Speech Therapy

Situational Analysis

Cambodia 2013

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Prepared for CABDICO by Mr Weh Yeoh, Disability Consultant.
Email: weh@cabdico.org.kh

Pictured: Vai Vin with mother, of Siem Reap province, Cambodia.

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# Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive summary</td>
<td>3</td>
</tr>
<tr>
<td>Diagram of service delivery in Cambodia</td>
<td>5</td>
</tr>
<tr>
<td>Diagram of geographical service delivery in Cambodia</td>
<td>10</td>
</tr>
<tr>
<td>Acronyms and definitions</td>
<td>13</td>
</tr>
<tr>
<td>Introduction</td>
<td>14</td>
</tr>
<tr>
<td>Methodology</td>
<td>16</td>
</tr>
<tr>
<td>Prevalence and aetiology of communication and swallowing disorders in Cambodia</td>
<td>16</td>
</tr>
<tr>
<td>Conventions laws and policies</td>
<td>20</td>
</tr>
<tr>
<td>Gaps in service provision</td>
<td>24</td>
</tr>
<tr>
<td>Social and economic impacts</td>
<td>25</td>
</tr>
<tr>
<td>Moving forward</td>
<td>27</td>
</tr>
<tr>
<td>Conclusion</td>
<td>28</td>
</tr>
<tr>
<td>References</td>
<td>30</td>
</tr>
<tr>
<td>Appendices</td>
<td>32</td>
</tr>
</tbody>
</table>
Executive Summary

Speech Therapy (also referred to as Speech and Language Therapy and Speech Pathology in different parts of the world) refers to a specialty that aims to evaluate and treat communication and also swallowing disorders. Communication covers all aspects of the ability to receive, send, process, and comprehend concepts or verbal, nonverbal and graphic symbol systems. A communication disorder may therefore be evident in the processes of hearing, language, and/or speech (ASHA, 1992).

Communication and swallowing disorders are commonly associated with a variety of physical and cognitive impairments such as Cerebral Palsy, Down Syndrome and Developmental Delay. As a result, the number of people affected by these disorders is very high. Although data in Cambodia is insufficient, informed estimates indicate that the potential number of beneficiaries from a fully operational Speech Therapy service is likely to be more than 600,000 individuals.

There are a range of conventions, laws and policies at a national and international level that are relevant to people with communication and swallowing disorders in Cambodia. Many explicitly mention the need to develop tools and interventions for hearing and visually impaired. However, Speech Therapy refers to the treatment of all communication and swallowing disorders more broadly, and therefore these documents do not cover a large proportion of the needs of this population. The focus on hearing and visual impairments in government policies and laws demonstrates good intent by the Royal Government of Cambodia to protect and uphold the human rights of people living with some communication disabilities. However, a lack of state policy that comprehensively covers the needs and rights of those with speech and language impairments, and is inclusive of swallowing disorders, is hugely problematic.

Comprehensive service provision for people with communication and swallowing disorders is limited to non-existent. Instead, what exists are services for specific impairments. For example, service providers that specialise in hearing and visual impairments provide some services for children that have speaking impairments. However, to qualify for this service, children with speaking impairments must first have a hearing impairment. Consequently, children with speaking impairments but no hearing impairments are excluded from being able to access vital treatment.

All of the organisations working in this field have various levels of expertise in Speech Therapy. Most have been trained by visitors from overseas, but none have a fully qualified Speech and Language Therapist who has completed a degree. To ensure quality and sustainable treatment of children with speech and language disabilities, fully qualified Speech and Language Therapists are
vital in Cambodia. Many organisations that treat those with communication disorders within Cambodia have resources related to Speech Therapy. Many of these learning resources have come from external sources such as international volunteers, though none alone are comprehensive enough to contribute to a comprehensive Speech Therapy short course. More than one organisation should be approached to gain resources that are necessary for a comprehensive Speech Therapy training.

There is no data on the social and economic impacts of communication disorders for those in Cambodia, however research in the United States indicates that the combined cost of communication disorders to the US economy is between $154.3 and $186 billion dollars per year. This equates to 2.5% to 3% of the predicted 1999 Gross National Product (GNP). Caution must be advised in extrapolating this data too far within the Cambodian context.

This study indicates both the high demand for Speech Therapy to be developed in Cambodia (over 600,000 potential beneficiaries) and the detrimental impacts on social and economic participation that these disorders can bring. Concurrently, research into stakeholders demonstrates the large gap that exists in service provision.

CABDICO has made significant steps to address the dire need for Speech Therapy resources in Cambodia. With their field experience, existing knowledge, and relationships in the disability sector, CABDICO can play a viable role in developing a Speech Therapy short course for internal use.

Once the impact of this curriculum is measured and refined, knowledge can then be disseminated to staff of other organisations which work with people with communication and swallowing disorders in Cambodia. Finally, a Cambodian Speech Therapy degree could be successfully established with external help that has already been offered.

Given sufficient funding support, these activities could help service the needs of the estimated over 600,000 people with communication and swallowing disorders who have inadequate service delivery in Cambodia. Funding has not yet been secured for this concept, despite numerous conversations with relevant funding bodies. A detailed budget plan is available from CABDICO upon request.

Funding will ensure that the over 600,000 individuals with communication and swallowing disorders in Cambodia can access vital services that are currently inadequate in the country. Until this occurs, a significant proportion of the population will not be able to access basic services to realise their human rights and participate as equal members of Cambodian society.
This diagram shows the Speech Therapy services that are currently available for different impairments in Cambodia, and how far from comprehensive delivery of Speech Therapy services Cambodia currently is.

In the diagram, large blue circles refer to different types of Speech Therapy treatment that exist. The small circles inside the blue circles are the different impairments that each therapy is aimed at. Small yellow circles refer to impairments that are currently treated by different NGOs (the rectangles that sit outside the blue boxes). Small red circles refer to impairments that are not treated by different NGOs.

The diagram shows the large gaps in services that exist within Cambodia. It should be stated that even if an NGO is marked as treating a certain impairment, it is often not a comprehensive treatment, and staff are often trained to do so with only a few weeks of training from visiting professionals from overseas. It is worth keeping in mind that fully trained Speech Therapists who have graduated from a degree would clearly provide much better service than ones that already exist.

The Cambodian Initiate for Disability Inclusion (CIDI) program of the Australian Red Cross has been supporting many of the organisations to run these services as part of the Disability Inclusion Assistance Fund (DIAF). More information on the CIDI program can be found here: http://www.redcross.org.au/cidi.aspx.

Explanations of the different areas of Speech Therapy treatment (the large blue circles) follow the diagram.

The information is provided as accurately as possible in consultation with various NGOs but the author recognises that that there may be errors in the representation of some NGOs’ work.
Speech and Language Training

This area refers to therapy that aims to improve the way that people communicate using speech. Some of the areas that are included in this are:

Articulation - focusses on the way that people produce sounds. Humans use their tongue, lips, teeth, jaw and vocal folds to produce speech sounds. In this area, a Speech Therapist will teach the person to produce sounds correctly using their mouths.

Phonology - focusses on what happens at a cognitive level before the sound is produced by the mouth. Often these are presented as patterns of sound errors. Speech Therapy aims to focus on the meanings behind words that they person is trying to communicate.

Dysarthria - occurs following a neurological injury of the motor component of the motor-speech system. Due to a problem with the muscles that are needed to speak, it means that communication is difficult. Treatment usually involves improving the strength and control of these muscles and using alternative speaking techniques when possible.

Fluency (ie stuttering) - refers to the smoothness with which sounds, syllables, words and phrases are joined together when speaking quickly. The disorder is characterized by disruptions in the production of speech sounds. Most treatment programs for people who stutter are designed to teach the person specific skills or behaviours that lead to improved oral communication. For instance, many Speech Therapists teach people who stutter to control and/or monitor the rate at which they speak.

From this research, it is difficult to assess which components of Speech and Language Training the various NGOs are practicing in Cambodia. It is worth mentioning that even those organisations that do work in this area are not performing them comprehensively.

Early Language Intervention

Refers to treatment aimed at children who are at risk of developing a communication problem. By accessing treatment early, children are less likely to develop communication impairments that cause major disruptions to quality of life in the future. In Cambodia, very few organisations focus in this area.

Expressive and Receptive Language Treatments

Expressive language disorders occur when the someone has difficulty conveying information in speech, writing, sign language or gesture. Receptive language disorders refer to the difficulty that someone has in understanding language. Treatment involves using strategies that improve the person’s
ability to express and receive information. In Cambodia, none of the organisations focus in this area.

**Communication for hearing impaired**

This area refers to the various methods that Speech Therapists use to improve the communication of those with hearing impairments. It involves not only the production of sound, but also the understanding of language and how it is used to convey ideas.

**Sign Language**

Refers to the use of body language and hand symbols to convey meaning, rather than using sound. Sign language development in Cambodia is ongoing, with a standard Cambodian sign language recently completed through Krousar Thmey and Deaf Development Program.

**Improving swallowing skills**

Refers to those who have problems swallowing food or liquid. Treatment depends on the cause and symptoms, but may involve exercises to improve muscle movement, positioning, specific foods or liquids that are easier to swallow. Untreated swallowing disorders are serious - they often result in sickness such as pneumonia and can lead to death.

Although organisations do practice this type of treatment, knowledge is generally through groups that come from overseas for a few weeks a year. As such, expertise is very low in this area.

**Alternative and Augmentative Communication**

Augmentative and alternative communication (AAC) includes all forms of communication (other than oral speech) that are used to express thoughts, needs, wants, and ideas. We all use AAC when we make facial expressions or gestures, use symbols or pictures, or write.

People with severe speech or language problems rely on AAC to supplement existing speech or replace speech that is not functional. Special augmentative aids, such as picture and symbol communication boards and electronic devices, are available to help people express themselves. This may increase social interaction, school performance, and feelings of self-worth.
The use of AAC in the Cambodian context tends to be quite limited and simple.

**Voice Treatments**

Many factors are likely to cause an impairment in the sound of someone’s voice. Problems with voice can lead to social withdrawal, problems in the workplace, and depression. Treatment aims to analyse the way that the patient uses his/her voice and correct abnormal speech patterns. In Cambodia, none of the organisations practice this therapy.
This diagram shows the geographical coverage of Speech Therapy services currently in Cambodia, broken down by province. The different NGOs providing services are colour-coded and listed on the right hand side.

It should be stated that even if an NGO is marked as covering a province, treatment is often not comprehensive, and staff are often trained to do so with only a few weeks of training from visiting professionals from overseas. Furthermore, the NGO may only treat a few people within one province, rather than services comprehensively covering the entire province.

This information is provided as accurately as possible in consultation with various NGOs but the author recognises that there may be errors in the representation of some NGOs’ work.
Communication disorder is an impairment in the ability to receive, send, process, and comprehend concepts or verbal, nonverbal and graphic symbol systems. A communication disorder may be evident in the processes of hearing, language, and/or speech.
Introduction

Speech Therapy (also referred to as Speech Therapy and Speech Pathology in different parts of the world) refers to a specialty that aims to evaluate and treat communication and swallowing disorders. Communication covers all aspects of the ability to receive, send, process, and comprehend concepts or verbal, nonverbal and graphic symbol systems. A communication disorder may therefore be evident in the processes of hearing, language, and/or speech (ASHA, 1992).

The implications of untreated communication and swallowing disorders are serious and well documented. People with untreated swallowing disorders are 13 times more likely to suffer premature death than those who are not (SPA, 2012). This is because they are at risk of aspirating (food or liquid entering the lungs) and hence contracting a pneumonia (chest infection). Other problems associated with untreated swallowing disorders are failure to thrive (when the child does not gain weight or does so slowly), gastroesophageal reflux, and/or the inability to establish and maintain proper nutrition and hydration (Prasse and Kikano 2009, Robbins 2002, Simon et al 2009).

However, evidence exists that appropriate management of swallowing disorders by trained Speech Therapists can reduce morbidity, mortality and improved quality of life – impacting both physical and mental well-being (Enderby et al, 2009).

In terms of communication, the impact is both more subtle and more wide-ranging. The immediate impact of untreated communication disorders are isolation and decreased opportunities to participate. People often have problems expressing their needs, wants, ideas and opinions, and cannot understand what is being asked of them. This leads to problems forming relationships. Not surprisingly, communication problems can have a major impact on mental health. Social exclusion, bullying and depression are common (SPA, 2012).

Communication disabilities also impact on educational achievement and outcomes. For example, children who have a communication disability relating to the understanding or use of language are 6 times more likely to have a reading disability by Grade Two (approximately 7 years old) (SPA, 2012).

In Cambodia, the cost of untreated communication and swallowing disorders is also extremely high. Research in the UK has shown that a £1 investment in Speech Therapy services for people with swallowing problems generates £2.3 in health care cost savings through avoided cases of chest infections (SPA, 2012). According to UNICEF, 1 in 5 deaths for children under 5 years old in Cambodia are caused by pneumonia, otherwise known as chest infections (UNICEF, 2008). Although there is no data on the economic cost of treating
pneumonia in Cambodia, it is possible that preventing pneumonia through Speech Therapy could be significantly cost effective.

As Cambodia moves further away from the history of conflict that resulted in the disproportionate prevalence of mobility disorders in the 1980s/1990s, the epidemiology for pathologies in Cambodia is changing. This change is evident in the government run Physical Rehabilitation Centres, where children with Cerebral Palsy have been included in service provision since 2005. While disability related to mobility disorders remains a priority in Cambodia, disability related to cognitive impairments, sensory impairment, communication disorders, and mental health illness are likely to increase in prevalence over the coming years, comparative to mobility disorders. The reasons for this may include improved detection and increased impairments related to poverty, as opposed to war and landmines. The lack of data to confirm this trend leads to misallocation of resources – thus, non-mobility related impairments continue to be neglected.

Communication and swallowing disorders are commonly associated with a variety of physical and cognitive impairments. These include those with autism or Down’s Syndrome, persons with sensory impairments such as hearing loss, and persons with physical impairments such as cleft lip and cleft palate. Communication and swallowing disorders are also common for children with Cerebral Palsy – the majority of children that CABDICO treats.

The purpose of this research is to increase stakeholder awareness and commitment to developing sustainable public sector responses to communication and swallowing disorders in Cambodia.

The International Association of Logopedics and Phoniatrics (2009) suggest that in countries where the professional education of Speech Therapists does not exist and services are not yet established, a needs analysis “should include a review of existing services, resources, and barriers to the establishment of the service within the prevailing local context.”

As such the aims of this research are to:

1) Analyse the prevalence and aetiology of common communication and swallowing disorders in Cambodia

2) Identify conventions, laws and policies at a national and international level that are relevant to people with communication and swallowing disorders in Cambodia.

3) Explore gaps of service provision for persons living with communication and swallowing disorders

4) Investigate any data on the social and economic impacts of communication disorders both for individuals and families within Cambodian society
Methodology

Between the 17th of June and 28th of June, CACDICO’s consultant, Weh Yeoh, worked with the Executive Director of CACDICO (Mr Yeang Bun Eang) and a research assistant, Mr Bot Vimean, in compiling this research.

Apart from a thorough desk review, the team held in person meetings with several organisations, and interviewed others who were not available via phone or email.

Prevalence and aetiology of common communication and swallowing disorders in Cambodia

What percentage of people with disabilities have communication and swallowing problems in Cambodia?

From the 2009 Cambodia Socio-Economic Survey, approximately 5% of the total population of persons with disability in Cambodia are classified as having a speaking impairment. The same survey also found that approximately 879,000 people live with a disability in Cambodia. Multiplying the two, this means that approximately 43,950 Cambodians are living with a speaking disability. For hearing, the rate is approximately 20% of those with disability in Cambodia, which equates to approximately 175,800 Cambodians with a hearing disability. There is no data on those who have difficulties with swallowing, which is another component of Speech Therapy.

Combining these two figures together suggests that there are almost 220,000 people in Cambodia with speaking and hearing disabilities, and countless more with swallowing difficulties.

It is clear that these numbers represent an absolute minimum, given that the identification of persons with disabilities is low in Cambodia. Data that exists in disability is insufficient. The World Health Organisation (WHO) (2012) suggests that over 15% of the world’s population lives with a disability.

Multiplying the 5% with a speaking disability by the 15% of Cambodia’s population of 14.31 million who have a disability, gives the approximate figure of 107,000 people who have speaking disabilities in Cambodia. Using the same logic for hearing arrives at approximately 429,000 people with hearing disabilities in Cambodia.

All Ears Cambodia, an NGO that delivers ear and hearing healthcare in Cambodia, uses a slightly different method to arrive at a prevalence rate in Cambodia for those with disabling hearing loss (hearing loss greater than 40dB in the better hearing ear in adults and a hearing loss greater than 30dB
in the better hearing ear in children). The WHO estimates that 360 million people (or 5.14% of the population) worldwide live with disabling hearing loss. However, a poor country like Cambodia would likely have a higher prevalence rate, perhaps 6-10%.

- If 5.14% prevalence is correct, Cambodia has 719,600 people with disabling hearing loss
- If 6% prevalence is correct, Cambodia has 840,000 people with disabling hearing loss
- If 10% prevalence is correct, Cambodia has 1,400,000 people with disabling hearing loss.

In summary, considering the fact that the development of Speech Therapy could also benefit a significant percentage of the population of persons classified as living with learning difficulties, cognitive impairments, fits/epilepsy, behaviour and other impairments, the potential number of beneficiaries in Cambodia is likely to be well over 600,000 individuals.

In 2011 and 2012, Handicap International, in partnership with the Ministry of Education and the Global Partnership for Education, conducted research to identify the prevalence of impairment and disability in Cambodian children aged 0-9 (Huebner, 2012). The leading impairments identified by the study were hearing, speech and cognitive.

Table 5 (Summary section of MAF) - Total number of Impairments and Disabilities by Category

<table>
<thead>
<tr>
<th>Category</th>
<th>Number of Impairments</th>
<th>Number of Disabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross motor</td>
<td>136</td>
<td>123</td>
</tr>
<tr>
<td>Fine motor</td>
<td>99</td>
<td>92</td>
</tr>
<tr>
<td>Seizures</td>
<td>97</td>
<td>42</td>
</tr>
<tr>
<td>Vision</td>
<td>170</td>
<td>100</td>
</tr>
<tr>
<td>Hearing</td>
<td>333</td>
<td>138</td>
</tr>
<tr>
<td>Behavior</td>
<td>50</td>
<td>46</td>
</tr>
<tr>
<td>Cognition</td>
<td>420</td>
<td>373</td>
</tr>
<tr>
<td>Speech (Motor)</td>
<td>225</td>
<td>209</td>
</tr>
<tr>
<td>Speech (Language)</td>
<td>164</td>
<td>154</td>
</tr>
<tr>
<td>Other</td>
<td>34</td>
<td>22</td>
</tr>
<tr>
<td>Total</td>
<td>1728</td>
<td>1299</td>
</tr>
</tbody>
</table>
Table 5- Of the 3,750 children assessed, 935 children had one or more impairments, while 674 children had one or more disabilities (18% of those assessed). 266 girls had one or more disabilities (representing 39.5% of all children with disabilities), while 408 boys had one or more disabilities (representing 60.5% of all children with disabilities). Cognitive disabilities (373) and speech (motor) disabilities (209) were the most common type of disabilities diagnosed.

In Siem Reap, where CABDICO primarily works, the same pattern can be seen.

Table 8 - Total number of Impairments and Disabilities by Category - Siem Reap Province

<table>
<thead>
<tr>
<th>Category</th>
<th>Number of Impairments</th>
<th>Number of Disabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Motor</td>
<td>14</td>
<td>12</td>
</tr>
<tr>
<td>Fine Motor</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>Seizures</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Vision</td>
<td>15</td>
<td>12</td>
</tr>
<tr>
<td>Hearing</td>
<td>63</td>
<td>31</td>
</tr>
<tr>
<td>Behavior</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Cognition</td>
<td>47</td>
<td>40</td>
</tr>
<tr>
<td>Speech (Motor)</td>
<td>18</td>
<td>17</td>
</tr>
<tr>
<td>Speech (Language)</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

What are the main causes of communication and swallowing problems in Cambodia?

It is very difficult to find any data on the causes of disabilities in Cambodia, let alone anything something as specific on the causes of communication and swallowing disorders.

The 2009 Cambodia Socio-Economic Survey (NIS, 2009) states that old age and disease are the major causes of disability, with 3% and 2% of the population respectively identifying this cause. However, as the survey asks respondents who are not trained in medicine or disability, this might represent the fact that these causes are the most easily identifiable by non-medical people.

A study conducted by HI in Cambodia in 2006 (Handicap International, 2006) identified that a large percentage of disabilities in young children could be in
part attributed to the inability of families to identify signs of disease and other underlying causes (ie. malnutrition) that may result in a disability, if left untreated. This would seem to suggest that malnutrition, and poverty more broadly, are likely to be one of the most significant causes.

What are the different types of impairments that cause communication and swallowing disorders in Cambodia?

Again, there is no data in Cambodia about impairments that could cause communication and swallowing problems. Broadly, we know that communication and swallowing disorders can be caused by structural, physiological and/or neurological impairments.

However, on a physiological level alone, the main impairments that cause swallowing and communication problems are summarised below:

**Swallowing problems:** Traumatic Brain Injury (TBI)/Acquired Brain Injury (ABI), Cerebral Palsy, Downs Syndrome, people with high or low tone, people with neurological issues, often degenerative impairments (Motor Neurone Disease, Huntington's Disease, Multiple Sclerosis), epilepsy, stroke, dementia, general aging, people with structural issues eg. cleft palate, cleft lips, trauma to the mouth/throat, failure to thrive/malnourished.

**Communication problems:** Possible in all the groups mentioned above. Also people with developmental delay, intellectual disability, Autism, language delays, speech delays and disorders, stuttering, hearing impairments, deaf and blind clients, behavior and mental health issues.
The relevant sections of each of these conventions, laws and policies have been summarised in this section, with a more thorough summary can be found in Appendix 2.


This convention was ratified by the Royal Government of Cambodia on the 20th of December, 2012 and came into force on the 19th of January, 2013. It is in now in the process of implementation by the DAC.

The UNCRPD clearly holds responsible states in addressing the needs of those with communication disorders. Relevant sections include the General Obligations under Article 4, which asks for states to promote research, development and availability of new technologies that assist access to information.

Article 9, which concerns the rights of all persons with disabilities to access information and communication, goes even further, in specifically mentioning “guides, readers and professional sign language interpreters”.

Article 21, concerned with freedom of expression and opinion, and access to information, mentions some of the technologies that should be employed to achieve this goal.

Finally in Article 24, on education, the need for a person centred approach to education is stated – where the needs of the individual are met on a case by case basis. This is, of course, applicable to children with communication disorders. More overtly, this section states that State Parties should help by:

(a) Facilitating the learning of Braille, alternative script, augmentative and alternative modes, means and formats of communication and orientation and mobility skills, and facilitating peer support and mentoring;

(b) Facilitating the learning of sign language and the promotion of the linguistic identity of the deaf community;

c) Ensuring that the education of persons, and in particular children, who are blind, deaf or deaf blind, is delivered in the most appropriate languages and modes and means of communication
for the individual, and in environments which maximize academic and social development.


In Part 2, the Plan of Action calls for an improved referral system for persons with disabilities. It involves mapping out services and collecting information on them.

Part 3 details physical rehabilitation and specifically mentions the role that Physical Rehabilitation Centres (PRCs) in “identifying and minimising barriers to accessing services for all clients”. This means that staff at PRCs could benefit from basic Speech Therapy skills so that barriers to their services are lowered.

The need for support and social reintegration within the education system is detailed in Part 4, which mentions the need for accessible services, but goes one step further in calling for “specialized services for individuals with specific learning needs”. Clearly, these specific learning needs include special needs around communication.

There is also mention of pre-service and in-service teacher training in Braille and sign language – which currently exists with collaboration from Krousar Thmey.


Under Article 29, which deals specifically with the rights of children with disabilities in education, there are specific mentions to the needs of those with communication disorders.

These accessible facilities should be provided by the Ministry of Education:

• Sign language and Braille;
• Educational techniques and pedagogy corresponding to the types of disabilities;
• Study materials or other equipment to assist pupils and students with disabilities;
• Training and teaching materials for teachers or professors and others corresponding to the actual needs of each pupil and student with disabilities.
As with the National Plan of Action, this shows good intent, but does not cover the broad range of impairments that lead to communication disorders.


The Ministry’s policy to address the education needs of children with disabilities contains some explicit references to those with communication disorders.

Strategy 1, which addresses the need for identification and enrolment of children with disabilities, is directly relevant due to the paucity of data out there on those with communication and swallowing disorders. More awareness on this topic and closer collaboration with MoEYS could help improve their ability to screen and identify children with communication and swallowing disorders.

Strategy 3 calls for the opportunity for an inclusive education program, which provides teaching aids and assistive devices. These aids could include those that facilitate learning for children with communication disorders in mainstream schools.

Strategy 5 aims to raise awareness about the understanding of disability. The understanding of communication disabilities is clearly limited due to the low profile of Speech Therapy in Cambodia. Hence, raising the profile of this profession and sharing this initial research into services, gaps in services and infrastructure will help this cause.

Finally, Strategy 6 refers to the need to develop teaching aids, specifically Braille and Sign Language, to respond to the needs of students with visual and hearing impairments. As noted above, this demonstrates the focus that the Royal Government of Cambodia has on these two impairments, and does not cover the breadth of impairments that Speech Therapy could address.
National Community-Based Rehabilitation Guidelines for Cambodia, 2010

In 2010, the Ministry of Social Affairs, Veterans and Youth released the National CBR Guidelines to help standardise the delivery of services in this area. As with the above policies, there are clear references to support for visual and hearing impaired individuals, but also further references to those with other communication disorders.

For example, the section under education calls for organisations to consider:

- Making communication aids using pictures, symbols, boards, etc.
  - Ensuring consistency between communication methods that are used in the home, school, community.
  - CBR workers should encourage the parents, siblings, other school children, teachers and neighbors to learn the same basic sign.

In the section on assistive devices, the guidelines detail the need for vision devices, hearing devices, sign language and speaking aids. Perhaps most interesting is the mention of Augmentative and Alternative Communication (AAC), which can help people to express themselves and understand what is being said to them. This type of assistive technology is uncommon in Cambodia at present.

Hence, the National CBR guidelines do go one step further in promulgating the need for interventions that cover the broad range of communication disorders that exist, rather than simply for those with visual and hearing impairments.
Explore gaps of service provision for persons living with communication and swallowing disorders

There is a lack of comprehensive service provision for people with communication and swallowing disorders. Instead, services centre around specific impairments. For example, service providers that specialise in hearing and visual impaired do provide some services for children that have speaking impairments. However, in order to qualify for this service, the children that have speaking impairments must have a hearing impairment as well. This excludes those children with speaking impairments but no hearing impairments.

For the purposes of this report, CABDICO were able to communicate with the following organisations working in this area:

• Krousar Thmey
• Children’s Surgical Centre
• Deaf Development Program
• Cambodia Children’s Centre for Mental Health
• All Ears Cambodia
• New Humanity
• Epic Arts
• Rabbit School
• Cambodia Development Mission for Disability
• Komar Pikar Foundation
• Disability Development Services Pursat

The diagrams between pages 5 to 12 show a graphical representation of service delivery in Cambodia. The full extent of discussions, including the areas that these organisations work in, can be found in Appendix 1.

All of the organisations have various levels of expertise in Speech Therapy. Most have been trained by visitors from overseas, but none have a fully qualified Speech and Language Therapist who has completed a degree. To ensure quality and sustainable treatment of children with speech and language disabilities, fully qualified Speech and Language Therapists are vital in Cambodia.

Many of these learning resources have come from external sources such as international volunteers, though none alone are comprehensive enough to contribute to a comprehensive Speech Therapy short course. More than one organisation should be approached to gain resources that are necessary for a comprehensive Speech Therapy training.

In terms of Speech Therapy resources in the region, Pham Ngoc Thach University of Medicine, Ho Chi Minh City set up the first 2 year post graduate
A degree in the country, with a Graduation Ceremony in September 2012. The second post-graduate degree is now underway. The full extent of discussions with this university, including their ability to support Speech Therapy in Cambodia and lessons learnt from their experiences, can be found in Appendix 3. In Thailand, Speech Therapy degrees exist in various universities.

Investigate the social and economic impacts of communication disorders both for individuals and families and within Cambodian society

There is no data on the social and economic impacts of communication disorders for those in Cambodia. However, due to the well-known links between poverty and disability, it is fair to assume that there is a high correlation between those with low socio-economic status and communication disorders.

Evidence to demonstrate this correlation is difficult to find. For example, Keating et al (2008) found conflicting evidence in some studies that speech disorders are more common among children from low socio-economic backgrounds, while others showed that there was no correlation whatsoever.

It is worth noting that the evidence that is available largely exists in developed countries alone, and hence may not be relevant in a country like Cambodia where extreme poverty exists. Factors such as poverty and malnutrition can contribute to the range of impairments that lead to communication disorders.

The only available evidence on the economic impacts of communication disorders comes from one study from the United States.

In terms of employment, Ruben (2000) found that those with communication disorders have an unemployment rate of 41.9% compared with 29.5% for the same working-age population without disability in the United States.

Similarly, in the United Kingdom, men with a communication disorder were more likely to be out of the labor force - three times more likely for the hearing impaired and eight times more likely for the speech impaired than non-disabled people. With women, there was a twofold increase in hearing-impaired women and a threefold increase in speech-impaired women out of the labor force (Ruben, 2000).

It appears that communication disorders also have a profound impact on level of income earned. Those with speech disabilities were 1.5 times more likely to be found in the lowest income group in the US, compared with the general population (Ruben, 2000).
By assessing the loss of income associated with having a communication disorder, and comparing this to the cost of medical, rehabilitation and special education care for children with communication disorders, Ruben (2000) estimates that the combined cost of communication disorders to the US economy is between $154.3 and $186 billion dollars per year. This equates to 2.5% to 3% of the predicted 1999 Gross National Product (GNP) for the United States. Clearly, communication disorders are a significant economic loss to the US economy.

In extrapolating the results of this research to the Cambodian context, there are a few considerations that need to be made. Firstly, the level of support for those with communication disorders is likely to be higher in the US (even at the time of the research) than it is currently in Cambodia. This would indicate that the participation in the workforce for those with communication disorders would be higher in the US.

Secondly, assessing the cost of medical, rehabilitation and special education care for children with communication disorders is more problematic in Cambodia, due to the fact that many of these services do not exist or are not accessible.

Finally, in a country where poverty still exists at the level at which is does in Cambodia, it is difficult to assign low social and economic participation on one factor alone. Therefore, although communication disorders clearly negatively impact participation, it is difficult to isolate this one cause when there are many factors that can lead to decreased participation.

Overall, it is clear that the impact of communication disorders on social and economic participation is significant.
Moving forward

Apart from the activities mentioned in this research, CABDICO has also made significant steps to address the dire need for Speech Therapy resources in Cambodia. With their field experience, existing knowledge, and relationships in the disability sector, CABDICO can play a viable role in developing a Speech Therapy short course for internal use.

Once the impact of this curriculum is measured and refined, knowledge can then be disseminated to staff of other organisations which work with people with communication and swallowing disorders in Cambodia. Finally, a Cambodian Speech Therapy degree could be successfully established with external help that has already been offered.

Given sufficient funding support, these activities could help service the needs of the estimated over the 600,000 people with communication and swallowing disorders who have inadequate service delivery in Cambodia. At the time of writing this report, funding has not yet been secured for this concept, despite numerous conversations with relevant funding bodies. A detailed budget plan is available from CABDICO upon request.

These are some of the further activities that are planned to achieve these outcomes.

• Contact has been made with Orthophonistes du Monde (Speech Therapists of the World), a French association of volunteers who work on missions based on training and support in the field of Speech Therapy requested by non-EU countries, seeking assistance.

• Ongoing discussions with Vietnamese counterparts at Pham Ngoc Thach University of Medicine, Ho Chi Minh City about learning lessons from their program.
  o Early discussions with those involved are very positive, and there are the possibilities for both a study tour in Vietnam to learn from their experience, and possibly more. These include a South-South collaboration between the university in Vietnam, and one in Phnom Penh. This collaboration could involve Vietnamese Speech Therapists training Cambodian students on this topic.

• Ongoing discussions with Cambodian universities who are interested in and have the capacity to begin a Speech Therapy degree.
  o Discussions occurred with Dr Iem Sophal, Director of Technical School for Medical Care Cambodia (TSMC), which is under the University of Health Sciences (UHS), to gauge interest in a Speech Therapy degree in Cambodia. Goodwill was indicated
for this to occur though it would need to be financially viable (see Appendix 5).
  - Royal University of Phnom Penh (RUPP) was also contacted but they indicated that they do not have the capacity to support such a degree.

- Ongoing discussions with the Department of Special Education, MoEYS about integrating CABDICO’s curriculum into the training that teachers receive around education for children with disabilities.

- Ongoing discussions with UNICEF about potential partnerships and the role that they can play in making a Speech Therapy degree a reality.

- Ongoing discussions to find the most appropriate person to help select the curriculum. Contact has been made with the American Speech-Language-Hearing Association (ASHA), the French association and the Australian Speech Pathology Association. The latter has promised to bring this matter up at their next board meeting.
  - Contact has also been made with a visiting group of academic Speech Therapists from Columbia University, New York, USA about their possible role in assisting. Apart from strong academic background, these individuals also have extensive Cambodian experience and have previously provided training in developing countries.

### Conclusion

This research highlights both the high demand for Speech Therapy to be developed in Cambodia (over 600,000 potential beneficiaries) and the large effect on social and economic participation that these disorders can bring. On the other hand, research into stakeholders demonstrates the large gap that exists in service provision.

Although there are providers that exist for people with some forms of communication and swallowing disorders, there is not comprehensive coverage of all types of these disorders.

For example, though the Children’s Surgical Centre in Phnom Penh has an employee trained in Speech Therapy, the focus of their work is Cleft Palate. Similarly, Krousar Thmey’s staff in this field focus on hearing impaired.

Similarly, there is no expertise at a comprehensive level for Speech Therapy. The various training missions that come to Cambodia to train staff in this field are piecemeal and not coordinated.
As a Cambodian NGO, CABDICO can therefore play a viable role in developing a Speech Therapy curriculum that is relevant for staff who work with people with communication and swallowing disorders. Furthermore, there is a clear possibility to set up a Cambodian Speech Therapy degree with technical support that has been offered externally. Currently, funding has not yet been secured for this concept, despite numerous conversations with relevant funding bodies. Funding will ensure that the over 600,000 individuals with communication and swallowing disorders in Cambodia can access vital services that are currently inadequate in the country. Until this occurs, a significant proportion of the population will not be able to access basic services to realise their human rights and participate as equal members of Cambodian society.
References


Ministry of Social Affairs, Veterans and Youth Rehabilitation (2010) National Community-Based Rehabilitation Guidelines for Cambodia. Available from MOSAVY.


Appendix 1

Service providers for persons living with communication and swallowing disorders in Cambodia

*Krousar Thmey*

Krousar Thmey is a school that was started in 2000 with 23 students. It now has 150 students. The students are divided usually by visually impaired with hearing impaired. Teachers go out into the communities to identify children, and all the activities are centre-based.

They have 2 main programs:

- **Special Education** (where they work closely with MoEYS so that the curriculum mirrors government schools): including some livelihoods training in artisan, massage and dancing.
- **Health**: Programs for children who stay in rubbish dumps – provision of clothes and study materials.

In the Special Education program, there are 20 out of the 100 children who can now speak through Speech Therapy.

In terms of Speech Therapy – they have 2-3 specialists in this area who are trained in Siem Reap and Phnom Penh every year. They also receive training from an American institution on Sign Language.

No staff have completed a full Speech Therapy degree overseas, but training has been received from Bangladesh, Thailand and Vietnam. None of them have expertise in swallowing.

In terms of Speech Therapy resources, Krousar Thmey had some difficulties adapting training from English to Khmer, but they now have some resources they have developed – however these are not physical resources – they are distributed face to face.

The class on speaking only has children that cannot hear – meaning that children with speaking impairments alone (and no seeing or hearing impairment) cannot be treated by Krousar Thmey.

*Children Surgical Centre*

We work with a couple hundred children in SLT each year - however we are only working with the cleft lip/cleft palate population.

We have a very qualified speech therapist, who receives specialty
training/curriculum planning for three months a year from SLT professionals from the UK.

CSC is located in Phnom Penh, with patients arriving from all over the country.

*Deaf Development Program*

1. **What types of disability does your NGO work with?**

Deaf Development Programme (Maryknoll) is a program working with deaf people.

2. **Where does your NGO work (geographical area)?**

We are currently working mainly in Phnom Penh, Kampong Cham, and Kampot. However, deaf people from neighboring provinces are also accepted in the program.

3. **What resources do you have in terms of Speech Language Therapy curriculum?**

We have our own curriculum (Cambodian Sign Language) which was produced by linguistic specialists and experts early nineties.

4. **What commitment has your NGO already made to developing SLT services and resources?**

We have commitment to work with concerning partners to create common Cambodian Sign Language (CSL) for deaf people in Cambodia. We also have CSL interpreting team to provide service that facilitates communication between deaf and hearing people.

5. **What is your NGO able to contribute to our program?**

We need to know the details of your program prior to detailed discussion what we can share and work together for the interest and benefit of deaf people on Cambodia.

6. **What interest does your NGO have in our curriculum once it is developed?**

Again, we need to go through your curriculum and see how it can benefit deaf people.

7. **What level of training or past experience do your staff have in SLT?**
Our staff have been receiving on-going on-job training related to CSL so that there are improving their communication with deaf people from time to time.

8. Any information you have on family comments or needs expressed by families for support with communication/swallowing?

Family members of deaf people, their neighborhood and people living in their community also need basic knowledge on CSL to improve communication with deaf people, particularly in daily conversation and business/employment.

CCAMH

1. What types of disability does your NGO work with?

Caritas-CCAMH, a unit of Caritas Cambodia, works with children and adolescents (0-18 years old) suffering from neuropsychiatric problems, developmental disabilities and mental health problems.

Caritas-CCAMH, is a collaborative project between Ministry of Health, Royal Government of Cambodia and Caritas Cambodia, an international NGO.

2. Where does your NGO work (geographical area)?

Center based program:
Caritas-CCAMH is located within the premises of Chey Chumneas Referral Hospital, National road No. 2, Ta Khmao, Kandal province and the clients seeking help here come from all the provinces of Cambodia.

Outreach services:
We also extend our clinical services once a month to Arrupe Center, Catholic Church in Battambang and at Caritas office in Kompong Thom province.

Community based program:
Our team works in 22 villages of 2 districts (Kandal Stung, Lvea Em) towards primary and secondary prevention (early identification and intervention) of disabilities.

School based program:
The Caritas-CCAMH school team works in 3 schools (Prek Sleng, Svay Andet, and Anukwat) in Kandal province to promote inclusive education, enhance academic and social skills and to prevent high-risk behavior among young people.
3. What resources do you have in terms of Speech Language Therapy curriculum?

We have a speech therapy unit with a person specifically designated to manage this service and this person is trained by a team of specialists from Speech-Language and Hearing Association of Singapore (SHAS) with the support of Singapore International Foundation (SIF).

We have no specific resources with regard to Speech Language Therapy curriculum, as our trainings so far are more focused on feeding skills promotion.

4. What commitment has your NGO already made to developing SLT services and resources?

As ours is a child and adolescent mental health unit, we have no specific commitment to develop SLT services in Cambodia.

Our main commitment is to provide comprehensive, one-stop service to children and young people with developmental disorders (including speech and language delay) seeking help at our center.

5. What is your NGO able to contribute to our program?

Whenever any NGO seeks help to strengthen their program, we meet the core-team in person to do a need assessment and based on the outcome of the participatory needs assessment we offer support and help.

Please do write to us for a suitable date to come and discuss the specific needs of your organization.

6. What interest does your NGO have in our curriculum once it is developed?

Once we have more information about the curriculum that you are developing, we will be able to respond to this question.

Is it possible to send us the curriculum that you are developing, please?

7. What level of training or past experience does your staff have in SLT?

Currently, our team does not have any training or experience in SLT. Our team has undergone basic and advanced level training in assessment and intervention of feeding problems and we hope to have training in communication skills from a team of professionals from UK between September to December, 2013.
8. Any information you have on family comments or needs expressed by families for support with communication/swallowing?

Most of the parents, when they come to the center for the first time, hope there is a medicine or injection that will make their children understand and communicate like other children. Significant number of the families (20 to 30%) drop out when they know there is no medicine to help their children.

It is a challenge to engage with the parents and families to make them realize the need for continued practice of communication/swallowing therapy techniques both at the center and home, more at the latter.

All Ears Cambodia

1. What types of disability does your NGO work with?

All Ears Cambodia (AEC) deliver ear and hearing healthcare. Our aim is to prevent disabling hearing loss through the provision of primary/secondary ear health care and to provide rehabilitation of hearing loss through diagnostic and rehabilitative audiology. We are also committed to developing human resource in the field of ear and hearing healthcare and as such deliver a two year training programme in the AEC School of Audiology and Primary Ear Health Care.

2. Where does your NGO work (geographical area)?

All Ears Cambodia currently works in eight provinces as well as Phnom Penh municipality. The main clinic and head office is in Phnom Penh, with permanent outpost clinics in Siem Reap, Kratie and Prey Tralach (a rural location in Battambang Province).

We conduct outreach work (8 weeks a year) to Kep, Kampot, Sihanoukville, Pursat and Kampong Chhnang.

3. What resources do you have in terms of Speech Language Therapy curriculum?

Due to the nature of our work, our clinicians need to have a general understanding of speech and language function and disorders. AEC’s 2 year training programme therefore includes 2 speech and language modules. The first module in Semester 3 focuses on anatomy, physiology and development, the second module focuses on pathology and management.

The library at the AEC Institute of Primary Ear and Hearing Healthcare also has a small selection of books and resources. Visiting international specialists support the development and delivery of the curriculum where suitable.
4. What commitment has your NGO already made to developing SLT services and resources?

We appreciate the need for SLT service development as part of the wider programme for supporting those with speech, language and communication disorders in Cambodia. As our focus is on clinical delivery in ear and hearing healthcare our involvement currently focuses on addressing the key skills & knowledge required by our clinical staff to do their jobs, hence the inclusion of some SLT relevant material in our 2 year training programme.

We have good relationships with peers practicing in SLT private practice (Indigo Child Development Centre and Melanie Freidman) and operate a bidirectional referral system with them.

Key NGO partnerships of note (through which we receive referrals) include those working with cleft patients (Children’s Surgical Centre, Operation Smile); those working with the deaf community (Krousar Thmey, Deaf Development Programme); and those working in the field of disability (Handicap International, Disability Development Services Pursat, CAbDICO, Epic Arts, Disabled Women Kratie, Goutte d’Eau/Damnok Toek, Landmine Disability Services, Jesuit Services). In total we receive referrals from more than sixty organisations.

We work in close partnership with the National Ear, Eye, Nose and Throat Hospital (Preah Ang Duong Hospital), referral hospitals in Kep, Kampot and Kampong Chhnang, Angkor Children’s Hospital, Children’s Surgical Centre, Chey Chumneas Hospital and Kein Khleing Leprosy Unit (CIOMAL). We also work with surgical missions coordinated through Global ENT Outreach, IMPACT Foundation and Entendre le Monde.

5. What is your NGO able to contribute to our program?

At this stage we are happy to liaise with the program team and advice/assist/collaborate where suitable.

6. What interest does your NGO have in our curriculum once it is developed?

It is vital that all organisations work together in Cambodia for the benefit of those with speech, language and communication disorders. Any curriculum should complement existing provision, which would include the training programme and services at AEC. We would expect to be fully consulted in the development of the curriculum rather than included post-development.
New Humanity

1. What types of disability does your NGO work with?

We are working mainly with children and teenagers with CP, Spasticity, Hemiplegia, Down syndrome, Mental retardation (mild and severe), Tetraplegia, and a few swelling problem which is caused by the spastic and CP.

2. Where does your NGO work (geographical area)?

For disability program, we are mainly working in Kampong Chhnang province in Boribor and Kampong Chhnang district. We also have a CBR center in Kandal Province which located in Kandal Steung commune.

3. What resources do you have in terms of Speech Therapy curriculum?

We do not have any specific curriculum for Speech Therapy but we have some techniques that some professional volunteers who are the physiotherapist trained to our staffs.

4. What commitment has your NGO already made to developing SLT services and resources?

We have only some techniques but we are not able to develop the SLT curriculum. Now we are waiting for some volunteers from Hong Kong to help us.

5. What is your NGO able to contribute to our program?

We would suggest you to see our projects for more information about SLT that we are working with our beneficiaries as well as the improvement.

6. What interest does your NGO have in our curriculum once it is developed?

We are very interested in this since we are also working with people in the needs of Speech Therapy. This will help our staff to improve their capacity regarding SLT.

7. What level of training or past experience does your staff have in SLT?

We have sent some staffs for some training from CCAMH at Takmao. The trainers are coming from Singapore. Our staff attended these rang of trainings four times already which focus on feeding and Speech Therapy.
8. Any information you have on family comments or needs expressed by families for support with communication/swallowing?

We are also providing the training to the mothers so that they could work with their children at home. Some parents told us that their child has improved.

_Epic Arts_

1. What types of disability does your NGO work with?

Our SEP staff work mainly with children and adolescents with intellectual impairments. More recently we have introduced an Intervention Class where two children have multiple impairments.

2. Where does your NGO work (geographical area)?

_Epic Arts_ is situated in Kampot.

3. What resources do you have in terms of Speech Therapy curriculum?

We have no human resources for speech and language development. My personal philosophy is to use a holistic approach to communication using, PECS, accepting utterances, signing and adaptive technology i.e. iPad apps and Big Mac.

4. What commitment has your NGO already made to developing SLT services and resources?

We have pushed for parent involvement in our programs here. We feel parents need to know what their children are doing at school so they can follow through at home. Our Intervention Class policy states the child is enrolled two half days per week with a parent or care giver in attendance. Parents from other classes are invited to participate but we find because they work during the day, our invitations are sometimes rejected.

5. What is your NGO able to contribute to our program?

We can suggest the “Disabled Village Children” David Werner Chapter 36 is a useful guide for feed children with disabilities. Secondly, if a child has a difficulty with oral saliva loss, I recommend that during the sensory program, at eating time or when necessary we show the child/parent how to wipe with a toweling wrist band, or triangular bib. We work on parent showing the child how to wipe. Also a Tongue Aerobics program is sometimes helpful for awareness of mouth and tongue.
6. What interest does your NGO have in our curriculum once it is developed?

Once you have a program I would be interested in sending my team leader to visit so she can see other ideas which may be helpful. Our curriculum is Individual Education Goals or Targets which meet our students needs and these include communication.

7. What level of training or past experience do your staff have in SLT?

The only training our staff has had is on the job training with individual students.

8. Any information you have on family comments or needs expressed by families for support with communication/swallowing?

We were fortunate to have a recent visit from a physiotherapist (Red Cross Volunteer with TCT) to show parents and staff how to position children for eating and swallowing. Particularly good for those children with multiple disabilities who may aspirate. The ideas in Chapter 36 are visual and very relevant to what we do here.

Rabbit School

1. What types of disability does your NGO work with?

Rabbit School works with children with multiple and severe disabilities.

2. Where does your NGO work (geographical area)?

In 2008 we started an integrated classroom in the Toul Kork Primary School and a vocational training center in Phnom Penh.

3. What resources do you have in terms of Speech Language Therapy curriculum?

Rabbit School has quite a large range of resources that have mostly been developed from Speech Language Therapy students from London University, UK.

4. What commitment has your NGO already made to developing SLT services and resources?

Rabbit school has already compiled these resources and has built up quite an impressive library.
5. What is your NGO able to contribute to our program?

Rabbit School is very small Local NGO we have limited funding but we have some human resources to help other teacher working as the same teacher of Rabbit School.

6. What interest does your NGO have in our curriculum once it is developed?

We collaborated with Ministry of Education Youth and Sports especially Teacher training Depart to develop the Basic Inclusive Education and special education curriculum to training teacher working children with intellectual disability within inclusive classroom. Both are recognized by the Ministry of Education youth and sports. They started training to Teacher training in provincial.

7. What level of training or past experience do your staff have in SLT?

Staff have received basic training in SLT.

CDMD

1. What types of disability does your NGO work with?

Previously focus was on visually impaired. This has changed to taking care of all types of disability in the community. The approach that is used is one of CBR, with referrals to other services as needed. Primary health care for eyes, ears, mental health and plastic surgery. Also has programs on Self Help Group and Livelihoods.

2. Where does your NGO work (geographical area)?

Phnom Penh, Kandal, Takeo, Kampong Speu, Kampot

3. What resources do you have in terms of Speech Therapy curriculum?

None.

4. What commitment has your NGO already made to developing SLT services and resources?

Has only received basic training on disability. Staff have attended training on CCAMH, KPF, and Rabbit School. Though the training is very basic.

5. What is your NGO able to contribute to our program?
Interested in joining the Special Interest Group and sharing information. May be able to contribute some budget depending on conditions.

6. What interest does your NGO have in our curriculum once it is developed?

Definitely interested in the training once it is developed.

7. What level of training or past experience does your staff have in SLT?

Recently sent staff to CCAMH for 3 day training on how to feed children with swallowing difficulties. Went to a training in India on Community Inclusion Initiative, which included only 1 hour of training on SLT. Also in 2006, Krousar Thmey have provided some training on how to communicate with hearing impaired individuals. Some training was also provided on feeding.

8. Any information you have on family comments or needs expressed by families for support with communication/swallowing?

Some families have asked about how to communicate with the children, or how to feed children with swallowing difficulties. Commonly children with CP or Down’s Syndrome. Estimation is around 5-10% of the children seen have these sort of requests.

Some NGOs were able to give more in-depth information:

Komar Pikar Foundation

1. What percentages of people with disabilities have communication problems in Cambodia?

76.36% at KPF.

2. What percentage of people with disabilities have swallowing problems in Cambodia?

55% at KPF.

3. What are the main causes of communication and swallowing problems in Cambodia?

Mouth structure impairment, physical weak muscle, intellectual disability.

4. What are the different types of impairments that cause communication and swallowing problems in Cambodia?
Weak body posture, Cleft lip or palate, drooling.

5. What is the percentage of each of the impairments that cause communication and swallowing problems in Cambodia?

I am not sure, we need the technical person or me to identify those children. Need the time.

For Cambodia statistic you can check with DAC and Special Education department of MoEYS.

*From DDSP*

1. **General Information**

The Mith Komar Pikar (‘disabled children’s friend’) project is a multi-programme project aimed at meeting the educational needs of children with moderate-severe disability in Pursat.

There are four components:
(a) Inclusive education to help children with disability access education in public schools – this includes those with moderate disabilities such as difficulty in hearing, speaking and seeing.
(b) Special class supporting children with intellectual disabilities
(c) Mlop Mith Komar Centre in collaboration with Pursat hospital referral to support therapy clinic services for children with severe physical disabilities.

2. **What percentage of people with disabilities have communication problems in Cambodia?**

Basis on DDSP project areas 52.78% (256 of children with disabilities) has problem with communication.

3. **What percentage of people with disabilities have swallowing problems in Cambodia?**

Basis on children have problem with the communication, the swallowing problem is 32.2% (84 children with disabilities).

4. **What are the main causes of communication and swallowing problems in Cambodia?**

1. Physical factor: children with low muscle tone, conditions that affects nerve and muscle control such as cerebral palsy.
2. Down syndrome or disabilities that cause delay in development such as Autism.
3. Hearing impairment that makes it difficult for children to develop speech and language.

5. What is the percentage of each of the impairments that cause communication and swallowing problems in Cambodia?

- Brain damage 20%
- Hearing impairment 30%
- Physical factor such as motor skill and impair muscle coordination 45%
- Other impairment 5%
Appendix 2

Conventions, laws and policies at a national and international level that are relevant to people with communication and swallowing disorders in Cambodia.


Relevant sections

Article 4
General obligations

(g) To undertake or promote research and development of, and to promote the availability and use of new technologies, including information and communications technologies, mobility aids, devices and assistive technologies, suitable for persons with disabilities, giving priority to technologies at an affordable cost;

(h) To provide accessible information to persons with disabilities about mobility aids, devices and assistive technologies, including new technologies, as well as other forms of assistance, support services and facilities;

Article 9
Accessibility

1. To enable persons with disabilities to live independently and participate fully in all aspects of life, States Parties shall take appropriate measures to ensure to persons with disabilities access, on an equal basis with others, to the physical environment, to transportation, to information and communications, including information and communications technologies and systems, and to other facilities and services open or provided to the public, both in urban and in rural areas.

(b) Information, communications and other services, including electronic services and emergency services.

2. States Parties shall also take appropriate measures:
(d) To provide in buildings and other facilities open to the public signage in Braille and in easy to read and understand forms;

(e) To provide forms of live assistance and intermediaries, including guides, readers and professional sign language interpreters, to facilitate accessibility to buildings and other facilities open to the public;
(f) To promote other appropriate forms of assistance and support to persons with disabilities to ensure their access to information;
(g) To promote access for persons with disabilities to new information and communications technologies and systems, including the Internet;

(h) To promote the design, development, production and distribution of accessible information and communications technologies and systems at an early stage, so that these technologies and systems become accessible at minimum cost.

Article 21
Freedom of expression and opinion, and access to information

States Parties shall take all appropriate measures to ensure that persons with disabilities can exercise the right to freedom of expression and opinion, including the freedom to seek, receive and impart information and ideas on an equal basis with others and through all forms of communication of their choice, as defined in article 2 of the present Convention, including by:

(a) Providing information intended for the general public to persons with disabilities in accessible formats and technologies appropriate to different kinds of disabilities in a timely manner and without additional cost;

(b) Accepting and facilitating the use of sign languages, Braille, augmentative and alternative communication, and all other accessible means, modes and formats of communication of their choice by persons with disabilities in official interactions;

(c) Urging private entities that provide services to the general public, including through the Internet, to provide information and services in accessible and usable formats for persons with disabilities;

(d) Encouraging the mass media, including providers of information through the Internet, to make their services accessible to persons with disabilities;

(e) Recognizing and promoting the use of sign languages.

Article 24
Education

2. In realizing this right, States Parties shall ensure that:

(b) Persons with disabilities can access an inclusive, quality and free primary education and secondary education on an equal basis with others in the communities in which they live;

(c) Reasonable accommodation of the individual’s requirements is provided;
(d) Persons with disabilities receive the support required, within the general education system, to facilitate their effective education;
(e) Effective individualized support measures are provided in environments that maximize academic and social development, consistent with the goal of full inclusion.

3. States Parties shall enable persons with disabilities to learn life and social development skills to facilitate their full and equal participation in education and as members of the community. To this end, States Parties shall take appropriate measures, including:

(a) Facilitating the learning of Braille, alternative script, augmentative and alternative modes, means and formats of communication and orientation and mobility skills, and facilitating peer support and mentoring;

(b) Facilitating the learning of sign language and the promotion of the linguistic identity of the deaf community;

(c) Ensuring that the education of persons, and in particular children, who are blind, deaf or deaf blind, is delivered in the most appropriate languages and modes and means of communication for the individual, and in environments which maximize academic and social development.


Relevant sections (comments in italics provided by the author of this research):

Part 2: Emergency and on-going medical care

5. MoSVY and MoH, in collaboration with PoSVY & DoSVY, and relevant service providers will:
   5.2 Improve the referral system for persons with disabilities.

6. MoSVY and DAC, in collaboration with service providers and MoH, will:
   6.1 Review referral service mapping in collaboration with service providers.
   6.2 Collect information on referral and outreach services from all service providers.
   6.3 Develop and coordinate a dataset for provinces that identifies what referral services are available

Apart from helping to map out the services that currently exist in this area, CABDICO’s program could help to develop the capacity of organisations to
respond to children with communication and swallowing disorders, so that they could adequately take referrals from government or other organisations.

Part 3: Physical rehabilitation

An evaluation of the Physical Rehabilitation Centres (PRCs) was finalized in 2006, and key recommendations included:

- Identifying and minimising barriers to accessing services for all clients.

Once CABDICO has the capacity to train other organisations on Speech Therapy, this could also include staff at PRCs.

Part 4: Psychological support and social reintegration

Education

1. MoEYS, in collaboration with DAC, MoSVY, PoSVY / DoSVY and service providers will:
   1.3 Strengthen collaboration on awareness of disability issues in the education sector
   1.5 Implement the ‘Policy on Education for Children with Disabilities’ in conjunction with the Child Friendly School Policy (which emphasises inclusive education for children with disabilities to attend mainstream schools)
   1.6 Implement the ‘Mainstreaming Inclusive Education’ (MIE) program
   1.8 Improve access for children with disabilities in schools (e.g. ramps etc) and in the provision of assistive devices such as glasses, hearing aids, special chairs, etc
   1.15 Where needed provide specialized services for individuals with specific learning needs

A more comprehensive approach to Speech Language Therapy could help to develop teaching aids, such as communication boards, that can help integrate children with communication impairments into mainstream schools. It could also raise awareness around the need for specialised services for those with communication and swallowing disorders.

3. An Inclusive Education program for children with disabilities on Braille and sign language is provided to pre-service and in-service teachers to improve the educational services for deaf and blind children in at least 18 provinces by December 2011

This is already occurring through MOEYs collaboration with Krousar Thmey, though it centres only around services for deaf and blind children. Development of a more comprehensive Speech Language Therapy program covers children with other impairments who might also benefit.

Relevant sections (comments in italics provided by the author of this research):

**Article 29**

The Ministry in charge of Education shall develop programs for educational establishments to provide accessible facilities for pupils and students with disabilities with regard to the following:

- Buildings, classrooms and study places;
- Sign language and Braille;
- Educational techniques and pedagogy corresponding to the types of disabilities;
- Study materials or other equipment to assist pupils and students with disabilities;
- Training and teaching materials for teachers or professors and others corresponding to the actual needs of each pupil and student with disabilities.

**Article 31**

The Ministry in charge of Education shall include into the mainstream education programmes sensitization to the causes of disabilities, disability prevention and the value of persons with disabilities.

- The Ministry in charge of Education shall have pedagogical programmes to train teachers and professors to develop their knowledge on disability and teaching methodology on teaching pupils and students with disabilities.


Relevant sections (comments in italics provided by the author of this research):

**Strategy 1: Identify and enrol children with disabilities**

- Use school enrolment register and EMIS data in order to identify learning needs and provide appropriate support to children with disabilities.

* More awareness on this topic and collaboration with MOEYS could improve their ability to screen and identify children with communication and swallowing disorders.
• Establish a referral system for children with disabilities to hospitals or development partners for follow up.

Apart from helping to map out the services that currently exist in this area, CABDICO’s program could help to develop the capacity of organisations to respond to children with communication and swallowing disorders, so that they could adequately take referrals from schools for these children.

Strategy 3: Provide the opportunity for, and implement, an inclusive education program

• Provide teaching aids and assistive devices.

A more comprehensive approach to Speech Language Therapy could help to develop teaching aids, such as communication boards, that can help integrate children with communication impairments into mainstream schools.

Strategy 5: Raise awareness about understanding of disability

• Provide specific information about infrastructure for school accessibility
• Provide visual information on availability of services, gaps in services and referral routes

By raising the profile of Speech Language Therapy in Cambodia, and sharing the initial research into services, gaps in services and infrastructure, CABDICO can help to raise awareness about those with communication and swallowing disorders.

Strategy 6: Support program from the education system

• Develop teaching aids to access the Inclusive Education module
• Provide certified training in Braille instruction and Sign Language through the Provincial and Regional Teacher Training Colleges to selected trainers, and then provide cascade training to pre/in-service teachers.
• Collaborate with NGOs and IOs to train classroom teachers on inclusive education, Braille and sign language module.

Although this training is already occurring via Krousar Thmey, the focus is on hearing impaired individuals, which is only one facet of communication and swallowing disorders. A more comprehensive Speech Therapy program would address the other impairments that need to be supported to allow full inclusion in the education program for children with disabilities.

CABDICO is in a unique position in which it can collaborate with Krousar Thmey and explore gaps in their partnership with MOEYS that could be filled by the development of our curriculum.
National Community-Based Rehabilitation Guidelines for Cambodia, 2010.

Education

• Working with local DPOs, staff from special schools and children with visual and hearing impairment to find the best support and resource.
  o These could include tape, Braille, and sign language. A deaf child will need to meet with other deaf children and adults to develop their sign language skills.
• Making communication aid using picture, symbols, boards, etc.
  o Ensuring consistency between communication methods that are used in the home, school, community, CBR workers should encourage the parents, siblings, other school children, teachers and neighbors to learn the same basic sign.

Challenges faced:

• Limited access to buildings, services and information (e.g. no ramp to a classroom or latrine, no textbook in Braille)

Health

From Minister Ith Sam Heng, Minister of Social Affairs, Rehabilitation and Youth – who delivered a speech on Community Rehabilitation in Cambodia on 19, July 2010:

• Increasing more Braille and sign language for persons with disabilities and follow this to technical services.

Component 1: Health (prevention)

Preventing disease and injury is the first step in the process of disability invention

Tertiary prevention
A person with movement impairment, exercise in physical therapy and the use of device may restore his or her ability to walk. Training in sign language, or the use of hearing aid, may give to people with hearing impairments the ability to communicate.

Suggested activities

Identify existing programmes:
CBR workers, together with DPOs, can next see if the health education programme is accessible for people with disabilities:
• Are people with disabilities aware of the health education programme?
• Is the information available in alternative formats, for example, verbally or in the large print, in a variety of location, including places where people with disabilities are likely to go?

• Are locations in which health information is shared accessible to people with physical disabilities?

• Does the health programme reach out specifically to marginalized groups, including people with disabilities?

• Is the programme followed up at the community level?

Work for accessible and inclusive programmes:

• Together with DPOs, raise awareness amongst health care workers about giving health information in alternative formats (for example in large print) to people with different disabilities.

Health (Assistive devices)

Vision device:
Low vision or blindness has a great impact on a person’s ability to carry out important life activities, such as gaining access to important information and being mobile. An example of a vision device are eyeglasses with strong lenses and good lighting. Blind people may need a mobile device such as a white cane which is necessary to allow independent movement and safely.

Hearing device:
Hearing loss affects every communication. In children, hearing loss can affect speech, language and education development.

Sign language :
When hearing loss is very severe, the usefulness of hearing aid for communication is limited. The individual in this case can use writing or sign language to communicate.

Speaking aid:
Augmentative and Alternative Communication (AAC) can help people understand what is said to them, as well as helping them to express themselves. Its methods include alphabet, symbol or picture boards.
Appendix 3

Ongoing Discussions and Linkages with Vietnamese Academic Institution

Discussions with Sue Woodward, Board Member at Trinh Foundation

Background

In 2007, Sue Woodward was in Vietnam with her husband who is an Orthodontist. They met with Dr Dung, who was then the director of the ENT Hospital in Ho Chi Minh City. She is now the Rector of Pham Ngoc Thach University of Medicine in Ho Chi Minh City. The difficulty that Dr Dung was facing at the time was that she could not get hearing tests for children with cleft palate. She asked whether or not they could help get Speech Language Therapy training brought into the country.

At the time, there were people who had some training in the form of 3 month trainings from overseas visitors. Some had been sent overseas as well, but it was not particularly comprehensive.

Dr Dung had (and still has) a fairly high profile in this field in Vietnam. She has good party connections and was a champion for this cause.

Lesson learnt

You need to have a high profile champion of the cause within the country, who is willing to maneuver within the government to get things done. This person has yet to be identified in CABDICO’s program.

Time period

From 2007, it took up to September 2010 to get the first 2 year post graduate degree started at Pham Ngoc Thach University of Medicine, Ho Chi Minh City with a Graduation Ceremony on 21 September 2012. The second post-graduate degree is now underway.

In the future, the next step is beginning an undergraduate program. This is important because it is difficult to get professionals who are already working to do full time training, on top of their day to day work.

Lesson learnt

It was possible in Vietnam to get a post graduate degree up and running in a relatively short space of time.
Funding

Back in Australia, Sue approached Professor Lyn McAllister – who had experience setting up SLT Trainings in Australia – and had previously linked Charles Sturt University and Fu Mi Orphanage.

They then formed the Trinh Foundation to fund it. Mostly private donors contributed. They also accessed the Direct Aid Program (DAP) – by approaching the Australian consulate who have a distribution of funds for specific project and the discretion of the ambassador. They were able to receive roughly $10,000.

They also received funding from the Australian Chamber of Commerce in Ho Chi Minh City.

Much of the labor with setting up the degree was voluntary – often they would pay for the flights for Speech Language Therapists who would do the work for free. The yearly budget that they spent was approximately $40,000.

Lessons learnt

The budget for the program to set up a speech therapy degree in Vietnam was quite small, due to use of volunteer labor. Getting a good clinician on board with CABDICO’s program could also occur cost effectively if we can find the right person to volunteer.

The curriculum

In 2009, it was directed towards doctors, physiotherapists and nurses. There were about 30 in the short course. The focus was very much on clinical skills.

Specifically, there was a 2 week lecture block in February, a 2 week clinical training block in March, and a further 2 week clinical training block in July, with a final lecture block in October, followed by exams.

On top of the academic side of things, there was an equal focus on clinical skills practice.

Identified key topics – didn’t try and cover too many topics. Eg cleft palate and hearing impairment.

Lessons learnt

The curriculum must have a strong focus on clinical skills and practice, as much as academic learning. This means that it may be necessary to incorporate some clinical practice time during CABDICO’s training, and also some field time.
It should try and identify key topics and not try and cover too much.

**Expertise**

Used 2 Australian Volunteers (under the Australian Volunteer International program (AVI) who are both Speech Therapists - one to coordinate the academic program, and one to coordinate clinical program. Now there is one more there, coordinating both.

Speech Language Therapists and doctors from Australia mostly volunteered their time. Volunteers were given some financial support to help, but not a lot. Also used Australian Business Volunteers (ABVs) – for periods of above 3 weeks but under 6 months.

Sue emphasized the need to have expertise from a Speech Language Therapists who had a good grounding in academia and clinical experience so that the curriculum is relevant and robust from the start.

**Lessons learnt**

CABDICO’s original plan was to use 4th year SLT students from City University in London, who are travelling to Phnom Penh to do their placements late 2013 anyway. However it is now clear that this is not a good option due to their lack of academic and clinical experience.

The other options to find a Speech Language Therapists who could help with overseeing this program are:

1) Using ABV, or Voluntary Service Overseas (VSO) to come through and help.

2) Finding a Cambodian Australian/American/French SLT to help. The advantage of such a person is that they would have some familiarity with Khmer language, which could be advantageous. This person could be found by writing to different SLT associations – sometimes they advertise that they have a 2nd language.

I have already contacted Speech Pathology Australia and American Speech-Language-Hearing Association.

**Dissemination of the curriculum**

Sue warned against the dangers of giving information without teaching people how to actually use it. She suggests that the Vietnamese trained therapists could help, and that they would feel like they have a responsibility to disseminate this information. They could do this for free.
Sue supplied the contact details of some people at the Vietnamese Speech Therapy association, who have already indicated that they would be happy to meet with us. These people are:

Mr Dien Le Khanh (head of the Vietnamese Speech Therapy association)
Mrs Yen Ha Thi Kim (specialist in paediatrics)
Mrs Xuan Le Thi Thanh (specialist in paediatrics)

She also put me in contact with Professor Dung (now the Rector of Pham Ngoc Thach University of Medicine in Ho Chi Minh City) who helped champion Speech Therapy in Vietnam, and Elizabeth Brownlie, an Australian volunteer now coordinating the clinical and academic speech therapy programs in Ho Chi Minh City.

Lessons learnt

CABDICO had originally planned on giving away a hard copy of the curriculum that was produced. However, given the feedback from Sue Woodward, this may be a bad idea without the necessary training to accompany it. Therefore we should consider training other organisations only.

When funding is available, CABDICO should take advantage of the good will displayed by those in the Vietnamese Speech Therapy association and meet with them in Ho Chi Minh City to see how they could collaborate with CABDICO in the future.
Appendix 4

Discussion with Dr Iem Sophal (Director Of Technical School for Medical Care (TSMC))

The suggestion initially is for a 1 year post graduate degree.

As TSMC is not fully subsidised by the government, it needs to be a financially viable degree. This means that in the first year, there needs to be a minimum of 50 students.

Ultimately, before setting up a degree, we will need to gauge the interest in students to be part of this course, considering that they will have to pay fees for the first year. With physiotherapy, the initial cost for a year’s tuition fees is approximately USD900 a year. This is still less than private universities.

Currently, the WHO and AusAID support teachers from the Philippines to teach a nursing course (upgrade from diploma to degree), one week every month. The students also learn online. Next year the teachers will be half from the Philippines, half from Cambodia, with the eventual aim that all the teachers are Cambodia.

Lessons learnt

The first few batches of students may need to be subsidized. It would be worth working out how the Vietnamese university overcame this barrier.

Overall, TSMC were happy to support anything that advanced health sciences in Cambodia, as long as it was financially viable.