

Early Detection of Functional Limitations For Better Learning Outcomes

Pilot to inform Equity in Education activities in Mid- & Far-Western Nepal

September 2017

OVERVIEW OF INCLUSIVE EDUCATION PILOT SCREENING

DURATION

- » November 2016 - January 2017

COVERAGE

- » Mugu, Kalikot, Achham, and Bajura
- » 40 community schools (10 per district)
- » 2,804 students from Early Childhood Development (ECD) to Grade 3

PRIMARY FINDING

- » 26% of screened students may have one or more functional limitations
- » 9.4% of screened students have a high likelihood (99-100% chance) of being formally diagnosed with a disability

PURPOSE

- » To strengthen initiatives to detect, identify and treat functional limitations among children enrolled in ECD to Grade 3 classes in four Mid- and Far-Western districts
- » To expand efforts to support children with functional limitations or disabilities in meeting Early Grade Learning outcomes
- » To inform disability inclusion strategies within broader equity in education program

OBJECTIVES

- » To identify children with functional impairments in target schools
- » To improve learning outcomes for children with functional limitations by promoting responsive instructional strategies
- » To inform school-level interventions and strategies to create adaptive learning environments in mainstream classrooms
- » To map existing health, rehabilitation and educational centers to establish a referral pathway for children with limitations



In November 2016, Handicap International (HI) and Resource Center for Rehabilitation and Development (RCRD), with support from World Education Nepal (WE) and UNICEF, initiated a pilot screening program to support and inform the Government of Nepal's efforts to identify, diagnose and treat functional impairments among children early in their development. Initial findings indicate that 26% of screened children are at risk of limited participation in society because of one or more functional limitations and that 9.4% of screened children have a 99-100% chance of being formally diagnosed with a disability. This overview shares strategies, results and recommendations from the pilot, which is one component of a broader Equity in Education program supported by UNICEF.

The pilot screening is part of a multi-year Early Grade Learning project implemented in partnership with UNICEF and RCRD in four remote Mid-Western and Far-Western districts. The pilot screening surveyed a sample of 2,804 children enrolled in ECD-Grade 3 classes in 40 public schools across Achham, Bajura, Kalikot, and Mugu. The pilot seeks to shape strategies to remove barriers to learning outcomes for children with functional limitations or disabilities and to accommodate them within mainstream classrooms.

Following screenings in each project district, the pilot identified that 26% of screened children are at risk of having one or more functional limitations. 9.4% of all screened children scored "a lot of difficulty" or "cannot do at all" in at least one limitation domain, indicating a high likelihood (99-100% chance) that they will be diagnosed with a physical or mental disability in subsequent evaluations. Additional assessments from medical and education professionals are critical to formally diagnose physical and mental impairments, follow up with treatment, and provide assistive devices. Coordinated efforts across the government's health, education and nutrition programs are also needed to address the complete needs of children with functional limitations. Now, many children who are eligible for government-issued disability cards do not have them. An initiative to distribute these to children in remote locations is also important.

DISABILITY IN NEPAL

Disability Prevalence in Nepal

Data from the Government of Nepal (GON)'s 2011 census shows that 1.94% of Nepalis have some form of disability, a statistic that falls below international averages. World Health Organization estimates for the same year indicate that the average disability prevalence rate worldwide is around 15% of each country's population, of which 2-4% has significant difficulties in functioning.

Government Support to the Disabled

GON committed to supporting persons with disabilities through the 2009 ratification of the United Nations Convention on the Rights of Persons with Disabilities and through provisions within the Ministry of Education's (MOE) School Sector Development Plan 2016-2022. Despite these commitments, Nepal had not created the screening tools and implementation processes required to identify children with disabilities and to ensure that they receive needed assistance.

PILOT METHODOLOGY

TERMINOLOGY

Compared to the WHO model disability survey and the definition of functional limitation used in this pilot, the GON's definition of disability is limited and accounts primarily for persistent and visible physical issues.

- » **Disability** – Since 2007, the GON has defined disability as “a condition where a person feels difficulty to perform day-to-day activities and participate fully in their social life due to problems in body organs and system, including physical, socio-cultural and communication barriers.”
 - » **GON classifies disability in 10 categories:** 1) physical disability; 2) visual impairment: blind and low vision; 3) hearing impairment: deaf and hard of hearing; 4) deaf blind; 5) speech impairment; 6) mental or psychosocial disability; 7) intellectual disability; 8) Hemophilia; 9) Autism; and, 10) multiple disabilities.
- » **Severity Spectrum** – For the purposes of distributing disability identity cards, the GON has classified disability on the basis of its level of severity, as follows:
 - » **Profound disability:** Difficulty to perform daily activities even with the help of others.
 - » **Severe disability:** Inability to perform daily individual or social activities without the help of others.
 - » **Moderate disability:** Ability to perform daily activities and participate in social life if barrier free environment, appropriate training and education are provided.
 - » **Mild disability:** Ability to perform daily activities and participate in social life if barrier free environment is provided. Vision challenges that are correctable with glasses .
- » **Functional Limitation** – A term that encompasses any difficulty in executing routine activities, such as applying knowledge, completing tasks, and maintaining self-care.

Challenges to Identification and Treatment

Nepal faces a number of barriers to screening for and identifying limitations, which may contribute to the low disability prevalence found in the 2011 Census. These include:

- » Teachers do not have the necessary training or time to effectively screen their students for limitations.
- » MOE-formed assessment centers in 62 districts are responsible for checking children for disabilities but have insufficient resources to fulfill this mandate.
- » GON's distribution of disability identity cards is largely confined to district headquarters, which are inaccessible for many eligible children in rural areas.
- » Disability and rehabilitation are new priorities of the MOH and, until now, there has not been a strategy to detect congenital birth defects in health facilities.
- » Generally, Nepal lacks the referral mechanisms to send children with functional limitations to service providers for diagnosis and treatment.

Coordination with Diverse Stakeholders

HI and WE engaged with the Department of Education (DOE), to form a Steering Committee, which included three DOE officials, Chairperson of National Federation of Disabled Nepal, Director of RCRD and representatives from HI, WE and UNICEF. The Steering Committee and technical advisors supported the creation of a screening tool to identify disabilities and functional limitations in young children by measuring ability to perform tasks on a four level scale ('no difficulty, some difficulty, a lot of difficulty, cannot do at all.') The Steering Committee included features from a Washington Group screening tool, which assesses functional difficulties across all domains including hearing, vision, remembering, communication, learning, mobility and emotional regulation.

District Coverage

HI and WE selected Mugu, Kalikot, Achham and Bajura as pilot screening locations to help improve early grade learning outcomes which were poor compared with other districts across Nepal. UNICEF supports schools in these districts because of their extreme need and relative inaccessibility from urban areas.

Screening Process

After receiving training, a team of four people (a medical doctor, an orthopedic technician, a Community Based Rehabilitation supervisor and the Director of RCRD) conducted the screenings. Local District Education Officers and local partners oversaw data collection in the 40 selected schools. On screening day, the team organized a brief meeting with school teachers and principals to share the objectives and importance of the screening program.

Following the orientation session, four groups were created to conduct the screening of children from ECD to Grade 3. Forms were filled for each child with the help of his/her class teacher, by using direct observation and simple assessment tests to check his or her eyes, ears and mobility. Children identified as “at risk/suspected functional limitation” following the initial screening then underwent an initial medical assessment that focused on hearing, vision and mobility.

KEY FINDINGS

Out of 2,804 children screened in 40 schools, 26% (717) children are likely to have one or more functional limitations. Among children with a likely limitation, 16% (116) study in resource classes, which are specifically for disabled students apart from mainstream classrooms. All 717 of those children need further health checkups to formally diagnose and treat limitations with assistive devices, therapy and teaching-learning adaptations. Among the 717 children, 9.4% (265) children were found to have “a lot of difficulty” or “cannot do at all” with respect to competencies associated with one or more domains. These 265 children are over 99% likely to be formally diagnosed with a disability, indicating that disability prevalence may be higher than suggested by the 2011 Census.

Graph 1: Coexisting limitations common; severe disability rates low

Results of the screening show that children with suspected functional limitations have difficulties in more than one domain. Of the 717 children with at least one suspected functional limitation (including repeat counting), the screening showed prevalence by domain as follows: 82% (587 children) in learning and remembering; 35% (251 children) in socialization, 19% (133 children) in communicating, 15% (108 children) in hearing, 11% (81 children) in behavior, 11% (80 children) in mobility, 7% (50 children) in self-care, and 7% (47 children) in vision. Most cognitive difficulties are hidden and do not have physical manifestations like limb loss or blindness and are difficult to identify with traditional screening approaches.

Graph 2: Dalit children most likely to experience limitations

Prevalence within ethnic groups indicates that Dalit children likely experience more functional limitations than Chhetris, Brahmins, Janajatis or other groups. 28% of screened Dalit children had one or more limitations, compared to 25% of Chhetris, 22% of Brahmins, and 10% of children from Janajati or other groups.

Dalits’ status as one of Nepal’s often marginalized groups may contribute to the seemingly high prevalence of functional limitations among them. Many Dalits have limited access to quality education, few income generating opportunities and face challenges meeting other basic needs, such as health care, which can trap them into vicious cycles of poverty. Inaccessibility to quality health facilities and acute malnutrition resulting from inability to afford enough food could lead to higher rates of severe disability in the future.

Graph 3: Limitation prevalence highest in Bajura, lowest in Kalikot

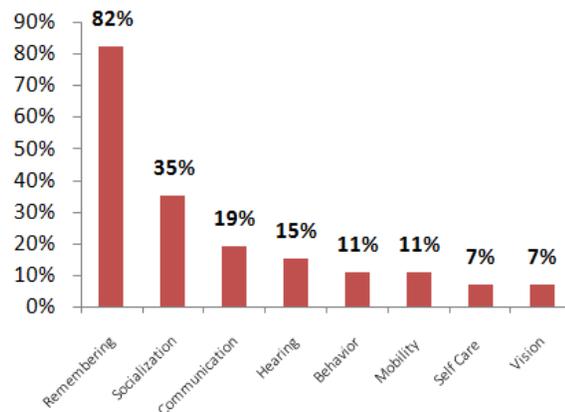
The highest prevalence of children with suspected functional limitations is in Bajura, where 32% of screened students have at least one limitation, followed by Achham (29%), Mugu (21%) and Kalikot (18%). Among the 717 children with a possible functional limitation, 360 (50.21%) are male and 357 (49.79%) are female.

Achham and Bajura, both located in Nepal’s Far-Western development region, experience severe poverty rates which may affect the high prevalence of functional limitations there. According to 2011 figures from the GON’s Central Bureau of Statistics, approximately 46% of the Far-Western development region’s population lives below the national poverty line. Stunting, global and moderate acute malnutrition, and anemia in children under five are common in Achham and Bajura due to poor diets. Screening data suggests that, in both Achham and Bajura, older children with possible limitations are held back in lower grades, which may also contribute to the high prevalence in those districts. A combination of these factors may contribute to the early development of health problems and functional impairments that develop into disability among Achham and Bajura’s children.

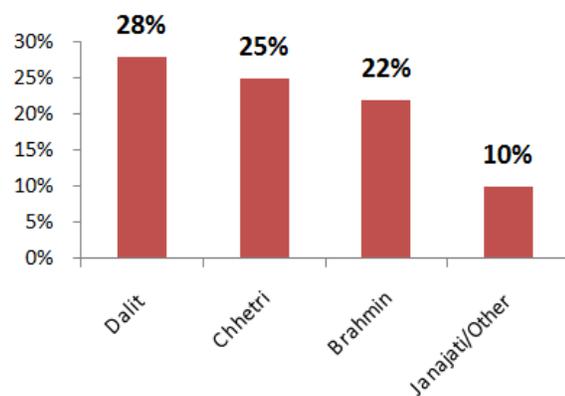
Graph 4: Direct correlation linking grade and limitation prevalence

Roughly 19% of ECD students, 24% of Grade 1 students, 25% of Grade 2 students, and 31% of Grade 3 students screened have one or more possible limitations. This clear upward trend in prevalence as grade level increases can also be explained by the disproportionate number of older children who participated in the screenings. Children who are over the age of 7 and have been held back due to poor academic performance resulting from untreated limitations likely contribute to high prevalence, suggesting that the presence of suspected functional limitations and subpar learning outcomes could be related. This conclusion is supported by the very high rates of limitations among screened out of school children (70%) and children in Grade 4 or higher (63%).

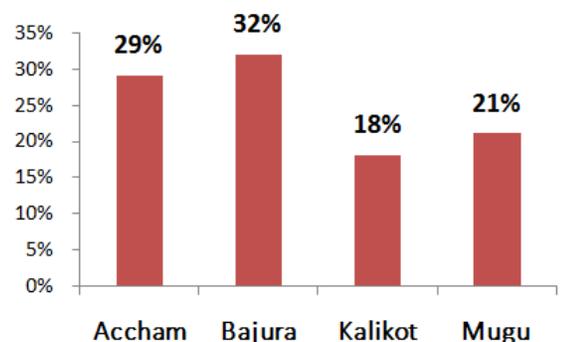
Graph 1: Distribution by Limitation Domain



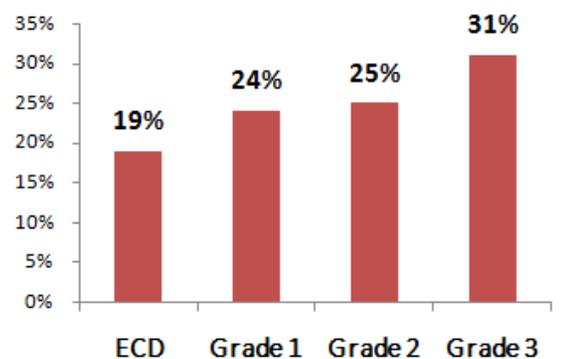
Graph 2: Prevalence within Ethnicities



Graph 3: Prevalence by District



Graph 4: Prevalence within Grade Levels



RECOMMENDATIONS

A deliberate approach to screening children for functional limitations and disabilities at a young age should be a priority within education activities in Nepal. Early diagnoses coupled with referrals to appropriate medical providers will ensure that all children receive the treatments they need to avoid disability progression and to meet grade-level learning outcomes. Beyond improving children's health, quality of life and academic performance, early detection efforts and screening programs will contribute to the development of a robust, cross-sectoral database of information on disability prevalence in Nepal and will enable stakeholders to efficiently collect and share information for a coordinated response.

» Formally diagnose and treat limitations and disabilities

The screening program identified 265 children (9.4%) who are 99%-100% likely to have their suspected limitation formally diagnosed as a disability. These children, and all others who may have one or more functional limitations, need appropriate treatment and support, such as classroom accommodations and accessible school infrastructure, to optimize their quality of life and academic potential. While some children will need only simple assistive devices such as hearing aids or glasses to correct their limitations, most will require personalized follow up through the development of Individual Education Plans (IEPs).

» Raise community member awareness of limitations

All certified teachers in Nepal should be trained to identify suspected limitations among their students and refer them to health providers who can help ensure that their physical and mental needs are met. Minor adjustments to teacher trainings and materials would raise awareness of disability issues and make classrooms friendlier to students with limitations. Parents and community members need increased awareness of what functional limitations are and how to detect them in their children. As Nepal shifts to federalism, local health workers as well as those at the Gaunpalika level should also be trained to screen all new enrollees in ECD and Grade 1 classes for limitations to lessen the responsibility of teachers as the sole overseers of school screenings.

» Diversify instructional strategies to improve learning outcomes

In addition to knowing how to produce IEPs for children whose limitations require them, school administrators and teachers should be familiar with instructional strategies that accommodate learners with functional limitations and disabilities. Teachers should be trained to incorporate activities into their lesson plans that are responsive to the needs of students with limitations in all domains, such as the use of large manipulatives for students with challenges in hearing and visual domains and mnemonic devices for children with difficulties in the learning and remembering domain.

» Coordinate efforts to address limitations and disabilities

All stakeholders should coordinate to introduce a comprehensive strategy across the education, health, and nutrition sectors that addresses the complete needs of children with disabilities and coordinates the collection and analysis of data on disability. Distribution of disability identity cards is not reaching children in remote villages and schools. Another strategic programmatic intervention should be developed to ensure that children who are formally diagnosed with disabilities receive GON disability identification cards and are included in mainstream classrooms.

» Expand pilot to reach more children

This screening program was carried out in 40 schools in four districts—a very small sample considering the size of Nepal's school-aged population. The functional limitation framework and assessment tool should be applied in more schools across more districts to better assess the prevalence of functional limitations among children in ECD-Grade 3 classes. Scaling the pilot is also necessary to test in-school accommodation strategies. Similarly, out of school children who miss in-school screenings should also be sought out for assessment with the ultimate aim of treating their limitations and enrolling them in formal schooling.



WORLD EDUCATION

