The Centers for Disease Control and Prevention (CDC) established an office in Cambodia in 2002. CDC Cambodia works closely with the Ministry of Health (MoH) and other partners to build capacity for surveillance and quality laboratory systems, and to strengthen public health programs in HIV/AIDS, TB/HIV, influenza, immunization, and injury prevention.

### Impact in Cambodia
- Surveillance capacity enhanced the testing of more than 5600 specimens for influenza, respiratory infection, and outbreaks in the national reference laboratory
- 70% of patients with TB are tested for HIV
- 215 HIV voluntary counseling and testing centers actively participate in laboratory external quality control
- Collaborated on almost 100 professional and technical documents about public health in Cambodia

### Top 10 Causes of Deaths in Cambodia

<table>
<thead>
<tr>
<th>Cause</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. HIV/AIDS</td>
<td>10%</td>
</tr>
<tr>
<td>2. Tuberculosis</td>
<td>8%</td>
</tr>
<tr>
<td>3. Diarrheal disease</td>
<td>7%</td>
</tr>
<tr>
<td>4. Perinatal conditions</td>
<td>7%</td>
</tr>
<tr>
<td>5. Lower respiratory infections</td>
<td>5%</td>
</tr>
<tr>
<td>6. Ischaemic heart disease</td>
<td>5%</td>
</tr>
<tr>
<td>7. Meningitis</td>
<td>4%</td>
</tr>
<tr>
<td>8. Cerebrovascular disease</td>
<td>4%</td>
</tr>
<tr>
<td>9. Hypertensive heart disease</td>
<td>2%</td>
</tr>
<tr>
<td>10. Malaria</td>
<td>2%</td>
</tr>
</tbody>
</table>

*Source: WHO World Health Statistics 2006*

### HIV/AIDS
CDC provides technical and financial support to the MoH to prevent mother-to-child HIV transmission and TB/HIV, to improve blood and injection safety, and to increase voluntary confidential counseling and testing and HIV care and treatment programs. CDC also provides technical leadership and assistance to the Cambodian MoH to strengthen epidemiologic analysis, surveillance, operations research, and to improve laboratory and workforce capacity.

### Tuberculosis (TB)
CDC provides technical support to the national TB prevalence survey, a critical element for evaluating disease burden and program impact. CDC is helping to improve laboratory diagnosis of TB by introducing liquid culture and other techniques. The agency worked with partners in Cambodia, Vietnam, and Thailand to conduct clinical research on TB screening and diagnosis among people living with HIV. Once an improved, evidence-based approach was identified, CDC worked with the Cambodian MoH to revise guidelines and to implement the activities that will lead to better diagnosis and earlier treatment to prevent mortality related to TB.

### Influenza
CDC contributes to WHO’s Global Influenza Network; addresses the US government strategy for preparedness, communication, surveillance, and response; and helps to build country capacity to respond to seasonal and pandemic influenza. In addition, CDC works with the Cambodian government and partners to identify and characterize circulating influenza viruses and to support early identification of novel influenza viruses, such as avian influenza.
Malaria and Other Vector-Borne Diseases
As a partner in the President’s Malaria Initiative in the Greater Mekong Subregion which includes Cambodia, CDC provides technical assistance to strengthen malaria control activities, including guidance for operations research, monitoring, and evaluation. CDC staff also collaborate with WHO on the Artemisinin Resistance Containment Project, which addresses the regional problem of resistance to artemisinin, an antimalarial drug. To address the problem of Japanese encephalitis (JE), CDC collaborates with the National Immunization Program of the Cambodian MoH to establish population-based meningoencephalitis surveillance in two provinces. CDC assists with monitoring disease rates before and after a mass vaccination campaign to assess the proportion of meningoencephalitis prevented by the JE vaccine.

Immunization
CDC provides guidance to the MoH and WHO to develop strategies and to provide ongoing guidance for monitoring Cambodia’s progress towards achieving the WHO Western Pacific Region’s twin goals of measles elimination and hepatitis B control by 2012. CDC also provides technical assistance in developing strategies to maintain the polio-free status of the region, including Cambodia. Although Cambodia was certified as polio free in 2000, low coverage with polio vaccine and substandard acute flaccid paralysis surveillance has resulted in the country being at high risk for wild polio importation.

Noncommunicable Diseases
CDC works with the Asia Injury Prevention Foundation to reduce the number of fatalities, serious brain traumas, and injuries due to motorbike crashes in Cambodia. CDC, in partnership with Handicap International (Belgium), supports surveillance activities, observational studies to assess helmet use, and surveys to assess knowledge and attitudes as part of the Cambodian Helmet Vaccine Initiative. The baseline data will be used to drive programmatic activities to increase helmet wearing in Cambodia. Cambodia is also implementing the Global Youth Tobacco Survey, a school-based survey that collects data on students aged 13–15 years. The data from this survey will help Cambodia design, implement, and evaluate tobacco control and prevention programs. CDC’s primary role is to assist in the analysis and interpretation of the data.

Field Epidemiology Training Program (FETP)
In 2010 Cambodia established an Applied Epidemiology Program (AET), a six month program to develop competencies among MoH staff for effective surveillance and outbreak response. Participants spend one-third of their time in the classroom and the remaining time in the field. This work is done with guidance from the CDC regional office in Thailand and in collaboration with WHO and the Cambodian MoH. The first five AET participants graduated in 2011. Impact from the program is evident; for example, an AET participant’s evaluation of an early warning surveillance system lead to training for local health staff to improve reporting quality by decreasing delays in and improving the accuracy of reporting. As a result, the Provincial Director agreed to include quality of reporting in a performance-based incentive scheme for local health workers. Prior to 2010, five Cambodians graduated from the Thailand FETP.

Cambodia at a Glance
Population: 15,100,000
Per capita income: $1,820
Life expectancy at birth women/men: 63/59 yrs
Under 5 mortality: 107/1000 live births

Population Reference Bureau, 2010

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