Evaluation for SIB/CBM project

Childhood blindness in Latin America

Evaluation of the low vision component of the Seeing is Believing project in Peru

Report by Karin Van Dijk
CBM Global low vision advisor

Introduction

An evaluation of the low vision (LV) component under the Seeing is Believing supported program in Peru was performed from August 5 -9, 2013 by CBM's global low vision advisor. The evaluation was to be performed by an expert from Mexico, but due to personal reasons this was cancelled a few weeks before the evaluation was to take place. The CBM advisor has limited Spanish language skills and was thus often dependent on translations.

The main objective of the Seeing is Believing program is to develop appropriate and affordable low vision (LV) service for poor people with low vision in Lima and in 5 provinces.

The Terms of reference for the evaluation by the CBM expert are listed in Appendix A and focused on assessing the effects of the trainings in low vision for ophthalmologists, nurses, and therapists, and on assessing the service provision of the Lima low vision centre and in the provinces. Evaluation methods used are listed in Appendix B. Comparing costs of services with targets reached was beyond the scope of and time available for the evaluation.

The following low vision services were visited:

- The LV service at CERCIL (NGO), Lima
- Trujillo Public Hospital (1 day)
- Piura: 2 foundations with low vision services: each ½ day

Hospitals in Lima could not be visited due to strikes. In the 2 provinces 2 clients at each service were interviewed about their experience with the low vision service.

All data presented covers the period between September 2010 and July 2013, and are not the final numbers as the project officially ends at the end of September.

The low vision (LV) activities in Peru are carried out by Vision sin Fronteras (VSF). The findings presented represent the situation up to end of July 2013. Final data will be provided by VSF at the end of the project period.

I. Summary of findings and recommendations

- Overall the objectives of the program have been achieved and all activities planned have been implemented, but with a considerable delay due to the necessary length of the preparation phase, and due to reasons relating to commitment by individual programs (generally beyond the control of the VSF team).

- Actual numbers of people trained, services established, clients receiving services and devices provided exceeded targets in most cases.

- The key team of Vision sin Fronteras provided professional trainings and follow-up visits and contributed their time beyond expectation.

- The objectives and content of the low vision training were clear and covered all basic topics of low vision rehabilitation. In future trainings it is recommended to include practice with clients as this now only happened (earliest) 6 months after the training.

- Further training for successful services in specific technical low vision topics (working with children with ROP, babies and infants, people with low vision and additional disabilities and school age children) is recommended.

- The low vision services in the provinces have all started, even one more than planned, but are still in need of follow-up support and follow-up training as all started later than planned.

- There is no clear evidence that including low vision services in a public hospital versus a NGO private eye clinic yields better results but the fact that public hospitals generally have more staff and can provide services to more people might be an advantage.

- Factors influencing starting successful low vision services were: well trained staff committed to the low vision work, sufficient time to perform low vision assessment and training, and supportive management.

- The low vision services in Lima and some in the provinces keep comprehensive data on the clients assessed and trained, which can be used for further planning and improvement of services.

- The training of nurses (CRED) involved in monitoring child development (0-5 years) reportedly increased referrals to ophthalmologists, but there was no data available to support this.

- Facilitating access to affordable optical devices for the programs in Lima and in the provinces is not completed as this involves setting up of a national/regional stock, and a party that can take responsibility for it.

- Additional, unplanned, trainings with eye care services in Lima showed that the VSF team used new opportunities to increase access to low vision care, during times they could not make follow-up visits to provinces (as the service was not ready).

- The link between ROP programs and low vision care is starting to be developed.

- The link between low vision care and children of school age is still weak and needs strengthening.

- The model of several short trainings over a few months, using the variety of training methods and active involvement of participants shown in this program, followed by regular follow-up visits by the key trainers, can be used in other countries. Adaptations recommended are: more practice with clients to be included early in the training and access to devices to be organised prior to training.

II. Activities planned and implemented

The key activities in order to develop appropriate and affordable LV service for poor people with low vision in Lima and in 5 provinces were achieved (Table 1).

- Establishment of an LV service in Lima. It is based at a rehabilitations centre for people with visual impairment. It is accessible for all people with low vision.

- Establishment of low vision service at 5 provinces (Arequipa, Cuzco, Trujillo, Piura and Camacarcha).

- Improvement of referrals of especially young children to eye care, and if needed, low vision services by training nurses (CRED) responsible for monitoring child development for 0-5 years old

All activities started about a year later than planned for 2 main reasons:
1. The establishment of an appropriate and accessible low vision service in Lima took much longer than planned as the formal agreement with CERCIL, the rehabilitation centre for the Blind, turned out to be a lengthy process.

2. Selection of programs to train and work with in the provinces took more time than foreseen and was not sufficiently included in the time planning.

Table 1: Planned and actual time key activities were implemented

Timing of Key Activities	**Planned**	**Actual**	**Reason for difference**
LV service in Lima established	2010	Jun-11	Agreement with CERCIL took longer than expected
5 LV teams trained form 5 provinces	starting in 2010	June-October 2011	Formation of the complete teams took from November 2010 – May 2011: LV service in Lima needed to be used as example in training
LV service established in 5 provinces	2011	First 2 in started April/May 2012, 3 others in 2013	1. Each team needed time to establish space and time in their organisation 2. First practice with LV patients in a follow-up visit by training team not possible till 6 months after training due to workload and personal reasons
Strengthening of referrals by health professionals in Lima (CRED nurses)	2010 - 2012	2011- 2013	Agreement with CERCIL took longer than expected: CERCIL LV service is training base for all trainings

In addition to the planned activities low vision services and referrals were strengthened by the following activities:

- Strengthening of the low vision service at National Institute of Ophthalmology(INO) by including a team in the training of the provincial teams

- Establishment of a low vision service at a tertiary level public hospital with ROP program (María Auxiliadora), again by including a team in the training of the provincial teams and by training their CRED nurses

III. Training

Principal trainers for all training held were Dr Rosario Espinoza, ophthalmologist, and Mrs. Maria Montes, low vision therapist. Both have over 15-20 years experience in low vision care. In addition a psychologist experienced in low vision gave input in the training of the teams for the 5 provinces.

Low vision was a new area of work to all trainees. Appendix E gives details on the following 2 formal trainings given with support from the SIB_CBM low vision program:

1. Low vision training of teams of 2 (1ophthalmologist and 1 non clinical professional) for each of 5 provinces in order to start low vision services

In the training of teams (held over 4 weekends) all areas of low vision work were covered. Practical work with actual clients with low vision was only done in follow-up visits and not during trainings. Programs received follow-up visits based on the judgment of the 2 principal trainers as to the timing and need.

2. Identification and referral (to eye care) of children with visual problems 0-5 years old: 2 were held in Lima, 1 in Piura, and 1 in Huancayo (6 hrs travel from Lima). The latter location had no low vision connection, but training was given on the request of the Ministry of Health.

This training of half day was followed by follow-up visits by Mrs. Maria Montes o work practically with the CRED nurses.

3. In addition various meetings and conference talks were held on low vision to increase referrals with:
    - Public Eye Care Services,
    - Director of Programs in Health Ministry
    - Special schools
    - Community workers
    -

A detailed list with dates, events and participants is available from VSF in Spanish. A summary can be found in Appendix D.

Numbers trained and follow-up by the VSF team exceeded planned numbers (Table 2).

Table 2: Indicators of training by VSF team: planned versus actual numbers, September 2010 – July 2013

Indicators	**Planned**					**Realised**			
	yr 1	**yr 2**	**yr3**	**Totals**		**yr 1**	**yr 2**	**yr3**	**Totals**
Lima: Training									
LV teams trained for LV service	5	0	0	5		6			6
Visual therapists trained	1	2	3	6		4	1	4	9
No. receiving follow-up by VSF	1	3	5	9		0	3	9	12
No. professionals receiving awareness about LV - Lima	50	100	150			155	154	218	527
No. professionals receiving info on LV referral - Lima	5	10	15			24	38	14	76

4. An additional training given by the VSF team in 2013 focused on low vision care for children with emphasis on ROP and was requested by the 4 hospitals that participated.

a. One training of 2.5 days given at CERCIL so far (June 2013) only covering basic low vision care
b. Variety of participants of 4 hospitals with ROP programs in Lima attended: (ophthalmologists, nurses, Physical therapists, CRED nurses

Reportedly it took 2 years to convince the hospitals in Lima low vision training was needed. One hospital lost staff that did do low vision work with ROP babies, others considered their low vision work sufficient. However in early 2013 a number of hospitals themselves requested training.

In addition the low vision work in the 5 provinces and at CERCIL used all available time of Dr Espinoza and Mrs. Montes, the principal training team.

- Training materials

During the 3 years of the program the training team developed and distributed (in addition to the materials given during the various trainings):

- Leaflet and poster on the visual development of babies / young children (Appendix I)
- Visual stimulation kit
- Functional evaluation kit for CRED nurses
- A kit for parents to promote use of vision

- Training objectives, content and methods (Appendix E)

All training were thoroughly prepared and had clear objectives and content. A variety of theory and practical exercises was used, and in longer trainings participants (whose skills and knowledge were studied before the training) had an active role in presenting topics. Handouts and reference materials on all topics covered were provided.

Interviews with staff trained in Piura and Trujillo confirmed that trainings given were highly valued and that they felt they had gained enough skills to start their services after the first follow-up by Dr Rosario and Mrs. Montes had taken place.

They all emphasized the importance of joint assessments and training of clients with the 2 trainers, but did say that the gap between the end of the training and the first practice (minimum 6 months) was too long and that they had forgotten some of their new knowledge.

All expressed the need for further training especially relating to working with children with ROP, babies and infants, people with low vision and additional disabilities and school age children.

IV. Low vision services established

a. Lima: CERCIL

The team providing low vision services consists of an ophthalmologist, visual therapist, psychologist and secretary (who are the only one who is present all the time).

The current psychologist is low vision herself and started in March 2013, after a gap of one year without a psychologist. It was difficult to find a new psychologist as pay is reportedly low. The current psychologist reports patients feel more confident to share experiences and problems with her because of her low vision.

The low vision service in Lima, worked with 437 clients with low vision, of whom 62 had multiple disabilities (Table 3). In total 85% came from a lower socio-economic background, which was based on the area they live in. In addition they provided services to 91 clients who either turned out to be blind or were family members of low vision clients.

Of interest is that although services provided did not yet reach the target of 540 new clients, the total number of consultations or sessions totaled 1742, with an average of 3.2 sessions per client.

Table 3: Indicators Lima LV service: planned versus actual numbers of clients and consultations. Data from September 2010 – July 2013

Indicators	Planned					Realised			
	yr 1	yr 2	yr3	Totals		yr 1	yr 2	yr3	Totals
Lima									
No. of new LV patients	120	180	240	**540**		89	157	190	**437**
No. of other patients (blind, others)									91
TOTAL									**528**
No. of consultations ophthalmologist						168	264	336	769
No. of consultations visual therapist						177	300	413	890
No, of groups - psychologist	6	12	12			0	1	0	
No. of consultations Psychologist						25	37	21	83
Total consultations									**1742**

Clients were prescribed distance spectacles and low vision devices, and the data in Table 3 shows that many clients were able to pay for the spectacles and devices themselves.

One third of the clients with low vision were aged between 0 and 15 years old (and half of these were school age children), one third 16 – 49 years old and one third 50 years or older. In total 46% of clients were female (Appendix F).

Table 4: Indicators: planned versus actual numbers of Distance spectacles and low vision devices. Data from September 2010 – July 2013

Indicators	Planned					Realised			
No of devices	yr 1	yr 2	yr3	Totals		yr 1	yr 2	yr3	Totals
distance spectacles prescribed						65	73	108	246
distance spectacles donated						*5*	*5*	*6*	*16*
optical devices prescribed						51	70	140	261
- optical devices donated						*3*	*12*	*17*	*32*

other (cane, toys, filters) donated						34	331	20	385
TOTAL donated Lima	***200***	***200***	***200***			***42***	***348***	***43***	***433***
TOTAL donated in provinces						Non opticals, toys, canes			277
TOTAL donated									**710**

b. Provinces

The training of the teams started in the second half of 2011. The training was given over 4 months. In theory low vision services in the provinces could have started at the end of 2011. The first service started in April 2012, 6 months after the training ended (Table 5).

All low vision services are provided part-time, in addition to other eye care and training related work.

The 3 services visited in 2 provinces (Piura, Trujillo) all had good working space, adequate equipment and tests (provided during the trainings) and a variety of optical and non optical devices for assessment purposes. Time spent per client varied from 30 minutes to 1 hour, and all staff expressed that their management supported the provision of low vision services. All had started to visit and/or contact schools, other hospitals and other organisations where client with low vision might need services or could be referred to after low vision care provided.

Clients had access to some magnifying devices, which differed per program. One had a stock from CBM, while another only could prescribe high + spectacles. No program had a stock covering *all* different kinds they learned about in the training.

All provincial programs use the same database the principal training team uses for clients seen in CERCIL, which details socio-demographic data, contributions given to assessment costs, causes of low vision, presenting and best (corrected) distance and near visual acuities, low vision devices prescribed, follow-up needed and number of consultations that took place. Most data presented here was obtained from these data bases.

Table 5: Number of clients with low vision assessed and number of consultations given by the ophthalmologist and by the visual therapist

Data on 5 provinces, 6 programs - July 2012	**Date LV service started**	**No. of new clients**	**No. of consultations for all clients**	
			Ophthal-mologist	**Visual therapist**
Piura_ Oft. Del Norte	mid 2012	34	92	
Piura_ VER	May 2012	113	108	153

Trujillo	end 2012	190	263	350
Cajamarca	early 2013	10	6	26
Arequipa	Recently	10		
Cuzco	Recently	24	42	15
TOTAL		**347**	511	544

Numbers of teams, low vision services and professionals who learnt about low vision all exceeded targets set, except for the number of follow-up visits by the VSF Lima team. This is not unexpected as the follow-up of at least 3 of the services only started in 2013 due to delayed start of these services. Follow-up visits still need to continue.

Table 6: Indicators: planned versus actual numbers of service and professionals in the 5 provinces. Data from September 2010 – July 2013

Services in the provinces									
Indicators	**Planned**					**Realised**			
	yr 1	**yr 2**	**yr3**	**Totals**		**yr 1**	**yr 2**	**yr3**	**Totals**
LV service established	5			5			3	3	6
LV service functioning	5			5			3	3	6
No. of new patients per province	50	50	50	150		0	347		347
No. of professionals - LV awareness						179	299	87	565
No. professionals - LV referral						0	0	37	37
No. of monitoring visits by VSF team	5	15	10	30		0	5	16	21

Details on services started in all 5 provinces are described in Appendix G. The following is concluded from the information on these services:

1. Common characteristics for the 2 well functioning low vision services are:
- both have trained professionals that did not change or leave after training,
- have sufficient time to do the low vision assessment and training,
- have supportive management.

One is a public eye hospital that can increase their services, the other one a private NGO eye clinic, which has reached the limit of the number of patients they can assist.

2. Selection of staff to be trained showed to be crucial in the early establishment of low vision services. It is recognized that the VSF team had only influence on the choice of program to train and not on the actual professionals to be trained.

c. Low vision care for school age children

The relationship between low vision services and education seems very weak. Reasons might be:

- Most LV services are hospital or centre based
- The training of LV teams in 2011 did not include much information on assessment and training of school age children
- Many special teachers have received no or little training in low vision, but mainly in teaching children Braille and tactile techniques. The SIB program did not list training of special teachers as an activity.
- Resistance from special schools: 1 school in Lima reportedly did not want to cooperate, because it does not want children to be included in local schools.

Recommendation:
Some of the services in the provinces are starting linking with special schools and providing appropriate low vision care and education should receive attention in the future, both in the training of teams, and in the training of teachers.

d. Clients' opinions of low vision services

In the provinces 5 clients were interviewed at 3 different services. All expressed great satisfaction with the services received and felt the greatest benefit was the obtaining and use of distance spectacles, non optical and optical low vision devices. Time spent on assessment and training was judged to be sufficient.

Four of the 5 clients expressed a need to receive written results of the low vision assessment so they could review it later, in addition to a need for written training guidelines for use of devices.

V. The link between low vision and ROP programs

The low vision programs to be established were chosen separately from hospitals where ROP services were to be strengthened.

Currently the link between low vision services and ROP programs is being strengthened as the activities implemented by VSF emphasise working with hospitals that have ROP programs (Appendix H shows the detailed activities). One reason might be that there are more ROP programs now, so the need for LV care is growing as a result. Training a nurse as a visual therapist in a hospital where ROP program is, gives the best opportunity to link ROP and low vision. There is also more scope for compliance and regular follow-up. But as nurses often change: support from management for continuous training is vital

Appendix A: Terms of reference for the evaluation

1. Assess the effects of the trainings in low vision for ophthalmologists, nurses, and therapists; compare the results with the initial objectives and indicators, and illustrate the reasons for any differences, in terms of the following.

- Numbers of staff actually trained (by profession)
- Number of new low vision centres established, and their starting dates
- Number and type of services identifying and referring patients with low vision
- Numbers of patients with low vision assessed at new and upgraded low vision centres
- Numbers of patients with low vision referred by health staff for assessment at low vision centres
- Numbers of devices prescribed and donated
- Increase in knowledge and skills of trainees
- Appropriateness of the training materials used
- Increase in networking with government and other organizations to promote low vision care

2. Assess the service provision of the Lima low vision centre and those in the provinces, in terms of the following.

- Number of patients with low vision assessed
- Number of low vision devices provided

Appendix B: Evaluation methods

- Client records of programs visited (at least 2) were studied for completeness and to gain insight in the assessment performed

- Clients were interviewed about the interventions prescribed and obtained, their satisfaction with the service, and the change the service made to the performance of their daily activities.

- Teams of newly established services in the provinces and the Lima team were interviewed on the following topics:

    - Time available for provision of low vision care
    - Current skills and knowledge (as a result of training received) to implement low vision care and needs for further learning
    - Available work space, equipment, and devices
    - Management support
    - Networking with other organizations (schools, NGOs, hospitals, etc)

- Training and training curricula were studied with emphasis on the following areas:

    - Determination of Training needs
    - Objectives of training: Realistic? Relating to the needs identified?
    - Content: Does is cover the objectives? Does it reflect training priorities?
    - Training methods
    - Training materials
    - Duration of training
    - Selection of participants
    - Follow up after training

- Client related data was analysed using the available databases at CERCIL's service, with the help of the VSF's team's secretary

Appendix C: Staff interviewed in provinces, who received low vision training and follow-up visits

Piura	
Asociacon Oftalmologica Ver	Private clinic - foundation
Dr Florentina Sotomayor	Ophthalmologist
Lic Doris Pajuelo	Nurse: visual therapist
Fundación Oftalmológica del NORTE	Private clinic - foundation
Dra. Vanesa Pongo	Ophthalmologist
Ms Karina Sanchez	Nurse: visual therapist
Trujillo	
Instituto Regional de Oftalmología (IRO)	**Public Hospital**
Dra Alicia Namoc	Ophthalmologist
Lic Eva Villalobos	Nurse: visual therapist
Lic Nadia Conupa	Psychologist
Lic Patricia Nunez	Physical therapist
Ms Rosario Villalobor	Secretary

Appendix D: Summary of meetings and short trainings to promote awareness on need for and benefit of low vision care as listed by VSF

Provinces

Fecha	Lugar	Cantidad de capacitados
24/11/2010	TRUJILLO - Sensibilización profesionales del IRO	87
30/11/2010	PIURA - IPO	36
08/10/2011	TRUJILLO - Curso de Enfermeras - ORBIS	200
26/04/2012	TRUJILLO - IRO	52
25/10/2012	AREQUIPA- CMP	24
16/07/2013	AREQUIPA	10
01/07/2010	CUZCO	56
2013	Costa Rica - Soc. Oftalmologos	24

Fecha	Lugar	Cantidad de capacitados
23/03/2011	JUNÍN - Enfermeras CRED - Diresa	56
28/09/2011	AREQUIPA - Hospital Honorio Delgado	19
30/09/2011	AREQUIPA - XIX Congreso de prevención de la ceguera	70

Lima

Fecha	Lugar	Cantidad de capacitados
04/05/2010	CHARLA CENTRO EDUCTIVO - MANTHOC	6
02/12/2010	Hosp. Callao . Daniel A. Carrión	14
03/12/2010	HMA	7
19/08/2011	CEE Luis Braile	18
13/09/2011	Hosp. 2 de Mayo	7
13/10/2011	UNCP - Día Mundial de la Visión	17
28/11/2012	MINSA – Cañete	140
17/04/2013	UNC. CEE San Fco. De Asis	30

Fecha	Lugar	Cantidad de capacitados
12/05/2011	CS. Materno Infantil - VMT	24
18/05/2011	HMA	24
30/05/2011	INO	26
09/09/2011	CERCIL	14
13/10/2011	Red de Salud - Barranco	16
13/04/2012	SAANEE	13
20/04/2012	INO	35
25/05/2012	DISA BARRANCO	8
22/06/2012	Promotores CEMPDIS - VMT	21
16/09/2012	INO	35
27/02/2013	INO	31
25/07/2013	Hosp. San Bartolomé	7
01/08/2013	HMA	6

Appendix E: Details on trainings held as part of Seeing is Believing low vision program

Details on trainings held as part of SIB_CBM low vision program		
Name training	**Training LV teams for 5 provinces**	**Early detection of visual problems and referral to eye care**
Participants and programs trained		
Kind	Teams of 2: 1 ophthalmologist + 1 nurse, health technician, physical therapist or teacher	CRED nurses: Assessing development of children 0- 5 yrs
Duration and timing	4 x 2.5 days; end June - end Oct 2011	5.5 hrs - half day
Location	Lima	Lima, Piura, Huancayo
Determination of learning needs	All Curriculum Vitae's received pre-training Programs visited in first half of 2011; lectures given on need for LV services	Observation of actual work; interviews about skills/knowledge
Selection criteria	Based on checklist; e.g. permanent job in organisation, preference for public	All CRED nurses selected
Program has 1 or more of following characteristics:	ROP clients, Prevention of Blindness focus, is CBM partner, has interest in LV, has time, is willing to have team	CRED in low socio-economic area+ eye care in same hospital (3); 1hospital with Live service
Number	24: 6 teams from provinces (14 people under SIB_CBM program)	all CRED nurses working in a hospital
SIB	6 teams from provinces (14 people under SIB_CBM program)	
Attended under own funding	**Lima:** 2 hospital teams (National institute of Ophthalmology; Maria Aux. hospital (with ROP program) **Lima**: One each (2 optometrists, 1 teacher,1 Physical Therapists) from 2 private clinics, 1 public hospital, 1 NGO	
Attendance	Good, except Cuzco	Good

Name training	**Training LV teams for 5 provinces**	**Early detection of visual problems and referral to eye care**
Objectives, content, training methods and materials		
Objectives realistic	Yes	Yes
Content	Covers all technical aspects of LV rehabilitation and team work	Covered more than in objectives: included VA testing
	Limited input on young children, none on school children	VA testing not vital; took 2 hrs of training
Training methods	Excellent: included input by participants and exercises	Excellent- use of videos, model of eye for simple signs, exercises
	No practicals with patients	
Training materials	Handouts and reference materials covering all topics in training	Materials for assessment (penlight, evaluation kit) and handouts
Follow-up visits to trainees: assessment of training impact		
Methods	Jointly assessing patients with low vision	Regular follow-up visits (2-4 times) of 2 - 4 hrs each
Timing	Planned: around 3 months after training	As planned
	Varied per province; first visit to a province 6 months after training; first visit to 4th and 5th province ' January 2013	First visit: 2 weeks after training; Second visit: after 1 month

Appendix F: Client related data CERCIL service, Lima

Lima CERCIL LV service				
Ages	**F**	**M**	**Total number**	**% of total**
0-5	35	36	71	16%
6-15	21	51	72	16%
16-49	63	81	144	33%
50 and older	83	67	150	34%
Total	202	235	437	
% of total	46%	54%	100%	

Referral sources	**Number**	**%**
public	159	36%
private	127	29%
mix	151	35%
	437	

Appendix G: Details on provincial services

1. **Information based on visits by the evaluator to two provinces with 3 programs**

- **Piura**

a. Asociacon Oftalmologica Ver, a private eye clinic (Foundation)
One team was trained in 2011

Current situation:

Work started in May 2012, with the first follow-up visit by the VSF team
The LV service is available 2x a week and cannot grow anymore: ~ 150 clients per year will be the maximum who can be assisted.

Devices are now still from SIB/CBM but will they need to access funding from e.g. Lions in 2014. Estimate of the program is that half of the clients are poor.

NGO has networks with blind organisations, radio, and rehabilitation services
They provided awareness on low vision to around 50 CRED nurses

b. Fundacion Oftomologica del Norte, a private eye clinic (Foundation)
One team was trained in 2011

Current situation:

Visual therapist left, and a new one has just started to be trained. The ophthalmologist cannot do the LV work on her own and thus has seen only a small number of clients.

There is an agreement to work with children in 2 special schools: this work is just starting. There are an estimated 75 children, including those with multiple disabilities.

A need for a low vision-trained teacher in these schools was expressed.

- **Trujillo**

Instituto Regional de Oftalmología (IRO), a public hospital
Two ophthalmologists and 1 Visual Therapist (nurse) were trained.

This is a large eye hospital, with an OPD of around 300 a day, 12 ophthalmologists (2 paediatric). They have a 3 year residency training for ophthalmologists at the hospital.

- still get children late for cat surgery: no FU/LV system yet for children operated for cataract

Current situation:

Low vision services are supported by a large team including ophthalmologist (2 x a week 1/2 day), visual therapist (full time), physiotherapist (as needed),,

psychologist (as needed), and a (part-time0 secretary (since November 2012) for making follow-up appointments and data entry.

Services are hospital based services. There is a link to 1 special school, but only few children have been assessed so far. Outreach services might be considered.

Ophthalmology residents spend 1 day a week for 3 months at LV service

Management is very supportive of low vision services.

The low vision devices prescribed are mainly high+ spectacles as there is no access to devices except local low power magnifiers

2. Three provinces: Information gained from discussions with VSF team

- **Arequipa: Hospital Honorio Delgado, CERCIA, CEBE Nuestra Señora del Pilar**

Four people, including 2 ophthalmologists attended the 2011 training.

Service planned to start at an NGO clinic, with referral for training at special school and rehabilitation centre.

- Situation in July 2013
One ophthalmologist just starting to provide low vision care after absence due to pregnancy; the other one reported to have no time

So far only 10 clients assessed, and no detailed data available

One visual therapist works at a special school and also sees adults; other one works at a public rehabilitation centre (CERCIA), but as they have had few referral from the ophthalmologist trainings have been limited.

VST team started to work with a public hospital with a ROP program in July 2013.

- **Cuzco: NGO clinic**

1 team was trained, but the visual therapist (who was administrator and chosen by the NGOs director) did not finish training for personal reasons and lack of time. A second VF was the secretary of the program and did finish the training.

Service: NGO clinic, formerly a CBM partner

- Situation in July 2013

In 2012 director of the clinic canceled the relationship with the ophthalmologist. The ophthalmologist created her own NGO.
VSF team trained a nurse at this NGO in March 2013 to be a visual therapist. There is contact with a special school. But there is no information yet on work done.

Low vision work is thus just starting, and the VSF team has made 3 follow ups in 2013.

- **Cajamarca: Hospital Regional de Cajamarca**

1 ophthalmologist (chief of hospital) and 1 Physical therapist trained in 2011.

Service; Public hospital with an eye department

- Situation in July 2013

Director had not time to do low vision work. Two other ophthalmologists joined practice during follow-up visits and learned to do low vision work.

Low vision work is thus just starting.
Peru low vision project

Best practices that can be taken from the project

☐ The model of several short trainings over a few months, using a variety of training methods and active involvement of participants as shown in this program, followed by regular follow-up visits by the key trainers, can be used in other countries.
However with the following adaptations:
- more practice with clients to be included early in the training
- access to devices to be organised prior to training
- first follow-up visit to the programs to be made between 2 to (latest) 3 months after the end of the training.

☐ Working practically with participants in assessing clients with low vision at the participants' services during the first follow-up visit after the formal training

☐ Training participants from the start to enter patient data in a standardised excel spreadsheet with the aim to use results for improving services and learning about future needs for the service which can inform planning.

Recommendations for the project in moving forward

☐ Continue monitoring progress of all programs trained, through 6 monthly visits by the Lima LV team and through analyses of patient data till the end of 2014. Document findings and lessons learned at each visit.

☐ Facilitate access to affordable optical devices for the programs in Lima and in the provinces. This might involve setting up of a national/regional stock, and a party that can take responsibility for it.

☐ Train eye care services in Lima and the services in the provinces who have established ROP programs, in low vision care for babies and infants with ROP, and the need for long term follow-up

Potential for wider knowledge/sharing capacity strengthening within region

I would wait till end of 2014 when it should be clearer why some programs work well and other not. These lessons should be applied to capacity building in other countries.

Appendix H: Information relating to ROP and low vision provided by the VSF low vision service team

In Lima:

- 1% of clients seen at CERCIL have ROP
- The public hospital María Auxiliadora in Lima has LV services (trained by VSF under the SIB program) and a ROP program. The same ophthalmologist now works in ROP and in low vision.
- The National institute of Ophthalmology has an ROP program. Their team was trained in LV by VSF in 2011, and INO now requests more training relating to low vision care for ROP babies.
- The VSF visual therapist provided services to Dr. Luz Gordillo's foundation (Damos Vision) 1 day a week for some time when no other staff was available to do visual therapy.
- VSF started to work with the national children's hospital to strengthen their low vision services, with emphasis on ROP.
- VSF and Damos Vision are starting to have meetings to streamline and develop low vision care for babies with ROP.

In the provinces:

- Arequipa: VSF started working with a public hospital with an ROP program in training the ophthalmologist, and facilitating referral to the visual therapist trained under the SIB program
- Piura: foundation VER already works in ROP and Low vision, and has connections with St Rosa, the hospital in the ROP program of SIB.

Appendix I: Poster on visual development