JICA has worked to strengthen laboratory capacities mainly with the Noguchi Memorial Institute for Medical Research in Ghana for more than half a century.

Joint research between University of Zambia School of Veterinary Medicine and Hokkaido University on the pathogens carried by bats.

Summary

- Recently in the progressing economic and social globalization, frequent and rapid movement of humans, animals and goods allows infectious diseases to spread rapidly in a short period of time. In addition, threats of emerging and re-emerging infectious diseases are increasing due to the emergence of bacteria and viruses that are resistant to drugs.
- JICA, in its efforts at infectious disease control, focuses more on a horizontal approach to strengthen International Health Regulations (IHR) core capacities and to establish resilient health systems while taking a cross-cutting approach to control specific diseases where appropriate.

Current Situation of Infectious Diseases

While the major causes of deaths are shifting from infectious diseases and childhood illness to non-communicable diseases globally, the burden of infectious diseases remains heavy in Sub-Saharan Africa.

Owing to the efforts by organizations such as the Global Fund to Fight AIDS, Tuberculosis and Malaria, infections of HIV/AIDS, tuberculosis and malaria have decreased in the past 15 years and related MDG targets have been achieved. However, 8.44 million people still die from infectious diseases annually and they are the top causes of mortality in Africa, some parts of South-East Asia and Eastern Mediterranean regions, and deaths by infectious diseases in these three regions account for 80% of global deaths from infectious diseases.

Emerging and reemerging infectious diseases such as Severe Acute Respiratory Syndrome (SARS), and Ebola Virus Disease (EVD), etc., have become global threats, coupled with climate change, disasters, increasing contact between wild animals and humans, and transfer of people over borders. More than 30 emerging infectious diseases have been identified in the last 30 years and most of them are zoonotic diseases.

Although development of antibiotics and vaccines once made us believe that infectious diseases are preventable and controllable, they can spread in short periods as humans, animals and goods transfer more frequently and rapidly in the progressing economic and social globalization. In addition, it is a universal issue to respond to the threats of emerging and reemerging infectious diseases, caused by the emergence of bacteria and viruses that are resistant to drugs, population growth in developing countries, and environmental and ecological changes due to global warming and development. Continuous surveillance and prompt and efficient diagnostics, development and use of new vaccines and drugs, and research that includes understanding of the ecology of pathogens and organisms are required.

1: A Non-Profit Organization under the Swiss national law of state that finances developing countries and endeavors to control the 3 major infectious diseases (HIV/AIDS, tuberculosis and malaria). By the end of December 2016, it provided 32.6 billion USD to programs on these diseases.

2: WHO’s regions are applied.
Controlling major infectious diseases, including HIV/AIDS, tuberculosis and malaria, is an important focus of the Sustainable Development Goals (SDGs) that tackle the yet unattained issues from the MDGs. Target 3.3 of SDGs states that “By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases (NTDs) and combat hepatitis, water-borne diseases and other communicable diseases.” It transcends the scope of the MDGs and includes the controls of NTDs and water-borne diseases.

International Health Regulations (IHR, revised in 2005) are the international legal framework, agreed upon by WHO member states at the World Health Assembly, (which regulates the roles of WHO and member states), for preventing and responding to international health risks defined by the WHO Constitution. The IHR corresponds to a treaty. Since the 2014 Ebola outbreak in West Africa, the importance of strengthening the capacities to comply with the IHR was re-recognized and a monitoring and evaluation framework for the IHR was established. Joint External Evaluation (JEE) is a voluntary coordination process to evaluate a country’s capacity to prevent, detect and respond according to the IHR (2005). Countries conduct self-evaluations followed by JEE, whose result is set as the baseline, and the progress is monitored. The countries who receive JEE are to establish a plan to strengthen their core capacities (legislation and policy, coordination, surveillance, response, preparedness, risk communications, laboratory, and human resources). Global Health Security Agenda (GHSA), established in February 2014 with the US Government’s initiative, promotes strengthening of the IHR core capacities. Pandemic Emergency Financing Facility (PEF) is the quick-disbursing financing mechanism to a large-scale disease outbreak. The Japanese Government was actively involved in its establishment.

Ending the epidemics of infectious diseases, such as HIV/AIDS, tuberculosis and malaria, is set as one of the targets for SDGs Goal 3. At the same time, in addition to the conventional disease-specific approach, the importance of strengthening IHR core capacities and establishing resilient health systems is stressed, as they enable countries to prevent pandemics and to continue to provide routine services in case outbreaks occur. On this account, JICA’s policy is to pursue a horizontal approach to strengthen IHR core capacities and to establish resilient health systems — more specifically, to strengthen surveillance, laboratory diagnostics and research capacities. As trans-border efforts are also indispensable, JICA will collaborate with related partners such as Africa Centres for Disease Control and Prevention (Africa CDC) and support regionally.

At the same time, there are still needs for disease-specific efforts (vertical programs). If the disease burden is large and strengthening of the vertical program is technically more suitable, JICA will consider support so as to contribute to elimination. In such support, health system strengthening should be also considered.

Through the disease specific approach, strengthening of community health (e.g., improving health workers’ knowledge, communication capacity, community-based surveillance, and access to diagnostics and treatment in the community, etc.) should also be considered. Moreover, as gender-related factors often influence fragility, infection and development of disease, and delay in treatment, etc., JICA will fully incorporate gender consideration in project planning and implementation.