Inclusive Eye Health

Programme and Learning Review

14 years of CBM's inclusive eye health projects through Seeing is Believing (2007-2020)

Abbreviations

CFPI	Cataract Foundation Philippines Incorporated
CHR	Centre Hospitalier Regional, Ivory Coast
COMB D	Centre Ophtalmologiste Méthodiste Barthimée, Dabou, Ivory Coast
CRPD	Convention on the Rights of Persons with Disabilities
FODPZ	Federation of Organisations of Disabled People in Zimbabwe
IAPB	International Agency for the Prevention of Blindness
ICEH	International Centre for Eye Health
ICT	Information and Communications Technology
IPROS	Instituto de Prevencion y Rehabilitacion de la Selva, Peru
KAP	Knowledge, Attitudes and Practices
KCMC	Kilimanjaro Christian Medical Centre
LMIC	Low and Middle Income Countries
LSHTM	London School of Hygiene & Tropical Medicine
MOH	Ministry of Health
MoHCC	Ministry of Health and Child Care, Zimbabwe
OPD	Organisation of People with Disabilities
PHC	Primary Health Care
PNSO	Programme National de Santé Oculaire, Ivory Coast
RAAB	Rapid Assessment of Avoidable Blindness
ROP	Retinopathy of Prematurity
SC	Standard Chartered
SDG	Sustainable Development Goals
SiB	Seeing is Believing
WHO	World Health Organisation
ZCFB	Zimbabwe Council for the Blind
ZIMAS	Zimbabwe Albino Association

This review is the compilation of CBM's work with Seeing is Believing since 2007. It draws heavily on reports developed by local partners and CBM Country offices and was researched, written and edited by Theresa Baird, Karen Glisson, Matthew Hanning, Rosi Jack, Lucy Marven-Dawes, Kate Mortimer, Marie Nazombe, Louise Shute, Yukara Weekes and Elfreda Whitty, with particular thanks to Andrew Ware, Andrea Delgado and Kirsty Smith.

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CBM UK
www.cbmuk.org.uk 0800 567 7000
Charity Registration No 1058162 (England & Wales) SCO41101 (Scotland)

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Executive Summary

Overview

CBM works with local partner organisations and governments in the world's poorest countries to prevent avoidable blindness and restore sight. Since 2007, we have proudly partnered with Standard Chartered (SC) and the International Agency for the Prevention of Blindness (IAPB) in the Seeing is Believing (SiB) programme to tackle avoidable blindness and visual impairment worldwide[1].

In collaboration with a large number of national eye health providers, non-governmental organisations, community groups, organisations of people with disabilities as well as national and local governments, the CBM-SiB partnership has successfully improved access to affordable and quality eye care in 20 countries across Africa, Asia and South America.

This Review outlines the key achievements and highlights the important learnings from the total of fifteen CBM-SiB programmes across multiple contexts and types of intervention. It demonstrates CBM's inclusive eye health approach in action and the life-changing impact our numerous partnerships with governments and implementing agencies has had on eye health in places where CBM-SiB programmes were delivered.

Key achievements

Since 2007, the programmes have:

- Provided screenings, consultations, low vision services, treatment and/or examinations to more than 7.4 million adults and children
- Carried out over 2.2 million sight-saving surgeries, of which 40,902 were children
- Reached over 150 million people with information on how they can improve their eye health and access treatments
- Screened over 4 million people for eye conditions so those needing it could be treated
- Provided 66,830 pairs of glasses and low vision devices to improve sight
- Trained 31,233 health and community workers to identify and treat people with sight loss and support entire communities for years to come.

Comprehensive and Inclusive Eye Health

CBM's SiB programmes were developed with reference to relevant and newly-emerging global frameworks such as Vision 2020 – the Right to Sight, the WHO Health Systems Framework[2] and WHO Global Action Plan[3] as well as CBM's eye health strategy. In addition, the period saw a global paradigm shift towards a more rights based approach to disability (as set out in the UN Convention on the Rights of Persons with Disabilities)[4], and CBM's programmes were also steered by new Practice Guides (2011-14). This culminated in CBM adopting not only a holistic and integrated but also a more inclusive approach that focused on strengthening national eye health systems (both in policy and implementation), as well as improving access for all to comprehensive eye care at all levels, preventing and treating

[1] Between 2003 and 2020, Standard Chartered raised USD104.2 million, enabling SiB to reach more than 250 million people across 38 countries. These funds were invested in supporting the eye health sector and increasing access to sustainable, quality local services across Asia, Africa, the Middle East and South America. This included building innovative eye health delivery solutions. SiB has funded more than 200 eye projects worldwide. For more information on SiB: https://www.iapb.org/learn/knowledge-hub/seeing-is-believing/

[2] Strengthening health systems to improve health outcomes: WHO's framework for action, everybodys_business.pdf (who.int)

[3] Universal Eye Health – A Global Action Plan 2014-2019, WHO – 2013

[4] UN Convention on the Rights of Persons with Disabilities (CRPD), 2008

avoidable blindness, reducing prevalence of visual impairment, focusing more on child eye health, and ensuring rehabilitation encompassing livelihoods and social inclusion.

The evolution of CBM-SiB programmes to being more inclusive demonstrates a joint commitment to the promotion of the rights of all people to access not only increased but also better quality eye health and other related services. Strengthening national eye health systems to become more inclusive both in policy and implementation requires building effective partnerships with a range of actors including people with disabilities. This aligns with CBM's purpose to work alongside people with disabilities in the world's poorest places to fight poverty and exclusion and transform lives.

This review lays out the components of a comprehensive eye health approach and explores how it can be adapted to become fully inclusive to achieve greater impact at scale. The document draws a number of key learnings through the lens of a number of eye health interventions commonly employed across the fifteen programmes:

a) Strengthening Health Infrastructure

Building a resilient infrastructure is essential to strengthening service delivery and building sustainability beyond life of any project. Infrastructure improvement at primary, secondary and tertiary levels was therefore a key element for SiB programmes, and included hospital service delivery as well as supporting infrastructure, provision and maintenance of medical equipment, systems for supply of medical consumables and capacity building of staff and policy makers. Lessons learned include the vital importance of building a strong and sustainable infrastructure, including specialist equipment to ensure a continuing service past the end date of projects as well as how critical the development of affordable systems for the procurement and distribution of consumables are for equitable service provision.

b) CBM's Partnership Approach

Working with partners has been key to the success of the CBM-SiB programme. Based on CBM's six partnership principles[5], and in line with the WHO's Health Systems Framework which advocates partnerships for improved service delivery, CBM works through and with a range of local, national, regional and international partners. This includes vital partnerships with government ministries, as well as Organisations of People with Disabilities (OPDs) who can drive awareness raising and stigma reduction campaigns, advise on appropriate responses to contextually specific barriers to inclusion, and help build the capacity of health care staff and policy makers. Previous collaboration can build increased trust and open communication as a strong foundation for new or innovative partnerships and joint monitoring efforts by project partners provides a valuable platform for learning and sharing.

c) Training and Capacity Building

Developing a well-trained health workforce is a key building block of the WHO's health systems framework and capacity building at all levels was a vital component of all CBM-SiB projects, whether for eye health professionals, community volunteers or others. Training was adapted to different contexts, with a focus on health care workers and management. While much of the training focused on training in specialist technical areas to improve quality and increase reach, it was also vital to build capacity in management of health facilities to increase effectiveness and strengthen policy development. Given CBM's inclusive approach, training on accessibility and disability inclusion was often a core component of

[5] For more information: CBM UK, 2019, Partnership Principles, at https://mk0cbmuko9q0q1hc7x8.kinstacdn.com/wp-content/uploads/2020/08/CBM_Partnership_Principles_2019.pdf

wider capacity building interventions. Key reflections include the learning that higher numbers of staff trained in a range of specialisations attracts higher patient volumes, enhancing hospital reputation and increasing revenues and that appropriate financial or other compensation needs to be provided for training that generates an increased workload to health staff or volunteers.

d) Cataract Surgery

Over 14 years, SiB programmes contributed to the strengthening of worldwide cataract surgery goals, carrying out over 2 million cataract surgeries in 11 projects in twenty countries (73% of all surgeries carried out in CBM-SiB programmes). Projects invested in system strengthening which improved cataract surgical coverage and outcomes. Collaboration between key implementing partners resulted in significant, substantial and sustainable improvements to eye care services and their availability for the populations of targeted districts and provinces. Rapid Assessments of Avoidable Blindness proved extremely valuable tools in ensuring that the quantity and quality of cataract services for adults and children were increased, as well as tackling critical barriers to take up.

e) Child Eye Health

Addressing child eye care is complex, not least because the early detection and referral that are essential for certain conditions are absent in many SiB programme contexts. CBM-SiB programmes aimed to address this challenge with comprehensive eye health projects focused on: strengthening referral pathways; ensuring connections with education providers; training and awareness raising for family members and teachers; fostering empowerment of children through broader community inclusion and awareness about the capacity of children with disabilities. Lessons learned include the importance of restructuring periodic community outreach activities to include school eye health programmes, and how ongoing training, awareness raising and partnerships to influence existing systems need to be specifically adapted to the needs of children and the communities where they live.

Conclusion

The breadth and depth of programmes implemented during the CBM-SiB partnership have resulted in many lessons that were valuable within and across programmes to adapt practice and improve outcomes, and to contribute to the wider body of learning generated by the incredible impact on eye health made possible by SiB. CBM's particular value add has been in ensuring that a comprehensive approach to eye health was also inclusive, increasing the reach to marginalised people, with a strong focus on capacity building and leveraging partnerships to increase the sustainability of interventions long past project duration.

As the SiB programme draws to a close in 2020, we celebrate the achievements and impact of this "*ground-breaking corporate and NGO partnership that demonstrates how, through an ambitious goal and collaborative action, a diverse range of stakeholders can come together and make a difference*"[6]. CBM has been proud to partner with SC, IAPB and numerous local and national organisations and governments across 20 countries over the last fourteen years. Whilst celebrating the achievements, we also reflect on the learnings documented in this Programme and Learning Review and are committed to building on them, along with our partners as part of our relentless drive towards improving the quality of life of people with visual impairments, through comprehensive, sustainable and high-quality eye care.

[6] SC, IAPB, A visionary partnership: 15 years of Seeing is Believing, September 2018, in https://av.sc.com/corp-en/content/docs/A-partnership-vision-15-years-of-Seeing-is-Believing.pdf

CBM's Partnership with Seeing is Believing

The Rationale

Visual impairment can limit a person's ability to perform everyday tasks and to interact with the surrounding world in a number of ways, reducing their access to participation in education, employment, and social, political and religious spheres. This can negatively impact on the quality of life of the person affected as well as their family members. According to the WHO's World Report on Vision 2019[7], at least 2.2 billion people globally have a visual impairment, and of these, at least 1 billion people have a preventable or treatable condition. In low and middle income countries (LMICs), children, women and older people are disproportionately affected e.g. two-thirds of blind people are women. In wealthier countries, this is because women live longer than men; in LMICs, this is because women are less likely to get the healthcare they need. Many cases could be avoided if eye health conditions were identified and treated on time, but people living in poverty encounter significant physical, economic, communication and attitudinal barriers to accessing care.

Our Partnership at a Glance

The SiB programme has enabled CBM and its partners to address gaps and weaknesses in eye health provision, to increase surgical rates, expand technical expertise, strengthen systems and processes, change attitudes and positively impact on the lives of 150 million community members, eye health staff and volunteers. CBM and SiB partnered on 15 systems strengthening and innovation programmes in 20 countries across Africa, Asia and South America. Some of these were single country, single eye health condition approaches, others were comprehensive eye health programmes addressing national or regional eye health gaps.

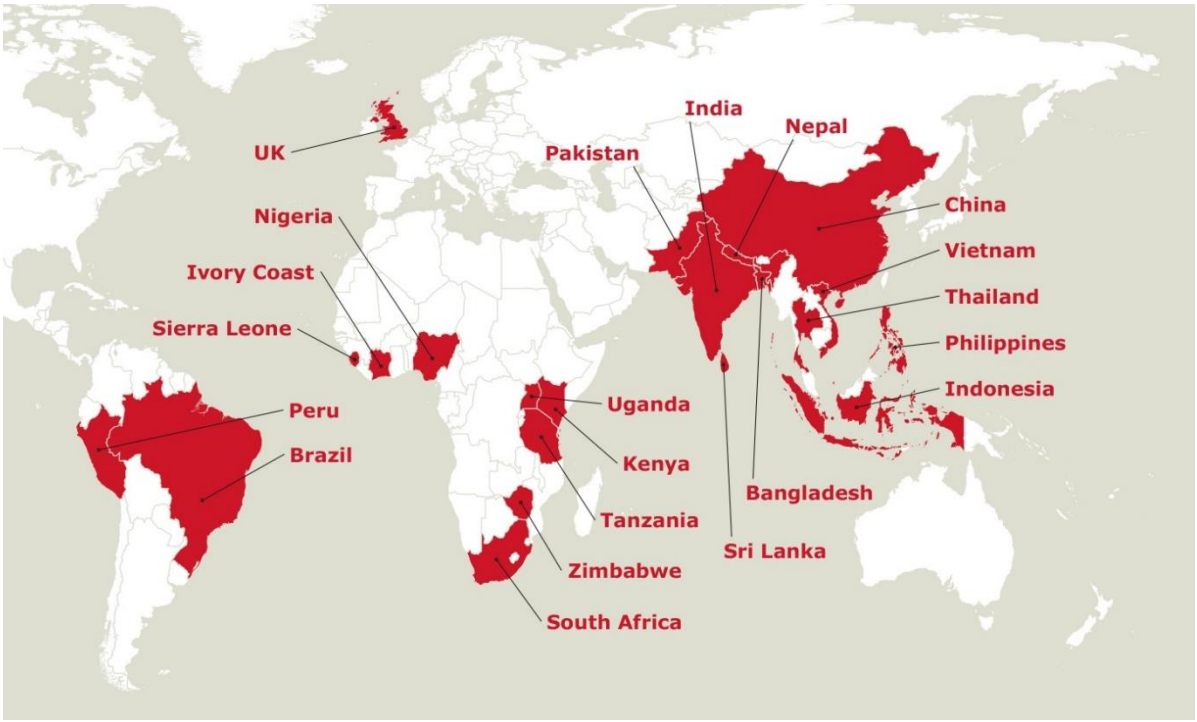

Figure 1: Map of CBM-SiB Programme Countries

[7] WHO, World Report on Vision, 2019

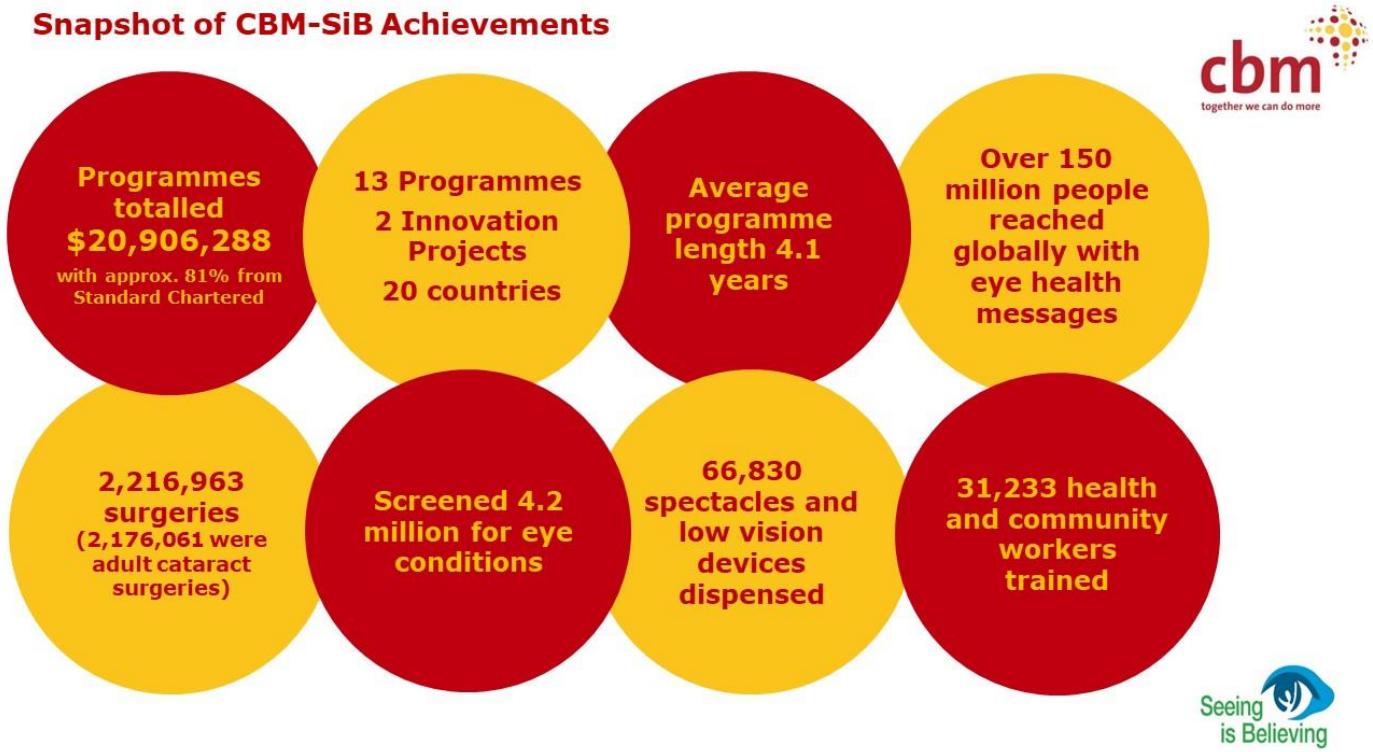

Figure 2: Snapshot of CBM-SiB Achievements

Of the thirteen CBM-SiB programmes, CBM led three consortia, managed eight single or multi-country programmes, and worked as a sub-grantee in a further two. Two projects were supported by SiB's Innovation Fund to finance research and cutting-edge solutions to improve eye health provision.

CBM-SiB Programmes 2007-2020

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SiB Phase	Project Name	Country/Countries	Date
Phase III	CBM Cataract Project	14 Countries*	2007-2011
Phase IV	Comprehensive Community Based Rehabilitation in Tanzania	Tanzania	2008-2011
Phase IV	Eastern Regional Eye Care Programme	Nepal	2009-2012
Phase IV	Childhood Blindness in Latin America	Brazil and Peru	2010-2013
Phase IV	Reaching Out and Restoring Sight	Nigeria	2011-2014
Phase V(a)	Scaling up Prevention of Blindness	Ivory Coast	2014-2019
Phase V(a)	Combatting Blindness	Peru	2014-2018
Phase V(a)	Restoring Sight, Transforming Lives	Philippines	2013-2016
Phase V(a)	Comprehensive Eye Care	Sierra Leone^	2013-2016
Phase V(a)	Strengthening Vision 2020 in North-East Zimbabwe	Zimbabwe	2018-2019
Phase V(b)	Building Health Systems: Promoting Eye Health for Children in East Africa	Kenya, Uganda and Tanzania^^	2013-2017
Phase V(b)	Addressing Child Blindness, Low Vision, and Visual Impairment in Indonesia	Indonesia^	2015-2020
Phase V(b)	Comprehensive Child Eye Health in Nigeria	Nigeria^^	2017-2020
Phase V(c)	Glaucoma Laser Trial: Transforming treatment for glaucoma in Sub-Saharan Africa	Tanzania^^	2014-2019
Phase V(c)	Improving employment opportunities for youth with albinism	Zimbabwe	2019-2020

*Bangladesh, China, India, Indonesia, Kenya, Nepal, Nigeria, Pakistan, Philippines, South Africa, Sri Lanka, Tanzania, Thailand, Vietnam
^ CBM Consortium sub-grantee
^^ CBM Consortium lead

Phases of the Seeing is Believing Programme CBM was involved in:
Phase III -Preventative and curative solutions: Cataract Project
Phase IV - Comprehensive Eye Care
Phase V (a)- Comprehensive Eye Care
Phase V (b)- Childhood Blindness Programmes
Phase V (c)- Innovation Projects

Seeing is Believing

Source: Compendium of CBM UK-SiB programmes

Table 1: CBM-SiB Programmes 2007-2020

CBM's journey partnering with SiB started in 2007 and over fourteen years covered:

- provision of eye health services, technology and devices (surgeries, treatment, low vision services, screenings, spectacles, low vision devices)
- infrastructure (construction, refurbishment, provision and contribution of vital equipment)
- human resource development (training and support for ophthalmologists, nurses, health care workers, management staff, volunteers, teachers and others)
- awareness-raising (radio, TV, information materials, brochures, pamphlets, campaigning on internet, on radio and on ground activity, door-to-door, etc.)
- liaison and advocacy (government and hospital administration and system strengthening)
- rehabilitation (stigma reduction, inclusive education and livelihoods)

The initial heavy focus in phases III and IV on increasing the cataract surgical rate through training of ophthalmologists and resourcing secondary and tertiary eye health facilities was adapted over time. A fundamental part of all programmes was the strengthening of local and national systems and personnel in order to improve the quality and accessibility of examination and treatment services in rural and urban areas, with a growing emphasis on integration into government services rather than standalone provision.

In a period that saw a global paradigm shift towards a more rights based approach to disability (as set out in the Convention on the Rights of Persons with Disabilities)[8], CBM's programmes were steered by new Practice Guides (2011-14) culminating in a comprehensive eye health strategy (2017) which aligned with global eye health priorities outlined in the WHO Global Action Plan[9]. This strategy included provision of comprehensive and equitable eye care services and strengthening effective partnerships for improved eye health. CBM's Inclusive Eye Health approach adopted not only a holistic and integrated but also a more inclusive approach to achieve greater impact at scale. Inclusive Eye Health prioritises strengthening national eye health systems (both in policy and implementation), as well as improving access for all to comprehensive eye care at all levels, preventing and treating avoidable blindness, reducing prevalence of visual impairment, focusing more on child eye health, and ensuring rehabilitation encompassing livelihoods and social inclusion.

[8] UN Convention on the Rights of Persons with Disabilities (CRPD), 2008

[9] Universal Eye Health – A Global Action Plan 2014-2019, WHO – 2013.

Comprehensive and Inclusive Eye Health

Global frameworks

In alignment with the **WHO Health Systems Framework**[10] and **WHO Global Action Plan on Eye Health**[11], CBM-SiB programmes were designed to impact beyond purely medical provision and to adopt a more holistic approach to improving eye health that prioritised systems strengthening. The WHO Framework sets out six building blocks that need to be addressed to contribute to the strengthening of health systems (governance, health personnel, health financing, medicines and technology, information systems and service delivery) to support the development of holistic eye care support. As the strengths and weaknesses of systems vary across and within regions and countries, it was vital to develop contextually adapted programmes aligned with national **VISION 2020** eye health plans[12]. CBM-SiB therefore worked in collaboration with local and national government ministries to develop programmes that incorporated a combination of these six components into project design and delivery in order to build sustainability of quality services[13].

CBM's comprehensive approach

Internally, CBM's eye health approach was also evolving, steered by new Practice Guides (2011-14) and culminating in a comprehensive eye health strategy (2017) which aligned with the global eye health priorities outlined above. In order to achieve greater impact at scale, this strategy stressed provision of comprehensive and equitable eye care services at all levels, from **promotion** and awareness-raising, **prevention** and **treatment** of avoidable blindness with an increasing focus on child eye health, and stronger emphasis on ensuring **rehabilitation** encompassing livelihoods and social inclusion.

Elements of CBM's comprehensive eye health approach
(1) promotion of healthy eyes and behaviour through awareness raising at primary, secondary and tertiary levels
(2) prevention of eye diseases
(3) diagnosis, treatment & management of eye diseases (medical, surgical, optical, low vision)
(4) rehabilitation (community based inclusive development, low vision, inclusive education, livelihoods and social inclusion)

Table 2: Elements of CBM's comprehensive eye health approach

[10] WHO, Strengthening health systems to improve health outcomes: WHO's framework for action, in everybodys_business.pdf (who.int)

[11] WHO, Universal eye health: a global action plan 2014–2019, in https://www.who.int/blindness/actionplan/en/ which calls for universal access to comprehensive eye care services in order to reduce the prevalence of avoidable visual impairment by 25% by 2019, and WHO, World Report on Vision 2019 op cit.

[12] VISION 2020: The Right to Sight, launched in 1999 by the WHO and the International Agency for the Prevention of Blindness, sought to promote: "A world in which nobody is needlessly visually impaired, where those with unavoidable vision loss can achieve their full potential." For more information: Vision 2020: https://www.iapb.org/about/vision-2020/

[13] SC, IAPB, A visionary partnership: 15 years of Seeing is Believing, September 2018, in https://av.sc.com/corp-en/content/docs/A-partnership-vision-15-years-of-Seeing-is-Believing.pdf

Inclusive eye health

A comprehensive approach does not, however, ensure by itself increased access for marginalised groups and the inclusion of all people. The SiB programme began in 2003, long before the adoption of the 2006 UN Convention on the Rights of Persons with Disabilities (CRPD)[14] and the 2015 Sustainable Development Goals (SDGs)[15]. In a period that saw a global paradigm shift towards a more rights based approach to disability, CBM's Eye Health Strategy adopted not only a holistic and integrated approach to preventing and treating avoidable blindness and reducing prevalence of visual impairment but also a more inclusive approach to reach the most marginalised. CBM's **Inclusion made easy in eye health programmes**[16] identifies inclusive practices for strengthening comprehensive eye care to ensure it is accessible and welcoming to all. This approach requires a fundamental shift for both service providers and policy makers to remove the barriers facing people with disabilities from all impairment groups, as well as older people, other marginalised and socially excluded people, so that all people can access the care they require at all levels and that people with long term impairment have wider opportunities in rehabilitation, health, education, livelihoods and social inclusion.

The evolution of CBM-SiB projects to become more inclusive demonstrates a joint commitment to the promotion of the rights of all people to access not only increased but also better quality eye health and other related services. Strengthening national eye health systems to become more inclusive both in policy and implementation requires building effective partnerships with a range of actors including people with disabilities. This aligns with CBM's purpose to work alongside people with disabilities in the world's poorest places to fight poverty and exclusion and transform lives.

Inclusion made easy lays out practical steps to make eye health programmes inclusive, encompassing:

- **Increasing awareness** and knowledge about the rights and capacity of people with disabilities, and dispelling possible myths about causes of impairment to reduce stigma
- Active **Participation of people with disabilities** and Organisations of People with Disabilities (OPDs) in all components of the programme, including employing them as staff
- **Appointing nominated disability inclusion officer/disability advisory committee** to be responsible for leading inclusion in all aspects of programming
- **Developing a disability inclusion policy** which is linked with gender and safeguarding policies and fosters the creation of a safe and welcoming environment
- Ensure eye health programmes are **physically accessible**, including toilet facilities and written and spoken **communication is accessible** to all, especially people with a vision, hearing or intellectual impairment
- **Address cost barriers** to treatment, transport and accommodation for people with disabilities and where relevant, accompanying persons
- **Strengthen and increase networks in disability inclusion** by including all mainstream and disability-specific services, both government and non-government
- **Where sight cannot be restored, ensure support** to the 20% of people with permanent vision loss and their families to receive counselling, referral to low-vision

14. UN Convention on the Rights of Persons with Disabilities (CRPD), 2008

15 UN, Sustainable Development Goals, 2017, in https://sdgs.un.org/goals

16. *Inclusion made easy in Eye Health programmes* at Disability inclusion and avoidable blindness: Fighting poverty together (cbmuk.org.uk)

services, inclusive education, community based activities and organisations (including OPDs) and mainstream livelihood opportunities.

CBM-SiB programmes sought to apply these guidelines and uphold the rights of persons with disabilities through a range of approaches including:

- Proactive work to raise awareness in communities and holistic funding package to facilitate access screening and surgical camps created to reach those in rural and hard to reach areas
- Creation of awareness campaigns for inclusion and de-stigmatisation of eye health issues
- Refurbishment of eye care centres to become accessible to all
- Projects dedicated exclusively to children and their eye development
- Mainstreaming inclusion into service provision, for example through providing inclusion training for staff and health professionals working for public and private collaborators and creating workshops and guidelines

This approach is also fully in line with Agenda 2030 and the SGDs. SiB projects contribute towards many of the SDGs, as well as the guiding principles of Article 3 of the CRPD: dignity, autonomy, non-discrimination, participation, respect for difference, equal opportunity, accessibility, equality between men and women and respect for evolving capacities of children with disabilities[17]. This more rights based, inclusive approach to eye health is explored below through the four components of CBM's comprehensive eye health approach:

1) Promotion

Awareness raising and promotion of healthy eyes is vital to alter attitudes and encourage behaviour change. CBM-SiB's programmes reached over 150 million people globally with eye health messages. 10 out of 13 programmes developed tailor-made multi-media eye health awareness campaigns including radio, TV, printing and delivery of information materials, and door to door campaigning. Some projects developed a full awareness campaign. In Indonesia[18], this included diverse awareness channels, like internet, radio and on the ground activity and reached more than 2 million people. Messages with information and invitations to events were shared using hashtags and a campaign website and Facebook page Eyestandbyu were created to collate this information. Other projects developed written communication in accessible format to ensure that it could be understood by all, especially people with a vision, hearing or learning disabilities.

2) Prevention

Awareness raising is only one of the essential components in the prevention of blindness. Increased access to and improved quality of services, including strengthened referral systems, need to be systematically combined not only to provide treatment but also to prevent blindness and other eye conditions wherever possible. In the Ivory Coast, the effectiveness of using local radio as a method for disseminating information on cataracts was explored. Popular listening times were prioritised in order to maximise the reach of broadcasts. The Knowledge, Attitude and Practices (KAP) baseline and endline studies revealed a significant increase in the percentage of people who had listened to a cataract

[17] The guiding principles are: (a) Respect for inherent dignity, individual autonomy including the freedom to make one's own choices, and independence of persons; (b) Non-discrimination; (c) Full and effective participation and inclusion in society; (d) Respect for difference and acceptance of persons with disabilities as part of human diversity and humanity; (e) Equality of opportunity; (f) Accessibility; (g) Equality between men and women; (h) Respect for the evolving capacities of children with disabilities and respect for the right of children with disabilities to preserve their identities. UN, Convention on the Rights of Persons with Disabilities, 2008 in https://www.un.org/disabilities/documents/convention/convoptprot-e.pdf

[18] Addressing Child Blindness, Low Vision, and Visual Impairment in Indonesia

broadcast from 4.9% to 39.6%[19]. In one area, some listeners visited the radio stations for additional information on cataracts and were immediately referred to the local CBM partners to carry out sight-saving surgery.

3) Diagnosis, treatment and management of eye diseases

CBM's rich history in eye health provision meant that diagnosis and treatment played a part in every CBM-SiB programme. Over the duration of the partnership, a total of 7,482,544 people (adults and children) received screenings, consultations, low vision services, treatment and/or examinations. In addition, 66,830 spectacles and low vision devices were dispensed.

In order to make eye care accessible to all, CBM worked closely with people with disabilities to identify and address the physical, economic and attitudinal access barriers. As a result, many CBM-SiB programmes included:

- infrastructure development to not only equip buildings but also to make them more accessible, including toilet facilities
- comprehensive financial support beyond surgery and treatment that included transport and accommodation for people with disability and their carers
- focus on policy development for disability inclusion, to foster the creation of a safe and welcoming environment at institution level and to improve the legislative environment and budgetary allocation at national level

4) Rehabilitation

For the 20% of people with permanent vision loss whose sight cannot be restored, rehabilitation is vital to support individuals and their families with community based support mechanisms including counselling, networking with OPDs, with referral to low-vision services, and access to inclusive education and mainstream livelihood opportunities. CBM-SiB programmes achieved significant success in providing rehabilitation services including vision rehabilitation, inclusive education, livelihoods and social inclusion. In Indonesia[20], the programme included the formation of a community group for adults with low vision with the aim of sharing stories and experiences, creating a space where people facing similar barriers could feel included and continue their rehabilitation (see Box 2). In Nigeria[21], where traditional beliefs were impacting negatively on patients seeking healthcare, awareness raising was used for "mythbusting" that diverse eye health issues are not connected to witchcraft, and for reducing stigma around people with disabilities.

19 Read, Lachan, 2019, Using pre and post KAP (Knowledge, Attitude and Practices) studies in Côte d'Ivoire in https://www.iapb.org/news/using-pre-and-post-kap-knowledge-attitude-and-practices-studies-in-cote-divoire/
20 Addressing Child Blindness, Low Vision, and Visual Impairment in Indonesia
21 Comprehensive Child Eye Health in Nigeria 2017-2020

Box 1 – Changing minds on low vision in Indonesia

At a gathering facilitated by CBM's partner the Layak Foundation, the idea was sparked to form a community group for adults with low vision. Within a year, the 'New Generation' community had grown substantially with members actively communicating with each other using various social media platforms.

The New Generation members, some of whom own small businesses or work in companies, but many of whom are still in school or university, meet remotely to share stories, experiences, challenges and feelings. They explore how they can reduce stigma and raise awareness about low vision as well as increase understanding of the capacities of people with low vision, including going to school, relating with others, getting income, having a partner and getting married.

They also seek to provide opportunities for group members to develop themselves, overcome shyness, and gain confidence to speak up in public. Dini, a 21 year old university student, says: "I have more friends with low vision, so I am not alone and this group has solidarity. It has a lot of activities and events, from which I gained more confidence and skills". Some group members have been involved in facilitating workshops and been invited as speakers at the medical faculty of the University of Indonesia.

INTERVENTIONS

a) Strengthening health infrastructure

Building a resilient infrastructure is essential to strengthening service delivery and building sustainability beyond the CBM-SiB project. Infrastructure improvement at primary, secondary and tertiary levels was therefore a key element for SiB programme progression.

Hospital service delivery infrastructure

The time and resources dedicated to building infrastructure varied across programmes, according to identified needs. For example, in Nepal[22], the development of buildings at primary and secondary levels contributed to the improvement of the overall service in the region. CBM-SiB established five new primary eye care centres, alongside two base hospitals which led to the examination of 586,775 Nepali patients, providing improved access to eye care services in the region and surgery for 55,940 people. As patients on low incomes and their carers often had to travel long distances to attend surgery and could not afford accommodation or food, a pre-operative unit was constructed to provide a safe and clean environment for them while waiting for surgery. A hostel for the training centre was also partly financed by CBM-SiB. The provision of this facility for students and health professionals attending training programmes improved the uptake of professionals and therefore strengthened the human resources in the region.

Supporting infrastructure

Enhancing infrastructure was not limited to improving surgical facilities in order to increase the effectiveness and sustainability of the project. In Nepal, hospital conditions and the environment were significantly improved and costs reduced through the introduction of a waste water and recycling system that managed hospital waste in an environmentally sustainable way and also generated biogas for the hospital canteen. A similar non-medical support was provided in Tanzania[23], where the purchase of an industrial washing machine permitted a reduction in the amount paid for external laundry services, saving more than $3,700 per month (in 2011).

Provision and maintenance of medical equipment

Other elements were vital if medical procedures were to successfully be carried out. The need for new medical equipment was assessed at the beginning of each project. The purchase of equipment in Ivory Coast allowed for the training of resident staff in Treichville and Cocody University Hospitals. Additional equipment, including cataract boxes and autoclaves, were donated to the San Pedro regional hospital resulting in an increase in the volume of surgeries and rehabilitation work. This project also focused on guaranteeing the regular operation and sustainability of equipment and established a maintenance contract for all the regional hospitals in the programme, with the contractor visiting one hospital per semester. Equipment maintenance was carried out with the technicians at each hospital, to ensure continuity of service and at the same time transfer skills to manage minor breakdowns and replace worn parts.

A similar approach was successfully applied in East Arica[24], where it was established that as most of the tertiary facilities were fully equipped with minimal shortages, the priority lay in

[22] *Eastern Regional Eye Care Programme in Nepal 2009–2012*
[23] *Comprehensive Community Based Rehabilitation in Tanzania 2008-2011*
[24] *Building Health Systems: Promoting Eye Health for Children in East Africa 2013-2017*

training equipment technicians to ensure the maintenance of the existing machines, and in the procurement and distribution of consumables.

It was also observed in the Nigeria 'Reaching Out and Restoring Sight' project that in order to improve the service for beneficiaries, it helped to develop equipment maintenance plans and to put in place a clear strategy for replacing material and equipment. A further learning was that since power outages and surges can be common and so can damage equipment, setting up invertors was necessary to protect them.

Systems for supply of medical consumables

The availability of consumables for cataract surgery is a necessary condition for providing services. Prior to CBM's SiB programme in Ivory Coast[25], it was not uncommon to see disruptions in the supply of consumables to the few hospitals that performed surgery leading to long waiting times and fluctuating prices of surgery for patients. The new resource centre set up at COMB Dabou by CBM-SiB responded to these challenges and was very successful in lowering prices and ensuring a steady flow of consumables. To date, the resource centre, under autonomous management, remains profitable, has built loyalty and expanded its customer network. As a result, the national eye health service is considering integrating cataract consumables into the minimum equipment package of the public health pharmacy that supplies public hospitals.

Box 2: Innovation Fund Glaucoma Laser Trial

Transforming treatment for glaucoma in Sub-Saharan Africa 2014-2019 was a research project trialling new treatment options as part of the Kilimanjaro Glaucoma Intervention Programme. The trial recruited people with glaucoma and randomly assigned them to either traditional drop treatment or to a new laser treatment. The laser coupled with the training of local frontline teams including a glaucoma consultant and medical students provided important resources and enriched the glaucoma services at the Kilimanjaro Christian Medical Centre (KCMC). Although full results are still awaiting publication, early indications show encouraging signs for the laser treatment in comparison to the standard Timolol eye drops. This has the potential to significantly improve conditions in low resource settings where eye drops are often beyond family budgets or may be misapplied.

[25] *Scaling up Prevention of Blindness in Ivory Coast 2014-2019*

Learnings

- Infrastructure improvements are important for strengthened service delivery and therefore need to be a key element for eye health programmes. Without a strong infrastructure medical procedures cannot be carried out
- Programmes vary in the amount of time and money dedicated to infrastructure, depending on the identified needs
- In order to increase the sustainability and effectiveness of projects, enhancing infrastructure is not limited to improving surgical facilities
- Building a strong and sustainable infrastructure, including specialist equipment (for surgery and training) is essential to ensure a continuing service past the end date of projects
- An important priority is in training equipment technicians to ensure the maintenance and basic repair of specialist machines and equipment
- Where power outages and surges can be common and so can damage equipment, setting up invertors is necessary to protect them
- Consistent availability of consumables for cataract and other surgery is a necessary condition for providing services, so affordable and sustainable systems for the procurement and distribution of consumables need to be supported or established
- Early indications of the Glaucoma Laser trial showed encouraging signs for the laser treatment in comparison to the standard eye drops which has the potential to improve conditions in low resource settings

b) CBM's Partnership Approach

Working with partners has been key to the success of CBM-SiB's programmes. In line with the WHO's Health Systems Framework which advocates partnerships for improved service delivery, CBM works through a range of local, national, regional and international partners, including working closely with Organisations of People with Disabilities (OPDs) who can drive awareness raising and stigma reduction campaigns, advise on appropriate responses to contextually specific barriers to inclusion, and help build the capacity of health care staff and policy makers.

CBM itself has six partnership principles as illustrated in figure 3[26]. Partnerships can be within a consortia between INGOs, private sector and academia, or partnership in implementation with local civil society organisations, OPDs, governments or hospitals.

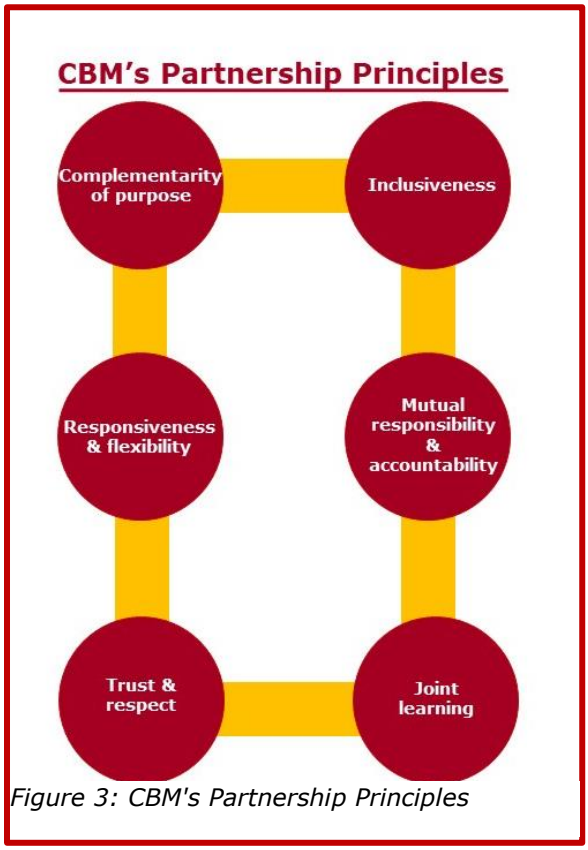

Figure 3: CBM's Partnership Principles

Partnering with multiple stakeholders

SiB's emphasis on developing multi-stakeholder partnerships to share knowledge, expertise, technology and financial support is fully aligned with the WHO Action Plan for Universal Eye Health. Effective partner collaboration for resource mobilisation, capacity building and enhanced use of technology helped strengthen SiB's programmes to better deliver inclusive eye health.

Partnerships have brought many positive outcomes, allowed for exchange of ideas, supported innovation and provided additional momentum to achieve programmatic goals. Because partnerships can also encounter challenges, CBM-SiB programmes focused on learning from previous projects to approach objectives in the best way possible. Challenges ranged from collaborating with partners from diverse backgrounds; agreeing common goals; and coordinating and integrating programme activities. Other challenges related to liaison with government to support and create an enabling environment for the successful implementation of the programmes and ensuring effective data sharing between partners.

In Peru[27], CBM worked with six local partners[28] and to maintain and develop the expertise and effectiveness of each one, training processes (both internal and external) became a key part of regular activities planned in each institution. Assessing the capacity of partners in

[26] For more information: CBM UK, 2019, Partnership Principles, at https://mk0cbmuko9q0q1hc7x8.kinstacdn.com/wp-content/uploads/2020/08/CBM_Partnership_Principles_2019.pdf

[27] *Combatting Blindness in Peru project, 2014-2015*

[28] These are: Asociación Civil Divino Niño Jesús (DNJ), Fundación Oftalmológica del Norte (FON), Fundación de Lucha contra la Ceguera (FUNDAR), Centro Comunitario Oftalmológico Maranata (CECOM), Centro Oftalmológico Monseñor Enrique Pelach (COMEP), Instituto de Prevención y Rehabilitación Oftalmológica de la Selva (IPROS). All partners are NGOs, four working through private profit-making clinics. One is an entirely non-profit organisation and the lead partner is an NGO, which has grown from a small eye clinic, and its main aim is the prevention of blindness. The lead partner took on the role of coordination of the cluster and the project manager for the cluster was based at its offices in Lima.

terms of human resources and physical infrastructure was important to ensure increased demand generated through project activities did not outstrip supply. Programme learnings also included that strengthening networks among eye care providers and building alliances with non-governmental organisations and the community helped to make partners' work more visible and contributed to greater sustainability. The programme also highlighted the importance of the participation of governmental agencies in logistics, follow-up, data sharing and engaging with key actors to advocate for the improvement of eye care services, in addition to strengthening the national information systems in Peru.

"We realised that by sharing information, we learned more and we could improve."

-CBM partner from Peru

Partnering on data transparency and information sharing

Peru's Combatting Blindness project supported data transparency among its partners by creating opportunities to share data and improving capacity by investing in data collection systems. A study[29] on the data transparency learning identified some challenges including a lack of opportunities for formal data sharing with only one annual meeting. There was also a perceived sensitivity of the data shared, particularly financial information. However, partners had a history of collaborating and five of them had already worked with CBM which increased trust and open communication. The report noted that early on, CBM and partners voluntarily agreed the requirements and expectations surrounding data, information and sharing to respond jointly to the Rapid Assessment of Avoidable Blindness (RAAB) survey needs. Data related to project indicators, such as service coverage, referral rates and post-surgery visual acuity outcomes, were reported separately to the project coordination office, who compiled project documents and reports. Annual project meetings provided opportunities to share and discuss issues and challenges related to data collection systems and processes. However, it was noted that time and effort spent on preparing the data report would have been better spent if the sharing had been done more frequently with shorter reports. One member said: "We realised that by sharing information, we learned more and we could improve."

By project end, all partners shared more project data on promotion and organisational effectiveness of the programme with each other. This information exchange resulted in the maintenance of good levels of communication, high levels of openness through informal communications channels (like telephone calls, instant messaging and face-to-face conversations at medical conferences) whereas email was found to be less efficient and effective to resolve issues. Teamwork at times also allowed for sharing of material and personnel. Information sharing was not limited to the cluster project, but extended to other projects being developed externally. In addition, partners knew that going forward they would continue to use and adapt the data collection systems developed.

Partners who had similar backgrounds, were geographically closer and had similar perspectives and modes of working were more likely to communicate better and share more information. Similarly, in the Ivory Coast[30], it was found that synergy between different actors with diverse expertise facilitated the achievement of the objectives.

The Strengthening Vision 2020 in North-East Zimbabwe project also found several benefits to working with multiple partners rather than bi-laterally. In particular, working with other organisations with complementary programmes, achieved the goal of integrating activities

29 CBM, 2018, Data Transparency and Information Sharing: A case study from the Combatting Blindness in Peru project.
30 *Scaling up Prevention of Blindness in Ivory Coast 2014-2019*

with other projects to ensure the beneficiaries receive the full package at an affordable price. The project accomplished a partnership with a hospital to reduce fees for beneficiaries (30% lower for adults and 90% lower for children). Further learning noted that joint monitoring efforts by the project partners provided a valuable platform for learning and sharing. It was important to have a clear joint monitoring terms of reference and carefully document and share actions for each session with a management response section to track remedial or consolidation measures.

Working in consortia

CBM-SiB programmes have frequently worked in consortia. In Indonesia[31], partners reported the need to enhance regular consortium coordination meetings, both at the national and field level. This arose to address communication gaps especially in terms of implementation of activities which relied on contributions from multiple consortium members. Similarly, in Nigeria[32], the benefit of having a broader programme scope across multiple partners, enabled sharing stronger capacity building and increased awareness across several states.

Joint monitoring by project partners provides a valuable platform for learning and sharing.

Working with government partners

Working with government partners, as the duty-bearers for health services, is essential to achieving long-term sustainable improvements in eye health service provision for a population. Experience working and liaising with governments is summarised in Table 3. Working with governments, typically with the Ministry of Health (MOH) and sometimes other Ministries such as Social Welfare, Finance or Education is beneficial for improved policies, resources and coordination as a result of collaboration on practical implementation of comprehensive eye health service provision and/or in the realm of advocacy.

[31] *Childhood blindness and low vision (2015-2020)*
32 Comprehensive Child Eye Health in Nigeria 2017-2020

Government Partnerships

Selected CBM-SiB Programmes working with local and national governments			
SiB Phase	Project Name	Country/ Countries	Working and liaising with governments
IV	Childhood Blindness in Latin America (2010-2013)	Brazil and Peru	Management Information System of ROP integrated to government system
IV	Reaching Out and Restoring Sight (2011-2014)	Nigeria	Government engagement in advocacy for better reach
V(a)	Combatting Blindness (2014-2018)	Peru	Participation of governmental agencies in logistics, follow-up, data sharing and engaging with key eye care actors to advocate for the improvement of eye care services
V(a)	Restoring Sight, Transforming Lives (2013-2016)	Philippines	Working closely with government to integrate prevention of blindness programme at local and national levels. Sharing responsibilities.
V(a)	Strengthening Vision 2020 in North-East Zimbabwe (2018-2019)	Zimbabwe	Service delivery was implemented in partnership with the Ministry of Health and Childcare. Review of National Eye Health Strategy. Joint monitoring visits with the government. Ministry endorsed first RAAB
V(b)	Building Health Systems: Promoting Eye Health for Children in East Africa (2013-2017)	Kenya, Uganda and Tanzania**	Integration and support of national eye health strategies
V(b)	Addressing Child Blindness, Low Vision, and Visual Impairment in Indonesia (2015-2020)	Indonesia*	Training to identify and address children's eye health, inclusive education, development of government's strategic Road Map and National Development Plan, to include Eye Health for the first time, etc.
V(b)	Comprehensive Child Eye Health in Nigeria (2017-2020)	Nigeria**	Increasing collaboration between hospitals and Improvement of eye pressure control in patients with laser treatment more accessible.

Phases of the Seeing is Believing Programme CBM was involved in:
Phase IV - Comprehensive Eye Care
Phase V (a)- Comprehensive Eye Care
Phase V (b)- Childhood Blindness Programmes

** CBM Consortium lead
*CBM was part of a consortium as a sub-grantee
Source: Compendium of CBM UK-SiB programmes

Table 3: Government Partnerships

In Nigeria[33], in order to support an enabling environment for the implementation of SiB, the programme coordination unit initiated advocacy visits targeted at governments of various SiB programme target States[34]. The programme staff advocated for support and inclusion of child eye health into state-level strategic plans where possible, and modalities for sustainability of the programme after closure. The advocacy visits yielded positive outcomes: Cross River and Plateau States integrated child eye health into their State Strategic Health Development Plan[35]. Developing a clear advocacy strategy at national level and by State, and involving key stakeholders in advocacy committees were both fruitful. In addition, partnership with the National Eye Health Programme and the Special Education Unit of the Federal Ministry of Education jointly developed national guidelines and manuals for implementation of the eye health programme. This included creating teachers' manuals on low vision mainstreaming and an instructional manual for teachers relating to information and communications technology (ICT) for visually impaired children.

In Zimbabwe[36], the Ministry of Health and Child Care (MoHCC) was a key implementing partner. The project was pursuing government based targets and the design was closely informed by the MOH's National Eye Health Strategy for Zimbabwe. Direct service delivery was implemented via Zimbabwe Council for the Blind in partnership with the MoHCC to complement the government's efforts to restore sight. The project worked closely with the Ministry to review the sustainability of the National Eye Health Strategy and advocated for an Eye Health Directorate within the MoHCC to strengthen coordination of eye health at a national level after the project had ended. The project also commissioned the first ever RAAB conducted in Zimbabwe which was endorsed by the Ministry[37].

[33] *Comprehensive Child Eye Health 2017-20*
[34] More information on this CBM-SiB – government engagement can be found in: https://www.iapb.org/SiB-news/cbm-bhvi-nigeria-child-eye-health-using-kap-data/ written by Dr Juliana Nathaniel, SiB Programme Director, CBM Nigeria.
[35] Ibid.
[36] *Strengthening Vision 2020 in North-East Zimbabwe* 2015-2019
[37] Detailed information on this RAAB can be found in the cataract section of this document.

Working with the MoHCC staff at various levels throughout the project implementation (e.g. carrying out joint quarterly monitoring visits) built not only capacity but understanding within government, and upskilling of eye health professionals helped to retain knowledge and enhance eye health services. The training of various cadres from Primary Care Nurses to specialists enhanced the sustainability of eye health provision and continued the links between the main teaching Hospital and the University of Zimbabwe, which has the mandate to train health personnel. The End-line Evaluation highlighted that trainings across all four eye units had empowered MoHCC health personnel and instrument technicians, giving the eye units capacity to sustainably perform operations and maintain equipment locally. As a result, capacity increased, enabling more patients to access services and reducing waiting periods. Furthermore, the training of Village Health Workers and Community Health Workers ensured the project was linked with targeted communities and in turn, raised awareness increasing community understanding of eye health.

In Indonesia[38], government health facilities and schools were key partners. The project worked with the Indonesian government to assist provincial governments in developing sustainable models to identify and treat children with eye health problems. This partnership connected the health system with primary and secondary schools to promote quality inclusive education and systematic referral of children needing low vision services. CBM was heavily involved in supporting the development of the MOH's strategic Road Map for accelerating blindness prevention by contracting consultants to execute the development of the Road Map as well as providing inputs to improve and refine the direction, policies and strategies of the activities. The objectives of the Road Map were not only prevention of blindness but also ensuring that rehabilitation services for low vision services were available. As a result, the MOH now includes low vision and retinopathy of prematurity among their priority eye diseases, together with cataract, refractive error, glaucoma, and diabetic retinopathy. Moreover, CBM also supported the National Eye Committee in its efforts to include eye health in the National Medium Term Development Plan 2020- 2024. Eye health had not previously been included in the plan, but its presence will encourage regional health offices and related stakeholders to address eye health and contribute to reducing levels of disability within their communities.

Box 3 - IPROS: CBM-SiB partner in Peru

CBM's partner Instituto de Prevención y Rehabilitación de la Selva (IPROS, Prevention and Rehabilitation Institute of the Jungle) is located in the city of Tarapoto in the Amazon region of Peru, where geographical conditions are harsh, means of communication are limited and basic services such as water and electricity are scarce. IPROS identified that one of the major barriers to accessing services was the high transportation costs to the base hospital. They worked in alliance with the Health Ministry to operate in their facilities, visiting each rural town with their own equipment, yet health conditions and lack of sterilised equipment prevented them from performing high quality surgeries.

To address this, IPROS designed and built a mobile clinic that works on solar power which now enables IPROS to perform high quality surgeries. To reach more patients, IPROS works with community leaders who bring together patients who have been previously screened. Surgeries are scheduled combining visits to several towns on the same route so that post-surgical check-ups can easily be conducted during follow-up visits.

This strategy has helped increase by 50% the number of patients that have had access to free surgeries who would not have been able to get to the base hospital.

[38] *Addressing Child Blindness, Low Vision, and Visual Impairment in Indonesia* 2015-2020

Partnering with OPDs

People with disabilities are best placed to advise implementing partners on inclusive approaches, to ensure that programmes both meet their needs and build on their capacities. Partnership with Organisations of People with Disabilities (OPDs) helps to ensure that interventions can be accessed by people with all impairments, as well as older people and older marginalised groups. They can drive awareness raising and stigma reduction campaigns, advise on appropriate responses to contextually specific barriers to inclusion, and help build the capacity of health care staff and policy makers.

Box 4 - ZIMBABWE REHABILITATION: Inclusion and Employability

One of CBM-SiB's Innovation Grant schemes encompassed a fully inclusive and comprehensive approach to the wellbeing of a specific group in support of SDG 8 (Decent Work and Economic Growth), to guarantee inclusive learning environments and full access to the job market and SDG 10 (Reduced Inequality). In partnership with Zimbabwe Council for the Blind and Zimbabwe Albino Association (ZIMAS), CBM's programme[1] focused on increasing access to eye health services and employability opportunities for youths with albinism. This included identifying candidates through an outreach programme, training ZIMAS staff on Disability Inclusion and safeguarding, and developing business management expertise. For the youth, there were low vision assessments and diverse trainings on confidence building, career guidance and vocational training of choice (carpentry, electrical engineering, horticulture, information technology, leatherwork, motor mechanics, purchasing and supply management).

Despite significant challenges such as shortage of supplies and coping with the lockdown due to the COVID-19 pandemic, this project has successfully resulted in impacting beyond eye health into livelihoods and inclusion. The project provided interactive training for the youth, including a confidence building and career guidance workshop where fifty-two young people with albinism shared their experiences and exchanged ideas on how to overcome the stigmatisation and discrimination they faced. The workshop was covered by the Zimbabwe National Broadcasting media and clips were shared on the Zimbabwe National Television News bulletin and radio stations.

A career guidance session focussed not only on a range of small business ventures but also on building confidence and self-worth. Soon after the workshop, 15 of the attendees were selected to attend vocational training at Ruwa Rehabilitation Centre.

Learnings

- Working with partners has been key to the success of CBM-SiB's programmes
- Effective partner collaboration for resource mobilisation, capacity building and enhanced use of technology helped strengthen SiB's programmes to better deliver inclusive eye health
- Partnerships have allowed for exchange of ideas, supported innovation and provided additional momentum to achieve programmatic goals
- Partners found that the common goal and structure of the project allowed for better sharing of information. Partners who had similar backgrounds, were geographically closer and had similar perspectives and modes of working were more likely to communicate better and share more information
- A focus on learning from previous projects can enable partnerships to overcome challenges and achieve their objectives
- Assessing the capacity of partners in terms of human resources and physical infrastructure was important to ensure increased demand generated through project activities did not outstrip supply
- Strengthening networks among eye care providers and building alliances with non-governmental organizations and the community helped to make partners' work more visible and contributed to greater sustainability
- It is important for governmental agencies to participate in logistics, follow-up, data sharing for the improvement of eye care services
- Peru's Combatting Blindness project supported data transparency among its partners by creating opportunities to share data and improving capacity by investing in data collection systems
- Previous collaboration can build increased trust and open communication as a strong foundation for new or innovative partnerships
- It is important to provide opportunities to share and discuss issues and challenges related to data collection systems and processes on a frequent basis
- Working with other organisations with complementary programmes can result in better integrated activities and cost savings for beneficiaries
- Joint monitoring efforts by project partners provides a valuable platform for learning and sharing
- Working with government partners, as the duty-bearers for health services, is essential to achieving long-term sustainable improvements in eye health service provision for a population
- Working with governments Health and other Ministries is beneficial for improved policies, resource allocation or coordination for comprehensive eye health service provision
- Developing a clear advocacy strategy at national and Provincial / District levels and involving key stakeholders in advocacy committees can result in positive policy and practice outcomes

Training and Capacity Building

Developing a well-trained health workforce is a key building block of the WHO's health systems framework and capacity building at all levels was a vital component of all CBM-SiB projects. This was in the form of targeted training to surgeons, ophthalmologists, optometrists, ophthalmic nurses, and primary health workers to improve service quality and delivery. In addition, community volunteers trained to provide vision screening and referral services form a key pillar of inclusive eye health awareness raising and implementation which results in an increase in the number of beneficiaries reached. In some contexts, the developments of manuals and guidelines not only supported the delivery of training resources but increased sustainability by providing an ongoing resource to influence policy and practice of government and civil society eye health provision.

Training was developed according to the needs of each country and context, with 86% focused on health care workers and management. A total of 34,926 ophthalmologists, nurses, optometrists and low vision specialists, healthcare staff providing eye care giving services and community workers were trained to improve reach and quality and increase sustainability of eye health services. In some cases, volunteers and teachers were trained in identifying low vision conditions, as well as cataracts and other eye care needs. While much of the training focuses on training in specialist technical areas to improve quality and increase reach, it was also vital to build capacity in management of health facilities to increase buy in, improve effectiveness, strengthen policy development and increase budget allocation.

Contextually adapted training

In the Ivory Coast[39], the project sought to bring the cataract surgery provision that was originally concentrated in Abidjan in the south, closer to the populations of the northern, central, eastern and south-western regions. A training centre was identified that already performed a large number of surgeries and thus offered the possibility of doing a lot of practical training. The training curriculum for ophthalmology students which did not traditionally include cataract surgery was adapted and appropriate training facilities made available. This increased sustainability since all new ophthalmology graduates on the scheme qualified to perform cataract surgery.

Low skills in the existing workforce meant that it was also necessary to also train mid-level ophthalmologists but training schedules had to be adapted to fit with work demands. The plan for an intensive 3 month training course had to be extended over 6 months to allow those in practice to continue with their existing responsibilities. The resulting budgetary constraints meant that the number of ophthalmologists trained was reduced.

Several strategies were used to strengthen the capacity of nurses: residential training at the same centre, on-site training with the support of more experienced nurses during the supervision missions of the national adviser, and participation in outreach activities. All trainings were practical with the aim of ensuring higher capacity at the side of the operating ophthalmologist.

Volunteers also played a significant role in increasing reach and strengthening referral and building on existing community structures and roles proved particularly effective. Community volunteers who were often involved in other community outreach programmes received additional training to help in eye health screening in hard to reach areas, while teachers were trained to identify where it was necessary to refer children in their classes to

[39] *Ivory Coast 2014-2019*

a specialist. In some projects, ophthalmologists themselves offered pro bono time to close the cataract surgical gap that existed. In the Philippines[40] 400 volunteer ophthalmologists received additional training that enabled them to perform 252,445 cataract screenings leading to 77,432 cataract surgeries, and treatments for both children (1,024) and adults (76,408) throughout the project duration. Where eye care training activities were provided at primary level, learning from a number of programmes demonstrated that reinforcing the learning on a regular basis helped support volunteer activities and increase sustainability of activities. In this project, volunteers have been noted as a key building block to success, with volunteer ophthalmologists, optometrists, professional and community health workers and eye care coordinators enabling outcomes to far exceed the initial expectations.

In the Strengthening Vision 2020 in North-East Zimbabwe project, Standard Chartered staff volunteered at the four eye units and were involved in a school screening exercise where, following training on Peek technology, 7 SC volunteers screened children at Hatcliffe Primary School. SC staff also assisted medical teams to conduct visual acuity test for patients at Norton Eye Unit and carried out cleaning tasks, thus enabling the Unit staff to focus on other areas of work.

Capacity development can be challenging, especially in projects that include several countries, like the Building Health Systems: Promoting Eye Health for Children in East Africa 2013-2017 project. Training for paediatric ophthalmologists did not achieve the desired numbers because in Tanzania those nominated were found to be unqualified by the admitting institution and could not participate, while the Kenyan candidates found the 18 month training course too long. In addition, the course was available mainly in India and many of the candidates felt that they would be away from their stations for far too long. As a result, only three paediatric ophthalmologists were trained. However, continuous professional development for doctors was sought using activities such as the annual regional SiB conference (Arusha 2015). An exchange programme established with doctors from Kenya and Uganda visiting Tanzania and surgeons from Tanzania visiting Nairobi enabled doctors to greatly improve their surgical skills. It was recognised that in future, training of paediatric ophthalmologists should be streamlined by finding suitable shorter courses that are available in Africa. The project also highlighted the importance of providing appropriate compensation (whether financial or in other forms) and covering logistical costs for increased workload generated through deploying new skills.

Benefits of specialisation

With hospitals mastering cataract surgeries, their services needed to expand the range of services provided in order to provide more comprehensive eye health. The Reaching Out and Restoring Sight in Nigeria 2011-2014 project aimed for diversification beyond general ophthalmology into sub-specialisation. With training and a clear referral network, Government structures utilising PHC staff and community drug distributors were used effectively to identify cataract cases for surgery but it was also essential to have well trained and committed staff. Partners initially struggled to hire enough trained staff to conduct high volume surgeries and needed to invest in the expansion of the residency programme to build in-house capacity. The use of highly trained mid-level ophthalmic personnel made it possible to successfully carry out tasks that normally would be the responsibility of specialised eye health personnel[41]. In addition, training courses repackaged as more comprehensive approaches not only enhanced the capabilities of existing staff but also attracted higher numbers of external candidates. Higher patient volumes enhanced the

[40] *Restoring Sight, Transforming Lives in Philippines 2013-2016*

[41] For more information: Barbara Trachsel, CBM Nigeria: Massive awareness raising and outreach campaigns boost Seeing is Believing achievements in https://www.iapb.org/seeing-believing/cbm-nigeria-final-evaluation/

hospital's reputation which increased revenues generated and as the cost of sub-speciality services was higher, this also generated more income for the hospitals.

Curriculum and resource development

"I have done training sessions for the Department of Health nurses for so long, but nobody refers patients after training. The training module used by CFPI is more useful as it is much shorter and focused on the essentials"

- Dr. Lemuel Gatchalian, ophthalmologist, Eastern Visayas Region Medical Centre

The development of manuals and training curricula also proved important to develop the capacity of eye care workers and volunteers at all levels, strengthen their abilities in order to improve project outcomes but also and influence the training of other eye health staff beyond the project duration. Some projects adapted existing resources, e.g. in the Philippines, CBM partner Cataract Foundation Philippines Incorporated (CFPI) reviewed existing national training manuals and developed a simpler version which users found aided understanding and application.

Whereas in other projects, manuals and training curricula needed to be developed from scratch, recognising the importance of harmonising these resources with existing official training programmes. In East Africa, the programme included the development of a low vision curriculum which awaits formal adoption by medical training institutions in the region. In Indonesia[42], a "Low Vision Care in Indonesia - A Practical Approach to Establishing Comprehensive Services" manual focuses on comprehensive and inclusive eye health. The manual available in Indonesian and English provides guidance on how to include low vision care within different services (i.e. hospitals, training schools, educational programmes and other settings) and gives practical examples of how close co-operation and networking between client, caregivers, organisations of people with disabilities, community, educational and rehabilitation services can quality, comprehensive low vision care to the client/patients.

Additional capacity building

In order to safeguard children and their rights, nurses were trained in child protection and counsellors were trained to counsel parents

Technical training for other cadre such as nurses in referral and paediatric theatre skills, for low vision therapists, paediatric anaesthetists, and equipment technicians were fundamental to the success of surgical rates and eye health procedures but training to influence attitudes was also vital. Nurses were also trained in child protection and counsellors were trained to counsel parents who often found it difficult to agree to their children undergoing surgery under general anaesthetic and wearing spectacles.

Building capacity on inclusion

Based on International Human Rights Law, and particularly the CRPD, a rights-based approach to development adopts awareness, participation, comprehensive accessibility and a twin track approach (i.e. direct disability interventions and disability inclusion mainstreaming) as core development principles. Increasing understanding about inclusion in general also helped to improve access and change attitudes.

[42] *Addressing Child Blindness, Low Vision, and Visual Impairment in Indonesia 2015-2020*

ZIMBABWE EYE HEALTH: Disability audit, accessible infrastructure, inclusion training

Strengthening Vision 2020 in North-East Zimbabwe 2015-2019 which sought to offer an inclusive eye health service for everyone, incorporated diverse activities on disability inclusion. The Zimbabwean constitution states "The State must take appropriate measures to ensure that buildings and amenities to which the public has access are accessible to persons with disability." To facilitate the process of inclusion, the SiB project sought the support of the Federation of Organizations of Disabled People in Zimbabwe (FODPZ) to conduct a disability audit. The audit identified gaps in ensuring inclusion for patients as well as the meaningful adherence to universal standards and guidelines on disability inclusion.

Training on inclusion was provided by CBM to all staff at the four eye units to increase understanding of accessibility and universal design. In order to provide an inclusive eye health service, the training focused on adaptations that can be made at eye units, attitude change and use of appropriate language when addressing persons with disabilities.

Guaranteeing accessibility proved challenging due to the set infrastructure of hospital facilities. In the light of the findings of the FODPZ audit, the partners were supported in retrofitting the three eye health units including the construction of ramps for easy access for wheelchair users to wards and sanitation facilities. However, adaptation after construction is often challenging. One of the hospitals still has some serious limitations as the dispensing space for spectacles is upstairs. There is no ramp and the elevator was not functional at the time of the evaluation. Despite the few gaps identified and mentioned above, the project made significant efforts to improve access at facilities. For example, sign language training for staff, an on-call person with sign language skills, ramps at all eye units, foldable shower stools in eye unit bathrooms, and mobility and orientation training for staff.

Learnings

- With training and a clear referral network, government structures can be utilised effectively to identify cataract cases for surgery
- The use of highly trained mid-level ophthalmic personnel made it possible to successfully carry out tasks that normally would be the responsibility of specialised eye health personnel
- Take-up of training opportunities is more likely if it is more local and for shorter periods of time in particular for those balancing already full workloads
- In addition to training in specialist technical areas to improve quality and increase reach, it is also vital to build capacity in management of health facilities if the positive changes are to be sustained
- Offering sub-specialisations can attract higher numbers of trainees
- Higher numbers of staff trained in a range of specialisations attracts higher patient volumes, enhancing hospital reputation and increasing revenues
- The development of manuals and training curricula also proved important to develop the capacity of eye care workers and volunteers at all levels, strengthen their abilities in order to improve project outcomes but also and influence the training of other eye health staff beyond the project duration
- Appropriate financial or other compensation needs to be provided for training that generates an increased workload to health staff or volunteers

Cataract Surgery

According to the WHO Vision Report 2019, cataracts are the leading cause of blindness globally. This figure is expected to increase substantially due to ageing with an additional 4.3 million cataract operations per year estimated to be required worldwide by 2036[43]. Over 14 years, SiB programmes contributed to the strengthening of worldwide cataract surgery goals, carrying out over 2 million cataract surgeries in 11 projects in 20 countries (73% of all surgeries carried out in CBM-SiB programmes). Cataracts are also the leading cause of treatable blindness in young children[44] and 8 projects carried out cataract surgery for children, resulting in a total of 23,272 operations.

In order to address the low surgical coverage and associated higher prevalence of cataracts reported particularly in rural areas, CBM prioritised infrastructure improvement by:

- Setting up screening and surgical outreach camps in more remote locations
- Refurbishing eye centres
- Building the capacity of ophthalmologists, optometrists, nurses and health care workers
- Providing specialised equipment, medications and consumables

The 3 year Eastern Regional Eye Care programme in the remote hill regions of Nepal ran 704 outreach screening camps and 28 surgical eye camps in which 131,510 people who had previously been unreached by awareness raising initiatives were examined and 1,613 people received surgery.

In many of the programmes, vital data was gained through the completion of a RAAB[45]. In the Zimbabwe programme[46], the second phase of the programme benefited hugely from the RAAB carried out during the first phase. No national survey on blindness and visual impairment had been conducted in Zimbabwe before and the country relied on the WHO's estimates on prevalence of blindness which resulted in a lack of localized data. As a result, the SiB-funded RAAB survey provided Zimbabwe's first accurate data on the magnitude of blindness, revealing a higher prevalence than previously estimated: 3.7% of the population in Manicaland Province. This was used as a proxy for the rest of Zimbabwe.

The survey teams collected data using the mRAAB application on mobile smartphones focusing on people aged 50 years or older. The results of the RAAB[47] identified multiple unmet eye health needs in Manicaland and particularly cited untreated cataracts as the main cause of blindness.

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[43] Hatch WV, Campbell Ede L, Bell CM, E-Defrawy SR, Campbell RJ. Projecting the growth of cataract surgery during the next 25 years. Arch Ophthalmol. 2012;130(11):1479–81 in WHO, World Report on Vision 2019

[44] In many, but not all, low-income countries where blindness from corneal scarring has declined due to the successful implementation of public health initiatives, cataract is now the leading cause of addressable blindness in young children. Despite this, due to slower progress in some countries, corneal scarring remains the most common cause of blindness. WHO, World Report on Vision, 2019.

[45] The Rapid Assessment of Avoidable Blindness (RAAB) is a rapid survey methodology developed at the International Centre for Eye Health, LSHTM, and used to complete over 300 surveys of visual impairment and blindness to date. For more information: https://iceh.lshtm.ac.uk/rapid-assessment-of-avoidable-blindness/

[46] *Strengthening Vision 2020 in Manicaland, north-east Zimbabwe* carried out in two parts, from 2015-2017 and from 2018-2019. The second part of this project benefited hugely from the RAAB carried out in 2016.

[47] This report focuses on the cataract findings. The other unmet eye health needs identified by the RAAB can be found at: https://www.iapb.org/wp-content/uploads/CEHI-RAAB-ZIM-Final-report-1.pdf

Rapid Assessment of Avoidable Blindness (RAAB) results ***Manicaland, north-east Zimbabwe***		
Main causes of blindness (%)	Cataracts	67%
	Glaucoma	20%
Surgery for people with cataracts (%)	Surgery	48.5%
	No Surgery	51.5%
Common Barriers to Surgery (%)	Lack of Awareness	26%
	Cost to Patient	23%
	Fear	18%
	Lack of Access	16%

Table 4: Rapid Assessment of Avoidable Blindness (RAAB) results Manicaland, north-east Zimbabwe

The MoHCC endorsed the RAAB in July 2017, in collaboration with CBM, Zimbabwe Council for the Blind and the Community Eye Health Institute, University of Cape Town.

As per the recommendations, the RAAB findings of Manicaland Province were incorporated into eye care planning at district and provincial level as well national strategic planning as part of the second phase of the Strengthening Vision 2020 in North East Zimbabwe project. The RAAB results provided key information to increase the quantity and improve the quality of cataract services for adults and children; increase the capacity of the eye health workforce at primary, secondary and tertiary levels, improve the infrastructure for eye health delivery at tertiary level, as well as equip eye units to be operational. The project also negotiated with partner hospitals to reduce the cost of treatment and develop a better, more sustainable partnership strategy. As a result, in the second phase of the NE Zimbabwe project, it saw a 493% increase in the number of annual adult cataract surgeries.

In addition, the findings were used to develop inclusive eye care material to respond to the limited awareness about preventable blindness, cataract surgery procedure and availability of subsidised services. In the NE Zimbabwe project, this resulted in over 3 million people accessing eye health information with over 15,000 people having access to brochures and pamphlets with potential to stimulate improved eye health seeking behaviour.

Tailor-made messages helped to diffuse myths in the target population; accessible surgical camps and outreach services were expanded thereby increasing access to surgery and breaking of financial and attitudinal barrier to accessing eye health services.

Learnings

- Investment in system strengthening (infrastructure, equipment, training, processes, consumables etc.) is vital to dramatically improve cataract surgical outcomes
- Collaboration between key implementing partners has resulted in significant, substantial and sustainable improvements to eye care services and their availability for the populations of targeted districts and provinces
- A RAAB can form a fundamental part of eye health programme and provides key information to support planning or for monitoring progress on eye health programmes. It will estimate the prevalence and causes of avoidable blindness and visual impairment in people aged 50 and above, assess the cataract surgical coverage and identify the main barriers to the uptake of cataract surgery. However, RAAB surveys are expensive and partly for this reason are only recommended to be carried out at part of project baseline and endlines

Box 5- Isaac from Zimbabwe

Isaac is a 62 year old father of five who noticed a marked deterioration in his vision over a year. No longer able to work, resulting in the loss of the family's main source of income, Isaac also struggled to identify people and to read which severely deteriorated his quality of life. His wife, unable to cope with the reality of her husband's condition, left home so to help him function on a day-to-day basis, his son dropped out of school. Financial constraints hindered him from seeking treatment and as there was no history of visual impairment in Isaac's family, he was led to believe that he had been 'bewitched'. One of his neighbours, who had had eye surgery herself, told him about the eye care programme at Sakubva Eye Unit. A consultation led to Isaac being diagnosed with bilateral age-related cataracts. Surgery successfully resulted in the restoration of his sight. As he can now move around independently and work, his son has been able to go back to school.

Child Eye Health

Vision is critical to child development. A child's social and cognitive development is greatly enhanced by the early visual recognition of parents and caregivers, as are coordination, balance and motor skills. Delay in these experiences can have lifelong consequences, including lower levels of education achievement, self-esteem concerns, and physical and mental health issues.

Globally, an estimated 19 million children are visually impaired, although the WHO Vision 2019 report suggests this is probably underestimated since data on prevalence of visual impairment in children is still limited. Addressing child eye care is complex, not least because the early detection and referral that are essential for certain conditions are absent in many of the SiB programme contexts. CBM SiB programmes aimed to address this challenge with 60% of projects including specific provision for child eye health and 13% targeted exclusively at children.

Comprehensive Child Eye Health

Under the CRPD, children with disabilities have equal rights and freedoms guaranteed to all children. It is particularly important for children with visual impairment to be able to access early intervention activities (medical, rehabilitation, social and educational) in order to support improved quality of life, both during childhood years and as adults. CBM's comprehensive eye health programmes therefore focused on a range of fronts: strengthening referral pathways to treatment; ensuring a connection with local education providers; training and awareness raising for family members and teachers to foster independent living skills; fostering the empowerment of children through broader community inclusion and awareness about the capacity of children with disabilities; garnering support from national authorities and membership bodies for child eye health provision and budget. As cataract is the leading cause of treatable blindness in young children, 11 CBM-SiB paediatric projects primarily focused on surgery, carrying out 23,272 cataract operations. In addition, projects in four middle income countries had a specialist focus on the retinopathy of prematurity (ROP). Many of these projects resulted in increased support for child eye health from national authorities and membership bodies. Ongoing training, awareness raising and partnership to influence existing systems all need to be further developed to adapt to the needs of children and the communities where they live.

Awareness raising campaigns have been very successful at addressing misconceptions but need to be repeated regularly.

Our Comprehensive Child Eye Health programme in Nigeria[48] (2017-20) met or exceeded targets; 51,916,003 people were reached, far greater than the original target of 18,393,656 people. The programme saw 1,672,166 children aged 0-14 years screened for eye conditions, 9% more than planned, in 11 states of Nigeria. As a result, 3,973 surgeries took place, 15% more than planned, due to there being more children with minor eye conditions than expected. During the project, 25,322 pairs of spectacles were supplied to children and 2,025 low vision devices were supplied. Targets were met for the spectacles provided and 94% of planned low vision devices were supplied. 35,197,041 people were reached through targeted health education, 109% of the original target. Additionally, a further 15 million

[48] Comprehensive Child Eye Heath in Nigeria (CCEHiN) Final Report

people were reached through mass media, a morning radio news slot on World Sight Day and 13 further radio airings, which was additional to the original targets.

In total 72 optometrists were trained (42 more than the target) and a total of 115 ophthalmic assistants/nurses. Additionally, 306 ophthalmologists were trained (6 more than the target). There were 66% more PHC workers trained in eye care than originally targeted producing a total of 2,303 workers and a further 999 MCH workers were trained. At the community level 10% more people were trained than the original target, of which 71 teachers of the blind were trained in braille, ICT, mobility and maintenance (29% more than the original target). Community Health Extension Workers were trained to use Poverty Probability Index tools for identifying children in need of free treatment and provided with basic eye medication and referral forms. The programme also supported the Federal MOH to domesticate the WHO-Afro- Primary Eye Care training manual to suit the Nigerian context.

Learnings

- Routine eye checks should be carried out as part of the admission process at schools as well as for children who visit health facilities
- Where periodic community eye outreach activities have been conducted by government hospitals, such activities can be restructured to include school eye health programmes
- Awareness raising campaigns have been very successful for addressing misconceptions but need to be repeated regularly
- Ongoing training, awareness raising and partnership to influence existing systems all need to be further developed to adapt to the needs of children and the communities where they live
- Many projects resulted in increased support for child eye health from national authorities and membership bodies.

Box 6 - Ruth from Nigeria

"I was born with cataracts in both eyes," explained Ruth, age 11. It took her mum years of hard saving for one operation. "But the operation on my first eye cost 40,000N each day of the treatment. By the time I could go back for surgery on my other eye (8 years later) the cost had doubled, and we just couldn't afford it." Thanks to the surgery, Ruth has been going to school, but still finds it difficult to see the blackboard, and sometimes falls over.

"One of my teachers at school told me about the free treatment yesterday. So, we came today." This effective awareness raising and referral system meant that Ruth heard about surgery and came for a test quickly. "I was waiting for quite a while in the waiting room as there was a big queue. They tested my eyes. I have been referred for surgery to remove the cataract." The referral system enabled Ruth to be identified as among the poorest families in Nigeria which qualifies her for free treatment. Ruth smiles when she says "I will have an operation. I will be happy after. I will see things very well". Following surgery to remove the second cataract, Ruth's sight has improved. She has been prescribed glasses to help her see even more clearly.

Retinopathy of prematurity (ROP)

Projects in three projects across four countries had a specialist focus on ROP which has become a leading cause of blindness among children in many middle-income countries and is a newly emerging challenge in several African countries as a result of an increasing number of preterm births[49]. Through the projects in Brazil and Peru[50], the Philippines[51] and Indonesia[52], key lessons were identified that can be used by other regional projects seeking more sustainable and advanced ROP detection and treatment systems.

Health management information systems that are integrated into government systems are usually used more regularly and have more impact than stand-alone monitoring systems.

Between 2010 and 2013, the Latin America programme sought to decrease ROP as a cause of blindness in children in Peru and Brazil,

[49] Blencowe H, Lawn JE, Vazquez T, Fielder A, Gilbert C. Preterm-associated visual impairment and estimates of retinopathy of prematurity at regional and global levels for 2010. Pediatr Res. 2013;74 Suppl 1:35–49. and Wang D, Duke R, Chan RP, Campbell JP. Retinopathy of prematurity in Africa: a systematic review. Ophthalmic Epidemiol. 2019;26(4):223–30 in WHO World Report on Vision 2019

[50] *Childhood Blindness in Latin America, Restoring Sight*

[51] *Transforming Lives in the Philippines*

[52] *Addressing Child Blindness, Low Vision and Visual Impairment in Indonesia*

focusing primarily on Lima and Rio de Janeiro, and to develop low vision services which could be used as scalable models and adapted for use in other countries of the region. The multi-disciplinary workshops received professionals from across the region, providing a mechanism for advocacy, planning, networking, team building, sharing knowledge and problem-solving for 3,768 ROP specialists.

The programmes saw a reduction in the risk of blindness among children as a result of ROP and due to the success of the ROP programmes more low vision services were required by children treated in the programme. The training model used can be scaled up or transferred to other countries or regions with a number of small adaptations. Recommended modifications include more practice with clients to be included in the training, access to devices to be organised prior to the training and the first follow up visit to the programme to be made between 2 to 3 months after the training is completed.

Learnings

- High quality ROP programmes require motivated and committed ophthalmologists who have had hands-on practical clinical training from experienced professionals
- Training beyond the workshops needs to be focused on support, supervision, mentoring and problem solving to maintain quality, best practice and commitment on an ongoing basis
- Online educational materials are helpful to reach large audiences at low cost
- In addition to training, advocacy with health ministries is key for the full integration of ROP into government standards and sustainable development of the programme
- Health management information systems for ROP that are integrated into government systems are usually used more regularly and have more impact than stand-alone monitoring systems
- State and Municipal health systems need to work with neonatologists, nurses and ophthalmologists to strengthen referral systems and improve communication with parents so that they gain better understanding of the risks and consequences of ROP

Conclusion and Summary of Programme Learning

The breadth and depth of programmes implemented during the CBM-SIB partnership have resulted in many lessons that were valuable within and across programmes to adapt practice and improve outcomes, and also contribute to the wider body of learning generated by the incredible impact on eye health made possible by SiB. CBM's particular value add has been in ensuring that a comprehensive approach to eye health was also inclusive, increasing the reach to marginalised people including children, with a strong focus on capacity building and leveraging partnerships to increase the sustainability of interventions long past project duration.

Marginalised individuals and groups can access eye health services by taking an inclusive, rights-based approach

The components of CBM's inclusive eye health approach (increasing awareness and understanding about disability, active engagement with OPDs, improving access through inclusive communications, buildings and transport, reducing stigma, building capacity on inclusive approaches and influencing policy to be more inclusive) have helped to improve programme reach to traditionally marginalised and socially excluded people. **Awareness raising by partners is particularly important for inclusion to be mainstreamed into service provision** working with collaborators in public and private organisations. This includes the creation of inclusive awareness and de-stigmatisation campaigns, the refurbishment of eye care centres to become accessible to all, and projects dedicated exclusively to children and their particular eye health needs. A particularly useful tool to facilitate the process of inclusion has been the training of local and national OPDs to conduct **disability audits**. Such audits have successfully identified gaps in eye health services ensuring inclusion for patients as well as the meaningful adherence to universal standards and guidelines on disability inclusion. Audits particularly focus on physical and systemic adaptations that can be made at eye units including attitude change and use of appropriate language when addressing persons with disabilities.

A tailor-made approach may support the participation of a particular group, not only for improved access to treatment but also increasing opportunities in rehabilitation. ZIMAS's ground-breaking work with young people with albinism achieved successful impacts beyond eye health to include viable livelihood choices, de-stigmatisation increased confidence to advocate and greater inclusion in society.

To achieve universal eye health a comprehensive eye care service must be developed. In line with the WHO action plan for universal eye health, CBM-SiB's programmes were reviewed and developed to incorporate all the elements of a comprehensive service that goes beyond a single focus on the medical aspects of eye health. Certain key elements of a comprehensive approach; **diagnosis, treatment, management and prevention** of eye diseases have always been core to all CBM-SiB projects. **Promotion of healthy eyes and behaviour is a key element.** It has proved important to tailor awareness campaigns to local contexts and needs, ranging from a multi-media approach with a strong emphasis on social media in Indonesia to a more traditional focus with precisely targeted and highly successful radio campaigns in Nigeria and Ivory Coast. **Awareness raising activities have played an important part in the prevention of blindness** and should therefore be systematically combined with supply side efforts to improve access to medical care for sustainable results. For example, in Nigeria, despite

offering free or highly subsidised services, uptake by target groups was initially very low until barriers had been understood to then inform appropriate interventions and mobilisation strategies. Plans were tested and modified and several different approaches combined to effectively mobilise people to attend outreach sessions. It was also important for campaigners to discount commonly-held myths such as certain eye health problems being connected with witchcraft.

CBM-SiB programmes have also achieved significant success in **eye health rehabilitation**, the final element of a comprehensive approach, comprising access to rehabilitation services including vision rehabilitation, livelihoods and social inclusion. Furthermore, the CBM-SiB programme in Indonesia helped organise a community group for adults with low vision with the aim of sharing stories and experiences. This has meant that people with a disability have created their own space within the community to be included.

Strong, appropriate infrastructure is essential for quality eye health care to be provided safely, efficiently and sustainably

Building a strong and sustainable infrastructure is essential to strengthening service delivery, particularly for medical procedures and for building sustainability past the end date of any intervention. Infrastructure improvements are important for health system strengthening and therefore need to be a key element for eye health programmes, as applied across the SiB programme. In order to increase the sustainability and effectiveness of projects, **enhancing infrastructure extends beyond improving surgical facilities** and ancillary areas should be considered including patient and carer accommodation in remoter locations and environmentally friendly resource and waste management.

The **provision and maintenance of specialist equipment** is essential to ensure a continuing service past the end date of projects and an important priority is to train equipment technicians to ensure the maintenance and basic repair of specialist equipment. Similarly, **consistent availability of consumables** for treatment of cataract and other surgery is a necessary precondition for providing services, so affordable and sustainable systems for procurement and distribution need to be established or strengthened.

Working in partnerships has been crucial to the success of CBM-SiB's programmes

CBM-SiB's emphasis on effective partner collaboration for resource mobilisation, capacity building and enhanced use of technology helped strengthen programmes to better deliver inclusive eye health. **Forming broad partnerships** helped strengthen networks among eye care providers and built alliances with OPDs and communities. This in turn helped to make partners' work more visible, allowed transfer of expertise on inclusion, and contributed to greater sustainability.

Partnerships have brought many positive outcomes, allowed for exchange of knowledge, supported innovation and provided additional momentum to overcome many challenges to achieve programmatic goals. In particular, **partners found that owning a common project goal and structure enabled better collaboration and information sharing**. Similarly, working with other organisations with complementary programmes generally resulted in better integrated activities and sometimes cost savings for beneficiaries. Assessments should also inform training to maintain and enhance the expertise of each partner institution. Project reports showed that **joint monitoring efforts by partners provided a valuable platform for learning and sharing**, including drawing on OPDs, while investing in data collection systems and creating more and frequent opportunities to share and review data increased data transparency and partner capacity.

Working with **government partners, as the duty-bearers for eye health services, is essential to achieving long-term sustainable improvements** in comprehensive eye health service provision. Areas to consider for strengthening and improvement include policies, resource allocation, coordination, referral follow-up, logistics and data sharing. It was also important to **collaborate with multiple government ministries** when promoting initiatives like child eye health that span across health, education and child welfare departments. A key aspect of government engagement is advocacy, starting by developing a clear advocacy strategy at national and provincial / district levels and involving key stakeholders in advocacy committees which in several SiB projects resulted in positive and sustainable policy and practice outcomes.

Having well-trained and committed staff is essential to the success of eye health programmes

Developing a well-trained health workforce is a key building block of the WHO's health systems framework and capacity building at all levels was a vital component of all CBM-SiB projects. **This approach has resulted in improved service quality**. In some cases, training more staff in a range of specialisations attracted higher patient volumes, enhancing hospital reputations and increasing revenues. By contrast, better equipping mid-level personnel was beneficial in relieving pressure on more specialised eye health personnel. The **training of community volunteers to provide vision screening and referral services** formed a key pillar of inclusive eye health awareness raising and implementation which resulted in an increase in the number of beneficiaries reached. It was also found to be vital to build capacity in the management of health facilities. In some contexts, the developments of **manuals and guidelines** not only supported the delivery of training resources but also **increased sustainability by providing an ongoing resource to influence policy and practice**. It is also important that appropriate compensation be considered for activities that result in increased workload for health staff or volunteers.

Cataract programmes require a system strengthening approach

SiB programmes contributed to the strengthening of worldwide cataract surgery goals, carrying out over 2 million cataract surgeries in 20 countries. In order to address the low surgical coverage and associated higher prevalence of cataracts reported particularly in rural areas, CBM prioritised **infrastructure improvement** by setting up screening and surgical outreach camps in more remote locations, refurbishing eye centres, **building the capacity** of ophthalmologists, optometrists, nurses and health care workers and providing specialised equipment, medications and consumables. **This investment in system strengthening is vital to dramatically improve cataract surgical outcomes**. In addition, collaboration between key implementing partners has resulted in significant, substantial and sustainable improvements to eye care services and their availability for the populations of targeted districts and provinces. In order to plan or monitor progress, **Rapid Assessments of Avoidable Blindness** can provide key information to estimate the prevalence and causes, assess the surgical coverage and identify the main barriers to the uptake of surgery.

Child eye health programmes are critical to maximise prevention and treatment of visual impairments in children

Many of CBM's SiB projects have sought to include comprehensive programmes of different kinds dedicated to children's eye care from birth to adulthood. Ongoing training, awareness raising and partnership to influence **existing systems all need to be further developed to adapt to the needs of children and the communities** where they live. For example it was found that awareness raising campaigns have been very successful for addressing

misconceptions relating to child eye health but do need to be repeated regularly. Where periodic community eye outreach activities are conducted by government hospitals**, such activities should be restructured to include school eye health programmes**. Likewise, SiB programme experience indicates that routine eye checks should be carried out as part of the admission process at schools as well as for children who visit health facilities for other reasons.

Three CBM-SiB projects specialised in Retinopathy of Prematurity (ROP) which has become a leading cause of blindness among children in many middle-income countries. Across these projects it was found that **high quality ROP programmes require motivated and committed ophthalmologists** provided with practical clinical training and follow-on supervision and mentoring to maintain quality, best practice and commitment. In addition to training, **advocacy with health ministries is key for the full integration of ROP** into government standards and sustainable development of the programme.

Conclusion

The breadth and depth of programmes implemented during the CBM-SiB partnership have resulted in lessons that were valuable within and across programmes to adapt practice and improve outcomes, and to contribute to the wider body of learning generated by the incredible impact on eye health made possible by SiB. CBM's particular value-add has been in ensuring that a comprehensive approach to eye health was also inclusive, increasing the reach to marginalised people including children, with a strong focus on capacity building and leveraging partnerships to increase the sustainability of interventions long past project duration.

As the SiB programme draws to a close in 2020, we celebrate the achievements and impact of this "*ground-breaking corporate and NGO partnership that demonstrates how, through an ambitious goal and collaborative action, a diverse range of stakeholders can come together and make a difference*"[53]. CBM has been proud to partner with SC, IAPB and numerous local and national organisations and governments across 20 countries over the last fourteen years. Whilst celebrating the achievements, we also reflect on the learnings documented in this Programme and Learning Review and are committed to building on them, along with our partners as part of our relentless drive towards improving the quality of life of people with visual impairments, through comprehensive, sustainable and high-quality systems and services.

[53] SC, IAPB, A visionary partnership: 15 years of Seeing is Believing, September 2018, in https://av.sc.com/corp-en/content/docs/A-partnership-vision-15-years-of-Seeing-is-Believing.pdf