

CHEER Project Evaluation

June 2018

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Executive summary

CHEER

Children's Healthy Eyes bring Educational Rewards

The CHEER project has been a far reaching, multi-stakeholder and comprehensive project including four international non-government organisations, that aimed to raise the levels of child eye health within Shanxi province.

Training was delivered at all levels to improve knowledge, increase understanding and enhance skills for the best possible vision for all children. Eye health promotion was delivered in several different locations, including village communities, schools, rehabilitation centres and hospitals. The engagement of many sectors and the subsequent networks created between them, has resulted in robust referral pathways for the prompt referral of identified cases to the appropriate eye health professionals in the most convenient location.

The communication established between parents, villager screeners, education, health, special education and hospitals did not exist previously. The multi-sector links are well recognised and appreciated by stakeholders. Eye health promotion raised awareness and the importance of prompt treatment. Poorer families and those families living in remote hard to access mountain locations were very grateful of eye health services. The provision of subsidised services for spectacles and/or surgery provided through the project was very much appreciated and acknowledged by many stakeholders. Some parents/care-givers were reluctant to take up eye services despite encouragement that their child's eyes required further assessment.

The eye health professionals' skills have been greatly enhanced, particularly in the areas of accurate vision assessment, optometry and refraction, provision of correct spectacles, low vision aids and surgical skills. Training and resources have been provided for the assessment of visual acuity in all age groups and abilities, low vision assessment and the use devices. The establishment of hospital optical shops has raised the confidence in services and there is wide appreciation of the quality of spectacles provided, which in turn has created a greater trust in hospital eye services. The establishment of an Orthoptic/Binocular assessment service, at the Provincial Eye Hospital in Taiyuan, is another asset to the quality of service delivery.

Special school teachers have been trained in the assessment of children with additional needs in their home environments and through training understood that

every child can learn. There has been substantial recognition of the importance of providing services to this group of children and the parents/caregivers very much appreciate the services now offered.

Teachers have realised that poor participation and interaction may be attributed to poor vision, and now know how to refer children for assessment promptly. Teachers and schools also understand that they need to promote outdoor time for their students because of the link with myopia reduction, and also general eye health considerations for students and staff alike.

The project had a large area to cover both geographically and in population numbers. The communication between all the participants initially provided a challenge but ultimately became one of its major triumphs! The creation of these networks and the communication between all levels of the project has allowed the prompt referral of children and therefore will allow the best possible visual outcome.

The international non-government organisation staff had a variety of working styles and communicated over different time zones. The many different staff familiarised themselves with the CHEER targets and worked towards achieving them. The dedicated, diligent and persistent overall programme management contributes to so many of the project successes.

'.. the project has improved the capacity of health teachers through screening and the students' and parents' awareness of child eye health; early detected and treat children with eye disease; provided free glasses and surgical subsidy to poor family; I sincerely appreciate Orbis and all project staff, appreciate this project. Salute for you!'

(Anonymous quote from the Survey Monkey Questionnaire)

Background

FIGURE 1 MAP OF CHINA AND SHANXI PROVINCE





The population of China is estimated at 1,378.67 million¹. The number of blind in China, i.e. vision of less than 3/60 and unable to walk unaided, is estimated to be 5 million. The main cause of blindness is cataract, which accounts for over 50% of China's blind. Other causes of blindness and visual impairment include corneal disease, trachoma and glaucoma.

In the WHO literature the main causes of blindness in children are attributed to measles, ophthalmia neonatorum (conjunctivitis of the new-born), congenital cataract and Retinopathy of Prematurity (ROP). This information maybe needs to be updated. (WHO, 2018) ROP is related to pre-term babies, whose survival rates are increasing despite their very low birth weights. Of an estimated 1 million blind children in Asia, it is estimated that some 400 000 probably live in China (i.e. approximately 40%)

The link between Asia and myopia is the subject of ongoing research. There is evidence to show a connection between the amount of time spent outdoors and myopia. (He, et al., January 2009) (He M, 2015) The WHO reports that 600 million people in China are myopic and over 70% are in secondary education. (Yan Li, 2017)

Shanxi province has a population of 36.64 million, i.e. approximately 2.7% of the total population. The province contains 11 prefectures, 119 counties and 1388 townships, over 156,600 square km and the capital city is Taiyuan.²

¹ World Bank 2016

² China Today

Introduction

CHEER stands for 'Children's Healthy Eye bring Educational Rewards' (CHEER). The CHEER project was a 'Seeing is Believeing' (SiB) Stage V project that began in June 2013 as a five year multi-organisation project, led by ORBIS funded by Standard Charterd Bank and four international non-government organisations (INGOs), with a budget of \$6.25 million. The project included 4 International Non-Government Organisations, 19 hospitals and multisectors of government.

The project included liaison with personnel at all levels within health, education, and Disabled People's Federation (DPF); from county to city, including eye health professionals and teachers within mainstream and special education, with the inclusion of government. The CHEER project, through eye health promotion, aimed to reduce the burden of childhood eye conditions in order to promote improved learning of all children - whatever their ability.

The project objectives:

1. Community level

- To improve educational opportunities
- To improve the quality and availability of child eye health services

2. County level

- To strengthen the capacity of child eye care service and facilities.
- To deliver community and school-based screening and referral
- To provide high-quality refractive/optical services, educational and rehabilitation support.

3. Prefecture level:

- To strengthen the capacity of child eye care service and facilities, through community and school-based screening
- To strengthen the treatment and referral of Strabismus, Refractive Error(RE), Amblyopia and Low Vision(LV).

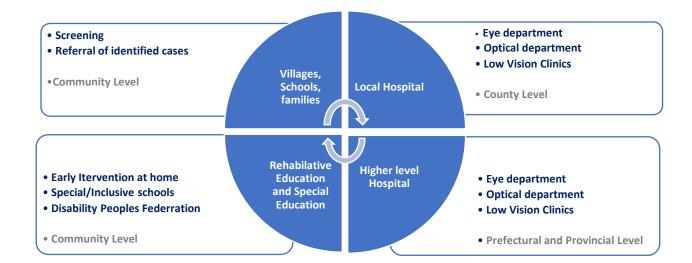
4. Provincial level

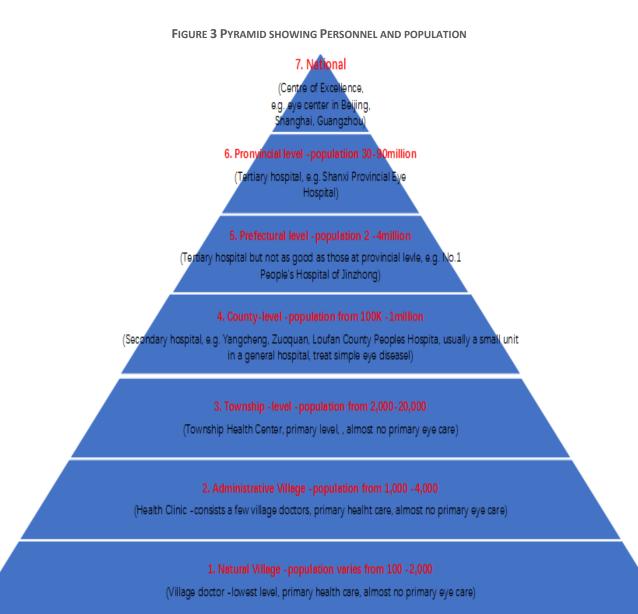
 To strengthen the capacity of a full range of high-quality child eye care service and facilities

5. Management system

- To develop an online reporting system
- To collect evidence

FIGURE 2 REGIONAL LEVELS AND THE TYPES OF INTERVENTION





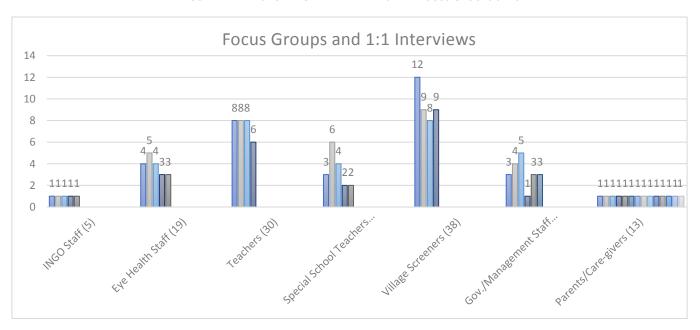
Evaluation Methodology

The evaluation was conducted to assess whether the CHEER project had achieved the project objectives.

Methods used:

- Literature and document reviews
- Field visits
- Qualitative data analysis
 - o Males 64/ Females 80
 - Semi-structured one to one interviews; in person and via audio conversations (one with an interpreter)
 - 19 people interviewed individually
 - Interviews of 30 to 45 minutes duration
 - o Semi-structured focus group discussions, with an Interpreter.
 - 39 Group Discussions
 - 126 people
 - Group size ranging 3 to 12
 - Discussions of 35 to 60 minutes duration
- Quantative data analysis
 - Project targets vs outcomes
 - Semi-structured Questionnaire
 - Online questionnaire (Survey Monkey) (2,073 responses)
 - Paper copy questionnaires (97 responses)

FIGURE 4 TABLE SHOWING 1:1 INTERVIEWS AND FOCUS GROUPS SIZES



Qualitative data

INGO Staff overview

The collaboration of four INGOs has been led by the Orbis Senior Project Manager.

- 1. ORBIS Senior Programme Manager based in Nanchang, China.
- 2. Brian Holden Vision Institute Project Manager based in Guangzhou, China.
- 3. Helen Keller International Project Manager based in Guangzhou, China.
- 4. Perkins International Project Coordinator based in Boston, USA.

FIGURE 5 STRUCTURE OF CHEER PROJECT'S INGO



The Orbis Programme Manager coordinated and liaised between the 3 other INGOs, i.e. Brien Holden Vision Institute (BHVI), Helen Keller International (HKI) and Perkins International (PI). The scale of the project, the coverage required, and all project areas/objectives received very close attention, monitoring and management.

FIGURE 6 APPROXIMATE MAN HOURS GIVEN BY INGO'S TO THE CHEER PROJECT

Organisation	Approx. hours	Years of involvement	FIGURE 7 APPROXIMATE PROPORTION OF CHEER PROJECT MAN-HOURS
ORBIS Senior Programme Manager	16,500	5	
BHVI		2.4	
Project Manager (x2)	9,200	2.6	
HKI Project Manager	9,200	0.6 approx. 1 0.8 approx.	■ ORBIS
		0.2 approx. 2.4 approx.	■ BHVI ■ HKI
Perkins Project Coordinator	5,750	5	■ Perkins ■ SPEH Prog. Coordinator
SPEH			
Programme Coordinator	8,280	5 vorking week, 46 wee	

FIGURE 8 INGO'S DELIVERABLES AND THE PURPOSE

Organisation	To deliver	Purpose
ORBIS Senior Programme Manager	 Overall project coordination and monitoring Project INGO's liaison Advocacy and child eye health promotion. Coordinate and monitoring all activities sponsored by Orbis 	 Manage and ensure the smooth implementation of the project Manage a variety of training to medical professionals at three levels and clinical eye care services to children Finance and budget management Promotion of child eye health
BHVI Project Manager	 Optometrist Fellowship Training in Australia Training of SPEH Optometrist Master Trainers Training of screeners 	 Training of Refractionists from 18 counties Training of spectacle technicians at SPEH and 18 hospitals
HKI Project Manager	 Village and school screening Involvement of Health and Education sectors Promotion and advocacy Coordination and monitoring 	 To deliver high quality screening Accurate data collection Report on screening progress
Perkins Project Coordinator	 To add an educational component to the project Work with teachers and ophthalmologists Collaboration with the Provincial Bureau of Education and the Disabilities People Federation. Home visits to serve less able children 	 Identify children Serve and support learning of children with additional needs Training of trainers regarding support and learning Educational adaptations in 18 counties and 4 cities
SPEH Programme Coordinator	 Project liaison between all stakeholders. Communication between education and health sectors. Organised quarterly meetings, evaluation and actions Organisation of training in all locations Management of expenses 	 To communicate between all INGO's, education and health sectors. To organise activities and training in all locations Resolve any misunderstandings Organisation of transport, accommodation and other expenses throughout the project

INGO Staff one to one interviews

The CHEER project involved many stakeholders, including the education sector, the special education sector, eye health staff, communities, rehabilitation workers, parents/care-givers and government sectors. The coverage of the project made it a challenge, but the project size contributed to its achievements because the multi-level involvement. Raising awareness and training was a high priority and, over the five years of the project, communication and relationships between people and organisations were established.

(Abraham, 2007) (CiaraBriscoe, 2012)

'... we supported and enhanced all levels of service which contributed to improvements' (INGO staff quote)

At the outset of the CHEER project many of the INGO staff did not understand the purpose of the work involved and its potential impact on the beneficiaries. Through knowledge gained through the project i.e. through training, communication and liaison, the objectives became clearer and understood. This understanding further promoted the determination and empowerment of individuals involved to drive the project forward.

'... I feel honoured to have been a part of this project and to have worked with so many professional groups' (INGO staff quote)

INGO staff believed the screening, identification of cases and referral for childhood eye conditions was successful. Through village screeners, teachers and special school teachers the awareness of the importance of early detection and treatment at all levels was raised. There was an increase in knowledge and understanding of child eye health and its benefits to a child's learning. Health and education staff, at all levels, encouraged parents and care-givers to access eye services. Access to services was often subsidised by the project, for children from poorer backgrounds, and allowed many to receive glasses, treatment and/or surgery where previously the condition(s) may not have been affordable, recognised as treatable or of importance. The subsidy of treatment, particularly for glasses and surgery, encouraged the attendance for appointments. Transport stipend was an incentive for children to attend services. Despite considerable efforts, not all children identified at screening received eye health services. Many families needed reminders regarding eye appointments and follow up.

All INGO staff responded with 'strongly agree' or 'agree' when asked if educational opportunities had improved for all children. This was particularly recognised for those children with additional needs, who may not have previously accessed education or learning. Many children were not initially identified but became known through the Village Screeners (Key Informants) and The Disable People's Federation.

"... many children's lives were enriched because of the project." (INGO staff quote)

INGO staff hope that the skills, knowledge, culture and habits developed through the CHEER project will become embedded in health and education at all levels of service and in all locations. (Abraham, 2007)

'... I hope that local people will continue the work initiated by the project.' (INGO staff quote)

It was noted by the INGO staff that the involvement of Perkins International and the work serving children with special and additional needs, was particularly beneficial. Home visits provided greater opportunity for early engagement with service providers and increased the opportunity for children to learn life-skills, to attend an educational facility in the future and reach their potential.

- "... all children can learn." (INGO staff quote)
- '... I feel very lucky to be able to help children, especially those with disabilities, even without knowing them.' (INGO staff quote)

New resources established through CHEER project

1. LVA

Low Vision Centres were opened by BHVI and Perkins. Staff at the centres were trained to be familiar with a variety of Low Vision Aids (LVA's), these aids could be demonstrated and loaned to children appropriately. In some cases, the DPF donated or subsidised aids.

2. Hospital Optical Shops

Several "Optical Shops" were established on hospital premises. The shops were equipped with spectacle making equipment and appropriate staff training was provided through the project. Children identified as requiring glasses were assessed by optical shop staff and issued with appropriate spectacles. Eye health workers, education staff and parents reported greater confidence in the hospital optical shops' service than in that provided by their high street counterparts.

3. Orthoptic/Binocular Vision Assessment service

At SPEH, two optometrists were selected, through an application and interview process, to attend a six-month training on Binocular Vision assessment in Chennai, India. There is now an Orthoptic/Binocular Vision Assessment department at SPEH. This department is fully equipped and now supports the ophthalmologists in their assessment, diagnosis and management of adults and children.

4. Toy Libraries

Toy libraries were established by Perkins in Datong, Taiyuan and Jincheng. The toy libraries each had a trained "Toy Librarian". These libraries encourage curiosity, playing and learning for all children i.e. not just those with additional needs but also are available to all children in the community.

FIGURE 9 EXAMPLES OF TRAININGS PROVIDED BY INGO'S THROUGH THE CHEER PROJECT

ORBIS		
Surgery training	To Prefecture level eye staff	Ophthalmologists
Follow-up after Surgery	By SPEH to County eye staff	Ophthalmologists
		Doctors and Nurses
Early identification and	Prefecture level staff	Ophthalmologists
prompt referral		Doctors and Nurses
ROP Prevention	Maternal Child Health	Doctors and Nurses
	Eye Health professionals	
Amblyopia Management	SPEH	Ophthalmologists
		Doctors and Nurses
Adult Cataract Surgery		2 County Hospitals
		Doctors and Nurses
BHVI		
Refraction Training		Optical Managers
		Optometrists
		Optical Technicians
Low Vision Training	Basic and Intermediate training to 11 of 19 locations	Optometrists
Screening Training		Teachers
		Village doctors
		Rehabilitation Workers
HKI		
Trainer of Trainers Training	City trainers to train county	3 doctors
		3 nurses
Online refresher screener	For screeners to access school	Teachers
training	screening database	And other screeners
Perkins International		
	T	0 :151 1: 7 1
'Trainer of Trainers' Training		Special Education Teachers
Toy Library	Social Welfare groups	
Low Vision training	Functional Vision Assessment	Ophthalmologists
		Optometrists
		Refractionists
Home visits		Special School Teachers

FIGURE 10 ORBIS SUPPORTED FELLOWSHIP TRAININGS THROUGH THE CHEER PROJECT

Job Title	Subject	Duration	Location
Ophthalmologist	Paed. Retinal	6 months	Michigan, U.S.A
Ophthalmologist x 2	Complex strabismus	3 months	Philadelphia, U.S.A
Paed. Ophthalmologist	Paed. Cataract	3 months	Boston, U.S.A
Ophthalmologist	Neuro-ophthalmology	3 months	Philadelphia, USA
Ophthalmologist	Glaucoma	3 months	Coimbatore, India
Anaesthetist	Anaesthetics	6 months	Shanghai, China
Anaesthetist	Anaesthetics	3 months	Guangzhou, China
Ophthalmologist x 2	ROP	1 month	Coimbatore, India
Orthoptist x 2	Binocular vision	6 months	Chennai, India
Nurse	Paed. Ophthalmology counselling	5 days	Coimbatore, India

FIGURE 11 INGO STAFF OPINIONS THROUGH CHEER

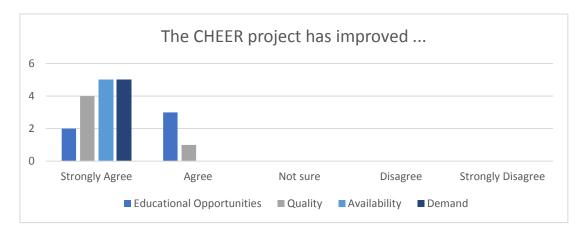


FIGURE 12 INGO STAFF OPINIONS THROUGH CHEER

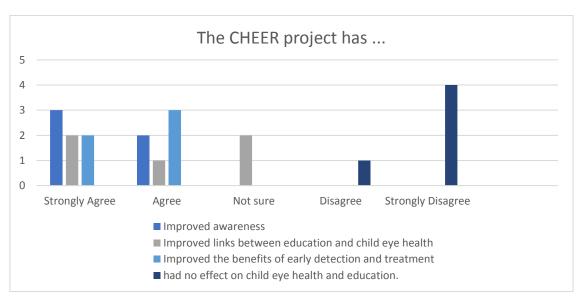
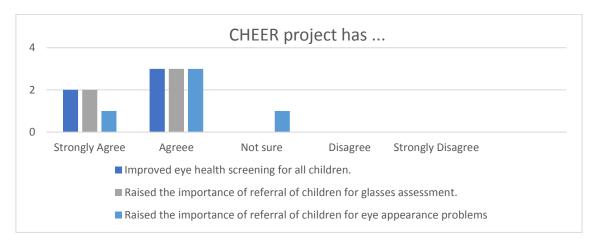


FIGURE 13 INGO OPINIONS OF THE CHEER PROJECT



Hospital Staff Focus Groups

The hospital staff semi-structured focus group discussions took place in 5 different locations and included a variety of eye health professionals involved in the project. Areas covered by the project included screening, referral, treatment, service delivery, training and development of professional skills.

Job Title	Number	Male	Female
Ophthalmologist	6	4	2
Optometrist	8	2	6
Optometrist - Binocular Vision Speciality	1	1	-
Optometrist - Low Vision Speciality	2	-	2
Ophthalmic Nurses	1	-	1
Other eye health Staff	1	-	1
Total	19	7	12

FIGURE 14 EYE HEALTH STAFF IN FOCUS GROUPS

Availability of Eye Health Services

The project empowered eye health professionals to assess children of all ages and all abilities, and to assess them in schools, villages as well as in their homes. Previously not all these children would have been assessed or located. The connections created between parents/care-givers, village screeners, teachers and the health sector allowed direct communication and referral. The closer contact with the 'grass-root' level also allowed eye health professionals to promote eye health for all. The convenience of eye assessment within local environments was appreciated by all stakeholders.

Quality of Eye Health Services

The knowledge gained through training gave eye health professionals the skills and confidence to assess both younger children and those with additional needs. Additional visual acuity assessment tests for these children enhanced the quality of service.

The establishment of hospital Optical Shops, and the training of staff, provided a higher quality of service to patients than had been previously available. Parents expressed a feeling of greater confidence in the hospitals general provision of services. The improved skills and knowledge gained by optometrists, provided increased competence and confidence in assessing both younger children and those with additional needs. The understanding of the needs of Low Vision patients'

requirements by eye health staff has allowed more children to receive appropriate intervention and support.

The project has improved services for those cases requiring surgical intervention. Previously parents would need to locate surgical services themselves but, through the project, referral pathways were established allowing direct referrals to the Prefecture Hospital for simple surgery or to the Provincial Eye Hospital for more complex case e.g. cataract, ptosis and strabismus surgery.

Educational Opportunities

- "... poor vision results in difficulty in studying well"
- "... poor vision affects study"
- '... parents of children with disabilities now realise that their children can learn' (Hospital staff quotes)

The project raised awareness of learning and education and its relationship with vision, particularly in cases concerning children with additional needs. The provision of LV devices and glasses was a very positive development. In turn this encouraged parents and teachers to be mindful of all support available to promote learning.

Collaboration with other groups and services

The CHEER project promoted eye health staff collaboration with all levels of service and all sectors, for the benefit of eye health improvements. These new networks are very much appreciated by all eye health staff. Eye health staff worked with teachers, both mainstream and special schools, students, parents, village screeners and established a good connection with each of these groups. These connections did not exist prior to the CHEER project. Communication channels were also created between departments of health and education, as well as the Provincial DPF.

Work contribution

The knowledge gained by INGO staff through the project and the training they delivered to other stakeholders, has raised confidence levels and provided the skills and equipment to assess both younger children and those with additional needs. The INGO staff felt that training has promoted the understanding of reduced vision and the importance of correcting significant refractive error. Refraction is now more accurate and eye staff now understand to give the best possible spectacle prescription for children. Although the workload has increased more staff have been employed to support the rise in demand for a high-quality hospital refractive service.

Training provided in the areas of Low Vison, Binocular Vision Assessment and Vision Therapy has provided a better eye health service for children.

Outreach services to schools and the community have enabled more children to be assessed and the support and subsidies available through the project have helped many poorer families.

There is a widespread increase in confidence for surgery outcomes, including for adult cataract, adult exotropia, ptosis and surgery for those over 14 years of age. There is increased recognition of the referral to SPEH for esotropia and cases under 14 years of age, because of the importance of paediatric anaesthetics.

The importance of spending time outdoors in the open air and its connection with reducing myopia has been emphasised to school students and teachers during school screening, training and advocacy.

Personal change

Increased knowledge of eye health conditions, interventions and treatments has brought greater confidence to eye health staff. Greater pride in the service delivered to patients, particularly children and especially to those children with additional needs, has raised job satisfaction in line with improvements in services delivered.

Comments

- "...it feels to give a good service and help others, without expecting anything in return."
- '... it's very rewarding work'
- '...society has an increased awareness of the importance of child eye health'
 (Hospital staff quotes)

Mainstream School and Special School Teacher Focus Groups

Semi-structured focus group discussions with teachers took place in five locations. These involved school staff, teachers from mainstream and special education sectors, from primary, middle and high school departments.

Job Title	Number	Male	Female
Mainstream Teachers	27	14	13
(Primary, Middle & High School)			
Special School Teachers	17	6	11
School Doctor/Primary Health	3	2	1
Total	47	22	25

Availability of Eye Health Services

The teachers appreciated that eye health services were brought to the schools through the project screening. Free examinations, the provision of glasses, referral for treatment and particularly subsidised services for poorer families were delivered locally.

The teachers became more aware and knowledgeable about child eye health and the services available. As a result, education staff are now able to direct parents/care-givers to the correct service location. Prior to the project many parents were not aware of the impact of poor eye health on their children's education and learning. The project has raised awareness of why they should seek prompt identification and referral. Previously conditions including strabismus, cataract and ptosis had typically not been referred to eye health facilities for treatment.

Special School teachers acknowledged that before the project they had not been aware of the impact of poor vision in children with other disabilities. The knowledge gained enabled them to assess the visual function of students and make appropriate referrals. Home Visits made eye health services far more accessible to families. Special Teachers were able to provide a referral to the LV clinic for LVAs and/or teach children to learn Braille.

The on-site service for students through school and home screening has made the process for eye services more accessible, efficient and equitable.

Quality of Eye Health Services

Confidence in a hospital-led child eye health service has encouraged parents/care-givers to seek diagnosis and treatment for their children. The provision of spectacles through hospital based Optical Shops now gives people more confidence in the glasses prescription, the treatment recommended and therefore will be more likely to follow any advice given.

The networks developed between education staff and eye health professionals has nurtured the communities' trust and encouraged all stakeholders to seek for eye health services. The direct contact of eye health professionals at schools and within communities has greatly improved the confidence the eye health services.

Special School teachers are empowered to serve children more comprehensively and to be mindful of vision and its importance in learning. The initiation of Home Visits and Braille teaching has given a new dimension to the education of children with additional needs.

Educational Opportunities

The value of child eye health has been raised significantly through the project. The importance of good vision and its link to learning is now more understood both by teachers in mainstream and special schools.

The introduction of Home Visits has provided special school teachers the opportunity to appreciate the difference they can make for children with additional needs. The teachers now understand that these children can learn, and many can attend school with the appropriate support. Special School teachers can advise parents on how they can support the child to 'see' through their other senses.

The importance of outdoor time and activities for school students, have been emphasised to teachers, because of the recognised connection in reducing myopia.

Collaboration with other groups and services

Teachers felt that the project provided the opportunity to build strong networks with eye health professionals. These connections have had a very positive outcome for students, as it has resulted in swift intervention and treatment. The collaborations include eye health and education departments, special education, the People's Disability Federation, parents/care-givers and students. There has been a greater understanding of the positive impacts of connections and developing a collaborative approach.

Contribution to work

All teachers felt far more confident in their knowledge of eye health and they had also made their colleagues and families more aware. At work, teachers now consider practical issues more e.g. the style and size of writing on boards, the class positioning, outside time and the introduction of Individual Education Plans for students who required them.

Personal change

Teachers now recognise why vision and learning is very important, and now place a greater emphasis on what their students can see. Special School teachers understand that eye health is particularly important to children with additional needs and that their eyes always require detailed and accurate assessment.

Some teachers received spectacles themselves, as they realised that their own vision was poor!

Comments

- "... pupils that see well, have increased confidence and participate more in class"
- "... I am aware that an improvement in vision affects a pupil's behaviour"
- "... I now believe nothing is impossible"
- "... every child can be taught"
- "... children 'see' not only with their eyes, but with their other senses too"
- "... do not find an excuse for difficulties, but find a solution for them"
- '... the project has brought more energy and enthusiasm to the area of Low Vision for teachers, students and parents'
- "... 'Seeing is believing' brings a brighter future for children'

(Education staff quotes)

Government and Management Personnel

Job Title	Number	Male	Female
Education department	4	4	
Health department	6	5	1
Disability Federation	6	4	2
Hospital Management	2	2	
Social Welfare	3		3
Total	21	15	6

Availability of Eye Health Services

There was definite recognition that children from poorer families benefited greatly from the subsides and services provided by the project, this has fed into National Policy to assist poorer families. The coordinated resources, departments and protocols project and developed a referral system for eye health problems that all levels of service became aware of and used well.

Quality of Eye Health Services

The quality of eye health services has improved at multiple levels, including parents, schools and hospitals. The trainings have provided useful skills and therefore contributed to the delivery of a better service. Networks were made between different specialities and departments within hospitals and between hospitals. The awareness of eye health among parents has improved and a previous reluctance to seek medical help has been replaced by a confidence in eye services.

'... the final impact of the project is 'trust' (Government staff quote)

Educational Opportunities

The group recognised the benefits and importance of eye health awareness in schools and the potential preventative measures e.g. outdoor time. The group acknowledged that students with better vision were more likely to be confident and therefore their academic achievement and learning would improve.

Collaboration with other groups and services

The screening used networks from the community level to the tertiary hospitals when identifying the most appropriate level of care for children identified. Existing and new networks were used to achieve the correct treatment location for the patient's identified eye health problems.

Connections now exist between the DPF, Medical and Education departments and eye health staff that did not exist previously. The training has also provided connections nationally and internationally, through training provided from overseas and training courses attended overseas.

Contribution to work

A definite recognition of the value of training and increase in skills, particularly for surgery and amblyopia treatment – feels far more confident in these areas.

The increased awareness of eye health through promotion in schools has linked health and education, contributing to a mutual importance. The project has given a definite positive way of working and a structure.

Acknowledgment of the value of low Vision Aids, rehabilitation work and supporting children with additional needs.

Comments

- "... I am happy and satisfied as I care now more about the benefits to people"
- " ... pays more attention now to eye health and works from the heart"
- ' ... everyone can benefit'

(Government staff quotes)

Village Screeners

Job Title	Number	Male	Female
Village Screeners	38	14	24
Total	38	14	24

Availability of Eye Health Services

The children living in rural areas, particularly the mountain regions, do not normally access child eye services and through the project they were identified and received treatment, which was often subsided. Awareness and knowledge of eye health issues improved among parents and caregivers, and this was particularly important for those children with special education needs.

Quality of Eye Health Services

The villagers were initially a little sceptical of the project and what it was trying to achieve, but through advocacy and promotion they came to understand why child eye health, early detection and treatment was important. The village screeners were able to refer identified children directly for assessment. Doctors assessing and treating in rural areas gave confidence and understanding of the relevance of treatment for conditions that had either been previously undetected or ignored.

The village screeners had to encourage many parents to attend hospital appointments and to explain the importance and impact that the best eye health for their child. Despite this not all parents/care-givers attended appointments. Parents gradually understood why early treatment was important and welcomed the subsidies for glasses and surgery provided by the project and were therefore most were willing to take their children to the hospital sooner.

Educational Opportunities

The village screeners understood how important it was for children with cognitive disabilities to have a through eye assessment and the difference it can make to their learning. The screeners understood the importance of the best possible vision in schools and for learning and encouraged parents to take their children for assessment.

Collaboration with other groups and services

The village screeners collaborated with the eye doctors directly and liaised between parents and the eye hospitals regarding appointments and follow-ups. Where necessary the screeners encouraged parents to contact the Disability Federation. New connections were made between education and health that did not exist before the project.

Contribution to work

The Village Screeners are the direct contact with the local people and have their trust. The project provided increased knowledge and understanding of child eye heath conditions and they were able to support families in accessing services. Through the training provided by the project, the screeners were able to actively identify children early, and then refer them promptly to the appropriate services. Children with additional needs were supported to locate the correct services and location for assessment.

Parents are now coming to the screeners to ask for their advice and the screeners are empowered to support the villagers because of their increased understanding and knowledge of child eye health.

Comments

- "... eyes are the windows of the heart"
- '... without glasses a child may not see, with glasses they can see the world'
- ' .. I don't wait for children and parents to come to me I now go and look for them'
- " ... increased vision increases learning potential"
- "... rewarding to help children improve"
- ' ... the project has brought many benefits to people, especially children'
- ' ... the project has improved the children's quality of life'

(Village screener staff quotes)

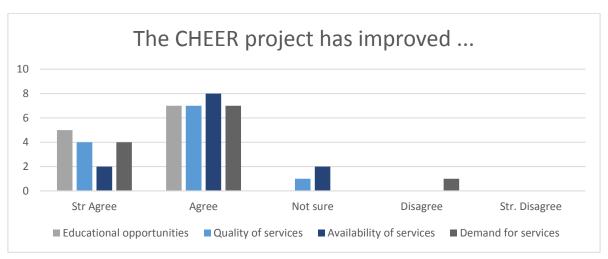
Parent/Care-giver one to one interviews

Fourteen parents/care-givers were interviewed in five different locations. One interview took place in a patient's home and all others took place in 5 different hospitals. (One parent interview was not relevant to the project evaluation).

FIGURE 15 PARENT/CARE-GIVER SERVICES RECEIVED

Home Visit	Glasses	Surgery	Glasses and	Initially declined
	given	Performed	Surgery	Glasses and/or Surgery
4	3	3	1	2
Children with additional needs and not	Myopia x4	Congenital Cataract x2	Reduced Visual Acuity	Parent worried about wearing glasses and increase in RE.
attending school			Strabismus x3	

FIGURE 16 PARENTS/CARE-GIVERS OPINIONS OF IMPROVEMENTS THROUGH CHEER



Parents and care-givers whose children received access to eye health services were very grateful, particularly those children that received home visits. Parents who were supported financially through the project and therefore their children received services were very thankful.

Parents and care-givers of children with additional needs that were at home were very encouraged by the advances their children had made and the recognition that they can be supported to achieve their potential with the appropriate support.

Many of the parents and care-givers were reluctant for their children to wear glasses, because of the concern regarding their vision/myopia deteriorating further, if the RE was corrected and glasses were worn full-time.

(Rose, February 21, 2008.) (Yu L, 2011)

Quantative Data Analysis

CHEER Project targets vs Outcomes overview

FIGURE 17 CHEER PROJECT TARGET AREAS

CHE	ER Project Target Areas
I.	Improve educational opportunities and the quality and availability of eye
	health services for children at the community level in three selected regions of
	Shanxi, while increasing the demand for such services.
II.	Strengthen the capacity of facilities in 15 counties from four regions to
	provide and coordinate clinical, educational and rehabilitation services
III.	Strengthen the capacity of prefecture level facilities in Jincheng, Jinzhong, Datong and Taiyuan.
IV.	Strengthen the capacity of provincial-level partners, chiefly Shanxi Provincial Eye Hospital
V.	Create a framework of project management, communication, reporting and financial governance

FIGURE 18 OVERVIEW OF CHEER PROJECT TARGETS VS OUTCOMES

(From the spreadsheet of targets and outcomes as of March 2018)

Project areas	Total Output Targets	Targets Met	Targets Exceeded	Average proportion by which targets were exceeded	Targets not achieved	Average proportion that targets were achieved
I	7	-	4	130%	3	88%
II	11	1	10	130%	-	-
III	8	1	5	271%	2	53%
IV	14	3	8	401%	3	78%
V	3	2	1	110%	-	-

Survey Monkey Questionnaire

A Survey Monkey questionnaire link was sent via email, WeChat (a Chinese social media application) or as a paper/hard copy questionnaire. A total of 2,170 questionnaires were completed. 2,073 responses were completed online and 97 on paper/hard copy, which were then entered manually into the spreadsheet. Due to the number of respondents a sample of the comments were randomly selected and translated.

A summary of the Survey Monkey questionnaire responses

Of the 2,170 Survey Monkey questionnaire replies, a random sample was taken and translated. Many of the responses were similar and are captured below. (Quotes anonymous)

What has been the main success that you have experienced in working with the CHEER project?

- Recognition of the importance of child eye heath screening and treatment
- Improved skills
- Improvements in teamwork
- Improved service and care of poorer families
- Greater awareness of the importance of useful vision for children with additional needs
- Improving children's quality of life
- Greater awareness of myopia

'Screened all children, trained teachers, great impact, full coverage and good outcome.'

'Received good training, so can better serve for children with disability.' 'Further training to improve professional knowledge.'

In what ways will the CHEER project change you personally in future work?

- Increased ability through an increase in theoretical and practical knowledge
- Greater awareness of children's eye health
- Able to care and serve children better

'Take more time and use different methods.'

'Everyone's vision can be assessed.'

'Low vision clinic filled the blank in our hospital and provided quality low vision service to the children.'

What has been the main difficulty that you have experienced?

- Poor understanding and cooperation among some parents.
- Students making schoolwork their priority. ii.
- iii. Some problems entering and recording data.
- Difficulty accessing remote areas e.g. in the mountains.

'Parents do not pay attention.'

'Home visit is a hard work, no transportation and sometimes was not recognized by people.'

How do you think can it may have been overcome?

Any other

comments

- Increase communication, health education and promotion with parents to improve awareness of child eye health.
- Raise eye health awareness among students and the importance ii. of outdoor time.
- Improved database. iii.
- iv. Improve transport and roads
- Very grateful to the knowledge gained through the project

• Feel more aware and more caring of all children regardless of their ability

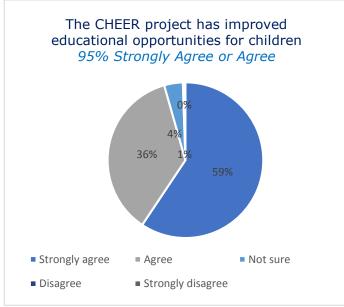
- Early screening for the best outcome
- More training on ROP
- Continue with the project

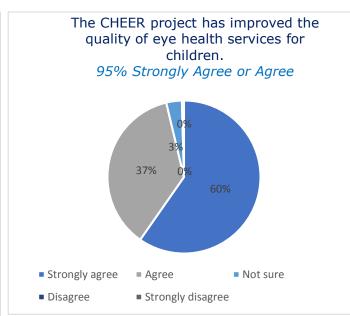
'Further training to improve professional knowledge'

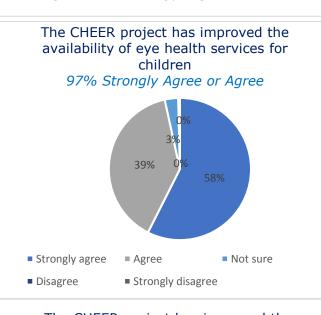
'I learned spirit of great love of every staff in CHEER project which will benefit my whole life; my skills improved a lot through this project.'

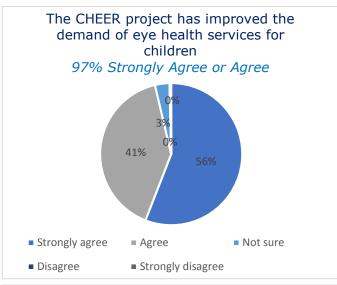
Outcomes of the Survey Monkey Multiple Choice questions

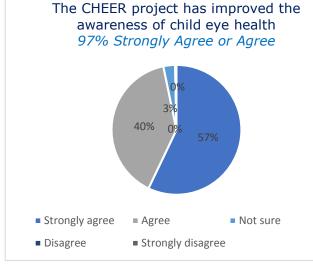
FIGURE 19 DIAGRAMMATIC REPRESENTATIONS OF SURVEY MONKEY QUESTIONNAIRES

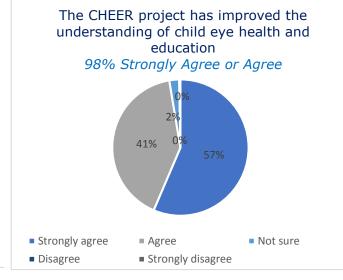


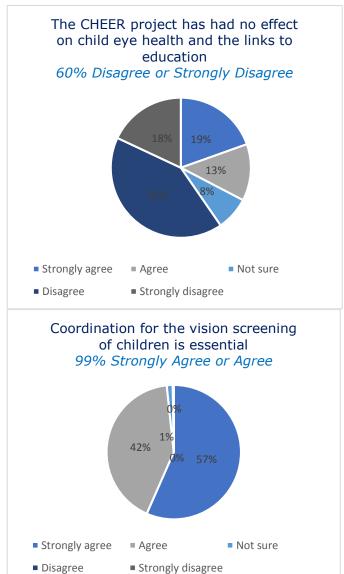


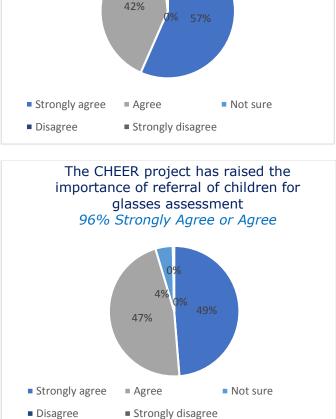


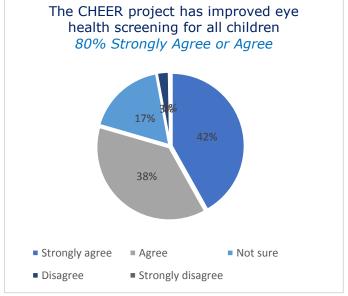


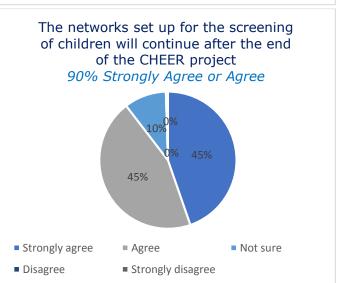


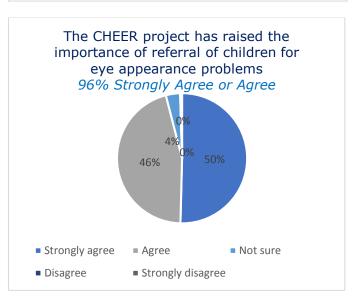


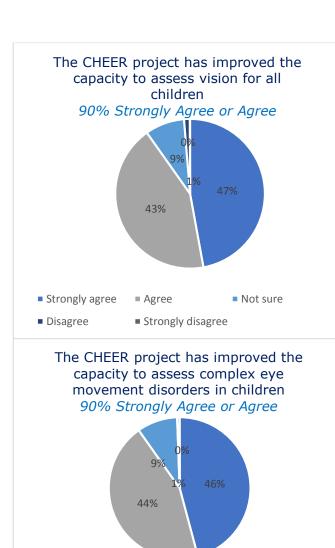


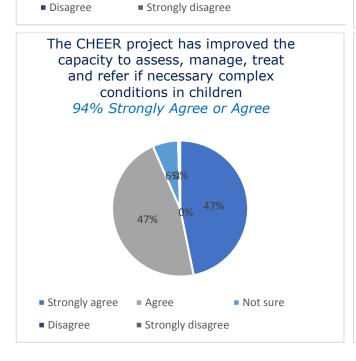






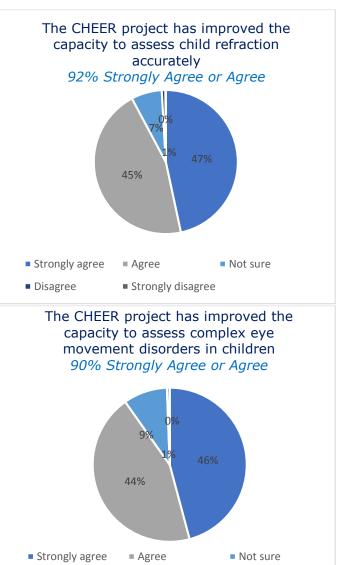


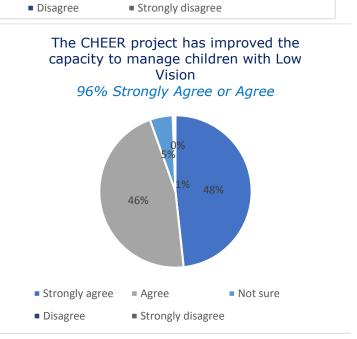




Agree

Not sure





Strongly agree

Limitations of the evaluation

The organisation and arrangements for the evaluation were all excellent, none the less there were some recognised limitations – mainly that the evaluator did not speak Chinese.

- 1. The same outstanding interpreter, from Mandarin to English, was used throughout the evaluation week. On occasions, in some locations, a second interpreter was required to translate from the local dialect, to Mandarin and then to English. This meant that the evaluator was not always getting responses directly from the interviews or focus groups.
- 2. On occasions there was some confusion in the wording used in the semistructured questions and these were translated and explained at the discretion of the interpreter.
- 3. Some representatives were sent from government departments or organisations, who little or no experience or knowledge of the project. Therefore, they were unable to constructively contribute to the focus group.
- 4. On wishing to give the 'correct answer' some attendees had a printed brief of the project and used this as a guide for responses to their answers.
- 5. Inevitably, there may have been a theme or trend to responses, led by the first comments in each discussion.

Unforseen benefits of the evaluation

- 1. The focus groups and interviews were an opportunity to remind participants again of the project and child eye health's importance.
- 2. Meeting face to face with parents gave them an opportunity to discuss their worries and concerns. Those who had not previously accessed services through the project, were more encouraged to do so after further explanations. Two children have subsequently received surgery at SPEH.
- 3. Reminders given about the importance of outdoor time and that children can share eye health knowledge with their family and their community.

Conclusions

The CHEER project has been a far reaching and successful project. The success is demonstrated in the recipients of training, the gratitude of parents and care-givers and the very positive attitude of government, education and hospital staff.

The size of the project has raised difficulties in communication, certainly reported initially, but this difficulty has been transformed into a definite project success by the close. Many reported the value of having so many connections, networks and new colleagues in a variety of areas. All of these connections have supported the raised awareness of child eye health importance and intervention.

- 1. The importance of early detection and treatment of eye health issues is better understood and acknowledged by all levels of care-, education- and health-givers, at all levels of service.
- 2. The links made between health and education has served to provide a greater understanding of child eye health and links to education and learning, in particular for those children with additional needs.
- 3. The confidence and competence of eye health workers has supported a higher quality service at all levels. The skills and knowledge gained through the project has increased the complexity of service at all levels of service.
- 4. Education staff are more aware and more understanding of child eye health issues and the relationship with education. They are empowered to support students to access eye services when required and confident to contact eye health personnel directly.
- 5. Special Education teachers are very much more aware 'that every child can learn'. They understand that despite other needs, that early assessment of eye health and treatment provides the best possible opportunities for learning and education opportunities.
- 6. The links made through collaborative working have improved with many departments within health, education, DPF and organisations that support the care of children. This communication exists at all levels and will be a very positive legacy of the project.
- 7. Raised awareness of child eye health has led to recognition by government and the potential of policy change and/or introductions, including to the Social Welfare Policy.

Recommendations

- 1. Continual professional development for eye health staff to maintain and to continue to develop skills.
- 2. Tertiary hospitals to further develop newly established services e.g. Low Vision and Orthoptics, to provide best level of service in the future.
- 3. Optical Shops to be given guidelines and standards of practise.
- 4. Development of National Eye Screening guidelines and standards.
- 5. Social Welfare to provide subsidies for glasses and low vision devices for all children.
- 6. National Policy to support the provision of glasses for under 16's.
- 7. To encourage referral of babies, infants and younger children for the best vision outcome. Possibly maternal child health and immunisation health workers to raise awareness of early identification and referral of any eye health concerns.
- 8. Teachers and Special Education Teachers to receive ongoing training to maintain their skills.
- 9. Include Vision assessment of children with additional needs in the training of Special School Teachers.
- 10. Teachers and/or schools to receive written reports from eye health professionals for school health records.
- 11. Provision for all children in education regardless of their additional needs.
- 12. Develop areas for research within the health and education sectors. E.g. impact of those who received spectacles.
- 13. Ongoing monitoring and evaluation.
- 14. Myopia research.

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Appendixes

- 1. Timetable for CHEER Project Evaluation 2018 (Figure 20)
- 2. (Available on request [Evaluation Plan])
- 3. (Available on request [SiB V Q2 workplan & actual 2018_Jun11,2018])
- 4. (Available on request [SiB CHEER Project Final Evaluation Questionnaire B1_Eng]

Date	Venue	Time	Activity
Mon. 28.5.18	SPEH, Taiyuan	8:00 - 9:00	Interview 1 parents at their home in Taiyuan (the child who had home visit)
		9:00 -10:00	Group Discussion - Gov. officials
		10:00 -11:00	Parent Interviews x2 – city parents – intervention - glasses? +surgery?
		11:30 - 13:30	Working Lunch - Group discussion - Hospital staff – LVA, Optometrists, orthoptists, project staff
		13:30 - 14:00	Travel to Social Welfare Institute (SWI)
		14:00 - 15:00	Group Discussion - Social Welfare Instituteion Care Givers
		15:00 -15:30	Teachers of the special school of SWI (4)
		15:30	Return to Taiyuan
		16:00 - 18:00	Group Discussion – School for the Blind and 4 District Special Schools – Teachers
		7:30 - 8:30	Travel to Jinchong
Tues. 29.5.18	Jinchong	8:45 - 9:45	Discussion with Jinchong Gov. staff (education, health, disabled people's federation) and hospital leaders
		9:45 - 10:45	Group Discussion – 8 School teachers (primary, middle, secondary)
		10:45 -11:45	Group Discussion - 8 Community screeners from different Neighbourhood Committee
		14:00 - 15:30	Two evaluators: Interview 3 parents – smaller city parents – 1 had surgery, 1 had glass, 1 didn't have home visit.
		15:30 - 16:30	Two evaluators: Group Discussion – Teachers of 2 special schools – 4 teachers
		16:30 - 18:00	Two evaluators: Group Discussion - Hospital Staff – LVA, optometrists, project management staff
		18:00 -19:00	Back to Taiyuan
Weds.	Yangcheng	7:30 - 12:00	Travel to Yangcheng (4 hours driving)
30.5.18	rangeneng	12:00 -14:00	Lunch and check in hotel
		14:00 - 15:30	Yangcheng Eye Hospital: Interview 3 parents – Rural parents – 1 had surgery, 1 didn't have glasses, 1 had home visit
		15:30 - 16:30	Group Discussion – 2x4 Teachers from township and county city– primary, middle, secondary
		16:30 - 18:00	Group Discussion – 2 special school teachers

	8.00 - 0.00	Yangcheng Eye Hospital - Group Discussion with Gov.
Yangcheng 8:00 - 9:00		staff (education, health, disabled people's federation) and hospital leaders
	9:00 -10:30	Group Discussion – 8 village screeners (village doctors and/or rehabilitation coordinators from different townships)
	10:30 - 12:00	Group Discussion - Hospital Staff – LVA, optoms
Cuoquan	14:00 - 18:00	Travel to Zuoquan
Zuoquan	8:00 - 9:00	Zuoquan Eye Hospital - Group Discussion with Gov. staff (education, health, disabled people's federation) and hospital leaders
	9:00 -10:30	Interview 3 rural parents -1 did not accept surgery, 1 had glasses, 1 did not received home visit)
	10:30 - 11:30	Group Discussion - 8 village screeners (village doctors and/or rehabilitation coordinators from different townships)
	11:30 - 12:30	Group Discussion - Hospital Staff – LVA, Refractionists, project staff
	14:30 - 15:30	Group Discussion – 2x4 Teachers from township and county city– primary, middle, secondary
	15:30-16:30	Interview 2 special education teachers.
	16:30 -18:30	Travel to Taiyuan
Loufan	7:30 - 9:45	Travelling to Loufan
	9:45 -10:30	Group Discussion with Loufan Gov. staff (education, health, disabled people's federation) and hospital leaders
	10:30 -11:15	Group Discussion - 8 village screeners (village doctors and/or rehabilitation coordinators from different townships)
	11:15 -12:00	Group Discussion – 2x4 Teachers from township and county city– primary, middle, secondary
	12:30 - 14:00	Working lunch Group Discussion - Hospital Staff – LVA, Refractionists, project staff
	14:00 - 15:30	Interview 3 parents – Rural parents – 1 had surgery, 1 did not have glasses, 1 had home visit.
	10.00-10.00	Travel to Taiyuan Airport
	Cuoquan	9:00 -10:30 10:30 - 12:00 14:00 - 18:00 2uoquan 8:00 - 9:00 10:30 - 11:30 11:30 - 12:30 14:30 - 15:30 15:30-16:30 16:30 -18:30 7:30 - 9:45 9:45 -10:30 10:30 -11:15 11:15 -12:00 12:30 - 14:00

Glossary

BHVI Brian Holden Vision Institute

CHEER Children's Healthy Eye bring Educational Rewards

DPF Disabled People's Federation

HKI Helen Keller International

INGOs International Non-Government Organisations

LV Low Vision

LVAs Low Vision Aids

NGO Non-Government Organisations

PI Perkins International

RE Refractive Error

ROP Retinopathy of Prematurity

SiB Seeing is Believeing

SPEH Shanxi Provincial Eye Hospital

Acknowledgements

I would like to extend my sincere thanks to everyone I have met during this evaluation, for their kindness and hospitality.

Thank you ...

- To the hospitals and their staff for welcoming us so warmly, arranging the discussion groups and the parent interviews.
- To everyone who attended the focus groups for their time and contributions.
- To the INGO staff for their time given to conduct the 1:1 Skype interviews.
- To Vera for accompanying me throughout the evaluation week and translating all to focus groups and interviews.
- To Professor Han for the local dialect translations.
- To Zhou and Vera for their work on entering the hard copies responses to the spreadsheet.
- To Zeng for all the organising of accommodation, transport and delicious meals.
- To the ORBIS staff for organising my trip.
- To Mark A. Scott for his assistance with the statistical analysis.
- To Adrian J French for proof reading.

Very special thanks to Guan for her continued support and prompt responses to my many queries.

Claire

Claire Studley Scott Independent Evaluator











