



Seeing is Believing, Phase V

Shanxi Children's Healthy Eyes
Bring Educational Rewards (CHEER) Project

Final Outside Evaluation Report
For Perkins International

Evaluator: Laurel J. Hudson, Ph.D.
August, 2018



Executive Summary

Seeing is Believing/CHEER; August, 2018

Driven by the mission statement, “We’re Here for Good,” the Standard Chartered Bank helps people and businesses in Asia, Africa and the Middle East through a sight saving initiative called, “Seeing is Believing.” Four cities in Shanxi province in central China have benefited from Phase V of this support for the past five years through contributions of five partners: ORBIS International North Asia, based in Beijing China, Shanxi Province Eye Hospital, Brien Holden Vision Institute, Helen Keller International, and Perkins School for the Blind. The final evaluation that follows is a summary, analysis and reflection of the contributions of Perkins through their Perkins International (PI) division.

PI’s tasks for the project were two-fold: to train and to equip. The training was for teachers, medical eye professionals and orphanage workers as they learned to assess/identify/refer/serve children with low vision, with or without additional disabilities. The equipping was to establish Low Vision Clinics, Toy Libraries, Braille distributions, and a Low Vision Educational Resource Center.

These tasks were structured around four cities in Taiyuan (Taiyuan City, Datong, Jincheng and Jinzhong,) Hospital systems there branched from prefecture hospitals in the main cities, to local hospitals in surrounding cities, to individual doctors in villages.

Almost all of the target outputs were reached. A few fell short and these were lessons learned, while others significantly exceeded expected percentages:

- The plan was for 54 special education teachers to be trained, the final number was 283 (524%).
- The plan was for 15 eye doctors to be trained; the actual number trained was 37 (247%).
- The plan was to train 60 orphanage workers; 277 were trained (462%).

Beyond planned outcomes, there were some positive, unanticipated results. One was the benefit of merging of educational and medical models. Since collaborating with teachers, participating eye doctors are now able to make accurate and meaningful diagnoses and prescriptive recommendations, rather than simply writing “unable to test,” and teachers can more effectively work with children so they use their vision optimally. Another key unanticipated result was the benefit of home visiting. It was only as teams travelled from village to village, seeing children that local doctors had regarded at-risk, that over 400 children with visual impairments were identified.

“We’re here for good.” There is evidence that good has indeed happened through this SIB project. Children have been identified and families supported, and doctors and teachers have been trained and provided equipped clinics/centers/libraries. These professionals now know what they’re doing, how to do it, and why this is important.

The training by SiB changed my mind and attitude to working with children with visual and multiple disabilities from **refusing**to **accepting**.
- Zhou Liping
(周丽萍), from
Taiyuan School for the Blind

“We’re here for good.” In the “for keeps” or “lasting” sense of “for good,” there is reason to hope that the work of the project will see sustainability. Chinese doctors and teachers have committed to sustaining their educational/medical merger and their “can-do” attitudes about locating and teaching children

with visual and multiple impairments. Beyond that, some key people at government levels have become champions of these children.

In summary, Shanxi SIB has identified over 400 children with visual and multiple impairments, and trained and equipped teachers and eye doctors to serve them. There is reason to hope that the benefits to these children will be deep and lasting.

“A single spark can start a prairie fire”
- Mao Tse-tung
The trained teachers will serve the children with disabilities for a long time, helping their parents and new teachers. The benefits of training are immeasurable.”
- Wang Tongmei, Shanxi primary school teacher training center

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Introduction to the Project

The Standard Chartered Bank initiated in 2003 a worldwide effort called “Seeing is Believing” to support blindness prevention and sight restoration. One of many arms of this effort has taken place in the Shanxi Province of China through coordination with ORBIS International. The focus of the summative evaluation that follows is Stage V of SIB in Shanxi, also referred to as Shanxi CHEER (Children’s Healthy Eyes Bring Educational Rewards)

This project occurred from 2013 to 2018, with five partners contributing (See Appendix):

1. ORBIS International
2. Shanxi Provincial Eye Hospital SPEH
3. Brien Holden Vision Institute BHVI
4. Helen Keller International HKI
5. Perkins School for the Blind through Perkins International (PI.)

Contributions by Perkins School for the Blind are the center of the evaluation below. Perkins has provided services for children who are blind, deaf-blind, or have multiple disabilities since 1829. The Perkins International program has advanced the education of children with disabilities worldwide since 1989, primarily building capacity at local, regional and national levels. PI has collaborated with local partners in China since 2001.

“The PI staff on the CHEER project are:

- Deborah Gleason, Project Director
- Lisa Jacobs, Project Coordinator
- Patricia Lee, Monitoring, Evaluation and Learning Advisor
- Laurel J. Hudson, Educational Consultant/Trainer for Braille Writing and for Low Vision Educational Resource Center, and Final Project Evaluator
- Chenmin Perera, Educational Consultant/Trainer for Teacher Training and for Home Visits
- Ami Tango-Limketkai, Educational Consultant for Inclusion and for Home Visits
- Linda Collins, Educational Consultant/Trainer for Toy Libraries
- Karen Cote, Trainer for Low Vision

- Daniela Gissara, Trainer for Low Vision
- Mary Anne Roberto, Trainer for Cortical Visual Impairments
- Lui Ming, Shanghai University
- Dr. Christine Rodrigues, Phillipines College of Optometry
- Maria Evelyn R. Ambrosino, M.D.
- Zhou Lili, Nanjing School for the Blind
- Chen Xi, Natong Special School

PI's commitments have been structured around nine Outcome Targets, which can be divided into two areas: training and setting up resources.

1. The training targets are teaching teachers, medical professionals and orphanage workers to assess/identify/refer/serve children with low vision, with or without additional disabilities
2. The targets related to resources are establishing/equipping, setting up use of Low Vision Clinics, Toy Libraries, and a Low Vision Educational Resource Center.

These two areas by necessity go hand-in-hand, so that trained personnel have locations and equipment to work with, and locations and equipment are used effectively.

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|---|
| Shanxi SiB Participating Cities: |
| <ul style="list-style-type: none"> • Taiyuan City • Datong City • Jincheng City • Jinzhong City |

The SIB project was geographically based around four cities in Taiyuan and their hospital systems that branch from prefecture hospitals in the cities, to local hospitals in surrounding cities, to individual doctors in villages. (See Appendix.)

The project's training targets are addressed in five outputs, each paired with specific, measurable objectives.

- 1.5 Train teachers to assess and teach school aged children with visual and multiple disabilities
- 2.2 Train eye doctors/refractionists to improve vision assessments in children and to recognize eye disease and refer to country-based hospitals
- 3.2 Train medical and educational professional in functional vision assessment (FVA) for children with MDVI at prefecture/city level hospitals

- 3.7 Train orphanage staff to recognize visual impairments and make adaptations
- 4.6 Train medical and educational professionals in FVA and related rehabilitation at Shanxi Provincial Eye Hospital

The resources targets are addressed in four outputs, each similarly paired with specific, measurable objectives.

- 3.1 Establish Low Vision Clinics at prefecture/city-level and county hospitals for clinical assessment and rehabilitation of low vision
- 3.8 Establish/equip toy libraries for young children with MDVI
- 4.4 Establish a Low Vision Clinic at SPEH
- 4.7 Establish a model Low Visional Educational Resource Center

The Final Outside Evaluation Process

The purpose of this Final Evaluation by the Outside Evaluator is to report what Perkins International (PI) accomplished through the Seeing is Believing Phase V project that occurred over 5 years from 2013 through 2018. Complementing the quantitative report submitted separately, this evaluation is a qualitative narrative of the activities that occurred over these five years, and an evaluation of their effectiveness. It is also a reflection about the PI involvement in the process as a whole: their strengths and shortcomings, the lessons they learned, and the recommendations they suggest.

A variety of methods were used for this evaluation, so that the analysis was as robust, valid, and reliable as possible. These methods were as follows:

1. Process evaluation was the story of the activities toward each Target Output over the five-year period. These activities derived from Quarterly Reports written formatively by the PI Project Coordinator and monitored by the Project Manager at ORBIS, and from end-of-project interviews with these two team members.
2. Quantitative data, as percentages of achievement of each Target Output, was summarized and considered. These percentages were tracked by the PI Monitoring, Evaluation and Learning Advisor.
3. Achievements beyond planned targets clearly could not be compared to initial commitments. In lieu of this, they were compared to external standards. As an example, the home visitation guidelines which the project created and followed were compared with a pre-existing, validated international scale of visitation relationships.
4. Subjective evaluations from SIB PI partners were collected through surveys.
5. Project Impact, or benefit to schools/teachers/children in China, was gathered through:
 - a. surveys of teachers and administrators in China
 - b. additional data collected during the project, such as numbers of assessments completed at Low Vision Resource Center or samples of WeChat consultations

c. testimonies/comments of Chinese teachers and doctors who had participated in the project

The Outside Evaluator:

Laurel J Hudson, the outside evaluator for this project, has a PhD in Special Education with an emphasis on psychometrics. Her training included certification as an Orientation & Mobility Specialist and a Teacher of Students with Visual Impairments. Dr. Hudson has taught students with visual impairments and blindness for over 40 years, and has won two national teaching awards in the U.S. She has published books, articles and blog posts about inclusion for blind students, teaching strategies for young children with visual impairments, and braille literacy, and she has done a range of program evaluations and curriculum development. Dr. Hudson has taken part in teacher training in Asia since the mid-1990's; most of her work has been in China. This includes four visits to Shanxi province through the current SIB project. Two of these visits revolved around setting up the Low Vision Resource Center, and two around teaching teachers to use the Perkins Braille. Although this involvement may muddy her role as "outside" evaluator, her visits were only for two small aspects of the project. The PI coordinators felt that her expertise in blindness outweighed any bias from this participation, and her training and commitment in empirical research further satisfied the need for neutrality.

Introduction to Target Output Achievement

In the quantitative analysis paired with this outside final evaluation, PI provides both formative (quarterly) and summative percentages to measure to what extent they met their Target Outputs for the project. This reflects where they met targets, where they exceeded them, and where they fell short of them.

Below is a process evaluation of these targets in narrative format. It includes descriptions of the targets/activities, a year-by-year “story” of how they were addressed, and then summaries of achievement and reflective comments including impact.

Information for this area derives from the following sources:

- The targets and activities were drawn from the SIB proposal, especially the work plan.
- The year-by-year accounting is a summary of the Quarterly Reports submitted throughout the 5 years by the PI Project Coordinator and monitored by the Senior Program Manager from ORBIS.
- The summaries of achievement stem from the quantitative percentages. The reflective comments are extracted from surveys/interviews/testimonies, along with this evaluator’s considerations.

This section begins with individual evaluation of the training targets: training of teachers of school-aged children (1.5,) training of teachers of pre-school-aged children (1.7,) and training of orphanage personnel (3.7.) The next two Target Outputs discussed are the creation of resources: development of toy libraries (3.8) and then the development of a Low Vision Educational Center (4.7.) This section closes with treatment of all the medical targets together, combining the training targets (2.2, 3.2 and 4.6) with the setup of the low vision clinics (3.1 and 4.4.) These medical targets are combined because establishing the clinics and training the medical personnel went hand-in-hand and were nearly inseparable throughout the project.

Target Output 1.5 Training Teachers of School-Aged Children

PI was charged with training teachers to assess educational skills and to teach school aged children with visual and multiple disabilities. These children would be identified through community screening in the 15 counties participating in the project. This training is needed so that the children receive the specialized support that they need relative to their disabilities, including accommodations for their vision in the curricula, in both general and special education settings.

| The 1.5 Activities |
|--|
| <ol style="list-style-type: none"> 1. Train regular education teachers 2. Train special education teachers 3. Identify the children 4. Provide equipment 5. Provide Brailers 6. Teach family members |

This first teacher training Output Target is broken down into six Activities:

1. The first activity is to train 45 regular education teachers as resource teachers.

2. The second activity is to train 12 special education teachers to teach children with visual impairments, with or without multiple disabilities.
3. The third activity is to identify the children these teachers will serve. PI is charged with screening to identify 1,237 children who have low vision or blindness, with or without multiple disabilities, and to refer them to either special schools or regular schools with inclusive education programs.
4. The fourth activity is to provide equipment for these children. Under this Output Target, PI is to work with BHVI to give each of the 1,237 children the learning materials each needs to accommodate for his/her visual impairment. This may include magnifiers, eyeglasses, and large print materials.
5. The fifth activity under this Output Target is to provide 14 Brailers and a "Smart Brailer" to each of the 3 regions served by SIB for the children to use at school. (With 3 regions and 15 Brailers, this totals 45 Brailers.) Brailers are pieces of equipment designed for children who read and/or write through touch. Braille literacy may be instead of, or in addition to, print literacy. Braille is a pattern of 6 bumpy dots that represent letters, numbers and other symbols. Children in China currently

write braille by individually pressing dots with a “stylus,” but this method is slow and editing is extremely cumbersome. In contrast, with braille machines, roughly equivalent to old fashioned typewriters, children can learn to write braille at a young age, they can write quickly, and they can easily edit as they write. The most common standard manual Brailers are “Perkins Brailers” and an electronic version is a Smart Brailer.



A boy writes with a brailer

6. The sixth and last Activity under this Output Target relates to family members of children with low vision and additional disabilities, It is teaching them how to appropriately and effectively adapt teaching strategies for their children as the learn both at home and at school.

YEAR-BY-YEAR PROCESS EVALUATION

2013 Year 1

The first step in this key and comprehensive area was to set up initial contacts with Principal Wang Baocheng at the Taiyuan School for the Blind (TSB) and Dean Zhang Yimin at the Social Welfare Institute in Taiyuan City (TSWI.)

In December of this year, PI Project Director Debbie Gleason and a PI Consultant presented at the Advocacy Workshop for Children’s Eye Health in Taiyuan with the hospitals, China Disabled People’s Federation (CDPF)

5 Big Ideas

- 1) Children need to use real objects and be involved in meaningful activities.
- 2) Encourage children to be independent.
- 3) It is essential to have partnerships with families.
- 4) It is imperative to have consistency of people and events and to create a routine.
5. Follow and build on the child’s interest; use guided learning rather than forced learning.

workers, maternal and child health workers, and educators in special schools. Here they presented to 15 colleagues and 114 SIB project participants on effective educational components for children with visual impairments including those with multiple

"I have learned that I need to provide real objects and meaningful activities, respect children's interests, work with family, keep consistency with people and event, encourage to be independent and provide choice-making in working with children with multiple disabilities. These are really helpful to my work." - Chai Yefang (柴叶芳), a vice principal from Datong Chengqu Special School.

disabilities. Here teachers developed "Five Big Ideas." These principles for playing, working and teaching children with disabilities would be used throughout the 5 years of the project.

Also in December, PI led a two-day training for 51 teachers and related service providers. 46 were special teachers and 5 were from CDPF, representing such disciplines as math, reading, and physical education. Focused on information, best practices and strategies for teaching children with visual impairments and multiple disabilities MDVI, this training used the newly created Five Big Ideas.

2014 Year 2

In 2014, Principal Wang Li of the Taiyuan School for the Blind TSB identified key teachers to be resource teachers and assist in training other teachers and he provided teacher training space at his school. Due to the late start-up of the screening process, children with visual impairments have not yet been identified.

Types of Brailers

A **Classic Brailler** is similar to a manual typewriter.

Individuals manually press combinations of 6 keys, which in turn emboss dots on paper to form individual letters, numbers, and symbols.

A **Smart Brailler** is more similar to a laptop computer, producing braille in both paper and electronic formats and providing voice output.

What are FVAs and LMAs?

Functional Vision Assessments FVAs focus on how children use their vision in everyday settings such as the home and school.

Learning Media Assessments LMAs yield recommendations of when children with low vision should read and write visually, when they should read and write tactually as with braille, and when they should read and write with a combination of vision and touch.

In April, Perkins shipped 14 Classic Braille and 1 Smart Braille to TSB, to be made available for later distribution.

2015 Year 3

In January of this year, Perkins shipped 28 more Classic Braille and 2 more Smart Braille to TSB. Altogether, these Braille will be distributed to schools serving children who use braille to read and write in Jinzhong, Jincheng, and Datong regions.

In April of 2015, PI held a four-day training in low vision for 30 special school teachers in Taiyuan. Local consultants provided follow-up and mentoring through a WeChat group and a QQ group (social networking applications used in China.) After this training, the PI consultants mentored the teachers and did follow-up visits at eight special schools which serve a total of 322 children with visual impairments or other disabilities. During these visits, they worked with SIB trained teachers to complete Functional Vision Assessments and make recommendations about appropriate classroom environments for 41 children. They also provided on-site trainings and classroom visits, impacting a total of 124 teachers throughout the 8 schools.

Next, on May 11-15, local consultants, along with an eye doctor from SPEH, conducted vision screening at the Datong Special School for 120 students who are deaf and/or have low vision. Next, they paired with the eye doctor from Hunyuan County Hospital to screen 32 students with significant disabilities. Altogether, they were able to identify and refer to schools 474 children with visual impairments/blindness. Adding to this total,

the Senior Program Manager from ORBIS passed along from HKI twenty-five children who were identified through village screening as having visual impairments and multiple disabilities. Eight of the Classic Brailers were distributed.

The CDPF preschool program in Taiyuan enrolls 166 children. SPEH screened these children and identified 41 children with low vision.

In September 14-18 this year, PI consultants held a five-day training for 13 early childhood special education teachers and 5 parents in Taiyuan. Topics were: how vision works and its impact on learning, literacy, orientation and mobility, and educating children with multiple disabilities and autism. The week after this training, the PI consultants provided home visits to 15 families with children with low vision and other disabilities identified through village screening. They were joined by eye doctors and nurse refractionists from the county hospital and the local school teacher. This team completed Functional Vision Assessments and advised families. One parent said, "I never knew that this is what my child could see, now I know what he can see and I feel hopeful again." These visits brought the total children identified to 180. In addition, although SIB partner Helen Keller International HKI has not yet been able to extract from their data those children identified as having visual and multiple disabilities MDVI, the Senior Program Manager at ORBIS relayed that a total of 63 children have now been identified through village screening. Three more Classic Brailers were distributed.

Typical Teams During SIB Home Visits

- A PI consultant
- A local consultant being mentored
- An eye doctor
- A nurse refractionist
- A local school teacher

In the third quarter of 2015, home visiting teams saw 12 more families first identified through village screening.

In the last quarter of 2015, PI trained 21 teachers in Functional Vision Assessments (FVAs) and Learning Media Assessments (LMAs).

2
0 “After this (home visiting) trip, I made up my mind, I will try to do home
1 visits no matter how hard it is.”
6 - Chen Xing, a teacher from Datong special education school.

Year 4

Eye doctors from county hospitals had identified children at risk during village screenings in Guangling, Zuoyan, Hunyuan and Datong. Early this year, teams consisting of a PI consultant, an eye doctor, a nurse refractionist, and a local special school teacher visited these children and their families in the homes. They visited 14 families in January, 13 families in March, 14 families in August, 19 families in September, and 24 families in December, completing FVAs for each child and giving advice.

To further increase public awareness, PI created a brochure in Chinese describing children with multiple disabilities and visual impairments MDVI and their needs. 36,000 copies will be shared with clinics, village doctors, hospitals, special schools, and in the ministry of health and education offices.

SIB activity next turned to the Brailers that are being distributed to the children. In March, a PI trainer conducted a four-day training entitled, “Braille Workshop for Teachers.” Fourteen teachers attended. The ten who completed the pre-workshop survey hadn’t known how to teach a student to use a Perkins Brailier, but in a post-workshop survey they all felt competent with this.

2017 Year 5

SIB home visiting teams saw 14 families where county hospitals had screened and referred in March of this year. Then they saw 36 families in April, 12 families in June, 22 families in July, 34 families in September, and 27 families in November. As in prior

“They often worked 12 hour days and travelled along dirt roads...within small villages....behind alleys.... to find families in tiny houses, often in dire condition. The local teachers did not have expertise in home visitation, but they were so thirsty to learn more about it. In fact, it was not unusual, between visits, to find them huddled together on the side of a busy road with a PI consultant, asking her their questions about home visitation.”

-Patricia Lee, SIB Monitoring and Evaluation Coordinator, describing the Shanxi visitations she witnessed in July 2017.



PI consultant and a local teacher using a Braille

visits, PI consultants were also able to use home visits to mentor local teachers in home visitation skills. The PI Monitoring and Evaluation Coordinator joined the team on the September visits. Her main SIB responsibilities are behind the scenes in the US, but here she was able to witness directly the home visitation process.

Four trainings were provided in 2017

1. In March, two PI consultants provided a second training for 41 teachers and 21 parents at the Xinghualing Special School. Their focus was best practices for children with low vision and multiple disabilities.
2. In May, per invitation from the Provincial Bureau of Education Teacher/Special Education Director, two PI consultants provided a three day training for 145 teachers in practical strategies for providing meaningful home visits using the Five Big Ideas. As a follow up, local teachers who had attended began to conduct their own home visits, posting videos of their visits through WeChat so PI consultants could provide consultation.

3. On September 24-26 of 2017, two PI Consultants provided a workshop on Inclusive Education to 131 teachers, including an overview of disabilities and strategies of inclusive education. Teachers commented on the value of blindfold experiences to better understand the level of support children with visual impairment need. They had never had these interactions before.
4. In December, two PI Consultants provided a 2.5-day training for 112 teachers with a blindfold experience, as before, as well as guided classroom observations.

2018 Year 6

In February when there were no home visits due to Chinese New Year, PI created a home visiting manual, reviewed and critiqued in the Home Visitations section of Lessons Learned in this evaluation.



A student edits his work on a Braille

On March 11-13, a PI consultant along with a local trainer offered a second workshop on using Brailleurs. The 18 teachers who attended progressed from little to no knowledge of braille to writing the Chinese alphabet with ease, speed and confidence and understanding the advantages of Brailleurs for students learning braille, students doing math lessons, and dual learning

students using both print and braille.

In the last quarter of the project, 40 teachers were introduced to Cortical Visual Impairments in a training, 21 Cortical Visual Impairments textbooks were given to special schools, two schools in Datong were visited, and 46 home visits were completed.

- “Regarding home visits, we simply thought it was good to give children and their family a financial help. But now, we changed our mind. We need to understand and respect children and their families. We need to work with families as a team to help children grow independently. We need to help children get out from home and go to school.
- “We clearly know our duty now. ‘All children can learn.’ We help children have a better future.” - Hao Ruifen (郝瑞芬), a teacher from Datong Nanjiao Special School

End of Project data/impact/comments

Target Output Achievement

1. Train regular education teachers 147%
2. Train special education teachers 524%
3. Identify the children 66%
4. Provide equipment 27%
5. Provide Brailers 100%
6. Teach family members 152 families

This teacher training/child identification target by far represented the most time invested and the most activities, and it yielded some numerical percentages well over target.

(An exception to these quantitative achievements related to the third activity, identifying children. The plan was to find 1,237 children,

while the actual number calculated was 817, but this is explained by a delayed start-up, a Website database issue, the need to train village doctors in a new way, and the need to look in homes and not in schools.)

The success in this teacher training area is validated by comments from both Shanxi teachers and administrators. These comments express increased skill, but also change in attitude about visitation, inclusion, and children with MDVI themselves. They speak for themselves:

From Shanxi teachers:

- “We really didn’t know how to help this boy. Now we are more confident.”

- “At the beginning, I was biased against the home visits and thought it was very simple and easy to teach...But I was wrong. I have to prepare myself in order to service children during home visits. I need to assess children and prepare the activities and materials they need, I need to respect and allow the ways children use to communicate not just simply to provide pictures without purpose. I need to keep “ 5 big ideas” in my mind and use them in my teaching. My work is to prepare children to be independent eventually .- Guo Jiali(郭佳丽), a teacher from Taiyuan Wanbailin Special School
- We changed from the "caregiver" to a qualified teacher. - Chen Xing , a teacher from Datong special education school
- “I used to think that it is not worth working hard on teaching these children with disabilities, because it is rare to see progression and results in them; and it costs a lot of trouble. Now my idea has changed. “

From Shanxi administrators:

- Teachers learned to understand relevant info on MDVI and to master the most scientific and effective teaching ideas and methods -Li WenPing, Director
- “The idea of passive teaching has been changed. Compared with what students can do before, we believe that every child can learn and communicate.It will have a huge impact on their future teaching. It will ultimately benefit the students. - Wang TongMei, administrator
- We changed parents’ educational concepts and established their confidence in cultivating their children. And we taught their children. This will reduce the family’s economic and psychological burden. - Hui Feng, Party Secretary
- We felt a new force in the training of this project .There is a now urgent sense of responsibility and obligation for children with MDVI. - an administrator



CDPF preschool children

Target Output 1.7 Training Teachers of Preschool-Aged Children

Output Target 1.7 focuses on training teachers of children with visual impairments and/or multiple disabilities in preschools. This target is broken down into three

activities:

1. The first activity is to train 30 teachers or rehabilitation workers to serve effectively as either direct service providers or as resource teachers for these young children.
2. The second activity is to screen/identify 345 young children who have visual impairments with or without multiple disabilities, and to refer them to early intervention/education and rehabilitation services.
3. The third activity is to give these 345 young children magnifiers and appropriate early learning materials. PI will collaborate with BHVI in completing this activity.

The 1.7 Activities

1. Train teachers/rehabilitation workers
2. Screen/identify children
4. Provide magnifiers/learning materials

Below is how these activities unfolded.

2013 Year 1

Activities this year focused on child identification, understanding of existing materials/equipment, and setting up partnerships. The year launched with a meeting to introduce partners to the medical and educational referral process and collaboration with the Ministries of Health and Education. PI also met with CDPF to understand types of magnifiers and early learning materials available and to set up a partnership.

2014 Year 2

PI continued conversations about this output with CDPF. They are planning to work with a local consultant to train 50 rehabilitation workers in low vision and multiple disabilities, to refer children to programs, and to procure equipment. However, CDPF is still waiting for the government's approval for staff training. PI is waiting for Helen Keller International to extract information on children with MDVI from their record-keeping system.

2015 Year 3

This year, SPEH identified a CDPF-funded preschool in Taiyuan that



Assessing vision with an LEA puzzle

serves 120 children with multiple disabilities and agreed to both training and the establishment of a toy library on their site. On December 10th, the toy library was opened (See Target Output 3.8.). On this occasion, two PI consultants provided a one-day training for 14 early childhood special education teachers. Their topic was understanding the impact that vision loss has on learning through play and literacy.

Although HKI has not yet provided child data, PI/TSWI have identified a total of 157 young children with visual/multiple impairments.

Two additional trainings were given this year related to this target of serving preschool children with visual impairments with or without additional disabilities.

"I will do what Chen Laoshi taught me to work with my children. I will try my best to serve quality education to children with disabilities. This is a very meaningful job."

- teacher Li Liefeng(李列凤)

1. PI trained 21 rehabilitation workers at the PCDP center in Taiyuan in the “Five Big Ideas” in working with children with vision and additional disabilities. (Through this, an additional 42 young children with visual impairments were identified. Many of these children live in orphanages.)
2. PI also provided training for 23 CDPF rehabilitation workers on functional vision assessment FVA and working with families.

2016 Year 4

In follow-through, it appears that the FVA training of 2015 wasn't applied, so PI partnered with China Eastern Normal University to re-offer the training with a second set of 23 CDPF workers. These workers seem to provide a critical link for reaching children with visual impairment who live at home and who do not receive educational and rehabilitation services. The tally for these children is up to 41 of the 345 target.

2017 Year 5

The number of young children identified as having visual impairments is increasingly dramatically at this point through the above PI trainings, building to 250 the first quarter of the year, to 343 the third quarter, and 359 the fourth quarter.

2018 Year 6

In this last year of the project, 47 more teachers and CDPF workers received training called, “Home Visiting, Part II.”

1.7 End of Project Data/Impact/Comments

There were significant obstacles in achieving training for preschool teachers of children with visual impairments, with/without additional disabilities. That is, there were delays in CDPF waiting for government approval to train staff, delays due to holidays, later start-up of the screening process, and one training that didn't “stick.” But CDPF workers proved to be key in identifying 359 young children with visual impairments, CDPF-funded preschools

“Rehabilitation training for children with visual impairments is a challenge. It is ... a glorious and arduous task. Of course, in the challenge is also the answer and the action.”

Li Wenping, director

were found as convenient and effective locations for both trainings and book/toy libraries, and PI partnered with China Eastern Normal University in training teachers and rehabilitation workers.

Target Output 3.7 Training Orphanage Workers

This Output Target is to train regional and county level orphanage staff in how to recognize visual impairments in children and how to apply recommended adaptations and learning strategies. The

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| <p>The 5 Orphanages: Taiyuan (1) Datong (3) Jincheng (1)</p> |
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Teaching Training at SWI

linked activity is to train 20 staff members in 5 orphanages in the three Shanxi cities served: one in Taiyuan, three in Datong, and one in Jincheng.

2013

Perkins International made initial contact with the Social Welfare Institutes in Taiyuan, Datong, and Jincheng in the Fall of 2013,

with TSWI agreeing to collaborate with PI and SPEH for training and consultation for their teachers and caregivers. (130 infants and children live at TSWI, and many foster families are nearby.) In November of 2013, PI trained ten foster mothers and staff about vision loss in infants and toddlers, and visited two times to provide one-on-one consultation for teacher and caregivers at SWI. The Bethel China Foundation provides services to children with visual impairments in orphanages. PI coordinated with them to continue to provide services to SWI in Taiyuan.

2014

This year, PI/Bethel trained 27 caregivers during a 3 day, interactive workshop. Topics included motor skills, daily living skills, orientation and mobility, and educational strategies. During this time, the trainers also consulted to individual parents about their children and they identified 29 children with low vision.

2015

In April of 2015, PI/Bethel trained 23 people in order to support the 29 children newly diagnosed in 2014. They held a third training in June.

“We should teach children basic self-care skills so they don’t need to rely on other people, and the children improve a lot of doing things by themselves.” -comment from a participant in a PI/Bethel training

Nineteen TSWI staff attended and 37 additional children were identified as having visual impairments.

Also in 2015 The Taiyuan Social Welfare Institute created a school on their campus for the children from the orphanage, instead of having them attend the local school. Many of these children have blindness, low vision, or multiple disabilities.

2016

In August of 2016, PI/Bethel trained 30 people from TSWI, with a focus on serving 38 of the newly-identified children with multiple disabilities at TSWI. These trainees set up a WeChat group so they can receive support and answers to educational questions and so they can post successes.

2017

In this last full year of the project, PI provided three additional trainings.

1. First, they provided start-up training for the newly formed school on the Taiyuan SWI campus, where many children with visual impairments/blindness attend.
2. Then, in May, they provided training in home visiting to benefit foster families.
3. Lastly, a PI consultant and local consultant provided training to trainers at the Social Welfare Institutes in Datong (25 trainers) and Jincheng (22 trainers) Social Welfare Institutes. The focus of this training was developing creative learning environments for children who live at SWI. In the evening of each training day, the consultants met with foster families caring for children from SWI in their homes. They discussed ways to make homes accessible and productive learning environments for blind and visually impaired children.

3.7 End-of-Project Data/Impact/Comments:



*Spontaneous vision evaluation
at orphanage*

The Activity linked with this target outcome was to train 20 staff members in five orphanages in the 3 covered cities of Taiyuan, Datong, and Yincheng. With local relationships formed with both the Social Welfare Institute SWI and the China Bethel Foundation, children with visual impairments were identified, teachers were trained, parents were supported, and these goals were achieved, with an end of target calculation of 277%.

“Originally, I despised and alienated these children with multiple disabilities from the bottom of my heart. They look very dirty and smelled bad, I didn’t want to be close to them. Then, Chen Laoshi visited our children. Everything she said and did to each child deeply affected me. She didn’t feel that they were dirty, she gave them enough patience, care and enthusiasm, she talked and encouraged parents... As Chen Laoshi said: all life is dignified, all life is valuable and all life has a dream.” Eventually, I totally understood the true meaning of ‘All children can learn’ and ‘All children can communicate’” - Teacher Li Liefeng(李列凤).

Target Output 3.8

Setting up and Equipping Toy Libraries

A toy library is place where teachers and families can borrow toys, games and books for children. Toy libraries for young children with special needs typically stock educational toys/equipment which are chosen, grouped and catalogued to advance their skills in movement, literacy, social skills, etc.

The high value of toy and book libraries for children with visual impairments/MDVI relates to **availability and cost**. These libraries offer specialized toys/equipment that are not available in most stores and are often too expensive for families and schools.

SIB Target 3.8 is to “Set up a toy library for each of three prefectures equipped with early learning materials appropriate for children with visual impairment

and multiple disabilities.” When toy libraries are created specifically for children with visual impairments, these educational materials are chosen and adapted so they can be accessible for children with low vision, for children who learn through touch and hearing, and for children who also have hearing losses, physical impairments, cognitive delays, etc. Below is how achievement of this target unfolded.

2013
PI began in 2013 by surveying/evaluating possible locations at Shanxi hospitals and schools most suitable for families and teachers working with children with MDVI. Their initial plan at this point was to establish the first toy library at SPEH, but later they turned to the CDPF preschool as



Toys on a shelf in a toy library



Toys packaged and labeled

a more convenient location for teachers and families.

2015

PI next worked toward this target by visiting a successful toy library in Beijing. They established a relationship with its director, who agreed to consult in setting up the three toy libraries in Shanxi. She prepared for this by attending a one-day training for working with children with multiple disabilities.

A PI consultant and a regional consultant assisted CDPF in establishing this first of three toy libraries serving children with multiple disabilities in Shanxi. It opened in December. The library was designed as a place where children could improve in many areas

Areas of development facilitated by toys and books at the libraries:

- fine motor/perceptual
- literacy
- visual/perceptual
- pretend/imaginative play
- logical thinking
- gross motor

of development while playing with the toys and experiencing the books. This set up included labelling each toy with its photo, identification number, description, and suggested use, and setting up a registry for teachers or parents who borrow the toys.

On the occasion of this toy library opening, PI provided a one-day training for the preschool staff. The goal of this training was to teach the importance of using play for learning and how to use the toy library effectively.

2016

Next, a PI consultant worked with a regional consultant to set up a second toy library at the Datong Social Welfare Institute. They hired a part-time librarian and held a one-day training for staff to help them understand the importance of learning to play and how to use the toy library effectively.

Later, the same PI and local consultants set up the third toy library at the Jincheng Social Welfare Institute, supported by a part-time librarian and one-day training for 20 staff.



Children's tables and chairs in library

2017

As a follow-up this year, PI visited the toy libraries in both Datong and Jincheng, providing additional educational materials and meeting with staff members responsible for the libraries.

3.8 End-of-Project Data/Impact/Comments

SIB Target 3.8 is to “Set up a toy library for each of three prefectures equipped with early learning materials appropriate for children with visual impairment and multiple disabilities.” A relationship with a local advisor in Beijing was formed, and toy libraries were established and equipped in Taiyuan (2015,) Datong (2016) and Jincheng (2016.) Beyond establishing these resources for teachers and parents, PI gave workshops so that visitors understood the importance of learning to play and how to use the toy library effectively.

Target 4.7 Establish Low Vision Educational Resource Center

This target is to establish a Low Vision Educational Resource Center, to be used to provide assessment, rehabilitation and education for children with low vision and blindness, with or without multiple disabilities, and to be a model of excellence.

Six activities are linked with this target:

1. To establish and equip an educational resource center in Taiyuan
2. To train three professionals in educational functional



Activities paired with Establishing the Low Vision Educational Resource Clinic

1. Establish and equip the center
2. Train professionals in assessment
3. Train professionals in designing and supporting an education plan
4. Make the center available to all children
5. Train other professionals
6. Provide an overseas fellowship

assessment, including learning media assessment, of children with visual impairments and multiple disabilities

3. To train three professionals in designing an assessment-based education plan, provide ongoing follow up support, and provide family programming

4. To make the center

available to all children identified with visual impairment, with or without multiple disabilities

5. To train 20 educational and medical professionals from across the 3 regions

6. To provide one overseas fellowship for a low vision rehabilitation staff/educator

Year-by-year steps to carry out these activities are as follows.

2014

Perkins International PI began activities toward this outcome in 2014 through teacher and hospital trainings. At these trainings, they identified interested professionals and began to train them to become resources to others in their field. Training for resource teachers will include one teacher being trained at the Educational Leadership Program ELP at Perkins School for the Blind in the U.S. To begin to identify this teacher, a current graduate described her experience in the 9-month program; a few teachers expressed interest in this highly competitive program. The Taiyuan School for the Blind (TSB) master teacher Li Quo Qing applied and was accepted to the ELP program for the 2015-2016 school year.



Four Taiyuan School for the Blind teachers, a PI Consultant and a regional consultant in newly completed Low Vision Educational Resource Center

2015

In early 2015, PI worked with a local consultant in planning the Low Vision Educational Resource Center. Then, in April, another PI consultant worked with six teachers at TSB to identify needed materials for the resource center, to create a system for documentation, and to make an initial plan for room/furniture layout.

By September, materials had arrived for the center.

The PI consultant returned to TSB, working with five teachers to adapt all the educational materials into Chinese, large print and braille and to set up the center. The Low Vision Educational Resource Center officially opened on September 25, 2015.



Students participating in the Low Vision Resource Center.

Simultaneously, Li Quo Qing flew to the U.S. to begin her ELP studies about low vision assessment and serving children with multiple disabilities. At

Perkins, she planned and presented what she will do with the information and strategies she is learning at ELP once she returns to Shanxi.

2016

Li Guo Qing completed her ELP studies abroad in May of this year, receiving a small donation to support increasing home visits to Shanxi children who cannot come to school. Since returning to Shanxi, she has been training TSB staff in the areas of: educating children with multiple disabilities, low vision assessment, using the Perkins Braille, and educational strategies for families to use at home. Later this year, PI visited the Low Vision Resource Center and consulted with their teachers on how to deliver a training session to four specific parents. Three of the center's teachers provided home visits with another PI consultant.

2017

In an open house event in March of 2017, TSB opened its doors to the local community for the first time. This day included training for 51 families regarding parenting their children with disabilities.

Five additional trainings followed this year:

1. A PI consultant and a local consultant provided training for 25 TSB staff on educating children with multiple disabilities and low vision assessment.
2. A local consultant offered trainings through the Low Vision Educational Resource Center on educational strategies for teachers and families.
3. Later in the year, this local consultant provided training at the Resource Center for 14 families and 30 children on educational strategies and materials at home.
4. In the last quarter of the year, she offered additional training for 11 families and 27 children.
5. In addition, a PI consultant mentored two TSB teachers during home visits. Later this year, they visited on their own.



Students reciting at the Low Vision Educational Resource Center

4.7 End-of-Project Data/Impact/Comments

Achievement of Target Outputs

1. Establish and equip the center 100%
2. Train professionals in assessment 100%
3. Train professionals in designing and supporting an education plan 92%
4. Make the center available to all children 100%
5. Train other professionals 410%
6. Provide an overseas fellowship 100%

Four of the activities in this Target Output were achieved 100%, one was achieved 410%, and one was achieved 92%. (See Achievement or Target Outputs in side bar.) In summary, the center was established and equipped, professionals were trained

both there and in an overseas fellowship, and the center was made available to all children.

These activities all stem from the target that the center is to be used “to provide assessment, rehabilitation and education for children with low vision and blindness.” Establishing the center, training the

professionals and welcoming the children are vital steps toward teaching and assessing children there, but did this teaching and assessment then actually occur? What has been the impact of the center?

End-of-project interviews with the center's coordinators shed some light on this. 115 lessons in Chinese, braille, and use of vision occurred at the center. Forty students were assessed there. Math materials were borrowed every month by teachers within the school, and 30 braille and low vision materials were borrowed both within the school and in additional schools in the area.

All Medical Targets (2.2, 3.1, 3.2, 4.4, and 4.6) Training and Equipping for Low Vision

PI was charged with five separate targets related to vision and students with low vision. Three of these targets specified training, and two specified development of low vision clinics.

Discussion of these targets is combined below because establishing the clinics and training the medical personnel went hand-in-hand throughout the project. That is, professionals needed equipped clinics in order to train, and equipped clinics were nothing without trained professionals to use them.



Training Village Doctors

The Training Targets:

- 2.2 Train eye doctors/refractionists in vision assessments, identification and referral
- 4.6 Train in FVA at SPEH
- 3.2 Train in FVA at prefecture/city level hospitals

Below are the five targets and the activities that addressed them, and then the year-by-year narrative of how they were accomplished:

- 2.2 Train eye doctors/refractionists to improve vision assessments in children and to recognize eye disease and /refer to county-based hospitals
- 4.6 Train medical and educational professionals in FVA and related rehabilitation at Shanxi Provincial Eye Hospital, providing an overseas (Perkins) fellowship for a junior doctor at SPEH, and providing HBP in Low Vision (Perkins) for medical and educational professionals
- 3.2 Train medical and educational professional in FVA for MDVI at prefecture/city level hospitals. Activities were to train together eye care specialists at low vision clinics, and educators, and to provide educational assessment equipment and materials
- 4.4 Establish a Low Vision Clinic at SPEH, providing training in clinical assessment/rehabilitation of low vision and conducting

surveys to identify children from Taiyuan blind school and orphanage needing clinic services

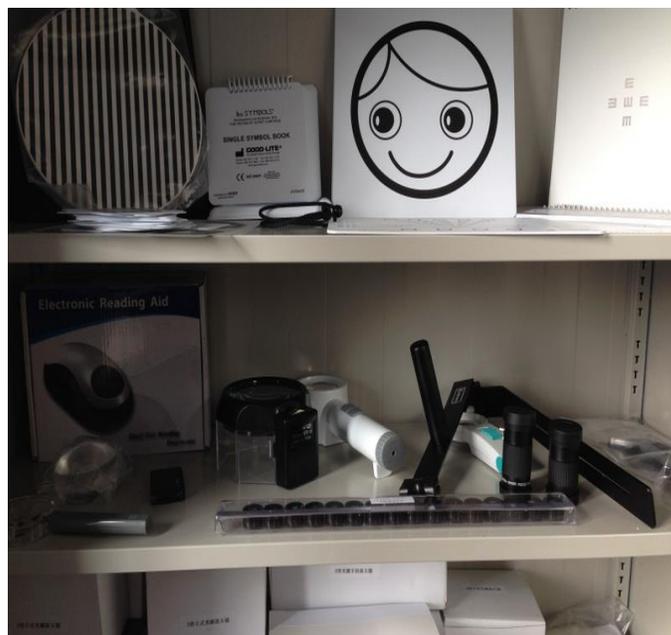
The Low Vision Clinic
Targets:

- 4.4 Establish a clinic at SPEH
- 3.1 Establish clinics at prefecture/city-level and county hospitals

- 3.1 Establish Low Vision Clinics at prefecture/city-level and county hospitals for clinical assessment and rehabilitation of low vision. Activities were to up-skill the staff, to serve the children, and to provide low vision diagnostic equipment.

2013

- Activities in 2013 began with laying out the PI/BHVI training for eye doctors/refractionists at the 15 country-level hospitals. In December of this year, PI provided a two-day training to 12 refractionists and nurses on common ocular diseases and conditions in children with MDVI and their functional implications.
- Similarly, as a start-up for the Low Vision Clinic at SPEH, Taiyuan School for the Blind, PI and BHVI agreed on a low vision screening plan.



Materials at a Low Vision Clinic 1

2014

- To begin activities in these target areas, PI and BHVI planned logistics in setting up the first low vision clinic, to be used as a prototype. BHVI completed the training of screeners at this time.
- At this point, surveys of students at Taiyuan School for the Blind have been completed. SPEH continues doing surveys at orphanages.
- By the second quarter of this year, through collaboration and training with HKI and BHVI, children who need spectacles or eye surgery have been identified and are receiving services

- from SPEH. Children with multiple disabilities have not yet been identified.
- Brien Holden Vision Institute BHVI has now set up and equipped the first low vision clinic at SPEH, and provided related training. On June 27th, the clinic opened.
 - In December of 2014, SPEH trainees observed and screened students with low vision, using the skills they learned from BHVI and PI. PI conducted FVAs for students at the Taiyuan School for the Blind while SPEH trainees and eye doctors surveyed more than 100 students.
 - (HKI has yet to provide Perkins International with information on children identified to have MDVI because they have not been able to access the information from their record-keeping system.)

2015

- Based on planning in 2014, in 2015 a PI consultant trained five ophthalmologists and three optometrists on strategies for assessing the vision of children with disabilities. Although this completes the Output Target in this area, the SIB/CHEER project staff continues with quarterly meetings and site visits with hospitals to encourage collaboration. Through this, many hospitals expressed interest in collaborative hospital teams for complex cases, possibly including a parent, a teacher, an optometrist, a refractionist, and an ophthalmologist.
- | |
|--|
| Members of Proposed Collaborative Hospital Teams: |
| <ul style="list-style-type: none"> • A parent • A teacher • An optometrist • A refractionist • An ophthalmologist |
- In June of this year, a Shanxi eye doctor studying in the US was able to visit Perkins School for the Blind. She visited the Low Vision Clinic at Perkins, as well as two off-site clinics associated with Boston Children's Hospital.
 - In December, two additional eye doctors travelled to Perkins School for the Blind, Lihua Zhang (low vision specialist) and Dr. Zhang (chief pediatric ophthalmologist from SPEH.) These two doctors will be part of a Shanxi collaborative team that will

- provide sustainable services to children with low vision and multiple disabilities after the end of this project.
- PI delivered 11 sets of diagnostic low vision assessment tools, one to each of the 9 county and prefecture level clinics and two to SPEH, the provincial-level clinic. In addition, PI delivered 11 sets of diagnostic low vision assessment tools, one to each of the 9 county and prefecture level clinics, and two to SPEH, the provincial-level clinic. The PI Project Coordinator provided training about the assessment tool that eye doctor are using for special school screenings.
 - (SPEH shared that BHVI has now collected information on low vision services provided to children in hospitals: 1) 225 children (130 boys/95 girls) in social welfare institute SWI and special schools have received eye examinations conducted by local hospitals in Jincheng, Jinzhong, Datong prefecture and Yunyuan. In addition, 11 children with low vision (5 boys/6 girls) were treated in 9 low vision clinics.)

2016

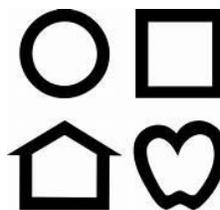
- Two PI consultants provided training. They were Christine Rodriguez (Dean of Students at a College of Optometry in the Philippines) and Dr. Ambrosio (optometrist with the Philippines statewide program.) Their training, “Educational Assessment for Children with Low Vision” included use of LEA symbols and Preferential Looking Test cards to assess the vision of infants, young children, and children with visual impairments and additional disabilities.

Preferential Looking Test cards have patterns with graded stripes, from thicker to thinner. Based on the assumption that people will look at patterns that they can see and look randomly at cards they cannot see, testers note the patterns they gaze at to deduce their visual acuity.



Preferential Looking Cards 1

LEA symbols are graded drawings of an apple, house, square and circle. Viewer may show more interest in these than in typical symbols like letters, numbers, and E charts, and they may be able to name them.



- As a follow up to this training, the two doctors who had visited Perkins in December of 2015 provided training to eye specialists from SPEH and the 9 regional hospitals.
- In a distance learning model, two consultants from the Low Vision Clinic at Perkins School for the Blind began to train SPEH eye doctors in collecting visual information from children with MDVI. The training explored the use of non-traditional ways to gather visual information from infants and young children, such as LEA symbols and assessment tools.
- In January, March, May, August and September of this year, PI consultants, an eye doctor or refractionist and a special school teacher completing Functional Vision Assessments FVAs for all the children identified as at-risk by the regional hospitals. Most of these children had been previously suspected to have a visual impairment; in addition, during three home visits the teams became aware of additional children at risk. They immediately provided home visits to them, as well.

2017

- In response to interest in collaborative teams in 2016, PI provided a two-day training for 13 eye doctors and 15 teachers on how to work together collaboratively to support the rehabilitative needs of the children identified with low vision and additional disabilities.

- PI sent 10 sets of Preferential Looking test cards to SPEH, later another 9, then another 5. These will be distributed to all the county hospitals and low vision clinics in the SIB project.

2018

- Eye doctors and teachers continue to work together, and the SIB/CHEER project staff continue their quarterly meetings and site visits with the hospitals. In March of this year, five doctors and one nurse from Shanxi travelled to Boston, Massachusetts for a week. They visited Perkins School for the Blind, Children's Hospital, Boston Medical Center, the clinic at the New England College of Optometry.

End-of-Project Data/Impact/Comments

| Achievement of Medical Targets | |
|--|---|
| <ul style="list-style-type: none"> • 2.2 Train eye doctors/refractionists in vision assessments, identification and referral 247% • 4.6 Train in FVA at SPEH 100% and 2000% • 3.2 Train in FVA at prefecture/city level hospitals 261% and 100% • 4.4 Establish a clinic at SPEH 100% and 700% • 3.1 Establish clinics at prefecture/city-level and county hospital 100% and 2000% | <p>In this broad medical area, eye doctors and refractionists were trained at SPEH and at prefecture/city levels, and low vision clinics were established and</p> |
| <p>equipped. A focus of this effort was serving children with visual disabilities and multiple impairments. Before CHEER/SIB Phase V began in 2013, eye doctors typically examined these children's eyes but wrote "unable to assess." Through the project, they learned the value of working alongside teachers and parents in vision assessment, they learned effective types of assessment including Functional Vision Assessments and Learning Media Assessments, and they learned the vision assessment procedures with LEA symbols and Preferential Looking Test cards. Most importantly, they learned a new way of looking at children with MDVI, a new way of looking at teamwork with educators, and new approaches to assessment through home visits and low vision clinics. This learning is clear in their comments:</p> | |

- “As an ophthalmologist, I learned many ways to communicate with special children during home visits, many of them should get education services.” Zhou Jianmei Zuoyun People’s Hospital
周建梅 左云县人民医院
- “Before training, I thought low vision was just a visual impairment, and I didn't know that I could help them to fully use their residual vision. The examination of vision was also very simple, and now I not only learned to assess functional vision for children with low vision, also can be patient and take serious to serve every single child with disabilities, help them to have fair eye care.” - Wei Yanping Yangcheng Eye Hospital
卫艳平 阳城眼科医院
- “I learned a lot of new knowledge from home visits, it helps me to give daily life guidance to children with disabilities, and also I saw the big changes in families by enriching parenting skills during the visits.” - Li Yuhua Datong County People’s Hospital
李玉华 大同县人民医院
- “I got to know more about children with disabilities during the home visit with teachers. I can provide better services to children with multiple disabilities and their families than I did in the past.” - Wei Yanping Yangcheng Eye Hospital
卫艳平 阳城眼科医院



Home Visiting - Full Team

- “During the implementation of the project, I did of home visits 3 times. Every home visit is deeply impressed in my heart! A child who does not seem to know anything is slowly able to communicate and play with home visit teacher by her

observation and assessment. It's really a miracle. If these children fail to get help and education, they will probably be abandoned by society. We should take the initiative to care for and help these children with disabilities.” - Yang Huanjun

Zuoquan People's Hospital

杨换俊 左权县人民医院

- “It is this project that gives me the opportunities to see some children with disabilities, and realized that most of them could receive education at school ages.” Zhang Yanqin Lingqiu County People's Hospital
张彦琴 灵丘县人民医院
- “During home visits, I saw teachers were patient to work children. I realized that it is more helpful for us to learn more about professional knowledge in order to serve children better. Being patient, quiet, sensitive and so on are helpful for our diagnosis. I hope that through our efforts, early intervention and accurate diagnosis, children can better improve their vision, and make the family more harmonious.” - Zhang Yujie Jinzhong First People's Hospital 张钰洁 晋中第一人民医院

Introduction to “Lessons Learned”

Seeing is Believing states on its Website that it aims to “encourage innovators to see things differently.” Of course this applies to helping children with low vision and blindness to use their vision optimally, and helping children with blindness to learn through their compensatory sensory systems.

But the SIB commitment to “seeing differently” may also apply to encouraging SIB partners to reconfigure their services for children so that they are helping them in the best ways possible. Through Shanxi CHEER, Perkins International had the opportunity to play a part in this reconfiguration through their planned/intentional outcomes.

But PI also played a part in reconfiguration when, in some cases, planned approaches did not succeed. Sometimes it was only realistic to recommend alternatives for the future. But at other times, thanks to the immense flexibility and devotion of Chinese medical and educational professionals, new approaches were tried as the project progressed, and sometimes they were adjusted and tried again, until the innovations were effective. These reconfigurations are the project’s Lessons Learned.

Two lessons learned were mentioned repeatedly when SIB partners were surveyed at the end of the project. One was the value of merging medical and educational models, rather than having doctors and teachers serve children with visual impairments independently of each other. The other was the effectiveness of assessing and beginning to teach visually impaired children who are young or who have additional disabilities *at home*. The narrative of how this medical:educational collaboration and home visiting model emerged follows in this section. Additional innovation stories are also told.

Merging Medical and Educational Models In Shanxi: A Lesson Learned

Medical and educational personnel in Shanxi have typically served children with visual impairments/blindness independently of each other. But through the SIB project, they learned to collaborate throughout their services for these children. They learned this as they trained together, participated in structured sharing activities, visited families in their homes together and observed this merging in the U.S.

Although this merger was not a planned outcome of the project, its benefits was a valuable lesson learned.

As one Shanxi medical professional commented, "I got to know that in the United States, people pay attention to the mutual communication between doctors, teachers and educators. All parts work together to care for patients with multiple disabilities and help them to live independently and confidently."

The **Medical Model** is a framework to conceptualize illness. It regards illness as structural or functional failure that can be diagnosed and treated autonomously without involvement of educational or other services.

Sometimes the medical model is highly effective, and in those cases it is generally efficient, tangible, and easy to understand through the lens of science. Doctor David Zigmond gives the diagnosis and treatment of streptococcal tonsillitis as an example of the successful use of the medical model. He writes that the symptoms and signs, the best treatment, and the effects of not treating are all relatively clear in this case, and medical concepts and tools alone are effective.

In contrast, Dr. Zigmond writes that the medical model related to Rheumatoid arthritis is inadequate. The nominal diagnosis does not clearly predict the patient's health in the future. That is, in five years the patient may function perfectly well even without any medical treatment, or he may be completely crippled despite the best medical treatment known. Zigmond writes that, "Because it has its roots in the scientific method, the Medical Model can only really incorporate phenomena that are measurable and quantifiable," ignoring other

factors that may be most important such as psychological stress or emotional conflict.

In contrast, the **Educational Model** in its purest form employs only pedagogical concepts. It gives no consideration to structural or functional failure of the body. When strictly following the Educational Model, an evaluator identifies strengths and weaknesses through such measures as direct assessment, interviews and observations. Then the model applies teaching and behavioral strategies to address the weaknesses and to build on the strengths.

A third service delivery system is a **Simple Combination of Medical and Educational Models**. With this, children benefit from both medical and educational disciplines, but only in isolation from each other. For example, an eye doctor sees a child and prescribes eyeglasses, then a teacher assesses his functional vision and helps him to practice using his vision optimally, then the eye doctor checks his eye health and updates his eyeglasses prescription, etc. One of the SPEH medical professionals visiting the U.S. through the SIB project describes this model in her hospital, “In China, there’s no certain connection among doctors, educators and families....”

In serving children with low vision or blindness, there are significant limitations and dangers in following only the Medical Model, or only the Educational Model, or even in following a hybrid model where both models are employed but each in isolation of the other.

- The major limitation of the medical model for these children is that it excludes such input as motivation of the children to use their vision, attitudes of their families in accepting their disabilities, and assessment and teaching strategies of their educators. Diagnoses of “unable to test” for young children and those with additional disabilities will not be helpful, and prescribed spectacles may be tried once without success then relegated, unused, to drawers.
- The limitation of the educational model alone for children with visual impairments with or without additional disabilities can be equally unsuccessful. For example, educators may fail in trying to stimulate a young child’s interest in picture books because the child can’t see them clearly without eyeglasses. Or, a

- teacher may provide only visual toys when a prognosis of progressively worsening eye disease would have guided her to also provide toys increasing tactile and auditory skills.
- A hybrid model where both medical and educational models are employed but each at a different time, is an improved service delivery for children with visual impairments. This model most typically presents as a child first receiving a medical diagnosis and possible medical interventions such as eye surgery and/or low vision devices through a medical model..... then the child receiving instruction through an educational model where teachers read the child's eye reports, planning lessons and incorporating devices accordingly.

But services for this child could be much better. Medical and educational models could not only take place, but could merge throughout the child's development.

What might this merger look like as a child is first identified as having a visual impairment?

The educator reviews eye reports then assesses the child's functional vision (FVA) at home, she works with the parent in updating the FVA and helping the child to use

his vision as fully as possible, and she works with the eye doctor in assessing the child's vision in the hospital setting and following through with his using his eyeglasses at home. In working with the child's parents and teacher, the eye doctor makes more accurate vision assessments and more realistic eyeglass prescriptions. The parents stay more informed throughout, knowing what to anticipate, how to advocate, how to observe, and how to follow-through on recommendations.

"Every student has individual records in the school, which include details such as what the student likes, what the student fears, and what's the student's comfortable posture. Senior doctors in low vision clinic can adapt himself for the child in order to get reliable result of examination, e.g. standing kneeling down, lying on his stomach, or playing with the child. I was shocked and deeply moved by this kind of working attitude."

- Shanxi medical professional

Here is an example of this merging as a parent first wonders about her child's vision:

"It is ... very important to contact with special education schools. The information sharing with special education teachers would help us to understand these patients' life and learning status and barriers then we can provide teachers more meaningful advice."

– Shanxi medical professional

1. A parent becomes concerned and asks the local hospital doctor to look at her young child's eyes, which appear cloudy to her.

2. The local hospital doctor does a general vision screening, diagnoses a cataract, and refers the child to both a teacher trained in vision visitation and an ophthalmologist at a provincial hospital like SPEH.

3. The teacher joins the team, beginning with reading the eye doctor's findings and visiting at the child's home. She begins to form a relationship with the child and his family, and she discusses cataracts and cataract treatment so the family can know what to expect in the future.

4. The ophthalmologist at the prefecture-level hospital does cataract surgery.

5. On the next home visit, the teacher discusses with the parent how an eye doctor assesses vision. In preparation for this visit, the teacher and parent together begin to develop a Functional Vision Evaluation of how the child uses his vision at home. They also create a list of the child's likes and dislikes.

The medical records are very detailed and complete. Moreover, it is in simple language which can be easily understood by the family and the teacher. – Shanxi medical professional.

6. The teacher and parent attend the eye doctor's appointment. The teacher and parent talk with the eye doctor about how the child uses his vision at home, and they work with the doctor in using the child's "likes" to coax him to look at visual targets. This helps the eye doctor to most accurately measure visual acuity and prescribe eyeglasses.

7. On the next home visits, the teacher updates the child's Functional Vision Evaluation with his newly prescribed eyeglasses. She coaches the parent in observing what the

child sees, and she works with her in choosing toys and books and using them with her child.

Can this merging of models happen in China? Yes, this is a key Lesson Learned from the Shanxi SIB project. It is already starting to happen in China through the project, even though this was not a planned output target.

1. Merging has been happening as eye specialists and teachers have attended SIB workshops together in Shanxi province. They learned in these workshops how collaboration between medical and educational professionals can benefit children with visual impairments. And during structured sharing activities there, they have come to a more clear understanding of what each discipline can contribute.
2. Merging has been happening as Shanxi eye specialists and teachers and Perkins SIB staff have travelled from village to village together to identify children with visual impairments. The teachers made comments such as these on working alongside medical professionals during visitations:
 - “Through the training, it allows me to learn how to concern about students with visual impairment and to help them with support by eye doctors; how to build trust relationship with children and their families; how to work as a team to provide quality service to our children with multiple disabilities.” - Teacher Ma Quyn, a teacher from Qingxu Special School
 - “Special education is not only a special teacher, but a team. Interdisciplinary cooperation can provide a harmonious social environment for children with disabilities and help them adapt to the society and adapt to their life.” Teacher Wang Tongmei
3. Merging has also been happening as SPEH eye doctors witnessed it during observations at Perkins School for the Blind and eye hospitals in the Boston, Massachusetts area. They reflected on the collaboration of medical and educational models that they observed.

- What surprised me was there was always a teacher present with the patients, no matter parents present or not but a teacher would definitely be with the child.
- During the visit, especially in the low vision clinic, I found that many patients' companions are not parents but their teacher, and the teachers understand them as well as their parents.
- I did not realize how comprehensive functional vision assessment could make how much difference to (the children.) I just told them I could not do anything for them from medical perspective after I examined their vision and eyes. But after this trip, I know to these patients. Perhaps a pair of visual aids can greatly improve the quality of their life after comprehensive functional vision assessment. Thus, it would also reduce the burden of the family.

Merging Medical and Educational Models to serve children with visual impairments in Shanxi has occurred throughout the project. Its efficacy has been an important Lesson Learned for the medical and educational personnel there, and their comments above point toward their commitment to apply and sustain it.

“Special education is not only a special teacher, but a team. Interdisciplinary cooperation can provide a harmonious social environment for children with disabilities and help them adapt to the society and adapt to their life.”

–teacher Wang Laoshi

This shift in models seem casual something that happened on its own with no effort extended. But on the contrary, for this Lesson Learned, unplanned is not un-earned. The shift toward merging models evolved as

medical and educational professionals in Shanxi stretched their understanding of children with visual impairments at SIB-run workshops. It evolved as they travelled together from village to village, alongside Perkins staff, to identify children with visual impairments. And it evolved as medical professionals from SPEH observed medical/educational collaboration during their Perkins/Boston visit, reflected on what this could mean for their country, and committed to sustaining it.

Home Visitation: A Lesson Learned

Introduction: Through the SIB project, partners HKI and PI were charged with identifying children with visual impairments/blindness surrounding four cities in Shanxi province¹. However, these partners were able to identify only small numbers of children with significant visual impairments through public school data, and development and dissemination of a DVD to train village doctors in vision screening also yielded small results. But SIB-trained village doctors knew nearby children at risk, so PI turned to face-to-face home visitations to assess their functional vision and provide support. (Recent research strongly supports the benefit of home visitation for children at risk, and validated scales are now available to measure home visitation relationships.)

Lesson learned: Visitation was highly effective in identifying visual impairments/blindness in Shanxi children not going to school, and it may be a useful way to provide them with ongoing support.

Below is pertinent research and how this lesson unfolded throughout the SIB project.

Home visitation occurs as trained professionals spend time with children-at-risk and their families, in their homes. In many settings home visits occur during pregnancy and the first few years of a child's life, although it may extend throughout childhood.

Recent research robustly supports that home visiting can be an effective method to deliver family support and child development services. Authors from the PEW Charitable Trusts write, "Evidence shows that families that participate in home visiting programs, which focus on strengthening vulnerable families with children under age 5, are often more self-sufficient and better able to handle the challenge of parenting and to raise healthier, safer children." Despite widely diverse goals, methods and styles of home visits, they itemized three purposes that home visitation holds in common:

1. Cultivate parents' ability to form strong, positive attachments with their children and to keep them safe.

2. Promote children's healthy physical, cognitive, and social-emotional development by monitoring their progress, guiding parents in recognizing their children's and their own needs, and accessing appropriate services.
3. Improve maternal and child health.

Similarly, in "Measuring the Quality of Home-Visiting Services," Schodt et al., write that, "Home visiting has grown in popularity in Latin America and the Caribbean (LAC) and in other regions of the world, bolstered by evidence of high and sustained impacts on child development."

Thirdly, in "The Research Case for Home Visiting," authors from the Zero to Three/National Center for Infants, Toddlers and Families summarized pertinent research with similar findings. Across a wide range of child-related risks, they read that high quality home visiting programs could increase children's school readiness, enhance parents' abilities to support their children in their overall development, improve child health and development, and ease finances for both families and educational systems.

What is "High quality home visiting?" Paulsell, Avellar, Martin & Del Grosso (2010) identify three inter-related parameters that define the quality of home visiting: dosage, content and relationships. Dosage is the frequency and duration of visits, and content is topics/curriculum covered. Relationships, referring to the interactions among the visitor, the caregiver, and the child, are key to effective visitation, yet the most difficult to assess.

The Home Visit Rating Scales-Adapted & Extended (HOVRS-A+) attempts to measure these relationships. Described as "the most extensively validated observation instrument in home visiting to date...." (Schodt et al,) HOVRS is comprised of a series of seven rubrics focused on visitor-caregiver relationships. These rubrics are:

1. Home Visitor Responsiveness to Family
2. Home Visitor-Family Relationship
3. Home Visitor Facilitation of Parent-Child Interaction
4. Home Visitor Non-Intrusiveness/Collaboration with Family
5. Parent-Child Interaction During Home Visit
6. Parent Engagement During Home Visit

7. Child Engagement During Home Visit

In summary of home visitation research, it is evidenced-based and it is becoming increasingly used to cultivate strengths in parents, promote children's progress, and improve maternal and child health. Its effectiveness can be measured by dosage, content, and relationships among visitors, children and parents. The Home Visit Rating Scales represent an extensively validated tool to measure home visitation relationships.

Enter SIB. Seeing is Believing Output Targets included identifying children with visual impairments, training local hospitals to serve children with visual impairments in their homes, and training teachers to assess and teach them in school-based settings. SIB partners Helen Keller

International (HKI) and Perkins International (PI) had found children with visual impairments in public schools, but few of them needed adaptations beyond medical treatment and eye glasses. Their commitment was to sweep as widely as possible to identify children with more significant visual impairments/blindness.

Given this, they adopted face-to-face trainings for village doctors in how to recognize and refer children who may be at risk for disabilities. Once identified by the county and village doctors, a team of eye doctors, teachers, and Perkins SIB staff traveled together from village to village, visiting in the homes of these children at risk. They assessed their functional vision to identify the children with low vision/blindness. They also supported the children and their families in how to adapt the home environment, materials and teaching strategies.

"It is the wishes of every parent and the teachers' efforts to let children survive and learn to take care of their own lives. The education is not only for students, but also parents, and it is the responsibility of the society as a whole. Every special teacher must have this sense of mission."
- Chen Xing, a teacher from Datong special education school

Note from a PI consultant about a local teacher she was mentoring in visitation through SIB: “She (the local teacher) told me sadly that she had been working with a boy who was blind for one year, and nothing happened. (But) through talking with parents and observing the child, this handsome young boy eventually got out of the bed and walked with his father as a sighted guide. It was the first time for the teacher and parents to see the child getting out the bed and walking. The teacher said to her mentor, ‘When I was working with this child, everybody said that he could not walk. In the end of home visit, I read smiles on child, parents’ and teachers’ faces. Chen Laoshi, I am confident that I can teach this boy well!’”

This just is one of (many) stories. The story tells us teachers love children, want to help children, but unfortunately, the lack of knowledge and skills in special education has impeded their working with children with MDVI.

The teachers on these village-by-village screening teams had received training in identifying children with visual impairments, assessing functional vision skills, and working with children with visual and multiple disabilities through Target Outcome 2015 of the SIB project. Now they were learning basic home visitation skills alongside Perkins team members, who had been doing home visits in the U.S. since the early 1990’s. Face-to-face home visitations turned out to be highly successful, with over 450 children identified as having visual impairments/blindness.

At the same time as these home visitation screenings were occurring, and unrelated to the SIB project, the national government of China created a policy in 2014 on home visitation for all children who did not or could not attend regular schools.

Simultaneously, then, four activities were occurring:

1. children were being identified in their homes,
2. teachers were being trained in home visitation,
3. local hospitals were being trained to serve children with visual impairments in their homes, and



Home visit by a teacher from TSB

4. the Chinese government mandated home visits.

The need and appropriateness of a face-to-face home visitation model was thereby a Lesson Learned. Given both the opportunity for visitation and its benefits, PI responded to this Lesson Learned by bolstering visitation in two ways. One was to give teachers structured training in visitation as well as continued on-the-job mentoring. The other was to create guidelines in visitation.

The second SIB support of home teachers was to work with them to develop a home visitation manual. This manual, available in both English and Mandarin, consists of eight chapters. The language in this manual is simple and straightforward. Content is supported by captioned photographs, text boxes with quotes from experienced home teachers. Three of the chapters are philosophical and/or procedural: roles and responsibilities of home teachers, five “big ideas” to drive teaching and planning, and preparing for school. Five of the chapters are about learning/teaching strategies: typical development and development of children with disabilities, use of senses, communication skills, and independent living skills. These eight chapters are as follows:

1. The first chapter lists “Roles and Responsibilities of the Home Visiting Teacher” and describes what may occur during a typical home visit.
2. Chapter 2 is about typical child development and how home teachers can support it.
3. Chapter 3 is Assessment of a Child with Multiple Disabilities. It focuses on how to collect information about children during home visits, including a Questionnaire and Observation Sheet listing specific information to be gathered from mothers or caretakers of children with disabilities. Also included are general questions to explore families’ “hopes and wishes for the future of their child.”
4. Chapter 4, “Assessment of the Use of Senses,” guides home visiting teachers to assess vision, hearing, touch, response to movement, taste, and overall sensory functioning.

5. “5 Big Ideas: Guidelines for Teaching and Planning” is the focus of Chapter 5. Based on the foundational principles that “all children can learn” and “all children can communicate,” these big ideas are to use real objects in meaningful activities, to encourage independence, to maintain



Showing a boy a ball during a home visit

- consistency with people, activities, and the environment, to build on children’s strengths and interests, and to maintain partnership with families.
6. Chapter 6, “Communication Modes for Children who are Non-Speaking,” lists communication modes such as using gestures and photographs, and provides strategies to encourage communication.
7. Independent Living Skills is the focus of Chapter 7, guiding home teachers to share with families teaching strategies related to mealtime skills, dressing skills, toileting skills, proper hygiene, orientation and mobility.
8. Chapter 8, “Preparing a Child for School,” equips home visiting teachers to help children and families to be ready to attend school, to be successful in school, and it helps schools to be prepared for the children.

Visitation was not a SIB target outcome. Objectives were not created at the beginning of the project, so data of outcome achievement cannot be derived. However, some evaluative data can be gleaned (1) from formative and end-of-project reflective sessions and (2) from review of the visitation manual, particularly through the lens of visitation best practices in recent research. This analysis follows.

1. Teacher reflection: Teachers who visited homes met together with PI staff to reflect on these experiences. They universally told of their increased confidence in home visiting, of children learning new skills, and of parents developing strategies in teaching and in advocacy. For example, one teacher told this story:

“On the morning of September 19, 2017, we together visited a child with autism. This boy’s mom is mentally retarded after meeting car accident, and father is so worry about the future of his son. After talking with father and observing the child, Chen Laoshi helped me to think about what I can do to achieve the goals father wants to see, how to develop child independent living skills and the ways to meet child’s needs and what we can do to support this family. According to suggestions from Chen Laoshi and the results we discussed, I build up the confidence in doing home visit and father did in parenting his son as well. We are so surprised to see how big changes to this child, now he can finish the task by picture clue and also initiate conversation and interaction with parents. Parents are very happy of his progression.”

2. Secondly, in reviewing the SIB visitation manual, there is alignment with each of the seven scales in the well validated HOVRS scale for visitor:caregiver relationships. See table below.

| HOVRS scale for visitor:caregiver relationships | Evidence of visitor:caregiver relationships in SIB Visitation Manual |
|--|--|
| <p>1. Home Visitor Responsiveness to Family: home visitor is prepared, attempts to get needed information from the parent, observes and responds during visit, gets parent input</p> | <p>Ch.1 “Be a good listener. The first step in building an open and healthy relationship with families is to allow the families to talk about their child...”</p> <p>Ch. 1. “Greet family members and spend time listening to what they want to say. Ask them questions about how they have been doing...”</p> <p>Ch. 3. “Parents and caregivers are the people who know their child the best. They may not be able to give you a diagnosis of their child’s disability, or tell you the grade level of where their child is functioning, but they spend the most amount of time with their child in different situations and different environments.”</p> |
| <p>2. Home Visitor-Family relationship: warm</p> | <p>Ch. 1. “Be flexible and respectful. We must be able to adapt our planned activities based on the</p> |

| | |
|---|---|
| <p>relationship, parent seems comfortable, interactions with home visitor are positive, home visitor understands and respects the family as a whole</p> | <p>situation of the family when you are doing a home visit. “</p> <p>Ch. 1. Focus on what is good. Always find nice things about the family, student, and family practices. Give compliments.</p> <p>Ch. 1. “The home visiting teacher should create ways to engage everyone who is involved in the child’s care and learning (many times, grandparents are most involved in the life and caregiving of the child..”)</p> <p>Ch. 3. “This conversation (Hopes and wishes for the future of their Child) should be done in an open and accepting way allowing the family to share their thoughts. It does not need to be completed in the first visit..”</p> |
| <p>3. Home Visitor Facilitation of Parent-Child Interaction: home visitor encourages parents leadership, involves both the parent and the child, uses materials available in the home</p> | <p>Ch. 1. “Encourage families to think of the ideas and strategies themselves, or ask questions. Their participation in making decisions is important.”</p> <p>Ch. 1. “Observe what the child does naturally in the home environment.”</p> <p>Ch.1. “Discuss activities, get feedback from previous ones, and brainstorm next steps. Solve the issue together.”</p> <p>Ch.1. “Model activities. Let the family try doing the activity themselves and or with the child while you provide guidance.”</p> <p>Ch. 7 “To keep the back and hips supported, add pillow or soft foam to the back or sides of a chair.”</p> <p>Ch. 7 “These are books that can be created by the family and the teacher to talk more about clothing with the child.”</p> |
| <p>4. Home Visitor Non-Intrusiveness/ Collaboration with</p> | <p>Ch.1. “The caregivers are the ones who will be able to practice the skills with the child regularly until</p> |

| | |
|--|--|
| <p>Family: home visitor is flexible and responsive and collaborative (rather than controlling)</p> | <p>they are able to generalize it to other situations.”</p> |
| <p>5. Parent-Child Interactions during Home Visit: Parent-child warmth and joint attention, parent attentiveness and responsiveness to child</p> | <p>Ch. 2 “Mei’s parents started to play home created games with Mei. Mei’s favorite game was “Stop and Go,” where her father would rock her in a blanket and immediately stop. It made Mei giggle loudly.”</p> <p>Ch. 6 “The Mom brings her son to the market to pick the fruit he wants. While touching the same fruit, they are having a conversation about it. Given two choices of fruits, the son picks up one fruit showing his Mom what he wants- he makes a choice.”</p> |
| <p>6. Parent Engagement During Home Visit: interest, involvement, initiative, physical closeness to home visitor and child</p> | <p>Ch. 1. “His mother cried, seeing him doing this work alone and now he can help his mother prepare meals, which contributes to his family life.”</p> <p>Ch. 1. “Mei’s parents work in the market. They started to bring Mei to the market with them, and let her explore different fruits. They taught her to count the fruits and put them in baskets....”</p> |
| <p>7. Child Engagement During Home Visit: child shows involvement and interest</p> | <p>Ch.1. “The child with the eye patch is a very shy boy. The teacher involves his big sister in a game. The child with disability starts to be curious and the teacher was able to involve both children in the game and observe his interest and skills.”</p> <p>Ch. 6 “Doing the proper sign to the word, or close to it. This child is asking for “more” (i.e. food) during mealtime.”</p> |

In summary, numbers have shown that home visits have been highly effective in identifying children at-risk who have visual impairments, anecdotal comments have shown they are successful in teaching children and supporting parents, and alignment with research and

with an internationally validated scale shows that PI's visitation guidelines align with best practices in research. This has been a significant lesson learned.

Additional Lessons Learned

As the SIB project progressed, PI was able to identify problems and to change tactics mid-stream to prioritize home visits and the merger of educational and medical models. Each of the key PI team members noted below other limitations in the project. Some were identified and repaired early; others, through hindsight.

1. “We needed to pair providing materials with training.” - Debbie Gleason, PI Project Director

SIB has equipped Shanxi professionals with devices and assessments for four low vision clinics, books and toys for four toy libraries, Brailers throughout the four geographical areas, and learning materials for the Low Vision Educational Resource Center. Although our plans did not require that training go hand-in-hand with providing these resources, we found that without this teaching, many materials were not used.

For example, we provided Brailers, but it wasn't in our plan to teach the teachers how to use them. The Brailers were sitting un-used on shelves in TSB and local schools. But after we trained the teachers through a 3-day workshop, they used them to adapt materials with Brailers and they taught students to use them. In fact, at a second Braille workshop a year later, four participants in the first workshop returned to demonstrate with their students how they were using the Brailers for writing and math and early exposure to braille.

Having learned this, when we provided materials for the toy library, the Low Vision Clinics, and the Low Vision Educational Resource Center, we didn't wait for the teachers/doctors to use the materials on their own. Instead, we also provided training in how to adapt them if needed and how to use the materials. It is our understanding that, given this training, the materials were used much more consistently.

Lesson learned: When we provide materials, we needed to pair this with training.

2. “We needed to find the children with visual and multiple impairments in their homes.” -Patricia Lee, Monitoring, Evaluation and Learning Advisor

We had expected that we could identify children with visual impairments/blindness in regular schools. However, only children with mild refractive errors were there. The children with significant visual impairments, many of whom had additional disabilities as well, were not there. In fact, they were not enrolled in any schools. They were home. Once we realized this, we visited homes where village doctors found children at risk. There we identified over 400 children with visual and multiple impairments.

Lesson learned: To locate children with significant visual impairments, we needed to look in their homes, rather than in schools.

3. “Coordination among SIB partners should have been earlier and more intentional, including each others’ roles, timing, and how to maintain coordination with each other.” - Lisa Jacobs, Project Coordinator and Patricia Lee, Monitoring, Evaluation and Learning Advisor

I don’t think the collaboration among the SIB partners was effective enough, especially when the project started. If we had achieved this, we may have identified more children with visual impairments, and we may have identified them sooner. As examples:

- The project started in 2013 but PI didn’t have the data on children that they needed to start home visits until 2016.
- HKI and PI could have worked together in creating the video about vision screening and assessment, to include screening and functional vision assessment for children with multiple disabilities and visual impairments MDVI.

We should have better planned the collaboration among the SIB partners in terms of roles. We also should have planned better *how* to collaborate with each other. As the project began, we should have initial discussions including all five SIB partners in order to:

- clarify our respective roles on the project
- to share our areas of expertise
- to schedule contact at regular intervals
- and to create a plan to deal with our language differences, especially in conversations about technical issues and emotional/deeper issues.

Lesson learned: In the first year of the project, there were such consistent and intentional meetings between the SIB partners and Chinese recipientsbut we should have done similar initial planning with each other, too.

4. “I wished the school principals and directors could participate in the training with their teachers.” -

Chenmin Perera, PI Consultant, Trainer and Interpreter

It is hard for teachers to try new things or make changes, once they accepted the new ideas, without understanding and support by leaders. Entire schools, including leaders and teachers and other staff, should be on the same page to reform education and make changes to benefit children with MDVI. Schools participating in the project need to make a commitment that the principal... will participate in the training. Schools need to fully encourage and support teachers as they apply their learning from training.

Lesson learned: We should have asked both teachers and their leaders to attend the trainings.

5. “The prefecture hospitals should have partnered more with the local hospitals.” - Guan Chunhong, Senior Manager at ORBIS International

Medical staff at some project hospitals did not have a chance to go to trainings about the medical and educational collaboration

or to participate in the home visits to witness the differences (that the project made.)

Considering this, if we could do the project over again, we would have invited medical professionals to home visits, even in a neighbor place, much earlieror we could try to conduct the training in places closer to them so it would save their travel time..... or we could repeat the training after some time to allow those who were not able to attend the 1st training to attend the 2nd training.

Lesson learned: Perhaps we and local partners should improve areas such as communication, knowledge sensitization and follow-up.

Sustaining Accomplishments

“The whole course of trainings by American experts has brought new international ideas, shared educational experience with special needs for children with MDVI in special education and in inclusive education. They trained key teachers for special education in Shanxi, promoted the teachers’ professional skills and qualities, and played an active role in the development of special education in Shanxi. It will certainly benefit the students with disabilities, so that students and parents can see hope and enhance their confidence. The work carried out by ‘Seeing Is Believing’ will have a profound and lasting influence in Shanxi.”

- Wang Tongmei , secretary general

Naturally, PI holds the hope that accomplishments made during the SIB grant period will continue now that the funding is finished. While it’s impossible to predict sustaining for certain, there are many reasons to hope for it. In the words of Guan Chunhong, the SIB Senior Program Manager, there is now a seed sown in Shanxi which will gradually sprout and grow.

1. The eye doctors involved with the SIB project now believe that children with MDVI can be

“We need to change our conception. I understand deeply that everyone has dignity and needs appropriate education, particularly children with disability”. -Shanxi eye doctor

assessed and have skills. They have committed to testing these children as accurately as possible and to sharing what they have learned with their colleagues.

2. Some of the key people at government levels (Provincial Bureau of Education) and hospital levels (SPEH, ORBIS) have become champions of services for children with MDVI. They are now enthusiastic and committed, and will advocate for these children in the future.

In my future work, I (will) do my utmost to help these patients.
-Shanxi Eye doctor

3. A working model of child eye health network has been established, including

- a. eye health promotion and screening and referral (preventative),
- b. high quality refractive service and diagnosis and treatment, and
- c. low vision and early educational intervention.

4. So many multi-disciplinary professionals who learned and gained knowledge, skills and experience through this project will continue to serve children and transfer their knowledge and skills to others.
5. The parents of children who benefited from this project will spread words to others as well then awareness on child eye health would be improved.
6. There have been dramatic attitudinal changes at the special schools (schools serving children with disabilities.) Teacher and administrator comments indicate that they now feel that they can work with children with multiple disabilities. They really did adopt an “all children can learn” attitude. When there’s a shift in attitude, there is sustaining.
7. Equipment/materials/guidelines provided and paired with training are still available for continued assessment and education in the future to serve all children, both with special needs and typical development. For example, prior to the SIB project, pediatric ophthalmologists only looked at infants’ eye health. Now they have sets of Preferential Looking Test PLT cards to assess the vision of infants, and they are comfortable using them. This will be sustained.
8. Home visitations by teachers are now a government-mandated service that must be provided for children with disabilities who are out of school

“I felt inferior for teaching special children. Now, I am proud of my career. - Yu Yuanping (于原平), a teacher from Yangcheng Special School

“I will do what Chen Laoshi taught me to work with my children, try my best to serve quality education to children with disabilities. This is a very meaningful job.” Li Liefeng(李列凤), a teacher from Taigu Special School.

9. Perkins has now leveraged WeChat, China’s messaging and social media app, so that 18 groups

of SIB-trained teachers online can provide support for each other.

10. Independent of SIB, special schools from Xinghualing, Yingze, Wanbailin, Jiancaoping, SWI and Qingxu County in Taiyuan get together, taking turns to organize “teaching and research.” This monthly activity includes observation of two lessons in the classrooms, and discussion based on the “Five

Big Ideas” developed by SIB. The “Five Big Ideas” are also the basic teaching requirements for a class to teachers in these schools.

11. At the Xinghualing Special school mentioned above, the principal supports and encourages her teachers to make changes, to try, and to practice the new ideas they have learned from SIB. For example, they have added a Theme Curriculum, Circle time, and some vocational programs for young adults in curriculum system.
12. For some schools in Datong, Yingze, Wanbailin, Jiancaoping, SWI and Qingxu, evaluations of quality teaching now require incorporation of the “Five Big Ideas.”

“A single spark can start a prairie fire”

- Mao Tse-tung

The trained teachers will serve the children with disabilities for a long time, helping their parents and new teachers.

The benefits of training are immeasurable.”

-Wang Tongmei Shanxi primary school teacher training center

Recommendations

Final Evaluation Report

Key SIB participants have made a range of recommendations for project follow-up. These include:

- Keeping the momentum going for home visiting
- Continued screening for children with visual impairments in special schools
- Eye doctors who participated continuing to share with colleagues what they learned
- Expanding the merging of medical and educational models in Shanxi and then to other provinces in China
- Continued hands-on teacher training, with direct observations and guided practice rather than lecture only. Similarly, continued interactive lessons for children with disabilities. “The idea of passive teaching has been changed.” -Wang TongMei)
- Establishing some model/demonstration schools that combine theory training with practice training, and that follow up with mentor teachers sharing their skills locally
- Continued advocacy for government policy that ensures long-term and effective implementation of the project’s work

Beyond these recommendations, one survey response appears over and over again. It is to now place children in schools.

*“Many children have been identified as having visual impairments and, through home visits, they are being readied for school. They are learning skills necessary for school like self-help skills and orientation & mobility. And some of the local teachers have been trained to teach these children. Now transitions need to be planned and they need to **start going to the schools.** “*

Home visiting is not a placement, it’s a location to educate or empower parents about school and prepare children for school.

“The purpose of home visits should be to help children to be able to go to school as early as possible. I have to try my best working on it from now on. “

– a Shanxi teacher

How can home teachers prepare for school placements?

“All children can learn” makes me understand it is my bound duty to help children to have quality life, to be at school and live in the society“ -Shanxi teacher

In addition to learning teaching skills and home visitation strategies, home teachers can be very clear on why they are visiting families in their homes and what they need to address. As one Shanxi home

teacher wrote, “Helping children to be independent is my responsibility, helping children to be able to be in the school is my responsibility.” - Zhou Liping 周丽萍, from Taiyuan School for the Blind

How can the children be prepared?

Some children are not enrolled in schools due to health issues, but many are still at home because they are not sufficiently independent in feeding, dressing, toileting, washing and walking. These are skills many of them can learn so that they attend school. Home visiting is a way for them to learn them.

How can the schools be prepared?

Both special schools and general local schools need to build the awareness of a child’s right to go to school, and to advocate around shortage of professional resources, transportation issues, sufficient school staff, etc. To prepare for a child with a disability, schools should be aware of any environmental adaptations of accommodations that need to be made, any learning support the child needs, and general information about the child like functional vision and how he/she communicates. (SIB Home Visiting Manual, Chapter 6, “Preparing a Child for School”)

“As long as the special children we educate can ultimately support themselves and integrate into the mainstream society, it is our greatest success!”

- Hui Feng, Party Secretary

Appendices

The CHEER Partners

Five agencies partnered in the CHEER project. While often closely collaborating, each agency brought unique areas of expertise and carried out clearly defined roles. Each partner worked within its own budget and maintained its own reporting responsibilities, all under ORBIS International as Project Manager. Below are areas of related expertise (also available in the Final Report Glossary) and the CHEER responsibilities for each of the five partners.

Brien Holden Vision Institute (BHVI)

- Expertise: Brien Holden Visual Institute BHVI, based in Australia, has extensive experience with eye health for children through school programs. Their Global Resource Centre GRC has provided inexpensive optometric equipment and eyeglasses in developing countries. Their Brien Holden Vision Institute, based in Guangzhou in China focuses on optometric education and clinical research.
- CHEER Responsibilities: BHVI will develop a curriculum for refraction training at county, prefectural, and provincial levels. They will work with HKI to coordinate vision screening and refraction service capacity-building at school and community levels.

Helen Keller International (HKI)

- Expertise: USA, has addressed blindness prevention initiatives in Africa and Asia through Seeing is Believing: reducing Vitamin A deficiencies, improving cataract surgery, and improving services related to refractive error and diabetic retinopathy. HKI has focused on sustainable, large-scale children's eye health in China since 1988, partnering with the Zhongshan Ophthalmic Center in cataract surgical training and children's refractive error programs.

- CHEER Responsibilities: HKI will work with BHVI to coordinate vision screening and refraction service capacity-building at school and community levels.

ORBIS International

- Expertise: ORBIS International, based in Beijing China, has collaborated with SPEH for over 20 years, including many previous rounds of Seeing is Believing projects in China. Their focus in China is to improve the quality and availability of children's eye care.
- CHEER Responsibilities: Coordinating with SPEH, ORBIS will oversee all aspects of the project. Hiring a full time Project Manager, they will coordinate all financial and other reporting to the Bank. ORBIS will also be responsible for surgical capacity-building at participating hospitals at the prefectural and provincial levels.

Perkins School for the Blind/Perkins International (PI)

- Expertise: Perkins International (PI) is based in Watertown, Massachusetts in the USA at Perkin School for the Blind. Established in 1829, it began a global program for children who are blind, deaf-blind or have multiple disabilities in 1989 and now works with over 65 countries. PI has collaborated with local partners in China since 2001 focusing on five themes: education, family involvement, teacher mentors, policy, and Braille distribution.
- CHEER Responsibilities: PI commits to training general and special education teachers in providing programs for children with visual and other disabilities. It also commits to training teachers and rehabilitation professionals in educating pre-school and school-aged children with disabilities. Thirdly, PI will collaborate with BHVI in establishing low vision services at the prefectural and provincial levels.

Shanxi Province Eye Hospital (SPEH)

- **Expertise:** Shanxi Provincial Eye Hospital, SPEH is the major provider of eye care for children in Shanxi Province. As of 2011, they employed ten full-time pediatric ophthalmologists and had conducted 40,000 out-patient children's visits and completed almost 2000 eye surgeries for children.
- **CHEER Responsibilities:** SPEH's commitments for the project revolve around local activities including school-based and community screening to identify children with visual impairments/blindness, and community educational initiatives to increase children's eye health and their use of eyeglasses.

SIB China Activity Timeline 2013-2018

| | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|------------------------------------|------|------|------|------|------|------|
| Training Teachers | x | x | x | x | x | x |
| Train Doctors | x | x | x | | x | |
| SWI training | x | x | x | x | x | x |
| SWI toy libraries | | | x | xx | | |
| Training CDPF | x | x | x | x | | |
| 45 Perkins Braille delivered | | x | | | | |
| Low Vision Clinics formed | | x | | | | |
| ELP | | | x | | | |
| Low Vision Materials Center at TSB | | | x | | | |
| Home visiting | | | x | x | x | x |
| We Chat groups | | | x | x | x | x |
| Materials delivered | | x | x | x | x | x |
| Research | | | x | x | x | |
| Home visiting manual | | | | | | x |
| Perkins visit | | | | x | | xx |

Glossary

Bethel China Foundation provides services to children with visual impairments in orphanages.

Blindness is seeing only light/dark or having no vision.

Braille is a code for reading and writing by touch. It is based on patterns of 6 dots per character.

A Braille is a hand operated machine similar to a typewriter. As users press keys, they emboss braille dots onto pages. While most students in China create braille by pressing dots individually with a “stylus,” creating braille is much faster with a Braille and it allows more easy and accurate editing. Most Brailles are produced by Perkins School for the Blind.

Brien Holden Visual Institute BHVI, based in Australia, has extensive experience with eye health for children through school programs. Their Global Resource Centre GRC has provided inexpensive optometric equipment and eyeglasses in developing countries. Their Brien Holden Vision Institute, based in Guangzhou in China focuses on optometric education and clinical research.

CDPF (See Chinese Disabled Peoples’ Federation.)

CHEER (See Children’s Healthy Eyes Bring Educational Rewards)

Children’s Healthy Eyes Bring Educational Rewards (CHEER or Shanxi CHEER) is a term that can be used interchangeably with Seeing is Believing Phase V in Shanxi, China.

Chinese Disabled Peoples’ Federation (CDPF)

Helen Keller International HKI, based in New York City in the USA, has addressed blindness prevention initiatives in Africa and Asia through Seeing is Believing: reducing Vitamin A deficiencies, improving cataract surgery, and improving services related to refractive error and diabetic retinopathy. HKI has focused on

sustainable, large-scale children's eye health in China since 1988, partnering with the Zhongshan Ophthalmic Center in cataract surgical training and children's refractive error programs.

A Functional Vision Evaluation FVE is assessing how persons with low vision use their vision throughout their everyday activities. It typically includes a summary of eye doctor reports and recommendations of how they can optimize use of their vision.

FVE (See Functional Vision Evaluation.)

Large print is visual material in books and on pages that is larger than common print. It is usually produced by increasing font sizes on computers or setting greater magnification on duplicating machines.

Local Hospitals are a level below prefecture hospitals. 15 local hospitals were included in the SIB project.

Low vision is the lessened visual acuity and/or visual field.

Low Vision Clinics are places, typically within hospitals, equipped for clinical assessment and rehabilitation of individuals with low vision.

The Low Vision Educational Resource Center is a room equipped with furniture for adults and children, and categorized/labeled equipment and learning materials specialized for children with low vision/blindness. Resource centers are designed for assessment and instruction, consultation, and materials lending for teachers and parents.

Magnifiers are devices that enlarge print and other visual targets. Basic magnifiers are hand-held.

Multiple Disabilities/Visual Impairments (MDVI) is the diagnoses of both a visual impairment and an additional disability. For example, a child with MDVI may have low vision and cerebral palsy, or total blindness and cognitive limitations.

ORBIS International North Asia, based in Beijing, China, has collaborated with SPEH for nearly 20 years, including all previous rounds of Seeing is Believing in China. Their focus in China is to improve the quality and availability of children's eye care.

Perkins Braille (See Braille.)

Perkins International (PI) is based in Watertown, Massachusetts in the USA at Perkin School for the Blind. Established in 1829, it began a global program for children who are blind, deaf-blind or have multiple disabilities in 1989 and now works with over 65 countries. PI has collaborated with local partners in China since 2001 focusing on five themes: education, family involvement, teacher mentors, policy, and Braille distribution.

PI (See Perkins International)

Provincial level Hospitals in China are the major, coordinating hospitals. For SIB the Shanxi Provincial Eye Hospital SPEH was the highest local coordinator.

Refraction is how light bends as it passes through the eye. How light bends determines whether it falls directly on the retina, in front of it (myopia or nearsightedness), or in back of it (hyperopia or farsightedness.)

Refractionists are eye specialists who measure the refraction of the eye and to determine the proper corrective lenses.

Rehabilitation workers, as referred to in the SIB project, are employees of the Chinese Disabled Peoples' Federation (CDFP.) Their main responsibilities are to identify children with visual impairments, complete Certificates of Disability, provide the children with equipment, work with their families, and connect them to other resources.

Seeing is Believing SIB is the project demonstrating how children's quality of life and learning opportunities can improve through health promotion, education, and reducing the burden of visual and other disabilities.

Shanxi Provincial Eye Hospital SPEH is the major provider of eye care for children in Shanxi Province. As of 2011, they employed ten full-time pediatric ophthalmologists and had conducted 40,000 out-patient children's visits and completed almost 2000 eye surgeries for children.

SPEH (See Shanxi Provincial Eye Hospital)

The Standard Chartered Bank, with the mission, "We're Here for good," supports the sight saving initiative "Seeing is Believing."

SWI (See Social Welfare Institute)

The Social Welfare Institute (SWI) is responsible for orphanages in China.

Taiyuan School for the Blind TSB serves children with visual impairments/blindness in Shanxi's capital city.

TSB (See Taiyuan School for the Blind)

TSWI is the Social Welfare Institute orphanage in Taiyuan.

Village doctors serve medical needs below the level of local hospitals.

Visitation, or home visitation, is working with children and their families face-to-face in their homes.

Vision Assessment is checking eye health and vision by a medical doctor/optometrist/refractionist. It usually includes recommendations of how to increase use of vision through surgery, eye patching, lighting, magnification, eyeglasses, etc.

WeChat is a smart-phone based social network used commonly in China.

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