This is the fourth in a series of snapshot reports presenting results from a large-scale Early Childhood Education (ECE) Study conducted in the northern provinces of Lao PDR. The ECE Study was initiated to evaluate the Early Childhood Education Project. The results presented here represent data collected on the availability of, and community access to, services and facilities, and how these relate to early child development, prior to the implementation of the project. Data will be collected again after the project has finished to see if the project has improved outcomes for children. This snapshot highlights that while the coverage of and access to early education services are not sufficient, where they are available these services are related to better levels of early child development.

Universal health care and education coverage is crucial in supporting the health and development of a nation. Access to quality health care services, as well as the opportunity to participate in quality ECE, gives children the best start in life and the foundation they need to enjoy learning at school. Lao PDR has made significant improvements in the coverage, quality, infrastructure, delivery and financing of health and education services throughout the past decade. Early education services, such as kindergarten and pre-primary class, have received less attention. Further efforts are needed for the country to achieve targets under the United Nations Sustainable Development Goals 3.8 and 4.2. SDG 3.8 is "by 2030 achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all". SDG 4.2 is "by 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education".
THE EARLY CHILDHOOD EDUCATION PROJECT

The ECE Project seeks to support the expansion of quality ECE services with the objective of improving the overall development and school readiness of children aged 3-5 in disadvantaged villages across the northern provinces of Lao PDR (for further information, refer to Snapshot One: Project Background and Baseline Data Demographics). Up to 250 pre-primary classrooms will be built, more than 70 community child development groups will be created, and the quality of ECE services will be improved through training for teachers, caregivers and community members, the development of training materials, and the provision of support services such as disability screening and school lunches.

Baseline data was collected to provide information on the current status of child outcomes, and to provide information on the existing levels of service provision and facilities available to a child’s family. Below are the findings on the availability of village facilities, health services and early education services on child development, derived from data collected from 7,520 children and their caretakers throughout Northern Lao PDR.
VILLAGE ACCESS, ELECTRICITY, WATER AND SANITATION

The heads of each village in the study were asked to provide information on a number of amenities in their village, as well as how accessible villages were (for further information, please refer to Snapshot One: Project Background and Baseline Data Demographics). Villages were relatively remote, and while almost all could be accessed by car in the dry season (97%), just over half could be accessed by car in the wet season (53%). More than half of the villages accessed electricity from government electrical grids (55%), and a small number of villages (4%) did not have access to electricity. The majority of villages were using drinking water from trenches/drainage pipes (90%), but many also had some households using river water for drinking (39%). Villages often used a combination of water sanitation processes; most villages had some households using pit toilets with a water flush (93%), however some villages had households that were still using dry pits (21%).

These amenities are important for basic hygiene and health, and are likely to influence the development of children in the village. Figure 1 indicates the relationship

![FIGURE 1. RELATIONSHIP BETWEEN VILLAGE ACCESS, ELECTRICITY, DRINKING WATER, WATER SANITATION AND LEVELS OF CHILD DEVELOPMENT](image)

<table>
<thead>
<tr>
<th>Electricity</th>
<th>Access Water</th>
<th>Water Sanitation</th>
<th>Access</th>
<th>Average child development score</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Electricity</td>
<td>Trenches &amp; Drainage Pipes</td>
<td>No Toilet</td>
<td>0.515</td>
<td></td>
</tr>
<tr>
<td>Solar Cell</td>
<td>River Water</td>
<td>Dry Pit</td>
<td>0.521</td>
<td></td>
</tr>
<tr>
<td>Mini Hydropower</td>
<td>Well Water</td>
<td>Flush Toilet</td>
<td>0.504</td>
<td></td>
</tr>
<tr>
<td>Battery Generator</td>
<td>Container Water</td>
<td>No Toilet</td>
<td>0.554</td>
<td></td>
</tr>
<tr>
<td>Private Generator</td>
<td>Government Grids</td>
<td>Dry Pit</td>
<td>0.606</td>
<td></td>
</tr>
<tr>
<td>Government Grids</td>
<td>Trenches &amp; Drainage Pipes</td>
<td>Flush Toilet</td>
<td>0.561</td>
<td></td>
</tr>
</tbody>
</table>

Average child development score
between village access, electricity, water and sanitation with levels of child development. The indicator used to measure overall child development was based on the Early Human Capability Index which has been used internationally. The index provides a score for each child ranging from 0 to 1, (where 1 is the best result) and is calculated on the basis of questions asked to the primary caregiver about their child’s physical, social and emotional development as well as their communication, early literacy and early mathematics skills.

Results demonstrate that children living in more accessible villages that utilize more sophisticated electricity and sanitation processes are developing better than children from villages with poor access, villages that do not have electricity and villages that do not use toilets.

### HEALTH CARE SERVICES

Village heads also reported on the availability of health services in their village. The majority of villages had a village nurse (70%), however fewer villages had a health center (13%), pharmacy (12%), district hospital (5%), provincial hospital (2%), private clinic (2%) or private hospital (<1%).

Table 1 details the distance of each of these health services from villages. Caregivers reported that 22% of children had received some form of health service in the past month – most often a health check-up, treatment or vaccination. Only 13% of children had visited a health center, 9% a district hospital, 1% a provincial hospital, and less than 1% had visited a private clinic, traditional healer or village health volunteer.

### TABLE 1. TRAVEL TIME TO NEAREST HEALTH SERVICE FROM VILLAGES

<table>
<thead>
<tr>
<th>SERVICE</th>
<th>PERCENTAGE OF CHILDREN LIVING DIFFERENT TRAVEL TIMES FROM SERVICES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>≤ 30 mins</td>
</tr>
<tr>
<td>Village nurse</td>
<td>63%</td>
</tr>
<tr>
<td>Health center</td>
<td>55%</td>
</tr>
<tr>
<td>Pharmacy</td>
<td>34%</td>
</tr>
<tr>
<td>District hospital</td>
<td>25%</td>
</tr>
<tr>
<td>Province hospital</td>
<td>16%</td>
</tr>
<tr>
<td>Private clinic</td>
<td>30%</td>
</tr>
<tr>
<td>Private hospital</td>
<td>45%</td>
</tr>
</tbody>
</table>

Please note that the numbers within the table represent percentage of children, i.e. 63% of children live less than 30 minutes away from the village nurse.
Information was collected regarding whether health professionals visit or live in the villages. The majority of villages either had a nurse living in the village or were visited by a nurse (68%), and more than half of villages either had a doctor living in the village or were visited by a doctor (55%). Many villages also either had a midwife or naturopathic doctor living in or visiting the village (both 37% each).

While the majority of villages did not have a health center, results indicate health service coverage appears moderate due to doctors and nurses either living in or visiting the village. The availability of health services was shown to have a positive relationship with child development, as demonstrated in Figure 2.

**EARLY EDUCATION SERVICES**

Village heads reported on the available early education services in their village. Part of the selection criteria for the ECE Study was that the village had an existing primary school, so all had primary schools. Additionally, many of the villages selected for the study had a kindergarten (39%). Few villages had any other ECE services, such as a preschool playgroup (2%), nursery school (1%), or any other form of ECE (2%). Not all villages had a lower secondary school (20%) and very few had an upper secondary school (7%).
Caregivers reported that 25% of children had attended some form of ECE at some point in their lives – either a baby care center (<1%), group learning through play (<1%), kindergarten (23%) or pre-primary class (1%).

Although ECE attendance is low, Figure 3 below shows that those children who had attended ECE were developing better across all domains of development when compared to children who had never attended. ECE attendance appears to have had a particularly positive relationship with children’s literacy, and their early numbers and concepts skills. It is important to note that this does not take into account how much ECE children have attended. It is likely that the amount of time children attend ECE would have an impact on their development. The graph below shows whether a child had attended any ECE at all, and does not take into account the “dose” or length of time that he/she might have attended.
KEY FINDINGS AND RECOMMENDATIONS

Access to quality health care and early education promotes good child health and prepares children for continued learning at school. Results indicate that ECE coverage in Northern Lao PDR is insufficient. While health service coverage is better than that of ECE, further work is needed for Lao PDR to achieve both universal health coverage and access to quality ECE for all children, as per SDGs 3 and 4.

Consistent with international literature, ECE attendance seems to be positively related to each of the different aspects of child development. The ECE Project will increase coverage of ECE and seek to improve the quality of ECE services through training teachers, caregivers and community members. The ECE Project will also provide support services such as disability screening and school lunches. The associated ECE Study will determine if the various aspects of the project have an impact on the health, development and skills of the children living in the project villages; the results presented in this snapshot provide confidence in being able to show positive impacts. For the ECE Project to be successful, it will be extremely important that the education of parents, teachers and community members is implemented effectively, and that the key messages around improving child development are delivered clearly and successfully to families living in the communities of Northern Lao PDR.
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Prepared by:
Dr Sally Brinkman, Ms Alanna Sincovich, Mr Pedro Cerdan-Infantes, Mr Plamen Nikolov Danchev

For more information about the ECE Project, visit:

For more information about the study results, please contact Sally Brinkman:
sally.brinkman@telethonkids.org.au

For more information about the ECE Project, please contact Plamen Nikolov Danchev:
pdanchev@worldbank.org

The World Bank Country Office
Patouxay Nehru Road
P.O. Box: 345
Vientiane, Lao PDR
Tel: (856-21) 266 200
Fax: (856-21) 266 299
www.worldbank.org/lao

Education Global Practice
The World Bank
1818 H Street, NW
Washington D.C. 20433, USA
Tel: (202) 4731000
Fax: (202) 4776391
www.worldbank.org