

Refractive error strategy

Tackling the world's biggest cause of visual impairment





Contents

4 Acronyms	34 Sustainability and scale
6 Executive summary	38 Safeguarding
8 Introduction	39 Measurement, learning and accountability
10 Context	40 Research and evidence uptake
22 Strategic framework	42 Thematic links
26 Theory of change	45 References
28 Inclusion and equity	
32 Access and quality	

Cover image

Ariane sees well with her glasses during lessons at her primary school in Mali.

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Acronyms

AT Assistive technology

CHW Community health worker

CRPD Convention on the Rights of Persons with Disabilities

CSOs Civil society organisations

GBD Global burden of disease

HMIS Health management information system

HSS Health system strengthening

IAPB International Agency for the Prevention of Blindness

IPEC Integrated people-centred eye care

LMICs Low and middle income countries

LNOB Leave no one behind

MSVI Moderate and severe visual impairment

NCDs Non-communicable diseases

NTDs Neglected tropical diseases

OPDs Organisations of people with disabilities

RE Refractive error

SBC Social behaviour change

SDGs Sustainable Development Goals

UHC Universal health coverage

UN United Nations

URE Unaddressed refractive error

VI Visual impairment

WHA World Health Assembly

WHO World Health Organization

WRV World Report on Vision



Executive summary

Good health and wellbeing are essential for us all and vision plays a critical role in every facet and stage of life. Improving people's vision through inclusive, high-quality refractive services allows children to learn and adults to earn – it helps to improve confidence, independence, productivity and wellbeing.

Refractive errors are the most common cause of visual impairment. Correcting a refractive error with an eye examination and spectacles is a simple, cost-effective and high impact intervention. But despite this, the unmet need for refractive error corrections remains significant, particularly in resource-poor settings.

Globally, at least 1 billion people have a visual impairment that is unaddressed or could have been prevented.² The global need for eye care is projected to increase dramatically in the coming decades, posing a considerable challenge to health systems.³ The number of people with myopia is projected to increase from 2.6 billion in 2020 to 3.4 billion in 2030, due to population growth, urbanisation, increased time spent indoors and doing near work.⁴⁵

This rising burden of visual impairment and blindness is not equally distributed, with women and girls, people with disabilities and people living in low and middle income countries (LMICs) disproportionally affected. For many children with visual impairment, low selfesteem associated with disability and lower levels of educational attainment can pose considerable barriers to their development and, from a national perspective, the economic cost of lost productivity due to visual impairment can be significant.

The growing climate crisis and the health and socio-economic impact of COVID-19 add to these concerns and threaten the global progress made in health so far. In many countries, systems are ill-equipped

to respond to these increasing demands, with refractive services typically poorly integrated into national health and education strategies and budgets.

Refractive Error Strategy sets out three clear goals to respond to these challenges.

- **1.** Promote and support refractive services as an integral part of universal health coverage (UHC).
- **2.** Develop equitable and inclusive approaches to increase access to, and use of, high-quality sustainable refractive services.
- **3.** Strengthen and diversify partnerships and alliances that maximise impact for those in most need and provide value for money to stakeholders.

Goal 1 focuses on integration.

To address inequities and improve access to refractive care, Sightsavers will promote the effective integration of refractive services and products into national health and education systems, and support governments to progressively realise UHC.

The goal also recognises the importance of research and policy influencing in achieving these outcomes for Sightsavers. Good quality data, research and knowledge are critical for making evidence-informed decisions on how best to make progress to UHC. For example, Sightsavers will measure the equity of access to refractive services by different population groups to fulfil the UHC goal to leave no one behind.



Goal 2 focuses on equity.

Over this next strategic period, Sightsavers will develop and test refractive services that are sustainable, as well as genderand disability-responsive. We will work to influence the gendered social norms that prevent girls and women from using spectacles and taking up treatment options, by using approaches such as social behaviour change. We will also work to empower people with disabilities to be aware of their eye health needs and to demand and seek services.

There is a growing need to expand effective coverage of refractive services to respond to the current and significant projected increases in demand. Sightsavers will support governments to monitor the effective coverage of refractive services.

Goal 3 focuses on partnerships.

Working effectively with others will be critical to this strategy's successful implementation. In many countries, there is limited prioritisiation and financial resourcing for refractive services, especially in the provision of spectacles for people who cannot afford them. In partnership with governments and the private sector, we will promote domestic and external resource mobilisation. Working with the private sector, we will address the regulation, and supply chain and demand generation barriers, that affect the sector.

Sightsavers will continue to work with existing partners, but also use this strategy as an opportunity to reach out to new partners in the private sector, education, economic empowerment, women's empowerment and the technology sector. By working with others, we will have a greater chance of achieving the transformation needed to meet the growing needs of refractive care.

In addition to these ambitious goals, we have set out core principles that underpin our approach and interventions. These principles include a focus on leaving no one behind, the importance of health and education systems strengthening, and Sightsavers' continued commitment to safeguarding staff, beneficiaries and partners.

Our aim is to improve people's vision through greater access to inclusive, high-quality refractive care. It is ambitious, but achievable. It will require a step-change in the access and use of refractive care, particularly for the poorest people. It will be achieved by working in partnership with governments, civil society, the private sector, and communities. Sightsavers looks forward to facing the challenges – and grasping the opportunities – that lie ahead as we realise this ambition.

Introduction

Sightsavers' vision is of a world where no one is blind or visually impaired from avoidable causes and where people with disabilities participate equally in society.

Good vision is critical for many aspects of life, including health, education, economic productivity and broader sustainable social development. Yet today, many people, families and communities continue to suffer from the consequences of poor access to high-quality, affordable eye care, resulting in visual impairment and blindness.

Globally, at least 1 billion people have a visual impairment that is unaddressed or could have been prevented.⁶ Unaddressed refractive error (URE) is the most common cause of visual impairment, contributing to 41% of moderate and severe visual impairment (MSVI) and 6.6% of blindness.⁷⁸ Women and girls account for 55% of people with visual impairment.⁹ As the world's population continues to grow and become older, the number of people with RE is expected to increase in the coming decades.¹⁰¹¹

URE poses an enormous global financial burden in terms of productivity loss. The loss to the global economy has been estimated to be \$244 billion per year from uncorrected myopia¹² and \$25.4 billion per year from unaddressed presbyopia.¹³ These losses

are much greater than the cost of addressing the challenge of RE, which has been estimated to be \$16 billion. 14

Correcting RE with an eye examination and spectacles is a simple, cost-effective and high-impact intervention. As the most common corrective intervention. spectacles are included on the WHO Priority Assistive Products List. However, there continues to be significant unmet need for RE correction, particularly in LMICs. The provision and use of refractive services and spectacles is severely undermined by: weak health systems with insufficient resources and infrastructure; the high cost of diagnostic equipment; inefficient supply chains for spectacles; the poor density and distribution of a comprehensive eye health workforce; and the lack of awareness and stigma associated with wearing spectacles.

Addressing challenges of refractive care would improve people's lives and health outcomes, improve learning outcomes, and enhance employment opportunities for people with refractive errors. It would contribute to more productive societies, support progress towards UHC and help to ensure we leave no one behind.

Sightsavers' refractive error strategy 2017 focused on developing approaches and practices to integrate RE into health and education systems, improving the quality of the delivery of RE interventions and sustainability. It also focused on promoting links across Sightsavers' eye health, education and social inclusion strategies.

In line with the recent global consensus on strategies to accelerate progress towards integrated people-centred eye care (IPEC) within the broader UHC agenda, as laid out in the World Report on Vision (WRV) 2019, a strategic shift in our approach is required. This shift will reposition Sightsavers' RE strategy to focus more on improving access, quality and sustainability of refractive services based on the principles of equity, system strengthening and inclusion, as well as tailored approaches to private sector engagement. The focus on private sector engagement is in line with the WRV 2019, which highlights that health systems involved in eye care cannot deliver effective services without addressing the role of private sector in all aspects of planning, development, implementation and review. The new refractive error **strategy**, building on achievements to date, aims to accelerate access to, and use of, equitable and inclusive refractive services by strengthening health and education systems, leading to long-term sustainable socio-economic impact for individuals, communities and societies.



Refractive Error (RE) occurs when the shape or length of the eye prevents light from focusing directly on the retina, resulting in blurred vision.

There are four types of RE:

- 1. Near-sightedness (myopia), which makes far-away objects look blurry
- Far-sightedness (hyperopia), which makes nearby objects look blurry
- Astigmatism, which makes far away and nearby objects look blurry or distorted
- 4. Presbyopia, which makes it hard for middle-aged and older people to see things up close



View the WHO Priority Assistive Products List: www.who.int/ phi/implementation/assistive_ technology/global_survey-apl/en/

View the WHO World Report on Vision (WRV) 2019 Products List: www.who.int/publications/i/item/9789241516570

Context

The global need for refractive care

Increased access to refractive care is critical to achieving many global commitments, including the Sustainable Development Goals, universal health coverage, the UN Convention on the Rights of Persons with Disabilities and the 'leave no one behind' principle underpinning the 2030 Agenda for Sustainable Development. Good vision is essential for future global development and supports progress across the SDGs, either as a means of achieving individual goals and targets, or as a contributing factor to the achievement of others.

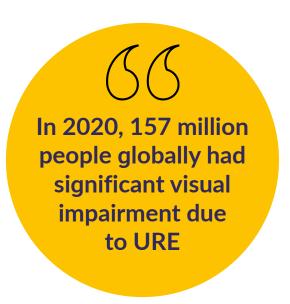
The global burden of RE is difficult to estimate due to variations in methodologies and the fact that the majority of REs, particularly in LMICs, remain unknown and unaddressed. The most recent estimates by the Vision Loss Expert Group¹⁶ suggest that in 2020, 157 million people globally had significant visual impairment due to URE affecting distance vision, including at least three million people who were blind. In addition, 510 million people were without adequate correction for functional presbyopia. However, the number of people affected by both addressed or unaddressed RE is much greater.

As with visual impairment more broadly, the burden of URE is not distributed equally, disproportionately affecting women, people with disabilities, older people and those living in LMICs. For example, the prevalence of distance visual impairment due to URE is estimated to be four times higher in LMICs than in high-income countries.¹⁷ The prevalence of URE affecting near vision is estimated to be eight times higher in sub-Saharan Africa compared to high-income regions of Asia-Pacific and North America.¹⁸

Current demographic trends and lifestyle changes suggest that the number of people with RE will grow significantly in the next decade. 19 20 By 2030, the number

of people with myopia is projected to increase to 3.4 billion due to population growth, urbanisation and increased time spent indoors and doing near work.^{21 22} The number of people with presbyopia is projected to increase to 2.1 billion, largely due to population growth and ageing.²³

While RE cannot be prevented, if people are screened regularly and able to access affordable, good quality care, RE can be corrected and the negative impact of URE for individuals and societies can be mitigated or removed.





Challenges and opportunities

The challenges

Key barriers that perpetuate the current situation of low access to, and use of, refractive and optical services in LMICs include: low levels of investment by governments; high costs to the end-users; complex in-country supply chains; a service delivery model that requires high levels of resources in terms of eye health workforce and infrastructure; limited number of services; ineffective coordination with the private sector; and low awareness and acceptance of spectacles.

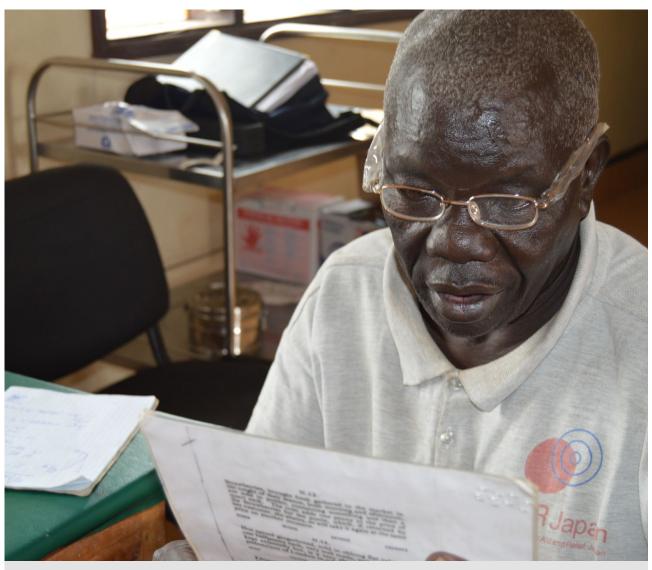
While public awareness is possibly the most critical intervention to drive the uptake of health services, the eye health sector has seen comparatively little success in raising awareness of RE on a large scale. We know, from the success of awareness-raising around cataract and trachoma, that eye health campaigns can drive not only patient awareness and education but also result in policy change. However, there are unique challenges when it comes to the uptake of RE services. Even when services

are available, people do not get their vision tested because they are unaware that their vision problems can be solved, have learned to compensate or may be subject to negative attitudes and stigma around wearing spectacles, especially for women and girls.

In most LMICs, optical markets are unregulated. There is limited public provision of spectacles, even though the World Health Organization (WHO) recommends that spectacles should be provided within the context of comprehensive eye care and integrated within the health care system and national health plans. The supply chain for prescription spectacles is also complex, due to the level of customisation required to meet a prescription. Regulatory barriers and high import duties also inhibit the reduction of delivery costs around the world. Until these challenges are addressed by national governments, quality and affordability will remain issues for many people.



Preston (left) is fitted for new glasses frames at a newly opened eye clinic in Liberia.



Lino, who lives in Turkana, Kenya, has an eye examination.

The opportunities

While the challenges are complex, there are known solutions and many strategic opportunities that can facilitate increased access to and use of refractive care globally. Sightsavers has been working in the RE area for a number of years and this support has contributed to increasing access and use of spectacles in many LMICs. Since the organisation began collecting URE statistics in 2004, we have dispensed over 4.5 million pairs of spectacles across Africa, Asia and the Caribbean.

Sightsavers' RE strategy provides an overview of how we will engage with and amplify these opportunities. It outlines the guiding principles and overarching strategic framework to sustainably increase access to and use of high-quality, inclusive refractive services in the countries where we work. It also sets out our long-term strategic objectives and priorities for a high impact and evidence-informed programmatic approach to improve the accessibility, availability, and affordability of inclusive refractive services and products.

Global policy context

Sustainable Development Goals (SDGs)

The 2030 Agenda for sustainable development sets out a path for global peace and prosperity for people and the planet. At its heart are 17 SDGs, which require action by countries, companies and

civil society. Vision correction makes an important contribution to the 2030 Agenda and cuts across many of the SDGs. Our RE strategy contributes to a range of different SDGs and targets.

SDG 1: No poverty Provision of refractive services and spectacles enables people to work safely, boosting productivity and earning potential that can lift people out of poverty.

SDG 3: Good health and wellbeing Good vision is key to ensuring good health and wellbeing. It helps sustain mental health and contributes to UHC. Vision correction also plays a significant role in road safety, contributing to SDG target 3.6 (to reduce the number of global deaths and injuries from road traffic accidents).

SDG 4: Quality education Educational performance is linked to good vision. Early detection of vision problems and provision of refractive correction contributes to SDG 4 by increasing retention rates among students with refractive error and facilitating active participation to improve academic performance.

SDG 5: Gender equality Fighting preventable blindness due to unaddressed RE contributes to greater gender equity, enabling women and girls to access education, employment, and a fulfilling community life. An educated and economically empowered woman gains her rightful place in society, raising the status of girls and women.

SDG 8: Decent work and economic growth Improved vision enhances economic productivity, increases household income and improves employment prospects. It has been shown that providing a pair of near vision spectacles can improve work productivity by 20%.²⁴ These economic benefits, particularly when delivered in low-resource settings, can be instrumental in promoting economic growth.

SDG 10: Reduced inequalities

The burden of URE is disproportionally concentrated among underserved and marginalised populations. Correcting their vision will contribute to achieving economic and educational equity in the future and ensure we leave no one behind.

SDG 17: Partnerships for the Goals Tackling URE will only be achieved through strong global partnerships and cooperation. Building global, regional, national and local partnerships with public, private, and non-profit sectors will harness innovation, breakdown social and financial barriers, and accelerate access to high-quality refractive care for all.

The UN Convention on the Rights of Persons with Disabilities (CRPD)

The UNCRPD, adopted in 2006, is an international human rights treaty that addresses the rights of people with disabilities. Article 25 of the CRPD on access to health care for people with disabilities ensures that people with disabilities are treated with dignity and have access to services on an equal basis with others (without discrimination).²⁵ Additionally, Article 9 highlights the need to take appropriate measures to ensure access for people with disabilities to medical facilities, transportation, information and communications, both in rural and urban areas.

Disability is commonly left out of national development strategies and action plans and rarely linked to national health, including eye health and RE strategies. Addressing the needs of people with RE is of utmost importance to ensure optimal everyday functioning. It is this interaction between impairment, access to care and environment that is at the heart of the CRPD's definition of disability.

World Report on Vision 2019 (WRV)

The WHO has guided the development of eye health, including RE policy, for decades through successive initiatives such as Vision2020 and WHO Global Action Plan. In October 2019, the WRV was published. The report, and accompanying WHA Resolution (WHA 73.4), guide policy and programme action for the next 10 years and the WHO is developing tools, including a package of eye care interventions (PECI), to support national implementation and make faster progress towards UHC.



Janet Abdullah, an optometrist working in Nampula hospital, Mozambique.

The integration of eye care, including RE services, into UHC is a critical health priority. Refractive services must be delivered according to population need to improve service coverage and reduce inequalities that people face. In terms of financing, this means ensuring that the cost of refractive services is included in national eye care packages, which are in turn covered by pre-paid and pooled financing so that people can access essential refractive services without exposure to financial risks.

The report also introduces IPEC as a new strategy for action. This approach means putting the needs of people and communities, not just diseases, at the centre of health systems. ²⁶ To ensure effective implementation of IPEC, RE programmes need to be integrated and coordinated with other sectors and levels of care, both within and outside of the health sector. Within this paradigm, people are seen as beneficiaries and participants of these services throughout their lives.

The WRV highlights that effective interventions covering promotion, prevention and treatment of eye conditions, including RE, are cost-effective health care interventions. Technological advances and innovative approaches to delivery offer opportunities to rapidly scale up access and use of cost-effective RE services, supporting IPEC and faster progress towards UHC.

Operating environment



Fragile, conflict-affected and vulnerable settings

The term fragile, conflict-affected and vulnerable settings broadly describes situations of crisis.²⁷ People living in these contexts may experience more health, education, humanitarian or climate-related crises or armed conflict, or live in acute, protracted or complex emergencies.²⁸ In such settings, health and education systems face significant challenges, including fragmentation or prolonged disruption of services, an unpaid workforce unable to work in safety, disruption to supply chains, lack of resources and displaced populations. There is a huge unmet need for refractive services in these contexts.



Affected populations

The people particularly at risk are those who face inequality and barriers accessing their rights in everyday life, including women, children, people with disabilities, older people, refugees and internally displaced populations, and indigenous populations.²⁹ Good health and strong health services, including vision care, are critical in reducing the risks people face in these contexts. Sightsavers will engage with relevant stakeholders to identify and bridge the gaps in resilience and mitigation plans, and facilitate the inclusion of eye health and refractive services into essential health services. We will focus on opportunities that allow health and education systems to become more equitable and inclusive, as well as better equipped to serve the needs of our communities and society at large.



Climate change and environment

Current predictions show low income countries are most adversely affected by climate change and have lower capability of adapting to climate risks. ³⁰ Expanding areas of arid land, air pollution, and greater exposure to ultraviolet radiation all present potential health hazards to people's eyes, leading to the increased burden of disease.

The eye sector contributes to high levels of medical and optical waste. High volume outpatient interventions associated with refractive and optical services produce waste, which can add to the carbon footprint if safe, efficient, and environmentally sound methods for the handling and disposal of waste are not in place. Incorporating environmentally sustainable approaches in refractive programmes can put health systems on a climatesmart development path, aligning health development and delivery with global climate goals.



Low income countries are most adversely affected by climate change

In our refractive error programmes, we aim to:



Follow Sightsavers' global overarching environmental policy.



Manage our e-waste in an environmentally sound manner.



Ensure environment-friendly disposal of solid and liquid waste from refractive and optical facilities we support.

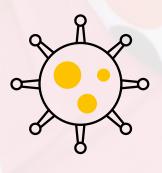


Focus on sustainable procurement, ensuring our suppliers also strive towards environmental excellence.



Increase awareness among staff and partners about the importance of energy efficiency, and use energy-efficient light sources in refractive and optical facilities.

Rabi'atu Aliyu taking part in training at a secondary school in Jigawa state, Nigeria.



Refractive care during COVID-19 and beyond

The outbreak of COVID-19 has put a spotlight on the resilience of health and education systems and countries' emergency preparedness and response. The COVID-19 pandemic has created not only a health care and education crisis, but also an economic one. The long-term societal, health, education and economic impacts of the pandemic are not yet known. However, it has set the clock back on the attainment of UHC and education goals and disproportionately affected the poorest and most marginalised people.

The pandemic has significantly interrupted the access to eye health and refractive services provided as part of

school health integrated programmes, with a disproportionately negative impact on the most marginalised students. Closures of schools and other learning spaces have impacted 94% of the world's student population, up to 99% in LMICs.³¹ It has also led to increased screen time both for children learning online and adults working from home, affecting people's eye health and broader health and wellbeing.

While long-term effects will take time to evolve and understand, there is a renewed emphasis on building resilient and responsive health and education systems. In the wake of the pandemic, eye health and refractive care need to be considered as an essential part of health and associated health service packages. COVID-19 will not be the last pandemic we face, and it is likely to transform the relative importance of health and education systems within government policy at large. We will continue to make a concerted effort to position vision within mainstream health and education policies, emphasising the need to embed eye care, including refractive services and products, in national health and education systems.



Inequalities in vision care

Poverty and visual impairment are interrelated. We know that the burden of URE is not distributed equally. The association between URE burden and socio-economic status highlights the importance of providing affordable, highquality refractive services.³² The same patterns of persistent inequalities exist within countries too - the prevalence of visual impairment tends to be higher in underserved population groups. URE can impact negatively on a person's quality of life and their functionality - it can lead to exclusion from education and employment and significantly impact productivity and result in a loss of income and other opportunities.

In many LMICs, eye care is typically poorly integrated into national health strategies, plans and budgets. Ministries of health frequently require support to integrate eye care into UHC policies, national health information systems, health worker competency frameworks and health sector planning and financing. Increasing access to RE services will require efforts to integrate eye care, not only into the planning of the health sector in general, and into specific health programmes in particular (for example, non-communicable diseases, primary care and rehabilitation), but also other sectors, such as education.33 The highest burden of near visual impairment, due to unaddressed presbyopia, occurs in LMICs. For example, rates of

unaddressed near visual impairment are more than 80% in western, eastern and central sub-Saharan Africa while as low as 10% in high-income regions such as Asia-Pacific and North America.³⁴

Population growth and ageing, in addition to lifestyle and urbanisation, will dramatically increase the number of people with eye conditions, visual impairment and blindness over the coming decades and increase demand on eye care services.³⁵ By 2030, it is expected that the number of people 60 years and older will increase from 962 million (2017) to 1.4 billion, and those over 80 will increase from 137 million to 202 million.³⁶ Women are at greater risk of developing eye conditions associated with ageing as they live longer, on average, than men.

Myopia is a major and growing public health challenge. Over 2 billion people worldwide have some degree of myopia, 15% of whom have high myopia. By 2030, myopia is expected to affect 3.4 billion people and by 2050, the number is expected to increase to 5 billion people, more than half of the projected global population at that time.³⁷ This demand will pose a significant challenge to national eye health systems.

With the projected increase in RE and its associated vision loss over the coming decades, urgent action is needed to develop innovative approaches to deliver inclusive refractive services at scale. Our RE strategy aims to mobilise national, regional and global stakeholders to develop and strengthen an enabling environment to increase access to high-quality refractive services and products for all.

Strategic framework

The overall goal of the refractive error strategy is to increase equitable and sustainable access to inclusive and high-quality refractive care. Our work is guided by a set of core principles, that underpin our approach and interventions.

Guiding principles

Leave no one behind

We aim to achieve this central principle of the SDGs: that it is not enough to make progress through our RE programmes unless that progress includes all people within the communities where we work, with a particular focus on disability, gender, age and income. This will require a peoplecentred approach with a specific focus on marginalised people, including people with disabilities.

Coherence

We acknowledge that changes in approach and priorities within health and education systems take time and consistent stakeholder engagement. To ensure that all of our RE programmes are designed and implemented in an inclusive way, we will work closely with eye health, education and social inclusion teams to promote coherence and strategic alignment.

Sustainability

We aim to develop programmes, in partnership with systems and organisations, that will have a long-term sustainable impact, primarily defined as those which will be able to continue effectively once our direct inputs have ended. This includes considering the political, financial, technological, socio-cultural and environmental aspects of RE programmes.

System strengthening

We seek to ensure that our RE programmes are designed and implemented with existing health and education systems in mind. This includes working with governments, the private sector and civil society organisations to facilitate increased access to resilient and responsive refractive services.

Quality

We see quality as an ongoing process of continuous improvement and not a fixed point. Specific aspects of quality that we will focus on are: effectiveness, efficiency, accessibility, acceptability, equity, and safety.

Evidence-based

We will both contribute to and learn from the available evidence. We will ensure that the evidence we generate from our RE programmes is relevant, well communicated and understood by stakeholders, including people and communities we serve, and that we reflect on, analyse and use evidence in the design and implementation of our programmes.

Partnership and participation

We firmly believe that working in close partnership with organisations embedded in the countries where we work is key to ensuring a large-scale sustainable change. We will continue to focus on diversifying our partnerships with public, private and not-for-profit sectors to focus on initiatives that address systemic challenges and accelerate scale.

Alliances

In line with our growing consortia-based approach, we will continue to work in strategic alliances with other like-minded organisations and institutions to maximise shared learning and mutual impact of RE programmes. We will also work in partnership with education, general development actors and the private sector, where relevant, to support the development of longer-term scalable RE interventions and investments.

Safeguarding

We recognise the potential power relationships involved in any development programme and the potential for exploitation or abuse by those holding the power. Our approach is focused on a clear code of conduct, risk assessment of both partners and programmes (including our own role within these), training of our own and partner staff, rigorous reporting mechanisms and swift and proportionate action when incidents occur.



Sightsavers will not endorse:

- Screening without the availability of examination including refraction, spectacle provision, and appropriate referral mechanism
- 2. Sporadic refraction camps independent of the health and education systems
- **3.** The use of personnel who are inadequately trained, supported or supervised
- 4. The use of glass lenses for children (we strongly recommend the use of polycarbonate/plastic lenses)
- **5.** The use of recycled spectacles
- **6.** Self-refraction with adjustable spectacles
- 7. Any programmes or activities that don't follow Sightsavers' safeguarding policy and practices; or systematically exclude specific population groups

Goals and objectives

Goal 1: Promote and support refractive services as an integral part of universal health coverage

Objective 1.1: Support governments to integrate high-quality refractive services and products into health and education systems at all levels to improve health, inclusion and learning outcomes for all.

Objective 1.2: Support and promote research and policy engagement on universal health coverage and access to refractive services.

Goal 2: Develop equitable and inclusive approaches to increase access to, and use of, high quality sustainable refractive services

Objective 2.1: Develop and test innovative approaches of cost-effective, sustainable, gender-responsive and disability-inclusive refractive services and generate evidence on their feasibility, cost-effectiveness and impact.

Objective 2.2: Promote capacity to improve quality and monitor the effective coverage of refractive services at national levels.

Objective 2.3: Increase demand for, and use of, refractive services and products, especially for women and girls, and people with disabilities.

Objective 2.4: Support communities to demand their rights to eye health and hold governments and service providers to account.



Quita, 10, takes an eye screening test in Liberia.

Goal 3: Strengthen and diversify partnerships and alliances that maximise impact for those in most need and provide value for money to stakeholders

Objective 3.1: Strengthen partnerships and alliances to advocate for and galvanise more and better domestic and external investment for refractive services and programmes.

Objective 3.2: Increase access to refractive care through private sector engagement to ensure delivery of affordable, high-quality spectacles and related services.

Objective 3.3: Strengthen links, internally and externally, with education and inclusion strategies to maximise impact of refractive services and programmes.

Theory of change

Eliminate unaddressed refractive error to contribute to universal health coverage

All people of all ages have equitable access to high-quality, affordable refractive error services thereby improving wellbeing, learning outcomes and economic productivity





Inclusion and equity

Increased availability of high quality RE services that are gender responsive and disability-inclusive

Effective advocacy and policy engagement promote the integration of RE services into health and education systems

High quality research and data supports evidencebased decision-making and interventions

Service providers adopt inclusive approaches to RE, reaching more women and girls, and more people with disabilities

Access and quality

Improved access and use of affordable high quality RE services that are responsive to population needs

A competent and adequately resourced workforce delivers high quality, easily accessible RE services at national levels

Private sector engagement strengthens access, affordability and quality of services and products

> Innovative approaches drive down costs and increase the inclusion and sustainability of RE services

Reduced stigma and increased demand for RE services and products strengthens uptake and use

Sustainability and scale

Improved RE resourcing, maximised collective impact, and increased accountability and scale

Strong partnership with domestic and external stakeholders leads to high quality, affordable RE services

Governments and service providers are held accountable for scale and ensure the quality of RE services and products

Increased domestic and external investment for UHC through effective advocacy and policy engagement

Underlying principles: Leave no one behind. Coherence. Sustainability. System strengthening. Quality. Evidence-based. Partnership and participation. Alliances. Safeguarding

Inclusion and equity

An evidence-informed, multi-sectoral, systems-focused and inclusive approach is critical to ensuring that people with refractive error have access to high-quality services, spectacles and the continuum of care that they need. This requires bringing together the public and private sectors, multilateral organisations, donors and the communities themselves. The following section highlights the key elements of the strategic framework that will help us to achieve our strategic goals and objectives.

Universal health coverage (UHC)

The aim of universal health coverage (UHC) is that everyone should have access to the quality promotive, preventive, curative, rehabilitative and palliative health services that they need, without exposing the user to catastrophic expenditure.

Including refractive services and products in national strategic health plans and essential packages of care is an important part of every country's journey towards UHC. When making policy choices on addressing RE, governments should consider the cost-effectiveness of RE interventions. Context-specific cost-effectiveness analysis, budgetary impact and feasibility analysis needs to be used more widely to better inform governments in making decisions on RF services.

Sightsavers' preferred approach to supporting countries on their path to UHC aims to ensure that refractive services are included within national strategic health plans and policies, and their associated health financing mechanisms. Provision of refractive services also needs to be considered in policies and planning by other government ministries, including education, labour and finance. We will support national and regional stakeholders, in both public and private sectors, to integrate refractive services in health systems and contribute to progressing the agenda of eye care as part of UHC.

Gender equity

Visual impairment is a gender issue. Women account for 55% of people with visual impairment, and projections suggest that women will experience an increasing proportion of vision loss. The average life expectancy of women is longer than for men and many eye conditions, including presbyopia, are associated with increasing age. In many countries, women and girls have less access to eye health services due to various socio-economic and cultural challenges. This gender and eye health disparity is found globally, in the contexts of all treatable eye conditions, and the numbers are even greater at a young age.³⁸ The stigma associated with spectacle use is more apparent for girls and women in some communities.³⁹ Millions of girls and women lack access to eye care services around the world. The pledge to leave no one behind, the goal of achieving health and wellbeing for all and efforts to achieve UHC cannot be successful unless we address gender inequity in eye care.

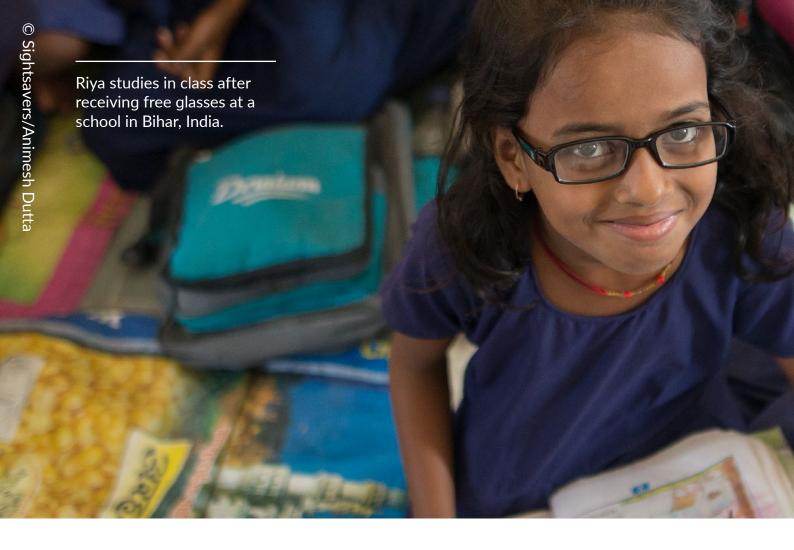


Student Ferdoshi receives free eye glasses at a school in Rangpur, Bangladesh.

Effective RE programmes are those that respond to the different needs and situations of women, men, girls and boys, and benefit everyone equally. To ensure gender responsiveness of our programmes, we will apply a gender lens in our programming, policy and advocacy work; and assimilate new global thinking and put it into practice in the local context. We will also focus on:

- embedding gender into programme objectives, strategy, success measurement and impact assessment.
- prioritising gender analysis and using data to analyse differences in patterns of service utilisation and behaviours at different points of the continuum of care and designing evidence-informed interventions.

- tapping into the expertise of others by partnering with gender-focused and women's organisations.
- engaging men and boys as agents of change to promote mutual trust, growth and lasting social change.
- influencing negative gendered social norms that prevent girls and women from using spectacles and taking up treatment options, by using approaches like social marketing and social behaviour change.



Inclusion

Inclusion is at the heart of Sightsavers' RE strategy. To ensure that refractive services are provided in a barrier-free environment, and are inclusive and sustainable by design, we will actively collaborate with local stakeholders to ensure that people with disabilities are included in our programmes and processes, identifying entry points to make eye health and education systems more inclusive, and generating evidence on what works. Spectacles are an essential assistive product included in the Priority Assistive Products List developed by WHO through the GATE initiative. 40 We will continue to promote access to affordable assistive technology for all by working with governments, private sector, organisations of people with disabilities (OPDs), civil society organisations (CSOs),

and others, and engaging both the demand and supply sides of refractive services. We will also focus on adapting refractive interventions to address the RE needs of other marginalised groups who experience multiple levels of exclusion and discrimination, and whose full and effective participation in society will not be possible unless all inequalities they face are addressed. We will promote the meaningful engagement of people with disabilities and OPDs in RE sector planning, and engage and empower people to be aware of their RE needs and demand and seek services.



Advocacy

Central to Sightsavers' approach is influencing policy change at the local, national, and global levels, meaning we can have a long-term and sustainable impact. By making policy change central to our approach, we can ensure that we have an impact beyond the geographic coverage of our interventions, and beyond their active period.

At both the national and global levels, Sightsavers' influencing focuses on ensuring that policies, agreements and frameworks are in line with our objectives, as set out in this strategy. The existence of policy frameworks is not sufficient, and so we also advocate for the implementation of policy and hold governments and development actors accountable for their commitments. Across all our advocacy, we build constructive partnerships and ensure that the voices of people who are marginalised are heard in policy development.

To deliver this strategy, our overall influencing objective is to ensure that highquality refractive services are delivered through national and international policy frameworks that promote access to effective, safe, and inclusive health care services for all. We will advocate to ensure that integrated people-centred eye care and RE services are integral to UHC frameworks in the countries where we work. We will also continue to actively engage with the ministries of education and advocate for the integration of eye health and vision screening, and the provision of spectacles and assistive technology into school health policies and frameworks to ensure positive learning outcomes for all. To ensure that our advocacy is systematic we will integrate it into the design of programmes, and throughout the programme cycle.

Access and quality

System strengthening

According to the World Health Organization, health system strengthening interventions are those that implement "changes in policy and practice in a country's health system" and improve "one or more of the functions of the health system and that leads to better health through improvements in access, coverage, quality, or efficiency". To address the challenge of uncorrected refractive error, countries require effective, functional health and education systems that can deliver essential eye health services to those in need.

Health, education and economic development systems face unprecedented challenges in meeting the current and projected RE needs of the world's population. LMICs lack competent and well-resourced eye health workforces to enable them to deliver refractive services. A disparity in the distribution of the eye health workforce between rural and urban areas is also widespread. Optometrists and mid-level eye care workers are involved in the management of RE worldwide, but are often not accredited to carry out eye care services independently. Task-shifting to optometrists and mid-level eye care workers can support the detection and treatment of RE and other eve conditions in LMICs. WHO recommends moving from a pre-defined set of eye health workers to a competency-based approach – this can help train and deploy competent eye health workforce for communities in need.

Focusing on a system strengthening approach and making refractive services an integral part of health and education systems can help address some of the challenges faced by countries. To facilitate this, we will:

- support long-term systematic cooperation between ministries of health and education for system strengthening and leading to sustainable solutions that can be scaled up.
- work with a range of stakeholders and partners to integrate the WHO Package of Eye Care Interventions at all levels of care.
- support capacity building of the eye health workforce to provide refractive services and meet the existing and projected need.
- help address both supply and demand challenges in the delivery of refractive services by incorporating innovation in programmes.
- support efforts for more and better health financing and improve efficiency and equity of financing within the health system.
- influence and learn from the broader health and education sectors to develop standardised approaches and practices that can be integrated into refractive and school health programmes.



Refraction screening equipment at a clinic in Greenville, Liberia.

Social behaviour change

Structured and evidenced social behaviour change (SBC) is about influencing healthy and inclusive behaviours and creating a supportive environment for these to flourish. Use of vision correction services and adherence to spectacle use is a common problem in many countries where we work and is often influenced by a lack of knowledge and negative perceptions, attitudes and misconceptions. There is also a clear link between the quality of RE service delivery (which includes attitudes of staff) and patients' perceptions of services, which then influences their individual decision on whether to take up the service. To embed SBC approaches in our RE programmes, we will focus on:

 using a people-centred approach to understand and influence eye health behaviours of children, parents, older people and people with disabilities.

- trialling and embedding SBC innovation as a central pillar of programme design to address deeply rooted social and cultural norms that can create discrimination and inequity in access to services by people with disabilities, women and other marginalised groups.
- designing and piloting context-specific social marketing approaches to encourage the use of spectacles among girls, based on the evidence that they are a group at particular risk of non-use of spectacles.
- using participatory and local design for interventions and messages that are accessible and suitable for local audiences.
- considering new partners to design, deliver and monitor SBC work, especially the private sector.

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Sustainability and scale

Governance and accountability

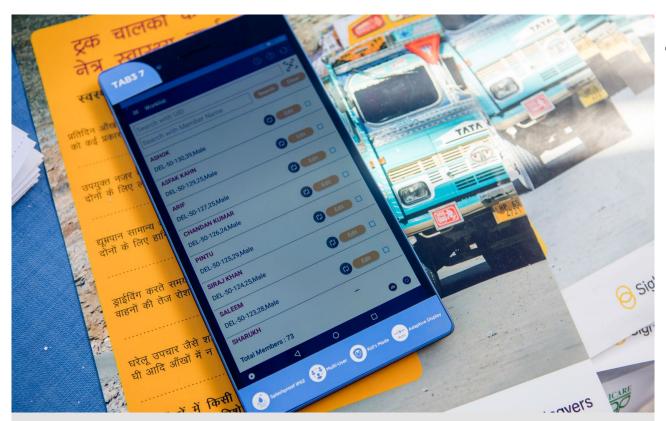
Eye health governance interventions, with the intention of creating or promoting accountability of all stakeholders to the communities they serve, can significantly improve the status of refractive services in low and middle income countries. Through our refractive error programmes, we will make a concerted effort to position vision within mainstream health policy, emphasising the need to embed eye care in national health and education systems and primary health care. To ensure that better governance and robust accountability frameworks are in place, we will invest in building the capacity of governments and other stakeholders to:

- formulate RE policies, national and regional plans, and implementation frameworks.
- provide technical support to develop and integrate refractive services into eye health and education systems.
- increase stakeholders' participation and responsiveness of refractive services.
- embed quality improvement and quality assurance mechanisms in refractive services.

- support national health management information systems to integrate, monitor and report on the UHC indicator of 'effective coverage of refractive services'.
- support the development of accountability frameworks to improve trust within different stakeholders, strengthen regulation mechanisms, promote effective use of resources, and help organisations to provide better quality refractive care.



Vision technicians, Vikash (left) and Sandeep, are responsible for registering truckers and dispensing glasses.



A digital registration device, used to record the details of truckers who have their eyes tested as part of Sightsavers' project in India.

Innovation

Sightsavers defines innovation as developing and testing creative solutions to known challenges, driven by learning and adapting from successes and challenges, and supported by a vision of scalability and ability to increase impact.

We cannot address RE needs and ensure we leave no one behind without embracing technology and innovation. Innovative and tech-supported refractive correction solutions often focus on high-income populations; they rarely reach LMICs at the same pace and quality. New and improved health technologies and delivery platforms need to be targeted at overcoming the challenges in RE and making eye care more affordable, accessible, and effective in LMICs. This will also greatly accelerate the pace of scale-up.

Innovation and the use of technology (such as artificial intelligence, digital health information systems, telemedicine, mHealth including the use of mMyopia toolkit) will help to address the barriers to access and uptake of refractive services. Innovating to develop, test and scale up cost-effective, high impact, inclusive and high-quality refractive products and services; screening, diagnosis and monitoring tools; and efficient delivery mechanisms; will be important in the coming decade. So too will innovations to overcome the significant supply chain challenges that exist globally and within countries, to break down bottlenecks and supply services to currently underserved communities and groups.

Collaboration and partnerships

Partnerships, alliances and collaborations are essential for the successful delivery of RE interventions. Working closely with a wide range of partners enables us to create sustainable change and long-lasting impact on the health conditions of the people we serve.

To successfully deliver on the strategic goals of our RE strategy will require building cross-sectoral partnerships, including education, economic development, women's empowerment, business and transport, civil society, technology and the private sector. We focus on coordinated and intersectoral interventions which systematically improve the status of refractive care at various levels by establishing strategic partnerships and alliances, engaging with the private sector and industry leaders, and building the capacity of professional associations and south-south collaborations.

We will also focus on influencing the broader child health and gender sectors through broadening our programmatic partnerships. Central to successful coalitions is establishing a supporting structure that maintains focus on a shared strategy. We will collaborate with global initiatives and alliances that focus on ensuring scale, advocacy, awareness, and resource mobilisation.

Private sector engagement and development

Many stakeholders are involved in making UHC a reality and the private sector is a key player in all countries, particularly for service delivery. Engaging the private sector should be part of the effort to increase access to high quality refractive care; governments and other stakeholders need to engage with the private sector and identify common interests. Sightsavers will continue to work collaboratively with both the public and private sectors and will explore opportunities to strengthen our work with the private sector to:

- increase access to inclusive, high quality, affordable refractive services and products within the health value chain.
- influence their focus to provide services and spectacles to low and middle income population segments.
- pilot innovative strategies and disruptive technologies to address the challenge of RE.
- address the barriers regarding regulations, supply chain and demand generation.
- facilitate cross-learning and foster a broader set of social business models, along with innovative thinking and creativity.



Adoley Sonii (far right), Sightsavers' former country director in Liberia, helps the Rev G Victor Padmore (second from left) and others cut the ceremonial ribbon at the launch of the Phebe Eye Clinic and Vision Centre.

Resourcing and strategic investments

In many countries where we work, the government provides the workforce and infrastructure for eye health programme delivery. However, in many situations, there is limited government ownership. prioritisation and financial resourcing for refractive services, especially the provision of spectacles for people who cannot access or afford them. As a result, most national refractive error programmes are dependent on external donor support and private sector financing. To expand effective coverage of refractive services for all, there is a need to: raise sufficient funds for both capital investments and ongoing service delivery costs; pool funds to spread the financial risks and protect those least likely to be able to afford outof-pocket expenditure; allocate and use funds efficiently and equitably; and define the benefit package of services, including refractive error services, that can be feasibly financed and provided.

We aim to leverage significant additional funds for URE to support the new RE strategy. We plan to execute a funding strategy, with the aim of securing long-term resources for refractive programmes.

Accelerating global cross-sector collaboration and diversified partnerships will be key to our success. We will support global efforts on:

- advocating for more and better allocated public funding to make progress towards UHC.
- embedding RE interventions into donorfunded mainstream education, health and economic development programmes to improve efficiency, effectiveness, inclusivity, and sustainability.
- advocating with our partners to galvanise more and better domestic and external investment for refractive services.
- partnering with other eye health NGOs and private sector partners to combine technical, operational and strategic skills, and deliver on an unprecedented scale.
- working with emerging coalitions that have an interest in assistive technology and initiatives to develop pooled fund approaches for refractive services.



Five-year-old Langford (second from left), from Zambia, happily plays with his friends following a cataract operation.

Safeguarding

Sightsavers' safeguarding approach is designed to identify and minimise the risks of harm or abuse to adults and children, from any planned programme and activity. Our RE strategy recognises the significance of ensuring that our interventions, operations, and programmes do no harm. As a guiding principle, to minimise the risk of harm in our programmes, we will not endorse and support any projects, activities or partners that don't follow Sightsavers' safeguarding policy and practices at minimum. Our programmes will be based on the following values to ensure that all actions on safeguarding are taken in the best interests of the individuals and communities we are reaching through our work:

- zero tolerance of abuse, by following policy and incident management guidelines
- recognition of the best interests of children and adults in programme design and implementation processes

- ensuring that refractive services for children are delivered in a child-friendly and safe way
- risk management and procedural effectiveness by continuous monitoring and reviews of safeguarding measures
- adherence to Sightsavers' safeguarding policy and practices
- ensuring partners have, or are developing, appropriate policies in this area
- following the Sightsavers' ethical content policy, and local child protection and other laws to protect the safety, rights and privacy of all individuals the programme works with

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Measurement, learning and accountability

We will measure progress towards the changes and outcomes required to meet our strategic goals and objectives as outlined in the theory of change. We will regularly review our theory of change and amend it as necessary to reflect new developments, opportunities, challenges and increased knowledge or learning.

To deliver on our strategy, Sightsavers will ensure that its RE projects and programmes are evidence-informed and that any innovative or new approaches are piloted to generate learning to inform implementation. Sightsavers has specifically developed indicators for success within the wider monitoring, accountability and learning framework.

These indicators help provide the necessary evidence to show that our RE interventions are contributing to the overall vision and mission of Sightsavers, and the key programmatic goals and objectives of the RE strategy.

Regular monitoring and assessment of progress will include qualitative and quantitative data and analysis derived from projects, operational research, quality assessments and engagement with people and communities we serve. To complement the data collected for core indicators, we have developed and will continue to develop learning questions to respond to identified and emergent evidence needs.

Grounded in best practices, we will continue to strengthen the collection and use of data with a particular priority in this strategic period for disability, sex, age and geography. We will continue to develop our ability to learn from and be accountable to the people and communities we serve by ensuring that local stakeholders, including people with disabilities, actively contribute to the design, implementation, ongoing monitoring, evaluation and impact assessment of RE projects. We will create routine opportunities for stakeholders to feed back in ways that are meaningful for them and integrate lessons from Sightsavers' experiences with adaptive management.



Muapia (left) chats with Sightsavers' local head of ophthalmology, Mai Mai Linha, in Nachucha, Mozambique.

Research and evidence uptake

For Sightsavers, research is a core organisational activity that contributes to organisational learning, improved quality of programmes and effective advocacy. We support research that generates new evidence and addresses key knowledge gaps. The World Report on Vision 2019 and The Lancet Commission on Global Eye Health 2021 provide recent data about the current and projected burden of refractive error and constraints to scaling up refractive services. Our aim in research is to provide a sound evidence base to support scalable and cost-effective refractive error programmes and related advocacy.

Driven by the objectives outlined in this strategy, our RE research will focus on:

- the epidemiology of RE.
- health-seeking behaviour and demand for RE services.
- the quality and efficiency of different service delivery models.
- sustainable and equitable health financing.
- the impact of RE interventions.

More specifically, we will expand research into the prevalence of RE and coverage with spectacles and assistive technology. Our priority will be measuring equity of access by different population groups, with a specific focus on gender, poverty and disability. We will invest in research into the drivers of socio-economic inequities; intersectionality between different characteristics of disadvantage and the effectiveness of interventions to increase access for marginalised and hard-to-reach population groups.

With regards to health-seeking behaviour, we will continue investing in formative and social marketing research, which helps to understand individual, social and cultural factors influencing the demand for RE services. We will also expand the use of rigorous methodologies, which

assess the impact of social behaviour change interventions. Our research of RE in children will focus primarily on school-based delivery platforms, although we will also address questions of the most effective way to reach out-of-school children.

Improving knowledge on the costs, efficiency and quality of different service delivery models will provide evidence to support better decision-making and more sustainable approaches. This evidence is critical to ensure rapid scale-up of services that are equitable and deliver value for money. We will also expand our knowledge on the economic and health impacts, the cost-effectiveness of RE services and products in different settings, and willingness to pay for correcting RE in different population subgroups, to support evidence-informed decision-making and advocacy efforts.

In the next strategic period, in collaboration with our research uptake and learning team, we will strengthen the relationship between research and programmes. We will work with teams across the organisation to ensure a coordinated approach to the effective capture, communication and uptake of evidence. Effectively engaging stakeholders across public, private and not-for-profit sectors with compelling evidence will encourage uptake and help us to achieve the ambitious goals articulated in this strategy.



Thematic links

Sightsavers' health, education and inclusion work go hand in hand. The thematic connections between eye health, NTDs, education and social inclusion work are critical and it is imperative we build on them to enhance the reach and integration of refractive services.

Eye health

Provision of refractive services is an integral part of our comprehensive and inclusive eye health programmes – this provides us with a great foundational connection with our Eye Health Strategy. Collaboration between eye health and RE programmes will be further strengthened by:

- ensuring that refractive care is integrated into eye care programmes and interventions to facilitate a continuum of care.
- exploring and implementing collaborative eye health promotion and prevention interventions.
- integrating refraction and vision screening training programmes into competency-based eye health workforce development initiatives.
- jointly advocating for the integration of eye health, including refractive services, into national health policies and plans.
- exploring opportunities for collaborative learning, evidence generation, and impact assessments.

Neglected tropical diseases (NTDs)

We know that refractive services are almost non-existent in many NTD-endemic locations. This means that a substantial level of strategising, advocacy and investment will be required to address this challenge. Following a system strengthening approach, the RE strategy will explore links with our NTD programmes through:

- collaboration in school and community screening between NTD and RE programmes, particularly integration of vision screening into deworming programmes.
- joint health promotion and prevention interventions for an impactful social behaviour change.
- exploring opportunities to support innovative digital solutions and strengthen information management systems.



Zamurrad, pictured here with her daughter Rania, has her bandage removed a day after her cataract operation in Mandra, Pakistan.

Good vision for education

Access to quality education and essential health services are fundamental child rights. They are critical to realising the full potential of all children, including children with disabilities; enabling them to live a happy and opportunity-rich life. We know that prevalence of strabismus, nystagmus, and reduced contrast sensitivity is higher in children with disabilities. Early vision screening, visual function assessment, correction of RE, and follow-up are critical to ensure that children with disabilities have access to high-quality eye care, spectacles and assistive technology. We will work closely with education programmes to:

- establish long-term systematic cooperation between ministries of health and education to build and strengthen systems.
- integrate inclusive education principles into school health integrated programmes.
- increase demand for accessible highquality refractive services for all, aligned with the demand components in the disability-inclusive education framework.
- jointly promote close collaboration between health professionals, educators, the broader social sector and organisations of people with disabilities for the establishment of effective support mechanisms for all children.



Evalina, 9, being examined at school as part of an eye screening event for children with disabilities in Singida, Tanzania.

Inclusion and equity

Inclusion and equity are underpinning principles of our RE strategy. Treatable visual impairment is common in people with disabilities and detection and management of these ocular conditions, including URE, are part of the responsibility of eye health and RE programmes. By creating links with social inclusion work, we aim to promote more holistic and inclusive RE programming by:

- developing and testing innovative models of gender-responsive and disability-inclusive refractive services within health, education, and rehabilitation systems.
- reorienting the model of care towards strengthening refractive care in primary health and rehabilitation care and bringing services closer to communities.

- engaging with people with disabilities, OPDs and community based organisations in programme design, implementation and review processes to ensure that accessible and inclusive refractive services are in place.
- building capacity of the eye health workforce to incorporate inclusive refractive care models and communication practices in systems.

Our RE strategy specifically focuses on strategic interventions and links to effectively reach out-of-school children, particularly girls, people with disabilities, internally displaced people, refugees, communities on the move and other highrisk population groups. Strong thematic links will help us to develop and deliver inclusive and sustainable refractive services that are of high quality, effective, safe, peoplecentred, timely, equitable, integrated and efficient. Joining our efforts will help us to ensure that we leave no one behind.

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