

Action Plan for Strengthening Measures on Emerging Infectious Diseases

～Japanese actions challenging continuous threats of infectious diseases～

February 9, 2016

Ministerial Meeting on Measures on Emerging Infectious Diseases

Index

| | |
|--|----|
| <u>I. Introduction</u> | 2 |
| <u>II. Basic Concept</u> | 5 |
| ○ Purpose of formulating the Action Plan | |
| ○ Summary of the Action Plan | |
| ○ Ideal shape for Japan | |
| <u>III. Prior [[see note on p. 7]] Projects (Measures)</u> | 8 |
| 1. Project for strengthening measures to tackle international infectious diseases in developing countries | |
| 2. Project for developing and dispatching human resources to take charge of measures to tackle international infectious diseases | |
| 3. Project for strengthening crisis management system of infectious diseases | |
| 4. Project for promoting research system of infectious diseases | |
| 5. Project for strengthening domestic ability to address infectious diseases | |
| <u>IV. Individual Sectorial Measures</u> | 20 |
| 1. Promoting international cooperation | |
| 2. Developing examination and research systems for high-risk pathogens involved in infectious diseases in Japan | |
| 3. Developing the foundation of Japanese human resources involved in measures to tackle infectious diseases taking an active role in the international community | |
| 4. Strengthening domestic measures on infection prevention and the safety measures for Japanese nationals overseas | |
| <u>V. Promotion of Measures based on this Action Plan</u> | 29 |
| <u>(Annex) Process Schedule Chart</u> | |

I. Introduction

The recent spread of Ebola Virus Disease in West Africa not only had a significant impact on people's daily lives and economic activities in the countries concerned but also had a major impact on and caused fear in the international community. There is a possibility that an emerging infectious disease just like this will occur also in the future.

Regarding Middle East Respiratory Syndrome (MERS), whose outbreaks have been confirmed mainly in countries in the Arabian Peninsula, this disease was spread in South Korea in May 2015; and spread in the developed countries. This has reminded Japan of the necessity of further strengthening national systems as our own challenges.

Based on various lessons learned from this issue in West Africa, and developments in the international community, the Government of Japan newly established a "Ministerial Meeting on Measures on Emerging Infectious Diseases" (Verbal understanding, in the cabinet meeting of September 11, 2015) (hereinafter referred to as "the Ministerial Meeting") which is presided over by the Prime Minister; and approved the "Basic Guidelines for Strengthening Measures on Emerging Infectious Diseases" (hereinafter referred as to "the Basic Guideline") in the Ministerial Meeting of September 11, 2015, in order to effectively and comprehensively promote measures to tackle emerging infectious diseases with the close cooperation and supervision of relevant administrative organizations. Also, the Headquarters for Healthcare Policy approved the "Basic Design for Peace and Health" on the same day.

Then, the "Team for Promoting Measures on Emerging Infectious Diseases" (approved by the Ministerial Meeting on Measures on Emerging Infectious Diseases on September 11, 2015) (hereinafter referred to as "the Promotion Team") which had been established under the Ministerial Meeting convened on October 22, 2015 to start the discussion for formulating an action plan. This was in accordance with the Basic Guideline that says "this Ministerial Meeting will formulate an action plan, including a process schedule chart, based on the Basic Guidelines in the future."

In addition, the "Sub-Team of Team for Promoting Measures on Emerging Infectious Diseases" (approved by the Team for Promoting Measures on Emerging Infectious Diseases on October 22, 2015) was established under the Promotion Team to discuss practical issues about cross-ministry important matters among relevant ministries and agencies. This sub-team has had under consideration such fields as promoting of international cooperation, the promotion of domestic examination and research systems, and the development and utilization of human resources, holding discussion in these areas while obtaining many pieces of advice from experts, private companies, and NGO/NPOs from technical and broad perspectives.

Moreover, regarding the worldwide spread of Antimicrobial Resistant (AMR) bacteria, the Global Action Plan for antimicrobial resistance was adopted in the assembly of World Health Organization (WHO) in May 2015; and this issue was picked up in the G7 Elmau Summit¹, held on June 7 and 8, 2015; and the further strengthening of measures to tackle antimicrobial resistance was required also at G7 Berlin Health Ministers' Meeting in October 2015. Therefore, in order to address internationally-spread infections with resistant microbial resistant bacteria under and with the cooperation of relevant ministries and agencies the "Antimicrobial Resistance Review Meeting" (approved by the head of Team for Promoting Measures on Emerging Infectious Diseases on December 24, 2015)² was established to formulate the action plan for promoting measures to tackle AMR and discussion for promoting these efforts in Japan.

Regarding Zika Virus Disease, that continues to spread in Latin America, WHO declared a "Public Health Emergency of International Concern (PHEIC)³" in the light of the frequent occurrence of microcephaly, on February 1, 2016. In response to the declaration, the Government of Japan established the "Relevant Ministries and Agencies Meeting on Measures on Zika Fever" (approved by the head of Team for Promoting Measures on Emerging Infectious Diseases on February 2, 2016 (Hereinafter referred to as "the Relevant Ministries and Agencies Meeting")) under the Promotion Team in order to comprehensively promote the measures while securing close cooperation among relevant ministries and agencies.

Further, various international discussions on global response against epidemic have proceeded. At the G7 Elmau Summit, which was held in June 2015, the goal that "we will coordinate to fight future epidemics" was included in the Leaders' declaration. Series of other meetings were held such as the "The United Nations summit for the adoption of the 2030 Agenda for Sustainable Development" (on September 25-27, 2015); "Side Event in the 70th Session of the United Nations General Assembly 'The Path towards Universal Health Coverage (UHC)'" (on September 28, 2015); the G7 Berlin Health Ministers' Meeting (on October 8 and 9, 2015); the 70th WB/IMF Joint Annual Discussion (on October 9, 2015); and the third WHO financial dialogue (on November 5 and 6, 2015).

On December 16th 2015, Japan hosted the international meeting on Universal Health Coverage (UHC)⁴, entitled "Universal Health Coverage in the New Development Era:

¹ Annex to the Leaders' Declaration also includes "Cooperative Efforts against Antimicrobial Resistance"

² Antimicrobial Resistance Review Meeting (http://www.kantei.go.jp/jp/singi/kokusai_kansen/)

³ Public Health Emergency of International Concern

⁴ Universal Health Coverage (UHC): This is the ability of all people worldwide to access and receive basic health services when they need it throughout their lifetimes at an affordable cost.

Towards Building Resilient and Sustainable Health Systems"⁵.

On December 12th, Japan expressed its commitment to continuously contribute to global health through the Ise-Shima Summit in May 2016, of which Japan is the host country in the article by Prime Minister Shinzo Abe in the Lancet titled "Japan's vision for a peaceful and healthier world"⁶.

Since the countries, international institutions, and NGOs which take local actions were not sufficiently coordinated in response to the current Ebola Virus Disease epidemic in West Africa, the effective collaboration between organizations which are necessary to respond to infectious disease crisis in the future or so-called Global Health Governance (GHG), has been internationally discussed at various opportunities⁷; and the report by the High-level Panel on the Global Response to Health Crisis of the UN is scheduled to be published soon.

"Combat HIV/AIDS, malaria and other diseases", which is one of the "Millennium Development Goals" (MDGs)⁸ adopted by the UN in 2000 showed significant improvement;⁹ and in the "2030 Agenda for Sustainable Development" (SDGs)¹⁰ adopted by the UN development summit in September 2015 includes a goal to "end the epidemics of AIDS, tuberculosis, malaria, and neglected tropical diseases (NTDs)¹¹ and combat hepatitis, water-borne diseases, and other communicable diseases by 2030".

Incidentally, "reduce child mortality by two thirds" which is one of the MDGs was not achieved and is now included in the new goals to SDGs as "end preventable deaths of

⁵ "Universal Health Coverage in the New Development Era: Towards Building Resilient and Sustainable Health Systems" was jointly hosted by Japan Center for International Exchange, the Ministry of Foreign Affairs, the Ministry of Finance, the Ministry of Health, Labour and Welfare, and JICA and held in Tokyo on December 16, 2015. About 300 people such as government officials, representatives of international institutions, and private experts, participated and held discussions.

⁶ The article by Prime Minister Shinzo Abe in the Lancet, "Japan's vision for a peaceful and healthier world" (Website of the Ministry of Health, Labour and Welfare) (<http://www.mhlw.go.jp/stf/houdou/0000106535.html>)

⁷ Reports were each published by the "Independent Panel on the Global Response to Ebola" in the London School of Hygiene and Tropical Medicine and Harvard Global Health Institute on November 22, 2015, and by the National Academy of Medicine on January 13, 2016.

⁸ Millennium Development Goals (MDGs): The Millennium Declaration adopted by the United Nations Millennium Summit held in New York in September 2000, and international development goals adopted in main international meetings or summits held in 1990s were integrated into this common framework, which was adopted in 2001. Eight goals to be achieved by 2015 are set with numerical targets: (i) Eradicate extreme poverty and hunger, (ii) Achieve universal primary education, (iii) Promote gender equality and empower women, (iv) Reduce child mortality, (v) Improve maternal health, (vi) Combat HIV/AIDS, malaria and other diseases, (vii) Ensure environmental sustainability, and (viii) Develop a global partnership for development.

⁹ It is estimated that infectious diseases of HIV/AIDS were reduced by about 40% in the world between 2000 and 2013, and that more than 6.2 million lives were saved from malaria in the world between 2000 and 2015.

¹⁰ International goals from 2016 to 2030 decided by UN as a successor of MDGs. Sustainable Development Goals (SDGs) consisting of 17 goals and 169 targets were newly formulated in order to address remaining issues of MDGs (e.g. health and education) and issues that newly became evident (e.g. environment and widening gaps). It was agreed in the UN General Assembly in September 2015.

¹¹ Neglected Tropical Diseases (NTD): WHO lists 17 diseases such as Dengue, leishmaniasis, Chagas disease, and schistosomiasis. (http://www.who.int/neglected_diseases/diseases/en/) The Hashimoto Initiative in G8 Denver Summit in 1997 led the world to realize them, and the importance of NTDs measures as was confirmed also in G7 Elmau Summit in 2015.

newborns and children by 2030"¹².

In December 2015, Satoshi Ōmura, Emeritus Professor at Kitasato University, was awarded the Nobel Prize for his discovery of raw materials of drugs for Onchocerciasis (River Blindness), which is a neglected tropical disease, and Lymphatic Filariasis (elephantiasis). His award reminded Japan that it should continuously make a persistent contribution to fields in which it enjoys a competitive advantage such as medicines as well as being the pride for Japan.

Based on the international trends as mentioned above, "Action Plan for Strengthening Measures on Emerging Infectious Diseases" (hereinafter referred to as "the Action Plan") has been compiled it aims to strengthen international cooperation and domestic measures, while leading international discussion as the Presidency for the G7 in 2016; and its comprehensive and effective promotion is being strongly carried forward under close cooperation among relevant administrative organizations.

II. Basic Concept

(Purpose of formulating the Action Plan)

In the light of lessons learned from the spread of Ebola Virus Disease in West Africa and the actions taken by developed countries and the international institutions, Japan lists the following basic directions for future measures:

- (1) Integrated promotion of international response to and domestic measures to tackle international infectious diseases
- (2) Strengthening of Japan's contribution and role in countries and regions where an international infectious disease has occurred
- (3) Strengthening of the crisis management system through improvement of the domestic capacity to address international infectious diseases

Based on these basic directions, priority matters to be strengthened in Japan are shown as follows:

- (i) Strengthening international cooperation and collection of overseas information
- (ii) Developing testing and research systems for high-risk pathogens involved in infectious diseases in Japan
- (iii) Ways to strengthen the foundation of Japanese human resources involved in measures to tackle infectious diseases who take an active role in the international community

¹² Regarding "reduce child mortality" which is one of MDGs, the under-five mortality rate (per 1,000 people) in the world was reduced by more than half from 90 people as of 1990 to 43 people in 2015. However, the goal to "reduce child mortality by two thirds" was not achieved.

- (iv) Strengthening domestic measures on infection prevention and the safety measures for Japanese nationals overseas

It is necessary to carry forward efforts on these priority matters to be strengthened in a concrete and steady manner under close cooperation among relevant administrative organizations in the future.

(Summary of the Action Plan)

In the Action Plan for Strengthening Measures on Emerging Infectious Diseases, the Government of Japan designates the coming five years as the planning period (by FY 2020) based on the Basic Guideline, presents an ideal shape for Japan, lists five prior [[NOTE: prior means 'first', priority' means 'main', also see p.1. Possibly 'main' or 'general' or 'overall' measures or you could say 'main or overall' measures. Another word for prior measures' is 'initiatives' that could be it]] projects (measures) and 67 individual sectorial measures, carries forward efforts based on these, and thereby ensures the people's security and safety while fulfilling its responsibility and role in the international community in a steady manner.

(The Goals Japan Aims At)

The Government of Japan lists the following four points in the light of international infectious diseases as the ideal shape for Japan, considering lessons from the spread of Ebola Virus Diseases in West Africa and cooperating with international institutions and relevant countries from the perspective of "Human Security"¹³ which Japan has insisted on at various opportunities, as well as leading a role in the international community, and promoting the measures listed in the Action Plan for their achievement.

- (a) The international community having a mechanism for the capacity to take prompt and effective actions through the cooperation of various international institutions in infectious disease crises

¹³ Human Security: Concept to focus on every single person, protect him/her from critical and pervasive threats to human lives, livelihood and dignity, and facilitate sustainable self-reliance and communities through protection and empowerment in order to develop human potential, under the situation where globalization had led issues such as poverty and infectious diseases to critically affect human life and livelihood across borders. In the international community, the Human Development Report 1994 of UNDP was the first to officially pick up the concept of Human Security. Then Prime Minister Mori declared that Japan made Human Security one of the pillars of its diplomacy. After that, former prime ministers proposed Human Security at various opportunities such as the World Economic Forum Annual Meeting (Davos), Japan-Pacific Islands Forum (PIF), and TICAD. Recently, Prime Minister Abe mentioned this at "The United Nations summit for the adoption of the 2030 Agenda for Sustainable Development", "Side Event in the 70th Session of the UN General Assembly "The Path towards UHC", and the "international meeting on UHC".

Considering lessons from the spread of Ebola Virus Diseases in West Africa, the Government of Japan will aim to furnish the international community with a mechanism in which affected countries, donor countries, and various international institutions such as WHO and UN organizations can organically coordinate with each other and take prompt and effective actions in cooperation with NGOs, so as to prevent, detect and contain infectious diseases at an early stage in the affected countries to stop the spread of infectious disease crises. [[Note: ‘a mechanism’ refers to a specific mechanism that is proposed that someone might ask about, ‘mechanisms’ is more general, so ‘ a mechanism’ would mean one identifiable real way of doing this, an identifiable proposal]]

- (b) A strengthened and developed international community to enable health system in developing countries to respond to infectious disease crisis

The Government of Japan will make an active and concrete contribution to help the strengthening health systems including a response to the spreading infections with resistant bacteria for developing countries having vulnerable basic health and medical service systems, in order to improve preparedness in ordinary times to appropriately respond to infectious disease crisis.

- (c) Asia-Pacific and Africa capable of appropriately responding to infectious disease crisis through Japan's leading efforts

Japan will promote the leading efforts specifically in Asia Pacific and make active contribution in Africa through TICAD VI¹⁴ regarding (a) the construction of a mechanism to respond to infectious disease crisis and (b) strengthening and development of health systems.

- (d) Japanese community with established systems related to measures to tackle infectious diseases

The Government of Japan will establish domestic systems such as health and medical service systems, examination and research systems related to infectious diseases, and the foundation of human resources to respond to infectious diseases, recognizing that measures to tackle infectious diseases are the important prerequisite for the realization of the Japanese growth strategy also with the

¹⁴ TICAD (Tokyo International Conference on African Development) is an international meeting for development in Africa the Government of Japan has led and jointly held with the United Nations / UNDP, the African Union Commission (AUC), and the World Bank. TICAD VI, the sixth meeting, will be held in 2016 in Africa for the first time.

perspective of Japan sufficiently playing a role in measures to tackle infectious diseases in the international community and the MERS economic effects¹⁵ in Korea.

III. Prior Projects (Measures)

Regarding the strengthening of measures to tackle emerging infectious diseases, the following five matters are positioned as prior projects, which are specific measures to be strategically carried forward under the coordination and cooperation of relevant administrative organizations, and relevant measures to be integrally and strongly promoted.

1. Project for strengthening measures on infectious diseases in developing countries

(1) Making a leading contribution to the construction of a new framework for global health governance

- The government will lead international discussion as the G7 Presidency in 2016 on desirable Global Health Governance to control infectious diseases, specifically, of the roles of international institutions and the mechanism for treatment related to future response to infectious disease crisis, in light of the response of international institutions to the spread of Ebola Virus Diseases in West Africa and reports of the UN High-level Panel; and support WHO reform for strengthening the command line in WHO for response to and preparation for public health emergencies.
- In doing so, the government will carry forward discussion and adjustment to compile guidelines on role divisions of international institutions according to the scale of

¹⁵ Economic loss due to the spread of Ebola Virus Diseases and MERS

- Economic loss due to spread of Ebola Virus Diseases in West Africa

| Unit: 1 billion US dollars | 2014 | 2015 | |
|----------------------------|-------------------------------|-------------------|--------------------|
| | | (Low expectation) | (High expectation) |
| Economic loss (※1) | 0.359 (GDP ratio 2.4%)(※2) | 0.129 | 0.815 |

- Economic loss due to outbreak and spread of MERS in South Korea

| | As of the end of July, 2015 |
|--------------------------------|---|
| Economic loss expectation (※3) | 9.3377 trillion won (※4) (GDP ratio 0.61%) (※2) |

(※1) The Economic Impact of the 2014 Ebola Epidemic: Short and Medium Term Estimates for Guinea, Liberia, and Sierra Leone. WORLD BANK, October 7, 2014

(※2) Estimation from World Economic Outlook Database, IMF, April, 2015

(※3) Korea Economic Institute "Estimation Report on Economic Loss from MERS" (June 2015)

(※4) About 995.4 billion yen (in July 30, 2015 rate)

○ If infectious diseases just like the one in Korea were to spread in Japan, which caused the economic loss to the same extent, the economic loss would be about 3 trillion yen (≒ Japanese GDP is about 489.6 trillion yen (※5) × 0.61%) according to rough estimation based on the above Korean economic loss.

(※5) Nominal GDP on the "System of National Accounts" (Cabinet Office) in TY 2014

infectious disease and the response capacity of affected countries; a coordination mechanism of international institutions, donor/developing countries, and NGOs to promptly and effectively deliver human resources/materials/funds to the field which requires support; measures for securing explanation responsibility and accountability; systems for facilitating research and development (R&D); and support measures for developing countries to strengthen health systems.

- The government will continue to play an active role so as to develop a concrete system to make an international response sufficiently function even after G7 Presidency, based on these fundamental concepts. 【The Cabinet Secretariat, the Ministry of Foreign Affairs, the Ministry of Finance, and the Ministry of Health, Labour and Welfare】

(2) Make contribution to the construction of expeditious finance mechanisms for emergencies through the joint efforts of the Contingency Fund for Emergency of WHO and the Pandemic Emergency Financing Facility (PEF) of the World Bank

- Regarding the "Contingency Fund for Emergency" (CFE)¹⁶ of WHO and "Pandemic Emergency Financing Facility" (PEF)¹⁷ of the World Bank which function as a finance mechanism in infectious disease crisis, the government will make active contribution to the WHO's strengthening of emergency responses through support to CFE and make an appropriate contribution as Japan to the launch of the PEF. In doing so, it is important to complementarily function without duplication and therefore the government will make a contribution to discussion between both organizations to realize this by expressing Japan's view at various opportunities under coordination with relevant ministries and agencies so as to make smooth the adjustment between WHO and World Bank. 【The Cabinet Secretariat, the Ministry of Foreign Affairs, the Ministry of Finance, and the Ministry of Health, Labour and Welfare】

¹⁶ Contingency Fund for Emergency (CFE): It was approved to be founded in the WHO executive board in January 2015 to enable WHO's quick initial response to an outbreak of an infectious disease or another emergency, considering the delay of funding and adjustment restrictions on flexible use of funds in the spread of Ebola Virus Diseases in West Africa (The fund scale is 1 million US dollars). Japan posted 1.2 billion yen as its contribution to the fund in the TY 2015 supplementary budget. As of now, the countries which expressed contribution to the fund are the UK (10 million US dollars), China (2 million US dollars), France (1.3 million Euro), Germany (1 million Euros), and India (1 million US dollars).

¹⁷ The Pandemic Emergency Financing Facility (PEF): New fund mechanism for pandemic response using private insurance scheme, which the World Bank is considering in light of the lessons from Ebola Virus Disease. It is a mechanism for funding if certain requirements are met when the infectious disease spreads regardless of the initial response of WHO by using CFE, and the initiative of World Bank which constructs PEF is supported also in the G7 Elmau Summit Leaders' declaration in June 2015. In the mechanism, the fund for PEF is scheduled to be distributed to international institutions including WHO and non-governmental organizations in addition to affected countries.

(3) Setting up a public-private partnership platform involved in measures to tackle infectious diseases in developing countries (provisional name)

- The government will set up a "public-private partnership platform involved in measures to tackle infectious diseases in developing countries (provisional name)" (hereinafter referred to as the "public-private partnership platform") from the perspective of making further contribution to international measures to tackle infectious diseases in public-private cooperation between the Japanese medical industry with advanced medical technology and the Government of Japan together with various international institutions and developing new markets of Japan's medical industry. 【The Cabinet Secretariat, the Ministry of Foreign Affairs, and the Ministry of Health, Labour and Welfare】

- The public-private partnership platform consists of relevant ministries and agencies, Japan International Cooperation Agency (JICA), Japan Agency for Medical Research and Development (AMED)¹⁸, and domestic organizations related to drugs and medical equipment; and if necessary, requests participation of organizations such as the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund), Global Health Innovative Technology Fund (GHIT Fund)¹⁹, and Gavi, the Vaccine Alliance²⁰. The platform discusses and explores the possibility of providing materials and equipment such as medicines, diagnostic agents, vaccines, and protective equipment to developing countries, its effective and continuous provision methods, desirable delivery systems including technical support of materials and equipment, and desirable coordination between relevant organizations involved in this support in the field while collecting information on health needs surrounding infectious diseases in developing countries; and makes the relevant organizations smoothly implement them. 【The Cabinet Secretariat, the Ministry of Foreign Affairs, and the Ministry of Health, Labour and Welfare】

(4) Promotion of prompt and smooth supply of medicines to developing countries

- The government will jointly formulate guidelines to harmonize regulations on medicines in the International Conference on Harmonization of Technical Requirements for Registration of Pharmaceuticals for Human Use (ICH), in which the regulatory

¹⁸ Japan Agency for Medical Research and Development (AMED)

¹⁹ Global Health Innovative Technology Fund (GHIT Fund)

²⁰ Gavi, the Vaccine Alliance (Gavi): Public-private partnership established for the purpose of protecting child life and people's health by improving immunization rates in developing countries. Pharmaceutical industries, private foundations, and civil societies have participated in addition to government donors developing country governments and relevant international institutions.

authorities of Japan, US, and Europe have participated; and disseminate the guidelines to foreign countries based on the International Pharmaceutical Regulatory Harmonization Strategy toward smooth supply of infectious disease medicines developed in Japan.

【The Ministry of Health, Labour and Welfare】

- The government will attempt this prompt development by utilizing the SAKIGAKE Designation System (preferential designation, for examination) and the designation of medicines as priority face-to-face advice products by the Pharmaceuticals and Medical Devices Agency (PMDA) in the development and approval of innovative medicines for infectious diseases; and develop a smooth supply system for the medicines even in emergency by concluding an agreement with recipient countries. 【The Ministry of Health, Labour and Welfare】
- The government will promptly discuss and implement support measures and supply systems for clinical research in the "Development Promotion Team" (relevant ministries and agencies, AMED, PMDA, GHIT Fund, and the medicine makers) established under the public-private partnership platform regarding the medicines required for emergent development in infectious disease crisis. 【The Cabinet Secretariat, the Ministry of Foreign Affairs, and the Ministry of Health, Labour and Welfare】
- The government will discuss and adjust a series of Japan's products and technologies from diagnosis to treatment and prevention involved in measures on various infectious diseases in the public-private partnership platform, make packaging²¹, and internationally deploy products "from Japan". 【The Cabinet Secretariat, the Ministry of Foreign Affairs, and the Ministry of Health, Labour and Welfare】
- In the PMDA "Asia Training Center for Pharmaceuticals and Medical Devices Regulatory Affairs" established in April 2016, the government will actively provide Japan's knowledge and adverse-effect information of medicines for infectious diseases developed in Japan according to the needs of Asian regulatory authorities, and support appropriate use of medicines for infectious diseases in Asian countries. 【The Ministry of Health, Labour and Welfare】

(5) Strengthening of measures to tackle infectious diseases in developing countries by

²¹ For example, it promotes efforts to make the packaging of diagnostic methods, testing methods for resistance, and medicines which pharmaceutical companies are each developing, as an effective combination.

strengthening cooperation with international institutions

The measures to tackle infectious diseases will be strengthened in developing countries by strengthening the following cooperation with international institutions.

(5)-1 Support for measures to tackle the three major infectious diseases through the Global Fund

- The discussion at the Kyushu-Okinawa Summit in 2000 hosted by Japan paved the way for the establishment of "Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund)" in 2002, which is a financing institution to fight the three major infectious diseases of AIDS, tuberculosis and malaria. Its strategy 2012-2016 set a goal to save 10 million lives. Japan continues to support the Fund during the 4th replenishment period (2014-2016) in order to realize prevention, treatment and care for the three major infectious diseases as well as promotion of the strengthening of the systems for health in the developing countries without delay. 【The Ministry of Foreign Affairs】

- The 5th voluntary Global Fund replenishment conference is scheduled to convene in 2016. Taking into consideration the relevant discussions including the 5th replenishment preparatory meeting held in Tokyo December 2015, Japan will make an appropriate support to the next replenishment period (2017-2019). 【The Ministry of Foreign Affairs】

(5)-2 Support for vaccination activities by Gavi, the Vaccine Alliance

- Regarding "Gavi, the Vaccine Alliance" (Gavi), which is a public-private partnership established for the purpose of protecting child lives and health by improving vaccination rates in developing countries, Japan will assist Gavi to achieve its goal of saving more than 12 million people by 2020 (7.1 million deaths have been averted as of 2014), promote assistance²² in order to support the dissemination of pentavalent vaccine (diphtheria, tetanus, pertussis, hepatitis B and Haemophilus influenza Type b (Hib)), vaccines for yellow fever and measles, and new vaccines (pneumococcal and rotavirus) and strengthen the health system to effectively disseminate vaccination, and support the implementation of comprehensive efforts to supply cost-effective vaccination at low cost. 【The Ministry of Foreign Affairs】

(5)-3 Promotion of development of new drugs through GHIT Fund

²² Japan contributed 740 million yen in the FY 2013 initial budget, 840 million yen in the FY 2014 initial budget, and 1.7 billion yen in the FY 2014 supplementary budget and the FY 2015 initial budget so far, and appropriated 2 billion yen for the FY 2015 supplementary budget.

- Regarding GHIT Fund established by a public-private partnership formed through a partnership of the Ministry of Foreign Affairs, the Ministry of Health, Labour and Welfare, domestic-affiliated pharmaceutical companies and the Bill & Melinda Gates Foundation in 2012, the government, in order to promote, through public-private partnership, R&D for medicines for NTDs, Tuberculosis and Malaria, which are urgent issues for developing countries, by making use of the advanced drug development technology possessed by Japan's pharmaceutical manufacturing industries, will promote assistance²³ to the GHIT, and assist R&D for medicines for developing countries, and conduct delivery preparation and support for such medicines. 【The Ministry of Foreign Affairs and the Ministry of Health, Labour and Welfare】

- In the "International Collaborative Research Program" (Science and Technology Research Partnership for Sustainable Development (SATREPS)²⁴ and international joint research program for measures to tackle NTDs in Africa) managed by AMED, the government will promote international joint research for developing therapeutic drugs, diagnostic drugs and vaccines based on needs in the field. 【The Ministry of Foreign Affairs, the Ministry of Education, Culture, Sports, Science and Technology, and the Ministry of Health, Labour and Welfare】

(5)-4 Promotion of national support by utilizing cloud funding²⁵

- Regarding relief by cloud funding which domestic NGOs jointly perform to the populace and companies in light of efforts of international institutions involved in infectious diseases, or support by vaccine bonds²⁶ issued by companies, the government will promote this also by utilizing public-private partnership platform. 【The Cabinet Secretariat, the Ministry of Foreign Affairs, and the Ministry of Health, Labour and Welfare】

²³ Japan contributed 1.4 billion yen in the TY 2012 supplementary budget and 5.6 billion yen in the TY 2013 supplementary budget so far in activities of UNDP coordinated with GHIT, and allocated 1.4 billion yen for the TY 2015 supplementary budget.²⁴ Science and Technology Research Partnership for Sustainable Development (SATREPS) is conducted in coordination with the Ministry of Foreign Affairs and JICA.

²⁴ Science and Technology Research Partnership for Sustainable Development (SATREPS) is conducted in coordination with the Ministry of Foreign Affairs and JICA.

²⁵ Cloud Funding: To raise funds through the Internet from an indefinite number of people

²⁶ Vaccine Bonds: Bonds issued by IFFIm (International Finance Facility for Immunization) which is a multilateral development organization proposed by the Government of the United Kingdom and was established in 2006 in order to smoothly raise funds for immunization and support Gavi, the Vaccine Alliance. The funds raised by issuing the bonds are used for the dissemination of immunization and strengthening of medical systems in developing countries through Gavi, the Vaccine Alliance. It has raised 3.85 billion US dollars since their establishment in the international capital market. The nine contributory countries are, the UK, France, Italy, Spain, the Netherlands, Sweden, Norway, South Africa, and Australia. Incidentally, Japanese securities companies issued bonds in 2008 and the total sales up to bonds issued in March 2013 were 125 billion yen.

(5)-5 Promotion of supporting measures to tackle AMR for the achievement of WHO global action plan on AMR

- The "Global action plan on AMR" adopted at the May 2015 World Health Assembly urges the Member States to formulate national action plans within two years and report on progress. The government will support the strengthening of this commitment so as to enable WHO and OIE²⁷ to promote international efforts to tackle AMR, and actively promote international cooperation in surveillance, infection prevention and management for antimicrobial resistance specifically in Asia, based on the "National Action Plan on AMR" formulated in March, 2016. 【The Ministry of Foreign Affairs, the Ministry of Education, Culture, Sports, Science and Technology, the Ministry of Health, Labour and Welfare, and the Ministry of Agriculture, Forestry and Fisheries】

2. Project for developing and dispatching human resources to take charge of measures to tackle international infectious diseases

(1) Establishment of the "Registration System of Human Resources against International Infectious Diseases"²⁸

- Registration of member candidates to the Japan Disaster Relief (JDR) Infectious Diseases Response Team, to be dispatched to countries where infectious diseases occur or spread, in order to strengthen Japan's personnel assistance to tackle emerging infectious diseases will be promoted; and the Ministry of Health, Labour and Welfare will promptly discuss measures for enhancement of human resource development and information gathering to start efforts at the early stage while obtaining cooperation with relevant ministries and agencies such as the Cabinet Secretariat, the Ministry of Foreign Affairs, and the Ministry of Education, Culture, Sports, Science and Technology. This is to develop and secure human resources for global health (human resources for policy and human resources for technology) covering a wide range of fields including infectious diseases who are expected to take an active role in international institutions. After that, the government and agencies will recommend relevant persons to register under each mechanism collectively called the "Registration System of Human Resource against International Infectious Diseases" and share information, aiming at the registrant of 500 members²⁹ by FY 2020. 【The Cabinet Secretariat, the Ministry of Foreign

²⁷ The World Organization for Animal Health (OIE for short): Intergovernmental organization for the purpose of improving the world's animal health, which was started in Paris, France, with the signatures of 28 countries in 1924. 180 countries and regions acceded to it as of May 2015, and Japan acceded in January 28, 1930.

²⁸ Generic term for the registration mechanisms of Japan Disaster Relief Team (JDR) Infectious Diseases Response Team, and measures on strengthening development and collecting information on international health human resource in wide fields including infectious diseases in the Ministry of Health, Labour and Welfare. Members are to be registered in each system separately and the systems are to be maintained respectively.

²⁹ The breakdown of 500 is 200 team members registered under the "Japan Disaster Relief Team (JDR) Infectious

Affairs, the Ministry of Education, Culture, Sports, Science and Technology, and the Ministry of Health, Labour and Welfare】

(2) Developing human resources to tackle international infectious diseases

- The Japan Disaster Relief Team (JDR) Infectious Diseases Response Team and the Ministry of Health, Labour and Welfare will clarify aptitude required for each fields such as clinical medicine, epidemiology, examination and diagnosis, logistics, management, and global health policy in order to develop human resources and information gathering, and the government and agencies will develop an effective human resource development program in cooperation with relevant organizations (National Center for Global Health and Medicine (NCGM), National Institute of Infectious Diseases, and JICA) including cross-sectional perspectives, implement trainings systematically, and promote the human resource development for infectious diseases control at universities. 【The Cabinet Secretariat, the Ministry of Foreign Affairs, the Ministry of Education, Culture, Sports, Science and Technology, and the Ministry of Health, Labour and Welfare】
- As part of the training, practical training overseas is conducted by utilizing overseas dispatch organizations in the "Infectious Disease Emergency Specialist Training Program"³⁰ by the Ministry of Health, Labour and Welfare and the "Field Epidemiology Training Program (FETP-J)"³¹ by the National Institute of Infectious Diseases, and R&D sites in Asian and African countries of the "Japan Initiative for Global Research Network on Infectious Disease (J-GRID)"³² managed by AMED. 【The Ministry of Education, Culture, Sports, Science and Technology and the Ministry of Health, Labour

Diseases Response Team" and 300 people developed and collected as political human resources in international health human resources in wide fields including infectious diseases, who can be dispatched to international institutions. 138 people currently have applied to the "Japan Disaster Relief Team (JDR) Infectious Diseases Response Team" (as of December 22, 2015). The number of Japanese staff in WHO is 43 people (as of December 31, 2014), the number of Japanese staff involved in international health in other international institutions (Pan American Health Organization (PAHO), Joint United Nations Programme on HIV/AIDS (UNAIDS), UNDP, UNFPA, UNICEF, World Bank (WB)) is about 60, and the number of Japanese staff in overseas research sites in the third period of J-GRID (FY 2015 to FY 2019) is 41 people.

³⁰ Program for developing specialists on infectious disease crisis management, which was established by the Ministry of Health, Labour and Welfare in FY 2015.

³¹ Field Epidemiology Training Program: It was established in the National Institute of Infectious Diseases in 1999 for the purpose of developing field epidemiologists to become the core to promptly search for infectious disease crisis management cases and take appropriate action, and establishing a nationwide network. It includes two-year practical training for doctors and veterinarians involved in countering infectious diseases and people engaged in regional health including measures to tackle infectious diseases in nation and prefectures, which the 17th trainees are currently taking and whose total number of graduates is 64 people.

³² A program for the purpose of promoting epidemiology research projects and fundamental research on diagnostic agents for pathogens of infectious diseases which spread in each region; developing new technology which contributes to prevention for infection control and diagnostic agents; and developing advanced experts by utilizing overseas research sites developed in Asia and Africa (9 sites in 9 countries: China, Vietnam, Indonesia, Zambia, Myanmar, Philippines, Thailand, India, and Ghana).

and Welfare】

- Issues concerning the team's activities will be discussed by the advisory committee and technical committee for the Infectious Diseases Response Team and induction course on general international emergency response and skill-up course according to fields of expertise for registered members will be implemented in order to develop the dispatch system of Japan Disaster Relief Team (JDR) Infectious Diseases Response Team. 【The Ministry of Foreign Affairs】
- The government will discuss expansion of training and continuous measures for retaining skills after the completion of training in order to equip medical officers, etc. of the Japan Self-Defense Forces with increased specialized knowledge to cope with infectious diseases and improve their skills. 【The Ministry of Defense】

(3) Dispatching human resources to tackle international infectious diseases

- The government will carry forward preparation so as to smoothly dispatch personnel in response to the outbreak or spread of infectious diseases under the framework of "Japan Disaster Relief Team (JDR) Infectious Diseases Response Team". Moreover, the Ministry of Health, Labour and Welfare will promptly discuss and implement the mechanism for the strengthening of development and information collection, and thereby promote the dispatch of international health human resources (political and technical human resources) in wide areas including infectious diseases, who are expected to take an active role in international institutions. 【The Ministry of Foreign Affairs and the Ministry of Health, Labour and Welfare】
- The government will implement simulation training hypothesizing the spread of infectious diseases in addition to the induction course and the skill-up course, and procurement, storage, maintenance, management and review of material and equipment by JICA in order to develop the dispatch system of the Japan Disaster Relief (JDR) Infectious Diseases Response Team, and share information and exchange views with WHO having expertise and network concerning infectious diseases in order to secure the safety of the team's activities and appropriate content thereof. 【The Ministry of Foreign Affairs】
- A contract with a private company offering emergency transport service including

transport of patients to safe places including Japan will be aimed to be concluded by the second quarter in FY 2016 when the preparation of the full-fledged dispatch of the Infectious Diseases Response Team is scheduled to be complete, in order to minimize members' health damage and secure the safety of their lives in case of a member of the "Japan Disaster Relief (JDR) Infectious Diseases Response Team" is affected with infectious diseases during the team's activity. 【The Ministry of Foreign Affairs】

- The Japan Self-Defense Force Unit will transport necessary personnel, materials and equipment, and others to overseas regions upon consultation between the Ministry of Foreign Affairs and the Ministry of Defense and under cooperation with relevant ministries and agencies such as the Ministry of Health, Labour and Welfare and the Ministry of Foreign Affairs in order to support the activities of the Japan Disaster Relief (JDR) Infectious Diseases Response Team, if such transport cannot be performed by utilizing civilian assets and other alternatives are not available. 【The Cabinet Secretariat, the Ministry of Foreign Affairs, the Ministry of Health, Labour and Welfare, and the Ministry of Defense】

(4) Supporting career path of human resources to tackle emerging infectious diseases

- The Ministry of Health, Labour and Welfare will continuously collect and provide information and analyze the current state on international institutions which can be a dispatch destination, positions of relevant organizations in Japan, and necessary capabilities under cooperation with relevant ministries and agencies such as the Ministry of Foreign Affairs and the Ministry of Education, Culture, Sports, Science and Technology from the perspective of supporting career path for international health human resources (political and technical human resources) in wide fields including infectious diseases, who are expected to take an active role in international institutions; and attempt matching between the human resources and relevant organizations in Japan by utilizing this information. 【The Ministry of Foreign Affairs, the Ministry of Education, Culture, Sports, Science and Technology, and the Ministry of Health, Labour and Welfare】

3. Project for strengthening crisis management system of infectious diseases

(1) Strengthening of the testing system and promotion of operations involved in prevention and treatment for high-risk pathogens led by National Institute of Infectious Diseases with BSL4 facilities

- The government will basically conduct verification testing involved in Type I

infectious diseases such as Ebola Virus Disease, strengthen the testing function and promote the operations involved in prevention and treatment in the National Institute of Infectious Diseases. 【The Ministry of Health, Labour and Welfare】

- The government will develop a system which enables specimen testing to be promptly performed in regional public health laboratories and quarantine stations and strengthen the nationwide testing system involved in Type I infectious diseases in order to prepare in the case that Type I infectious diseases such as Ebola Virus Disease occurred in Japan. In strengthening the testing system, the government will create and make a standard manual well known, implement training based upon it, construct a network by regional block, and gradually strengthen the systems of public testing organizations. 【The Ministry of Health, Labour and Welfare】

(2) Strengthening of collection, analysis, evaluation, and provision of information on infectious disease overseas

- In order to strengthen the Capacity of the National Institute of Infectious Diseases to collect, analyze and evaluate information, the Government will centralize and manage necessary information from international institutions including WHO, US CDC³³, public health organizations in other countries, Japanese overseas establishments, and domestic/foreign media; and develop a system for analyzing and evaluating this information in a prompt and appropriate manner through utilizing relevant programs. 【The Ministry of Foreign Affairs and the Ministry of Health, Labour and Welfare】
- In order to strengthen information collection related to public health in affected foreign countries of infectious diseases, the Government will start a training program at the National Institute of Infectious Diseases for medical attachés³⁴ of overseas establishments to acquire expertise on infectious diseases. 【The Ministry of Foreign Affairs and the Ministry of Health, Labour and Welfare】
- The Ministry of Foreign Affairs, the Ministry of Health, Labour and Welfare, and the National Institute of Infectious Diseases will structure mechanism of coordination so as to appropriately issue the travel advice/warnings on infectious diseases to Japanese

³³ Centers for Disease Control and Prevention

³⁴ They are mainly engaged in medical affairs, taking care of the health of the members and their families in overseas establishments and providing relevant information to Japanese nationals overseas that follows research on medical conditions of the mandated country. (Out of a total of 97 such establishments, medical attaches are placed in 95 of these as of January 2016.)

nationals overseas, and perform risk communication through health safety lectures³⁵. If necessary, medical experts/doctors will be sent to give these lectures. 【The Ministry of Foreign Affairs and the Ministry of Health, Labour and Welfare】

(3) Securing intellectuals involved in infectious diseases and scaling up risk communication

- The government will select each intellectual for Ebola Virus Disease and infectious diseases for their response in the light of future international situations, develop a system to enable technical consultations to be held in a prompt and smooth manner if domestic measures or international response are necessary in the future, and thereby scale up risk communication in the Government of Japan.³⁶ 【The Cabinet Secretariat, the Ministry of Foreign Affairs, and the Ministry of Health, Labour and Welfare】

4. Project for promoting research system of infectious diseases

(1) Forming an infectious disease research center

- The government will strengthen the Japanese infectious disease research function through measures including providing necessary support in light of the discussion and arrangement status in Nagasaki University in forming an infectious disease research center with BSL4 facilities as the core under utmost consideration to secure safety, equipped with the latest equipment to enable analysis of pathogens, animal experiments, the development of treatment methods and vaccines, and other R&D activities, so as to improve the basic research capacity involved in infectious diseases in domestic universities and other research institutes and develop and secure human resources who are acquainted with the handling of high-risk pathogens. 【The Cabinet Secretariat, the Ministry of Education, Culture, Sports, Science and Technology, and the Ministry of Health, Labour and Welfare】
- The government will establish a council consisting of relevant ministries and agencies, and relevant municipalities and universities in the Cabinet Secretariat within TY 2016, and promote support measures necessary for forming the above infectious disease research center with BSL 4 facilities as the core through discussion and arrangement including the following matters. 【The Cabinet Secretariat, the Ministry of Education, Culture, Sports, Science and Technology, and the Ministry of Health, Labour and

³⁵ It provides information on the accurate knowledge of prevention measures from the medical perspective to Japanese nationals overseas who live with fear of infectious diseases.

³⁶ Regarding "novel influenza" prescribed under Article 2 (i) of Act on Special Measures against Novel Influenza (Act No. 31 of 2012), comments shall be invited from persons with relevant knowledge and experience such as persons with expertise involved in infectious diseases under the same Act when a basic guideline is formulated, and "the intellectuals' meeting for measures to tackle novel influenza" has been set up.

Welfare】

(i) Concrete utilization measures of BSL4 facilities (fundamental R&D of human resources on pathogens and epidemiology related to infectious diseases, R&D for creating medicines, and desirable network, coordination and cooperation)

(ii) Desirable function and operation methods of BSL4 facilities

- The government will strengthen the functions of testing and inspection, prevention, and treatment of BSL4 facilities and develop human resources necessary for operations and management of BSL4 facilities through training of management systems related to infectious diseases and facility arrangement/maintenance in the National Institute of Infectious Diseases. 【The Ministry of Health, Labour and Welfare】

(2) Promotion of R&D involved in infectious diseases of high-risk pathogens

- The government will steadily promote R&D involved in infectious diseases including pathogens of Type I infectious diseases under continuous and seamless research support from basic research through to practical application by AMED based on "The Plan for Promotion of Medical Research and Development" (approved by the Headquarters for Healthcare Policy on July 22, 2014). Thereby, the government will promote on a scientific basis, connect the research results with the development of therapeutic drugs, diagnostic drugs, and vaccines, promote international joint research, and develop human resources for research institutes such as universities. 【The Cabinet Secretariat, the Ministry of Education, Culture, Sports, Science and Technology, and the Ministry of Health, Labour and Welfare】

5. Project for strengthening the domestic ability to address infectious diseases

(1) Promotion of measures to tackle AMR

- In December 2015, the "Antimicrobial Resistance Review Meeting" was established and held under the Promotion Team in order to promote comprehensive measures to tackle AMR. In the meeting, the government will carry forward discussions on cross-sectorial efforts in the areas of medical care, livestock production and aquaculture, and food safety from the perspective of One Health,³⁷ and formulate the "National Action Plan on AMR" by March 2016 to strengthen measures to tackle AMR. 【The Cabinet Secretariat, the Cabinet Office, the Ministry of Foreign Affairs, the Ministry of Education, Culture, Sports, Science and Technology, the Ministry of Health, Labour and

³⁷ One Health: Concept of integrally promoting several fields such as health of human and animals and environment under one policy.

Welfare, and the Ministry of Agriculture, Forestry and Fisheries】

- The National Institute of Infectious Diseases will strengthen the systems of Japan Nosocomial Infections Surveillance (JANIS)³⁸ involved in antimicrobial resistant bacteria and analysis of pathogens, and construct a system that comprehensively bears the infectious disease control function involved in measures to tackle antimicrobial resistant bacteria in cooperation with NCGM. 【The Ministry of Health, Labour and Welfare】

(2) Strengthening of systems of relevant organizations in Japan

(2)-1 Strengthening of systems and functions of quarantine stations and municipalities

- The government will develop personnel systems and strengthen necessary quarantine functions by systematically developing a waiting room for suspects affected with infectious diseases (depressurized room), air-conditioning systems, devices including a thermograph for detecting a person's fever, in order to respond to the outbreak of infectious diseases in foreign countries and the increase of foreign travelers to Japan in quarantine stations. Moreover, it will strengthen functions through the development of human resources also in municipalities, public health centers, and regional public health laboratories. 【The Ministry of Health, Labour and Welfare】

(2)-2 Strengthening of systems and functions of designated medical institutions for specified infectious diseases

- The government will continue to aid the operations of designated medical institutions for Type I and Type II infectious diseases, and promote elimination of cases where prefectures³⁹ have not yet established designated medical institutions for Type I infectious diseases, in order to take appropriate action in outbreak of infectious diseases in Japan. 【The Ministry of Health, Labour and Welfare】
- The government will strengthen the functions in designated medical institutions for specified infectious diseases by systematically reinforcing equipment so as to give intensive care to critical patients with Ebola Virus Disease in the light of response of

³⁸ Japan Nosocomial Infections Surveillance (JANIS): System for the purpose of grasping the overview of nosocomial infections in Japan and returning useful information on measures to tackle nosocomial infections to medical fields, through the investigation of outbreak situation of nosocomial infections in medical institutions, separation conditions of antimicrobial resistant bacteria, and the outbreak situation of infectious diseases by antimicrobial resistant bacteria

³⁹ They were established in 47 sites in Japan and not established in Akita Prefecture, Miyagi Prefecture, Ishikawa Prefecture, Kagawa Prefecture, Ehime Prefecture, and Kagoshima Prefecture (as of January 2016).

medical institutions overseas to patients with Ebola Virus Disease. 【The Ministry of Health, Labour and Welfare】

- The government will develop a system necessary for promoting measures to tackle AMR in medical fields including the appropriate use of antimicrobial agents in NCGM, which is one of designated medical institutions for specified infectious diseases, and develop a system capable of continuously offering the Infectious diseases Response Service (IRS)⁴⁰, in which staffs in the center are dispatched as experts based on the request of domestic medical institutions at the time of spread of Ebola Virus Disease and MERS. 【The Ministry of Health, Labour and Welfare】

(2)-3 Develop a structure for enhancing capabilities in response to infectious diseases in the Japan Self-Defense Forces

- The government will aim at the designation of the National Defense Medical College and the Self-Defense Forces Central Hospital as designated medical institutions for Type I infectious diseases at the earliest possible time in light of the self-contained treatment and clinical education for technical human resources, and enhance a framework to respond to infectious diseases in the National Defense Medical College and Self-Defense Forces Central Hospital, etc. 【The Ministry of Defense】

IV. Individual Sectorial Measures

In addition to the measures of III, Prior Projects, the Government of Japan will steadily promote various kinds of measures in fields such as promotion of international cooperation, development of domestic testing and research systems, the strengthening of the foundation of human resources involved in measures to tackle infectious diseases, and strengthening the domestic measures on infection prevention and the safety measures for Japanese nationals overseas, based on the Basic Guideline as follows.

Moreover, regarding the recent spread of Zika Virus Disease in Latin America, the Government of Japan will promptly take appropriate measures according to the recent situation under cooperation among relevant ministries and agencies through the Relevant Ministries and Agencies Meeting.⁴¹

⁴⁰ Infectious disease Response Service (IRS): It is a service in which experts are dispatched based on the request of medical institutions or municipalities at the time of spread of Ebola Virus Disease and MERS, and is conducted as research operations in NCGM.

⁴¹ In the Cabinet Order Partially Revising the Order for Enforcement of Act on the Prevention of Infectious Diseases and Medical Care for Patients Suffering from Infectious Diseases and the Order for Enforcement of Quarantine Act (Cabinet Order No. 41 of February 5, 2016), Zika Virus Disease was placed at Class IV infectious disease on Infectious Disease Act and quarantinable infectious diseases on Quarantine Act, for which measures were strengthened.

1. Promoting international cooperation

(1) Strengthening of cooperation with international institutions etc. for emergency response

(1)-1 Providing support for securing and strengthening the implementation of IHR⁴² of WHO and strengthening the base of GOARN⁴³

- Supporting developing countries as to the implementation International Health Regulations (IHR) of WHO is essential from the perspective of preventing the outbreak of future public health crisis from changing as to its spread; and therefore the Government of Japan will continue to encourage developing countries to secure and strengthen its implementation of IHR through promotion of support to WHO etc. 【The Ministry of Foreign Affairs and the Ministry of Health, Labour and Welfare】
- The government will strengthen the implementation system of training before dispatch and communication systems in ordinary times through the promotion of support to the "Measure Operations to tackle Infectious Diseases" by WHO, in order to promptly respond to the outbreak of infectious disease crisis in GOARN. 【The Ministry of Health, Labour and Welfare】

(1)-2 Dealing with the Catastrophe Containment and Relief Trust of the International Monetary Fund (IMF)

- IMF immediately provides grant aid through the Catastrophe Containment and Relief (CCR) Trust⁴⁴ of the IMF in order to allocate it to the Member State's debt to IMF which reaches repayment deadline within two years after the outbreak of the catastrophe, and the Government of Japan will contribute to efforts by IMF. 【The Ministry of Finance】

(1)-3 Cooperation and policy dialogues with implementing agencies such as UNDP, UNICEF, and UNFPA

- Regarding the United Nations Development Programme (UNDP), United Nations Children's Fund (UNICEF), and United Nations Population Fund (UNFPA), the

⁴² International Health Regulations (IHR): International regulation based on Article 21 of the WHO Charter. It prescribes fulfillment of the construction and maintenance of the ability to discover, evaluate and report a phenomenon of infectious diseases to Member States (194 countries as of January 2016).

⁴³ Global Outbreak Alert and Response Network (GOARN): The global alert and response network on the outbreak of infectious diseases is an international framework of measures to tackle infectious diseases led by WHO. It is operated for the purpose of collecting information on infected persons, sending out important information, and providing technical support for response in the early stage in affected countries, in which National Institute of Infectious Diseases has participated in Japan.

⁴⁴ It is for the purpose of slowing down the worsening of the macroeconomy in the Member State with severe economic stagnation due to pandemic.

government will collect information and exchange views to strengthen future cooperation in the health field at opportunities such as strategy dialogues between Japan and UNDP, policy meetings between Japan and UNICEF, and policy meetings between Japan and UNFPA, respectively. 【The Ministry of Foreign Affairs】

(2) Health systems strengthened in developing countries to prevent outbreak and spread of infectious diseases

(2)-1 Promotion of UHC and health system strengthening leveraging development cooperation

- Under the situation in which issues facing developing countries are diverse, as are their economic conditions and prerequisite health systems, it is important to support self-help efforts by partner countries and offer cooperation aimed at self-reliant development. Therefore, the government will organically combine technical cooperation, government loan and grant aid to reflect the partner countries' situation and implement these modalities in a timely and flexible manner while taking note of the possibilities of cooperation with other donors (including international institutions addressing specific diseases) and private sectors. 【The Ministry of Foreign Affairs and the Ministry of Finance】

- The government will proceed in dispatching experts for direct support and development of human resources in each field according to the implementation stage of measures for strengthening health systems in each country, and actively disseminate Japanese expertise. 【The Ministry of Health, Labour and Welfare】

- The government will promote the of health systems strengthened in developing countries through cooperation with international institutions including the Global Fund and other donors. 【The Ministry of Foreign Affairs and the Ministry of Health, Labour and Welfare】

- The government will provide support to developing countries for the implementation of IHR, including ones through a framework of the Global Health Security Agenda (GHSA)⁴⁵. Moreover, the government will provide support to developing countries to

⁴⁵ Global Health Security Agenda (GHSA) is an initiative to strengthen the existing framework of WHO related to public health crisis (IHR: International Health Regulations) in cooperation with other countries and international institutions such as WHO, FAO (Food and Agriculture Organization of the United Nations), and OIE (World Organization for Animal Health) for the purpose of improving the ability of measures to tackle infectious diseases in the world. It is a multi-country framework established in February 2014, which was led by the US. Japan has selected seven countries of Vietnam, Philippines, Myanmar, Kenya, Ghana, Senegal, and Zambia as supporting

ensure its implementation of IHR through development of systems and human resources in the Noguchi Memorial Institute for Medical Research⁴⁶, which Japan has supported so far. 【The Ministry of Foreign Affairs and the Ministry of Health, Labour and Welfare】

- The government will promote support to the World Bank to contribute to UHC through the Japan Trust Fund of World Bank in light of the results of Joint Japan-World Bank UHC Research⁴⁷. 【The Ministry of Finance】

(2)-2 Emergency assistance and support for the recovery of health systems after outbreak of infectious diseases

- The government will support the affected country's emergency response, develop human resources, provide medical supplies, and construct a health information system through provision of emergency grant aid, emergency relief goods, funds and materials to international institutions, and personnel assistance including dispatch of experts, and thereby recover the health systems which failed to function properly due to the spread of infectious diseases and prevent the outbreak and spread of future infectious diseases by strengthening health system in affected countries. 【The Ministry of Foreign Affairs】

2. Developing testing and research systems for high-risk pathogens involved in infectious diseases in Japan

(1) Strengthening the testing system at the National Institute of Infectious Diseases

- The government will promote active information disclosure and communication with local communities and strengthen the situation which ensures safe and stable operations involved in testing, treatment, and prevention in BSL4 facilities, by establishing a strict management system of BSL4 facilities in the National Institute of Infectious Diseases and regularly holding communication meetings consisting of residents' associations, academics, local municipalities and fire brigades, public health centers, the National Institute of Infectious Diseases, and the Ministry of Health, Labour and Welfare to safely operate facilities in an open and transparent manner. 【The

countries for the present.

⁴⁶ Noguchi Memorial Institute for Medical Research: It was the main institute for medical research in Ghana, which was set up in 1979 (expanded in 2000) by Japanese grant aid (a total of 3.26 billion yen) and was named after Dr. Hideyo Noguchi, who had been engaged in yellow fever research in Ghana and passed away due to the disease. Japan has offered technical cooperation to the institute for more than 30 years and contributed to development of human resources in the medical research field in Ghana.

⁴⁷ "Joint Japan-World Bank UHC Research": It was conducted for the purpose of sharing Japanese experiences and expertise related to UHC to developing countries and discussing the applicability to efforts for each country's UHC on the occasion of the 50th anniversary in 2011, after the achievement of UHC in 1961. Researched countries are 11 countries of Japan, Bangladesh, Brazil, Ethiopia, France, Ghana, Indonesia, Peru, Thailand, Turkey, and Vietnam.

Ministry of Health, Labour and Welfare】

(2) Further discussion how to designate BSL 4 facilities in Japan

- The government will discuss the necessity of further developing BSL4 facilities considering regional balances, and function division and cooperation between facilities as well as promoting establishment and development of BSL4 facilities in Japan through "Project for strengthening crisis management system of infectious diseases" and "Project for promoting research system of infectious diseases". 【The Cabinet Secretariat, the Ministry of Education, Culture, Sports, Science and Technology, and the Ministry of Health, Labour and Welfare】

3. Developing the base of Japanese human resources involved in measures to tackle infectious diseases who take an active role in the international community

The Government of Japan will promote the development of human resources by the following Infectious Disease Emergency Specialist Training Program in addition to efforts in the above mentioned "Project for developing and dispatching human resources to respond to international infectious diseases".

- The government will continuously develop nearly five experts on infectious disease crisis management every year, who have clinical and epidemiological knowledge related to infectious diseases, the ability to respond to public health, the international adjustment ability, and comprehensive expertise and abilities, through the Infectious Disease Emergency Specialist (IDES) Training Program which was initiated from April 2015. 【The Ministry of Health, Labour and Welfare】
- The government will promptly and appropriately grasp the actual conditions and diagnose the cause for the outbreak and spread of infectious diseases, and continuously develop field epidemiologists who can contribute to maintenance and improvement of high-quality infectious disease surveillance system in ordinary times, through FETP-J by the National Institute of Infectious Diseases. 【The Ministry of Health, Labour and Welfare】

4. Strengthening domestic measures on infection prevention and the safety measures for Japanese nationals overseas

(1) Promoting provision of information on infectious diseases in Japan to the populace

- The government will increase the variety of tools such as a media and social networking service for providing domestic infectious disease information including

measures to be taken in the case where the infection of Type I infectious diseases is confirmed, and promote effective provision corresponding to people's diverse lifestyles by expanding the targets of mail magazines. 【The Ministry of Health, Labour and Welfare】

(2) Improving response capability of relevant organizations including quarantine stations and securing responses in the situation where an infection (including a suspected infection) has been confirmed in Japan

- The government will improve the response capability of relevant organizations by the following measures in addition to "Strengthening systems of relevant organizations in Japan" in the "Project for strengthening the domestic ability to address infectious diseases"
 - (i) The government will conduct training on infectious diseases every tax year, such as transferring training for patients infected with Ebola Virus Disease in cooperation with relevant organizations, and testing technical training for learning the latest knowledge and testing methodology involved in inspection in quarantine stations. 【The Ministry of Health, Labour and Welfare】
 - (ii) The government will make the National Institute of Infectious Diseases appropriately conduct active epidemiological investigation (including contact investigation) by utilizing FETP-J, in preparation for domestic cases of the outbreak of Ebola Virus Disease and MERS in several municipalities. 【The Ministry of Health, Labour and Welfare】
 - (iii) In municipalities and designated medical institutions for specified infectious diseases, the government will continuously conduct training and training meetings to respond to the outbreak of infectious diseases including transferring training of patients infected with Ebola Virus Disease in cooperation between relevant organizations. 【The Ministry of Health, Labour and Welfare】
 - (iv) The Police will actively participate in measures or training under cooperation with relevant organizations and continue to implement various types of training including training for detaching/attaching materials and equipment for infection protection, and check and maintain necessary materials and equipment. 【The National Police Agency】
 - (v) The Fire and Disaster Management Agency will make each fire service ensure the implementation of standard precautions to all sick and injured people, and disseminate the basic measures in the fire service in the cases of contact with the sick and injured people who are suspected to be infected with infectious diseases. Moreover, it will

promote efforts for the construction of cooperation systems between fire services and public health centers in the regions where the systems of public health centers are not sufficiently developed regarding the transfer of infected patients. 【The Fire and Disaster Management Agency】

(vi) The Ministry of Land, Infrastructure, Transport and Tourism will participate in the training implemented by quarantine stations, and take appropriate actions according to the outbreak situation of infectious diseases such as information provision to the populace, adjustment with concerned operators in charge of transfer of specimens and patients, and provision of necessary cooperation, if emerging infectious diseases occurred including suspected issues of Ebola Virus Disease. 【The Ministry of Land, Infrastructure, Transport and Tourism】

(vii) The Ministry of the Environment will investigate and discuss a disposal manual of infectious waste generated from medical institutions for review in cooperation with relevant organizations, and will ensure the disposal of infectious waste based on the manual. Moreover, it will revise the manual in FY 2016 so as to include issues in current conditions. 【The Ministry of the Environment】

(3) Developing policies for responses to Viral Hemorrhagic Fever at administrative agencies.

- The government will create the "Guideline of administrative measures against Viral Hemorrhagic Fever"⁴⁸, obtain cooperation of medical relevant organizations, and urge administrative agencies (quarantine stations, municipalities, public health centers, and regional public health laboratories) to take actions in a prompt and appropriate manner. 【The Ministry of Health, Labour and Welfare】

(4) Ensuring the provision of timely and appropriate information/warnings on infectious diseases to Japanese nationals overseas

- The Ministry of Foreign Affairs will issue “travel advice and warning”, “region-wide safety information”, and “spot safety information” through Overseas Safety HP according to the situation of the outbreak of infectious diseases, in order to provide timely and appropriate information/warnings to Japanese nationals overseas. 【The

⁴⁸ The "Guideline of administrative measures against Viral Hemorrhagic Fever" is a guideline on the administrative response for strengthening measures to prevent the outbreak and spread of infectious diseases in anticipation for the possibility of outbreak of international infectious diseases. It describes administrative measure systems, transfer of patients, the collection and transportation of specimens, medical systems (treatment policy in medical institutions), active epidemiologic investigation, disinfection, and methods of public relations and information provision about Viral Hemorrhagic Fever (Crimean-Congo hemorrhagic fever, South American hemorrhagic fever, Lassa fever, Marburg hemorrhagic fever, Ebola hemorrhagic fever).

Ministry of Foreign Affairs】

- Overseas establishments will collect information on the prevalent infectious diseases from authorities and relevant organizations in the region under their jurisdiction and promptly report to the ministry. They are also to provide timely and appropriate information warnings to the Japanese nationals overseas through their homepages and consular e-mails. 【The Ministry of Foreign Affairs】
- The Ministry of Foreign Affairs and the Ministry of Health, Labour and Welfare will closely work together and cooperate in sharing information from overseas establishments and the IHR framework, and utilize this for safety measures for Japanese nationals overseas and domestic measures on infection prevention inside Japan. 【The Ministry of Foreign Affairs and the Ministry of Health, Labour and Welfare】

(5) Strengthening safety measures such as medical evacuation in case of infection of Japanese nationals overseas

- If Japanese nationals overseas were to be infected, relevant ministries and agencies will cooperate and develop a support system in overseas establishments so that the national will be provided with the best medical treatment taking into account the doctor's diagnosis and the request of the patient/family regardless of the method; the cure in the affected country or the medical evacuation to a third country/Japan. 【The Cabinet Secretariat, the Ministry of Foreign Affairs, and the Ministry of Health, Labour and Welfare】
- Before crisis the government will collect information regarding measures on infectious diseases by relevant country, and private airlines and crisis management companies and construct cooperative relationships with them through overseas establishments, in order to ensure their prompt cooperation and support once the medical evacuation to a third country/Japan is considered to be the best method of treatment taking into account medical diagnosis and request from the patient/family. In addition, the government will strengthen response through coordination of the relevant ministries and agencies and other methods to including the medical evacuation by the aircraft of the Japan Self-Defense Forces in case there are no other alternative nor civil aircraft available. 【The Cabinet Secretariat, the Ministry of Foreign Affairs, the Ministry of Health, Labour and Welfare, and the Ministry of Defense】

V. Promotion of Measures based on this Basic Plan

The Promotion Team will follow up the progress situation of measures based on this Action Plan every tax year, report the situation to the Ministerial Meeting if necessary, and take necessary actions such as revision of the Action Plan based on the results.

Concluded

"The Action Plan for Strengthening Measures on Emerging Infectious Diseases" Progress Schedule Chart

In the Guideline, concrete efforts and targets each tax year from 2015 to 2020 are listed for individual efforts of 5 prior projects (measures) and 67 individual sectorial measures.

Further, the efforts of the Guideline are promoted for aiming to achieve goals to "end the epidemics of AIDS, tuberculosis, malaria, and neglected tropical diseases (NTDs)" and "eradicate preventable death of infants" in "2030 Agenda for Sustainable Development (SDGs)" adopted in UN development Summit, by FY 2030, in addition to targets for each effort.

| <Prior Projects (Measures)> | | | | | | | | |
|---|---|--|--|---|------|------|------|---|
| 1. Project for strengthening measures on emerging infectious diseases in developing countries | | | | | | | | |
| Measures | Ministry | (TY) 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | Target |
| (1) Lead the reinforcement of a new framework for Global Health Governance | The Cabinet Secretariat, the Ministry of Foreign Affairs, the Ministry of Finance, and the Ministry of Health, Labour and Welfare | Propose Japan's view of the new framework for Global Health Governance (GHG) at G7 Health Experts' Meeting | Lead international discussion as G7 Presidency to share a view on the basic concept of desirable GHG | <ul style="list-style-type: none"> • Continuous contribution to GHG • Implementation of emergency support under the framework of GHG in the case of infectious disease crisis | | | | ○ Construction of the improved framework for Global Health Governance |

| Measures | Ministry | (TY) 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | Target | |
|---|---|---|--|------|------|------|------|--|--|
| (2) Contributing to the construction of expeditious finance mechanisms for emergencies through the joint efforts of the Contingency Fund for Emergency of WHO and the Pandemic Emergency Financing Facility (PEF) of World Bank | The Cabinet Secretariat, the Ministry of Foreign Affairs, the Ministry of Finance, and the Ministry of Health, Labour and Welfare | Japan makes a contribution to discussion between both organizations so as to make smooth the adjustment between WHO and World Bank. for complementary construction of CFE and PEF without duplication | | | | | | ○ The construction of expeditious finance mechanisms for emergencies through the joint efforts of the Contingency Fund of WHO and PEF of World Bank, making a contribution to each effort | |
| | | Japan makes an active contribution to WHO's strengthening of emergency responses through support to the CFE and makes appropriate contribution to PEF. | | | | | | | |
| | | Support to CFE | | | | | | | |
| (3) Setting up a public-private partnership platform involved in measures to tackle infectious diseases in developing countries(provisional name) | The Cabinet Secretariat, the Ministry of Foreign Affairs, and the Ministry of Health, Labour and Welfare | Setting up a public-private partnership platform | <ul style="list-style-type: none"> • Collection and analysis of information such as health needs in developing countries • Discussion and adjustment involved in availability and effective provision methods of medicines, and desirable cooperation of relevant organizations • Implementation of the discussed and adjusted issues by relevant organizations | | | | | ○ Effective provision of materials and equipment such as medicines, diagnostic agents, vaccines, and protective supplies to developing countries, and development of delivery systems of medicines | |

| Measures | Ministry | (TY) 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | Target |
|--|--|--|------|------|------|------|------|--|
| (4) Promotion of prompt and smooth supply of medicines to developing countries | The Cabinet Secretariat, the Ministry of Foreign Affairs, and the Ministry of Health, Labour and Welfare | <div style="border: 1px solid black; padding: 5px;">Promotion of international deployment of a series of products and technologies from diagnosis to treatment</div> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;">Providing Asian regulatory officials with Japan's knowledge and side effect information of medicines for infectious diseases developed in Japan, by Asia Training Center for Pharmaceuticals and Medical Devices Regulatory Affairs</div> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;">Preparation of the system through which the "Development Promotion Team" immediately provides support if a medicine is required for emergent development, and implementation of support by the team in an emergency</div> | | | | | | <ul style="list-style-type: none"> ○ Development of a smooth supply system for medicines in developing countries ○ Development of a promotion system for development in an emergency |
| (5) The strengthening of measures to tackle infectious diseases in developing countries by strengthening cooperation with international institutions | | | | | | | | <ul style="list-style-type: none"> ○ Realizing prevention, treatment, and care for the three major infectious diseases, and strengthening systems for health in developing countries |
| (5)-1 Support for measures to tackle the three major infectious diseases through the Global Fund | The Ministry of Foreign Affairs | <div style="border: 1px solid black; padding: 5px;">Promotion of measures to tackle three major infectious diseases and strengthening of systems for health through support to the Global Fund</div> | | | | | | <ul style="list-style-type: none"> ○ Dissemination of pentavalent vaccine, yellow fever and measles vaccines, and new vaccines. |
| (5)-2 Support for vaccination activities by Gavi, the Vaccine Alliance | The Ministry of Foreign Affairs | <div style="border: 1px solid black; padding: 5px;">Promotion of support to vaccination programs</div> | | | | | | <p>Strengthening health systems to effectively disseminate vaccination</p> <ul style="list-style-type: none"> • The number of lives saved by Gavi activities: 7.1 million people (2014) → more than 12 million people (by 2020) |

| Measures | Ministry | (TY) 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | Target | |
|--|--|--|--|------|------|------|------|---|---|
| (5)-3 Promotion of development of new drugs through the Global Health Innovative Technology Fund (GHIT) and others | The Ministry of Foreign Affairs, the Ministry of Education, Culture, Sports, Science and Technology, and the Ministry of Health, Labour and Welfare | Promotion of research and development of medicines for NTDs by promoting public-private partnership through support to the GHIT Fund | | | | | | <ul style="list-style-type: none"> ○ Research and development of medicines for NTDs, Tuberculosis and Malaria for developing countries • The conduct of nonclinical study/clinical trials, and a target for completion for medicines for developing countries of 20 trials by TY 2017 | |
| | | Promotion of international joint research that contributes to development of medicines by SATREPS managed by AMED | | | | | | | |
| (5)-4 Promotion of national assistance by utilizing crowd funding | The Cabinet Secretariat, the Ministry of Foreign Affairs, and the Ministry of Health, Labour and Welfare | Support to system design for the launch of crowd funding | | | | | | <ul style="list-style-type: none"> ○ Support to and promotion of crowd funding | |
| (5)-5 Promotion of supporting measures to tackle antimicrobial resistance (AMR) for achievement of the WHO global action plan on AMR | The Ministry of Foreign Affairs, the Ministry of Education, Culture, Sports, Science and Technology, the Ministry of Health, Labour and Welfare, and the Ministry of Agriculture, Forestry and Fisheries | Formulation of "Action Plan" | Promotion of international cooperation in surveillance, infection prevention and management for antimicrobial resistance | | | | | | <ul style="list-style-type: none"> ○ Promoting international cooperation for AMR • It is separately prescribed in the Action Plan |
| | | | Hosting the Asia-Pacific Ministerial Meeting on AMR (in April) | | | | | | |

2. Project for developing and dispatching human resources who take charge of measures to tackle international infectious diseases

| | | | | | | | | | |
|---|--|--|--|--|--|--|--|--|--|
| (1) Establishment of "Registration System for Human Resource to tackle International Infectious Diseases" | The Cabinet Secretariat, the Ministry of Foreign Affairs, the Ministry of Education, Culture, Sports, Science and Technology, and the Ministry of Health, Labour and Welfare | System development for strengthening the development and information collection of human resources | Promotion of registration of human resources to be dispatched to international institutions in addition to registration to the JDR Infectious Diseases Response Team | | | | | | <ul style="list-style-type: none"> ○ Securing international health human resources in broad fields including infectious diseases who are expected to take an active role in international institutions • The number of registrants to the "Registration System of Human Resource to tackle International Infectious Diseases": 500 people by FY 2020 |
|---|--|--|--|--|--|--|--|--|--|

| Measures | Ministry | (TY) 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | Target | |
|---|---|---|--|------|------|------|------|---|--|
| (2) Developing human resource against international infectious diseases | The Cabinet Secretariat, the Ministry of Foreign Affairs, the Ministry of Education, Culture, Sports, Science and Technology, the Ministry of Health, Labour and Welfare, and the Ministry of Defense | <ul style="list-style-type: none"> Clarification of necessary suitability Development of human resource development program including cross-sectorial perspectives | Implementation of training by human resource program | | | | | <ul style="list-style-type: none"> Development of human resources in various fields such as clinical, epidemiology, testing and diagnosis, logistics, management, and international health policy, who are registered in the "Registration System of Human Resource against International Infectious Diseases" | |
| | | Discussion of practical training by utilizing international dispatch organizations and research and development centers overseas | Implementation of practical training | | | | | | |
| | | Discussion of issues and implementation of training for the JDR Infectious Diseases Response Team (The first Induction Course is conducted in the fourth quarter of FY2015 and the Skill-up Course is conducted in the second quarter of FY2016) | | | | | | | |
| | | Discussion of training expansion for medical officers of the Japan Self-Defense Forces | Implementation and improvement of expanded training | | | | | | |
| | | Discussion on continuous measures for keeping skills after completion of training | Improvement of continuous measures for retaining skills | | | | | | |
| Promotion of human resource development involved in infectious diseases in universities | | | | | | | | | |
| (3) Dispatching human resource to tackle international infectious diseases | The Cabinet Secretariat, the Ministry of Foreign Affairs, the Ministry of Health, Labour and Welfare, and the Ministry of Defense | <ul style="list-style-type: none"> Development of dispatch systems of the JDR Infectious Diseases Response Team Introduction of materials and equipment Aiming to conclude a contract with a private company offering emergency transport service for medical evacuation of members in the JDR Infectious Diseases Response Team | <ul style="list-style-type: none"> Maintaining the dispatch systems of the JDR Infectious Diseases Response Team Storage, maintenance, management, and review of materials and equipment to be delivered | | | | | <ul style="list-style-type: none"> Maintaining the system to promptly dispatch the team under the framework of the Infectious Diseases Response Team in response to the outbreak and spread of infectious diseases Promotion of human resource dispatch to international institutions | |
| | | Discussion on the mechanism for strengthening development and information collection by the Ministry of Health, Labour and Welfare | Implementation of the strengthening of development and information collection by the Ministry of Health, Labour and Welfare | | | | | | |

| Measures | Ministry | (TY) 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | Target | |
|---|---|--|---------------------------------------|------|------|------|------|--|--|
| (4) Supporting career paths of human resource to tackle international infectious diseases | The Ministry of Foreign Affairs, the Ministry of Education, Culture, Sports, Science and Technology, and the Ministry of Health, Labour and Welfare | Discussion on concrete support measures for matching | Implementation of support by matching | | | | | Implementation of information collection/provision and analyses of the current state on positions in international institutions and domestic relevant organizations and necessary capabilities | ○ Securing career paths by matching between the human resource to tackle international infectious diseases and domestic relevant organizations |

3. Project for strengthening crisis management system of infectious diseases

| | | | | | | | | |
|---|--|--|---|--|--|--|---|---|
| (1) Strengthening of testing systems and promotion of operations involved in prevention and treatment for high-risk pathogens led by National Institute of Infectious Diseases with BSL4 facilities | The Ministry of Health, Labour and Welfare | Strengthening of testing functions in BSL4 facilities of the National Institute of Infectious Diseases | | | | | ○ Strengthening and development of nationwide testing systems for Type 1 infectious disease • The number of network 0 (FY 2015) → 7 (FY 2020) | |
| (2) Strengthening of collection, analysis, evaluation, and provision of information on infectious diseases overseas | The Ministry of Foreign Affairs and the Ministry of Health, Labour and Welfare | Discussion on system development of public testing organizations | Construction of centers and networks of public testing organizations | | | | | ○ Strengthening of information collection of infectious diseases overseas and development of systems for appropriate risk communication • Development of systems capable of responding to emergencies in various regions by nearly 10 trained medical attaches |
| | | Development of systems for uniform collection and management | Strengthening of functions in the National Institute of Infectious Diseases | | | | | |
| | | Development of systems for analyzing and evaluating information in a prompt and appropriate manner | | | | | | |
| | | Newly set training | Implementation of the training for medical attachés of overseas establishments | | | | | |
| | | Construction of cooperation systems | Strengthening of cooperation between the Ministry of Foreign Affairs, the Ministry of Health, Labour and Welfare, and the National Institute of Infectious Diseases | | | | | |
| (3) Securing intellectuals involved in infectious diseases and scaling up risk communication | The Cabinet Secretariat, the Ministry of Foreign Affairs, and the Ministry of Health, Labour and Welfare | Dispatch of a medical specialist on infectious diseases involved in health safety lecture | | | | | ○ Development of systems capable of holding technical consultations in a prompt and smooth manner for Ebola Virus Disease and infectious diseases to be responded to in the light of future international situation | |
| | | Construction of consultation systems | Scaling up risk communication | | | | | |

| 4. Project for promoting research system of infectious diseases | | | | | | | | |
|--|---|---|---|------|------|------|------|--|
| Measures | Ministry | (TY) 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | Target |
| (1) Forming an infectious disease research center | The Cabinet Secretariat, the Ministry of Education, Culture, Sports, Science and Technology, and the Ministry of Health, Labour and Welfare | Implementation of necessary support in light of the discussion and arrangement status in Nagasaki University in forming an infectious disease research center with BSL4 facilities as the core | | | | | | ○ Forming an infectious disease research center with BSL4 facilities as the core |
| | | Establishment of a council | Discussion, adjustment and promotion of concrete utilization measures and support measures including desirable functions and operation methods of BSL4 facilities | | | | | |
| | | Strengthening the functions of testing and inspection in the National Institute of Infectious Diseases | | | | | | |
| (2) Promotion of research and development involved in infectious diseases of high-risk pathogens | The Cabinet Secretariat, the Ministry of Education, Culture, Sports, Science and Technology, and the Ministry of Health, Labour and Welfare | Steady promotion of research and development involved in infectious diseases including pathogens of Type I infectious diseases under research support by the Japan Agency for Medical Research and Development (AMED) based on "Plan for Promotion of Medical Research and Development" | | | | | | ○ Strengthening of measures to tackle infectious diseases by connecting the research results with the development of therapeutic drugs, diagnostic drugs, and vaccines |

| 5. Project for strengthening domestic ability to address infectious diseases | | | | | | | | |
|--|---|---|---|--|--|--|--|---|
| (1) Promotion of measures to tackle AMR | The Cabinet Secretariat, the Cabinet Office, the Ministry of Foreign Affairs, the Ministry of Education, Culture, Sports, Science and Technology, the Ministry of Health, Labour and Welfare, and the Ministry of Agriculture, Forestry and Fisheries | • Establishment of review meeting • Formulation of "Action Plan" | Implementation of measures based on the Action Plan • Evaluation of progress and effectiveness of measures, and improvement of measures if necessary • Grasping the current state and identifying issues involved in antimicrobial resistance for review of the Action Plan | | | | | ○ Strengthening of measures to tackle AMR • It is separately prescribed in the Action Plan |
| | | Strengthening of systems of Japan Nosocomial Infections Surveillance (JANIS) by drug-resistant bacteria and analysis for pathogens, and construction of systems involved in comprehensive infectious disease control function in cooperation with the National Center for Global Health and Medicine (NCGM), in the National Institute of Infectious Diseases | | | | | | |

| Measures | Ministry | (TY) 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | Target |
|---|--|---|------|------|--|------|------|--|
| (2) Strengthening of systems of relevant organizations in Japan | | | | | | | | ○ Strengthening of systems and functions of quarantine stations and municipalities |
| (2)-1 Strengthening of systems and functions of quarantine stations and municipalities | The Ministry of Health, Labour and Welfare | Systematic development of equipment and devices in quarantine stations, municipalities, health centers, regional public health laboratories | | | | | | ○ Strengthening of systems and functions of designated medical institutions for specified infectious diseases |
| | | Development of necessary human resource systems in quarantine stations | | | | | | ○ Development of Type I designated medical institutions in all prefectures |
| (2)-2 Strengthening of systems and functions of designated medical institutions for specified infectious diseases | The Ministry of Health, Labour and Welfare | Assistance for operations of designated medical institutions for specified infectious diseases | | | | | | • The number of developed prefectures: 41 (TY 2015) → 47 (TY 2020) |
| | | Request of development and assistance to undeveloped prefectures | | | | | | ○ Strengthening of domestic measures to tackle AMR |
| | | Development of systems of designated medical institutions for specified infectious diseases | | | | | | • Separately prescribed in the Action Plan |
| | | Development of systems for promoting measures to tackle AMR in National Center for Global Health and Medicine | | | Promotion of measures to tackle AMR | | | |
| | | Development of systems capable of dispatching experts when an infection spreads in Japan, in the National Center for Global Health and Medicine | | | Prompt dispatch of experts when an infection spread in Japan | | | |
| (2)-3 Establishing a framework to improve the ability to address infectious diseases in the Japan Self-Defense Forces | The Ministry of Defense | The government will aim at the designation of the National Defense Medical College and the Self-Defense Forces Central Hospital as designated medical institutions for Type I infectious diseases on the earliest possible occasion | | | | | | ○ Establishment of systems to improve the ability to address infectious diseases in the Japan SDF |
| | | Enhance a framework to respond to infectious diseases in the National Defense Medical College and Self-Defense Forces Central Hospital, etc. | | | | | | • The number of hospitals established by MOD as designated medical institutions for Type I infectious diseases 2 hospitals by TY: 2018 |

<Individual Sectorial Measures>

1. Promoting international cooperation

| Measures | Ministry | (TY) 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | Target |
|--|--|---|------|------|------|------|------|--|
| (1) Strengthening cooperation with international institution for emergency | | | | | | | | <ul style="list-style-type: none"> ○ Securing implementation and strengthening of IHR by developing countries ○ Strengthening of systems so as to smoothly dispatch appropriate experts in the outbreak of infectious disease crisis ○ Support to efforts of the Catastrophe Containment and Relief Trust ○ Establishment of systems preventing international emergency due to the spread of infectious diseases ○ Strengthening of cooperation in the health field |
| (1)-1 Securing implementation and strengthening IHR of WHO | The Ministry of Foreign Affairs and the Ministry of Health, Labour and Welfare | Support for securing implementation and strengthening of International Health Regulations (IHR) through promotion of support to WHO | | | | | | |
| (1)-1 Support for strengthening the base of GOARN | The Ministry of Health, Labour and Welfare | Strengthening the implementation system of training before dispatch and the communication system to contribute to strengthening the foundation of GOARN through promotion of support to WHO | | | | | | |
| (1)-2 Dealing with the Catastrophe Containment and Relief Trust of the International Monetary Fund (IMF) | The Ministry of Finance | Suppressing the reduction of financial capabilities to measures to tackle infectious diseases due to the worsening of macro economy, by immediately providing grants to IMF Member State in severe economic stagnation due to pandemic through contribution to efforts by CCR Trust | | | | | | |
| (1)-3 Cooperation and policy dialogues with implementing agencies such as UNDP, UNICEF, and UNFPA | The Ministry of Foreign Affairs | The holding of dialogue and meetings once a year if possible, such as strategy dialogues between Japan and UNDP, policy meetings between Japan and UNICEF, and policy meetings between Japan and UNFPA | | | | | | |

| Measures | Ministry | (TY) 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | Target |
|--|--|---|------|------|------|------|------|--|
| (2) Health systems strengthened in developing countries to prevent outbreak and spread of infectious diseases | | | | | | | | |
| (2)-1 Health systems strengthened and promoting universal health coverage (UHC) by utilizing development cooperation | The Ministry of Foreign Affairs, the Ministry of Finance, and the Ministry of Health, Labour and Welfare | In development cooperation for strengthening health systems and promoting UHC, technical cooperation, government loans, and grant aid are organically combined to reflect the partner countries' situation according to economic conditions and the prerequisites of health systems in the supported countries and operated in a timely and flexible manner, taking into account the possibilities of cooperation with other donors (including international institutions addressing specific diseases) | | | | | | <ul style="list-style-type: none"> ○ Strengthening of health systems and promotion of UHC ○ Promotion of design of health systems and development of health human resources for low-income countries and regions in Africa • Supported countries for IHR implementation including ones through the framework of GHSA 7countries |
| | | Direct support and development of human resources by dispatching experts in each field according to the implementing stage of measures for strengthening health systems in each country | | | | | | |
| | | Promotion of support to contribute to UHC by World Bank through the Japan Trust Fund of the World Bank | | | | | | |
| | | Support for the implementation of IHR through a framework of the Global Health Security Agenda (GHSA). | | | | | | |
| | | Support for the implementation of IHR in developing countries through development of research centers and human resources in the Noguchi Memorial Institute for Medical Research | | | | | | |
| (2)-2 Emergency assistance in response to the outbreak of infectious diseases and support for the recovery of health systems | The Ministry of Foreign Affairs and the Ministry of Health, Labour and Welfare | <p>The following efforts implemented to provide emergency assistance in response to the outbreak of infectious diseases or recover the health systems</p> <ul style="list-style-type: none"> • Provision of emergency grant aid and emergency relief goods, as emergency assistance and funds and materials to international institutions for the recovery of health systems • Personnel assistance including the dispatch of expert human resources | | | | | | <ul style="list-style-type: none"> ○ Development of human resources, provision of medicines, and promotion of health information system in the outbreak of infectious diseases |
| | | Promotion of strengthening health systems in developing countries through collaboration with the Global Fund, other international institutions and other donors | | | | | | |

| 2. Developing testing and research systems for high-risk pathogens involved in infectious diseases in Japan | | | |
|---|---|---|--|
| (1) Development of the testing system at the National Institute of Infectious Diseases | The Ministry of Health, Labour and Welfare | Promotion of active information disclosure and communication with local communities by holding communication meetings | |
| (2) Further considering how to designate BSL 4 facilities in Japan | The Cabinet Secretariat, the Ministry of Education, Culture, Sports, Science and Technology, and the Ministry of Health, Labour and Welfare | Further discussion on the necessity of development of BSL4 facilities | |

| 3. Developing the base of Japanese human resources involved in measures to tackle infectious diseases who take an active role in the international community | | | | | | | | |
|--|--|--|------|------|------|------|------|--|
| Measures | Ministry | (TY) 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | Target |
| Promoting human resources development through the Infectious Disease Emergency Specialist Training Program | The Ministry of Health, Labour and Welfare | <ul style="list-style-type: none"> • Creation of IDES Training Program and implementation of training • Promotion of human resources development by IDES Training Program and registration of human resources | | | | | | <ul style="list-style-type: none"> ○ Development of an expert on infectious disease crisis management who has clinical and epidemiological knowledge related to infectious diseases, the ability to respond to public health, the international adjustment ability, and comprehensive expertise and abilities • The registered number to JDR Team in JICA from the IDES Training Program 20 people by TY 2020 ○ Development of field epidemiologists The number of FETP-J graduates: 64 people (TY 2015) → 100 people (TY 2020) |
| | | <ul style="list-style-type: none"> • Registration of IDES Training Program graduates as an infectious disease emergency specialist • Gradual registration as a member of Infectious Diseases Response Team in JICA | | | | | | |
| | | <ul style="list-style-type: none"> • Development of human resources by FETP-J | | | | | | |

4. Strengthening the domestic measures on infection prevention and the safety measures for Japanese nationals overseas

| | | | | | | | |
|---|---|---|--|--|--|--|---|
| (1) Promoting provision of information on infectious diseases in Japan to the populace | The Ministry of Health, Labour and Welfare | Utilization of new media including SNS, and regular implementation of needs investigation of mail magazines to broaden measures | | | | | ○ Proper provision of information on infectious diseases in Japan |
| (2) Improving response capability of relevant organizations including quarantine stations and securing responses in the case where an infection (including a suspected infection) has been confirmed in Japan | The National Police Agency, the Fire and Disaster Management Agency, the Ministry of Health, Labour and Welfare, the Ministry of Land, Infrastructure, Transport and Tourism, and the Ministry of the Environment | Implementation of training in quarantine stations, municipalities, health centers, regional public health laboratories, and designated medical institutions for specified infectious diseases | | | | | ○ Keeping necessary response capabilities in relevant organizations • The frequency of trainings in each organization Once or more (TY 2014) → Once or more improved training per year (TY 2020) • The figure for illegal dumping or inappropriate disposal of infectious waste 0 (TY 2014) → 0 (TY 2020) |
| Appropriate implementation of active epidemiological investigation by utilizing Field Epidemiology Training Program (FETP-J) in the National Institute of Infectious Diseases | | | | | | | |
| Making training and basic measures known in the National Police Agency, the Fire and Disaster Management Agency, and the Ministry of Land, Infrastructure, Transport and Tourism | | | | | | | |
| • Investigation and discussion for revision of an infectious waste disposal manual and implementation of revision | • Making the new manual known • Investigation and discussion for further review of the manual | | | | | | |

| Measures | Ministry | (TY) 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | Target |
|--|--|---|-----------------------------|------|------|------|------|---|
| (3) Developing policies for responses to Viral Hemorrhagic Fever at administrative agencies. | The Ministry of Health, Labour and Welfare | Creation of a guideline for administrative response | Making it known by training | | | | | ○ Securing responses by administrative agencies in a prompt and appropriate manner in cases where Viral Hemorrhagic Fever occurred in Japan |
| (4) Ensuring the provision of timely and appropriate information and travel advice/warning on infectious diseases to Japanese nationals overseas | The Ministry of Foreign Affairs and the Ministry of Health, Labour and Welfare | Issuing of safety information on infectious diseases in a timely and appropriate manner | | | | | | ○ Provision of infectious disease information to Japanese nationals overseas in a timely and appropriate manner |

| | | | |
|---|--|--|--|
| <p>(5) Strengthening safety measures such as medical evacuation in case of infection of Japanese nationals overseas</p> | <p>The Cabinet Secretariat, the Ministry of Foreign Affairs, the Ministry of Health, Labour and Welfare, and the Ministry of Defense</p> | <p>Discussing the deployment of medical attaches in an emergency situation such as the infection of Japanese nationals overseas</p> <p>Test deployment of the medical attachés in an emergency situation</p> <p>Full-scale deployment of medical attaches in an emergency situation</p> <p><Developing medical evacuation system ></p> <ul style="list-style-type: none"> • Government will collect information on infectious diseases by relevant country and private airlines and crisis management companies and construct a cooperative relationship with them through overseas establishments in order to ensure their prompt cooperation and support once the medical evacuation to a third country/Japan is considered to be the best method of treatment taking into account doctor's diagnosis and request from the patient/family. • Government will strengthen response through coordination of the relevant ministries/agencies and other methods to including the medical evacuation by the aircraft of the Japan Self-Defense Force in case there are no other alternative nor civil aircraft available. | <ul style="list-style-type: none"> ○ Strengthening support by the medical attaches in overseas establishments • Development of systems capable of responding to emergencies in various regions by nearly 10 medical attaches who experienced various trainings ○ Maintaining medical evacuation capability overseas |
|---|--|--|--|