

SIHELI HEALTH ASSESSMENT REPORT (GHANA)

Associates for Change: (November 2025)



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1.0 Executive Summary

This report details the comprehensive health assessment conducted as a core component of the Scaling Inclusive Home-based Early Learning Initiative (SIHEL I) in the Nanton District of Northern Ghana. The primary objective was to systematically identify children with disabilities, special needs, or underlying health conditions that could adversely impact their educational participation and developmental trajectories. A multidisciplinary team screened approximately 150 children across five communities (Moya, Chahiyili, Kparigulanyili, Gushei, and Zali) in the areas of general pediatric health, vision, and hearing. While the screening confirmed that the majority of children are in good health, it successfully identified a significant subset requiring further specialist intervention, support, or assistive devices. The exercise highlights the critical need for integrated health and education services in rural Ghana and provides a clear roadmap for targeted follow-up actions to ensure all children can thrive in the SIHEL I learning environment.

2.0 Introduction and Purpose

Health assessment of school children is essential aspect of public health and education. Early Childhood Care and Education (ECCE) is regarded as a critical foundation for the holistic development of children and a key driver of societal progress. It is during these formative years, from birth to five years, that children develop essential cognitive, emotional, social, and physical competencies that shape their lifelong learning and development trajectories. These early experiences significantly influence brain development, school readiness, and even economic productivity in adulthood (Hackman, 2006). Early childhood is a period of growth and development, making health screening vital for identifying potential health issues that can negatively affect children physical, emotional, social and cognitive development.

In rural, underserved communities like those in the Nanton District, access to routine health surveillance is often limited, increasing the risk that disabilities and chronic health issues go undiagnosed and unmanaged, thereby hindering school readiness and long-term potential. The SIHEL I project recognizes that inclusive education must be underpinned by a clear understanding of learners' health status. This screening was therefore designed to proactively identify children with sensory impairments (vision and hearing), neurodevelopmental disorders, physical disabilities, and other health concerns that constitute special educational needs. The findings will directly inform individualized support plans, teacher training, and referrals to specialist services,

ensuring the project's foundational learning interventions are truly accessible to all enrolled children.

3.0 Methodology and Scope

From the 20th to 25th October 2025, the Associates for change (AFC) team together with Ghana Education Service (GES) team and Ghana Health Service (GHS) team visited the five (5) SIHELI communities (Moya, Chahiyili, Kparigulanyili, Gushei and Zali) and successfully screened 150 children in the learning centers set up by the AFC.

As part of research ethics, ethical clearance was obtained from the Ghana Health Service Ethics Review Committee in Accra dated 18th November 2024 before the commencement of the screening health screening. Letters were written to the Northern Regional Directorate of Health Service and Nanton District Health Directorate for permission before the exercise was conducted. The purpose of the exercise was thoroughly explained to all the stakeholders in the SIHELI project communities for their buy in. Parents verbally consented on behalf of their children before allowing them to participate in the screening. Data collected from the exercise was kept confidential and used for research purposes only. Parents, community members and children's rights were respected throughout the exercise.

Instruments used for the assessments were adopted from SIHELI project in Uganda and modified to suit Ghanaian context and used for the health assessment of the children by the clinicians. The assessment covered three key areas:

- **General Pediatric & Physio-Assessment:** Conducted by a Physician Assistant, this evaluation included a review of medical history, general physical examination, measurement of vital signs (temperature, respiratory rate), and anthropometrics (weight, MUAC). It aimed to identify a broad spectrum of health issues, from acute infections like pneumonia to chronic conditions like epilepsy and physical disabilities that affect mobility and classroom participation.
- **Visual Assessment:** An eye specialist conducted screening for visual acuity, ocular motility, and anterior segment health. It focused on detecting refractive errors, conditions like conjunctivitis and blepharitis, and more serious neurological-visual disorders such as nystagmus, which can severely impact a child's ability to read and engage with visual learning materials.
- **Hearing Assessment:** An audiologist carried out the hearing assessment which involved otoscopy (to check for wax impaction and infections) and behavioural

hearing tests. The main aim was to identify children with conductive or sensorineural hearing loss, which can lead to speech and language delays, social isolation, and significant learning barriers if unsupported.

4.0 Key Findings

The comprehensive health screening of approximately 150 children across the five SIHELI communities revealed that most children are in good general health. However, the screening successfully identified a number of children with specific health conditions that could create significant barriers to their learning and full participation in the classroom.

4.1 General Pediatric and Physio-Assessment

The general health screening served as a broad net, capturing a range of conditions that influence daily well-being and school participation. Many children had common childhood illnesses like colds, coughs, and fevers, which can cause them to miss school and feel unwell while there. More importantly for the goal of inclusive education, the screening identified several children with conditions that are long-term and affect daily life. This includes four children with physical disabilities or weakness in their arms or legs, which can make moving around the learning center and playing with others a challenge. Furthermore, two (2) cases of epilepsy were confirmed, a neurological condition requiring careful management and support to ensure safety in the educational setting. Respiratory tract infections (20 cases) and anaemia (8 cases) were the most common conditions identified. These issues are significant because they impact both school attendance and students' cognitive endurance. The identification of these issues, from chronic disabilities to common childhood illnesses, provides a holistic baseline of



Figure 1: Physician assistant conducting general health assessment of learners in the SIHELI communities

the health challenges facing the learner population. All children requiring further medical attention were identified, and caregivers were advised accordingly. These recommendations were also documented in the respective examination forms of each child for follow-up

4.2 Visual Assessment

The ocular health of the children was predominantly good, with the vast majority demonstrating normal visual acuity. The most significant finding was the identification of one (1) child with nystagmus (involuntary rhythmic eye movement). This condition is often associated with underlying neurological disorders and can severely affect visual fixation, reading fluency, and depth perception, creating a substantial barrier to learning if unsupported. Beyond this specific case, the eye specialist reported that about half of all the children had itchy, red, and allergic eyes (signs of ocular allergies, primarily vernal conjunctivitis). This is not a disability, but it causes constant discomfort. Children with itchy eyes rub them frequently, which can worsen the problem and make it hard for them to concentrate on their lessons. One child was also identified to have blepharitis (inflammation of the eyelid) of which the parent was educated on eyelid margin scrub and antibiotic eye ointment was prescribed for the child. The child with the visual problem (Nystagmus) also had a neurologic problem of which they were advice to see an ophthalmologist and neurologist for further assessment and management.



Figure 2: Eye assessment of children in some communities

4.3 Hearing Assessment

The hearing screening revealed the most significant needs related to a child's ability to communicate and learn. A total of 27 children were found to have possible hearing problems that need more testing. This is a crucial finding because hearing difficulty

directly affects how a child learns to speak, understand instructions, and interact with others. The problems ranged from simple, fixable issues like too much ear wax blocking 11 children's ears, to more serious ear infections in 12 children that can lead to permanent hearing damage if not treated. The screening also suggested that for some children, the hearing issue might be related to how the brain processes sound, requiring more specialized care. Importantly, one child was referred for speech therapy, showing how untreated hearing problems can delay a child's ability to talk clearly.



Figure 3: Hearing assessment of some children in the SIHELI communities

4.4 Cross-Cutting Findings

A key insight from the reflection meeting and data review is the co-occurrence of multiple conditions in children with identified special needs. The child with nystagmus, for example, also has a noted neurological concern. Furthermore, some children identified with physical disabilities during the pediatric assessment were among those showing abnormal hearing responses. This pattern emphasises that disabilities are often not isolated and require integrated, multi-specialist approaches for effective intervention. The screening also exposed a systemic gap: the near-total absence of readily available local specialist services in neurology, developmental pediatrics, and audiology within the district, making the referral pathway to Tamale Teaching Hospital both essential and challenging for families.

5.0 Challenges Encountered

While the health screening exercise achieved its primary objectives, several logistical and operational challenges were encountered which are detailed below.

- i. A major challenge encountered especially by the Physician Assistant was difficulty in accurately assessing respiratory rates due to frequent movement and restlessness among younger children.
- ii. Absence of some clinical equipment for the screening was also a challenge the team faced. For instance, at Moya community where we started the exercise, the team had to send the research assistant and GES officer to nearby community CHPS

compound to borrow thermometer, weighing scale and other clinical tools to support the Physician Assistant to be able to conduct the required assessment.

- iii. Absence of a child during the final day for the hearing assessment was also another problem the team encountered. The 151st child was nowhere to be found. We were later told he traveled out of the community with the parents to Tamale market that day and hence his hearing assessment could not be obtained.
- iv. Each child used a minimum of 30 minutes to complete hearing assessment conducted by the clinical audiologist, making the exercise time consuming to children, parents and the research team. In most communities, the team completed the screening exercise at almost 6:30 pm.

6.0 Recommendations and Next Steps

To build on the success of this screening and ensure meaningful follow-up for identified children, the following actions are recommended:

- i. **Prioritize Specialist Referrals for Children with Disabilities:** Children identified with hearing, visual, neurological, or physical conditions should be referred to appropriate specialists, such as neurologists, audiologists, ophthalmologists, and speech therapists. These referrals are essential to securing accurate diagnoses, assistive devices (e.g., hearing aids), therapies, and medical treatments that will directly enhance the children's ability to learn and participate fully in daily life. AFC should establish clear pathways, and logistical or financial support provided to families of such learners to ensure these critical consultations take place.
- ii. **Train Caregivers and Teachers:** Building local capacity is vital for sustainability. Training session(s) should be organised for caregivers and SIHELI volunteer teachers, co-led by the screening clinicians. These sessions will focus how to manage common issues like eye allergies, spot early signs of hearing problems, and implement simple classroom adaptations for children with special needs.
- iii. **Disseminate Findings to Relevant Stakeholders:** To strengthen local systems and inform future programming, the findings of this screening will be formally shared with key stakeholders. This includes the Nanton District Health Directorate and Ghana Education Service, who can integrate the data into district-level school health planning and teacher training initiatives. The report

will also be shared with regional health authorities and partner organizations to advocate for improved local access to specialist services and to guide the design of future inclusive education and health interventions.

- iv. **Adapt Learning Approaches Based on Screening Insights:** The project's educational approach (teaching methodologies and learning materials) should be reviewed and adapted to better meet the needs of children with sensory or physical impairments. This includes incorporating visual aids, ensuring clear auditory environments, and training facilitators in inclusive teaching practices to ensure every child can engage meaningfully in learning activities.

Annexes

Annex 1: General Pediatric Assessment From

SCALING INCLUSIVE HOMEBASED EARLY LEARNING INITIATIVE (SIHELI)

Pediatric Assessment and Screening Form

Childs information				
Date:				
Name:				
Gender:				
Date of Birth				
Age:				
Caregivers Name:				
Address				
	Wt.	MUAC.	Temp.	RR.

Medical History:

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Clinical Exam:

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Recommendations:

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Compiled By:

Signature:

Annex 2: Eye Assessment From

SCALING INCLUSIVE HOMEBASED EARLY LEARNING INITIATIVE (SIHELI)

Visual Assessment:

Date of Assessment:

Name of child:

Sex:.....

Age:.....

Next of Kin:.....

VillageDistrict.....Tel No.....

Regional Deafblind Center.....

1. Family/ Social History

2. Medical History

3. Presenting Complaint

4. Visual Acuity

Right Eye-

Left Eye-

5. Visual Acuity with Correction

Right Eye-

Left Eye-

6. Examination
Right Eye-

Left Eye-

7. Refraction
Right Eye-

Left Eye-

8. Diagnosis

9. Recommendations

Tested by:

Title:

Signed

Annex 3: Hearing Assessment Form

SCALING INCLUSIVE HOMEBASED EARLY LEARNING INITIATIVE (SIHELI)

Hearing Assessment Form:

Date of Assessment:.....

Name of Child:.....

Sex:.....

Age:.....

Religion:.....

Community District..... Tel No.....

Regional Deafblind Center.....

History:

How long has the child had the hearing loss: No hearing loss:.....Less that 1 year?.....1-5 years?.....More than 5 years?.....

Ear Examinations

Right Ear:

Left Ear:

Degree of Severity

(A)Hearing Assessment:

No reactions to loud noise:.....

Poor reaction to loud noise:.....

Good reaction to loud noise:.....

Distractions Test

500 1000 2000 4000Hz

R

L

Pure tone Audiometry

250 500 1000 2000 4000 8000Hz

R

L

(B)Mental and Independent Assessment

Feeds him/herself(Including eating and drinking)

Alone:.....

With some help:.....

Uses latrine

Alone:.....

With some help:.....

Not at all:.....

For school going age

Goes to school: Yes..... NO:.....

(C)Management plan

Recommendations

Tested By:

Name:

Signature

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