sending agency, without charging a placement fee on workers, does not have enough capital for Japanese language education and no services and kickbacks are provided to Japanese clients due to strict regulations. The zero-placement fee, in turn, signifies that the cost of migration is relatively borne by receiving organisations.

This suggests that the higher the economic spillover effect, the stronger the centripetal force of attracting accepting organisations through the provisioning of a series of incentives. In fact, new sending countries such as Cambodia and Myanmar, have increased their popularity and share in the international labour market by increasing the burden on workers, whilst alleviating the share of the costs on accepting organisations.

5.2.   Unpopular Specified Skilled Worker Programme

The specified skilled worker programme is unique in that it allows job-seeking activities directly with Japanese companies without sending agencies if certain requirements are met, such as passing the N4-level examination of the Japanese Language Proficiency Test (JLPT) and skills proficiency tests conducted in Japanese. This programme enables applicants to apply without paying a placement fee. However, this is not popular in sending countries such as Viet Nam and Cambodia, where high placement fees are common. There are two reasons for this. First, governments point out that this programme without a mediating sending agency cannot protect workers since responsibility in the sending country is unclear. Second, the economic ripple effect is limited without a charge on the potential worker within the sending country.

For these reasons, most sending governments require registration with a sending agency, claiming that the programme is flawed. In other words, the alleviation of the placement fee is not in line with the intention of the Japanese government. Indonesia is an exception in that, unlike others, it does not require registration with sending agencies. Workers simply register online with the System for Overseas Worker Management Services without the collection of a large fee.

Figure 5.8 illustrates the number of new arrivals in Japan under this programme. Looking at the months of March and April in 2022 when the restrictions on movement due to COVID-19 infection were greatly eased, the largest number of new arrivals is not from Viet Nam, but from Indonesia. This could suggest the reluctance of sending specified skilled workers from Viet Nam, whilst relatively smooth procedures are ongoing in Indonesia. However, it does not mean the registration system is not flawed since the level of language requirement is as low as the N4 level of the JLPT; it may be difficult for applicants to conduct job-seeking activities without an interpreter service or broker to help with the job search.

Figure 5.8. New Arrivals of Specified Skilled Workers by Country of Origin
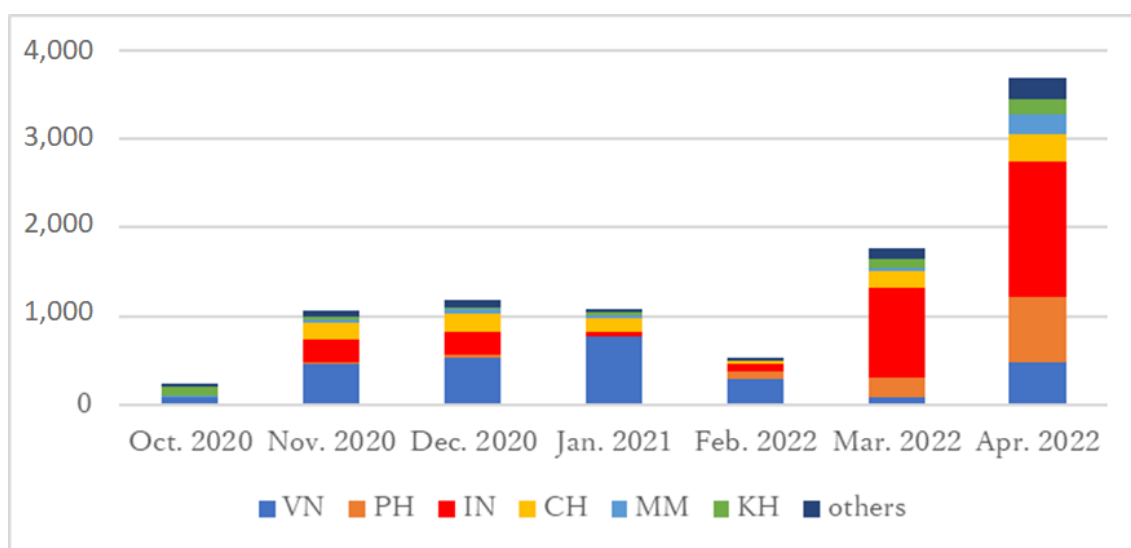
VN = Viet Nam, PH = Philippines, IN = Indonesia, CH = China, MM = Myanmar, KH = Cambodia.
Source: Immigration Services Agency of Japan (2022).

5.3. COVID-19 and Migrant Care Workers in Japan

According to a series of surveys that the author conducted mainly in the Kansai region during the first wave of COVID-19 infections, which had a substantial economic impact on migrant workers at the national level, workers were able to maintain financial stability. However, despite this, there are still some points of concern, specifically regarding family members in the country of origin. Care work amidst the COVID-19 infection had a strong employment absorption capacity, and many foreigners, regardless of their status of residence, have been entering as new workers. Although some care staff left their employment due to concerns over the transmission of COVID-19, more migrant care workers, mostly non-certified care workers, have begun to engage in elderly care. They often seem to be able to fulfil their positions as care workers, whilst in the condition of being infected (the infected care for the infected). However, only very few are engaged in managerial positions, and many of them are placed on the frontline where they tend to be exposed to cluster infections within their workplaces.

5.4. Findings and Lesson Learnt on Placement Systems of Migrant Care Workers

Japanese society displays an ethical double standard when it comes to accepting migrant workers, even in the field of elderly care. Japanese laws prohibit the collection of fees from job seekers in Japan. However, collecting fees from overseas job seekers particularly in the TITP is a common practice abroad. It is not uncommon for Vietnamese under the TITP to pay in excess of ¥1 million before their arrival in Japan. Ironically, the higher the placement fee, the more popular the programme.

Zero placement systems such as the EPA and the TITP from the Philippines are on the decline. This could be because of less lucrativeness from sending governments and fewer applicants from sending countries or because of fewer accepting organisations in Japan.

The high ratio of abscondence amongst TITP workers is closely linked to the high placement fees and low wages the workers face, which represents a contradiction between the programme's popularity and the abscondence ratio. In other words, the institutional framework of migration is a major contributor to this problem, and as a result individual workers are the ones who suffer. Without changes to the institutional framework, this vicious cycle will persist. This can be seen as the social construction of vulnerable workers.

The abscondence ratio amongst technical intern trainees who provide care for the elderly is currently very low. This could be because the programme is new to the care sector. However, if placement fees continue to be overcharged, the ratio will likely increase, given the current institutional setup. To break the vicious cycle of the failure of the international labour market, multilateral political intervention is essential. There are several suggestions that can help improve current conditions. First, a memorandum of understanding on the TITP and the SSW programme should be raised to the level of an international agreement that binds domestic laws for the cost management of placement fees. Second, the creation of a transparent and accessible information platform should be established to provide accurate information about the recruitment process. The programme run by the Philippines' Department of Migrant Workers.can be seen as a successful case. Finally, more stringent permit restrictions should be imposed on organisations that hire foreign workers if they violate labour laws.

References

Antonovsky, A. (1987), *Unraveling the Mystery of Health: How People Manage Stress and Stay Well.* San Francisco: Jossey-Bass Publishers.

Association of Educational Facilities for Certified Care Worker (2022), 'Kaigo-fukushishi Yosei-shisetsu e no Nyugakusha-su to Gaikokujin-ryugakusei [Numbers of newly enrolled students at facilities for certified care workers and overseas students']. https://kaiyokyo.net/news/r4_nyuugakusha_ryuugakusei.pdf (accessed 31 October 2022). (in Japanese)

Department of Migrant Workers, 2022, 'Department of Migrant Workers'. https://www.dmw.gov.ph/about-dmw (accessed 4 May 2023).

Fukuoka City (2020), 8th Fukuoka City Long-Term Care Insurance Business Plan. 'Dai 8-ki Fukuoka Shi Kaigo Hoken Jigyou Keikaku'. https://www.city.fukuoka.lg.jp/data/open/nt/3/73561/1/201116-houkoku-bessatu.pdf?20201120162928 (accessed 1 August 2022). (in Japanese)

Fukuoka Prefecture (2017), 'Fukuoka Ken Chiiki Iryo Koso, Fukuoka. Dai 2 Sho, Iryo Keikaku, Koreisha Hoken Fukushi Keikaku Nado to Chiiki Iryokoso no Kankeisei' [Prefecture Regional Medical Care Plan, Chapter 2: Relationship between Medical Care Plan, Elderly Health, and Welfare Plan, etc. and Regional Medical Care Plan]. https://www.pref.fukuoka.lg.jp/uploaded/attachment/28659.pdf (accessed 1 August 2022). (in Japanese)

Hiruma Y., F. Michigami and M. Sone (2022), 'Shizuokaken-nai no Betonamu-jin Kaigo Ginou-jisshusei no Jittai ni- kansuru Chousa Repoto' [Report on Survey of Vietnamese Technical Intern Trainees for Nursing Care in Shizuoka Prefecture]. http://www.shizuoka-wel.jp/wp-content/uploads/2022/06/report-research.pdf (accessed 27 June 2022). (in Japanese)

Immigration Services Agency of Japan (2022), 'Shutsunyukoku Kanri Tokei Tokei-hyo' [Statistics for immigration and emigration, table of statistics]. https://www.moj.go.jp/isa/policies/statistics/toukei_ichiran_nyukan.html (accessed 10 July 2022). (in Japanese)

Immigration Services Bureau of Japan (2022), 'Tokutei Ginou Zairyu Gaikokujin-suu no Kohyo' [Release of numbers of foreign specified skilled workers]. https://www.moj.go.jp/isa/policies/ssw/nyuukokukanri07_00215.html (accessed 2 August 2022). (in Japanese)

Mekong Migration Network (2019a), 'Social Protection Across Borders: Roles of Countries of Origin in Protecting Migrants' Rights'. Chiang Mai: Mekong Migration Network.

Mekong Migration Network (2019b), 'Labour Migration from Mekong Countries of Origin to Japan'. Chiang Mai, Thailand: Mekong Migration Network.

Ministry of Health, Labour and Welfare (2022a), 'Gaikokujin Koyou Jyokyo no Todokede Jokyo Matome, Reiwa 3-nen 10-gatsu-matsu Genzai' [Roundup for reports on employment of foreigners as of the end of Oct. 2021]. https://www.mhlw.go.jp/stf/newpage23495.html (accessed 25 July 2022). (in Japanese)

—— 2022b, 'Dai-34-kai Kaigo-fukushishi Kokka-shiken Kekka no Uchiwake [Breakdown of the results of the 34th national licensure examination for certified care worker]. https://www.mhlw.go.jp/content/12004000/000916772.pdf (accessed 26 July 2022). (in Japanese)

Ministry of Justice (2022), 'Ginou-jisshusei no Shissosha-suu no Suii, Heisei 25-nen Reiwa 3nen' [Transition of numbers of absconders among TITs in 2013-2021]. www.moj.go.jp/isa/content/001362001.pdf (accessed 10 July 2022). (in Japanese)

Mizuho Research & Technologies, Ltd. (2021), 'Kaigo Gyoshu ni Kakaru Ginoujisshusei no Ukeire no Jittai ni Kansuru Chosa Kenkyu Hokokusho' [Report on Survey Research on the Actual Conditions of Acceptance of Technical Intern Trainees for Nursing Care Occupations]. https://www.mizuho-rt.co.jp/case/research/pdf/r02mhlw_kaigo2020_06.pdf (accessed 20 July 2022). (in Japanese)

Organization for Technical Intern Training (OTIT) (2021), 'Reiwa 2-nendo Gyomu Toukei' [Business statistics of fiscal year 2020] https://www.otit.go.jp/gyoumutoukei_r2/ (accessed 26 July 2022). (in Japanese)

Sasaki A. (2020), 'Korona Ka ga Nihon no Kaigo Ryoiki ni Okeru Imin ni Ataeta Eikyo' [The Impact of COVID-19 pandemic on Immigrants in the Japanese Nursing Care Area]. IDE Article http://hdl.handle.net/2344/00051868 (accessed 20 July 2022). (in Japanese)

Tanaka, K., M. Tahara, Y. Mashizume, and K. Takahashi (2021), 'Effects of Lifestyle Changes on the Mental Health of Healthcare Workers with Different Sense of Coherence Levels in the Era of COVID-19 Pandemic', *International Journal of Environmental Research and Public Health,* 18(6), 2801. https://doi.org/10.3390/ ijerph18062801

Chapter 6

Capacity Building for Resilient Long-term Care in Thailand

1.   Introduction

The novel coronavirus disease (COVID-19) pandemic brings challenges to both government and private sectors in order to ensure adequate care for elder citizens and persons with disabilities. Both long-term care workers and those that they care for have revealed vulnerability or resiliency, depending upon certain factors. This study of Thailand explored the knowledge, attitudes, and practices (KAP) amongst caregivers and village health volunteers (VHVs) and investigated the catalysing factors leading to vulnerability or resiliency regarding the COVID-19 pandemic. Recommendations are also formulated based on evidence found from this study.

1.1.   COVID-19 and Older People in Thailand

Thailand transitioned to an aged society in 2020, with approximately 12 million people that are aged, about 19.2% of Thailand's population (NSO, 2017). One report (UNFPA, 2021) has mentioned that almost one out of every five people is aged over 60 years and one out of 10 people is aged over 80 years. While almost 2 million older persons are not in good physical health, with some 250,000 being in extremely poor condition, more than 80% of them are still active and productive in some way. However, Thai society itself is going through a significant transition, moving away from a traditional, nuclear family-oriented pattern. The family structure now seems to be fragmented, with physical and psychological distances amongst its members. Further, there are more older persons today that are poor, many of whom live alone and lack family and other socioeconomic support, and that was the picture before the COVID-19 pandemic in Thailand.

When the COVID-19 pandemic occurred in China and other countries in the region in 2019, Thailand was attacked by the disease beginning in 2020, and the crisis became more serious in 2021 during the third wave of the pandemic. In the early days of the pandemic, the Thai government gave serious attention to controlling the pandemic situation. A state of emergency was declared on 26 March 2020, right after new COVID-19 cases spiked to 111 in one day. This was followed by curfews and various public health measures to contain the spread of the virus. These measures have proven successful; the death toll as of the 23 April 2020 was 50, and the total number of confirmed COVID-19 cases amongst Thai citizens was 2,521, of which 10.1% were older persons aged 60 years and over (Department of Disease Control, 2021). However, during this third wave of the COVID-19 pandemic, a new high rate appeared in early May of 2021, and that made people frightened and stressed.

Daily reports find that many new cases are older persons that are living with their family, some are living as couples, and some are in age-care facilities. Therefore, this shines light on the fact that older persons need special attention, as their infections are more serious than other age groups; the mortality rate amongst them is also higher. Not only have serious problems emerged in terms of their physical health, but also in terms of their mental health and economic problems. One report

mentioned that almost 90% of the weak elderly in Thailand do not have a caregiver. They must take care of themselves and therefore the risks to them during the COVID-19 pandemic are obvious.

A survey in Thailand exploring the impact of COVID-19 on older persons was conducted in July 2020 by the College of Population Studies, commissioned by the United Nations Population Fund (UNFPA, 2020). It was the very first COVID-19 survey directly focusing on older persons aged 60 years and over. The survey explored information on economic status, living arrangements, and the physical and psychological health of the respondents before and during the COVID-19 outbreak. It was found from the report that overall, 80% of the participants indicated that their health was about the same as before COVID-19, and about one-fifth felt that their health was worse than before. This proportion was higher in urban than in rural areas. Only small percentages (4% to 8%) reported that their health problems became worse during the COVID-19 pandemic; their income was either sometimes or always inadequate before the COVID-19 outbreak. In terms of living arrangements, 67% co-resided with at least one child, whereas 5.5% lived alone and 12% lived with their spouse only. One-quarter of older persons experienced one of the selected psychological symptoms, either sometimes or always during the COVID-19 pandemic. The most common symptom was feeling worried, loss of appetite, loneliness, and unhappiness. The percentages varied little by gender but were significantly higher in urban areas than in rural areas. Older persons living alone were more likely to feel lonely than those in other living arrangements. However, very little was mentioned about the elderly in long-term care (LTC) facilities, which seems to be a worse situation than those living with family members. In early 2022, severe COVID-19 infections seemed to have decreased because of high vaccination rates in Thailand. However, the Omicron variant has begun to spread around the country in the middle of 2022 and decreased in late 2022. Since then, most of the infected persons have been asymptomatic or have had only mild symptoms.

1.2.   Long-term Care in Thailand and the COVID-19 Pandemic

The World Health Organization (WHO) defined long-term care as 'services to ensure that people with, or at risk of, significant loss of physical and mental capacity can maintain a level of functional ability consistent with their basic rights, fundamental freedom, and human dignity' (WHO, 2020, p.9). In Thailand, there are about 800 LTC facilities, and most of them are small and medium sized. There are only 40 large LTC facilities within central Thailand and in some large cities. With regard to the definition of LTC by the WHO (2020, p.9) 'long-term care facilities vary by country. Nursing homes, skilled nursing facilities, assisted living facilities, residential facilities, and residential long-term care facilities are collectively known as long-term care facilities that provide a variety of services, including medical and assistive care to people that are unable to live independently in the community'. However, this study focuses on long-term care facilities that include only nursing homes and community care facilities organised by the private and public sectors in Thailand.

It has been mentioned in many reports that COVID-19 has disproportionately affected long-term care facilities. Evidence shows that what is needed is to mitigate the impact across all aspects of long-term care, including institutional-based and community-based care, given that most users and providers of care are vulnerable to severe COVID-19. The Thai government therefore is paying attention to and is concerned about long-term care both in the community and in the institutional sector. Guidelines for COVID-19 prevention developed by the Ministry of Public Health in Thailand have been distributed to LTC facilities. Many social media and announcements concerning COVID-19 have been distributed.

At present, long-term care facilities such as private nursing homes receive support from the Health and Elderly Establishment Confederation (HEC) in terms of a range of information related to government programmes, training, and advocacy. Those facilities are encouraged to be a member of the HEC. At present, the HEC covers more than 50 % of LTC facilities in Thailand (HEC, n.d.). During the COVID-19 pandemic, the HEC has played important roles in assisting the facilities by providing knowledge and skills to prevent COVID-19. High coverage of COVID vaccines amongst the elderly in facilities were also supported by the HEC.

1.3. Volunteering in Thailand

In the context of community-based LTC, the essential support has come from the Local Administrative Organization, public health centres, and hospitals and local networks. VHVs have been cited as key persons providing proactive support and have successfully managed COVID-19 outbreak control by playing a huge role. There are approximately 1,055,000 active VHVs in Thailand (Department of Protocol, Thailand, 2020) and each province contains around 104,000.

VHVs have been recognised as valuable assets for the primary healthcare system in Thailand for many decades, and they have begun to play an important role in line with the concept of community participation since 1977 (Chuengsatiansup and Suksuth, 2007). This group of people come from a variety of careers and backgrounds; however, most of them are females with low and middle incomes. Their roles in primary care services have been accepted and are trustworthy, and they perform very well on short-term tasks such as taking ad hoc health surveys, collecting periodic data, and conducting disease prevention campaigns by collaborating with health personal.

At the beginning phase of health volunteering, VHVs are very involved with maternal and child health, family planning, and infectious disease control. Recently, as Thailand has approached an aged society, areas of work are needed with long-term, continuous dedication, such as caring for chronically ill patients and dependent elderly. Further, health issues have become more complicated, and digital literacy is needed, and therefore VHVs have been equipped by the Ministry of Public Health and other sectors, such as the local administrative organisation that runs many training programmes for VHVs. During the time of COVID-19, VHVs have been very active and have provided a lot of support to the people in their villages.

According to the changing contexts in Thai society, the relevance of the conventional model of VHVs has been called into question. The Ministry of Public Health (MoPH) currently therefore has launched new mechanisms for primary healthcare services that increase the roles of VHVs called 'three doctors for primary health care'. The VHV is so called the 'first doctor' in the village and works collaboratively with the second doctor, who is a member of the public health personnel or nurse practitioners at the local health centres; and the third doctor is the family physician. VHVs are expected to communicate more with their villagers, use basic tools for health assessment, and then report the results to the second doctors. This strongly indicates that health volunteering has been progressively more accepted and plays an increasing role in Thai society.

1.4. Capacity Building of the Long-term Care Team for COVID-19 Prevention in Thailand

The unique challenges that have affected the ability of long-term care systems to respond to the COVID-19 pandemic are currently presented by the WHO (2020). The 11 key actions for addressing

these challenges in the short and longer term seem to be beneficial to LTC if all stakeholders are collaboratively implementing these key actions. This study focuses on three of the 11 key actions as follows: (i) ensuring that infection prevention and control standards are implemented and adhered to in all long-term care settings to prevent and safely manage COVID-19 cases, (ii) providing support for family and voluntary caregivers, and (iii) prioritising the psychosocial well-being of people receiving and providing long-term care services.

In early 2021, the Thai Health Foundation granted funding to an academic group to carry out a project for the infection prevention of COVID-19 for LTC facilities across the country. Fifteen facilities have been included in the training programme, and it is expected that acceptable guidelines will be produced through learning and sharing across settings. However, significant factors relevant to the effectiveness of the programme have not been explored yet. Regarding the statement, 'truly leave no one behind in the response to COVID-19, Thailand needs to do more in terms of prevention, preparation, and response to the COVID-19 pandemic', and to mitigate its impact across long-term care services, including care providers.

Recently the MoPH in Thailand launched new regulations for private LTC facilities to monitor and supervise services. Private LTC facilities in Thailand have been informed to register with the MoPH and have to follow the new regulations; for example, caregivers must be trained by certified institutions with a total of 420 hours and a completed self-assessment report submitted to the MoPH, along with an application form. The MoPH will then send auditor teams to visit the LTC facilities to ensure that adequate quality standards are met and that licenses of owners and care workers are recorded.

In conjunction with the LTC network, the researchers of this study continued to utilise the existing programme and used evidence gained from previous studies to make refinements and to ensure the effectiveness of the training programme and recommendations.

2.   Objectives of the Study

- To explore the situations and factors related to the prevention of COVID-19 in institutional and community LTC for the elderly during the COVID-19 pandemic.

- To develop a model for a training programme for the caregivers in nursing homes, family caregivers, and village health volunteers using existing evidence and media.

- To utilise the training programme and collect feedback about on COVID-19 prevention in institutional and community care settings.

3.   Research Procedures

3.1.   Field Survey (observational study)

Bangkok and Patum-Tani Province were selected as field survey settings. The situations and factors related to the prevention of COVID-19 in institutional and community care for the elderly were explored in December 2021. A KAP survey and resilience quotient questionnaire were applied in order to obtain the factors related to the prevention of COVID-19 infection. The essential documents, such as business continuity plans (BCPs), and infectious disease control manuals used in LTC facilities during the COVID-19 pandemic were also explored.

3.2. Development of a Model for a Training Programme (meetings and consultation activities)

The results from the KAP survey and the existing programme used for LTC capacity building developed by the Thai Health Foundation were brought together, analysed, and synthesised. The redesigned model for training emerged from a research team meeting and consultations with the LTC facility leaders and the chair of the VHVs. The model is presented in Figure 6.1. The researchers selected existing media for the training and applied them to the training programme (the media used are shown in Appendix 3).

The research team carried out focus group discussions with home nursing staff and VHVs in order to explore the details of the developed model and to extract the essence of each factor, and then used this information in the workshop on capacity building for LTC facilities. At this stage the model has been refined and adjusted to suit each type of LTC. Lastly, we obtained two models, as shown in Figures 6.2 and 6.3.

3.3. Implementation of the Model and Collecting Feedback

The workshops to implement the model of capacity building for resilient LTC were carried out in the middle of June 2022 and approximately 30 VHVs and 10 caregivers participated. Online group discussions and individual interviews were carried out after the implementation of the programme to collect feedback on the programme in terms of satisfaction with it, and self-efficacy amongst the care workers and caregivers in terms of the prevention of infection and the impacts on resident care.

4. Results of the Survey

A cross-sectional survey was carried out in December 2021 at the time of the pandemic crisis in Thailand. Online responses were obtained through google form application with 126 participants that were involved in LTC activities. The study areas were Pathum-Thani Province and Bangkok, as indicated above. The data for this study were collected using a KAP survey questionnaire and a resilience quotient scale and were analysed by adopting descriptive statistics: percentage, mean, and standard deviation. In addition, two focus group discussions were carried out from January to February in 2022 in order to collect qualitative data illustrating the situation of LTC and the factors related to COVID-19 prevention. The first group of participants were LTC facility staff and the owners, and the second group participants were VHVs and community leaders working with community-based LTC in Pathum-Thani Province.

4.1. The Knowledge, Attitudes, and Practice (KAP) Survey

The KAP survey obtained 126 participants with the response rate of 85%. The results were divided into four parts: (1) the demographic characteristics of the participants, (2) the knowledge of the participants, (3) the practice of the participants, and (4) the resilience quotient, which reflected attitudes towards their life during the pandemic.

Demographic Characteristics of the Respondents

Table 6.1 shows the characteristics of the respondents; the majority were female (88.10%), the average age was 64.65, the value of the standard deviation (SD) was 8.42, the maximum age was 79 years, and the minimum age was 48 years. Half of them had one to two family members that were over or equal to 60 years of age (including the respondents), one person (32.54%), and two people (29.37%). Most of them did not have COVID-19 patients (92.86%) or a bed-ridden person (95.24%) in their family.

Table 6.1. Demographic Characteristics of the Respondents

Demographic characteristics	Frequency (n = 126)	Percentage (%)	Average	SD	Max.	Min.
1. Gender						
Male	15	11.90				
Female	111	88.10				
2. Age (years)			64.65	8.42	79.00	48.00
3. The number of family members that were over or equal to 60 years of age. (Including the respondents)						
0 persons	30	23.81				
1 person	41	32.54				
2 people	37	29.37				
3 people	8	6.35				
4 people	5	3.97				
5 people	3	2.38				
6 people	1	0.79				
8 people	1	0.79				
4. COVID-19 patients in family						
Yes	9	7.14				
No	117	92.86				
5. Bed-ridden person in family						
Yes	6	4.76				
No	120	95.24				

SD = standard deviation.

Source: Developed by researchers.

Knowledge of the Respondents

After the data collection and analysis, the participants that were VHVs and caregivers in LTC facilities were found to have relatively high KAP scores, as shown in Table 6.2. The participants seemed to have clear knowledge about COVID-19. Some unclear knowledge was related for example to how long the coronavirus can survive on a surface and in the air and frequently-touched areas (do not know=18.25% and 9.52%, respectively), the duration of the infection (do not know=7.94%), and

asymptomatic pathogen holders (do not know=11.11%). These four points were discussed and explained in greater detail with the participants in the capacity-building training session.

Table 6.2. Knowledge of the Participants (n=126)

Statements	Answer	
	No n (%)	**Yes** n (%)
1. I know that infection with COVID-19 causes fever, respiratory symptoms (cough, sore throat, nasal discharge, nasal closing, etc.), headache, malaise, etc.	2 (1.59)	124 (98.41)
2. I know that COVID-19 has similar initial symptoms to influenza and colds.	7 (5.56)	119 (94.44)
3. I know that COVID-19 make people lose sense of taste and smell.	4 (3.17)	122 (96.83)
4. I know that COVID-19 was initially thought to spread with contact or droplet infections, but has now been proven to spread with aerosol infections.	1 (0.79)	125 (99.21)
5. I know that the underlying diseases (chronic respiratory diseases, diabetes, cardiovascular disease, etc.) are high-risk factors for COVID-19.	1 (0.79)	125 (99.21)
6. I know that the COVID-19 virus remains in the air for about 3 hours in aerosol form, about 72 hours on plastic and stainless steel surfaces, about 24 hours on cardboard surfaces, and 4 hours on copper surfaces.	23 (18.25)	103 (81.75)
7. I know that the COVID-19 virus is more attached to patients' pillows, telephone answering machines, TV remote controls, doorknob and toilet environments.	12 (9.52)	114 (90.48)
8. I know that most COVID-19 patients are the sources of infection transmission.	9 (7.14)	117 (92.86)
9. I know that COVID-19 is transmitted before onset (2 days before onset) or from asymptomatic patients.	6 (4.76)	120 (95.24)
10. I know that COVID -19 is most infectious before and after the onset.	11 (7.94)	115 (92.06)
11. I know that COVID-19 causes aerosol infections in enclosed spaces.	4 (3.17)	122 (96.83)

Statements	Answer	
	No n (%)	Yes n (%)
12. I know how COVID-19 becomes more severe with symptoms associated with pneumonia and respiratory failure.	9 (6.35)	117 (93.65)
13. I know that in COVID-19 severe cases, the progression after pneumonia progresses quickly and the condition deteriorates rapidly, so careful observation and quick response are required.	6 (3.97)	120 (96.03)
14. I know that the close contact person is one who comes into contact with the COVID patients between 2 days before a term from the onset.	4 (3.17)	122 (96.83)
15. I know that the patients here include 'asymptomatic pathogen holders'.	14 (11.11)	112 (88.89)

Source: Developed by researchers.

Practice of the Respondents

Table 6.3 shows the practice of the respondents divided into two parts: the first part was COVID-19 preventive behaviour for themselves, and the second part was COVID-19 preventive behaviour for the elderly in the household, community, or nursing home. The results of the first part show that the majority would wear a mask when going out (97.62%), wash their hands before and after meals, coughing, and using the toilet (95.24%), and having a hot meal or just cooked food (95.24%). However, wearing a mask in their own house when doing things with the family was the lowest level of practice.

The results of the second part show that the majority would stop contacting the elderly when they have a fever, cough, or sore throat (85.71%), wash their hands with soap or alcohol gel before and after touching the elderly (83.33%), and wear a mask anytime they were taking care of the elderly (79.37%). While the behaviour that the participants practiced for themselves was appropriate, one item that was found at a moderate level was having a meal with the elderly during the pandemic. Almost 50% did not apply this recommendation to their daily life.

This might be because of the strong Thai culture to have meals at the same time and to share meals in the family, even if they know that this might cause the spread of the virus from one to another.

Table 6.3. Practice of the Participants (n=126)

Statements	Level of practice		
	Rarely/never n (%)	Sometimes n (%)	Almost always n (%)
COVID-19 preventive behaviour for yourself			
1. I wash my hands before and after meals, coughing, and using the toilet.	1 (0.79)	5 (3.97)	120 (95.24)
2. While having a chat with others, I create a 1 to 2 metre distance.	2 (1.59)	33 (26.19)	91(72.22)
3. I do not use any personal items with others such as bath towel, dishes, glasses, spoons.	5 (3.97)	13 (10.32)	108 (85.71)
4. I avoid doing things in crowded places.	4 (3.17)	19 (15.08)	103 (81.75)
5. I wear a mask in my house when I do things with family members.	19 (15.08)	48 (38.89)	58 (46.03)
6. I wear a mask when I go out.	0 (0.00)	3 (2.38)	123 (97.62)
7. I have a hot meal or just cooked food.	2 (1.59)	4 (3.17)	120 (95.24)
8. I follow up on the news about COVID-19 and avoid going to places where there are COVID patients.	1 (0.79)	13 (10.32)	112 (88.89)
9. I do exercise at home during the COVID pandemic.	8 (6.35)	46 (36.51)	72 (57.14)
10. I try not to travel or visit any places or activities if not necessary.	4 (3.17)	46 (32.54)	72 (64.29)
COVID-19 preventive behaviour for the elderly in the household/community/nursing home			
1. When I return home, I change my clothes and have a shower before I see the elderly.	14 (11.11)	24 (19.05)	88 (69.84)
2. I wash my hands with soap or alcohol gel before and after I touch the elderly.	11 (8.73)	10 (7.94)	105 (83.33)
3. I wear a mask anytime I take care of the elderly.	14 (11.11)	12 (9.52)	100 (79.37)
4. I wear gloves anytime I take care of the elderly.	24 (19.05)	24 (19.05)	78 (61.90)
5. If I have a fever, cough, or sore throat I stop contacting the elderly.	15 (11.90)	3 (2.38)	108 (85.71)
6. I avoid close contact with the elderly for example by hugging or kissing.	15 (11.90)	12 (9.52)	99 (78.57)
7. I avoid having meals with the elderly.	21 (16.67)	36 (28.57)	69 (54.76)
8. If it is not urgent, I avoid taking the elderly to the hospital. I postpone the appointment with the doctor for them.	20 (15.87)	27 (21.43)	79 (62.70)

Source: Developed by researchers.

Resilience Quotient of the Respondents

Resilience has been defined as the ability to plan and prepare for, absorb, recover from, and adapt to adverse events (Chavapattanakul, Wongkumsin, and Kongkasuwan, 2020). In addition, the resilience quotient is the capability of a person to adjust or adapt oneself and recover when facing crises. Some articles have proposed that resilience comprises the coping capacity of the individual. Resilient individuals seem to have optimistic attitudes and positive emotions, which can be protective factors during the COVID-19 crisis. This study applied a set of questions from the Department of Mental Health in Thailand (2009), which covers three elements: emotional stability, hope and morale, and problem management. The definitions of three element are as follows:

- **Emotional stability** refers to being emotional stable, and not easy to be stressed in pressure situations and having techniques to manage one's emotions to be peaceful and to become emotionally stable.

- **Hope and morale** refer to having a determined mind to achieve one's goals and to be undaunted and having a consultant when facing hardships or perturbations.

- **Problem management** refers to having positive thinking, not wanting to escape one's problems, and finding information and having techniques to solve the problems.

Table 6.4 shows the results of the resilience quotient of the respondents, where the average score was 46.76 from the total of 60, and the value of the standard deviation was 8.24. The results of each element show a high level of resilience quotient, which means that they have flexibility in their lives and can adapt themselves and handle problems during crises. The ability to manage and cope with problems, crises, and pressure would help them to be productive caregivers working in LTC. Whilst the resilience quotient was shown to be at a good level, the problem management element was the lowest amongst these three. This result needs to be responded to as LTC facility owners, caregivers, and volunteers play an important role in protecting the vulnerable elderly people, especially those needing long-term care from COVID-19 infection. It was also evident during the pandemic that the older a person is and the presence of co-morbidities were the key risk factors that require proper management, especially infectious disease control in facilities, enough space, clean physical environment, and sufficient workforce in LTC facilities. The key limiting factors in LTC at the early stage of the pandemic in Thailand were the lack of support and appropriate communication between private LTC facilities and responsible organisations, and the lack of BCPs, which leads to insufficient care workers when infected staff have to quarantine. It is a fact that there are some inter-related reasons why the elderly in long-term care facilities and communities are vulnerable in COVID-19 pandemic situations. At the basic level, the high and close-contact nature of care leads to frequent opportunities for infection (Florek, 2021). This nature requires appropriate attitudes and positive concerns amongst the staff and volunteers working in this area.

Table 6.4. Resilience Quotient

Resilience Quotient	Total scores	Mean	S.D.
Overall	**60**	**46.76**	**8.24**
· Emotional stability	30	23.39	4.65
· Hope and morale	15	12.83	2.57
· Problem management	15	10.55	2.54

Source: Developed by researchers.

4.2. Model for COVID-19 Prevention and Resilience in LTC

The focus group discussions revealed that the pandemic has brought with it physical and emotional burdens for care workers. Many of them lack time to take care of themselves and their family, or even provide the basic care for residents. Some care workers mentioned that their work relies heavily on moral commitment. These combined effects have led to widespread fear, hopelessness, and depression amongst care workers for those that work in institutional care. In contrast, the VHVs in LTC services seem to obtain strong support from local networks, families, and charity organisations, which helps them to work effectively and to be acknowledged.

Because closing nursing homes to families and other visitors was the most common emergency measure carried out to limit the risk of infection, care workers were also separated from their families and outer society in order to prevent the transmission of the virus to the facilities. At one nursing home where many care workers were infected with COVID-19 during the crisis, it was expressed that because of the owner's kindness and leadership, they were able to cope with their stress and symptoms. They were provided with food, material, emotional, and financial support. The leadership of the LTC owners was therefore mentioned as a significant factor relevant to coping with the stress and resiliency amongst the care workers. After collecting both quantitative and qualitative data, the researchers had a brainstorming meeting to extract solid results that could answer the research questions concerning what factors influence LTC in terms of vulnerability and resiliency. A model for COVID-19 prevention and resilience for LTC was proposed (Figure 6.1). This model was then utilised in a workshop as capacity building for LTC facilities.

Figure 6.1. Model for COVID-19 Prevention and Resilience in Long-term Care, Thailand
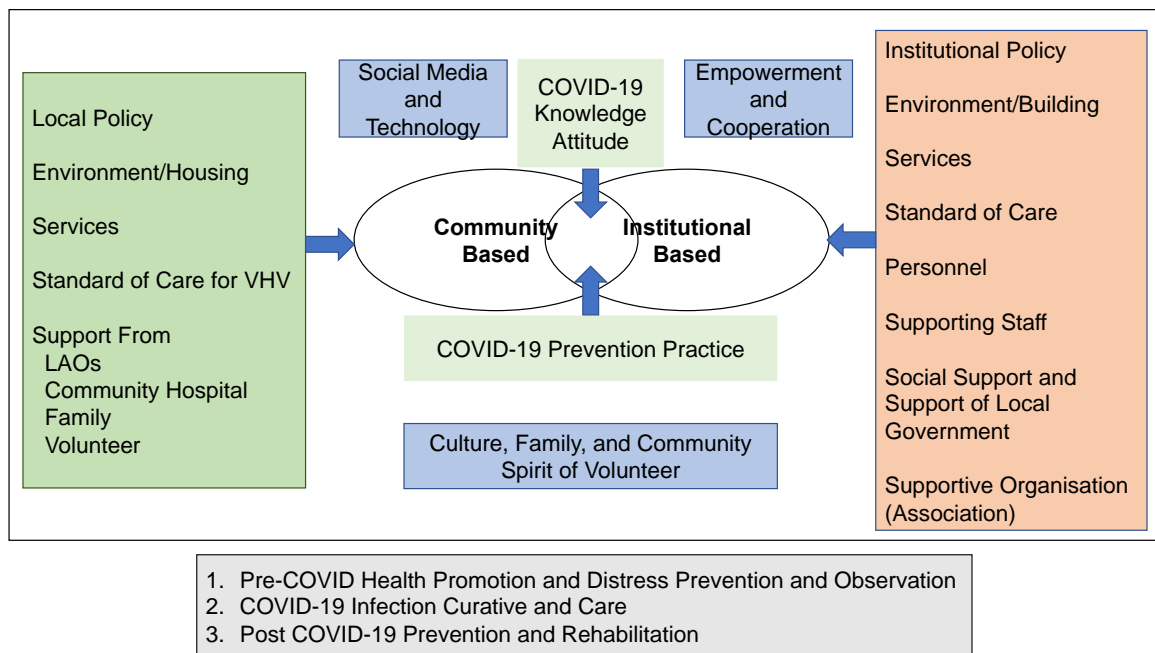
LTC = long-term care, LAOs = local administrative organisations, VHV = village health volunteer.
Source: Developed by researchers.

4.3. Resilient Long-term Care Beyond Vulnerability: Institutional-based and Community-based LTC

Focusing on institutional-based LTCs (Figure 6.2), which were private nursing homes, it was revealed that the catalysing factors leading to vulnerable or resilient LTC were (i) the environment, (ii) networking, (iii) KAP, (iv) digital literacy, and (v) business continuity plan (BCP). All were significant factors derived from the interviews and discussions. In this report, clear pictures and details are described.

Due to the closure of nursing homes to families and visitors, researchers were unable to conduct site visits; however, the environment both in and outside the building were explained by the facility owners. As most private nursing homes in Thailand are small and medium size with 30 to 50 beds, some facilities are in small buildings and are crowded, without green areas surrounding the facilities. Ventilation was therefore of concern. This would lead to vulnerability when one is infected, and it is therefore difficult to do zoning or to retain social distancing. In addition, if nursing homes are not cohorting patients, where the staff are caring for both infected and uninfected residents, this presents a risk of outbreak. It was found in one nursing home where researchers conducted an interview, that a group of caregivers and residents were infected with mild symptoms.

The manager decided and applied a guideline for COVID-19 management of those requiring LTC by setting up an isolation room for this group. This decision seemed to help them get through the crisis, and the family members of the residents were satisfied as they preferred not to have their parents in hospital. However, this needs to be revised and well prepared in order to prevent complications that

may occur; especially care workers may suffer with physical and emotional breakdowns in their own health.

Figure 6.2. Resilient Care beyond Vulnerability: Institutional-based Long-term Care

Vulnerability	Categorising Factors	Resilience
☐ Environment: poor ventilation, space, congested areas ☐ Not follow standards of care, lack of PPE, poor infection control ☐ Support staff lack appropriate KAP ☐ Non-health professional background of the owners (lack of monitoring and controlling skills) ☐ Limitations of private institutional care, such as shortage of care workers ☐ Inefficient communication ☐ Lack of network ☐ No business continuity plan	☐ Environment, both physical and psychological ☐ Digital literacy ☐ Government support and policy ☐ Accessibility of information ☐ Owners and staff ☐ Connections and relationship with public and private networks ☐ Business continuity plans (BCP) ☐ Attitude and culture	☐ Green and safety environment (both in and out of buildings) ☐ Government support and policy (registering with public health system, self-assessment, training etc.) ☐ Strong digital literacy and effective accessibility of information ☐ Owner's leadership and team work ☐ Good connections and sound relationships with public and private networks ☐ Member of the Health and Elderly Establishment Confederation (HEC) in Thailand

KAP = knowledge, attitudes, and practices, LTC = long-term care, PPE = personal protective equipment.
Source: Compiled by researchers.

The network of the private nursing home was revealed as a resilient factor. The Health and Elderly Establishment Confederation (HEC) is one of the most important sources of support for private nursing homes in Thailand. Its mission is the commitment to elevating the healthcare and ageing business to the international level with creativity, innovation, and the highest quality management for mutual success with healthcare business sectors and elders. Whilst the crisis of COVID-19 was ongoing in Thailand, the HEC provided material, information, and emotional support to members such as COVID vaccine distribution to cover most members. Another activity which is relevant to the HEC mission is to prepare members to meet the new regulations of the Thai government. The roles of the HEC and its activities are a resilient factor in providing positive impacts for institutional LTC.

One more factor relevant to vulnerability is the BCP. Without a BCP, this sector would be in difficulty as some owners mentioned that they faced staff shortages and the remaining workers increased their work hours, creating unsafe conditions for staff and residents. BCPs have been developed in Thailand but are not used by private nursing homes.

Special mention needs to be made of community-based LTC (Figure 6.3). The results from the survey and focus group discussions show that the catalysing factors leading to vulnerable or resilient LTC were as follows: (i) housing and the environment, (ii) government and local authority organisations, (iii) the spirit of volunteering, local wisdom, and the attitudes and culture amongst the volunteers and family, (iv) digital literacy and accessibility of information, and (v) private and public networks, such as charity organisations and the business sector. In this summary, the most important factors to help community LTC gain resiliency were strong volunteering work and community support. In

Thailand, health volunteers are recognised as an important sector to drive public health services for local people. The stronger the volunteering work in the community, the more resilient the elder care can be found. Health volunteers are familiar with the local people in the catchment areas (one volunteer takes care of 10–15 families). This creates effective support by the health volunteers for the dependent elderly and their families during the pandemic crisis. Local wisdom, such as Thai herbs and traditional therapy, were widely used by the volunteers. Some charity organisations received donations and transferred those materials and money to the community assisted by VHVs. Most VHVs expressed the idea that they were motivated to do volunteer work and found benefits returned to them and their families in terms of recognition, privilege, and health benefits. However, a few VHVs contracted COVID-19 infection, but they were able to access treatment and care easily as they are accepted as a member of public health team.

Figure 6.3. Resilient Care beyond Vulnerability: Community-based Long-term Care

Vulnerability	Categorising Factors	Resilience
□ Housing (space, zoning, and lifestyles of family members) □ Public place and crowded area □ Socialising without COVID-19 concern □ Not follow standards of care, do not use PPE, inappropriate control of infection □ Support staff lack appropriate KAP □ Inefficient communication □ Lack of network	□ Housing and environment □ Volunteering □ Local health professionals □ Government support and local policy □ Volunteers' digital literacy □ Network (professional and non-professional) □ Accessibility of information □ Attitudes and culture	□ Green and safety environment □ Charity and religious support organisations □ Volunteering and proactive support □ Local administrative organisations □ Public environment (enough space for physical distancing) □ Accessibility of information □ Relationships with public and private networks

KAP = knowledge, attitudes, and practices, PPE = personal protective equipment.
Source: Compiled by researchers.

5.   Conclusions

To conclude, the WHO proposed key actions to address the challenges of COVID-19 in the LTC sector. This study discussed three key actions in this regard: (i) ensure that infection prevention and control standards are implemented and adhered to in all long-term care settings to prevent and safely manage COVID-19 cases, (ii) provide support for family and voluntary caregivers, and (iii) prioritise the psychosocial well-being of people receiving and providing long-term care services. These three key actions were demonstrated through the research activities. The survey revealed that KAP amongst the caregivers both in the community and institutions were satisfactory. They may not have been able to understand some of the points regarding COVID-19, such as the duration of transmission and asymptomatic holders; however, the resilience quotient, which can be referred to as one's attitude towards life, was appropriate. Problem management was re-skilled through the capacity-building workshop, and prevention and protection skills were found to be positive.

However, some practices, such as having meals with the elderly during high rates of infection, were not in compliance with standards due to Thai culture and lifestyle. The study identified the catalysing factors that lead to resilient or vulnerable LTC. It was also found that the vulnerability and resiliency of both types of LTC were different. Community-based LTC seems to be better in terms of resilience than institutional-based LTC: for example, there is less work burden in community settings, as the elderly live with their family. VHVs play important roles in visiting and giving specific care to the elderly with the family support. The volunteers also gave advice by consulting with the community nurses or care managers and received positive support from local organisations and some charity groups in the community. In contrast, caregivers working in private nursing homes seem to face the complicated problems of heavy workloads and high expectations. Private nursing homes, which are members of the HEC, had strong support from this network and seemed to cope with the crisis successfully. The HEC members are deemed to demonstrate resilient LTC in Thailand. In addition, facility owners with health science backgrounds and strong connections with public and private networks demonstrated sound coping skills and resiliency.

6.   Lessons Learnt

- Regularly provide and update knowledge and skills regarding COVID-19 to LTC staff and VHVs via an effective route using appropriate technology. Digital literacy amongst caregivers needs to be developed.

- Improve health monitoring in LTC by establishing systems of surveillance to monitor COVID-19 outbreaks in LTC across the country.

- Implement an integrated approach to health and social services in LTC, both institutional based and community based. Charity organisations and the business sector should be encouraged more to support LTC services in general and during the crisis.

- Encourage all private nursing homes to become involved with a strong trade union or confederation so that sharing information, learning from each other, and providing support amongst members will be effectively carried out. The confederations of LTC in Thailand, such as the HEC, provide a variety of support and activities for LTC and work as a bridge to connect to government sectors.

- Improve occupational health and safety in LTC facilities in order to protect all staff working in this area, focusing on holistic health (physical, mental, environmental, and spiritual health).

- Strengthen and upgrade VHVs to become more involved in the area of community-based LTC. Financial mechanisms to support VHVs need to be considered.

References

Chavapattanakul, P., T. Wongkumsin, and R. Kongkasuwan (2020), 'The Relationship between Resilience Quotient, Social Support and Spiritual Well-Being of Caregivers of Patients with Hemiplegia', *Siriraj Medical Journal*, 72(3), pp.245–52. https://he02.tci-thaijo.org/index.php/sirirajmedj/article/view/240124 (accessed 22 June 2022).

Chuengsatiansup, K. and P. Suksuth (2007), 'Health Volunteers in the Context of Change: Potential and Developmental Strategies', *Journal of Health Systems Research*, 1(3-4 Oct.-Dec).

Department of Disease Control (2021) Situation of COVID-19 in Thailand. https://ddc.moph.go.th/covid19-dashboard (accessed 15 March 2021).

Department of Mental Health (2009), 'From Bad to Good RQ Resilience Quotient'. Nonthaburi: Ministry of Public Health, Thailand.

Department of Protocol, Ministry of Foreign Affairs, Kingdom of Thailand (2020), 'Thailand's Ungowned and Unsung Heroes Play Significant Roles in Battling COVID-19', 30 June. https://protocol.mfa.go.th/en/content/119261-thailands-ungowned-and-unsung-heroes-play-s?cate=5f069ee272a783584326eb0d (accessed 10 January 2022).

Florek, K. (2021), 'Resilience of the Long-term Care Sector Early Key Lessons Learned from the COVID-19 Pandemic'. The European Federation of Public Service Unions (EPSU). https://www.epsu.org/sites/default/files/article/files/Resilience_of%20the%20LTC%20sector_V3.pdf (accessed 12 June 2022).

Health and Elderly Establishment Confederation. https://www.hec.or.th/ (accessed 20 May 2022).

National Statistics Office of Thailand (NSO) (2017), 'The 2017 Survey of Older Persons in Thailand'. http://www.nso.go.th/sites/2014en/Survey/social/domographic/OlderPersons/2017/Full%20Report_080618.pdf (accessed 15 September 2021).

United Nation Population Fund (UNFPA) (2020), 'COVID-19 and Older Persons: Evidence from the Survey in Thailand'. https://thailand.unfpa.org/sites/default/files/pub-pdf/covid-19_report-online-revised_2021.pdf (accessed 15 December 2021).

World Health Organization (WHO) (2020), 'Preventing and Managing COVID-19 Across Long-term Care Services'. Policy Brief. https://apps.who.int/iris/handle/10665/333074 (accessed 10 December 2021)

Chapter 7

Capacity Building for Resilient Long-term Care in Indonesia

## 1.	Background of COVID-19 Infection in Indonesia

The novel coronavirus disease (COVID-19) pandemic has had an unprecedented effect on the lives of people, irrespective of social demographics. This trend is common all over the world. In terms of the number of confirmed cases and deaths from COVID-19 in member countries of the Association of Southeast Asian Nations (ASEAN), Indonesia is the most affected country (Komazawa, et al., 2020).

During the COVID-19 pandemic, older adults face significant fallout with regard to their physical and psychological wellbeing. Indonesia's older population has much higher COVID-19 fatality rates than younger generations. National data reported that by March 2022, as many as 12% of the total confirmed cases of COVID-19 were residents aged 60 years or over. However almost half of the total mortality (49.4%) in the country come from the population aged 60 years and over and put this percentage as the highest amongst other age groups (*Satgas Penanganan* COVID-19, 2022). According to the National Health Survey (2018) one in four older people suffer from one or more degenerative diseases whereas hypertension, cardiovascular disease, diabetes mellitus, chronic respiratory disease, and stroke are the major degenerative diseases suffered by Indonesian older people (Ministry of Health Republic of Indonesia, 2018). On the other hand, the ageing process induces the deterioration of immune system in older people (immunosenescense) and is another factor that puts older people in higher risk of mortality. An appropriate measure in COVID-19 prevention is highly needed to prioritise protection for older people especially those living in long-term care facilities and communities.

Several studies have identified various negative impacts arising from the COVID-19 pandemic on the elderly, from economic, health, and psychosocial points of view (Kaligis, Indraswari, and Ismail, 2020; Komazawa, et al., 2020; Muhtar, et al., 2020; Nugraha, et al., 2022; Saito and Cicih, 2022; Smeru Research Institute, et al., 2021).

The devastating impact of the COVID-19 pandemic not only caused suffering of older people living in the community but also those living in nursing homes. The pandemic has created enormous pressure on the entire health care system, but possibly the most tragic impact has been on the long-term care system for both younger and older people in long-term care facilities (LTCF). Although data on mortality due to COVID-19 in long-term care facilities are not well documented, attention to the importance of preventing transmission is very important. More than 85% of the residents in LTCFs are amongst the most vulnerable part of the population. Given their congregate nature and resident population served (e.g., older adults often with underlying chronic medical conditions), nursing home populations are at high risk of being affected by COVID-19.

As demonstrated by the COVID-19 pandemic, a strong infection prevention and control (IPC) programme is critical to protect both residents and caregivers. Even as nursing homes resume more normal practices and begin relaxing restrictions, nursing homes must sustain core IPC practices and remain vigilant for COVID-19 infection amongst residents and caregivers in order to prevent spread and protect them from severe infections, hospitalisations, and death. Caregivers can get confused when facing the elderly, since they need to keep their distance as well as the need to support older people at the same time. As an essential worker in supporting older people, it is important to identify the knowledge, attitudes, and practices of caregivers in long-term care facilities and the community on how to directly interact with the elderly respond to COVID-19. This study investigated the resilience of older people in facing the pandemic of COVID-19, by investigating the current situation of long-term care for older people living in nursing homes and homebound in the community during the pandemic.

2.   Findings of Study on the Resilience of Long-term Care Facilities

In order to figure out the resilience of Indonesian caregiver in supporting older people during the pandemic of COVID-19, we conducted two consecutive studies – a focus group discussion and survey on the knowledge, attitudes, and practice in COVID-19 prevention in LTCFs.

2.1.   Qualitative Study

To figure out the resilience of the LTCF and community based LTC in dealing with the pandemic of COVID-19, in-depth interviews and focus group discussions (FGD) were conducted in September 2021. The informants of this qualitative study are LTCF managers and caregivers in Jakarta city and community caregivers in West Java Province.

The results of interviews and FGDs with LTCF staff showed that during the COVID-19 pandemic, LTCFs strived to make significant changes in budgeting and policy regulation to avoid transmission of COVID-19 in their facilities as they noticed that most residents are in the high risk group. This regulation is stipulated by the National Taskforce for Covid-19 (Ministry of Health Republic of Indonesia, 2020). LTCF staff were trained by the Ministry of Social Affairs and the Ministry of Health on how to manage the LTCF facing the COVID-19 pandemic. Several policies were undertaken by the LTCFs to prevent the transmission of COVID-19, including restricting visitors for residents, restricting other visitors, and the implementation of strict health protocols by requiring all residents to wear masks, wash their hands, and avoid crowds. In addition, the LTCF also carried out routine disinfection to all facilities, changing the working shift for caregivers, and allowing officers to work from home to minimise their mobility. To monitor the COVID-19 transmission, the LTCF performed regular rapid tests, especially for the mobile staff. The caregivers try to take preventive measures by implementing health protocols while at the facility and when traveling to and from home. They explained to the older people that there was currently a pandemic so they had to take care of their health. The residents were encouraged to perform physical exercise while sunbathing to increase their immunity.

2.2. Survey on Knowledge, Attitudes, and Practices of Caregivers

A field survey for identifying knowledge, attitudes, and practices of caregivers in LTCFs and the community were conducted from September to December 2021. Prior to the study, Indonesian researchers conducted field visits and performed interviews to capture the entire situation and condition of the older people in institutionalised care and the community. A knowledge, attitudes, and practices (KAP) survey is a quantitative method (predefined questions formatted in standardised questionnaires) that provides access to quantitative information. KAP surveys reveal misconceptions or misunderstandings that may represent obstacles to the activities that we would like to implement and potential barriers to behaviour change.

Table 7.1. Characteristic of Study Participants (n=292)

Variables	Number	Percentage (%)
Provinces		
DKI Jakarta	136	46.6
Jawa Barat	156	53.4
Location		
Public nursing home	86	29.5
Private nursing home	90	30.8
Community	116	39.7
Gender		
Male	66	22.6
Female	226	77.4
Education		
College degree	104	36
Non-college degree	188	64
Living Arrangement		
Living with older adult	154	52.7
Close contact living with older adult	196	67.1
History of Those Contracted with COVID-19		
Diagnosed COVID-19 positive	137	46.9
Family member diagnosed COVID-19 positive	130	44.5

Source: Drafted by the author based on the research findings in the current study.

A total of 292 caregivers in West Java and Jakarta participated in this study, with the average age of 39, the age range from 17–64 years old, and most of them female. They consist of 29.5% caregivers from public LTCFs, 30.8% are caregivers from private LTCFs, and nearly 40% are caregivers in community dwellings, most of them are educated with a non-college degree. About 52% of the caregivers are living with an elderly family member. Nearly half of them had been diagnosed with COVID-19, and had contact with a family member who had been diagnosed positive (Table 7.1).

Table 7.2. Knowledge about Infection Control According to Characteristics of the Workplace

Characteristics of Long-term Care Clients	Frequency	Percentage (%)
Elderly people in need of long-term care have a declining IADL/ADL or have a basic disease and are less resistant to infection.	212	72.4
Elderly people in need of long-term care have cognitive decline and are difficult to cooperate in infection control.	187	63.8
Characteristics of Long-term Care Services		
It is common for a single staff to be in charge of multiple clients, and infectious diseases may spread through the staff.	257	87.7
There are high risks of contact infection because of common use of many facilities and equipment.	171	58.4
Characteristics of Long-term Care Workers		
LTC workers are at risk of infection during commuting hours and off-hours because they are employees.	197	67.2
In a workplace engaged by multiple professionals, it is required to understand the division of roles in measures and common initiatives.	177	60.4
Everyone has a certain training in infectious disease control as a professional.	121	41.3
Competency of Caregiver		
Mastered the basic concept of infection control and how to wear personal infection protective equipment.	71	37.8
Actively participate in training, planning, and management of infection control in a long-term care facility, service provider, or corporation.	196	66.9
Understanding the location of the manual in occurring infectious disease.	165	56.3
Sharing information with doctors, nurses, and managers when clients are suspected of infecting.	92	48.9
Understand that caregivers provide advice and support on checking the elderly's health conditions, reporting to doctors, and measures to prevent the spread of infection.	120	63.8

IADL = instrumental activity of daily living, ADL = activity of daily living, LTC = long-term care.

Source: Drafted by the author based on the current research findings.

The knowledge of the caregiver according to the characteristic of the workplace are averagely good, with the highest understanding in the staff to be in charge of multiple clients, and infectious diseases may spread through the staff. However, when they have to face the pandemic situation, they likely find difficulties in understanding the basic concept of infection control and how to wear personal infection protective equipment. The limited facilities in the institution could become another hurdle

for the caregiver to provide appropriate care to the elderly during the Pandemic of COVID-19 (Table 7.2).

Table 7.3. Knowledge, Attitudes, and Practices of the Caregiver in COVID-19 Prevention

To what extent do you understand the following issues?	Knowledge
The types of infectious diseases?	56.0%
How infectious diseases occur?	65.9%
How to perform test for infectious diseases?	36.2%
The symptoms of COVID-19?	60.4%
The meaning of close contact?	54.6%
What is your perspective towards the following issues?	**Positive attitude**
Air infection preventive	44.0%
Droplet infection preventive	49.1%
Contact infection preventive	84.6%
Maintaining health protocol at home	21.2%
Maintaining health protocol when commuting	58.4%
Basic actions to prevent COVID-19 infection	68.6%
Take a move to COVID-19 spread	56.7%
Maintaining health protocol during shopping	43.7%
Maintaining health protocol during meal	47.1%
Maintaining health protocol during enjoying entertainment, sports, and events	49.8%
Human contacts control during the COVID-19 pandemic	43.7%
How to respond the long term care residents/community elderly who infected by COVID-19	29.7%
To what extend do you practice the following activity?	**Practices**
Avoid the pathogens	65.9%
Infection routes responses	62.1%
Host resistance improvement	64.5%
Take a standard precaution to prevent the infectious diseases	61.4%
Hand hygiene performs	53.2%
Cautions on how to use gloves	51.2%
Share the infection information	51.5%
Carry out disinfection and hygiene	51.5%
Cooperative to epidemiological studies for the infection suspect	17.7%
Caring the elderly with dementia under COVID-19	41.3%
Facilitate the infected person to the hospital	24.9%

Source: Drafted by author based on the research findings in the current study.

The results of the KAP survey and caregiver behaviour both in nursing homes and in the community show that most respondents have basic knowledge about COVID-19, modes of transmission, prevention, and definition of close contact. Caregivers have a poor understanding of various COVID-19 examination methods; this is possible because generally in Indonesia only rapid antigen tests and PCR are used (Table 7.3).

In relation to attitudes in preventing the transmission of COVID-19, more than 50% of respondents have a positive attitude in an effort to prevent the transmission of COVID-19, maintain health when traveling from home to nursing homes or other facility. Most respondents find it difficult to maintain health protocols while at home, and how to shop in a healthy and safe way to avoid COVID-19. Most respondents do not understand how to make referrals if someone is sick, and how to handle people who are infected with COVID-19.

In the practice of preventing the transmission of COVID-19, most respondents have implemented practices to avoid pathogens, infection route responses, host resistance improvement, take precautions to prevent infectious disease, perform hand hygiene, use gloves, share infection information, carry out disinfection, and personal hygiene implementation. The majority of study participants stated that they were less competent in working with the epidemiology team to carry out tracking and tracing of people suspected of being infected with COVID-19. They also do not have sufficient knowledge in the efforts to prevent and manage COVID-19 in older people with dementia. It is assumed that most of the respondents are caregivers who do not have a good medical background, so they have very little experience in collaborating with epidemiology officers. Handling patients with dementia is a challenge for caregivers. Many caregivers do not have good experience and ability in caring for the elderly with dementia.

In Indonesia and several ASEAN countries, care for the older people is often entrusted to families and communities, so mass infections in long-term care facilities may not be visible as a problem. Therefore, the problem of improving resilience to pandemic clusters in long-term care facilities for the older people not yet becoming a big concern. However, in order to realise the ideal 'ageing in place' for older persons, it will be necessary to gather the best practices and to design strategies for more effective prevention of infectious diseases.

3.   Findings and Lessons Learnt

3.1.   Constructing Resilient Care System under the Pandemic

Resilience is described as the capacity to cope with difficult situations, which usually fluctuates across the lifespan and is often interrelated with some psychological conditions. With better resilience, older adults may compensate their loss of functional capacity and physical health. Resilience has strong impacts on the recovery of physical, cognitive, and mental health during the COVID-19 pandemic .

The COVID-19 pandemic has had a significant impact on the lives of Indonesia's older people who generally experience ageing in place. Older people used to receive various home or community services and were encouraged to interact with their relatives, friends, or neighbours in daily living, but the COVID-19 pandemic suspended most of these activities due to lockdowns and social

distancing. Unlike the elderly who live in long-term care facilities, numerous uncontrollable variables can trigger the transmission of COVID-19 to the elderly in the community.

There is a need to construct a community-based integrated care system that can demonstrate the resilience a pandemic situation such as the COVID-19 pandemic. This research identifies various efforts in the community that are carried out independently and collectively led by community leaders that have proven to reduce the risk of transmission of COVID-19. The community has a crucial role in controlling, protecting, and accompanying the elderly in dealing with this pandemic. Material and psychosocial support is carried out by the community for vulnerable groups such as the elderly. This effort is carried out in collaboration with care providers to assure and provide an adequate referral system and comprehensive protection. This system enables the elderly to remain resilient during the pandemic and enjoy a life of prosperity and dignity.

The providers of long-term care for the elderly in social institutions for the elderly, as well as social welfare institutions for the elderly need to pay serious attention to the safety and security aspects for both the elderly and caregivers, especially in the current pandemic situation. Universal precaution guidelines should always be emphasised in the development of long-term care facility management policies.

3.2. Training Programmes of Infection Prevention for Caregivers

Caregivers who work in long-term care facilities and in the community have similar characteristics of being essential workers as care providers. As a result, there is a high risk of COVID-19 infection and at the same time a high risk of each infection source of infected clusters. Therefore, an infection prevention programme is critical.

According to the findings of this study, researchers have developed a module for infection prevention LTCFs. This module is expected to become a guideline to increase the knowledge, attitudes, and practices for prevention of infectious diseases. Based on the findings of this study, it is highly recommended for all care providers both in the community and LTCFs to encourage caregivers to attend training programmes for infection prevention not only for COVID-19 but also for other communicable diseases.

References

Kaligis, F., M.T. Indraswari, and R.I. Ismail (2020), 'Stress during COVID-19 Pandemic: Mental Health Condition in Indonesia', *Medical Journal of Indonesia*, 29(4), pp.436–41. https://doi.org/10.13181/mji.bc.204640

Komazawa, O., N.W. Suriastini, E.D. Mulyanto, I.Y. Wijayanti, and D.D. Kharisma (2021), *Older People and Covid-19 in Indonesia.* Economic Research Institute for East Asia and ASEAN (ERIA), Bappenas, and SurveyMETER.

Ministry of Health Republic Indonesia (2020), 'Guideline for Prevention and Control of Corona Virus Diseases (COVID-19)'. https://covid19.go.id/p/protokol/pedoman-pencegahan-dan-pengendalian-coronavirus-disease-covid-19-revisi-ke-5

Ministry of Health Republic Indonesia (2018), 'Riskesdas 2018' [National Basic Health Research 2018]. In Riset Kesehatan Dasar.

Muhtar, M., A. Kurniasari, A. Jayaputera, and Husmiati (2020), 'Perlindungan sosial lanjut usia masa pandemi COVID-19' [Social Protection for the Elderly During the COVID-19 Pandemic: At Government Social Institutions for Elderly and Elderly in Community]. http://puslit.kemsos.go.id/upload/post/files/24d4dfb918f9d78c57f5f2fa0d0470aa.pdf

Nugraha, S., A.R. Adawiyah, Y.T. Aprilia, L. Agustina, T.P.A. Handayani, and T.B.W. Rahardjo (2022), 'Pandemic in Indonesian Older People: The Implication for Sleep Deprivation, Loss of Appetite, and Psychosomatic Complaints', *Jurnal Ners,* 17(1), pp.67–73. https://doi.org/10.20473/jn.v17i1.33885

Saito, Y. and L. H. M. Cicih (2022), 'Studi Nasional Tentang Dampak Pandemi COVID-19 Terhadap Kelompok Lansia (termasuk penyandang disabilitas) di Indonesia' [National Study on the Impact of the COVID-19 Pandemic on Elderly Groups (including persons with disabilities) in Indonesia].

Satgas Penanganan COVID-19 [COVID-19 Response Acceleration Task Force] (2022), 'Situasi Terkini Virus COVID-19' [Current situation of Pandemic of COVID-19]. Peta Sebaran COVID-19 [COVID-19 Distribution Map]. https://covid19.go.id/peta-sebaran-covid19

Smeru Research Institute, Australia Indonesia Partnership for Economic Development (Prospera), UNDP, and UNICEF (2021), 'Executive Summary: Socio-Economic Impact of COVID-19 on Households and Strategic Policy Recommendations for Indonesia'. SMERU Research Institute.

Chapter 8

Recommendations

1. Findings

1.1. Differences for Defining Concepts and Holistic Explanation based on National Data

In international comparative studies, we often analyse quantitative data of each country. In that case, it should be noted that the terminology can be the same word or words, but the definition can differ depending on the institutional background of each country. For example, in the case of the terminology of 'death from COVID-19,' even in Japan, the definition under the Infectious Diseases Act differs from the definition in vital statistics.

In terms of the concept of 'place of death', since welfare facilities, etc. are defined in Japan as places of living, they were treated the same as homes, but they are now separate. In Japan, the number of deaths registered at facilities for the elderly is extremely low compared to facilities for the elderly in Europe and the United States, which often have hospice functions, so deaths at facilities for the elderly also appear frequently. On the other hand, in Japanese long-term care facilities (LTCFs), hospice functions are limited, and in many cases, if a resident is infected, they are often quarantined and hospitalised, and if death is subsequently confirmed, the death is reflected in the statistics as 'death at the hospital'.

For strengthening the international response to the pandemic, it is necessary to renew the basic definition of the terminology in each country and the method of harmonisation of international common understanding and methodology. (WHO, 2022.)

1.2. Vulnerability and Resilience of Environmental Health

According to the World Health Organization (WHO), the route of infection of COVID-19 was initially considered as a contact or droplet transmission. To prevent these transmissions, hand washing and masks were considered effective. Later, aerosol infection close to airborne infection as an infection route of COVID-19 attracted attention. In March 2020, Japan's Ministry of Health, Labour and Welfare (MHLW) announced ahead of the rest of the world that the risk of mass infection increases in enclosed spaces with poor ventilation. On 9 July 2020, the WHO recognised aerosol transmission, and as a countermeasure, it translated and adopted Japan's slogan 'Avoid 3 Mitsu' into 'Avoid 3Cs' (crowded places, close-contact settings, and confined and enclosed spaces). (Japan Society for Air Conditioning and Sanitary Engineering, 2020).

LTCFs for the elderly need to be especially careful about ventilation as many vulnerable people live together. Especially, in Japanese LTCFs, to make the indoor temperature comfortable, rooms are often closed and air conditioning is used, so ventilation tends to be poor, and a carbon dioxide (CO_2) concentration measurement for ventilation was not widely used. (Figure 8.1)

In addition, LTCFs in Japan are places of daily life, not hospitals or for clinical treatment. Therefore, it is assumed that LTCFs are not designed for zoning or to have decompression rooms for quarantining infected people. Also, long-term care workers (LTCWs) wear surgical masks and gowns. However, COVID-19 has revealed that in an emergency, facilities and equipment will need to be put in place to enable medical treatment in LTCFs.

Compared to Japan, facilities for the elderly in Thailand and Indonesia are well ventilated because they were built as open facilities, i.e. without air conditioning. However, if facilities with air conditioning are developed in the future, there is a concern that ventilation problems will worsen, just like in Japan. In the future development of facilities, it is necessary to pay attention to the measurement method of ventilation management, especially, since some LTCWs did not know that COVID-19 infection was aerosol infection or airborne infection. It is necessary to emphasise the importance of COVID-19 aerosol transmission and the importance of ventilation as a skill in the prevention of infections through training programmes for LTCWs.

Figure 8.1. Infection Prevention and Control of Aerosol Transmission
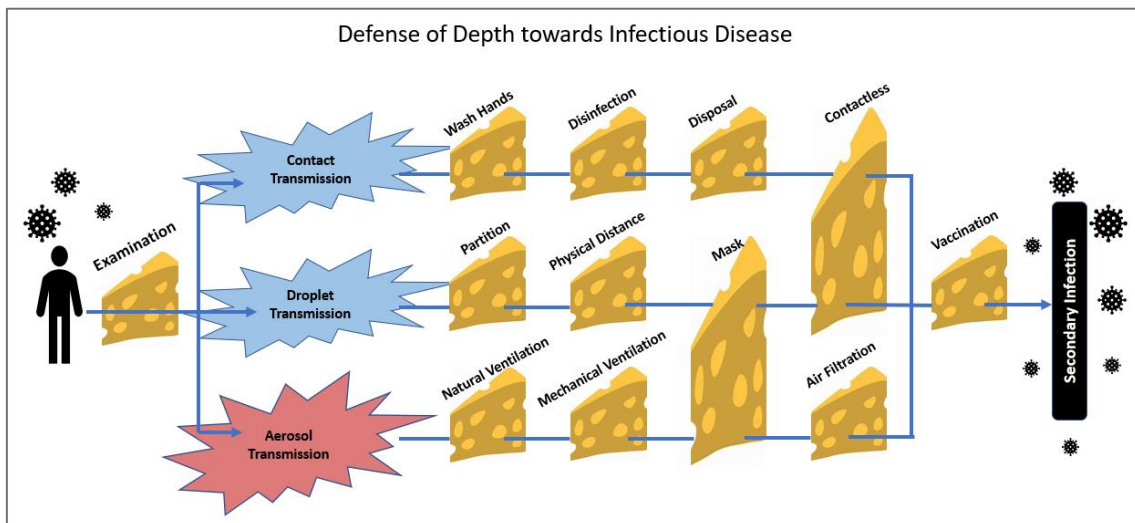
Source: Ishigaki, Y., et al., 2021. A Guidebook for Practical Ventilation Measures in Hospitals and Long-term Care Facilities. [Iryo, Kaigo-shisetsu no tame no Jissen Kanki Taisuku Guidebook]. Dimensions-japan.org/share/kanki2.pdf (in Japanese)

In Japanese LTCFs for the elderly, which tend to be enclosed spaces, ventilation measures are extremely important. In addition, LTCFs in Japan are places of daily life, not places like hospitals or clinics.

People tend to assume that everyone knows about the need for ventilation, but that no one knows what to do. This sociopsychological state is called 'pluralistic ignorance'. Indeed, ventilation measures against COVID-19 were in a state of pluralistic ignorance. In response to infectious diseases, people tended to be sceptical about the effectiveness of measures that 'cannot be helped'.

In LTCFs, efforts to improve the environment have not been implemented thoroughly. Therefore, the following vulnerabilities of environmental health have occurred:

- Infection clusters in LTCFs might be caused by aerosol transmission of COVID-19.
- Mal-knowledge, attitudes, and practices of infection prevention and control might cause infection clusters. For example, an inappropriate partition caused a mal-ventilation environment.
- LTCWs felt the operation of ventilation as burdensome.
- Impossible utilisation of the internet of things (IoT) because of the digital divide and underdeveloped infrastructure.

However, some resilience is challenged:

- Measuring CO_2 concentration for evaluation of ventilation.
- Online control for measuring CO_2 concentration without LTCWs.
- Redesigning rooms and ways of control by checking ventilation conditions.
- Using natural ventilation.
- Training employees in ventilation work.

For establishing resilient LTCFs, the maintenance issues of environmental health, such as ventilation, zoning, and decompression room maintenance have been highlighted. Policymakers and care professionals should focus on disseminating and training scientific measurement methods and improving skills for environmental health (Figure 8.2).

Figure 8.2. Resilient Long-term Care with Environmental Health

Vulnerable LTC to COVID-19	Catalysing Factors	Resilient LTC to COVID-19
• Infection Cluster • Aerosol Transmission of COVID-19 • Wrong Knowledge, Attitudes, and Practices • Dysfunction of Partition and Zoning • Burdensome Work • Digital Divide, No Infrastructure • Plural Ignorance • Scepticism	• Environmental Health • Housing and Environment • Ventilation • Physical Distancing • Workers • Digital Literacy • Accessibility of Information • Attitude and Culture	• Scientific Environmental Health • CO_2 Concentration Measurement • 'Defense in Depth' including Natural Ventilation • Design of Working Places • Job Redesign • Utilising IoT, Smart Care, and Robot Care • Awareness of Co-creator • New Normal Behaviour

IoT = internet of things, LTC = long-term care.
Source: Compiled by authors.

1.3. Vulnerability and Resilience of Family Caregivers and Volunteers

Unlike in Japan, in Thailand and Indonesia LTC for the elderly is largely provided by family members and residents. No matter how much institutional care is put in place, only 3% to 4% of the elderly are eligible for institutional care in Asia, and nearly 90% live under the care of their families.

It is also characteristic of both countries that the care activities of volunteers are flourishing as a complement to family care. In Thailand, 50,000 rural health volunteers watching over elderly people at home. In Indonesia, community health activities (*Posyandu*) are responsible for health activities in cooperation with the community health centres (*Puskesmas*) and volunteers (*Cadre*) who are responsible for these activities. Originally, maternal and child health was their main activity, but in recent years the activities of community health for the elderly (*Posyandu Lansia*) have increased. When COVID-19 began, volunteers' health efforts came to a complete halt.

Public health centres in Thailand and Indonesia have initial medical care functions, unlike health centres in Japan. For this reason, when a person is suspected of being infected in a household or the community, the function of the public health centre is first activated. However, when quarantine is sought, health centres in Thailand and Indonesia must work with the health volunteers and health posts (*Posyandu*) to perform a smooth referral function.

The referral system is a system that smoothly transitions between testing, arranging admission to isolation facilities or hospitals depending on the severity, follow-up, rehabilitation after treatment, returning home, and long-term care. If this does not go smoothly, the health centre will triage and request that patients stay at home. Even if institutional care is maintained to a certain extent as in Japan, if infectious diseases overshoot, similar situations will occur, and there will be cases where the

seriously ill are not treated. In addition, if a path to care after treatment is not created, the patient may not be discharged from the hospital and the hospital may not be able to accept new patients.

As the concept of LTC means a service for people who live with disabilities after an injury or illness, if there are no institutional care facilities, families and communities and also hospitals will become dysfunctional. In addition, when family members and residents care for infected people, close contacts, and people cured of infectious diseases, appropriate knowledge, attitudes, and practices (KAP) standards are required.

In Thailand and Indonesia, religious activities are deeply rooted in daily life. For this reason, it is considered meritorious for families and volunteers to care for elderly people. But at the same time, religious behaviour sometimes runs the risk of creating problems such as outbreaks of infection clusters at religious gatherings, family sacrifice, abuse within families, and caregiver burnout (Figure 8.3).

Figure 8.3. Situations of Family Caregivers and Volunteers during Infection
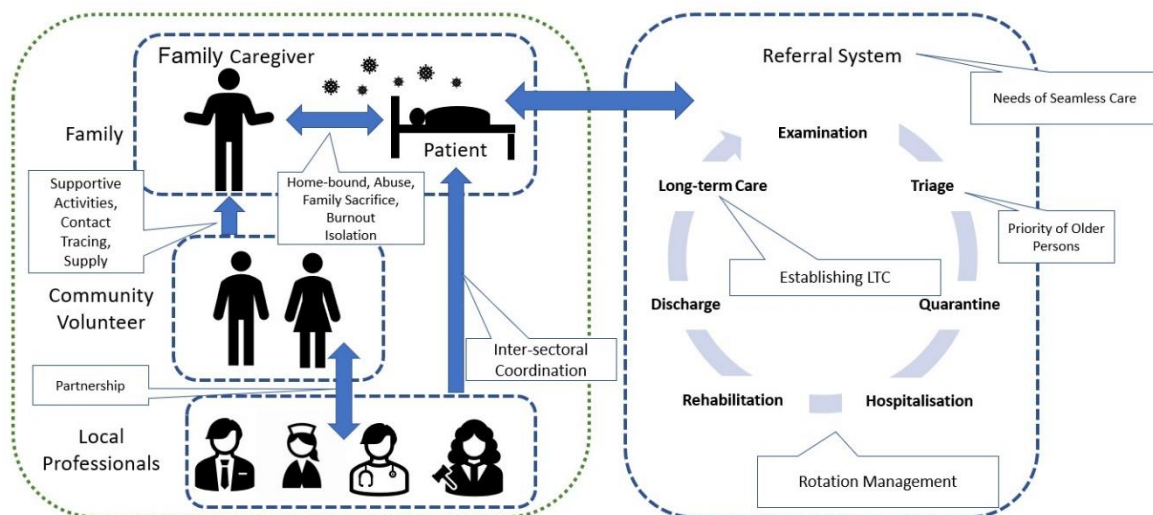
LTC = long-term care.
Source: Compiled by authors.

When the COVID-19 pandemic hit, societies dependent on care by the family and volunteers showed the following vulnerabilities:

- In general, there is a sense that infection transmission is through insects such as mosquitoes and small animals such as rats, but there is a low sense of infection transmission through droplets and aerosols.
- Older people are at greater risk of transmission through young family members who work outside.
- Infection cannot be prevented due to faith in religious gatherings, traditional medicine, and scepticism of government policies.

- Infected elderly people are quarantined together with their primary family caregivers.
- There are risky situations of family sacrifice, abuse, discrimination, and burnout.
- KAP of COVID-19 infection amongst family caregivers is not widespread.
- Households with infections are at high risk of losing their breadwinners.
- Social distancing was called for and volunteering was suspended.
- Since the infrastructure for information communication and technology (ICT), IoT, etc. information transmission is not in place, it cannot be used for long-term care.
- Because appropriate information cannot be delivered, families and residents are placed in a situation of so-called pluralistic ignorance, believing that 'someone must be doing something' or 'no one knows what to do', and the response is delayed when a person becomes infected .
- The referral system of testing, isolation, treatment, healing, rehabilitation, and back home for infected people does not work smoothly.

However, even during the COVID-19 pandemic, attention was drawn to the resilient activities of volunteers in supporting family care (Figure 8.4). In Thailand, health volunteers conducted contact tracing surveys, communicated information, distributed relief supplies, and helped with polymerase chain reaction (PCR) testing.

Figure 8.4. Resilient Long-term Care served by Family Caregivers and Volunteers

Vulnerable LTC to COVID-19	Catalysing Factors	Resilient LTC to COVID-19
• Family Sacrifice and Infection Cluster	• Housing and Environment	• Scientific Environmental Health
• Sacrifice, Abuse, and Burnout	• Volunteerism	• Charity, Mission, and Support
• Burnout, Lost Earner	• Working	• Compensation and Support
• Dysfunction of Referral System	• Liaison Health Professional	• Integrated Community Care
• Ignorance of Infection Prevention	• Competency	• Good Knowledge, Attitudes, and Practices of Infection Prevention
• Digital Divide, No Infrastructure	• Digital Literacy	• Smart Care and Contactless Care
• Plural Ignorance of Caring in Emergency	• Accessibility of Information	• Awareness of Co-creator of New Normal Care
• Superstition, Scepticism, Routinised Behaviour, Steffen Care Skills	• Attitude and Culture	• New Normal Behaviour and Local Wisdom
• No Intersectoral Coordination	• Public Support	• Comprehensive Health/Social Care System

LTC = long-term care.
Source: Compiled by authors.

Indonesia's *Rama Lancia* (friendly to the older adult) West Java chapter launched comprehensive and sustainable assistance efforts to support older persons in communities. Volunteers monitor vital signs (blood pressure, temperature, etc.) and record health complaints, which are then reported to health workers for further action. In cooperation with the *Puskesmas*, they work to ensure that older

persons with chronic diseases are getting the medicine they need, and they distribute multivitamins recommended by geriatric doctors. They also provide additional nutrition for those older persons who are physically weak. The visits also include guidance on how to do at-home exercises to improve immunity, balance, and physical fitness. These visits also offer an opportunity to educate the community about the pandemic and how to prevent the spread of COVID-19. Volunteers distribute educational flyers and masks, and they teach older people how to wear masks correctly. They also use social media platforms that are popular amongst older people to provide education and dispel erroneous information circulating in the community. Volunteers have used WhatsApp to solve the problem of not being able to watch over social distancing. Then, the Ministry of Health, in collaboration with the Ministry of Home Affairs, launched the challenge of service standardisation and digitisation in *Puskesmas* and *Posyandu* in 2022. Attempts at tele-medicine have been made where human contact is avoided, highlighting the need for legal arrangements to disseminate these new initiatives (AHWIN, 2021).

Resilient care through volunteer work by families and residents can be summarised as follows.

- A dedicated family caregiver cared for the daily lives of the infected elderly.
- Abundant health volunteers in Thailand and Indonesia were responsible for activities that reduced the work of public health centres, such as watching, assisting with PCR testing, research of contact tracing, information transmission, and delivery of relief supplies for older residents.
- Volunteers can prevent rumours and misunderstandings amongst residents.
- Family caregivers and resident volunteers who received professional guidance and training were able to contribute to infection prevention and control.

In this way, resilient LTC that utilises the bonds of family and local communities as social capital is an issue that should be developed not only in Thailand and Indonesia but also globally, including Japan. Policymakers and LTC professionals should develop the support measures for family caregivers and volunteers.

1.4. Vulnerability and Resilience of Long-term Care Facilities

In Japan, where LTCFs for the elderly have been developed, the COVID-19 pandemic threatened their business continuity. The risk of business continuity has increased due to the outbreak of infection clusters in facilities, the suspension of attendance and securing substitute personnel due to infection of LTCWs, the suspension of recruiting new residents, the lowering of the level of services, and the securing of infection prevention management goods.

Before COVID-19, LTCFs in Japan had begun working on measures against known infectious diseases and business continuity plans for natural disasters such as earthquakes and floods that would come to an end in the short term. However, LTCFs' responses to COVID-19 were much more difficult because it attacked repeatedly and for longer.

In LTCFs, communication with various agencies became frequent and complicated according to

various stages, such as the stage where it occurred in a foreign country, the stage when an infected person appeared in the community, the stage when a close contact appeared amongst the staff and residents, the stage when an infected person appeared in the facility, the stage where a person discharged from quarantine was accepted, etc. Figure 8.5 conceptualises and illustrates how LTCFs respond to the COVID-19 pandemic to ensure business continuity.

Figure 8.5. Business Continuity Plan of Long-term Care Facilities
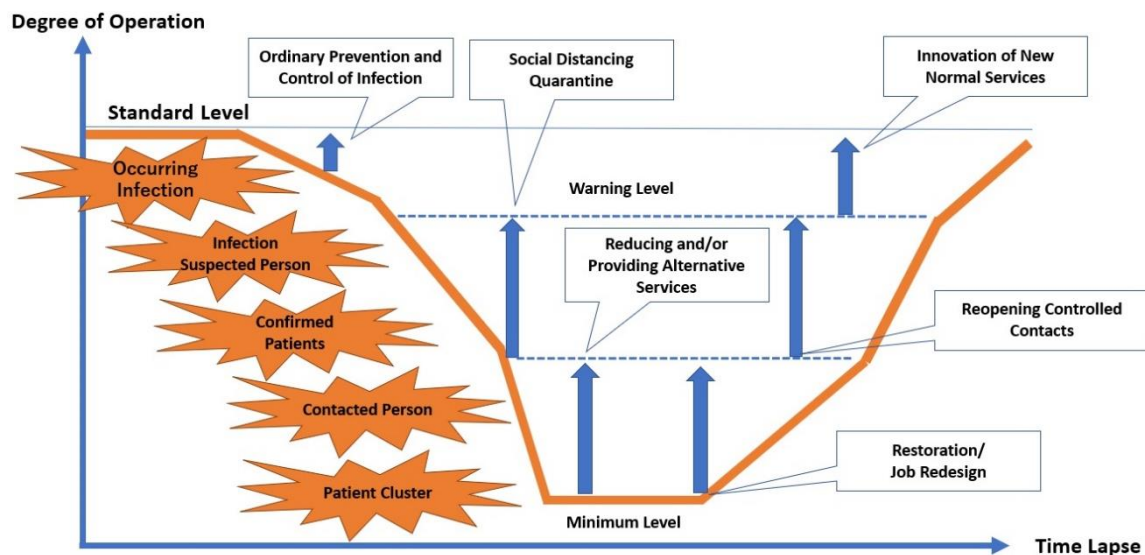
Source: Compiled by authors.

LTCFs were unable to demonstrate effective business continuity management, exposing the following vulnerabilities:

- Outbreak of COVID-19 infection cluster
- Progress of resident frailty due to prolonged prevention of COVID-19 infection
- Restrictions on the acceptance of elderly people who need long-term care
- Turnover of LTCWs and difficulty in securing a labour force
- Medical response to residents during the period of rapid increase in infections
- Deterioration of management, etc.

LTCFs in Japan are considered as places to live. Therefore, as a rule, residents with injuries and illnesses are transferred to hospital for treatment. However, due to the rapid increase in COVID-19 infections, it has become an issue to strengthen the health care functions of LTCFs; they need to be able to give health care to infected residents who are recuperating in facilities and accept elderly people who have completed treatment in hospital.

Under such circumstances, business continuity plans were advanced at LTCFs for the elderly in Japan. In addition to simply preventing and controlling COVID-19 infections, many care service providers have introduced devices for contactless care, such as online visitor interviews, and communication

devices to reduce unnecessary conversations. In terms of employee management, various efforts were also made, such as securing substitute personnel, support personnel, and foreign migrant care workers. In terms of facility management, zoning in the event of an outbreak of an infected person, introduction of decompression equipment, allocation of LTCWs, and securing of accommodation facilities were also planned.

Although the formulation of business continuity plans for LTCFs for the elderly is mandatory in Japan, it is important for Asian countries that are likely to develop LTCFs in the future to formulate business plans and to the actual management methods. Thailand has adopted this idea and published a manual of business continuity plans (BCPs) for LTCFs in the Thai language.

Institutional care in LTCFs has the following vulnerabilities:

- Confused responses to infections were occurring because there was not shared consensus amongst staff.
- Disabilities for assessing primacy of job competencies because of vague job descriptions.
- LTCFs do not have isolation functions or space for isolation treatment. Also, the shortage of PPE supplies occurred, because LTCFs are not recognised as medical institutions.
- Overload of work caused by LTCW shortage, no leadership, and poor treatment of employees.
- Impossibility of digitalisation because of low literacy of ICT and care robots, digital divide of staff, and under-developed infrastructure of information.
- Failures of risk management such as business continuity, infection prevention and control, and ineffective referral system of infected residents.

Figure 8.6. Resilient Long-term Care with Business Continuity Management

Vulnerable LTC to COVID-19	Catalysing Factors	Resilient LTC to COVID-19
• Infection Cluster	• Environment	• Green and Safety Environment
• Lack of Sharing Consensus	• Governance	• Clarified Communication and Decision
• Vague Job Description	• Operation Management	• Order of Priority of Job
• Isolation Disability, Not Client-Centred Design, and PPE Supply Collapse	• Facility/Equipment/Device Management	• Zoning, Ventilation Control, and Smooth Supply Chain
• Shortage of Workers, No Leadership, and Poor Treatment of Employees	• Human Capital Management	• Job Redesign, Multi-task System, and Leadership Training
• Low Literacy of ICT and No Robots	• ICT Management	• Smart Care, Digitalisation of Deskwork, Online Meetings
• No BCP, Uncontrol BCM, Less Awareness of Infection Disease, Ineffective Referral	• Risk Management	• Inter-facilities Dispatching Workers, BCM, and Agile Initial Response
• Suspended	• Networking	• Confederation and Collaboration

BCP = business continuity plan, BCM = business continuity management, ICT = information and communication technology, LTC = long-term care, PPE = personal protective equipment.
Source: Compiled by authors.

However, our research in Japan revealed the following resilience:

- Clarifying information channels and decision-making structure in emergency based on a BCP.
- Instructing staff and sharing of information within the organisation.
- Prioritising the services according to the staff attendance rate. Ordering priority of care jobs.
- Redesigning job places: zoning, installation of a decompression chamber, ventilation control, and smooth supply chain of PPE.
- New style of working such as a multitasking is available for long-term care in the emergency. For actualising new work styles, training of management leaders is a prerequisite.
- Coping with increased workload and staff shortages: Utilising ICT, smart care, video conferencing systems (e.g. ZOOM), digital work by staff.
- Dispatching workers amongst facilities, agile responses, and timely modification of services onsite in emergencies. Strengthening of management system and staff training from 'normal times' for risk management.

The government has instructed LTCFs in Japan to develop business continuity plans. The BCP considers infectious diseases as well as natural disasters. While each LTCF needs to act immediately on this plan, they also need to respond to events that could not have been anticipated in the plan, act quickly, and later verify their actions and provide feedback to the BCP.

Policymakers and LTC professionals need to address structural issues (building standards, staffing standards, emergency support systems, new technological innovation, etc.) related to the resilient LTC system in a medium- to long-term manner.

1.5. Vulnerability and Resilience of Care Workers in Facilities

In Asian countries where the population is ageing, it will be necessary to establish certain LTCFs in the near future. Already, in Thailand and Indonesia there are welfare facilities for the elderly who have no relatives, who are poor, and who cannot work. There are also private fee-based assisted facilities that provide residential care for the wealthy elderly.

However, facilities that provide LTC services in line with the living functions of the elderly (activities of daily living [ADL], instrumental activities of daily living [IADL], and dementia) regardless of income or family structure are still a long way off in Asia, except for Japan, Singapore, the Republic of Korea, and China. That said, Thailand is considering it. For example, in July 2020, the Thai Ministry of Health issued a 'Ministerial Ordinance on Elderly Care Business Outside Medical Institutions' and has begun issuing licences to long-term care providers. In the future, securing the quality and quantity of care workers responsible for institutional care will become a policy issue.

For improving LTC in facilities, it is important to ensure a certain level of quality and quantity of work. Japan has been promoting institutional improvements such as a public long-term care insurance

system, standardisation of training for LTC professionals, the establishment of national qualifications, staffing standards for LTC facilities, and career paths for LTC positions. Even so, it is difficult to secure LTCWs. Disparities in working conditions with other occupations are a constant problem.

For ensuring the quality of LTCWs, a comprehensive support system of administrative agencies is necessary. However, in reality, there is a risk that multiple administrative agencies related to long-term care will fall into a lack of coordination. Measures against infectious diseases that occur internationally and regionally require mechanisms to complement community-based medical care, health, and welfare systems. When LTCWs in institutions are exposed to unknown infectious diseases, they might burnout if proper guidelines are not presented. The Ministry of Social Development is responsible for managing public facilities for the elderly, the Ministry of Health tackles measures against infectious diseases, and the Ministry of Family Affairs takes responsibility for the elderly within a family. It is said that such inter-ministerial coordination did not work well at first. In addition, private residential care homes had no choice but to completely cut off contact with the outside world.

With the spread of COVID-19, care workers have become recognised as essential workers. However, unlike medical professionals such as doctors, nurses, and pharmacists, the position of LTCWs is by no means high. Usually, a job description of an LTCW for the elderly is a service that deals with frailty or life impairment from non-communicable diseases. For this reason, the knowledge, attitudes, and practices of emergency response work such as the spread of infectious diseases are required.

Our research adopted a methodology, the KAP survey. The survey is a method to measure the ability of LTCWs to achieve their competencies. It is a method of checking whether they have the knowledge, attitudes, and practices necessary for achieving the task or not. Knowledge, attitudes, and practices of LTCWs in Japan (Appendix 1), Thailand, and Indonesia were investigated in their respective KAP surveys, and the following vulnerabilities were revealed.

In terms of knowledge, the following vulnerabilities were concerning:
- Lack of knowledge of aerosol transmission
- Lack of knowledge of ventilation control
- Lack of knowledge of professional response to infectious diseases
- Lack of knowledge of intersectoral coordination of administrative information

In terms of attitudes, the following vulnerabilities were worrying:
- Apathy of self-management of health conditions
- Apathy of preventive health in home
- Apathy of quarantine/hospitalisation
- Apathy of contact tracing
- Apathy of alternative care for residents with COVID-19
- Apathy of professional teamwork
- Apathy of the essential worker

Figure 8.7 illustrates the infection mechanism that care workers in LTCFs must know. Care workers must act based on this knowledge to prevent and control infection diseases.

Figure 8.7. Situation of Long-term Care Workers in Facilities

Various Risks of Infection Transmission around Workers
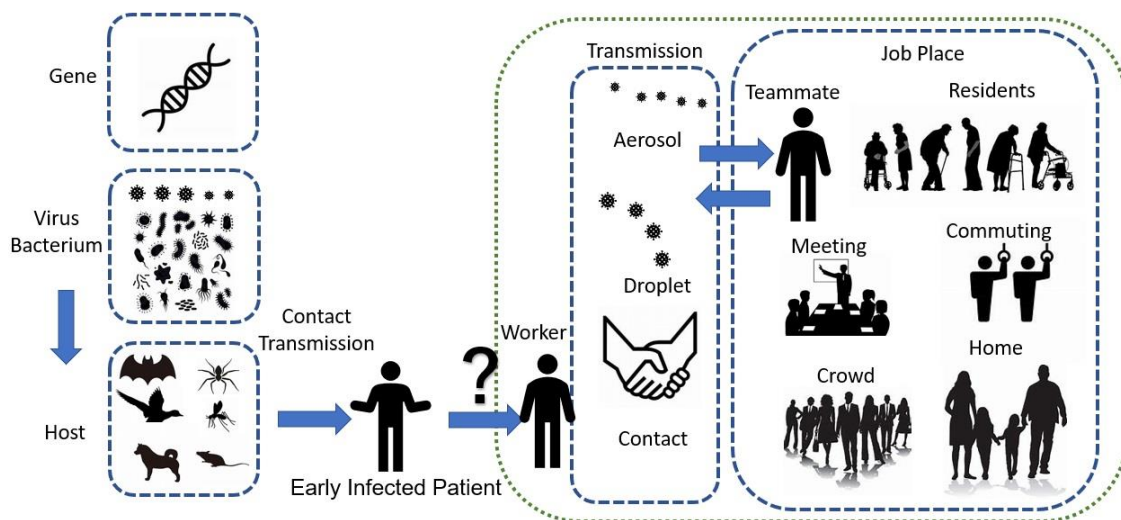
Source: Compiled by authors.

In terms of practices, the following vulnerabilities were concerning:

- Unskilled implementation on how to take responsibility during a crisis. No job redesign on discretionary acts, immunity from responsibility, agile response, and inevitability.
- Unskilled implementation on how to use PPE. Lack of equipment, unsuitable use of masks, and careless dumping of equipment.
- Unskilled implementation on how to control ventilation. Undeveloped ICT environment, mal-utilisation of equipment, and layout of room.
- Unskilled implementation on how to contact the infected, close contact, and/or asymptomatic persons physically. Diffuseness of quarantine, yellow zone, and physical distance.
- Unskilled implementation on how to care for dementia residents. Dis-communication with patients, easy physical restraint, and abuse.
- Unskilled implementation on how to improve work. Normal shortage of labour force, and labour-intensive business.
- Unskilled implementation on how to prevent frailty. No alternative idea of onsite preventive LTC exercise and oral care.
- Unskilled implementation on how to refer infected residents. Inefficient referral system, and nothing to do.
- Unskilled implementation on how to work for infected clients. Co-stay in institutions, behaviour restrictions not only in the business place, but also in public places and at home.

However, these vulnerabilities are mostly avoided. By tackling COVID-19, care workers in institutions have demonstrated the following resilience:

In terms of knowledge

- Strengthen knowledge of environmental health.
- Frequent ventilation and introduction of CO_2 concentration measurement equipment.
- Job description for infection risk management. Clarification of job descriptions for medical care workers and LTCWs.
- Agile response to risks and immunity from responsibility.

In terms of attitude

- Self-health management. In the workplace, in public places, and at home.
- Positive attitudes to infection prevention. Acceptance of PCR tests and vaccination.
- Cooperative attitudes to contact tracing. Willingness to collaborate with other professionals beyond the division of labour.
- Innovative willingness to build a new normal LTC. Utilising hotline, information platform, directory organisation, smart phone, social networking services, and other complementary LTC technologies.
- Awareness of a professional and an essential worker. Staff members in institutional care were required to stay in LTCFs and engaged in LTC work, their quarantine was designed together with the elderly residents of the facility.

In terms of practices

- Managing infection prevention in the working place, in public places, and at home.
- Competency of long-term care. Take responsibility, use own discretion on the job.
- Handmade PPE. Masks, face shields, gowns, and partition goods.
- Frequent ventilation. Diligent control of natural ventilation and operating mechanical ventilation.
- Implementation of contactless care. Follow zoning, keep physical distance, avoid 3 Cs, and apply new technologies.
- Dementia-friendly care. Effective non-verbal communication with clients.
- Partnership with other facilities and organisations. Requiring human replacement from other LTCFs and outsourcing of operations.
- Development of diverse preventive care programmes. Online training exercise.
- Awareness of the integrated community-based care system. Improving referral system, development of new back-referral programme, seamless care, intersectoral coordination, collaboration of medical and LTC and social welfare staff.

Figure 8.8 summarises catalysing factors of vulnerability and resilience imposed on Care Workers in LTCFs during the COVID-19 pandemic.

Figure 8.8. Resilient Long-term Care Served by Care Workers in Facilities

Vulnerable LTC to COVID-19	Catalysing Factors	Resilient LTC to COVID-19
• Confusion	• Literacy of Infection Prevention	• Self Health Control in Home
• Ignorance	• Competency of LTC (KAP)	• Good Knowledge, Attitudes, and Practices
• Infection Cluster	• Housing and Environment	• Ventilation Control
• Fall-down Together amongst Staff and Residents	• Quarantine	• Zoning/Isolation Room
• Burnout	• Working	• Essential Work, Professional
• Dysfunction of Referral System	• Local Health Professional	• Integrated Community Care
• Digital Divide, No Infrastructure	• Digital Literacy	• Smart Care and Alternative Care
• Ineffective Intersectoral Coordination	• Network (Professional and Non-professional)	• Seamless Continuity Care Partnership, and DCAT
• Superstition, Scepticism, Routinised Behaviour, Steffen Care Skills	• Attitude and Culture	• New Normal Behaviour not only in Job Place but in Crowds and in Home

KAP = knowledge, attitudes, and practices, LTC = long-term care, DCAT = Disaster Care Assistant Team.
Source: Compiled by authors.

1.6. Vulnerability and Resilience of Migrant Care Workers in Japan

In Japan, the number of workplaces where foreigners are caring for the elderly is increasing. Their status of residence is diverse, such as nursing care (it does not mean nurse but certified care worker who engages in long-term care for the elderly and the disabled), economic partnership agreement (Indonesia, Philippines, Viet Nam), international students (permission to engage in activities outside the status of residence), technical intern trainees, specific skilled workers, and permanent residents. However, in Japan, except for 'permanent residents' and 'nursing care', it is considered that most foreigners will eventually return to their home countries.

In the future, countries with advanced population ageing will face a situation such as an increase in the number of elderly people who need long-term care, and a shortage in the labour force. Therefore, the introduction of migration care workers (MCW) will be planned. However, there are a lot of unresolved issues internationally. Is it possible for each country to provide LTCWs as a profession by regulating it internationally? How should we nurture and send them out? What kind of residence permit system should be used to accept the applicant? How do you evaluate their careers internationally? How can we develop their smooth career paths domestically and internationally? Several other issues remain unresolved.

Unable to return home due to COVID-19, MCWs will once again be considering what categories of visa to extend or change. Figure 8.9 shows the different status of residence in Japan and the change between them. The relationship between the status of residence, vocational status, and the workplace where MCWs can work is illustrated, but it is complicated. If MCWs themselves do not know what kind of career path they are aiming for, they will have a risk of losing way.

Figure 8.9. Residential Visas, Job Qualifications, and Working Places in Japan
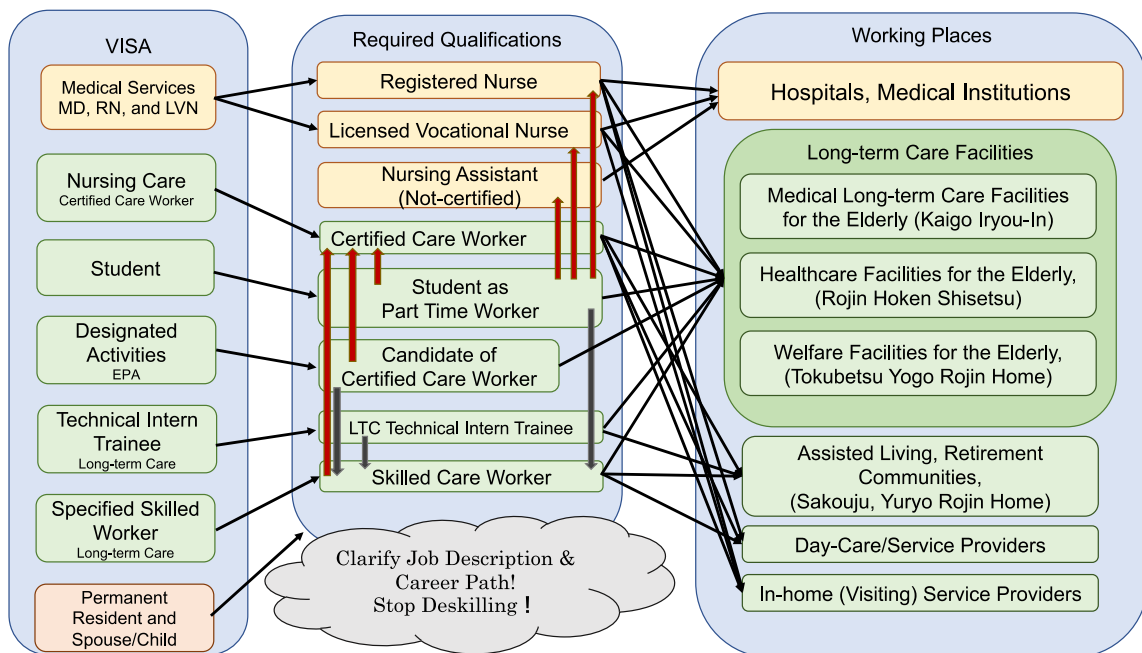
LTC = long-term care, MD =medical doctor, RN =registered nurse, LVN =licenced vocational nurse, EPA = economic partnership agreement,

Source: Compiled by authors.

The global COVID-19 pandemic has exposed the vulnerability of foreign care workers as follows:

- When international students work shorter hours at LTCFs, they may be placed at a disadvantage as an 'employment safety valve.' In occupations other than LTC, the risk of contract cancellation increased.
- COVID-19 has forced MCWs to leave and be unable to return home.
- There was a concern that technical intern trainees and international students from Viet Nam would be forced to carry a large amount of debt in the sending country for arranging employment and study in Japan, so they would be forced to exploit the intermediate fee.
- There was a risk of becoming an illegal resident due to the length of stay for each complicated status of residence and the procedure for change.
- In order to get an LTC job in Japan, a high level of education and work experience such as a university degree and a nursing qualification were required, but in practice there was no appropriate treatment and was exposed to the risk of the deskilling.
- The risk of being left unskilled in an LTC job achievement and language learning has increased.
- When measured by sense of coherence as one of the indicators of resilience, social support, short-term stay, and language ability were strongly related.
- Without the support of a manager at workplace, an instructor at an educational institution, or a preceptor for a countryman, MCWs will be lonely and prone to homesickness.
- The matching method between technical intern trainees and LTCFs under the broker system caused over debt cases such as in Viet Nam.

Figure 8.10 summarises catalysing factors of vulnerability and resilience imposed on migrant care workers during the COVID-19 pandemic.

Figure 8.10. Resilient Long-term Care Showcased by Migrant Care Workers in Japan

Vulnerable LTC to COVID-19	Catalysing Factors	Resilient LTC to COVID-19
• Adverse Selection of Job	• Migration	• Visibility of Care Workers
• Left Behind	• Returning	• Changing Status of Residence
• Intermediate Exploitation and Abscondence	• Placement Fee	• Zero Placement Fee System
• Illegal Resident	• Residential Status	• Decent Work and Essential Work
• Deskilling	• Qualification	• Advancing Career Path
• Unskilled Labour	• Competency	• Good Knowledge, Attitudes, and Practices adjusting International Qualifications Framework
• Meaningless, Not-manageable, and Fragmentary Existence	• Sense of Coherence	• Motivation to Stay Longer and to Learn Language More
• Loneliness and Homesick	• Social Support	• Rich Support in Workplace and Community
• Dependency on Broker System	• International Matching	• International Platform System

LTC = long-term care.
Source: Compiled by authors.

COVID-19 has forced many businesses to scale back or abolish operations in areas other than LTC. Many foreign workers were left behind with nowhere to go. Even so, Japanese LTCFs had a public responsibility to secure business continuity, and LTCWs were guaranteed work opportunities as essential workers. As a result, even during COVID-19, foreign care workers have been able to continue to be employed. In addition, some people who worked under a different status of residence switched their status of residence and were hired at LTCFs.

Therefore, foreign care workers demonstrated the following resilience:
- Conditions of employment for MCWs, which were stable under COVID-19, were protected by the public long-term care insurance system.
- Efforts were made to deregulate the terms of residence for MCWs, who are unable to return to their home countries, and to change their status of residence.
- In the Philippines and Indonesia, a zero placement fee system was worked on for MCWs.
- The recognition of MCWs as essential workers and the need to improve them internationally as the amount of decent work has increased.
- The career path as the LTC professional from the unskilled to the highly skilled has been highlighted for MCWs.
- The acquisition of knowledge, attitudes, and practical skills in LTC work progressed, and the necessity of an international LTC qualification framework was realised.

- MCWs' Sense of Coherence as a resilience index was found to correlate with long periods of stay and language proficiency in the destination countries.
- MCWs were highly esteemed in the workplace, school, and community, and social support was provided.
- The need to build a platform for international matching, rather than relying on a brokerage system, began to be discussed.

In the near future, international training and circulation of LTCWs will be a common issue for ageing Asia. Within the professional qualifications' framework of each country, LTC-related competencies have a diverse position. For this reason, the smooth international occupational migration of LTCWs tends to be hindered. The qualifications of LTCWs in Japan does not exist in other countries' professions. For unlocking the potential of foreign LTCWs reaffirmed by COVID-19, efforts should be made to define long-term care internationally in the professional qualifications' framework.

2. Lessons Learnt and Recommendations for Policymakers and Long-term Care Professionals

2.1. Lessons Learnt on our Research Framework

A summary of the revealed vulnerability of LTC for the elderly and the resilience to overcome it is shown in Figure 8.11.

Figure 8.11. Overview of Resilient–Vulnerable Long-term Care
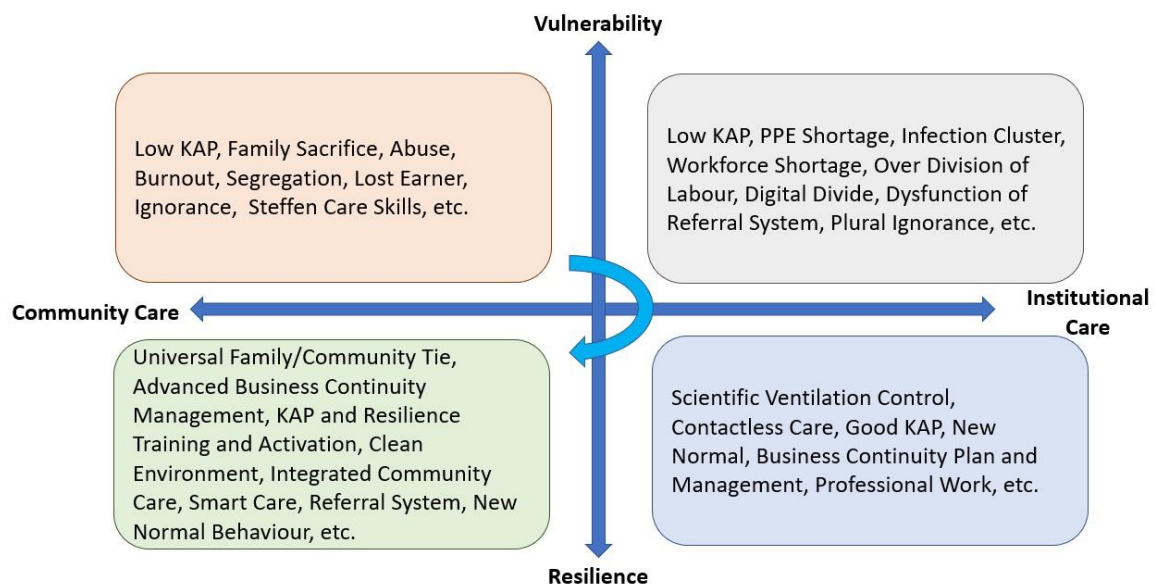
KAP = knowledge, attitudes, and practices, PPE = personal protective equipment.
Source: Compiled by authors.

When LTC for the elderly is entrusted to family members and residents, there is a high risk of vulnerability appearing as age discrimination, abuse, household breakdown, family sacrifice, burnout, and segregation. All relevant agencies have not only taken infection prevention and control measures against COVID-19 but have also taken immediate action against such vulnerabilities.

When LTC for the elderly is entrusted to institutional care, its vulnerability manifests in the following phenomena: lack of efficient control due to lack of data on LTCFs as the basis of scientific research, susceptibility to infection clusters, burnout of care workers, workforce shortages, lack of literacy in infectious diseases, lack of guidelines, collapse of medical care occurred due to confused referral systems and lack of intersectoral coordination, no legal basis for introducing new technologies, interruption of service provision, inadequacy of PPE supplementation, etc. For alleviating these vulnerabilities in institutional care, facility managers and care workers will need to respond flexibly and ask regulators for alternatives and mitigation measures.

However, there is resilience seen in institutional care: possibility of data collection and analysis by preparing LTCF-related statistics, management technology of environmental health such as ventilation, business continuity planning, necessity of back-referral programmes, and the development of training programmes based on KAP surveys, etc. Such resilience will be ensured not only by the discretionary management of facility managers and care workers, but also by the government's legal arrangements.

In addition, there is resilience demonstrated in terms of community care. Everywhere there are many elderly people who are being cared for by their families. Activities by residents serve as complementary family care. Some of the resident volunteers use social networking services to watch over the residents. There is a widespread perception that not only facility managers but also community healthcare and social care businesses need business continuity management skills. Governments and medical, health, and welfare stakeholders recognise the need for a referral system and intersectoral coordination within the region. In the future, based on such knowledge, skills and attitude, a comprehensive regional care system should be constructed.

2.2. Recommendations for Standardising Statistical Procedures Internationally

In the event of an unknown infectious disease such as COVID-19, data collection methods to understand the actual situation should be standardised internationally. The number of new infections is affected by the number of cases that have undergone PCR testing. However, the number of people who are seriously ill or die is greatly influenced by other factors, such as age, chronic illness, and the time required for referral. The definition of statistical concepts and the methods of collecting their data should be standardised internationally. In particular, the concepts of LTC, LTCFs, and LTCWs vary from country to country. The challenge is to share international concepts amongst countries.

Contact tracing is an important health methodology, but there have been cases where public health centres in Japan suspended their practice temporarily due to disruption to the spread of the virus. Contact tracing methods, as in Thailand, need to be improved, such as the mobilisation of health

volunteers and the use of smartphone applications. Policymakers and care professionals should seek legislation to innovate research methods.

2.3. Recommendations for Promoting Ventilation Strategies in Urbanised Environment

COVID-19 is said to have become a pandemic when a bat-derived virus mutated to the point where it caused 'human-to-human' transmission. The WHO advocates the concept of 'One Health', which integrates animal health and human health. COVID-19 is a prime example. COVID-19 is a series of mutations that will hit humanity for a long time in waves of epidemics. In the 'animal-to-human' stage, COVID-19 spreads by the transmission route of contact infection, but when it enters the stage of human-to-human infection, it spreads by droplet infection and/or aerosol infection. It is also worth noting that COVID-19 has changed its infectivity and mortality rate with mutation.

The WHO initially said COVID-19 was spread through contact and droplet transmission. However, in Japan, it was pointed out from an early stage that it spreads due to aerosol transmission, and a behaviour regulation called Avoid 3Cs (crowded places, close-contact settings, and confined and enclosed spaces) was announced. Particularly, for LTCFs where it is easy to create enclosed spaces, it is important to undertake ventilation control to prevent aerosol infection. In urban environments where not only LTCFs for the elderly but also various facilities are being developed, the risk of virus infection increases if ventilation is not good.

Regarding ventilation, there is a method for measuring the CO_2 concentration as an index. The application of ICT technology to telemetry to contribute to its implementation may be developed in the future. However, for making this possible, there are issues such as improving the information and communication situation of facilities and legal development that makes it possible to operate from the outside.

In addition, environmental health such as wearing highly-functional masks, face shields, and gowns; zoning facilities and installing decompression rooms; and sealing waste will be important to combat aerosol infection with COVID-19.

In this area of environmental health, policymakers and LTC professionals should sort out the issues surrounding COVID-19 and contribute to advancing the concept of One Health in the future (WHO, 2022). Policymakers and LTC professionals should introduce scientific control of environmental health technologies (remote sensors of CO_2, photocatalytic coating, etc.). Figure 8.12 illustrates the environmental health aspects under infection control.

Figure 8.12. Environmental Health under Aerosol Infection Control
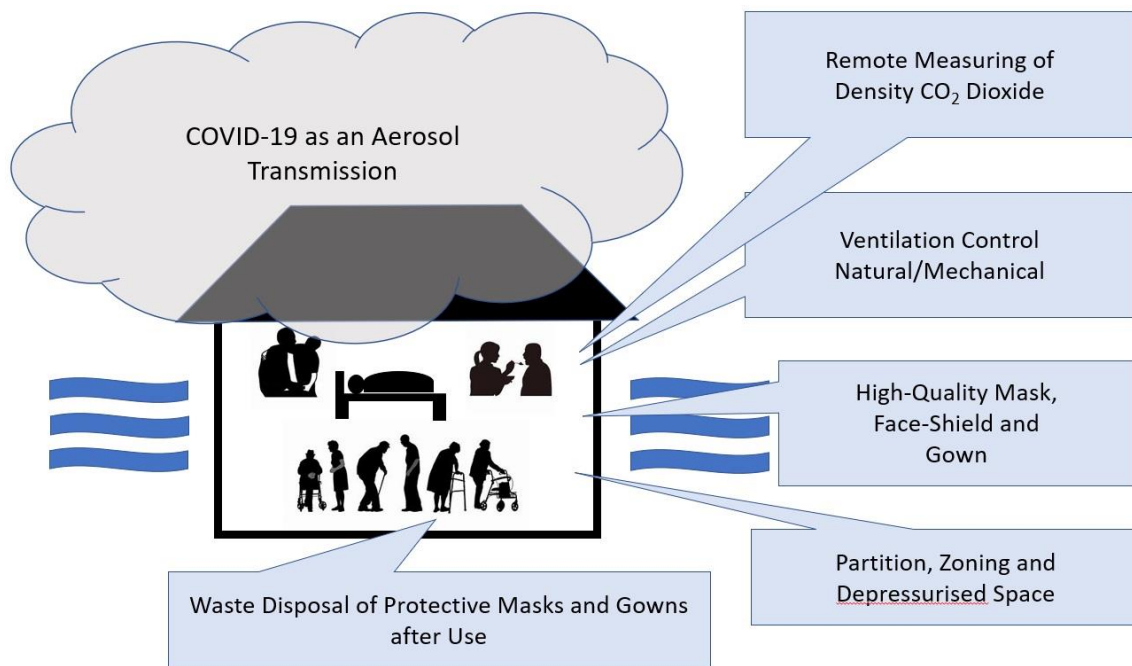
Source: Compiled by authors.

2.4. Recommendations for Supporting and Empowering Long-term Care Service Providers

In China, the share of LTC is said to be '973'. This means that 90% of the care will be provided by families, 7% of the remaining 10% in communities, and 3% in institutions. Even in a society like Japan, where institutional care is conspicuous, the ratio of sharing is almost same. However, once institutional care is put in place, measures against new infectious diseases peculiar to facilities are required.

An LTCF is a home for elderly people with weakened ADL and IADL and cognitive decline. They are extremely vulnerable to infectious diseases. Therefore, elderly care facilities have been working on measures against infectious diseases in their normal work. But when it comes to responding to unknown infections like COVID-19, challenges have come to light.

Even if LTCFs are not medical institutions, similar efforts must be taken during periods of COVD-19 outbreaks such as PCR testing of elderly residents in the facility, onsite zoning for quarantine, mechanical ventilation, maintenance of decompression rooms, etc.

In terms of human resources, if residents or staff are identified as infected or close contacts, it will be necessary to select persons in charge of caring for such people. Even for PPE, personnel guidelines as essential workers are necessary, such as when wearing high-performance masks etc. equivalent to those of medical workers and shortening the quarantine period in case of close contact.

Figure 8.13 illustrates whether a chain of behavioural changes occurs between care workers and related people when an infected person appears in a LTCF.

Figure 8.13. Behavioural Contacts and Referral System of Patients in Long-term Care Facilities
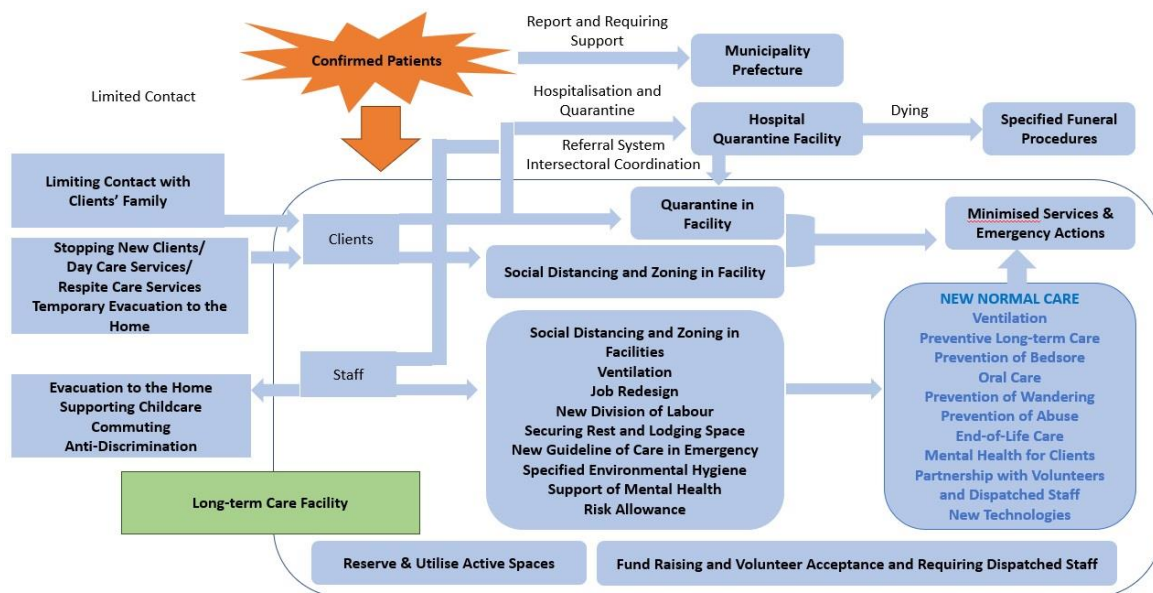
Source: Compiled by authors.

With the spread of COVID-19, LTCFs will have increased liaison work with health centres, medical institutions, and various government departments. However, such intersectoral coordination tends to be confusing and dysfunctional. Rapid information sharing is necessary for referrals and quarantine in the event of an infected person or close contact in LTCFs, or for a back referral from the hospital to LTCFs after treatment is completed.

In order to enable the business continuity of LTC in response to such infectious diseases, policymakers and LTC professionals should not only support service providers in formulating a BCP, but also take measures to strengthen the power of business continuity management (BCM), as well as to improve the referral system and intersectoral coordination. These findings should also be utilised in the development of institutional care in Asian countries (UN-HABITAT, 2020).

2.5.   Recommendations for Supporting and Empowering Long-term Care Workers

Family caregivers and volunteers provide normal care in line with customs. However, under the social imperative of social distancing, normal care has become impossible. Family caregivers had no choice but to confine themselves at home with the elderly, and residents had no choice but to stop volunteering. In addition, rules such as customs and traditional ways of life unique to families and communities were excessively applied, leading to family sacrifice and abuse. Nonetheless, family care and care by resident volunteers will be able to provide a powerful support function for infected people and close contacts who tended to live in isolation.

Employed LTCWs are subject to a workplace's regulations, and, in some cases, norms based on national qualifications. If the profession is well established, the knowledge, skills, and professional ethics necessary to satisfy the competency are known, and those who have mastered it are certified.

For example, core LTCWs in Japan are trained as professionals and certified with a national qualification. Therefore, standard KAP was provided for measures against non-communicable diseases and known infectious diseases on the elderly requiring LTC.

However, Japan's LTCWs are vulnerable to new infections like COVID-19. Nonetheless, LTCWs were working to create resilient LTC in the workplace. For confirming such a movement, a KAP survey will be useful. The KAP survey is designed to clarify the competency of LTCWs, for example, how much 'knowing' about infectious diseases and how much 'accepting' the attitudes required for them, and specifically how much 'doing' the skilled practices. Table 8.1 shows examples.

Table 8.1. Training Outcomes of Resilient Long-term Care (tentative)

Level	Competency	Knowledge	Resilient Attitude	Skills
Level 6	Manage complex technical or professional activities or projects, taking responsibility for decision-making in unpredictable long-term care contexts; take responsibility for managing professional development of individuals and groups.	Advanced knowledge of a field of long-term care, involving a critical understanding of theories and principles. e.g. understanding business continuity plan and management, understanding environmental health, job descriptions, referral system, recruitment of care workers, etc.	Transformative attempts towards creativity/alternativity of long-term care in long-term risks.	Advanced skills, demonstrating mastery and innovation, required to solve complex and unpredictable problems in a specialised field of long-term care. e.g. enhancing smart care, contactless care, ventilation system architecture, comprehensive care system, harmonising qualifications framework, etc.
Level 5	Exercise management and supervision in contexts of long-term care activities where there is unpredictable change; review and develop	Comprehensive, specialised, factual and theoretical knowledge within a field of long-term care and an awareness of the boundaries of that knowledge. e.g. understanding priority of long-term care services, Inter-sectoral	Adaptive attempts towards flexibility of long-term care in mid-term risks.	A comprehensive range of cognitive and practical skills required to develop creative solutions to abstract problems. e.g. outsourcing jobs, accepting

Level	Competency	Knowledge	Resilient Attitude	Skills
	performance of self and others.	coordination amongst long-term care, nursing care, medicine, public health and social work, etc.		assistant human resources, possible agile decisions, deregulation of care, practical quarantine management, etc.
Level 4	Exercise self-management within the guidelines of long-term care contexts that are usually predictable but are subject to change; supervise the routine work of others, taking some responsibility for the evaluation and improvement of long-term care activities.	Factual and theoretical knowledge in broad contexts within a field of long-term care. e.g. understanding self-health control, anger management, mindfulness, etc.	Mitigative attempts towards stability and/or persistency of long-term care. Measured on the sense of coherence and/or resilience quotient score.	A range of cognitive and practical skills required to generate solutions to specific problems in a field of long-term care. Possibility of multitasking, self-regulation of everyday life, quick awareness of emergency, etc.
Level 3	Take responsibility for completion of tasks in long-term care; adapt own behaviour to circumstances in solving problems.	Knowledge of facts, principles, processes, and general concepts in a field of long-term care. Understanding long-term care as complementary of ADL/IADL, etc.	Maintain universal precaution against infection. Avoid crowded places, close-contact settings, and confined and enclosed spaces (3 Cs). Respect human rights. Support for older persons to act in an autonomous or independent way. Response to expectations as an essential worker.	A range of cognitive and practical skills required to accomplish tasks and solve problems by selecting and applying basic methods, tools, materials and information.
Level 2	Work or study of long-term care under supervision	Basic factual knowledge of a field of long-term care. e.g. understanding older persons those who		Basic cognitive and practical skills required to use relevant

Level	Competency	Knowledge	Resilient Attitude	Skills
	with some autonomy.	are living with some disfunctions.		information in order to carry out tasks and to solve routine problems using simple rules and tools.
Level 1	Work or study of long-term care under direct supervision in a structured context.	Basic general knowledge.		Basic skills required to carry out simple tasks.

ADL = activities of daily living, IADL= instrumental activities of daily living.

Source: Compiled by authors based on European Qualifications Framework and ASEAN Qualifications Reference Framework and Japan's Qualification Framework of Professional Long-term Care (Kaigo Professional Dan'i Seido) (in Japanese).

Figure 8.14. Social Norms of Long-term Care Workers under an Infectious Disease Outbreak
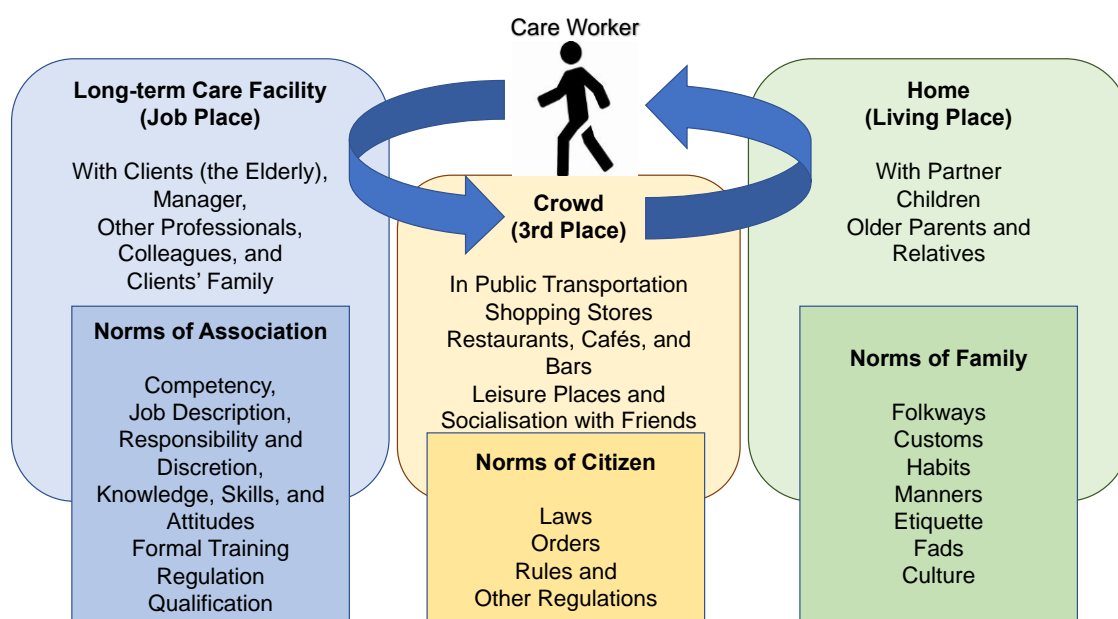
Source: Compiled by authors.

LTCWs working in institutions move back and forth between workplaces, home, and crowds. For them, the risk of infection lies not only in the workplace, but also at home and in crowds. How to observe social norms in such places of commuting should also be dealt with in training programmes (Figure 8.14).

Considering the above, policymakers and care professionals should once again appropriately position support for family caregivers in the integrated system of community healthcare, and health and welfare systems.

As for volunteers, there were examples such as in Thailand where they actively played a part in health services, and in Indonesia, where they used social networking services apps to watch over the elderly. For disseminating such activities, it is necessary to develop legislation that makes it easy to do so. Policymakers and care professionals should pave the way for the challenges of protecting personal information and sharing public health and welfare information.

To establish the decent work of care workers, policymakers and LTC professionals should share the situation in Japan. This is because, in Japan, LTC is socially recognised as a specified business, LTCFs have been established, and the vocational qualifications of LTCWs employed there have been established. Considering the lessons learnt from Japan's COVID-19 response, support should be given for LTCWs to sharing infectious disease prevention and control training programmes not only in institutions but also in crowds and training in contactless care and smart care.

- The concept of LTC will be systematically established, and a referral system will be put in place so that people can return to their families and communities after receiving treatment after being quarantined from their families and communities.

- Researching and optimising delivery system of long-term care services, whether older persons live with their families or live in residential aged care.

- Disseminating the right knowledge, attitudes, and practices of resilient long-term care for family caregivers, community volunteers, and leaders.

- Income compensation should be provided to family caregivers.

- Developing infection-free environments for caring older persons.

- Aligning health systems and welfare systems to the LTC needs of older persons.

- Developing sustainable and equitable systems for LTC.

- Developing and qualifying LTC training programmes for family caregivers and community volunteers.

For enhancing the power of KAP against infectious diseases amongst LTCWs, policymakers and care professionals should clarify the job descriptions of LTCWs, and then enhance the knowledge, skills, and attitudes necessary through recurring education to fulfil their competency (responsibility, discretion) as following:

- Enhancing the competency of environmental health against infection disease.

We recommend that care workers in facilities strengthen their environmental health KAP, such as knowledge of aerosol infection, attitude of avoiding 3Cs, and practice ventilation.

- Clarifying the discretion during infection emergency for LTCW.

In the LTC workplace, each job is usually carried out by a strict division of labour and cooperation amongst professionals. However, in the event of an emergency, not only facility managers but also professionals will not be able to overcome the situation unless a certain degree of deregulation and voluntary discretions are recognised. We recommend that the disclaimer in such cases be clearly indicated by improving the wide-area support system such as the disaster care assistant team (DCAT), the disaster medical assistant team, and the disaster psychiatry assistant team.

If care workers are certified with a national qualification as in Japan, they should consider mobilising the DCAT in the event of an infectious disease pandemic on a broad scale. Even when associations of private nursing homes are organised, as in Thailand, a system of mutual support by dispatching the DCAT to each other would be effective. We propose that a system be put in place to register LTC workers trained in infectious disease control as reservists and to dispatch them in the event of an emergency.

2.6. Recommendations for Supporting and Empowering Migrant Care Workers

In Asia, where the population is ageing, it will no longer be possible to leave elderly care to family members and resident volunteers alone. If that happens, it will be necessary to develop institutional care on a certain scale and cultivate LTCWs who will work professionally there. However, since the degree of population ageing in each country is different, there is a time lag in the development of LTCFs for the elderly. Therefore, the issue of training and circulation of migrant care workers becomes an issue.

This challenge has already been recognised all over the world. In Asia, Singapore, Japan, and Thailand are host countries for such migrant care workers, whilst countries such as the Philippines, Indonesia, and Viet Nam have gained experience as sending countries. However, the education, training, and qualification of migrant care workers vary from country to country. In addition, the guidelines for status of residence, evaluation of occupational qualifications, and career paths in the host country are also different. As a result, issues such as deskilling and status of residence issues in the event of a situation such as COVID-19 will surface.

The European Qualifications Framework, which was developed with the integration of the European Union, an attempt to harmonise international vocational qualifications, has led to the establishment of the ASEAN Qualifications Reference Framework in Asia as well. However, the work of LTC for the elderly has not been harmonised internationally in accordance with this framework. In the first place, it can be said that job descriptions for LTC for the elderly are not also shared internationally.

Japan has established a qualification system for LTCWs which are certified national qualifications and is building an LTC system that uses certified care workers as a core specialised human resource. The career path within LTC called the LTC professional career rank system based on the European Qualifications Framework has also been clarified. In addition, Japan accepts a variety of migrant care workers such as certified care worker candidates through bilateral economic partnership arrangements, technical intern trainees, international students who have obtained the 'Japan certified care worker' qualification, and specified skilled workers. COVID-19 made it impossible to travel to and from the sending countries, measures such as extending the period of stay and switching the status of residence were taken in Japan.

COVID-19 has confirmed the reputation of LTCWs as essential workers. It was also strongly recognised that migrant care workers are indispensable in Japan, the host country, as the labour force responsible for essential workers. Despite the challenges they faced, migrant care workers demonstrated their KAP abilities that were appreciated by those around them.

Japan's unique vocational qualification system, which is centred on certified care workers, is fraught with various misunderstandings with nurse qualifications in other countries. In Japan, certified care workers are positioned as social (welfare) workers, and there is a clear distinction between nurses in medical professions. Even within the same workplace, the responsibilities and discretionary powers of both groups are different. However, in response to COVID-19, attention has focused on the activities of migrant care workers, who received nursing education in the sending country and work as LTCWs in Japan. In the future, as collaboration between medical care, health, and welfare is strengthened and efforts to engage in medical practice by welfare professionals are fostered in society, expectations for migrant care workers who have received nursing education will increase.

Considering this reality, policymakers and LTC professionals in sending and receiving countries of migrant care workers have positioned LTC in the international qualifications' framework towards the establishment of decent LTC work and career paths in which deskilling should not occur. Also, without a placement fee, MCWs should get employment information directly through an international platform that is managed by an authorised organisation on bilateral or multilateral memorandum of agreements.

Figure 8.15 illustrates the mechanism of harmonising the qualification framework for MCWs. There are various coordination issues between the qualification framework of each home country and the international qualification framework and the status of residence in Japan. A future issue will be to harmonise qualifications frameworks and exchange MOUs so that direct employment matching can be conducted.

Figure 8.15. International Harmonisation of Qualifications Framework of Long-term Care
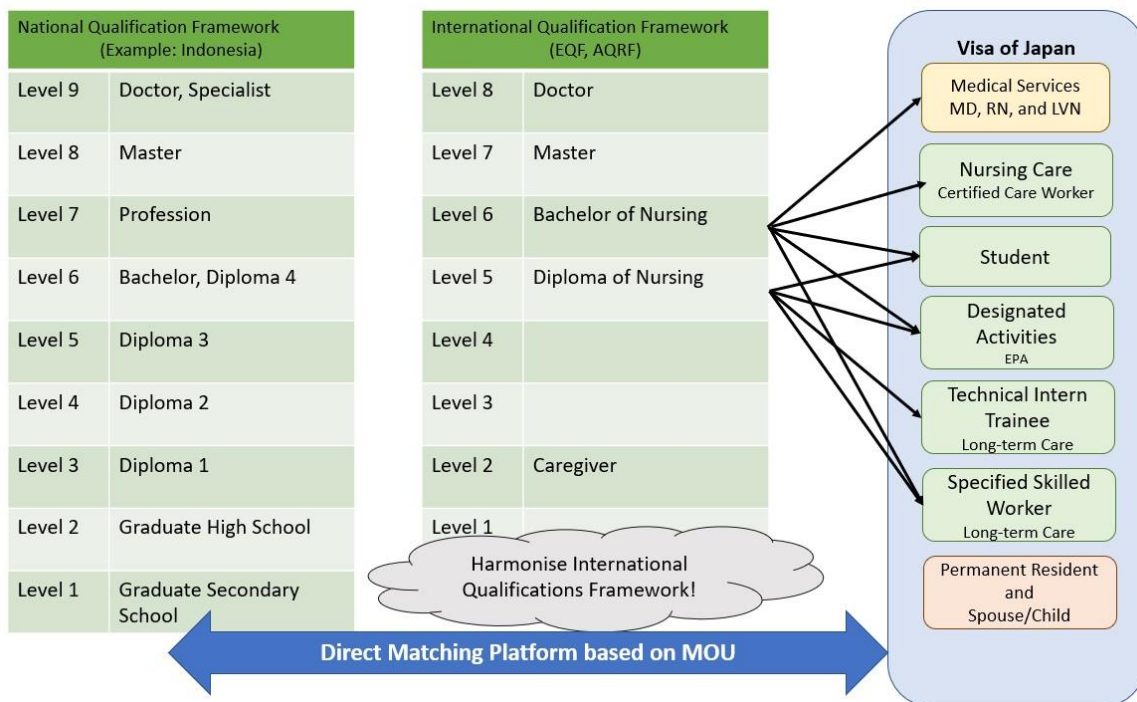
EQF = European Qualifications Framework, AQRF = ASEAN Qualifications Reference Framework, MD = medical doctor, RN = registered nurse, LVN = licensed vocational nurse, EPA = economic partnership agreement, MOU = memorandum of understanding.
Source: Compiled by authors.

2.7.　Recommendations for Policymakers and LTC Professionals to Promote Resilient Long-term Care for the Elderly

Overcoming the vulnerabilities of LTC for the elderly that have emerged under COVID-19, the movement to showcase resilience is certainly beginning to take shape. From now on, policymakers and LTC professionals will be asked how to establish and disseminate these movements as 'the new normal' of LTC. Therefore, towards the establishment of resilient LTC against infection disease pandemic, we recommend the following to policymakers and professionals in LTC for the elderly in Asia.

In the short term, policymakers and care professionals need to disseminate existing guidelines of infectious disease control, to support designing business continuity plans for public/private LTC service providers, and to engage in online training programmes aimed at improving the competencies of LTCWs. Specifically, policymakers and care professionals in each country should work on the following for international collaboration:

- Standardisation of statistical methods related to basic infectious diseases on long-term care.
- Scientific measurement method of environmental health maintenance issues in LTCF settings (e.g. remote-controlled CO_2 concentration measurement) and improvement technology (e.g. mechanical ventilation) and training of ventilation methods.

- Development of LTC training programmes tailored to the pandemic.
- Formulation of business continuity planning guidelines for LTCFs against infectious diseases and measures to improve management capabilities.
- Sharing knowledge, skills, and attitudes of LTC learned from best practices for the COVID-19 response.
- Exploring the regional realities of the referral systems and intersectoral coordination of families, volunteer organisations, facilities, and medical institutions involved in LTC and medical care.
- Spread of literacy of infectious disease control not only in the workplace but also in families and regional areas.

Figure 8.16. Recommendations for Policymakers and Professionals to Support Resilient Long-term Care
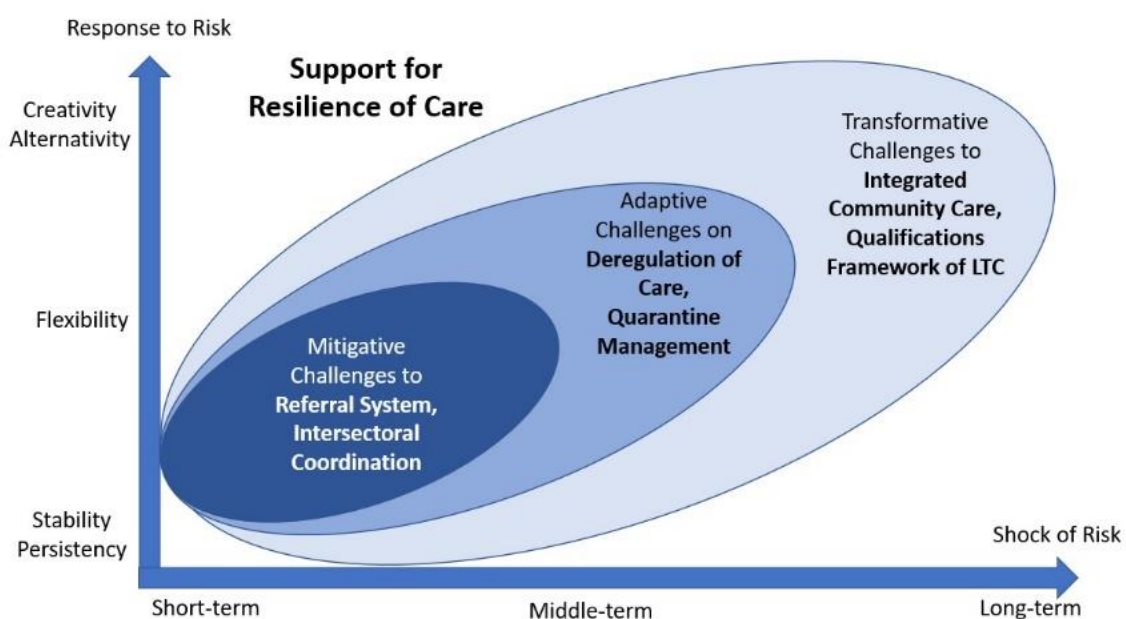
LTC = long-term care.
Source: Compiled by authors.

In the medium term, policymakers and care professionals will need to address the challenges that LTC administrations have been unable to respond flexibly to COVID-19. After sorting out issues related to the existing division of labour, standards of references, and monopolies of professional services, LTCFs and LTCWs should be able to respond flexibly and promptly to changes.

- Sorting out cases where existing LTC standards could not be met and considering room for deregulation and exemption. (e.g. facility standards, staffing standards, work arrangements, and the length of stay at home for LTCWs who have become infected or close contacts, etc.).
- Establishment of various measures to respond to situations in which quarantine of infected residents and close contacts must be implemented in the facility. (e.g. securing dormitories for LTCWs, installing compulsory ventilation systems, outsourcing of environmental sanitation and

waste disposal work, changing the layout of zoning in the facility, additional measures to the zoning, etc.)

- Standardisation of temporary measures for health management and work capacity improvement for LTCWs (e.g. infectious disease testing and vaccination in the facility, additional measures for the work of care workers in charge of infected people and close contacts, relaxation of monopoly on work of professionals, remuneration for external human support, etc.)

- Arrangement and legal development of issues related to the status of residence of MCWs (e.g. measures to extend the period of stay, change of status of residence, etc.).

In the long term, the prolonged COVID-19 pandemic has highlighted structural weaknesses in existing aged care. The ambiguous positioning of LTCFs within the community comprehensive care system, the unclear job description of care work, complex professional collaboration, the division of the infectious disease task force in LTCFs, the qualification framework of migrant care workers and in career development deskilling risks, etc. To overcome these vulnerabilities and establish resilient LTC, policymakers and care professionals should take the following steps:

- Establish a comprehensive continuous and seamless system amongst medical care, healthcare, LTC, and welfare for the elderly.

- Strengthen medical functions in elderly care facilities (e.g. test, quarantine, visiting medical care, tele-medicine, hospice, etc.).

- Support for the development and implementation of ICT and robot technologies to enable contactless care in the field of LTC.

- Clarify grading of job descriptions of competencies of care workers and systematisation of training programmes.

- Promote common national efforts to harmonise the Occupational Qualifications Framework to facilitate the career paths of migrant care workers. Also, for enhancing MCWs' career paths without placement fees, develop an international platform for introducing LTCFs and job seekers. Develop memorandums of cooperation for employing migrant care workers beyond memorandums of understanding.

References

Asia Health and Wellbeing Initiative (AHWIN) (2021), 'Accompanying the Elderly to Face the COVID-19 Pandemic'. https://www.ahwin.org/accompanying-the-elderly-to-face-the-covid-19-pandemic/

Japan Society for Air Conditioning and Sanitary Engineering (2020), 'Operation of Air Conditioning and Sanitation Equipment as a Countermeasure against New Coronavirus Infection', http://www.shasej.org/oshirase/2103/covid19-%EF%BC%94.pdf

UN-HABITAT (2020), *COVID-19 Response Report of Activities*. https://unhabitat.org/sites/default/files/2020/10/covid-19_response_report_web26.10.20.pdf

World Health Organization (WHO) (2022), 'Better Health with Better Information ICD 11 2022 Release', 11 February. https://www.who.int/news/item/11-02-2022-icd-11-2022-release

Appendix 1

Research Results on the Vulnerability and Resilience of Care Workers in Japan

1. Interviews with COVID-19 Infection Control Managers

1.1. Methods

Semi-structured interviews were conducted with managers at four facilities.

1.1.1. Interview subjects and periods

(i) Niigata Prefecture, Social Welfare Corporation A
Type of business: Special care homes for the elderly, short stay, and residential long-term care support business
Occupation: Principal
50s, Male
Interview date: 22 October 2021

(ii) Saitama Prefecture, Company B
Type of business: Private senior long-term care home
Occupation: Deputy Principal
30s, Female
Interview date: 12 November 2021

(iii) Fukuoka Prefecture, Social Welfare Corporation C
Type of business: Special care home for the elderly
Occupation: General Manager
Interview date: 23 December 2021

(iv) Tokyo, Social Welfare Corporation D
Type of business: Special care home for the elderly
Occupation: Chief Operating Officer and General Manager
Interview date: 31 March 2022

1.1.2. Interview questions

(i) What do you to take care of yourself to prevent infection by COVID-19?

(ii) Has the division of roles and tasks at your office or facility changed?

(iii) If so, how did it change?

(iv) Have you made any changes or innovations in the way of care or support?

(v) If so, what changes or innovations did you make?

(vi) Please tell us about any experiences or difficulties you have had in caring for or supporting others, and any problems or worries you are currently facing.

(vii) What do you think is important to prevent the transmission of COVID-19 in long-term care facilities?

1.1.3. Interview method

Face to face semi-structured interview

1.1.4. Ethical considerations

An ethics review application was filed with Keishin Group, and an ethics review application was also filed with the reporter's university and approval obtained (Reception number: 18749).

Prior to conducting the interviews, a 'request for cooperation in research'–was presented, and signatures on the consent forms were obtained.

1.1.5. Results of interviews with managers

Summary

Table A1.1. Results of Questionnaire to Managers

Question	A	B	C	D
What do you to take care of yourself to prevent infection by COVID-19?	Thorough physical condition Not to be more informed than necessary Try to forget about work during private time	Not going out Thorough physical condition Stop work when having a fever of 37°C	Thorough physical condition Bathe as soon as getting home Not drinking alcohol	Not going out Thorough physical condition Not eating outside
Has the division of roles and tasks at your office or facility changed? If so, how did it change?	All staff do care work Remove the usual system of separate stove-piped directions and commands	Reviewing the operations Developing and using an iPhone-based staff work management system All staff, including administrative staff, do care work	All staff, including nurses, do care work A task force committee meeting is held twice a month, where nurses and care workers work together to decide on policies.	Originally, there is a risk management office and research institute, so not changed.
Have you made any changes or innovations in the way of care or support? If so, what changes or innovations did you make?	Separate entrances and exits for each day service and residential facility When coming and going, go outside once (not	If infection is suspected, switch to infection control. All residents must not leave their rooms.	Explain the cautions decided by the task force when handing out paycheques to staff. Demonstrate how to handle gowns, etc. in addition to	Negative pressure devices were incorporated into the facility. Zoning devices 'ZENSHITSU-KUN' were incorporated into the facility.

| Question	A	B	C	D
	through the facility)	Meals are carried to their room by staff. Use disposable dishes. When finished eating, have the food taken to the balcony of each room and cleaned up by staff. Shut out contact.	explaining in words. Put off bathing, etc. and put priority on keeping life.	(Use of technology, introduction of ICT was done before COVID-19.)
Please tell us about any experiences or difficulties you have had in caring for or supporting others, and any problems or worries you are currently facing.	Do not judge by feelings but persuade theoretically	Mental health care ・Recreational activities ・Radio calisthenics ・Events online ・Fireworks Oral care Dementia patients who cannot brush their teeth rinse with tea.	Mental health care for staff ・Choosing a daily lunch box ・Eating their favourite snacks ・Building a culture of acceptance	Not having any problems in their operations because they had taken measures before the outbreak of the infection. Boredom due to lack of direct communication →present gifts to workers
What do you think is important to prevent the transmission of COVID-19 in long-term care facilities?	Widen perspective Know who to ask	Awareness of all staff members Work environment for immediate reporting	Establish relationships of trust Communication with all staff members Leading staffs to be professionally aware	Think and act on one's own according to the situation Moving the organisation forward by oneself. Never stop doing what you normally do. If you wait for administrative instructions, you will not make it in time.

Source: Compiled by author.

Some topics mentioned by each long-term care facility

(i)   Niigata Prefecture, Social Welfare Corporation A

There are two entrances and exits, one for the special care home for the elderly and daytime-care facility and another for the short stay. If infected people pass through the facility, the infection will spread. There are 89 clients and 100 staff, and PCR tests are conducted on all persons passing through the facility. Therefore, it was decided that any movement between wings would require the person to exit the facility and then re-enter, without using the internal connecting passageway. During January and February (winter months in Niigata), there were many complaints from the staff. We were able to reply to such emotional statements as 'It's such a shame', 'It's so cold out, 'We have to put on our coats and use our umbrellas just to go out in the snow and come back inside', etc. with persuasive infection prevention information.

Subsequently, there was agreement that the relaxation areas and lockers, which had previously only been on one side, should be installed on both sides, thus reducing the amount of back-and-forth traffic, and that the relaxation facilities should be improved.

Figure A1.1. Physical Distancing for Using Relaxation Areas and Lockers
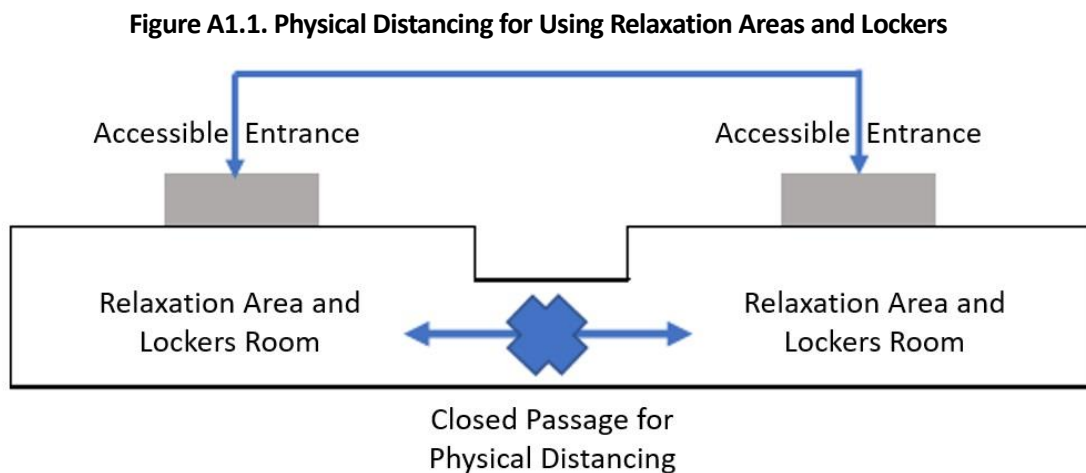
Source: Compiled by author.

At one point there was some discrepancy in opinion and perception between 'nursing staff who know very well how the slightest difference can mean life or death' and long-term care staff who are 'responsible for patients' happiness', and the director who came down on the side of prioritising infection control and was able to prevent the spread of infection by making the opinion of the nursing staff the instructions for the entire organisation.

(ii)   Saitama Prefecture, Company B

The company developed an iPhone application, and each employee started doing their work on iPhones. Everyone's work is scheduled by the app and displayed on the iPhone such as 'whose mobility care is to be done at what time'. When an employee finishes the work, they just need to tap a button onsite to register 'job completed'. In order to promote self-reliance support, the purpose of the initiative is to provide the necessary services to those who cannot speak for themselves at the

156

time when they (probably) need assistance. Furthermore, by linking with long-term care record systems, we were able to reduce the burden of recording work. It may be said that providing visibility to long-term care work can lead to the optimisation of service content and the discovery of problems on-site.

(iii)　Fukuoka Prefecture, Social Welfare Corporation C

Since the company had already established a workplace culture in which nurses also provide care on a daily basis, there was no resistance to having all employees (who could come to work) provide care after the outbreak of COVID-19.

First, it was discovered that a staff member had become infected. This was followed by infections amongst three clients.

At that time, public health centres were trying to reduce the number of PCR tests as much as possible, but we requested testing for everyone (130 persons in 2 days). The infected staff member usually travelled to work by train, but 2 or 3 days before had ridden in a car with a friend, so it was surmised that the infection had originated there. However, the friend tested negative, so the route of infection could not be determined. The three clients were asymptomatic, so if their infections had not been detected by the PCR testing, there is a high possibility that a large cluster infection could have occurred.

This experience highlighted the importance of thinking for oneself and taking the initiative, rather than simply following the instructions of the authorities and public health centres.

In addition, since we have always had an open workplace culture, even trivial disputes between employees are heard by their managers. By sharing information within the office and deciding whose role it is to deal with which issues, trouble has been avoided. From the point of view of stress care for the employees, we have set aside time for the staff to choose their lunch boxes so that they can relax by creating time to talk about things other than work. Since it is stressful for technical interns to stay overnight, these technical interns from Myanmar were asked to help prepare meals to help take their minds off work.

Regarding the improvement of knowledge about infection prevention, we try to hand out pay slips directly to the staff, and at that time provide both printed and verbal information.

In addition, we have posted information using diagrams and illustrations so that the non-Japanese technical interns can understand.

(iv)　Tokyo, Social Welfare Corporation D

Even before the emergence of COVID-19, we had a risk management countermeasure team and laboratories, with virus monitoring being carried out from an early stage, and negative pressure ventilation devices and zoning devices introduced. Because we had already had systems in place to help out if something happened, there was no need for us to change the divisions of duties or roles because of COVID-19. In addition, we have been leveraging technology by the introduction of sensing equipment and care robots. These measures allowed us to spend more time with the facility clients. The implementation of ICT does not mean that long-term care will lose its human touch, but rather that more time can be spent with the clients.

Regarding COVID-19, zoning and re-allocation had been decided before there were any cases of infected people, and we were able to switch as soon as there were any close contact cases. When actual cases of infection appeared, we immediately implemented zoning and other measures, and calmly brought the infection to an end.

Findings with managers of long-term care facilities

- The facility managers took every possible measure to manage their physical condition and restricted their activities, such as not going out or eating out. This is because caregivers are exposed to the risk of infection not only in the workplace but also in their private lives (when commuting, returning home, and in daily life at home), and are required as professionals to perform self-management. This is discussed in detail in the knowledge, attitudes, and practices (KAP) survey in Section 2.

- Most facilities switched the division of roles and duties of their professional and other staff to an emergency system. All staff, including nursing staff and clerical staff, are involved in caregiving, thereby compensating for the number of caregiving staff self-isolating at home. In these circumstances, the normal chain of command has been abolished, with responsibilities assigned to personnel according to the situation, and the system designed so that it is clear who to ask about what.

- In the provision of long-term care, we pay particular attention to zoning. By separating entrances and exits, having dishes placed on verandas after meals to avoid contact with clients, and the introduction of zoning devices and negative pressure devices, etc. we have been able to thoroughly prevent contact between infected persons and close contacts and other clients and staff.

- All of our facilities are paying careful attention to the mental wellbeing of our staff. They provide recreational opportunities as well as confectionary and small gifts to prevent the decline of morale.

- As the manager in charge of a facility, I try to build a relationship of trust with the employees and staff, and to think and act on my own according to the situation. If we wait for instructions from the government or public health centres, our response will be delayed and may not be in time to deal with the situation. To that end, it is important to broaden one's horizons on a daily basis and know who to ask when one is in difficulty.

2. KAP Survey in Japan

2.1. Methods

2.1.1. Survey subjects

Employees and staff of the interview subjects (ii), (iii) and (iv) (facilities) of Section 1, above.
(breakdown shown in results)

2.1.2. Survey period

November 2021 till end June 2022

Staff were asked to participate in the survey at the time of the interviews in Section 1, above.

2.1.3. Survey items

Survey questions were set using the checklist of the Ministry of Health, Labour and Welfare.

2.1.4. Survey method

For facilities (ii) and (iii): self-administered questionnaire survey (responses collected by mail)

For facility (iv): responses by entry into Google form

Check ☑ entered for 'I know', 'I do', and 'applicable'.

2.1.5. Ethical considerations

An ethics application was filed with Keishin Group, and an ethics application was also filed with the reporter's university, and approval obtained (Reception number: 18749).

A 'Request for cooperation in research' was presented, and responses obtained on an opt-out basis.

2.1.6. Subjects of KAP Survey of Care Workers in Japan
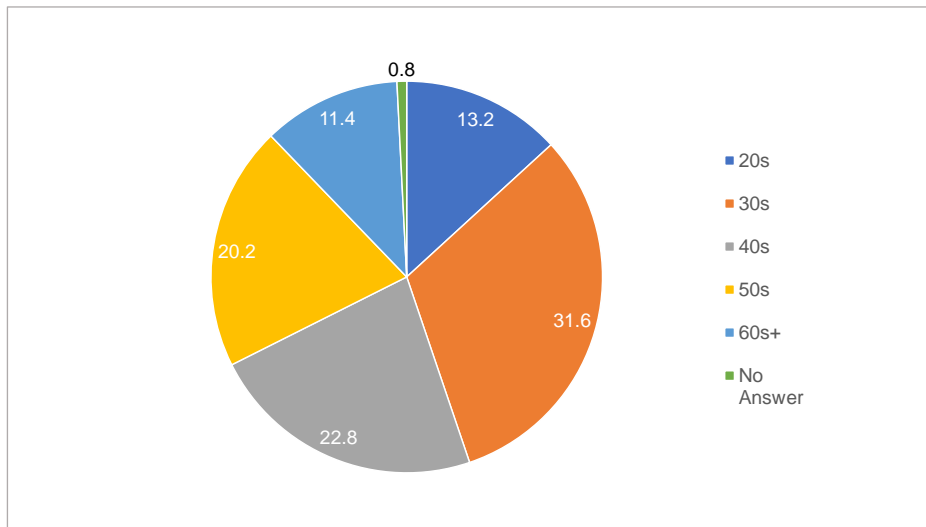
A total of 114 responses was obtained.

2.1.7 Attributes of Respondents

Figure A1.2. What Type of Business do you Serve?
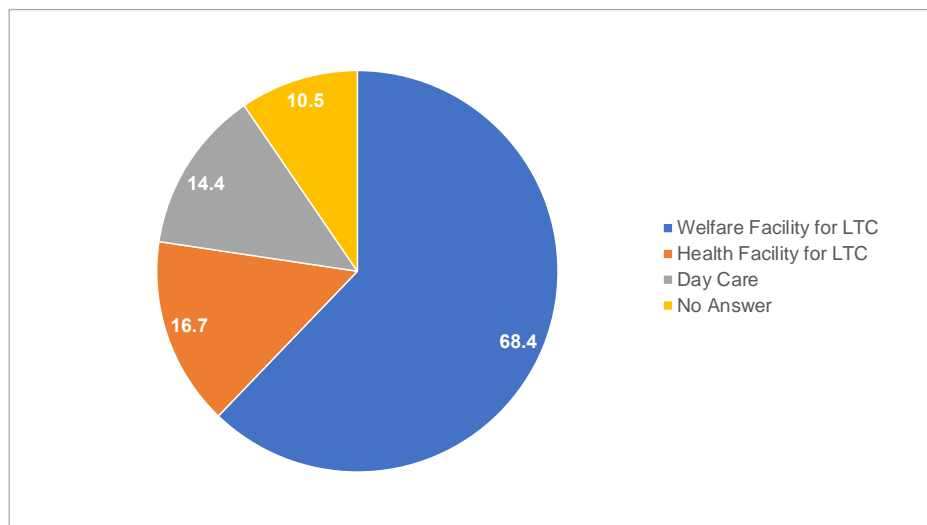
Source: Compiled by author.

Figure A1.3. What is your Age?

Source: Compiled by author.

Figure A1.4. What is your Tenure?
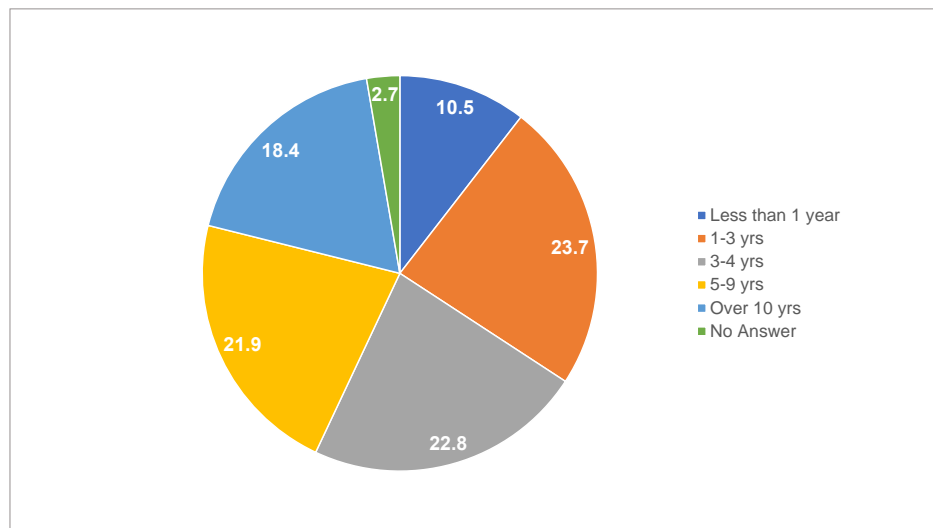
Source: Compiled by author.

2.2. Results of KAP Survey

2.2.1. Knowledge of Care Workers in Japan

Table A1.2. Knowledge of Care Workers in Japan

Do you know the following about COVID-19？	Yes	No
I know that infection with COVID-19 causes fever, respiratory symptoms (cough, sore throat, nasal discharge, nasal closing, etc.), headache, malaise, etc.	114 100%	0 0%
I know that many COVID-19 patients complain of olfactory and taste symptoms.	114 100%	0 0%
I know that COVID-19 was initially thought to spread with contact or droplet infections but has now been proven to spread with aerosol infections.	92 80.7%	22 19.3%
I know that in the elderly, underlying diseases (chronic respiratory diseases, diabetes, cardiovascular disease, etc.) are high-risk factors for COVID-19.	113 99.1%	1 0.9%
I know that the COVID-19 virus remains in the air for about 3 hours in aerosols, about 72 hours on plastic and stainless-steel surfaces, about 24 hours on cardboard surfaces, and 4 hours on copper surfaces.	61 53.5%	53 46.5%
I know that COVID-19 viruses are more attached to patient pillows, telephone answering machines, TV remote controls, chair takers, and toilet environments.	92 80.7%	22 19.3%
I know that most COVID-19 patients are the subject of infection transmission.	101 88.6%	13 11.4%
I know that COVID-19 is transmitted before onset (2 days before onset) or from asymptomatic patients.	106 93.0%	8 7.0%

Source: Drafted by author based on the research findings in the current study.

2.2.2. Attitude of Care Workers in Japan

Table A1.3. Attitude of Care Workers in Japan

Please tell us about yourself.	Yes	No
I like to do to new things, and to go to new fields.	66 57.9%	48 42.1%
I think I am more curious.	55 48.7%	58 51.3%
I think I am contributing to society.	60 52.6%	54 47.4%
I am a better fit in my new environment soon.	53 46.5%	61 53.5%
I get to know people and become friends as soon as I get to know them.	33 28.9%	81 71.1%

I can tell people my thoughts and thinking right away.	38	76
	33.3%	66.7%
I will not maintain even if I am unreasonable.	45	69
	39.5%	60.5%
I have three or more hobbies.	40	74
	35.1%	64.9%
I am the type who does not give up things easily.	53	61
	46.5%	53.5%
I like to try various things.	59	55
	51.8%	48.2%
I think I am happy.	80	34
	70.2%	29.8%
I have friends and family who I can consult on anything.	86	28
	75.4%	24.6%
I am the one who switches feelings quickly.	56	58
	49.1%	50.9%
I am excited to think about my future.	24	90
	21.1%	78.9%
I believe that adversity is an opportunity to grow myself.	44	70
	38.6%	61.4%
I try to challenge difficult events.	49	65
	43.0%	57.0%
I think that I will tackle the next opportunity even if I fail.	75	39
	65.8%	34.2%
I switch my feelings and act optimistically.	69	45
	60.5%	39.5%
I can find goodness and appreciate even those who are not good at it.	64	50
	56.1%	43.9%
I can work hard towards my goal.	74	40
	64.9%	35.1%
I think there are good things in the future.	71	43
	62.3%	37.7%
I like to engage with people as a supporter.	82	31
	72.6%	27.4%
I have a family who listens to my troubles and advises me.	81	33
	71.1%	28.9%
I have someone to support me.	95	19
	93.3%	16.7%

I have a friend who can consult with me.	92	22
	80.7%	19.3%
I can take myself positively.	60	54
	52.6%	47.4%
I can control my emotions moderately.	79	34
	69.9%	30.1%
I can analyse the causes of stress.	81	33
	71.1%	28.9%
I can ask a person for help.	63	51
	55.3%	44.7%
I am aware of myself.	65	49
	57.0%	43.0%
I can be a distraction, such as being passionate about hobbies.	77	37
	67.5%	32.5%
I have a boss who can support me.	66	48
	57.9%	42.1%
I can rely on peers and seniors who can help each other in the team.	80	34
	70.2%	29.8%
I can use the means and resources necessary to work as a supporter.	75	37
	67.0%	33.0%
I analyse the situation and work on solving the problem.	77	37
	67.5%	32.5%
I have encouragement and support from many professions.	59	53
	52.7%	47.3%

■ Please tell us about the changes in yourself since the outbreak of COVID-19.	Yes	No
I cannot sleep or my sleep is shallow.	28	84
	25.0%	75.0%
I have lost my appetite.	3	110
	2.7%	97.3%
I eat more than usual.	30	82
	26.8%	73.2%
I have been suffering from physical problems such as headaches and abdominal pain.	16	97
	14.2%	85.8%
I am suffering from dizziness.	8	104
	7.1%	92.9%
I am overly frustrated.	19	94
	16.8%	83.2%
I am becoming restless and not concentrating in my work.	8	104
	8.0%	92.0%

I cannot get out the helpless thinking and the worry about anxiety of my thoughts.	14 12.4%	99 87.6%
I am not motivated and am becoming hesitation to go to work.	24 21.2%	89 78.8%
I am uneasy about the response to the infected person.	42 37.2%	71 62.8%
I have an 'excessive fear' of viral infection.	17 15.0%	96 85.0%
I feel lost and anxious in the working place because there are no clear instructions, scientifically based explanations.	20 17.7%	93 82.3%
I spend my days with the thought that we have to work hard.	61 54.0%	52 46.0%
I am suffering because I am told to 'avoid' the functions and relationships that have been required so far in the long-term care field.	25 22.1%	88 77.9%
I have a strong sense of anxiety that I will carry the infection.	41 36.3%	72 63.7%
I have anxiety about the future with no exit.	43 38.1%	70 61.9%
I feel that the amount of work due to infection prevention measures is increasing more than normal.	59 52.2%	54 47.8%
I feel that there is no environment for providing safe and secure long-term care.	36 31.9%	77 68.1%
I have an anxiety against infection because I have an overwhelming shortage of supplies such as masks, disinfectant alcohol, and protective equipment.	7 6.2%	106 93.8%
I am worried about when I am going to get an infection.	58 51.3%	55 48.7%
I am worried that I am going to infect with a family.	52 46.0%	61 54.0%
I am afraid I will spread infectious diseases in the workplace.	56 49.6%	57 50.4%
Even if I thought that there was 'no choice' in my mind because I refrained from going out, there was a psychological burden.	63 55.8%	50 44.2%

Source: Drafted by author based on the research findings in the current study.

2.2.3. Practice of Care Workers in Japan

In this regard, I did a cross tabulation with years of service.

Table A1.4. Practice of Care Workers in Japan

■ Can you prevent droplet infection?	Less than 1 year	1–3 years	3–5 years	More than 5 years	More than 10 years	No Answer	TOTAL
If a client has symptoms (fever, etc.) that are suspected to be a droplet infection, I will refrain from providing the service in principle.	6	19	3	5	0	1	34
I do not go to work as a rule if I suspect a droplet infection.	9	24	23	22	18	3	99
When I contact with a patient, I must wear a high-performance mask (N9512, etc.).	7	17	10	10	3	2	49
If I cough or sneeze without wearing a mask, cover my mouth and nose with a tissue, etc., and discard it after use.	12	25	24	21	20	3	105
If I use a handkerchief, towel, etc., I do not share that handkerchief or towel with anyone.	12	27	24	23	19	3	108
I wash handkerchiefs and towels with saliva and runny noses in my hands with soap under the flow of water.	8	16	15	10	5	2	56
I help clients wear surgical masks.	4	13	7	8	5	1	38
I do enough ventilation.	11	26	25	21	16	3	102
Since contact infections can also occur with droplet-infected pathogens, I disinfect common facilities with a lot of contact (handrails, doorknobs, computer keyboards, etc.)	7	21	18	20	16	1	83
In principle, I provide care for clients in a private room.	6	17	15	15	10	1	64
If it is not available, I will care for patients in a group-isolated room.	4	13	9	13	6	2	47

If the patient and other clients cannot be isolated, I will make a distance such as 2 metres or more of the bed space or partitioning the bed with curtains, partitions equipment, etc.	6	14	13	13	11	2	59
I keep the window open as much as possible, although I need not set up special air conditioners.	9	25	25	21	16	2	98

■ Can you help client's diet?	Less than 1 year	1–3 years	3–5 years	More than 5 years	More than 10 years	No Answer	TOTAL
I have done hand hygiene before meal support.	8	21	22	21	21	3	96
I wear a mask, an apron, goggles, a face shield, and disposable gloves.	6	16	15	17	9	1	64
I wipe the table with wet tissue with alcohol (alternatively, used with diluted sodium hypochlorite).	7	22	20	20	18	3	90
I help with meals one by one separately.	3	14	9	9	6	1	42
I have double-worn gloves to help the next client's meal support quickly and safely. I will remove one of gloves when one person ends, and I will be able to help the next person immediately.	3	9	2	3	1	1	19
I sit diagonally behind the user and watch the swallowing to support the meal.	2	11	10	11	6	2	42
I am careful not to get too close to a client.	4	15	12	9	10	1	51
I pull my upper body back so that I do not get bathed in the client's saliva etc.	5	13	16	10	8	2	54
I am always positioning on the right or left side of a client to help him/her stay out of the way of the coughing client.	7	17	22	17	17	3	83

I avoid verbal conversations as much as possible during meals.	3	14	6	9	7	2	41
I am communicating with non-verbal signs (e.g. nodding sign, gesture, and body language).	7	14	7	8	7	1	44

■ What are you doing with the apron after use?	Less than 1 year	1–3 years	3–5 years	More than 5 years	More than 10 years	No Answer	TOTAL
I am slowly taking off so that the outside of the apron does not touch my face, hair, or clothes.	6	17	13	15	9	3	63
I am taking off the apron away from me and folding it outside in.	6	18	17	16	13	3	73
I put the folded apron in a plastic bag and close the mouth of the bag tightly.	5	16	11	11	4	2	49
I am going to spread out the plastic bag to put the apron in before I start caring.	5	15	13	12	4	2	51
I always wash my hands after I put away my apron.	7	17	14	14	12	2	66
I take care not to touch the apron directly and wash it promptly after take home.	5	14	12	12	2	2	47

■ How do you communicate with the client?	Less than 1 year	1–3 years	3–5 years	More than 5 years	More than 10 years	No Answer	TOTAL
I am standing shoulder to shoulder and talking with client who speak loudly, avoiding face-to-face conversations.	3	17	12	8	1	3	44
I request the client to wear a mask, and I avoid the face to face getting in close contact directly.	4	14	8	9	4	1	40
I am talking with the client in a well-ventilated place.	7	16	16	13	9	2	63

■ Are you preventing the spread of infection to clients?	Less than 1 year	1–3 years	3–5 years	More than 5 years	More than 10 years	No Answer	TOTAL
I do not touch my eyes, nose, or mouth when I touch water faucets, doorknobs, and electric switches that everyone touches.	10	23	22	16	12	2	85
In the event of an infectious disease, I will thoroughly perform such hygiene appropriately as hand washing, vomit, excrement, etc.	10	24	25	19	18	3	99
I take particular care not to spread the infection through my own or my colleagues.	9	26	24	21	18	3	101
I urge customers to wash their hands.	5	19	22	19	15	3	83
If I have symptoms or suspect an infection, I will report it to my supervisor and consult with them about how to respond.	10	24	25	21	20	3	103
I will seek instructions from doctors and nurse and disinfect our facility if necessary.	9	22	19	19	17	2	88
I intend to follow directions by a doctor, if necessary, for isolating infected client into the private room.	10	19	22	19	15	2	87
I pay attention to the health management not only for clients who are suspected of infection, but also for all clients, because there are no symptoms now, physical condition may change suddenly in the future.	9	20	23	21	15	3	91

■ What are you doing when you leave?	Less than 1 year	1–3 years	3–5 years	More than 5 years	More than 10 years	No Answer	TOTAL
I am changing clothes between commuting and working.	7	23	23	20	18	3	94
I am wearing a mask and keeping my distance from other people.	11	27	25	20	19	3	105
I do not touch my face when I touch the straps and handrails.	11	25	20	16	9	2	83

When I am done cleaning up, I am doing hand hygiene before I go home.	11	25	23	20	20	3	102
I try not to touch things after hand hygiene.	7	19	19	15	10	1	71
I am wearing a jacket just before I leave the front door or after I leave the front door.	4	17	11	13	11	1	57

■ Are you mindful of the following when taking a break?	Less than 1 year	1–3 years	3–5 years	More than 5 years	More than 10 years	No Answer	TOTAL
I have taken more than 2 minutes with others.	10	23	17	15	14	2	81
I have opened several parts of the room and ventilated the room.	9	24	22	21	14	3	93
I am refraining from chatting.	9	24	19	16	9	2	79
I try not to talk loudly at mealtime.	11	25	23	22	13	3	97
I have enough sleep, and a solid diet.	9	23	20	15	14	2	83
I am consulting someone when I am mentally cornered.	8	17	13	14	12	1	65
I do physical condition checks such as body temperature measurement before going to work, and do not go to work when I have symptoms.	10	26	23	24	21	3	107
I avoid gathering in groups in a space with poor ventilation, even outside the rest area or outside of the workplace.	12	22	25	20	17	2	98
When eating meals, I will thoroughly devise ways to sit as far away as possible, and to sit one by one so as not to face each other.	11	26	21	20	13	3	94
I am trying to avoid 3 C's and enjoy.	12	25	24	22	18	3	104
I take particular care of conversations loudly when I take alcohol.	10	18	19	17	9	2	75

■ How do you take meals when COVID-19 is prevalent?	Less than 1 year	1–3 years	3–5 years	More than 5 years	More than 10 years	No Answer	TOTAL
I avoid congregational meals as much as possible.	10	26	25	22	17	3	103
I am serving small meals, avoiding platters for share.	12	22	22	20	11	3	90
In the case of platters for share, I change chopsticks for distributing foods and for eating them.	10	22	18	22	15	3	90
I do not eat at restaurants and use take-home style and delivery system instead.	7	19	15	12	9	3	65
When I have meals together, I sit side by side, not face-to-face with the other person.	5	20	12	14	7	2	60
I stop chattering during meals.	6	16	14	13	13	3	65
I avoid sharing of a drinking glass.	12	25	24	21	21	3	106

■ Can you take basic actions to prevent infection?	Less than 1 year	1–3 years	3–5 years	More than 5 years	More than 10 years	No Answer	TOTAL
I have intervals of as much as 2 metres (minimum 1 metre) with others.	9	23	16	17	14	3	82
I try not to be directly in front of the other person when I talk with them.	7	23	16	14	1	2	63
I wear a mask as much as possible even if I do not have any symptoms.	12	25	24	23	19	2	105
Even when I must put on the mask, I take it off appropriately so as not to become hyperthermia when climate is hot.	9	16	15	18	10	3	71
I always wash my hands and face after I get home.	9	24	21	19	8	3	84
When I go to a crowded place, I change clothes as soon as I get home.	7	21	21	15	12	3	79
I am washing my hands with water and soap for 30 seconds.	7	19	21	17	12	2	78

I have done alcohol disinfection of my fingers.	9	23	21	22	17	2	94
I keep protecting cough etiquette.	12	23	24	22	20	3	104
I control ventilation frequently.	11	24	24	20	13	2	94
I check my health such as measuring body temperature in every morning.	10	24	23	23	17	2	99
I am refraining from going out if I have symptoms such as fever or cough.	12	25	24	22	20	3	106
I am avoiding 3C's.	12	25	25	22	19	3	106
I exercise self-control of entering or leaving areas where COVID-19 is prevalent.	12	26	24	22	18	3	105
I check where and when I met with someone.	9	19	13	15	7	2	65
I am using a contact confirmation app.	6	12	8	6	13	1	46
I try to know the infection situation in various places.	10	22	17	16	13	2	80
I avoid traveling when public transportation is crowded.	7	22	18	17	11	2	77
I move as much as possible by bicycle or on foot.	10	20	19	14	9	2	74
I try to keep my distance when I go by with people.	7	19	17	14	7	3	67

■ How are you shopping when COVID-19 is prevalent?	Less than 1 year	1–3 years	3–5 years	More than 5 years	More than 10 years	No Answer	TOTAL
I am shopping using mail order.	9	19	14	12	9	2	65
When I go shopping, I go by myself or with a small group.	12	25	25	23	21	3	109
I am shopping at a time when the store is not crowded.	7	20	18	17	11	1	74
I am using electronic payments.	8	19	11	11	7	2	58
I am planning to get my shopping time finished quickly.	9	22	22	19	12	2	86
I do not touch the samples on display.	6	20	12	13	2	1	54
I take the distance back and forth when I line up at the cash register.	11	25	26	23	20	3	108

■ How do you enjoy entertainment, sports and events when COVID-19 was infested?	Less than 1 year	1–3 years	3–5 years	More than 5 years	More than 10 years	No Answer	TOTAL
I do not go to the full-service restaurant.	7	23	19	16	8	3	76
I do not go to karaoke.	9	24	23	21	17	3	97
I enjoy the entertainment programme using online as much as possible.	8	20	14	14	8	3	67
I use the reservation system.	9	15	12	14	7	3	60
I do not stay longer in a small room.	9	19	21	17	13	3	82
I use times and places where people are few.	9	18	19	18	13	2	79
I utilise the contact confirmation app.	5	10	8	5	7	1	36

Source: Drafted by author based on the research findings in the current study.

2.3. Findings

2.3.1. Knowledge of Care Workers in Japan

The response was 'I know' to almost all questions, and it can be said that those surveyed have sufficient knowledge about COVID-19 as LTCWs. However, in response to the item 'I know that the COVID-19 virus remains in the air for about 3 hours in aerosols, about 72 hours on plastic and stainless-steel surfaces, about 24 hours on cardboard surfaces, and 4 hours on copper surfaces', only about half (53.5%) answered that they knew this.

2.3.2. Attitude of Care Workers in Japan

Overall, the responses indicated that many employees have a positive attitude. While approximately 70% answered 'No' to items related to sociability, such as 'I get to know people and become friends as soon as I get to know them.' and 'I can tell people my thoughts and what I am thinking right away', about 70% of respondents answered 'Yes' to questions related to optimism, such as 'I think I am happy' and 'I think there are good things in the future.'

In addition, about 70% of the respondents answered positively to questions related to their qualifications as a caregiver, such as 'I like to engage with people as a supporter.' This is thought to be due to the above-mentioned facility managers taking care to provide mental health support for their employees, and more than 80% answered 'Yes' to 'I have someone to support me.' In terms of questions about changes in themselves since the outbreak of COVID-19, physical changes (deteriorating physical condition) were less than 30%, but more than 50% responded with 'I spend my days with the thought that we must work hard.' and 'I feel that the amount of work due to

infection prevention measures is increasing more than normal', indicating that staff are working hard to prevent infection. The fact that so few responded with 'I feel lost and anxious in the working place because there are no clear instructions, scientifically based explanations.' Or 'I have an anxiety against infection because I have an overwhelming shortage of supplies such as masks, disinfectant alcohol, and protective equipment' may be taken as an indication that infection control measures are being implemented in the workplace.

2.3.3. Practice of Care Workers in Japan

Working on the hypothesis that care workers who have worked over 5 years are likely to be more thorough in infection control, we cross-tabulated by the length of tenure and the practice. The results show that infection control measures are being taken regardless of the tenure, and many employees who have fewer years of service answered 'Yes', indicating that they are reacting to the situation seriously.

Regarding meal assistance, the number of respondents who answered 'Yes' was low, as was the number of actual care workers. As a result, in many facilities, one care worker attends to two (or more) clients, with the result that it is not possible to provide such assistance from behind or to maintain distance. Also, such assistance is often provided alternating between clients, which meant that only a few respondents were able to answer 'Yes' to items such as I wear two pairs of gloves to help the next client's meal support quickly and safely'. I remove one pair of gloves when the first client is finished, so I can assist the next client immediately.'

Also, it can be seen that care workers are careful of their activities in their daily lives outside of work. Almost all respondents answered 'Yes' when asked whether they were avoiding eating out or sharing food and drink, wearing masks, having consideration for others when coughing, avoiding crowded places, closed spaces, close contact (3Cs), restricting their activities, shopping in small numbers and in a short space of time, avoiding amusement facilities, etc. In addition, they appear to be taking careful precautions when traveling to and from work and during rest breaks, as well as changing their clothes and masks, ventilating room and eating without speaking.

Since essential workers such as care workers are also citizens engaged in ordinary daily life, thorough infection control measures must be taken even outside the workplace (at home, when commuting, when going out). The extent of the professional awareness affects the prevention of infection, and it shall cause the suppression of the occurrence of infection cluster at LTCFs.

Figure A1.5. COVID-19 Risks of Long-term Care Workers
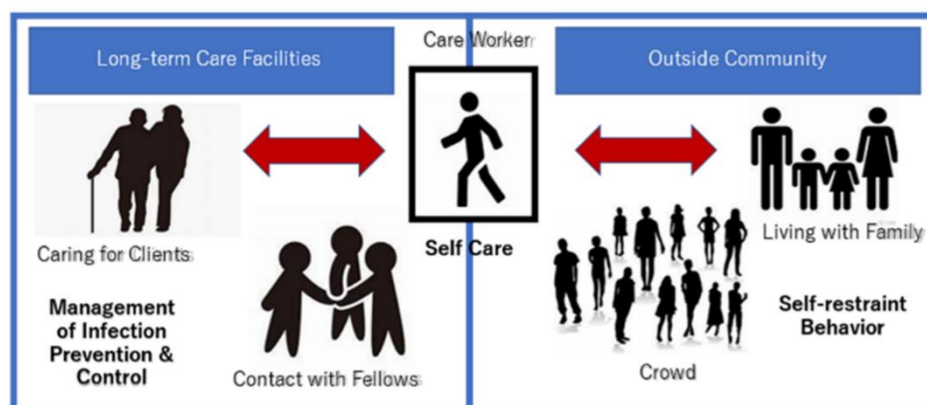
Source: Compiled by authors.

3. Lessons Learnt

LTCWs had made efforts by:

- Thorough implementation of infection control measures in daily life (avoid eating out and sharing food or drinks, wear masks, have consideration for others when coughing, avoid the 3Cs, restrict activities, shop in small numbers and within a short space of time, avoid amusement facilities).
- Thorough self-management on a daily-life basis.

Facility managers had made efforts:

- Working to build a relationship of trust with staffs on a daily-life basis.
- In an emergency such as COVID-19 infection, provide LTC that prioritises life and create a workplace environment that allows for nurses to make and carry out medical decisions. Also, there should be a comprehensive LTC structure throughout the workplace, so that nurses are also able to provide long-term care.
- Clarify the chain of command in the event of an emergency.
- Waiting for instructions from the government or public health centres may cause to delay emergency responses under the risk of a cluster outbreak, so facility managers should make decisions and implement them by themselves.
- Take measures to prevent the spread of infectious diseases, focusing on zoning within the facility (see chapter 3 on business continuity plans for details).
- Pay attention to the care of the mental health of all staff.
- For mitigating the undue pressure and stress on daily work, it needs to provide the time and space for the relief of tension, or to give small presents, etc. in order to relieve stress (small considerations such as allowing staff the time to choose their own lunch boxes, can be effective).

It is important to have a broad perspective on a daily-life basis, build personal connections, and know who to ask when in trouble so that the above actions can be implemented instantly.

(Reported by Hiromi Kinebuchi)

Appendix 2

Conferences for Learning and Sharing Results of Our Research

Figure A2.1. Figure Volunteers Group Discussions on 17 June 2022

Source: Faculty of Public Health, Thammasat University/Srisavandhira Thai Red Cross Institute of Nursing/Kealth and Elderly Establishment Confederation, 2022.

Figure A2.2. Institutional Staff Group Discussions on 18 June 2022
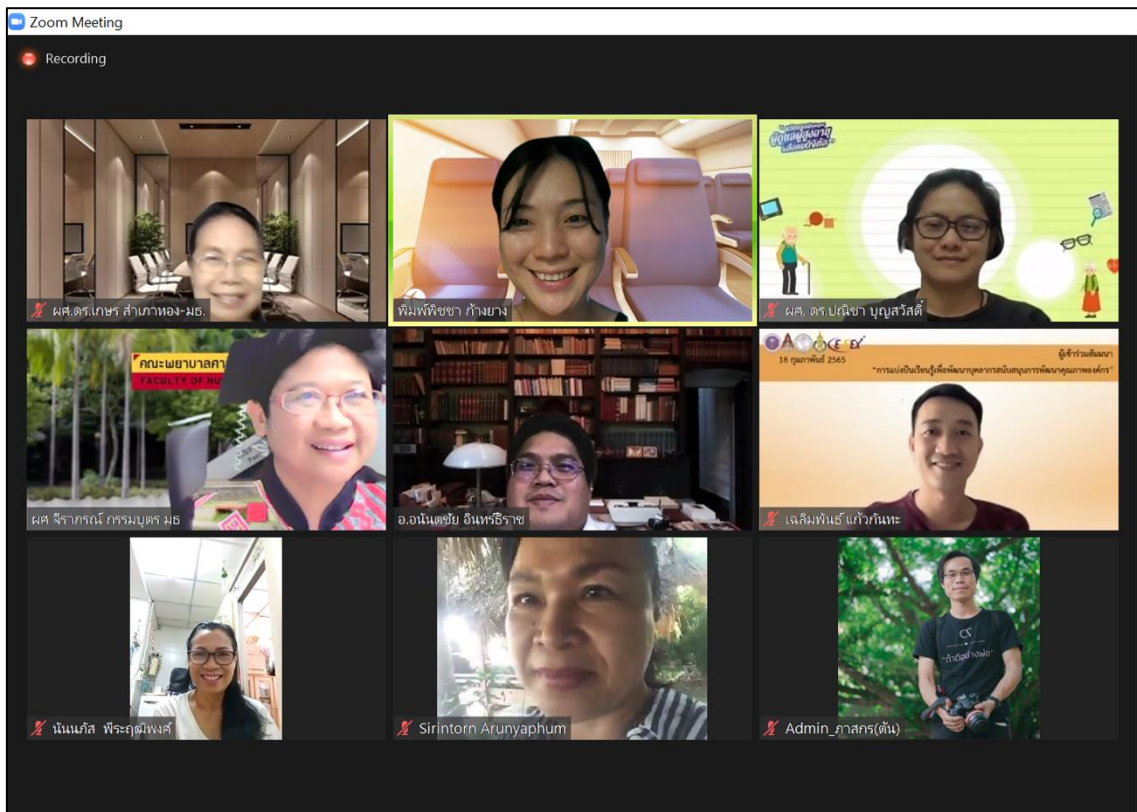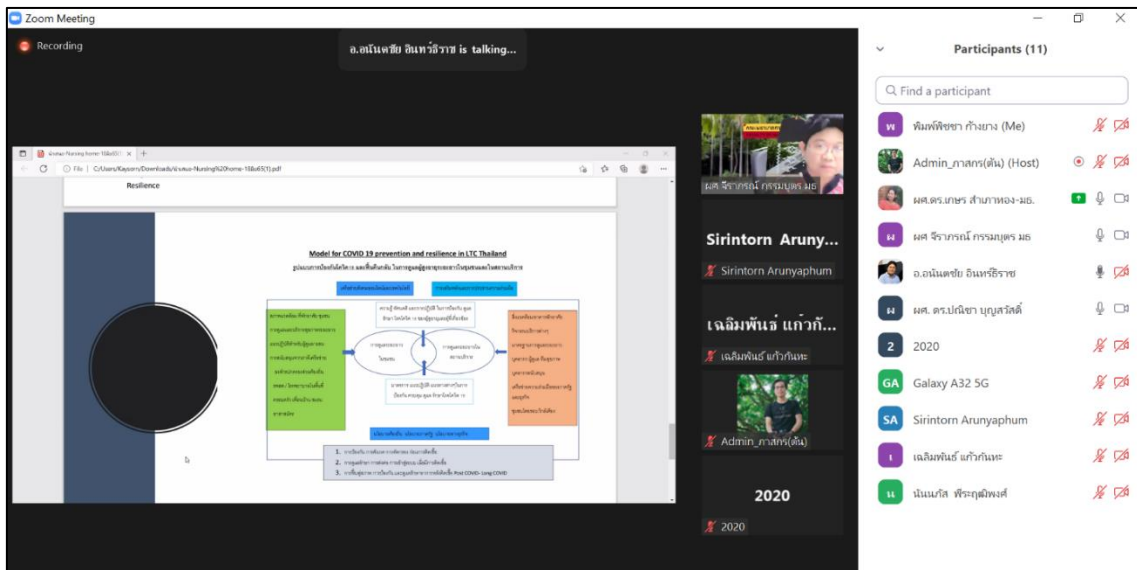
Source: Faculty of Public Health, Thammasat University, 2022.

Appendix 3

Training Modules of Infection Prevention and Control

Existing Media for Training in Thailand

Episode 1: How to build a workplace that cares for the elderly to be safe from COVID-19. Healthcare facilities need to manage a clean and safe indoor environment and reduce the spread of the virus. Focus on the entrance screening point, ventilation in the building, and the cleanliness of the cafeteria.

Figure A3.1. Guidelines for Private Nursing Homes to Manage COVID-19 (Clip VDO)

Source: Thai Health Promotion Foundation (2021).

Episode 2: Establish a self-management system for staff and caregivers, including getting a vaccine, observing yourself regularly, using protective equipment, and hand washing.

Figure A3.2. Guidelines for Care Workers to Prevent COVID-19 (Clip VDO)

Source: Thai Health Promotion Foundation (2021).

Episode 3: New residents, before entering the nursing home, visitors, and senior citizens must follow guidelines. Get vaccinated and use antigen test kits and protective equipment before joining the activity.

Figure A3.3. Guidelines for Visitors to Nursing Home (Clip VDO)
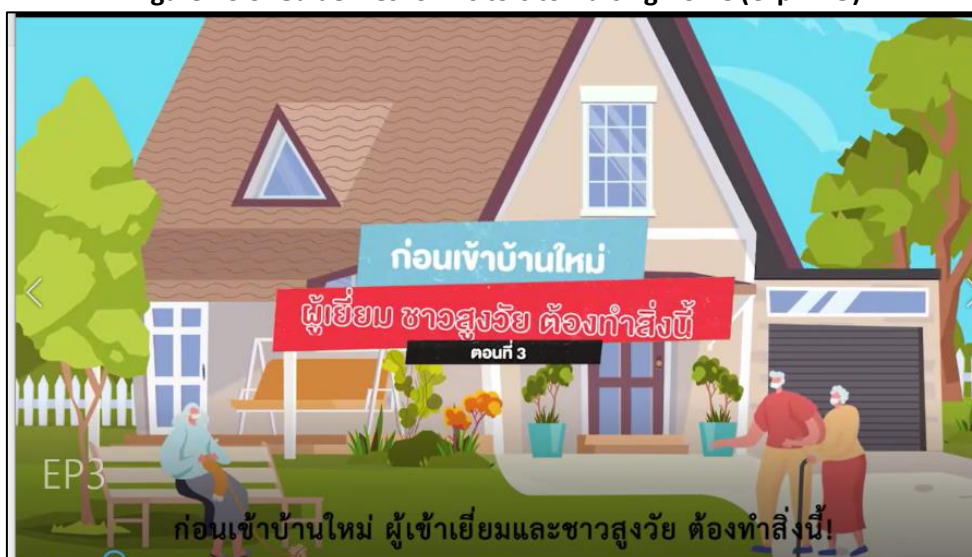
Source: Thai Health Promotion Foundation (2021).

Episode 4: How to dispose of garbage infected with COVID-19 as safely as possible.
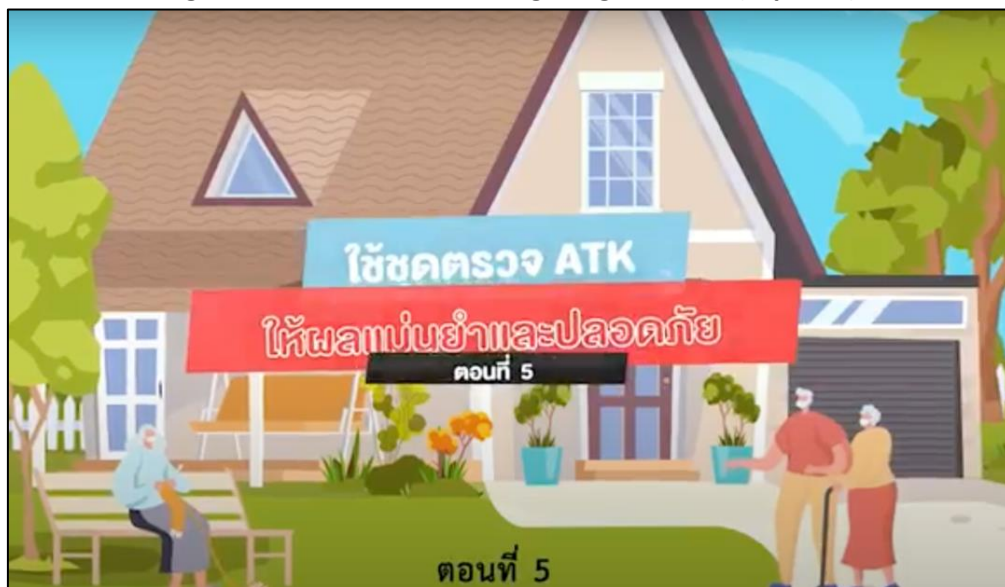
Figure A3.4. Guidelines for Waste Management in Nursing Home (Clip VDO)

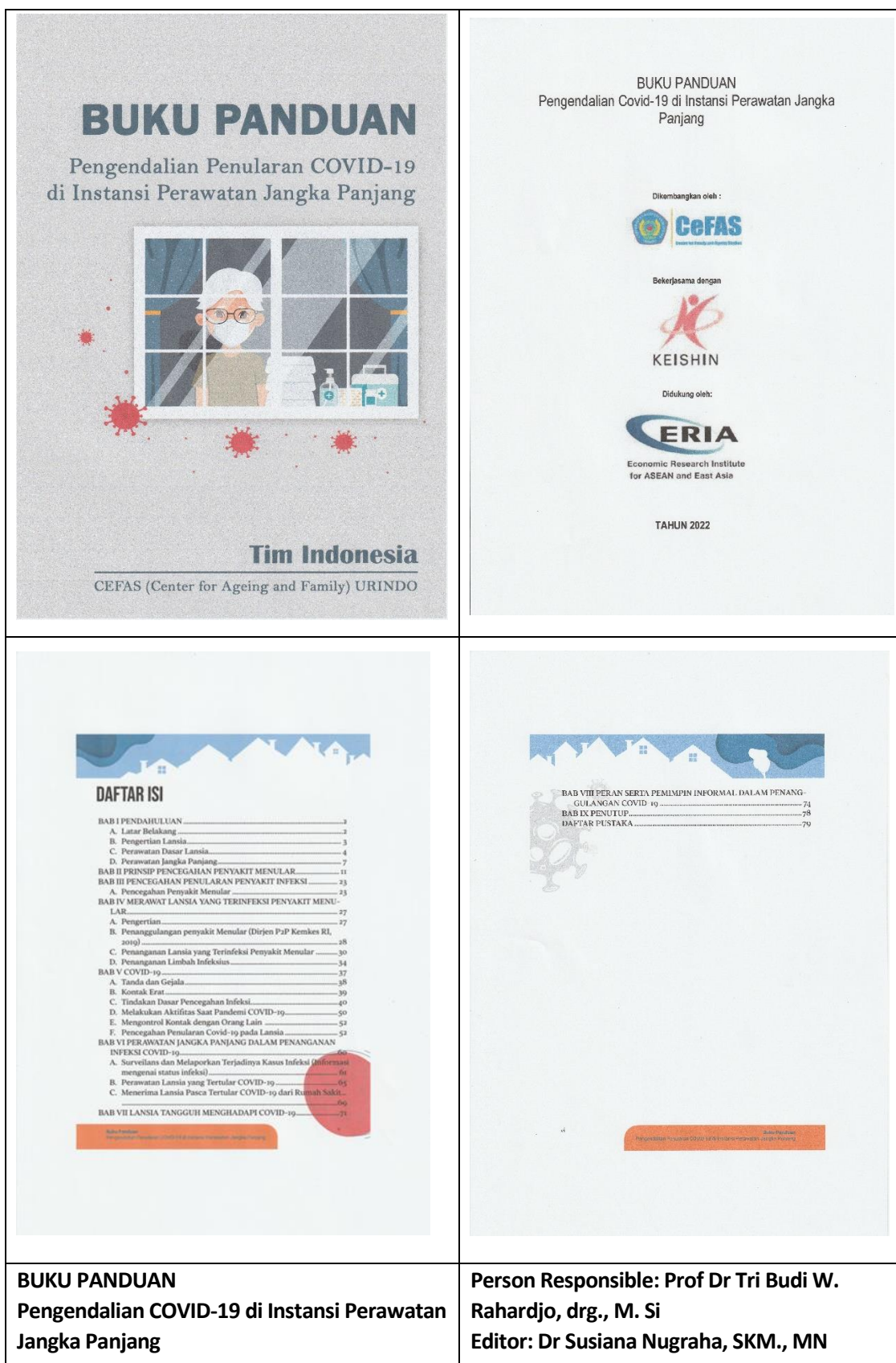Source: Thai Health Promotion Foundation (2021).

Episode 5: describes the use of an antigen test kit test kit that provides accurate and safe results.

Figure A3.5. Guidelines for Using Antigen Test Kit (Clip VDO)

Source: Thai Health Promotion Foundation (2021).

Figure A3.6. Training Module of Infection Prevention

| BUKU PANDUAN Pengendalian COVID-19 di Instansi Perawatan Jangka Panjang | Person Responsible: Prof Dr Tri Budi W. Rahardjo, drg., M. Si Editor: Dr Susiana Nugraha, SKM., MN |

Source: Center for Aging and Family, University of Respati, Indonesia, 2021.

Book Title: Guidelines for COVID-19 Control in Long-term Care Institutions (English translation)

Book description:

This book was developed in 2020–2021 during the COVID-19 pandemic based on the results of research conducted by the Center for Ageing and Family team. The book covers various aspects of long-term care, including efforts to prevent the spread of infectious diseases, especially in the elderly. With the publication of this book, it is hoped that it can become a reference in making efforts to prevent infectious diseases, especially COVID-19.

The book consists of:

- Background and the concept of long-term care
- Principles of infectious diseases prevention
- Prevention of infectious diseases transmission
- Caring for elderly infected with infectious diseases
- The COVID-19 pandemic and its impact on the health of the elderly
- Management of COVID-19 transmission prevention in long-term care institutions
- The resilience of the elderly in the face of the COVID-19 pandemic
- The role of informal leaders in tackling COVID-19