



CDC in Indonesia

The Centers for Disease Control and Prevention (CDC) has collaborated with the Ministry of Health (MOH) of Indonesia for more than 50 years to strengthen laboratory networks, routine surveillance, workforce development, and emergency response. These efforts have helped improve capacity for control of malaria, influenza, emerging infectious diseases, vaccine-preventable diseases, and most recently, COVID-19.



CDC STAFF

- 2 U.S. Assignees
- 5 Locally Employed



AT A GLANCE

- Population: >270,000,000
- Per capita income: >\$11,000
- Life expectancy at birth: F 73/M 69 years
- Infant mortality rate: 25/1,000 live births

Sources:
World Bank 2020, Indonesia
Population Reference Bureau 2020, Indonesia



TOP 10 CAUSES OF DEATH

1. Cardiovascular disease
2. Neoplasms
3. Diabetes & kidney diseases
4. Digestive diseases
5. Respiratory infections
6. Chronic respiratory diseases
7. Enteric infections
8. Maternal & neonatal
9. Transport injury
10. Unintentional injury

Source:
GBD Compare 2019, Indonesia

COVID-19

Decades of global cooperation and support to respond to malaria, influenza and other diseases built strong foundations upon which to respond to the coronavirus pandemic. Indonesia is working to prevent, detect, and respond to COVID-19. CDC's technical staff work directly with Ministry of Health (MOH) counterparts and partners to respond to COVID-19, including:

- Support to improve and expand laboratory diagnosis through provision of reagents and training for conducting PCR and serology testing
- Support for epidemiological capacity building to improve data quality, collection, analysis, visualization, and use for informing public health policy
- Support for contact tracing and improved case investigation at sub-national level through focused training and supportive supervision
- Support for serosurveys in Bali and Jakarta, which have informed the MOH's COVID-19 control strategies
- Technical support for development of sampling strategies for whole genome sequencing (WGS) of SARS-CoV-2 and coordination with partners for critical reagents for WGS
- Technical support for rollout of the multiple vaccines Indonesia is deploying for control of COVID-19

Global Health Security

CDC's global health security efforts in Indonesia help improve the country's ability to prevent, detect, and respond to infectious disease outbreaks before they become epidemics that could affect global populations. These efforts help Indonesia reach the targets outlined in the Global Health Security Agenda (GHSA), a global partnership launched in 2014 to help make the world safer and more secure from infectious disease threats.

Working closely with the MOH and other partners, CDC provides expertise and support across the 11 technical areas known as GHSA action packages. These action packages help Indonesia build core public health capacities in disease surveillance, laboratory systems, workforce development, emergency management, and other critical areas.

Vaccine-Preventable Diseases

Vaccines prevent an estimated 2.5 million deaths among children under 5 years of age annually. Still, 1 child dies every 20 seconds from a disease that could



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have been prevented by a vaccine. CDC provides support to countries to strengthen vaccine-preventable disease detection and vaccine delivery. Our goal is to provide scientific and public health expertise, making evidence for action available for optimal policy and programmatic decision-making at all levels, from community to global. Two locally employed staff assigned to CDC Indonesia support country-wide immunization and vaccine-preventable disease surveillance systems strengthening. Program objectives include maintaining a polio-free status, working toward measles and rubella elimination, introducing new vaccines (such as human papillomavirus, Japanese encephalitis, rotavirus, pneumococcal, and influenza) and improving routine immunization coverage across the country.

Malaria

Malaria causes several hundred thousand infections and approximately 2,000 deaths each year in Indonesia. Progress toward malaria elimination has been made in the western part of the country but is stagnant in Papua Province, which accounts for 74% of reported cases annually. Malaria control and elimination work is made in collaboration with the MOH, the National Malaria Control Program (NMCP), UNICEF, and WHO. CDC supports elimination work in the western part of the country, development of laboratory infrastructure and reporting, and improved control in Papua Province. CDC supported the Global Fund to Fight AIDS, Tuberculosis and Malaria grant for Indonesia, focused on improving program management in Papua and implementation of key research associated with hard to reach populations, migration, insecticide resistance management, and development of laboratory networks for improved surveillance.

Influenza

Influenza viruses are constantly changing and require continued vigilance to protect the United States and the world from seasonal influenza and from novel viruses that could trigger a pandemic. CDC has worked with Indonesia to build surveillance and laboratory capacity to prevent, detect, and respond to influenza threats. CDC continues to encourage routine influenza surveillance, laboratory testing for influenza, reporting of laboratory results to the WHO global system, and the integration of surveillance with disease program policy development. Surveillance systems have expanded to examine other public health priorities such as pneumonia and dengue.

Emerging Infectious Diseases

Infectious diseases can emerge without warning and quickly spread in our globally connected world, where their effects can have unprecedented reach. CDC works with Indonesia to help build surveillance and laboratory capacity to prevent, detect, and respond to infectious disease threats. CDC helped develop, train and equip a world-class laboratory at the Eijkman Institute of Molecular Biology in Jakarta for detection of emerging viruses and vector-borne pathogens. The project connects researchers at the institute, medical schools, and the MOH to identify the causes of undifferentiated febrile illness.

Antimicrobial Resistance

Infections caused by bacteria resistant to one or more antibiotics have become challenges. CDC works with Indonesia to build surveillance and laboratory capacity to identify and characterize pathogens resistant to antibiotics. Technical support was provided for development of a reference laboratory at the Eijkman Institute of Molecular Biology in Jakarta for detection of WHO priority antimicrobial resistant (AMR) pathogens. CDC and Eijkman staff are working in collaboration with the National AMR Committee to establish clinical laboratory capacity for the detection of bacterial pathogens causing infections in patients hospitalized with meningitis, pneumonia, and sepsis.

Field Epidemiology Training Program

CDC supports Indonesia in strengthening the capacity of its workforce to investigate and respond to disease outbreaks through the establishment of a Field Epidemiology Training Program (FETP). FETP trains a workforce of field epidemiologists—or disease detectives—to identify and contain outbreaks before they become epidemics. Participants develop the skills to gather critical data and turn it into evidence-based action. The FETP in Indonesia evolved into a Master's Program at the Universities of Indonesia, Gadjah Mada, Airlangga, Udayana and Hasanuddin. CDC provided the support of an in-country resident advisor to strengthen field assignments and to provide essential mentorship and instruction on special topics, such as investigating infectious disease outbreaks, scientific writing, and communication.

CDC IMPACT IN INDONESIA



As of March 2018, more than 690 fellows have graduated from the Field Epidemiology Training Program and are assuming public health leadership positions in Indonesia and other countries in the region.



Four Ministry of Health staff have participated in the CDC Public Health Emergency Management Fellowship Program. They helped establish a Public Health Emergency Operations Center within the Indonesia MOH.



Established sentinel surveillance for leptospirosis, a bacterial disease that affects humans and animals, in two district hospitals and eight community health centers in Jakarta Province. The program is now being expanded to additional health care facilities in East Java province.

For more country information, visit:
www.cdc.gov/globalhealth/countries/indonesia

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