



CDC in Bangladesh

The Centers for Disease Control and Prevention (CDC) has been working in Bangladesh for the last 50 years. CDC has built and maintained a strong collaboration with the International Centre for Diarrheal Disease Research, Bangladesh (icddr,b), a premier global health research institution in Dhaka, to strengthen the country's capacity to detect emerging infectious diseases. CDC has also developed a robust partnership with the Institute of Epidemiology Disease Control and Research (IEDCR) within the Bangladesh Ministry of Health and Family Welfare (MOHFW) to further strengthen the country's ability to detect and respond to disease threats.



CDC STAFF

- 2 U.S. Assignees
- 1 Locally Employed



AT A GLANCE

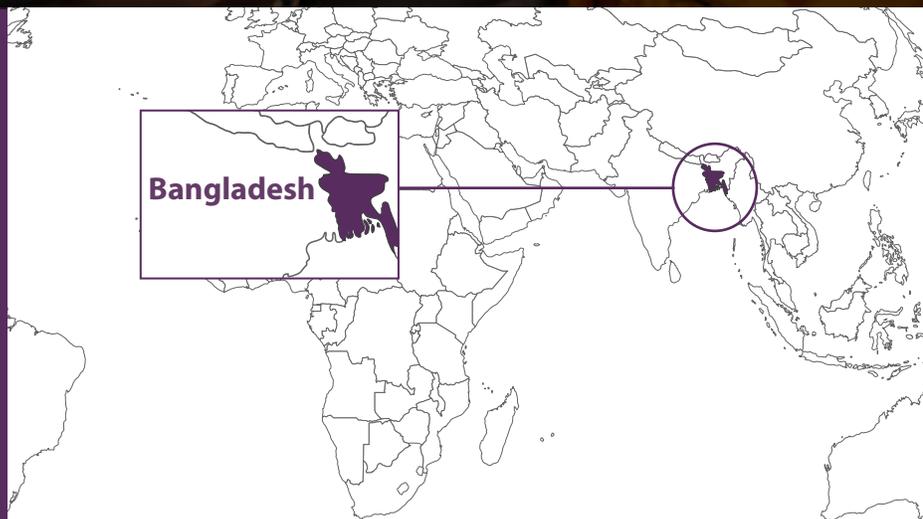
Population: 164,700,000
Per capita income: \$3,790
Life expectancy at birth: F 74/M 71 yrs
Infant mortality rate: 38/1,000 live births



TOP 10 CAUSES OF DEATH

1. Cardiovascular diseases
2. Neoplasms
3. Chronic respiratory
4. Diarrheal diseases
5. Diabetes/urological/blood/ endocrine disorders
6. Neonatal disorders
7. Unintentional injuries
8. Cirrhosis
9. Transport injuries
10. Neurological disorders

Source: Population Reference Bureau 2016: Bangladesh
Source: GBD Compare 2016: Bangladesh



Global Health Security

CDC's global health security efforts include working with our partner countries to help build the core public health capacities that are needed to identify and contain outbreaks before they become epidemics that could affect global populations. In Bangladesh, CDC experts and USAID partners provide technical support and funding to the IEDCR, the designated lead for the Global Health Security Agenda (GHS) <https://ghsagenda.org/> within Bangladesh, as well as other institutions in country. These efforts are focused on strengthening laboratory capacity, enhancing surveillance, expanding emergency management systems, and developing a stronger public health workforce within the country.

Emerging Infections

CDC works with partner organizations to establish surveillance and lab capacity for new and re-emerging public health threats like Influenza, Nipah Virus, and Crimean-Congo Hemorrhagic Fever. CDC supports sentinel surveillance sites in health care facilities throughout Bangladesh that help public health professionals better understand the transmission, burden, and trends of pathogens that cause respiratory, febrile, encephalitic, and gastrointestinal illnesses.



U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

One critical example of this is the establishment of a rotavirus surveillance platform. Jointly through an agreement with USAID, CDC funded and provided technical assistance for this program over the last 10 years. Not only has this platform helped make the case for importance of rotavirus vaccine introduction in Bangladesh (planned for 2018) but the platform also identified a new subtype of rotavirus.

Innovative Research

CDC designated Bangladesh as a CDC Global Disease Detection Center in 2012 for enhancing rapid detection and response for infectious diseases. As part of this program, CDC works collaboratively with icddr,b and the MOHFW to conduct public health research that can inform policy and program decisions in Bangladesh and around the globe. For example:

- CDC and icddr,b's collaborative polio study findings have generated evidence to support the provision of polio vaccines at short intervals to rapidly increase population immunity. The primary literature providing the evidence for the most recent update to WHO's polio vaccination recommendations was an icddr,b/CDC article in *Lancet Infectious Diseases Journal*.
- CDC provided key support to the Bangladesh government to respond to clusters of encephalitis in several communities, eventually identifying the pathogen causing those outbreaks as Nipah Virus and the consumption of raw date palm sap as the primary initial mode of transmission. CDC and icddr,b designed and tested multiple interventions to prevent the spread of the virus.
- In late 2016, CDC tested several of the Nipah negative samples from the encephalitis surveillance platform for a number of other encephalitic pathogens. As a result, CDC and icddr,b identified the first documented case of the free living (aka brain-eating) amoeba *N. Fowleri*, in Bangladesh.

One Health

CDC works with the government of Bangladesh and other partners to approach disease from a One Health perspective, recognizing the interconnection between people, animals, plants, and their shared environment. CDC is working with partners both in the animal and human sectors to strengthen joint outbreak investigations and conduct coordinated human and animal surveillance for diseases like influenza and anthrax. Additionally, CDC is working with partners to mitigate risk of animal-to-human transmission of influenza and other pathogens. For example, in one mixed-methods study, researchers are looking for creative, yet simple solutions to improve the safety of slaughtering poultry in live bird markets and backyard farms. Similarly, CDC monitors the occurrence of seasonal and novel influenza viruses—both in hospitals and in live bird markets.



IMPACT IN BANGLADESH

CDC is building applied field epidemiology and public health management capacity in Bangladesh through a portfolio of three, integrated workforce development programs run in partnership with IEDCR.



Field Epidemiology Training Program

(FETP) Advanced: By the end of October 2019, we anticipate that 24 disease-detectives will have completed this 2-year course, with another 20 fellows enrolled in the program for graduation in 2121.



Field Epidemiology Training Program

(FETP) Frontline: The 100+ officers working at the upazila (subdistrict level) who completed this program in the first 5 cohorts will form the base for a cadre of local-level public and animal health officials ready to respond to emerging infectious disease threats. We anticipate conducting 3 more cohorts by the end of October 2019.



Improving Public Health Management

for Action (IMPACT): 4 mid-level health leaders will graduate from a 2-year practice-based program focused on public health management and leadership in the summer of 2018. An additional 45+ program managers from across the ministry will be trained in management through a shortened course by the end of October 2019.

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For more country information
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