The Centers for Disease Control and Prevention (CDC)

CDC operations in Laos have been recognized by MoU Agreement since 2006, with focus on pandemic, avian, and seasonal influenza. There has since been a significant strengthening of CDC Country engagement, to include technical assistance in HIV/AIDS prevention and control and expanded MCH immunization coverage. CDC programmatic activities are principally worked with and through a WHO Country Collaboration. CDC provides de-facto Country representation for USG health interests, including DoD and USDA-APHIS, by virtue of MoU arrangements. CDC’s new Five Year MoU Agreement will be finalized in 2011, further advancing CDC-Laos Country activities and relations.

Impact in Laos
- CDC supported pandemic flu vaccine delivery reaching one million translates into seasonal flu vaccination policy consideration
- CDC supported 12 international/regional presentations/2 manuscripts accepted for publication
- Investments in Influenza laboratory detection, surveillance, and outbreak response capabilities result in first WHO National Influenza Center designation for Country

Pandemic, Seasonal, and Avian Influenza Preparedness
Focus on avian, pandemic, and seasonal flu preparedness through laboratory, surveillance, outbreak response/containment capacity building initiatives, infection control guidelines and best practices, clinical case management, and pandemic planning. CDC technical investments had led to: 1) recognition of seasonal influence; 2) credible Real-Time PCR/Cell culture/Sequencing capabilities; 3) data sharing thru WHO FLUNET and contributions of viral isolates to the WHO GISN (thru CDC); and 4) improvements and expansion nationwide (to 8 hospital sites) of the ILI/SARI Surveillance Network countrywide. Testament to capacity enhancements is evidenced by WHO recognition of the National Center for Laboratory and Epidemiology (NCLE) as a designated National Influenza Center (NIC) in August 2010. Importantly, the added value of capacity building investments beyond FLU have contributed to the strengthening of the IHR as practiced in Laos, and spilled over in enabling first time laboratory detection of human anthrax and circulating dengue subtypes (thru real-time PCR detection capabilities).

Field Epidemiology Training Program
Influenza Division capacity building investments, included standing up and operational support of the Lao Field Epidemiology Training Program (FETP). A year-long training initiative, intended to decentralize outbreak response and surveillance capabilities, Lao FETP is organized into three modules: one month of practical classroom instruction and three months of field work. The Lao FET has resulted in a 15 strong national network of

Top 10 Causes of Deaths in Laos

<table>
<thead>
<tr>
<th>#</th>
<th>Cause</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Perinatal conditions</td>
<td>14%</td>
</tr>
<tr>
<td>2</td>
<td>Lower respiratory infections</td>
<td>10%</td>
</tr>
<tr>
<td>3</td>
<td>Ischaemic heart disease</td>
<td>08%</td>
</tr>
<tr>
<td>4</td>
<td>Diarrheal disease</td>
<td>08%</td>
</tr>
<tr>
<td>5</td>
<td>Cerebrovascular disease</td>
<td>05%</td>
</tr>
<tr>
<td>6</td>
<td>Chronic obstructive pulmonary disease</td>
<td>04%</td>
</tr>
<tr>
<td>7</td>
<td>Tuberculosis</td>
<td>02%</td>
</tr>
<tr>
<td>8</td>
<td>Malaria</td>
<td>02%</td>
</tr>
<tr>
<td>9</td>
<td>Road traffic accidents</td>
<td>02%</td>
</tr>
<tr>
<td>10</td>
<td>Self-inflicted injuries</td>
<td>02%</td>
</tr>
</tbody>
</table>

Source: WHO World Health Statistics 2006
alumni, and uniquely brings human and animal health FETP candidates together in carrying out invaluable investigative work that that has led to:

- Recognition of morbidity and mortality associated with seasonal influenza outbreak occurrence.
- Expansion and improvements of ILI/SARI Surveillance Network.
- Susceptible female population of child-bearing age to rubella.
- Epidemic Cholera prevention and control.
- Recognition of the outbreak potential of JEV and implications for JEV targeted vaccination.
- Study of Adverse Events Following Pandemic FLU Vaccination.
- Human Anthrax Outbreak Recognition and Prevention/Control

NOTABLE: Lao FETP has managed 25 outbreak investigations in less than three years. Technical assistance is also provided through GDD/Thailand.

**HIV/AIDS**

GAP Asia Regional Office has worked in Laos since 2009, with the goal of providing technical assistance in strengthening HIV response effort, with focus on HIV prevention in: 1) men having sex with men (MSM), and 2) mother-to-child transmission. Activities have included care and treatment services, laboratory quality services, HIV surveillance, health management information system management, and utilization of strategic information for program planning. CDC’s assistance in Laos has greatly benefited from HIV prevention and control "lessons learned" learned in Thailand. Working collaboratively with the WHO, and partnered with the National Center of HIV/AIDS and STI (CHAS), notable accomplishments include:

- Developed behavioral change communication guidelines, facility based and outreach management for prevention I transmission in MSM.
- Draft training curricula and SOPs on HIV/AIDS care and treatment, HIV counseling/testing of mother to child transmission adopted to fit Lao context.
- Laboratory Q/A systems strengthened.
- Forty-seven national and provincial officers/managers trained in utilization of information for program planning.

**Expanded Program for Immunizations**

CDC’s contribution to the Expanded Program for Immunization is channeled through the WHO in Laos. CDC provides operational support for such vaccines as measles, rubella, and acute flaccid paralysis. Additionally, technical assistance through the STOP translates into 2 to 3 visits annually for 10 weeks, contributing to vaccine preventable disease surveillance, monitoring of supplemental polio, TT, measles, and pH1N1 immunization activities, and data management. CDC experts also assist in monitoring vaccination campaigns, including pre-campaign planning and post campaign review. Notable accomplishments:

- Introduction of hepatitis B birth dose home visits, including BCG vaccination, post-natal care, and vitamin A for new lactating mothers .(small grant).
- Proposed piloting of new vaccine carrier design (late 2011).