



CDC in Pakistan

Factsheet

Staffing

- 1 U.S. Assignee (with WHO)
- 1 Locally Employed

Impact in Pakistan

- Expanded surveillance of viral hepatitis in 2010 provided data that led to engagement in a prevention and control campaign for Sindh province
- An outbreak investigation of pneumonia in January 2012 led to children's enrollment in a community-based acute malnutrition program
- Polio vaccination reached more than 95% in 196 village areas as a result of the N-STOP initiative
- 31 FELTP graduates who are also public health physicians now serve in national or provincial agencies



The Centers for Disease Control and Prevention (CDC) works with several key public health institutions in Pakistan. CDC has partnerships with Pakistan's National Institute of Health (NIH) as well as the provincial and district level offices to strengthen capacity and infrastructure for key public health issues, including workforce development, hepatitis surveillance, and polio eradication efforts. CDC also has strong partnerships with Aga Khan University to foster research in the areas of vaccinations and neonatal infections. Despite the recent devolution of Pakistan's Ministry of Health (MoH), CDC continues to conduct activities in Pakistan through its established relationships with provincial governments.

Top 10 Causes of Deaths in Pakistan

1. Lower respiratory infections	12%	6. Tuberculosis	5%
2. Ischaemic heart disease	11%	7. Chronic obstructive pulmonary disease	4%
3. Diarrheal disease	9 %	8. Measles	3%
4. Perinatal conditions	8%	9. Whooping cough	2%
5. Cerebrovascular disease	6%	10. Congenital anomalies	2%

WHO World Health Statistics, 2006

Polio Eradication

Pakistan is one of three remaining countries where indigenous wild poliovirus (WPV) transmission has never been interrupted. The number of confirmed WPV cases increased to 198 in 2011. Also in 2011, Pakistan began implementing a national action plan in response to the WHO declaring a global polio emergency. CDC supports the Government of Pakistan's (GoP) polio eradication efforts via an assignee to the WHO Eastern Mediterranean Regional Office who focuses on Pakistan. This assignee works with the GoP to implement an ambitious national action plan with attention on strengthening the planning, implementation, and monitoring of supplementary immunization activities in high risk districts and populations (e.g., mobile populations). Enhanced activities have led to a decrease in WPV cases and circulation in large cities. The CDC-supported Pakistan Field Epidemiology and Laboratory Training Program (FELTP) collaborated with Pakistan's MoH to recruit and train 16 National Stop Transmission of Polio (N-STOP) program staff to provide technical support in high risk districts. Due to improvement in these districts, N-STOP activities will expand to 50 districts. In addition, CDC plans to intensively train 18 FELTP residents to support immunization and polio eradication activities.

Viral Hepatitis

Pakistan continues to have transmission of all forms of viral hepatitis. With 4-5% of the population infected, the country has one of the highest rates of hepatitis C virus infection in the world. Since 2007, CDC has worked with GoP to establish a viral hepatitis surveillance system based in the four provinces and capital of Pakistan, which became operational in 2009. Analysis of surveillance data revealed ongoing transmission of all forms of viral hepatitis (A, B, C, E) and associated risk factors. CDC is supporting expansion of the surveillance system and management of the hepatitis surveillance sites. Based on these findings, USAID is supporting CDC to engage with the Sindh province to implement and evaluate hepatitis prevention and control measures.



Pakistan at a Glance

Population:	176,940,000
Per capita income:	\$2,680
Life expectancy at birth women/men:	66/64 yrs
Infant mortality rate:	64/1000 live births

Population Reference Bureau World Population Data Sheet, 2011



Field Epidemiology and Laboratory Training Program (FELTP)

The CDC-Pakistan FELTP, located in the Pakistan NIH, has worked closely with the GoP since 2006. FELTP has served as a key technical arm during several public health events, including the Human Avian Influenza outbreak in 2007, an HIV outbreak in 2008, the flood response in 2010, and the dengue outbreak in 2011. FELTP established the original hepatitis surveillance sites in Pakistan. CDC, joined by USAID, Department of State's Bio-Security Engagement Program, and the Office of Global Health Affairs in the Department of Health and Human Services, supports this program. Thirty-three public health physicians (including two from Afghanistan) have completed this two-year competency-based program, building a self-sustaining workforce in Pakistan. Currently, with 18 residents enrolled, the program will implement a polio/immunization track to provide assistance in 50 districts throughout Pakistan. In light of the recent devolution, all public health authority has been delegated to provincial health departments with whom the FELTP has established relationships.

Influenza

CDC has supported the development of influenza surveillance in Pakistan through a cooperative agreement with the Pakistan NIH since 2004. Five geographically representative surveillance sites have been established to conduct surveillance for influenza-like illness in outpatient settings and for severe acute respiratory illness in hospitalized patients. Prior to CDC funding, Pakistan had no laboratory capable of performing the diagnostics for influenza. Staff have since been trained in Atlanta in advanced laboratory techniques. Due to these investments, the NIH has a state of the art, WHO-accredited influenza diagnostic laboratory that contributes influenza virus isolates to the Global Influenza Surveillance Network for influenza vaccine strain selection. Four of five surveillance sites established on-site laboratory capacity for influenza virus testing, enhancing capacity for rapid detection of influenza outbreaks. A national database was established to track both influenza and hepatitis activity. CDC support has also led to strengthening of national pandemic response plans and training of outbreak response teams to rapidly investigate emerging public health threats.

Additional CDC Activities

- CDC enhances Pakistan's capacity to design, implement, and evaluate comprehensive tobacco control policy interventions through the Global Tobacco Surveillance System (GTSS). GTSS supports 3 surveys in Pakistan: one for youth, one for health professionals, and one for school personnel. Survey data is used for tobacco control policies, which ultimately can impact other health outcomes.
- CDC's Global Initiative to Eliminate Folic Acid-Preventable Neural Tube Defects by 2020, in conjunction with partners, provides technical assistance to establish folic acid fortification policies. The initiative also works to establish a global network of partners with expertise in birth defect prevention and surveillance activities and to strengthen regional and in-country birth defect surveillance to support neural tube defect prevention efforts.
- CDC has several projects related to bacterial diseases in Pakistan:
 - Demonstrating the impact of Hib vaccine in preventing meningitis and pneumonia among young children in selected districts of Pakistan
 - Determining the bacterial and viral causes of neonatal infections
 - Supporting surveillance for the detection and characterization of agents of invasive bacterial vaccine-preventable diseases to provide data, enabling GoP to make informed decisions regarding vaccinations

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