

JICA's Initiative for Global Health and Medicine Interim Report

The Two-year Response to COVID-19 and Future Prospects



Version as of September 2022
Japan International Cooperation Agency (JICA)
Human Development Department

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Preface

This paper summarizes how JICA has been cooperating with low- and middle-income countries (LMICs) to combat the coronavirus disease 2019 (COVID-19) since January 2020, when the World Health Organization declared COVID-19 a "Public Health Emergency of International Concern." The paper highlights the main accomplishments and good practices of "JICA's Initiative for Global Health and Medicine," among the other advances achieved.

Humankind has been threatened by a variety of infectious diseases throughout history. Examples from earlier centuries include the plague, cholera, and the outbreak of the Spanish flu in 1918. Diseases such as SARS, H1N1 influenza, and MERS have become global threats even in the present century, though none have matched the scale of COVID-19. In just weeks to months after it was detected at the beginning of 2020, COVID-19 evolved into a historic event that not only threatened human lives and health on an unprecedented scale, but also had massive social and economic impacts.

Chapter 1 of this paper looks back at JICA's cooperation during the chaotic period following the outbreak of the COVID-19 epidemic in the first half of 2020. While much of Japan's attention was focused on the response to confirmed infections that broke out on a cruise ship docked in Yokohama, JICA was quick to start providing infection control equipment and supplies to LMICs threatened by COVID-19 through its ongoing cooperation projects. The core medical and research institutions in the countries with which JICA shared longstanding histories of cooperation played an extremely important role in the initial response to the spread of infections. Case examples of these responses have been included in this chapter.

Chapter 2 gives an overview of "JICA's Initiative for Global Health and Medicine" by summarizing the main accomplishments of the initiative and providing examples of projects that have been undertaken. JICA launched the initiative in July 2020, several months into the COVID-19 pandemic, with the goal of protecting people's lives and health through the three focus areas of prevention, precaution, and treatment. By January 2021, the total number of reported cases worldwide exceeded 100 million, and the first deliveries of COVID-19 vaccines were reaching LMICs through COVAX. Alongside the various forms of emergency assistance it has been providing, JICA has also been expanding cooperation with LMICs by sharing Japan's experience and utilizing Japanese-pioneered technologies and services. This chapter presents some examples of that cooperation.

Chapter 3 summarizes the accomplishments achieved to date regarding the "COVID-19 Crisis Response Emergency Support Loans." The Japanese government launched the 500 billion yen emergency support loans in April 2020 to provide responsive financial support to LMICs affected

by the spread of COVID-19. This program was later expanded to 700 billion yen in January 2021, and JICA is in charge of implementing this financial support.

Finally, chapter 4 presents the direction of JICA's cooperation while bearing in mind the prevailing conditions in the post-COVID-19 world. In May 2022, the Japanese Government's Headquarters for Healthcare Policy announced a new "Global Health Strategy," an initiative to meet the crucial needs of the new era by strengthening a global health architecture to better prepare for the future pandemic and by working to achieve equitable, resilient, and sustainable Universal Health Coverage (UHC). This final chapter discusses the synergy between Japan's new strategy and the JICA Initiative for Global Health and Medicine, as well as the general future direction of cooperation.

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Figure 1. COVID-19 Infection Trends in Japan and the World, and JICA's Response

Major World Event	JICA's Response
2020	
<p>January 6: Ministry of Health, Labor and Welfare issues alert that a pneumonia of unknown cause occurred in Wuhan, China</p> <p>January 30th: WHO declares COVID-19 a "Public Health Emergency of International Concern" Novel Coronavirus Response Headquarters established as part of the Prime Minister's Office</p> <p>February 3: Cruise ship carrying confirmed infected passengers docks in Yokohama February 11: WHO names the disease "COVID-19"</p> <p>March 11: WHO declares COVID-19 a pandemic</p> <p>April: WHO and others lead the launch of an ACT Accelerator</p> <p>April 7th: Japan declares state of emergency for the first time</p>	<p>January onward: Began rapid provision of equipment and supplies through ongoing projects (began on January 13 with the delivery of protective gowns, masks, etc. to Indonesia, followed by the provision/installation of equipment and supplies to other countries around the world)</p> <p>March: JICA personnel, including Japan Overseas Cooperation Volunteers and experts, began evacuation and temporary return to their home countries</p> <p>April: Four challenges are identified as the general project direction for responding to COVID-19 and managing projects with future conditions in mind</p> <p>May: "To Our Friends and Partners Fighting against COVID-19 in Developing Countries" is published by the "Comparative and Practical Research on COVID-19 Measures" research group</p> <p>July: Outline of "JICA's Initiative for Global Health and Medicine" is developed (published in Nihon Keizai Shimbun) July onward: COVID-19 Crisis Response Emergency Support Loan program is launched L/A signed in the Philippines (followed by decision to provide financial support of 379.5 billion yen to 14 countries through March 2022)</p> <p>October: Human Development Department establishes the "Office for COVID-19 Response"</p>
2021	
<p>January 4: Pfizer-BioNTech vaccine is approved for emergency use</p> <p>January 27: COVID-19-infected people worldwide exceeds 100 million</p> <p>February onward: COVAX begins supplying vaccines to resource-limited countries Priority-based vaccination begins in Japan</p> <p>June 1: The Japanese Cabinet approves "Strategy for Strengthening Vaccine Development and Production Systems" June 3: COVAX Vaccine Summit 2021 is held (co-organized by Japan and Gavi)</p> <p>September 24th: First COVID-19 Summit is held</p> <p>December 24th: Merck & Co. Receives special approval from MHLW for an oral therapeutic drug</p>	<p>January onward: Webinar series is launched to share Japan's COVID-19 experience (10 webinars with over 4,000 participants from more than 110 countries)</p> <p>April onward: Rapid cooperation via technical cooperation projects (COVID-19 countermeasures) begins</p> <p>June onward: Decision is made to implement grant aid in the form of "Last One Mile Support" with agreements signed with seven countries/regions, beginning with Palestine July onward: Project launched to strengthen intensive care capacity using remote technology amid the spread of COVID-19 (R/D signed and exchanged with Tonga and Palau)</p> <p>November onward: Development policy loans (DPL) begin to support vaccine procurement, vaccination, etc. (Bangladesh COVID-19 Crisis Response Emergency Support Loan, Phase 2: Signed L/A on 11/24)</p>
2022	
<p>April 8: COVAX Vaccine Summit 2022 is held (co-organized by Germany, Gavi, etc.) April 12: Total number of people infected worldwide exceeds 500 million</p> <p>May 13th: Second COVID-19 Summit is held May 24: Japan government's Headquarters for Healthcare Policy establishes a "Global Health Strategy"</p>	<p>April: Loan agreement is signed for COVID-19 response support projects, including vaccine production in Africa (overseas investment and financing)</p>

Figure 2: JICA's COVID-19 Response at a Glance

[Pillar 1] Strengthening Treatment and Diagnostic Systems:

- ✓ **Around 200 million people in 22 countries** presumably benefited from hospitals built or expanded through financial cooperation (*1)

(*1: Hospital catchment population or resident population of a municipality where a hospital(s) is established or expanded through ODA loans (6 projects) or grant aid (23 projects) from April 2020 to June 2022)

- ✓ **Over 2,500 health workers in 11 countries** have had online training on COVID-19 intensive care (*2)

(*2: Total number of doctors and nurses who work in intensive care for COVID-19 patients and have received online training supported by JICA on intensive care from May 2021 to June 2022)

[Pillar 2] Enhancing Infectious Disease Research and Alert Systems:

- ✓ **80% of PCR tests in Ghana** processed at NMIMR (*3)

(*3: Since the foundation of the Noguchi Memorial Institute for Medical Research (NMIMR) as a core testing and research institute, JICA has continued to cooperate with NMIMR to improve its infrastructure as well as human resources for more than 40 years. During the peak period between March and June 2020, NMIMR processed 80% of all PCR tests conducted in Ghana.)

- ✓ **There are over 400 accredited COVID-19 testing facilities** starting from 4 agencies in Vietnam (*4)

(*4: The National Institute of Hygiene and Epidemiology (NIHE), with support from JICA, strengthened its infrastructure including a BSL-3 laboratory as well as its human resources. Since then, the NIHE has played a central role in expanding the nationwide COVID-19 laboratory network (contributing to the increase in the number of accredited COVID-19 testing agencies from only 4 to 403 between February 2020 and June 2022.)

[Pillar 3] Promoting Infectious Disease Prevention:

- ✓ **Infection prevention and preparedness strengthened in 64 countries** through the provision of infectious disease protection supplies, etc. (*5)

(*5: The number of countries where supplies and equipment for COVID-19 prevention and control have been provided through JICA's technical cooperation or other forms of cooperation from the early stages of the pandemic in 2020 to March 2022)

- ✓ **Around 300 million people in 61 countries** targeted by JICA's handwashing campaign (*6)

(*6: Estimated number of people targeted by the "JICA Handwashing for Health and Life Campaign" through activities raising awareness surrounding washing one's hands from September 2020 to March 2022)

Chapter 1: Major Responses Immediately Following the Outbreak of COVID-19 (from January 2020)

(1) Rapid response through ongoing projects and programs

JICA decided to repatriate most of its overseas personnel, including experts and Japan Overseas Cooperation Volunteers in the field, in March 2020, in response to the WHO's declaration of the COVID-19 pandemic. Meanwhile, resource-limited low- and middle-income countries (LMICs) faced several challenges, including an urgent need to secure COVID-19 supplies and equipment, particularly in the medical field, in order to prepare for the impending COVID-19 pandemic. To respond to the need for assistance among country partners, JICA quickly procured and provided essential equipment and supplies such as personal protective equipment (PPE), PCR test kits and reagents, PCR testing equipment, and treatment apparatus such as ventilators and oxygen concentrators.

JICA's emergency provision of equipment and supplies to LMICs to support the COVID-19 responses of country partners (January 2020–March 2022) (*1)

- Total assistance: 3,968 million yen
- Countries covered: 66 (251 projects/packages)

*1 : This type of support was mainly provided through ongoing technical cooperation projects.

As Myanmar faced difficulties in diagnosing COVID-19 at the beginning of February 2020, specimens were sent to a research institution in neighboring Thailand for testing. At the request of the National Health Laboratory (NHL) in Myanmar, JICA provided reagents (for 20,000 tests) and other items required for testing from February to March 2020. JICA also worked with Japanese institutions such as the National Institute of Infectious Diseases, the National Center for Global Health and Medicine, and Juntendo University to set up a PCR diagnosis system at NHL. These materials and equipment played an important role in the diagnosis of the first COVID-19-positive patient in Myanmar, on March 23, 2020, a case that gained wide coverage in the Myanmar press as a result of rapid bilateral cooperation.

In ensuing months, JICA helped to further strengthen the testing system by providing additional PCR test kits and reagents in order to meet the increased demand for testing. To address the limited infection prevention and control training opportunities for medical workers in rural areas, experts dispatched by JICA took the lead in working with NHL doctors and staff to produce an instructional video in Burmese, the local language, on how to properly put on and take off PPE, and how to safely take specimens from



Photo of RT-PCR testing reagents (for 50,000 tests) being delivered (December 2020)

patients. The instructional video is being used in various locations to prevent COVID-19 infections and will be used in the future if other infections emerge.

(2) Responses by JICA's partner institutions in LMICs

To prevent the spread of infectious diseases, it is critical to have public health institutes capable of diagnosing patients quickly and accurately. Referral hospitals capable of safely accepting and treating large numbers of patients are also crucial. The Noguchi Memorial Institute for Medical Research (NMIMR) in Ghana and the Kenya Medical Research Institute (KEMRI), two institutions whose capabilities have been strengthened through longstanding cooperation from JICA, have played central roles in establishing and expanding PCR testing in their countries since the COVID-19 epidemic began in early 2020. Cho Ray Hospital, a referral hospital in southern Vietnam with which JICA has a longstanding cooperation, was Vietnam's first hospital to accept critically ill patients and provide technical guidance on treatment and infection prevention and control (IPC) measures to other hospitals. These activities contributed greatly to Vietnam's initial containment of the infection.

① Case of the Noguchi Memorial Institute for Medical Research (NMIMR)

Starting from the foundation of NMIMR Ghana in 1979, the Japanese government and JICA have provided cooperation for capacity development through technical cooperation projects staged in 8 phases and through cooperation for facility and equipment establishment and expansion through 4 four-time grant aid projects. NMIMR carried out some 80% of the total PCR tests for COVID-19 performed for Ghana during the peak period (March to June 2020; 20,000 tests per week), with technical personnel trained through the cooperation in the past working in shifts and around-the-clock. NMIMR also engaged in educational activities through TV broadcasts aimed at raising the awareness of the public. In collaboration with JICA, moreover, the institute played a leadership role in training not only in Ghana, but also internationally by inviting laboratory technicians from 11 neighboring countries in West Africa.



Training at the NMIMR in Ghana to strengthen the infectious disease control capacity of West African states.

② Case of Kenya Medical Research Institute (KEMRI)

JICA has maintained a longstanding history of cooperation with KEMRI since the institute was established in 1979. Among its more recent COVID-19 measures, JICA was the first to provide equipment and supplies such as PCR test kits, which were difficult for Kenya to procure at the time. KEMRI had performed testing on roughly 680,000 specimens, or more than half of all tests performed in Kenya, as of March 2021, and has demonstrated its capabilities as a core center for infectious disease testing and research.

KEMRI has also helped to strengthen the testing capacity in Eastern Africa by training testing personnel from neighboring African countries and by performing performance assessments on test kits entrusted by the Africa Centres for Disease Control and Prevention (Africa CDC) for use in Africa.

(3) Case of referral hospitals in Vietnam

JICA's cooperation has helped to build and expand 23 hospitals in Vietnam to date, including three public referral hospitals: Bach Mai Hospital in the north, Hue Central Hospital in the central region, and Cho Ray Hospital in the south. Through technical cooperation, JICA also prepared manuals on IPC and distributed them to Cho Ray Hospital and the public hospitals in Vietnam's 25 southern provinces for training programs. Cho Ray Hospital, the hospital to receive Vietnam's first COVID-19 patient, has since treated many COVID-19 patients and continues to provide regular medical services while taking adequate precautions against in-hospital infections. In addition to providing treatment and diagnostic equipment to not only Cho Ray Hospital, but also Bach Mai Hospital and Hue Central Hospital, JICA has supported to train over 700 medical professionals from many hospitals on ventilator use, ventilator-associated pneumonia (VAP) management, medical equipment maintenance, and other procedures and issues.

JICA's longstanding history of cooperation in constructing medical infrastructure and developing professional staff in Vietnam has been used effectively in the diagnosis and treatment of COVID-19 patients at all of Vietnam's major hospitals, and has thereby contributed to the rapid response and successful control in the early stages of the pandemic.

Chapter 2: Progress and Major Achievements of JICA's Initiative for Global Health and Medicine (since July 2020)

(1) Overview of Japan's and JICA's cooperation for COVID-19 response in 2020 and 2021

Fueled in part by globalization, the rapid spread of COVID-19 around the world has endangered the lives and health of all people and will have lasting impacts on future generations due to the resulting economic stagnation, impoverishment of people, and loss of educational opportunities for children. The impacts to date have been particularly severe in LMICs due to their vulnerable health systems and delays in the provision of public health services such as vaccine rollouts.

Under these circumstances, Japan provided a total of US\$6.8 billion in COVID-19-related assistance in the 2-year period of 2020 and 2021. This amount, as shown in Figure 1, was the second highest among OECD member countries (*1).

In the same period, JICA implemented technical cooperation activities and resources equivalent to a total of 3.56 billion yen in 54 countries for COVID-19 control, in addition to various COVID-19-related supports worth a total of 4.21 billion yen in 57 countries. JICA provided a total of 652.9 billion yen (amount approved) in ODA loans to 23 countries as COVID-19-related assistance (*2). Meanwhile, JICA-provided grant aid resources have included, for example, cold chain equipment for COVID-19 vaccine deployment to 7 countries and regions (G/A signed in FY2021; total amount of approximately 4 billion yen) (*3), and equipment and supplies for infection prevention and testing/diagnosis at airports, border control facilities, and surrounding medical facilities to Thailand (G/A signed in FY2022; total amount of approximately 500 million yen) and other countries.

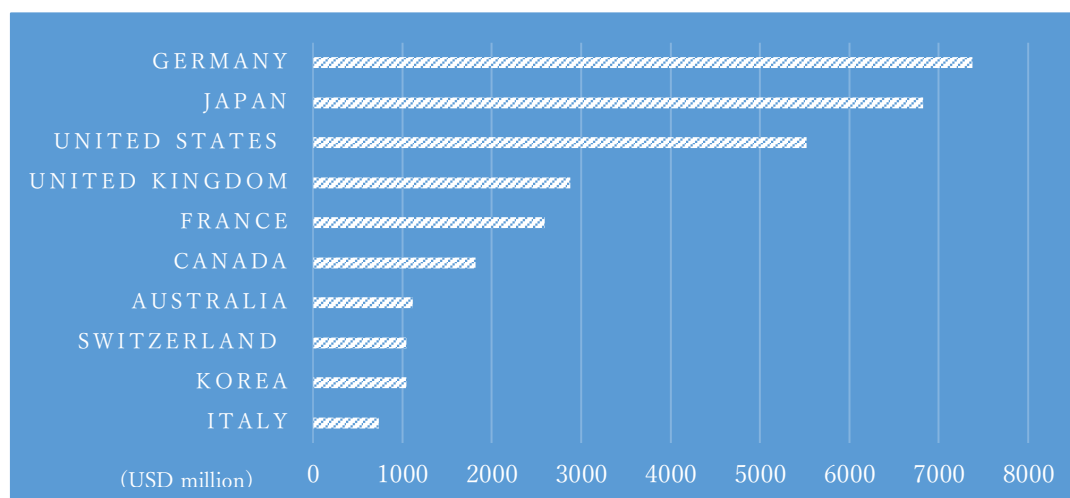
*1 : DAC member's Support for COVID-19 Related Activities (p.13, Table 3b: ODA Levels in 2021 Preliminary data, OECD, 12 April 2022)

<https://www.oecd.org/dac/financing-sustainable-development/development-finance-standards/ODA-2021-summary.pdf>

*2 : All of them are classified as COVID-19-related support, including Private Sector Investment Finance (31.5 billion yen).

*3 : Target countries for grant aid under the "Last One Mile Support" program to support vaccine deployment: Ghana, Senegal, Malawi, Mozambique, Palestine, the Philippines, and Mongolia

Figure: Contributions by OECD countries through ODA as COVID-19-related support, 2020 and 2021
Source: OECD data in *1 above.



(2) Major achievements of JICA's Initiative for Global Health and Medicine

While quickly responding to the needs of LMIC partners as described in Chapter 1, JICA launched the "JICA's Initiative for Global Health and Medicine" in July 2020 to mobilize more comprehensive support.

JICA's Initiative for Global Health and Medicine aims to strengthen health systems of LMICs over the medium to long term based on the three pillars of "prevention," "precaution," and "treatment." By utilizing the network of key partners it has built up through years of cooperation and expanding its network of new partners, JICA provides expert cooperation from Japan while promoting a multi-sectoral approach for resilient UHC. In its search for new ways to contribute to global efforts to combat COVID-19 using Japanese technologies, JICA actively engages with Japanese private sector partners such as pharmaceutical companies.

[Pillar 1] Strengthening systems for treatment and case management

To help establish high-quality health and medical systems that anyone can access at ease, JICA is working to develop facilities for referral hospitals in LMICs and to train local healthcare personnel using the networks of referral hospitals it has developed both in and outside Japan through years of cooperation. In addition to general case management (diagnosis, treatment, and care) to prevent serious illness and death due to COVID-19, JICA is working to enhance the critical care capacities of LMICs through the use of telemedicine technology.

① Establishment and expansion of referral hospitals

JICA intends to newly build or expand the capacity of about 100 hospitals and strengthen the healthcare delivery system by training health professionals. As of June 2022, there were 189

capacity-enhanced hospitals in 43 countries either newly built, expanded, or committed for building/expansion (see the box below).

Strengthening systems for treatment and case management

▪ Cooperation has been implemented or approved for 189 hospitals in 43 countries (as of June 2022).

ODA Loans: 38 hospitals have been completed or cooperation has been agreed upon (since FY2020)

Grant aid: 54 hospitals have been completed or cooperation has been agreed upon (since FY2020)

Technical cooperation: 97 hospitals have been completed or cooperation has been agreed upon (since FY2020) (*1)

*1 : Hospitals that received additional support through technical cooperation since FY2020 are included, out of the hospitals developed through JICA financial support in the past. Hospitals supported by the Technical Cooperation Project for Remote ICU, and through the newly approved COVID-19 technical cooperation projects, are also included.

Hospital beds became scarce in many countries, including Japan, with the spread of COVID-19. When El Salvador declared a state of national emergency in March 2020 in response to the spread of the infection, for example, ICU bed utilization exceeded 80% at the country's five major public hospitals. Upon an official request for assistance from the government of El Salvador, JICA agreed to release a Post-disaster Stand-by Loan (*2) to support the rapid development of the El Salvador Hospital. The facility opened in late June of the same year as a hospital specialized in COVID-19 treatment with 1,000 beds, including 104 ICU beds. Infection-confirmed cases have been transported to the facility from around the country, including patients with serious illness (11,565 total patients admitted from July 2020 to December 2021).



Mongolia-Japan Teaching
Hospital opening ceremony

JICA has been engaged in a technical cooperation in the

Mongolia-Japan Teaching Hospital, a facility constructed as Mongolia's first teaching hospital through Japanese grant aid, to enable the provision of high-quality medical services. An Infection Prevention and Control (IPC) department has been established in the hospital, and an infection control team makes rounds in the hospital to ensure IPC measures are properly conducted. The hospital's IPC activities have set a good example for other hospitals to follow in preventing COVID-19 clusters in hospitals.



ICU beds at an El Salvador Hospital

In India, JICA has been supporting the new All India Institute of Medical Science (AIIMS) in the Madurai district of Tamil Nadu to enhance high-end medical services and improve resources for health through ODA loans (*4). Regarding the training of medical professionals, JICA has been collaborating with Kagawa University of Japan to provide training focused on improved hospital management and cancer management to candidate faculty members who may be assigned to the AIIMS Madurai (the 1st training course was conducted online from January to March, 2022).

*2 : In May 2016, a Post-disaster Stand-by Loan (up to 5 billion yen) was signed with the government of El Salvador with the goal of facilitating rapid post-disaster recovery by ensuring that financial needs were met in the post-disaster period.

*3 : A grant aid project entitled the "Project for Construction of the Mongolia-Japan Teaching Hospital" was implemented (grant agreement for roughly 8 billion yen signed in May 2015). The hospital was completed in 2019 and began outpatient services in October of the same year.

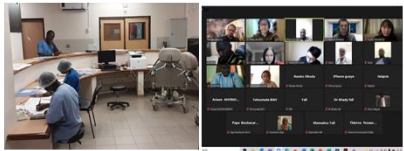



*4 : ODA Loan Project for Setting up the All-India Institute of Medical Sciences Madurai (L/A: March 2021, Amount: JPY22,788 million)

② Remote ICU support via DX (Digital Transformation)

JICA has provided telemedicine technology cooperation to 12 countries (*5) in the Asia Pacific region, Africa, and Latin America to support safer and more effective case management. The cooperation activities have included the provision of online training, advice, and guidance on intensive care by connecting intensive care specialists in Japan with doctors, nurses, and other specialists in the partner countries through a communication system. Support for the improvement of ICU facilities (containers/pre-fabs) and equipment has also been provided.

Japanese intensive care specialists have provided online training and advice to local medical personnel. In total, 2,586 people have received the training as of July 7, 2022. Despite the challenges posed by the global supply shortage of essential parts and disruptions in logistics networks, support for ICU facilities and equipment is progressing, as well.

*5 : Indonesia, Tonga, Palau, Fiji, Bangladesh, Kenya, Senegal, Mozambique, Mexico, El Salvador, Bolivia, Guatemala

1. Online Training	➤	2. Core Conferences	➤	3. Scheduled Care
 <p>ICU / Online Doctor Training (Senegal)</p>		 <p>Specialists working in the central command center (El Salvador)</p>		 <p>Scheduled Care (Indonesia)</p>
				 <p>ICU Medical Container (Mexico)</p>

③ Emergency support during the surge in infections

COVID-19 spread rapidly in India after March 2021 (second wave), resulting in a shortage of medical oxygen. To address this situation, JICA procured 300 Japanese-made oxygen concentrators and airlifted them to India as emergency relief supplies in May 2021. The oxygen

concentrators were distributed to hospitals in Tamil Nadu and are now being used for COVID-19 dedicated beds.

The rapid spread of COVID-19 in Indonesia and the especially high infection rates around the Jakarta metropolitan area beginning from late June of 2021 prompted the Indonesian government to issue an urgent request for medical oxygen and other therapeutic equipment. JICA procured 400 oxygen concentrators, and a first batch of 200 units was airlifted and delivered to a designated local warehouse at the end of August. Following that, JICA experts worked with the Indonesian Ministry of Health to hold online seminars on the proper use, operation, and maintenance of equipment. JICA makes maximum efforts to pursue an integrated approach that combines equipment provision with capacity building via technical cooperation even during surge responses.



Oxygen concentrators provided through Japan's support in use at an Indian public hospital

Based on these experiences, JICA instituted an arrangement for rapid medical equipment procurement for emergencies.

[Pillar 2] Enhancing systems for timely identification and diagnosis

To prevent the spread of COVID-19 and contribute to future health emergency preparedness, JICA has been training specialists and expanding and upgrading major public health institutes by leveraging the network of partner institutions it has been building up to date through its cooperation activities. And by strengthening the systems for COVID-19 testing and diagnosis, JICA is promoting the early detection of cases and strengthening disease control measures at borders.

Enhancing systems for timely identification and diagnosis

- **Cooperation has been implemented or approved for 49 public health institutes (research institutes/laboratories) in 29 countries (as of June 2022)**

Grant aid: Construction has been completed or agreed upon (FY2020 onwards) at 19 sites

Technical cooperation: Cooperation has been completed or agreed upon (as of FY2020) at 30 sites (*1).

*1 : Public health institutes that received additional support through technical cooperation since FY2020 are included, out of the institutes developed through JICA's financial support in the past. Institutes supported under newly approved COVID-19 technical cooperation projects are also included.

① Establishment of core infectious disease research institutes

As a research hub for infectious diseases, the National Institute of Hygiene and Epidemiology (NIHE) is leading the way in building and expanding Vietnam's COVID-19 testing network. Through technical cooperation, JICA has also provided training and technical assistance to

prefectural disease control centers as designated testing institutions under NIHE. These supports have helped increase the number of COVID-19 testing and certification organizations in the country from 4 in February 2020 to 403 as of June 2022.

Vietnam was one of the first countries in the world to successfully culture and isolate the COVID-19 virus at a BSL 3 (Bio Safety Level 3) laboratory developed through previous JICA

cooperation, thereby making nationwide testing possible. NIHE also collaborates with Nagasaki University in Japan to develop antibody test kits and prepare testing guidelines. Japan's longstanding support to Vietnam for infectious disease research and the strengthening of its testing systems has contributed to the success of Vietnam's recent COVID-19 measures.



Formal handover of PCR test reagents (NIHE)

② ASEAN (Association of Southeast Asian Nations) Centre for Public Health Emergencies and Emerging Diseases

The establishment of the ASEAN Centre for Public Health Emergencies and Emerging Diseases, an organization intended to strengthen the ASEAN region's capacity to combat infectious diseases, was announced at the ASEAN-Japan Summit in 2020, and the Japanese government expressed its full support for the initiative. Since the establishment of the center, JICA has sought to further strengthen the ASEAN region's capacity to control infectious diseases by holding two training sessions (the first in October 2021 and the second in February 2022).

These two training sessions were attended by public health officials from nine ASEAN countries along with ASEAN Secretariat staff, with 23 participants completing the training. Specialized organizations contributed to the sessions by hosting online lectures and workshops. Contributing organizations from Japan have included the Ministry of Health, Labour, and Welfare (MHLW), the National Institute of Infectious Diseases (NIID), the National Center for Global Health and Medicine (NCGM), Tohoku University, etc. Contributors from outside of Japan have included the World Health Organization (WHO)/Western Pacific Regional Office (WPRO), the United States Centers for Disease Control and Prevention (USCDC), Africa CDC, and others.

③ Performance evaluation of an innovative diagnostics in Brazil through industry-government-academia collaboration

A performance evaluation of an innovative diagnostics based on a nucleic acid amplification method (loop-mediated isothermal amplification, or the LAMP method) developed by Eiken Chemical Co., Ltd. was conducted as part of an ongoing technical cooperation between the State University of Campinas in Brazil, Chiba University from Japan, and Eiken Chemical. The evaluation took three months to prepare and about ten months to complete. The results revealed that the new method's sensitivity and specificity were comparable to the conventional RT-PCR. This industry-government-academia collaboration demonstrated that the LAMP method can

detect the coronavirus faster, and with the same accuracy in Brazil as in Japan, despite their different environments. The evaluation was performed aiming at obtaining regulatory approval for the use of the LAMP method in Brazil in the near future.

[Pillar 3] Promoting prevention and public health interventions

In coordination with global efforts such as COVAX for vaccine distribution, JICA is extending cooperation for equitable deployment of COVID-19 vaccines in LMICs. JICA is also working to mainstream public health interventions through areas such as water and sanitation, nutrition, education, urban planning, and other social services.

① "Last One Mile Support" for vaccine deployment

As COVID-19 continued to spread around the world, JICA took rapid action to help LMICs establish systems for safe and effective vaccination. Since June 2021, JICA has been cooperating with Palestine, Malawi, Mozambique, Mongolia, the Philippines, Ghana, and Senegal under the Japanese government's umbrella program for Last One Mile Support. These activities are aimed at strengthening the cold chain networks in those countries and regions. The lead times for procurement were drastically shortened to respond to the immediate needs of the recipients.

② Application of Japanese technology for vaccine delivery

JICA procured and delivered 15 Japanese-made vaccine carriers to East Timor in June 2020. Manufactured by Twinbird Corporation, this small, portable vaccine carrier uses environmentally friendly natural helium gas and features excellent cooling and precise temperature control capabilities. The carrier is also vibration resistant and can be powered by automobile lighter sockets (for cigarettes), making it ideal for use in remote areas with rough roads.



Personnel in East Timor use a Japanese-made vaccine carrier provided to the country

Medical care providers in Japan currently use the same carrier to store and transport COVID-19 vaccines. The same product was provided to Mozambique in April 2022.

③ Reaching the hard to reach, leaving no one behind

The Japanese government and JICA have been supporting vaccinations and cold chain equipment throughout Vietnam. JICA has also prepared awareness-raising materials in Lao and Khmer languages for Vietnam's Ministry of Health to promote prevention and reporting of infections for the provinces bordering Laos and Cambodia. JICA also prepared audio disks in the languages of different



Woman from an ethnic minority group gets vaccinated

ethnic groups used in Lai Chau Province, which borders China, and distributed them to local governments to ensure that any ethnic minorities who were unable to read could receive accurate vaccination information and messages encouraging them to visit vaccination sites. JICA also provided necessary equipment and supplies for safe vaccination (non-contact thermometers, hand sanitizers, etc.) at the vaccination sites, along with training for medical personnel.

④ Strengthening Africa's healthcare industry, including vaccine manufacturers

JICA signed an agreement with the African Export-Import Bank (Afrexim) in March 2022 for a loan of up to US\$200 million as Private Sector Investment and Finance to support the COVID-19 response in Africa.

Co-financed with Japanese private financial institutions, this JICA loan extended through Afrexim will be used to strengthen regional manufacturing and supply capacity for medical supplies and pharmaceuticals, including vaccines. The funds are also available for use for hospitals and other healthcare-related facilities. This support is expected to contribute to stronger healthcare systems and a smoother recovery of socioeconomic activities from COVID-19 in Africa.

⑤ JICA Handwashing for Health and Life Campaign

JICA launched the "JICA Handwashing for Health and Life Campaign" (*2) in September 2020 as a measure to prevent the spread of COVID-19. As part of this campaign, handwashing and other sanitary practices were practiced at JICA project sites to prevent infection among affected populations. By incorporating handwashing facilities and hygiene awareness activities into a wide range of JICA projects in LMICs while additionally conducting awareness campaigns in the same countries, JICA has been contributing to the prevention of infectious diseases, the promotion of health, and public health improvement.

JICA conducted 296 campaign activities in 61 countries from September 2020 to March 2022, successfully communicating the importance of proper hand-washing to some 300 million people.



Palestinian children wash their hands with friends at school

*2 Visit the URL below for more information on the JICA Handwashing for Health and Life Campaign
https://www.jica.go.jp/english/our_work/thematic_issues/water/handwashing/index.html

(3) Rapid cooperation through newly approved technical cooperation projects

To deploy the supports needed in response to requests for urgent assistance from various countries challenged by the spread of COVID-19, JICA has been approving new technical cooperation

projects since 2021. To date, 34 new COVID-19 technical cooperation projects have been implemented in 30 countries to respond swiftly to the COVID-19 crisis. These projects have contributed to a variety of system enhancements, including the strengthening of hospitals, public health institutions, quarantine stations, and water and sanitation facilities.

In Panama, JICA provided genome sequencing equipment and supplies to strengthen the pathogen genomic research capacities of the country's top referral laboratory, the Gorgas Laboratory (in the capital), and several regional laboratories (in the western, central, and eastern states). Through cooperation from JICA and other entities, the Gorgas Laboratory is now capable of handling samples from not only within Panama, but also other Caribbean countries such as Guatemala, Jamaica, and Bolivia.



Gorgas-JICA Genome Surveillance Laboratory, a Western laboratory facility established through JICA assistance

(4) COVID-19 webinar series to share Japan's experience

Starting from January 2021, JICA has been hosting an online webinar series to share Japan's experience in responding to the COVID-19 pandemic with a global audience. JICA invites Japan's leading experts to these events to share the most recent research and the knowledge and experience they have gained in the field.

Ten webinars have been held to date, reaching 4,091 participants from over 110 countries and regions (including Japan) on a cumulative basis. Many of the participants have been from JICA project counterpart health ministries, medical institutions, research institutes, and development partners, as well as collaborative organizations and universities in Japan.

The webinars have covered a wide range of topics, including nosocomial infections, public health measures, case management, predictive markers for severe disease, rapid antigen testing, health center responses, COVID-19 vaccines, international platforms for clinical research on therapeutics, and environmental water surveillance.

(5) Online training on health sector during the COVID-19 pandemic

JICA has provided online trainings on health sector for approximately 900 participants from FY2020 to FY2021. The trainings, which were conducted face-to-face in Japan before the pandemic, have been not only switched to online, but also made more practical by sharing the local actions taken by ex-trainees with their knowledge gained in Japan, which led to increase the training impact.

Chapter 3: COVID-19 Crisis Response Emergency Support Loans

Based on its Emergency Economic Measures to Cope with the COVID-19, the Japanese government launched a 500 billion yen series of "COVID-19 Crisis Response Emergency Support Loans" in April 2020 to provide financial support to LMICs affected by the spread of COVID-19. The program was later expanded to 700 billion yen in January 2021. This financial support promotes socioeconomic recovery, stability, and sustainable development in the recipient countries by facilitating COVID-19 control measures and supports to impoverished people, vulnerable groups, and small and medium enterprises. Some 477.8 billion yen in assistance to 17 countries has been approved as of the end of June 2022 (through 20 projects).

▪ COVID-19 Crisis Response Emergency Support Loans

Approved amount:

477.8 billion yen (April 2020–June 2022: 20 projects in 17 countries (*1))

▪ Loans from other COVID-19 crisis response programs, etc.

Approved amounts:

175.0 billion yen (*2). (April 2020–May 2022: 5 countries in total)

700 million USD (*3) (April 2020–May 2022: 3 countries in total)

*1 : In its supplementary budget, the Japanese government has committed to up to 700 billion yen in emergency support loan projects (primarily economic measures): 20 projects (Philippines (I, II), Indonesia, Bangladesh, India, Maldives, Mongolia, Cambodia (I, II), Mauritius, Fiji (I, II), Solomon Islands, PNG, Uzbekistan, Honduras, Jordan, Thailand, Bhutan, Cote d'Ivoire).

*2 : 175 billion yen: 30 billion yen (Myanmar), 50 billion yen (Philippines), 15 billion yen (Myanmar), 30 billion yen (India), 40 billion yen (Bangladesh), 10 billion yen (Nepal)

*3 : US\$700 million: US\$200 million (Morocco), US\$300 million (Turkey), US\$200 million (Dominican Republic)

ODA Loan to the Philippines

In April 2022, JICA and the Philippine government signed an ODA loan agreement with a ceiling of 30 billion yen as the "COVID-19 Crisis Response Emergency Support Loan (CCRESL Phase 2)." Through financial support co-financed by the Asian Development Bank (ADB), this project supports the Philippine government's emergency response to control the spread of COVID-19. The project is designed to provide financial support based on a policy matrix composed of four areas agreed upon with the Philippine government: (1) a national vaccination plan, (2) vaccine procurement and vaccination activities, (3) improvements in the vaccination environment, and (4) a strengthening of infectious disease laboratory networks.



ODA loan signing ceremony

Chapter 4: Preparing for the Post-COVID-19 World

It has been two and a half years since WHO declared COVID-19 a "public health emergency of international concern." Although a significant number of people are still testing positive on a daily basis in Japan and abroad, the world is coming to recognize that we will have to live with COVID-19 as an endemic disease. Our struggle with emerging/reemerging infectious diseases in human society, however, is far from over. As the world population approaches 8 billion and globalization accelerates, the risk of global pandemics has never been greater. COVID-19 has distanced people from health systems, which has hampered their ability to receive appropriate health services when needed. In this sense, the disease has negatively impacted the achievement of UHC.

Based on the lessons learned from combating COVID-19, the global community is now discussing the creation of a new international treaty and a financing mechanism to prepare for future pandemics, as well as frameworks to ensure equitable access to vaccines and other medicines.

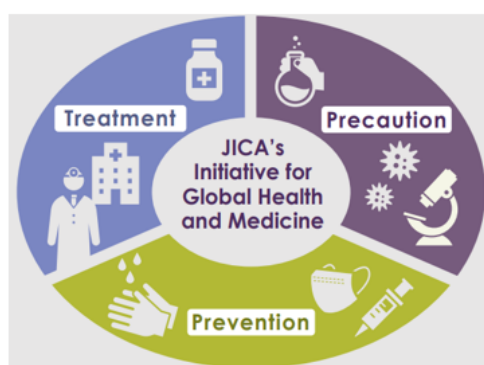
The government of Japan announced its new "Global Health Strategy" in May of this year, and discussions to clarify how to put the strategy into practice are currently underway. The Strategy focuses on two pillars: (1) contributing to the *strengthening of a global health architecture* that can prevent, prepare for, and respond to public health emergencies more effectively, and (2) *achievement of equitable, resilient and sustainable UHC* in countries.

In FY2021, JICA formulated the "JICA Global Agenda" (GA) (※), a set of strategies to address global development issues. The GA for Health aims at achieving resilient, equitable, and sustainable UHC through the implementation of JICA's Initiative for Global Health and Medicine, including the provision of continuum of quality care for mothers and children and the strengthening of sound health financing systems. The objective of the GA for Health is in line with the second pillar of the above-mentioned Japan's "Global Health Strategy."

※ JICA Global Agenda for Health can be viewed at the URL below.

https://www.jica.go.jp/english/our_work/thematic_issues/health/agenda.html

【 JICA's Initiative for Global Health and Medicine 】



【 Japan's Global Health Strategy 】



Going forward, JICA also aims to contribute more actively to the first pillar of the "Global Health Strategy" by supporting the networks of and the collective efforts by partner countries and institutions in areas such as financing for health emergencies, global information-sharing on infectious pathogens, and international cooperation in clinical research. To contribute to the second pillar of equitable, resilient, and sustainable UHC, JICA will continue on in the direction of the JICA Global Agenda. Development policy loans (DPLs) and technical cooperation will be applied in combination towards the strengthening of sound health financing systems.

JICA is dedicated to proactively promoting global health, including countermeasures against health emergencies such as COVID-19, in cooperation with various partners in and outside of Japan. The agency is ready to make further contributions to the creation of global systems that protect the health for all, at all times.

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