The Center for Global Health and Prevention (CDC) has worked with public health institutions in Egypt in collaboration with the Naval Medical Research Unit No. 3 (NAMRU-3) for over 20 years. CDC works in conjunction with the Egyptian Government, WHO, local partners, and other U.S. government agencies to reduce the impact of emerging diseases, build capacity in areas such as laboratory systems and epidemiology, strengthen immunization services, respond to public health emergencies, and conduct surveillance, surveys, and studies.

Global Disease Detection (GDD)
GDD supports efforts to protect the public’s health by developing and strengthening the ability of Egypt and the region to rapidly detect and respond to disease outbreaks and emerging infectious diseases. GDD brings together CDC-wide expertise to support capacity-building activities and training in epidemiology, surveillance, laboratory diagnostics, data management/reporting, infection control, and outbreak investigations in NAMRU-3’s 40 country area of operation. This GDD regional center operates at NAMRU-3 and coordinates CDC’s emerging infections, influenza, and field epidemiology programs and the One Health office.

International Emerging Infectious Disease Program (IEIP)
The IEIP supports demonstration and research projects in 14 Middle Eastern and West African countries, building capacity in surveillance, laboratory diagnostics, and data management/reporting focused on meeting International Health Regulations compliance. IEIP supports surveillance of acute respiratory illness (ARI), acute febrile illness, acute infectious neurologic disease, tuberculosis, and healthcare associated infections. In addition, IEIP helps coordinate a network of 24 hospital-based ARI surveillance sites in seven countries, collaborates with partners in extensive capacity building, and collaborates with the Ministry of Health (MoH) in hosting centers of excellence and a flagship population-based surveillance site in the Nile Delta region.
Influenza
The influenza program in Egypt was established more than 10 years ago through an interagency agreement between CDC and NAMRU-3. A cooperative agreement with the MoH provides support to conduct epidemiologic and laboratory surveillance for influenza and to build capacity in Egypt’s National Influenza Center (NIC) to detect and isolate seasonal and novel influenza viruses. An influenza cooperative agreement with the Eastern Mediterranean Regional Office (EMRO) of WHO provides international support to countries in this region for pandemic influenza preparedness and response, infection control, International Health Regulations, health communications, and outbreak response. CDC’s efforts currently support 13 eastern Mediterranean NICs, an ARI surveillance network, and influenza surveillance in West Africa. The program also conducts population-based studies of the burden of influenza and effectiveness of prevention measures.

Field Epidemiology Training Program (FETP)
Since 1993, CDC has supported the MoH in strengthening capacity to investigate disease outbreaks and improve the country’s public health surveillance systems. To date, the FETP has graduated 96 medical epidemiologists; 21 are currently participating in the two-year applied training program. Through strong partnership with the MoH, USAID, WHO, and NAMRU-3, FETP graduates have become responsible for functions of the MoH related to disease surveillance and outbreak investigation, including developing a national electronic disease surveillance system, a Nile cruise boat inspection program, and epidemiologic training. The program fosters the training of hundreds of physicians at the district health level in disease surveillance and applied epidemiology. On average, the FETP conducts 3-5 outbreak investigations per year, including recent investigations of E. coli, Rift Valley fever, viral hepatitis, typhoid, tetanus, and human rabies. The FETP is also actively involved in prevention and control efforts for pandemic influenza A (H1N1) and avian influenza A (H5N1). More than 84% of the graduates have remained in Egypt addressing the country’s public health needs.

Immunization
CDC has provided technical and financial support for vaccine-preventable disease (VPD) control and prevention to the (MOH&P), directly and through WHO-EMRO since 1995. Support is provided through four CDC assignees to WHO-EMRO and technical assistance is directed toward polio eradication, measles elimination, rubella and congenital rubella syndrome prevention, and strengthening of routine immunization service through advocacy, social messaging, and policy-making. Egypt has achieved significant progress in VPD control and prevention. Routine immunization coverage with the diphtheria, pertussis, and tetanus vaccine 3rd dose reached more than 95% of the population. Indigenous wild poliovirus transmission was eliminated in 2006 and is monitored by ongoing environmental surveillance for wild polioviruses in a program assisted by CDC and other partners. Egypt is moving toward elimination of measles and rubella through high routine immunization coverage with two doses of the measles, mumps, and rubella.

Impact in Egypt
- Infection rates dropped 20% one month after healthcare acquired infection surveillance began.
- Support to MoH helped vaccinate over 35 million children and more than 95% of the population; DPT3 immunization reached 95% of the population.
- 3963 Egyptian nationals and 2273 regional MoH staff have been trained in surveillance and laboratory diagnostics since 2009.

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