

EYE HEALTH FOR WOMEN AND GIRLS

A guide to gender-responsive eye health programming



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ACKNOWLEDGEMENTS

Recommended citation:

Roger C, Neyhouser C. [Editors] (2017) *Eye health for women and girls. A guide to gender-responsive eye health programming*. Gender and Eye Health Network convened by IAPB and The Fred Hollows Foundation.

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WHY THIS MANUAL?

Filling the 'good practice' gap

Eye health programming practitioners employ various approaches and tools to achieve gender-responsive approaches to programming, whether projects are gender-targeted or include gender-mainstreaming measures. However, there is limited evidence of what interventions are 'best practice' or 'proven practice' in gender and eye health.

Knowledge is power,
but only when you apply it

– KRISTEN POBORSKY

This manual supplements existing evidence of successful gender-responsive eye health programming (see disclaimer at the bottom of this page) with a summary of 'good practice' case studies gathered from the collective knowledge of eye health development actors.

This manual:

1. Proposes a number of principles for effective gender and eye health programming that have emerged in the gender and health/eye health programming literature and practice (*see page 11*),
2. Synthesises evidence through case studies of the effectiveness of gender-responsive projects implemented by key eye health actors in a variety of contexts. The case studies are structured according to the World Health Organization's (WHO's) health systems building blocks: service delivery & community development; health workforce; health data & information; medicines, technologies & infrastructure; health financing; and, leadership & governance (stewardship). They present the strengths and weaknesses of the approaches described, to inform potential replication, and
3. Shares global eye health actors' lessons learnt through experience to avoid 'reinventing the wheel' and the repetition of mistakes in gender and eye health programming.

Please note: This manual both supports and is supported by a 2012 Seva Canada report on a process that started in 2002 to identify initiatives to address inequity in eye health. Seva Canada's Gender and Blindness Initiative report contains a collection of case studies of operational research into initiatives to reduce gender inequity in eye health. Our approach builds on and complements the work of Seva Canada by gathering, analysing and reporting data from additional programs and contexts.

For Seva Canada's full 2012 Gender and Blindness Initiative report, see <https://www.iapb.org/wp-content/uploads/SEVA004-Gender-Blindness-Report-5-5x8-5.pdf> (Reference 18)

ACRONYMS

CSC	Cataract surgical coverage
GAP	Global Action Plan
GAT	Gender Assessment Tool, developed by the WHO
GDP	Gross Domestic Product, defined as expenditure on final goods and services minus imports ¹
IAPB	The International Agency for the Prevention of Blindness
INGO	International non-government organisation
KAP	Knowledge, Attitudes & Practice survey
LMICs	Low- and middle-income countries
MSVI	Moderate and Severe Visual Impairment; defined as presenting visual acuity $<6/18$ but $\geq 3/60$
NGO	Non-government organisation
RAAB	Rapid Assessment of Avoidable Blindness
SDGs	Sustainable Development Goals
UN	United Nations
WHA	World Health Assembly
WHO	World Health Organization

DEFINITIONS

Sex refers to the biological and physiological characteristics that define men and women.³ It may not always be possible to define sex along the dichotomous lines of male-female only, as is made evident by inter-sexed individuals.⁴

Gender refers to the socially constructed roles, behaviours, activities and attributes that a given society considers appropriate for men and women.³ While sex and its associated biological functions are programmed genetically, gender roles and power relations and the power relations they reflect are a social construct – they vary across cultures and through time, and thus are likely to change.⁴

Gender	Sex
Culture	Biology
Can change over time	Usually remains the same over time (exception: sex-change surgery)
Varies greatly across societies	Static across societies

Note: The distinction between the terms 'sex' and 'gender' is not universal. In ordinary speech, *sex* and *gender* are often used interchangeably, especially in non-academic circles.

Gender equality refers to equal rights, responsibilities and chances or opportunities for women, men, boys and girls⁵ to access and control social, economic and political resources, including protection under the law (such as health services, education and voting rights). It is also known as equality of opportunity.³ Gender equality is often used interchangeably with gender equity, but the two refer to different, complementary strategies that are needed to reduce gender-based health inequities.³

Gender equality in health:³ women and men have equal conditions to realise their full rights and potential to be healthy, contribute to health development and benefit from the results. Achieving gender equality will require specific measures designed to support groups of people with limited access to such goods and resources.³

A **gender equity approach** “recognizes that women and men have different needs, preferences and interests and that equality of outcomes may necessitate different treatment of men and women”⁶ to ensure equality of opportunity. It requires considering the realities of women’s and men’s lives. Gender equity is often used interchangeably with gender equality, but the two refer to different, complementary strategies that are needed to reduce gender-based health inequities.³

Gender equity in health³ refers to a process of being fair to women and men with the objective of reducing unjust and avoidable inequality between women and men in health status, access to health services and their contributions to the health workforce.

A **gender analysis**³ identifies, assesses and informs actions to address inequality that come from: 1) different gender norms, roles and relations; 2) unequal power relations between and among groups of men and women, and 3) the interaction of contextual factors with gender such as sexual orientation, ethnicity, education or employment status.

Gender analysis in health³ examines how biological and sociocultural factors interact to influence health behaviour, outcomes and services. It also uncovers how gender inequality affects health and well-being.

A **gender-responsive policy or program**³ considers gender norms, roles and inequality with measures taken to actively reduce their harmful effects.

Gender mainstreaming is a set of context-specific, strategic approaches as well as technical and institutional processes adopted to achieve the goal of gender equality.⁷ Gender mainstreaming involves working through a

* These definitions are widely accepted definitions in health programming, extracted from reputable sources, including: the World Health Organisation (WHO), the Medical Women’s International Association, AusAID, Reeves and Baden’s 2000 Gender and Development report and UN Women. Some of these definitions were extracted from a consolidated list created for the Gender Violence Training Program for Health Care Providers (Please see the original here: <http://www.health-genderviolence.org/training-program-for-health-care-providers/facts-on-gbv/defining-gender-and-gender-equality/19>). For any additional vocabulary, please see the UN Women’s glossary: <https://trainingcentre.unwomen.org/mod/glossary/view.php?id=36&mode=letter&hook=G&sortkey=&sortorder=&fullsearch=0&page=-1>.

checklist of different components and putting practical actions in place to achieve them. It requires organisations to make an honest assessment of the areas where they are performing well and where they need to do better. This includes in areas such as: leadership, culture, capacity, accountability and programs.

A **gender-unequal**³ program or policy perpetuates gender inequality by reinforcing unbalanced norms, roles and relations and often leads to one sex enjoying more rights or opportunities than the other (Level 1 of the WHO Gender-Responsive Assessment Scale).

A **gender-blind**³ program or policy ignores gender norms, roles and relations and very often reinforces gender-based discrimination. By ignoring differences in opportunities and resource allocation for women and men, such policies are often assumed to be “fair” as they claim to treat everyone the same (Level 2 of the WHO Gender-Responsive Assessment Scale).

A **gender-neutral**⁸ program or policy applies to men and women in the same manner, but will not reinforce existing gender inequalities.

A **gender-sensitive**³ program or policy indicates gender awareness, although no remedial action is developed (Level 3 of the WHO Gender-Responsive Assessment Scale).

A **gender-specific**³ program or policy considers women’s and men’s specific needs and intentionally targets and benefits a specific group of women or men to achieve certain policy or program goals or meet certain needs. Such policies often make it easier for women and men to fulfil duties that are ascribed to them based on their gender roles, but do not address underlying causes of gender differences (Level 4 of the WHO Gender-Responsive Assessment Scale).

A **gender-transformative**³ program or policy addresses the causes of gender-based health inequities by including ways to transform harmful gender norms, roles and relations. The objective of such programs is often to promote gender equality and foster progressive changes in power relationships between women and men (Level 5 of the WHO Gender-Responsive Assessment Scale).

Intersectionality^{* 9} refers to people’s overlapping identities and cumulative barriers. In the context of gender inequality, it refers to the way gender interacts with other social identities (e.g. poor, disabled, indigenous) to shape discrimination and create additional obstacles for women, also called cumulative barriers. As an example of intersectionality of barriers for women in eye health, a poor, rural, uneducated indigenous woman will face more barriers (economic, geographical, socio-cultural, etc.) than an educated woman from the city, although they will both face barriers in accessing eye health services.

* Term coined by Kimberlé Crenshaw

INTRODUCTION

Key Concepts

Gender equality refers to equal rights, responsibilities and opportunities for women, men, boys and girls.⁵ Achieving gender equality is considered to be a critical aim across international development practice because it is an inherent human right principle and goal in itself. Gender equality is also a catalyst for advancing human development by reducing poverty, enhancing economic growth and improving education and health outcomes; it is smart economics^{5,10,11} A 2012 World Bank report states that when women cannot participate in the labour force, are excluded from management roles or are unable to enter certain occupations because of law or customs, the gross domestic product (GDP) growth can drop by as much as 2%.¹⁰ Gender equality is therefore central to enhancing the economic development of populations.¹⁰

Poverty is therefore both a cause and consequence of poor eye health, which is a particular problem for women in the developing world...

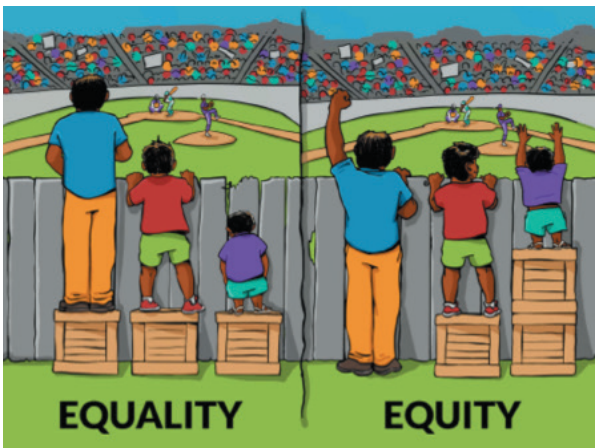


Illustration of the difference between equality and equity.¹²

A **gender equity approach** “recognizes that women and men have different needs, preferences and interests and that equality of outcomes may necessitate different treatment of men and women.”⁶ This is because achieving a fair distribution of the resources and benefits of development may require different treatment of women and men, girls and boys in the way projects are delivered. With this in mind, targeting women purposely may be necessary to help them overcome barriers that specifically affect them.

Why is gender equity important in eye health care programming?

The WHO recognises that gender is an important determinant of health in two dimensions:

- gender inequity leads to health risks for women and girls, and
- addressing gender norms and roles leads to a better understanding of how the social construction of identity and unbalanced power relations between men and women affect the risks, health-seeking behaviour and health outcomes of men and women in different age and social groups.¹³

Poverty is therefore both a cause and consequence of poor eye health, which is a particular problem for women in the developing world who bear the greater burden of blindness.¹⁴ Vision loss can exacerbate inequities linked to gender.¹⁵ If women are aware of their right to sight, they may have increased and more equitable access to better health outcomes and can contribute more to their communities economically, socially and culturally, leading to greater gender equality. Therefore, addressing the gender gap in treatment of avoidable blindness specifically also brings economic benefits.

The status quo

The ratio of gender inequality in eye health is not changing

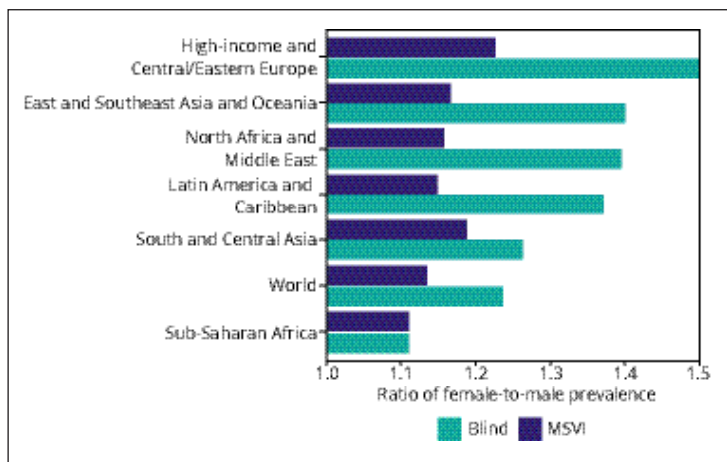


Figure 1. Republish of Stevens 2013's "Figure 4. Bar graph showing the ratio of female-to-male age-standardized prevalence of blindness and of moderate and severe vision impairment (MSVI) by region in adults 50 years of age and older."¹⁷

Evidence suggests that in all regions of the world and at all ages, women are significantly more likely to be visually impaired than men.^{14,16} Women represent about 56%¹⁴ of the world's 36 million blind¹⁴ and 55% of the world's 216.6 million people with moderate and severe vision impairment (MSVI),¹⁷ yet are the least likely to receive treatment as they face both increased risks for developing blindness and barriers to access.¹¹ This gender and eye health disparity is characterised by being: found globally, found in the contexts of all treatable eye conditions, and often even larger at a young age.¹⁸

There has been a lack of equitable improvement over time,¹⁹ with women now experiencing blindness at a rate around 1.05

times higher than the rate of blindness in men globally.¹⁴ This higher prevalence and incidence of blindness in women is found in all regions of the world when controlling for age, with larger disparities in high-income countries (See Figure 1).¹⁷

The literature suggests that the cataract surgical coverage (CSC) rate may be 1.2 to 1.7 times higher for men than women.²⁰ A CSC rate is the number of people or eyes that have received cataract surgery divided by the number that need surgery, using population-based data.²¹ CSC is often used to assess the distribution of service provision and can highlight where there are discrepancies in access to services between demographic groups, including by gender.²¹ For example, CSC among women in sub-Saharan Africa and south Asia is almost always lower, sometimes only half that in men.²²

Some efforts to address this stagnation have been made, including through more gender-targeted programs made possible by an increased disaggregation and analysis of data by sex,¹⁹ but these efforts must be accompanied by data analysis, strengthening of evidence and development of best practice in order to inform approaches to programming that lead to more equitable health outcomes.¹¹

Why might rates of avoidable blindness be higher in women than men?

Women are more at risk of avoidable blindness than men for both societal and biological reasons. Biological risk factors for women include their longer life expectancies globally, which elevate their risk of blindness from age-related conditions, like cataract, glaucoma and age-related macular degeneration.²³ Higher rates of infectious disease and malnutrition increase women's risk for blinding eye conditions.^{23.}

However, evidence indicates that sociocultural factors play a bigger role than biology in women's disproportionate representation amongst the avoidably blind. Due to societal factors, women are more likely than men to develop certain preventable or treatable blinding conditions, like cataract and trachoma, regardless of age.^{17,23} What creates disparities between men and women is that women are unable to access cataract surgery at a sufficient rate to meet the higher need.²³ Traditional gender roles, especially prevalent in developing countries, also effectively increase risks for females at all stages of life. For example, women are more susceptible to trachoma infection than men due to disproportionately higher contact with children as a result of their caretaking role in the family.²²

Greater barriers to accessing eye care services. Not only do women have greater needs than men when it comes to accessing eye health care; they are also accessing those services at a lower rate than men. While women face many of the same barriers as men (e.g. unaffordable direct and indirect costs, fear of treatment, distance to health facility, etc.), this is often compounded by numerous additional gendered barriers to access, including: lack of education; limited decision-making power within their households; poor access to financial resources; and cultural restrictions on travelling and seeking treatment.¹⁸ Notably, male children are often given preferential treatment over female children¹⁸ and in adulthood, a disproportionately heavy workload in the home is imposed on women, but their formal, income-earning employment is restricted. This leads to reduced access to financial resources and thus reduced financial autonomy, as well as increased exposure to environmental factors of blinding diseases like indoor smoke.²⁴ Disabled women further experience a double burden of disability and gender-based social exclusion and abuse.¹⁵

As a summary, higher biological and societal risk factors combined with additional gendered barriers to accessing services lead to a higher proportion of avoidable blindness among women than men.

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Men and boys should also be considered in our efforts to reach gender equality in eye health

As stated above, women currently represent 56%¹⁴ of the world's blind and the cataract surgical coverage rate may be 1.2 to 1.7 times higher for men than women.²⁰ Therefore, the current situation is such that women's needs are higher but they are accessing services less than men, which maintains the gender gap to the detriment of women and may even widen it in the long run if the eye health sector is not proactive about addressing it.

Having said that, an equal number of women and men utilising eye health care services in a given location does not necessarily indicate an absence of inequity. Collecting, carefully analysing and monitoring gender-disaggregated data is therefore essential to keep track of the female-male ratio accessing eye care services in regards to the actual gender-disaggregated needs in a given project area. To achieve true gender equality in eye health, the needs and vulnerabilities of men and boys must thus be considered. For example, activities in conflict zones may expose males to greater risk of blindness than females. A study of male patients with injuries sustained while clearing mines found that three quarters of these men became functionally blind. None of the victims were wearing protective eye gear or clothing during mine clearing.²⁵

In addition, it is essential to engage men as agents of change for women's eye health. Many socio-economic barriers faced by women can be overcome if eye health organisations and service providers work closely with leaders and men in the communities. This could be done by sensitising men on the importance of accessing eye care services for women as individuals, and the many benefits for households and the wider communities (greater participation in the community, ability to earn an income, ability to perform tasks more efficiently and more safely, etc.).²⁶

Similarly, in eye care facilities a majority of men are in leadership positions. Therefore, male eye healthcare workers should be sensitised on the importance of women participating equally in the workforce to ensure all human resources are used at their maximum potential. This includes ensuring that women have equal access to training opportunities, use of instruments, are treated fairly and equally in the workplace, and are free from bullying and harassment.²⁷

GUIDING PRINCIPLES FOR GENDER EQUITY IN EYE HEALTH PROGRAMMING

This section provides simple, practical information on good practice for gender equity in eye health programming. This will help you, as an eye health practitioner, to:

- Start exploring key concepts for gender programming (gender mainstreaming; gender-targeted projects)
- Incorporate essential steps in the design and development of your gender project (conducting a gender analysis of the project context; identifying barriers to accessing eye care services for women)
- If you want to go further and reflect on specific ways of incorporating gender-sensitive strategies at every step and in every aspect of your project design, you will hopefully be inspired by examples of specific strategies that have worked on the ground
- Check that your project design is gender responsive

What are gender-mainstreamed and gender-targeted projects?

Bridging the gap in gender equity in eye health care can be achieved through:

- **Gender-mainstreamed** projects that integrate gender within their identification, development, implementation and evaluation.
- **Gender-targeted** outcomes or projects that go beyond mainstreaming gender and meet the specific gender needs and circumstances of groups, areas or organisations.⁷ Gender-targeted projects include specific gender outcomes or have gender equity as an overarching purpose.

Gender-mainstreamed projects

The United Nations (UN) Entity for Gender Equality and the Empowerment of Women (known as UN Women) defines gender mainstreaming as *“the process of assessing the implications for women and men of any planned action, including legislation, policies or programs, in any area and at all levels. It is a strategy for making women’s as well as men’s concerns and experiences an integral dimension in the design, implementation, monitoring and evaluation of policies and programs in all political, economic and social spheres.”*⁷

Collecting and using gender-disaggregated data is an important starting point for gender mainstreaming. It allows identification of gender disparities in existing projects, and therefore allows us to identify ways of incorporating measures to address these disparities through gender mainstreaming. However, data collection and analysis is not the only way of undertaking gender mainstreaming and must be combined with a range of qualitative analyses and programming strategies.

In order to ensure gender interventions are sustainable, gender mainstreaming needs to be adopted by our partners in the delivery of projects. This could include capacity building for partners in awareness of gender definitions and concepts, and proposing examples of gender-responsive approaches emphasising how everyone benefits from gender equity.

Organisations that mainstream gender into their programs:

- design their programs and activities using a gender analysis based on robust evidence, including gender-disaggregated data,
- actively involve both women and men in the design and implementation of programs and activities, and
- use a gender-responsive framework to monitor and evaluate programs and activities.

As part of a broader approach to gender mainstreaming, good practice includes integrating gender into the management of country programs through a **multi-track approach**:

- **Direct gender-focused interventions**, such as community advocacy that builds demand for better eye health care service provision,
- **Indirect gender interventions**, for example high-level advocacy on women and eye health at the national, regional or multilateral level,
- **Short-term events**, that include gender-targeted sensitisation events or campaigns, such as the dissemination of eye health information or spectacles on International Women’s Day,
- **Long-term measures**, such as budget allocations towards eye health care specifically targeted at women and girls, systemic changes that lead to behaviour and social change among both women and men, involvement in sector-wide initiatives to improve eye health for women and girls,²⁸
- **Innovative measures** that allow the testing and piloting of solutions designed specifically to address the specific barriers and needs of subgroups of vulnerable women (e.g. disabled, indigenous, poorly educated, rural or remote, etc.). These solutions should be thoroughly documented, with a view to replicate and/or take them to scale, and adapt them to other groups and contexts,⁷ and
- **Linking gender and eye health care**, for example through the establishment of strategic partnerships with women’s organisations, women’s health organisations, ministry of women’s affairs, ministry of health, etc.

Gender-targeted projects

It is important to remember that the extent to which projects/programs and policies consider gender falls along a **continuum**. Some projects will be: ^{3, 8}

- **gender unequal**: perpetuate gender inequality by reinforcing unbalanced norms, roles and relations, which often leads to one sex enjoying more rights or opportunities than the other,
- **gender blind**: ignore gender norms, roles and relations and very often reinforce gender-based discrimination. By ignoring differences in opportunities and resource allocation for women and men, such programs or policies are often assumed to be “fair” as they claim to treat everyone the same,
- **gender neutral**: apply to men and women in the same manner, but will not reinforce existing gender inequalities,
- **gender sensitive**: attempt to redress existing gender inequalities by addressing women and girls’ strategic and practical needs,
- **gender positive or transformative**: attempt to re-define women and men’s gender roles and power relations.

General principles to developing and managing gender-responsive projects

The following sections are a compilation of principles for effective gender and eye health programming that have emerged in the gender and health/eye health programming practice, including anecdotal observation of what works by various eye health practitioners, and also refer to published and grey literature wherever possible. Many of these principles were captured during discussions held at an international learning forum on eye health for women and girls organised by The International Agency for the Prevention of Blindness (IAPB) in partnership with The Fred Hollows Foundation in Phnom Penh in September 2015.*

Please note: Adhering to each step and every principle for every project is not expected. Instead, use this guidance as needed to:

- Develop new gender-integrated and -targeted projects,
- Embed gender into existing projects as much as possible,
- Monitor ongoing projects, whether gender-targeted or not, or
- Amend projects that are coming up for renewal to include gender-responsive mechanisms.

Some of the following principles are derived from an article on 'Putting women's eyesight first' published in the Community Eye Health Journal.²⁹

Reach higher. Our approach should be based on equity, not just equality. In many contexts, it is not enough for service data to report an equal 50/50 split between men and women. Blindness prevalence is generally higher for women because they have a longer life expectancy and are more likely to experience non-communicable diseases such as cataract and communicable diseases such as trachoma. Sightsavers has an organisation-wide target, which encourages services to reach a higher number of women than men.

Priorities for tackling gender inequity will vary from one location to another and need to be based on gender analysis, sound operational research, and dialogue with partners and communities that involves women, men, boys and girls. A robust gender analysis should thoroughly examine the different needs of women, men, girls and boys.

Women are not a homogenous group, which might require to treat different groups of women differently. It is also important to remember that in many cases, women experience multiple and overlapping vulnerabilities (this is called 'intersectionality of barriers'), which adversely affect their access to and use of eye health care.

Strategies to support gender equity in eye health may include **strengthening men's knowledge**, skills and aspirations to support women's access to eye care services, strengthening women's knowledge of eye health and available services, or supporting women's empowerment to take charge of their own health more broadly.

Ensure services are community-based. Screenings and treatment should be provided close to home or in the work place. Outreach services should be tailored to the specific needs of women and girls and organised at a time and location suitable to maximise their participation. Schools and market places are two possibilities, but the best ideas and advice will come from women themselves – encourage female community representatives to work with you in program design.

Tap into the expertise of others. Partnerships with women's organisations, the women's agency or ministry in the government, maternal and child health services, gender-focused NGOs and microfinance networks can strengthen and better target programs for women and girls.

Continued next page

* This two-day learning event brought together 60 representatives from across the eye health sector (more than 20 organisations represented) to establish a dynamic network and share good/proven practice to-date on gender and eye health programming.

In Cambodia the Fred Hollows Foundation is currently working with the Ministry of Women's Affairs to deliver a project that specifically addresses and removes demand- and supply-side barriers faced by women.

Disaggregate and analyse data. Splitting clinical data by gender and age is critical but just collecting the figures is not sufficient. Data should be carefully analysed and compared to the demographics of the community. Are there differences in patient loads? Why do they exist? Do the numbers vary on certain days or locations? How does the gender balance of staff affect the balance of patients? NGOs should set a good example in collecting and analysing information by gender, and show clinical staff and officials how valuable this information can be. Increasingly, donors expect this data and expect to see gender seriously addressed. Gender-disaggregated information is also important to analyse differences in patterns of service utilisation between women and men at different points of the continuum of care (patient journey) such as patient screening, surgery, follow-up, etc. This will help you investigate in more detail how and why women and men may be accessing services differently.

Create opportunities for women across eye health cadres, and support them. Although this varies according to cultural contexts and regions, the gender of eye health workers can impact access to services by female patients. As a basic measure women need to be supported and mentored across all cadres of the eye health workforce. Women often need to work harder than men to negotiate for resources to do their clinical work and need to balance family pressures. They also face a greater risk of overt and subtle discrimination and violence in the workplace. Managers of programs, services, clinics and hospitals need to be attentive and responsive to ensure female workers are employed, retained and promoted.

Conducting a gender analysis

In order to accurately identify barriers for women and tackle them appropriately, good practice suggests that a **gender analysis** should be conducted. According to the World Bank, a gender analysis “focuses on understanding and documenting the differences in gender roles, activities, needs, and opportunities in a given context. It involves the disaggregation of data by sex and highlights the different roles and learned behaviours of men and women based on gender attributes. These vary across cultures, class, ethnicity, income, education, and time; thus, a gender analysis does not treat women as a homogeneous group or gender attributes as immutable.”³⁰ At its simplest, a gender analysis asks questions about the differences between men and women's activities, roles and resources.

Use a tool to conduct your gender analysis

Developing a gender-mainstreamed or gender-targeted project is a highly context-specific exercise. There is no such thing as a one-size-fits-all, universally successful approach to addressing gender inequity in eye health. Asking the right questions about your context will help you identify the barriers your project needs to address to ensure women have access to eye health care in a way that meets their needs.

Many **tools** exist to conduct a simple gender analysis. We are proposing the following, which analyses barriers at different levels and includes guiding questions:

An example of a gender analysis tool

This tool aims to support you to conduct a gender analysis of the context in which you are intending to implement your project. You can start by brainstorming using the questions in this table, and then complement or investigate further by using the information provided in the barriers section below. **Note:** the following questions are only a guide and you don't need to answer every single one of them, as long as you have identified factors potentially hindering gender equity in each category. Feel free to reword the questions or add your own questions to this framework as you see fit.

KEY AREAS FOR ANALYSIS	ANSWERS & COMMENTS
<p>INDIVIDUAL <i>Personal consciousness, attitudes, self-esteem</i></p> <ul style="list-style-type: none"> • What cultural stereotypes and personal beliefs might affect a woman's belief in her right to eye health? • What assumptions/cultural norms about gender roles might affect a woman's health seeking behaviour? 	
<p>COMMUNITY <i>Collective cultural attitudes, gender roles, norms and values</i></p> <ul style="list-style-type: none"> • What are the gender norms – different roles and responsibilities of women and men in the project context and broader society? • How does the gender division of labour influence men and women's health or access to health services? This includes higher exposure for women to environmental factors leading to blindness e.g. smoke, trachoma from looking after children. • What social or cultural barriers will affect the participation of women and men in accessing eye care services (e.g. social embarrassment or cultural 'taboos')? 	
<p>STRUCTURAL <i>Access to and control over resources, power, skills and opportunities</i></p> <ul style="list-style-type: none"> • Can women freely make health-related decisions for their family and for themselves? • Are women decision-makers within the health system? • Do women and men have different access to key resources (education, assets, money, transport, etc.)? • Do men and women have access to different health-related information? 	
<p>INSTITUTIONAL <i>Laws, policies and systems</i></p> <ul style="list-style-type: none"> • Do laws or policies exist to protect women's rights and access to health? • Are health systems and services gender-responsive by addressing disadvantages faced by women? 	

Identifying barriers

Identify gender-specific barriers to eye health care for women

As part of your gender analysis, you will need to consider the **types of barriers** that are restricting women from accessing eye health care services. Some of the most common barriers to women accessing eye health care as defined by IAPB include: ²²

- **Cost of surgery:** Women often have less access to family financial resources to pay for eye care or transportation to reach services.
- **Inability to travel to a surgical facility:** Women often have fewer options for travel than men. Older women may require assistance, which poor families cannot provide.
- **Differences in the perceived value of surgery:** Cataract is often viewed as an inevitable consequence of ageing and women are less likely to have social support in a family to seek care.
- **Lack of access to information and resources:** Female literacy is often lower than male, especially among the elderly. Women are less likely to know about the possibility of treatment for eye disease or where to go to receive it.

To further guide your analysis, some **examples of common barriers** that can be considered are outlined in the following table: ^{31,32}

Type of barrier	Factors to be considered in situation analysis and to be addressed in gender-responsive projects
Social / Cultural	<ul style="list-style-type: none"> • Low literacy levels can be a major obstacle that prevents women from identifying and seeking eye health care • Women's and girls' status as primary caretakers in the family may prevent them from seeking eye care • Patriarchal attitudes and the resulting male dominated/group decision-making over women's health: the role of the husband, other male relatives, social networks, morals and cultural norms might mean that women's eye health takes lower priority and stop them from having agency over their own eye care • Lack of support from family members • Vision loss being accepted as an inevitable but natural consequence of aging • Fear of surgery and negative treatment outcomes • Difficulty in finding an accompanying person • Informal sources used by women often found to be inaccurate, resulting in misconceptions regarding eye treatment • Perceived complexity of the health system • Belief in non-scientific/supernatural remedies (e.g. witchcraft, curses, and milk products) • Women are more likely to seek help from a traditional healer
Access to and control over resources	<ul style="list-style-type: none"> • Women may not have access to information (education) regarding treatment options Educational and/or socio-economic status may be lower for women • Women in single headed households cannot afford to pay for treatment • Women may not have control over the household resources and therefore not be in a financial position to seek treatment

Type of barrier	Factors to be considered in situation analysis and to be addressed in gender-responsive projects
Organisational and institutional	<ul style="list-style-type: none"> • Gender-neutral mode of functioning of eye hospitals: <ul style="list-style-type: none"> • May not into account for the scope of women’s family responsibilities: e.g. lack of washroom, baby changing areas and breast feeding services within health care service building • Special needs or women are not catered for in health facilities • Lack of clear government policies on disability friendly services including on transport services and health financing • Poor handling of female patients, leaving them wanting to seek help elsewhere (e.g. staff displaying low levels of customer service towards women. • Limited availability of eye health care resources due to the lack of collection and use of sex disaggregated data and consumer health information access. • Long waiting times for patients adversely affect women, preventing them from performing duties in the household • Lack of gender-trained health workers • Lack of female doctors • Institutional home of gender equality e.g. Ministry of Women’s Affairs may not interact with the central ministries and Ministry of Health or be adequately funded • National health strategic plan may not include attention to gender, equity and social inclusion
Economic	<ul style="list-style-type: none"> • Lack of information may adversely affect the perceived lack of affordability of eye care treatment • Direct costs (user fees/treatment costs) • Indirect costs citing time, travel and foregone earnings
Geographic	<ul style="list-style-type: none"> • Actual distance & physical access from eye health services. In particular, this may mean that women in rural areas may have less access to health services than women in urban areas • Geographical remoteness may affect eye health outcomes due to lengthy travel times, lack of availability of public transport and high transport costs • Difficulty of organising transport • Long distances to the referral hospitals • Limited availability of eye services at health centres adversely affects women. The closer the service, the more likely they are to access it, and vice-versa. • Lack of disability-friendly transportation or lack of reliable transport may adversely affect women • Are there initiatives attempting to remove any constraints to women’s participation? e.g. travel to the outreach campsite made safer for women, separate dormitory facilities for women and men • Geographical dimensions may mean that particular regions, islands or locations have worse eye health outcomes than the national average for all, including women

Specific ways of integrating gender equity into eye care projects

Observed examples of successful approaches

To further guide your thinking, here are some examples of successful approaches that have already been undertaken in various organisations to **address specific gender barriers** in eye health projects.* Some of these examples are further explored in the case study section of this manual:

- **Educating staff, local partners, and the community** about gender inequities in eye health and how to prevent them.
- **Targeted services to women and girls**, such as screening in girls' schools or outreach services, which remove geographical barriers for women. In some cases, these initiatives are supported or led by women's community groups.
- **Training and empowering women and girls** to become eye health care professionals and leaders/change agents in their community contributes to gender equality. It also allows women and girls to lead and encourage other women and girls to access services and address risk factors causing blindness.
- **Directly addressing barriers** more likely to affect women and girls, for example, organising free transport to eye health facilities to reduce geographical barriers and mitigate out-of-pocket expenses, which adversely affect women due to a lack of access to financial resources.
- **Community based outreach services** provided close to where women live to enable access.
- Providing an **eye care professional in maternal and reproductive health facilities** to allow pregnant women to have access to eye health screening that is not provided routinely.
- **Training women as Community Eye Health workers or Eye Health Volunteers** (including counselling) to reassure and motivate other women to make use of the services.
- Taking advantage of existing **microfinance groups** to spread eye-care messages, using members to talk to and refer people to outreach clinics.

Designing and implementing gender-responsive initiatives in the six building block of health system strengthening

To address barriers within the six building blocks of integrated health care using a health systems strengthening approach, **consider applying some of the measures listed below**.* Of course, it is not expected that you implement all of the points in this checklist, but the theory behind health system strengthening shows that the effects are maximised when interventions integrate activities under multiple pillars.³³ We therefore recommend that you apply **at least one or two initiatives in each pillar** to comprehensively address gender equity in your project:

Suggested gender-responsive activities per health system strengthening pillar

Service delivery & community development

- Use the baseline of gender disaggregated eye health data to map existing needs and gaps in service delivery
- Services are delivered by project staff with appropriate gender skills and training

continued next page

* Again, many of these are based on discussions held at an international learning forum on eye health for women and girls organised by IAPB in partnership with The Fred Hollows Foundation in Phnom Penh in September 2015

- Right to eye health for women and girls is incorporated into project awareness building activities to increase the knowledge of everyone's right to access health services
- Partners sensitise all sub-partners on the importance of delivering of services in gender-responsive environments
- Services are made accessible at decentralised and community levels and in remote areas to those who have not previously accessed more centralised services
- Services are provided through outreach, mobile camps or 'one stop' eye centres to target recipients
- Education materials on eye care services are accessible to women and girls, including the most vulnerable (poorly educated, indigenous, rural or remote groups)
- Post-operative and post treatment counselling is provided for women by women
- Deliver prevention messages that protect women's eye health in light of their needs as workers, mothers, carers and other roles
- Alternative service delivery and screening paths are provided for girls who may not attend school
- Consult with local women's organisations and women's networks or other non-government organisations (NGOs)
- Consider how the duration and timing of project activities may constrain or facilitate women's and men's involvement.

Health workforce

- Analyse human resources context in the country with a gender lens to determine gender participation rates in eye health work force
- Establish a baseline of gender disaggregated eye health human resources (capacity building and level of skills) and map skills within project target areas
- Establish a gender-responsive human resource hiring plan for the project e.g. recruit women into particular roles that encourage uptake of services by other women
- Implement strategies to retain women in project roles, including in management positions
- Encourage women to be leaders in eye health through hiring practices
- Analyse gender-based human resource issues on the project (e.g. equal pay)
- Improve incentives for women to enter and be retained in eye health project work
- Ensure medical eye health training is equally accessed by women and men
- Consider if separate training activities are necessary for women to ensure that they participate and benefit equally

Health data & information

- Establish a gender and age disaggregated evidence base, especially regarding service utilisation along the continuum of care
- Conduct a project specific gender analysis
- Make use of or advocate for a gender disaggregated census that includes eye indicators
- Invest in the creation of gender and age disaggregated Rapid Assessments of Avoidable Blindness (RAABs), Knowledge, Attitudes & Practice surveys (KAPs)
- Conduct formative research on barriers to women's eye health
- Undertake satisfaction surveys for women using eye care facilities
- Explore how information and technology can be used to impact women's knowledge on the prevention of eye diseases
- Consider how technology used in projects impacts differently on women and men including the benefits of any new technology

continued next page

- Explore whether communication channels are equally accessible to both women and men
- Conduct implementation research to investigate what works to improve gender equity in eye health programs

Medicine, technologies & infrastructure

- Determine if equipment affects or is utilised by both men and women differently and adjust accordingly (key examples are: (1) have separate toilets, waiting rooms, reception/ticket counters, canteens or spaces in canteens and prayer rooms for women and men, and (2) automate alternate service delivery between men and women; (3) offer priority services for girls, breastfeeding women, and elderly women)
- Train both women and men in the use and maintenance of equipment
- Monitor male/female rates of drug use
- Conduct gender-responsive surveys on patient perceptions of eye health care equipment / facilities
- Make eye health facilities gender-friendly e.g. separate washroom, baby changing area and breast feeding services
- Will training be equally available to women and men to ensure absorption of new equipment?
- Are eye health facilities and infrastructure designed to be physically accessible to people with a disability or those who are blind / vision impaired?
- Organise female-only screening camps
- Offer a choice of doctor's gender
- Integrate eye care into existing maternal and child health facilities
- Use technology as appropriate to increase effectiveness, efficiency, quality or communication

Health financing

- Analyse health financing for women's eye health at country level (health insurance)
- Investigate funding mechanisms to sensitively address women's eye health
- Advocate for gender responsive budgeting for women's eye health
- Monitor budget set aside for women's eye health
- Whenever needed: mobilise and utilise funding targeting gender in women in eye health
- Ensure women are aware of the existence of financial schemes for poor patients (e.g. equity cards) and know if they are entitled to it

Leadership & governance (stewardship)

- Establish local partnerships with women's organisations, civil society organisations, youth groups
- Establish partnerships with Ministry of Women's Affairs, Ministry of Education, Youth & Sport
- Involve religious and cultural groups in advocacy for women's eye health
- Develop a project environment that enables for women's participation in decision making
- Advocate for inclusion of women's eye health in financing systems
- Map and build relationships with partners who have strong gender skills
- Establish Memoranda of Understanding with partners, which include gender-responsive clauses
- Through partners ensure quality delivery of gender-responsive services
- Support a national campaign on the need for eye health for women and girls
- Advocate for inclusion of gender-responsive measures in national and regional eye health plans
- Put gender on the agenda of the National Prevention of Blindness committee or equivalent

Checking that your project design is gender responsive*

Once you have designed your project or program, it is important to **check whether it is gender responsive** (gender-sensitive, -specific or -transformative) before you start implementing it and if not, to take corrective actions to improve the gender-responsiveness of your design. We suggest that you use the **Gender Assessment Tool (GAT)** developed by the WHO as shown on the next pages. The GAT can help to **rapidly assess the gender-responsiveness** (gender-sensitive, -specific or -transformative) of high-level activities of a given program or project. It indicates where gender-responsiveness can be improved. The GAT is not a detailed program analysis, which would require each question to be broken down into detailed elements to be assessed, and to collect/analyse extensive data.

The GAT uses a scoring system. Count one point each time you ticked 'yes' and zero each time you ticked 'no', and then calculate your total score. If you answered 'yes' to the majority of questions 1 – 18, it is likely that your program is gender responsive. If you obtained less than 15 in total, it is likely that your program or policy is not gender responsive and you will need to take corrective actions to help you easily indicate where things may be on track or where the program or policy is in troubled waters. Further analysis will be required to determine which level of gender-responsiveness applies to your program or project – in particular to distinguish between gender-sensitive (not action oriented) and gender-specific or transformative (where true gender planning and actions occur). If you answered 'yes' to the majority of questions 19 – 23, your program may be either gender-blind or gender-unequal – and is therefore not gender-responsive.

For some suggested corrective actions, refer back to the list of gender-responsive activities organised per health system strengthening pillar on pp.18-20.

Adapted from the WHO Gender Assessment Tool (GAT)³⁴

Question	Yes	No
<p>1. Do the vision, goals or principles have an explicit commitment to promoting or achieving gender equality?</p> <p>Scoring hints: No may indicate gender-blindness. Yes may indicate that the program is gender-sensitive, gender-specific or gender-transformative.</p>		
<p>2. Does the policy or program include sex as a selection criterion for the target population?</p> <p>Scoring hints: No may indicate gender-blindness. Yes may indicate that the program is gender-sensitive, gender-specific or gender-transformative.</p>		
<p>3. Does the policy or program clearly understand the difference between sex and gender?</p> <p>Scoring hints: No may indicate gender-blindness. Yes may indicate that the program is gender-sensitive, gender-specific or gender-transformative.</p>		
<p>4. Does the target population purposely include both women and men?</p> <p>Scoring hints: No may indicate gender-blindness. No may also indicate the program is gender-specific if either sex is addressed in the context of broader gender norms, roles and relations. Yes may indicate that the program is gender-sensitive or gender-transformative.</p>		

* Please note: this section contains an adapted version of significant portions of the World Health Organisation's gender mainstreaming guidance, and accompanying Gender Assessment Tool (GAT). A version of the GAT has also been included in this guide. Please check the original tool for more details: http://www.who.int/gender/mainstreaming/GMH_Participant_GenderAssessmentTool.pdf.

Question	Yes	No
<p>5. Have women and men participated in the following stages? • design • implementation • monitoring and evaluation.</p> <p>Scoring hints: No may indicate that the program or the specific stage of programming is gender-blind or gender-unequal. Yes may indicate that the program or the specific stage of programming is gender-sensitive, gender-specific or gender-transformative.</p>		
<p>6. Have steps been taken to ensure equal participation of women and men?</p> <p>Scoring hints: No may indicate that the program is gender-blind or gender-unequal. No could also indicate gender-specificity if one sex is targeted in the context of broader gender norms, roles and relations. Yes may indicate that the program is gender-sensitive, gender-specific or gender-transformative.</p>		
<p>7. Do both male and female team members have an equal role in decision-making?</p> <p>Scoring hints: No may indicate that the program is gender-unequal or gender-blind. Yes may indicate that the program is gender-sensitive, gender-specific or gender-transformative.</p>		
<p>8. Does the policy or program consider life conditions and opportunities of women and men?</p> <p>Scoring hints: No may indicate that the program is gender-blind. Yes may indicate that the program is gender-sensitive, gender-specific or gender-transformative.</p>		
<p>9. Does the policy or program consider and include women's practical and strategic needs?</p> <p>Scoring hints: No may indicate that the program is gender-blind or gender-unequal. Yes may indicate that the program is gender-sensitive, gender-specific or gender-transformative.</p>		
<p>10. Have the methods or tools been piloted with both sexes?</p> <p>Scoring hints: No may indicate that the program is gender-blind, gender-unequal or gender-specific. Yes may indicate that the program is gender-sensitive or gender-transformative.</p>		
<p>11. Does the policy or program consider family or household dynamics, including different effects and opportunities for individual members, such as the allocation of resources or decision-making power within the household?</p> <p>Scoring hints: No may indicate that the program is gender-blind or gender-unequal. Yes may indicate that the program is gender-sensitive, gender-specific or gender-transformative.</p>		
<p>12. Does the policy or program include a range of stakeholders with gender expertise as partners, such as government- affiliated bodies, national or international non-governmental organizations or community organizations?</p> <p>Scoring hints: No may indicate that the program is gender-blind. Yes may indicate that the program is gender-sensitive, gender-specific or gender-transformative.</p>		
<p>13. Does the policy or program collect and report evidence by sex?</p> <p>Scoring hints: No may indicate that the program is gender-blind or gender-unequal. Yes may indicate that the program is gender-sensitive, gender-specific or gender-transformative.</p>		

Question	Yes	No
<p>14. Is the evidence generated by or informing the policy or program based on gender analysis?</p> <p>Scoring hints: No may indicate that the program is gender-blind or gender-unequal. Yes may indicate that the program is gender-sensitive, gender-specific or gender-transformative.</p>		
<p>15. Does the policy or program consider different health needs for women and men?</p> <p>Scoring hints: No may indicate that the program is gender-blind, gender-unequal or gender-specific (if one sex is targeted). Yes may indicate that the program is gender-sensitive, gender-specific or gender-transformative.</p>		
<p>16. Does the policy or program include quantitative and qualitative indicators to monitor women's and men's participation?</p> <p>Scoring hints: No may indicate that the program is gender-blind or gender-unequal. Yes may indicate that the program is gender-sensitive, gender-specific or gender-transformative.</p>		
<p>17. Does the policy or program consider gender-based divisions of labour (paid versus unpaid and productive versus reproductive)?</p> <p>Scoring hints: No may indicate that the program is gender-blind or gender-unequal. Yes may indicate that the program is gender-sensitive, gender-specific or gender-transformative.</p>		
<p>18. Does the policy or program address gender norms, roles and relations?</p> <p>Scoring hints: No may indicate that the program is gender-blind or gender-unequal. Yes may indicate that the program is gender-sensitive, gender-specific or gender-transformative.</p>		
<p>19. Does the policy or program exclude (intentionally or not) one sex but assume that the conclusions apply to both sexes?</p> <p>Scoring hints: No may indicate that the program is gender-sensitive, gender-specific or gender-transformative. Yes may indicate that the program is gender-blind or gender-unequal.</p>		
<p>20. Does the policy or program exclude one sex in areas that are traditionally thought of as relevant only for the other sex, such as maternal health or occupational health?</p> <p>Scoring hints: No may indicate that the program is gender-sensitive, gender-specific or gender-transformative. Yes may indicate that the program is gender-blind or gender-unequal.</p>		
<p>21. Does the policy or program treat women and men as homogeneous groups when there are foreseeable, different outcomes for subgroups, such as low-income versus high-income women or employed versus unemployed men?</p> <p>Scoring hints: No may indicate that the program is gender-sensitive, gender-specific or gender-transformative. Yes may indicate that the program is gender-blind or gender-unequal.</p>		
<p>22. Do materials or publications portray men and women based on gender-based stereotypes?</p> <p>Scoring hints: No may indicate that the program is gender-sensitive, gender-specific or gender-transformative. Yes may indicate that the program is gender-blind or gender-unequal.</p>		
<p>23. Does the language exclude or privilege one sex?</p> <p>Scoring hints: No may indicate that the program is gender-sensitive, gender-specific or gender-transformative. Yes may indicate that the program is gender-blind or gender-unequal.</p>		

CASE STUDIES

The following is a collection of case studies illustrating good or proven practice in gender-responsive eye health programming, as identified through sustained observation by leading eye health organisations. In this context, good practice is defined as approaches to programming which eye health actors, as a sector, have observed successfully addressing gender-specific barriers and/or risks in low- and middle-income countries (LMICs) that hinder equitable attainment of eye health service access and/or eye health outcomes.*

WHO health system pillar	Case study name	Country(ies) of intervention implementation	Eye health organisation
Service delivery & community development	Engaging agents of change to increase women's cataract surgery uptake	Zambia	Orbis
Health workforce	Women of Vision – Providing Eye Care through Social Entrepreneurship	Pakistan	Brien Holden Vision Institute
Health data & information	Evidence-based decision making to guide gender-sensitive eye care delivery	India	Aravind/ LAICO
Medicines, technologies & infrastructure	Gender-sensitive infrastructure in Kishoreganj Eye Hospital	Bangladesh	Nari Uddug Kendra
Health financing	Combining microfinancing with outreach to empower women	Tanzania	KCCO
Leadership & governance (stewardship)	Leading gender equity in eye care in Nepal: Lumbini Eye Institute's 15 year experience	Nepal	Seva Canada
Integrated health system approach (summary example)	The Coordinated Approach to Community Health (CATCH) project	Uganda, Mozambique, Zambia, Kenya and Malawi	Sightsavers

Annex B of this document additionally contains the following case studies illustrating good practice in health programming that affects eye health, although not all additional case studies are extracted from interventions specifically addressing eye health by design:

WHO health system pillar	Case study name	Country(ies) of intervention implementation	Eye health organisation
Service delivery & community development	Gender-sensitive eye health programming in Bangladesh	Bangladesh	The Fred Hollows Foundation
Health workforce	Gender-responsive workforce development in urban poor Sri Lankan communities	Sri Lanka	Brien Holden Vision Institute
Medicines, technologies & infrastructure	Introduction of smokeless, energy efficient stoves by the Health of People & Environment in the Lake Victoria Basin (HoPE-LVB) project	Uganda	Pathfinder International
Health financing	Aravind's model for quality care, without the frills	India	Aravind

* Initial ideas and specific examples of case studies were contributed between December 2016 and March 2017 to the knowledge management team at The Fred Hollows Foundation. A final selection was made through a critical analysis of the following criteria: strength of evidence used in design of intervention; strength of evidence generated by the intervention; longevity of intervention outputs and outcomes; geographic spread of intervention contexts; representation of recurring themes in successful intervention approaches; organisational readiness to collaboratively develop the case study; and, either adequate documentation of the intervention, or organisational capacity to provide adequate documentation, including through sharing unpublished data. Final case study write-ups were developed between May and September 2017, coordinated by the previously mentioned knowledge management team at The Fred Hollows Foundation.

Engaging agents of change to increase women's cataract surgery uptake in Zambia

KEY MESSAGES

Understand the barriers specific to your context

Orbis conducted research into the local barriers to women accessing cataract surgery services when they noticed low numbers of women attending eye health facilities

Facilitate women to be their own agents of change

Female patients who completed their patient journeys have been successfully engaged to work alongside community health workers to encourage other women to access eye health services

Engage stakeholders with formal and informal power over social norms

Orbis has developed a relationship with local traditional leaders that amplifies their message, as these leaders are now informal ambassadors for women's health empowerment

Location: North-Western Province, Zambia

Project team: Orbis Africa

Authors: Chantel Le Fleur-Bellerose, Monitoring and Evaluation Manager (chantel.lefleur-bellerose@orbis.org.za) and Kira-Leigh Kuhnert, South Africa Program and Advocacy Manager (kira-leigh.kuhnert@orbis.org.za), of Orbis Africa

Initial situation

During the second year of implementation of "The Saving Sight, Changing Lives" project, Orbis Africa found that there were low numbers of women accessing the eye care services provided at the health facilities, with women consistently under-represented in cataract surgeries. This project is implemented in partnership with the Zambian Ministry of Health (MoH), with an aim to establish, strengthen and improve access to high quality eye health services at primary, district and secondary hospital levels in the North-Western Province of Zambia.

Evidence-based design

We know through global figures that women are disproportionately affected by the burden of disease for preventable and treatable blindness.¹⁴ Given the higher prevalence and incidence of cataracts among women, they should account for at least 56% of all cataract surgeries.^{24, 35} However, studies in developing countries have consistently shown female patients accessing cataract surgery at lower rates than men.^{20, 24}

In December 2015 research was conducted to explore the local barriers women face in accessing surgery and other eye care services. The study consisted of in-depth qualitative interviews with 17 women who were diagnosed with cataracts and referred to the district hospital, and who did not take up surgery by the time of the study.

The findings highlighted two main mechanisms, which delayed and/or prevented women from accessing surgical treatment. First, women interviewed reported several delays in their journey to accessing health services, of between 9 months up to 14 years. The delays included first trying home remedies and traditional medicine; religious convictions of healing; choosing to wait for an eye specialist to visit their area during outreach after diagnosis and referral; advice obtained to wait for the cataracts to mature;

receiving poor counselling at diagnosis on what cataracts are and details on the treatment, as well as fear of surgery and negative stories of cataract surgery within communities, made worse by the general limited education levels of the women.

Second, after accessing services and receiving a referral for surgery at the district hospital, a number of cultural and socio-economic barriers were encountered preventing women from accessing surgery. These included: limited decision making autonomy of women; high costs associated with travel to district hospitals and limited financial resources within households.



Orbis and the Ministry of Health partner in providing community eye-screenings in North-Western Province, Zambia. Photo credit: Orbis Zambia

Orbis' intervention: engaging agents of change

Based on research findings, Orbis developed several community-based initiatives to increase cataract surgery uptake by women in North West Province from 2016-2017. Below are two aspects of the approach to address the issues that emerged from the research study.

Women ambassadors

It is important to provide counselling or information sessions to the women who are referred for surgery. Ten (10) ambassadors were selected from female patients who had previously received treatment, and undergone cataract surgery. The ambassadors work together with the Community Health Workers to provide counselling to prospective female cataract surgery patients, conduct awareness raising at

community events, and provide post-operative support during follow-up visits.

As part of the community awareness raising, ambassadors are invited to speak at the film screenings that Orbis Africa facilitates. Facilitated film screening is a methodology that uses documentary films to tell the story of a patient's journey to seek treatment, followed by an interactive facilitated discussion with the audience members. The women ambassadors attend these film screenings and alleviate fears around eye surgery by sharing their own successful stories.

The health facilities have seen that patients who have accessed counselling from the women ambassadors at household level or during an outreach activity often have no fears to undergo cataract surgery. Adherence to the ophthalmic officer's instruction and post-operative care by this group of patients has also been noted to be better.

Traditional leaders

Traditional leaders are regarded as guardians in Zambian communities and their participation in any community program assures success. The participation of traditional leaders has contributed effectively to our intervention, and has helped to connect community stakeholders.

Through the medium of radio and community health meetings, trained mid-level allied eye health professionals together with traditional leaders have led discussions on the importance of women's access to health services, including eye health and the benefits which accrue to households and communities when women access health services at the same rate as men. In addition, during community radio shows, traditional leaders and mid-level allied eye health workers have been invited to talk about general eye health awareness but the messaging specifically includes women's empowerment. In addition to the above, Orbis Africa recognised that the distances to access services may be great, as well as costly to many women. A fuel subsidy was provided to the Ministry of Health for patient transport to be provided to access tertiary facilities in the North-Western Province. This removes the barriers for women to access services and attend follow-up appointments, which is often crucial. The Ministry of Health has incorporated these costs into their budget from mid-2017 as part of their primary health care strategy and ensuring that patients seek tertiary treatment.

Results

According to the female ambassadors, “providing the volunteer service on encouraging women access to eye health service uptake, particularly cataract surgery is their pride”. They felt that providing this service is one way of contributing to the health rights of women at community and household level. Additionally, they feel honoured and recognised by the project and District Health Management Teams.

In one area of the North-Western Province, the district eye clinic has seen an increase in referrals of cataract patients from rural health centres and walk-in patients for different eye conditions. The strategy of involving women ambassadors in community eye health programs has been replicated in other districts within the province. Traditional leaders feel appreciated to be seen as partners in promoting positive health behaviour to their community members. Through the involvement of traditional leaders, the intervention has been seen as credible and respected by community members.



A female patient attending an Orbis awareness-raising community event in North-Western Province, Zambia. Photo credit: Orbis Zambia

As a result of the intervention, Orbis has noted a 17% increase in the number of women accessing cataract surgery services between January 2016 and March 2017. Previously women accounted for 43% of the cataract surgeries performed, the number of women accessing services is now reported at 60%.

Conclusion

The intervention is still being utilised as part of the project implementation in North-Western Province. Thus far, this is a powerful example of successfully engaging women in speaking to other women in the community on the positives of seeking the necessary attention for cataracts and other eye conditions. In addition, having the support of traditional leaders in sharing information on good health practices complements the work of the health care services in the Province and the Orbis Africa project.

According to the female ambassadors, “providing the volunteer service on encouraging women access to eye health service uptake, particularly cataract surgery is their pride”. They felt that providing this service is one way of contributing to the health rights of women at community and household level.

Women of Vision – Providing Eye Care through Social Entrepreneurship in Pakistan

KEY MESSAGES

Empower local women to be their own agents of change

The Institute's entrepreneurship training supported a majority of female eye health workers, and gave them a source of sustainable income

Focus on sustainability through autonomy

The Institute has shown the long term benefits of interventions in primary or community eye health that specifically work towards community independence

Engage the local community to build ownership

The Institute engaged local women or training to deliver the eye health services previously lacking in their communities, and helped them establish a network, which led to enthusiasm and dedication to the cause

Developing access to culturally appropriate primary eye health services and social entrepreneurship opportunities for women and girls.

Location: District Jhelum, Punjab Province, Pakistan

Project team: Brien Holden Vision Centres, Pakistan

Case study contributors: Sumrana Yasmin, Regional Director, South East Asia & Eastern Mediterranean (s.yasmin@brienholdenvision.org) and Alison Campion, Project Development Officer, Asia Pacific (a.campion@brienholdenvision.org), Brien Holden Vision Institute

Adapted by: Christina Roger, Knowledge Management & Innovation Officer (croger@hollows.org), and Camille Neyhouser, Organisational Learning and Knowledge Management Specialist (cneyhouser@hollows.org), The Fred Hollows Foundation

Initial situation

Brien Holden Vision Institute ("The Institute") is an Australian NGO working to eliminate vision impairment and avoidable blindness,³⁶ including in Pakistan since 2011. "Approximately 1.5 million people in Pakistan are living with some form of blindness. The need for a pair of glasses to see clearly (uncorrected refractive error) has been identified as one of the most common causes", but eye health services and a skilled eye health workforce are seriously lacking.³⁷ The Institute's approach in Pakistan focuses on: sustainable service development, workforce development, child eye health, research and advocacy, with an overarching goal of increasing local institutions and community capacity for sustainable eye health development.³⁸

Programming context

In 2012, the Institute conducted a Knowledge, Attitudes and Practices (KAP) survey to establish the project baseline. This survey's findings indicated that the majority of community members would visit a medical officer or an optical store (generally run by an unqualified optician) in the case of any eye health issue. There was also no local concept of primary eye care workers in the area, and the nearest eye health facility was at a distance of 11 kilometres from the town.

During 2016, the World Economic Forum declared Pakistan as the world's second-worst country where women face inequality in access to health, education and work. Gender inequalities, including

cultural barriers to women's autonomy, exacerbate the existing challenge in Pakistan of increasing accessibility, sustainability and further expansion of services to provide eye health care for the most vulnerable.

The Institute's Enterprise for Sight intervention

In the context of enormous unmet eye health needs at community and household levels in Pakistan, the Institute piloted a social enterprise initiative to address some of the significant gender inequalities in Pakistan. The pilot included a women-led social entrepreneurial approach in District Jehlum based on business development principles. This development of a network of trained entrepreneurs, who are mostly female, aimed to increase livelihood opportunities.

In collaboration with local community development organisations, Brien Holden Vision Institute developed training manuals in the local language (primary eye care, vision screening, book-keeping and business management), plus provided assessment material and start-up inventory, to support the women's delivery of quality services in their communities. The training was delivered in a manner to ensure even difficult concepts were broken down into simpler concepts, for maximum knowledge retention. Periodic refresher trainings were conducted to ensure quality of services, establish linkages, and allow for a continuum of mentorship mechanism.



Farzeena Arshad in community. Photo credit: Mr Usman Ghani. Owner of image: Brien Holden Vision Institute

Results

A mid-term review of the Institute's Enterprise for Sight highlighted the successes of this pilot initiative, which include: improved community coordination, increased service delivery from people with training in primary eye health, and women's growing financial autonomy.

Female health workforce

The geographical area of the project did not have any eye health workforce before the launch of the project apart from a few lady health workers who promoted general health awareness in the communities. The Enterprise for Sight intervention facilitated growth of a local health workforce, with a key focus on eye care. To-date, this initiative has trained 42 women community leaders from rural areas in primary eye care and enterprise development and provided them with start-up inventory support, plus a network of other female entrepreneurs. Most of these women have been able to allocate the time to provide services at a household level, due to high levels of commitment to improving their communities' eye health.

Community engagement and service delivery

Sustainable, responsive community eye health services were established in the three intervention Districts and were well-received by local populations. Trained women started providing primary eye health services to their fellow villagers, which resulted in a 43% increase in access to primary eye care in the project area in two years. Much of this increase is because due to local cultural norms and practices, trained, local women are accepted into villagers' homes, and can overcome the barriers of long distances to facilities, difficulty securing permission and transport, and expenses associated with travel. With their door-to-door service and information provision, they have been able to reach vulnerable groups including the elderly, people with disabilities, and women and girls who do not usually leave their homes.

Due to the disproportionate burden of eye health issues on women and girls, equity in eye health service delivery would require over 56% of patients to be women. Bourne 2017 In this project's context, women and girls constituted 70% of the people who received primary eye health services during the two years of intervention. There is likely room for further improvement given the additional barriers women face in Pakistan, however, the data indicates that there is significant movement in the right direction.



Farzeena Arshad performing an eye exam. Photo credit: Mr Usman Ghani. Owner of image: Brien Holden Vision Institute

Financial autonomy

Revenue from the sale of spectacles and sunglasses has been an additional source of income for women entrepreneurs. The profits from the sales have enabled the women to improve their economic conditions and living standards, including by accessing better education for their children. In the four years since the establishment of micro-social-sight enterprises, 57% of the total women entrepreneurs are continuing their services and sustaining their inventory.

Conclusion

The Enterprise for Sight initiative is designed to encourage a culture of entrepreneurship demonstrating how innovative solutions can be used to meet demand. Through this initiative, Brien Holden Vision Institute has brought eye health services to a community level in three Districts of Punjab, Pakistan, and has empowered women to be agents of change in their communities. The project has encouraged community members to become more directly involved in their eye and health care. A social enterprise approach, combined with education in health and eye care services, has allowed women to become entrepreneurs, establishing self-generated and sustainable income to improve their own livelihoods, while additionally addressing unmet community health needs.

Limitations and replicability

The approach proved to be successful in the local context, as it is flexible and adjusts to the needs of rural and traditional communities. It was anticipated that some women may stop working due to family or social pressure which may affect the anticipated income generation and provision of primary eye care in the communities.

However, the sale of spectacles provides entrepreneurs with an opportunity to earn an income which serves as an incentive to continue providing these services. Similar interventions may help to address some inequities in eye health at the community and household levels, but must be adapted to the specific context of implementation so it can have a lasting impact on continued provision of primary eye health services in local communities.



Jabeen Fatima checking distance vision. Photo credit: Mr Imran Ahmad. Owner of image: Brien Holden Vision Institute

“In the four years since the establishment of micro-social-sight enterprises, 57% of the total women entrepreneurs are continuing their services and sustaining their inventory.”

Evidence-based decision making to guide gender-sensitive eye care delivery in India

KEY MESSAGES

Collect and use gender and age-disaggregated evidence

Aravind has identified barriers that women share in accessing eye health services, and further found that elderly women may have barriers specific to their age group

Consider the extent to which technology could support your data use

Aravind uses an Integrated Hospital Management Software (IHMS) to capture and analyse patients' sociodemographic details and broad clinical findings and treatment outcomes. A robust paper-based medical record management system is now being transformed into electronic medical records (EMR) with a phased approach.

Prioritise analyses where resources are limited

Aravind conducts ad-hoc analyses of special eye conditions, however they conduct extensive internal reviews for cataract cases, as this comprises the large majority of cases in Aravind hospitals

It's not necessary to "reinvent the wheel"

Aravind has shown that it is possible to make one large shift in approach to data collection and use, then maintain and refine it over time, rather than implementing short-term initiatives regularly

Location: India (mostly Tamil Nadu state)

Project team: Lions Aravind Institute of Community Ophthalmology (LAICO) with Aravind Eye Care System, Madurai, India

Case study contributor: Sanil Joseph, Senior Faculty and Health Management Consultant, Lions Aravind Institute of Community Ophthalmology (LAICO) (sanil@aravind.org)

Adapted by: Christina Roger, Knowledge Management & Innovation Officer (croger@hollows.org), and Camille Neyhouser, Organisational Learning and Knowledge Management Specialist (cneyhouser@hollows.org), The Fred Hollows Foundation

Initial situation

Aravind Eye Care System (aravind.org) is a WHO-partnered centre based in India, which has a mission to eliminate needless blindness.³⁹ Founded by Dr G. Venkataswamy (known as Dr V) in 1976 as a 11-bed eye clinic, Aravind has now grown into a network of 5 tertiary care centres, 6 secondary care centres, 6 outpatient centres and 62 primary care centres, covering most of the state of Tamil Nadu in southern India. From its establishment in 1976, leadership at Aravind has been keen to monitor clinical as well as non-clinical outcomes, and use robust data collected and analysed regularly for improving systems and processes.

The intervention: systematised data collection and review

In 2006, reviewing the growing organisation's data became too large a job for one person, and the Human Resource Director implemented Aravind's Parameters Program to systematise data collection and review. The new approach involved teams of three senior members auditing individual Aravind hospitals for three to five days, twice annually, reporting feedback and sharing best practice.⁴⁰ Decision-making, planning of operational activities and demonstration of evidence at Aravind makes use of large amounts of collected data. What makes Aravind's use of data so interesting is the long-term focus on continual improvement of their systems and hospital environments over time.

Aravind's data collection is completed using laptops in outreach camps and on computers at patient registration in hospitals. Clinical details used to be on paper, with other patient details electronic,

but from early 2016 patients' clinical details at hospitals have been electronic. Past patient data is scanned in, only at the point of re-registration of returning patients, since many past patients are likely not to return.

Basic patient demographics, plus footfall (the number of patients who enter a medical facility) and follow-up visit rates (compared against advised follow-ups) are collected, disaggregated by gender and age group, to produce useful information at analysis. Analysis is systematised and the Integrated Hospital Management Software (IHMS) allows access to the data through a few clicks. This database is quite comprehensive for cataract surgery and includes information relating to pre-, intra- and post-operative details, surgical outcomes, intra and post-operative complications and post-operative follow-up. A similar platform is under development also for other disease areas such as glaucoma and diabetic retinopathy. New and returning patient registration details are also analysed separately.

Results

Collected data and subsequent analyses have given Aravind a strong understanding of their operational context and beneficiaries, thus allowing for gender-sensitive decision-making.

For example, data has indicated that female eye health service provision is deprioritised when compared with men's, as men both access hospitals sooner, due to having less informal housework to undertake before traveling to health services, and are given priority to avail treatment within families, as they are generally the sole bread winners for their families. A hospital-based study conducted in 2008 revealed that women are underrepresented in Aravind's paying section, reflecting their poorer socioeconomic and educational statuses.⁴¹ This would imply that Aravind's subsidy model has considerably improved equity in terms of service delivery, although the data is not yet available.

Surgery follow-up and surgery acceptance rates are also analysed and fed back into counselling decisions, to orient the counsellors to understand the concerns of women in particular and give them more detailed and appropriate counselling. For instance, post-operative patients are encouraged to visit one of the Vision Centres (Aravind's rural primary eye care facilities) for routine follow-ups if it is closer than the hospital where they received care. This has improved access to and acceptability of surgery, especially

for women, with closer to equitable follow-up and acceptance rates between female and male patients now, although the data is not yet available.

Conclusion

Another interesting trend has recently been found by looking at age groups of patients over the last 10 years. Given that the burden of eye disease falls largely on women, gender equity means more women than men should be accessing eye health services. 42-60 years old is the age group that has the highest level of access to eye health services, however after age 70, women represent as little as 35% of patients. This will clearly require additional research, but exemplifies the type of analyses and thinking that Aravind employs through a gender-sensitive approach to health information management.

"...data has indicated that female eye health service provision is deprioritised when compared with men's, as men both access hospitals sooner, due to having less informal housework to undertake before traveling to health services, and are given priority to avail treatment within families..."

Gender-sensitive infrastructure in Kishoreganj Eye Hospital, Bangladesh

KEY MESSAGES

Engage those who hold the power to increase women’s eye health service access, including men

Kishoreganj Eye Hospital has engaged influencers in the community including male family members, school teachers, medical personnel and local government representatives

Implement a continuous, long-term approach rather than short-term initiatives

Where possible, KEH integrates projects into a coherent strategy that can be maintained and built upon, rather than small changes from time to time

Train women to be their own agents of change and employ them to create a supportive environment

KEH’s workforce is majority female and both data and verbal feedback from outreach camps have indicated that this creates a more enabling environment for women seeking eye health services

Location: Kishoreganj District, Bangladesh

Case study contributor: Mashuda Khatun Shefali (mashuda.shefali@gmail.com), Founder & Executive Director of Nari Uddug Kendra (NUK), meaning “Centre for Women’s Initiatives” in English. NUK established Kishoreganj Eye Hospital (KEH) in 2006.

Adapted by: Christina Roger, Knowledge Management & Innovation Officer (croger@hollows.org), and Camille Neyhouser, Organisational Learning and Knowledge Management Specialist (cneyhouser@hollows.org), The Fred Hollows Foundation

Initial situation

Kishoreganj Eye Hospital (KEH), located in Latibabad, Kishoreganj is a collaborating partner of VISION2020 and works primarily in grass-roots service delivery.⁴² KEH differentiates itself from most other eye hospitals in Bangladesh by being a gender-responsive organisation. NUK’s main mission and vision is gender equality and human rights, and KEH works by this spirit. As such, KEH aims to integrate gender into eye care both from a rights-based approach, and from experience in the context.

Evidence base

The gender-responsiveness of KEH can be attributed in large part to the organisation’s leadership, including Mashuda Khatun Shefali, Founder and Executive Director of Nari Uddug Kendra (NUK). NUK established KEH, where Mashuda Khatun Shefali initiated the collaborative research into gender inequity in eye care in Bangladesh, with financial and technical support from Orbis.⁴³ This research intended to identify the real barriers women experience in attempting to access eye care services.⁴³

Additionally, awareness-raising activities were undertaken during the study to inform key community stakeholders (Ministry of Health and Family Welfare [MOHAFW] staff, community health workers and the local government representatives) about the importance of women’s access to eye care services and strategies for overcoming socioeconomic and cultural barriers to accessing services. During the research, focus group discussions and interviews, alliances were built with government health staff and local communities – most notably, with the male counterparts of female patients – through these concurrent awareness-raising activities.



An Aravind ophthalmologist examines a patient at a free eye screening camp. Photo credit: Rajkumar

The study showed that three key challenges to women with avoidable vision disorders attending services in a reasonable time frame before greater deterioration of their eyesight identified in Bangladesh include inequities in: (1) family decision-making, (2) difficulties in obtaining consent and (3) lack of financial investment in women's health.⁴³ In Bangladesh, little importance is given to women and their health issues, so they have to ask for: permission to be granted for the visit, an accompanying person to escort them to the health facility and back to be arranged and for funds to be allocated.⁴³

KEH's intervention

The research findings informed a number of changes to the ways in which KEH attempts to address the needs of women in eye care. This is now the first time that KEH is addressing the gender imbalance in service delivery throughout the patient experience, by addressing women's special needs in the reception area; and during waiting times, service delivery and departure. The intervention activities included: infrastructure adaptations; the development of a training curriculum, with associated advocacy activities; school screenings; garment workers eye screening; and, community outreach programs.

Infrastructure

The research found that barriers to women's access to eye care services such as deprioritisation can occur even within health facilities. Hence KEH implemented infrastructure adaptations to accommodate women's needs, including:

- Establishment of a fast-tracking service for women who are elderly or have young children
- Separation of women's toilets from men's
- Installation of a breastfeeding corner
- Installation of canteen services for women
- Deployment of exclusively female staff in reception, registration and counselling areas
- Free transportation services for female cataract patients.

Training

Based on the recommendations from the research study, NUK has been conducting awareness training as a capacity building initiative for eye health personnel in both the public and private sector.

In addition, a gender sensitisation training curriculum was adapted to familiarise and sensitise community leaders, local government representatives, local elites/political leaders, school teachers, government health staff, hospital doctors, nurse/paramedics and other support staff to the challenges women face before, during and after eye health care. All KEH staff, including doctors and nurses, received this gender sensitisation training, which addressed specific gaps in gender inequality knowledge – i.e. that if women are elderly or have young children, staff should advise them to have their husbands accompany them to the health facility. Husbands or other male counterparts are also sensitised or counselled on the importance of women's eye care at present and in the future.

The curriculum was presented to the local government and health leaders at the district and sub-district levels and alliances were developed with key stakeholders. These included VISION2020 Committees, government and private eye care providers, locally elected representatives and school teachers.⁴³ These groups of people now support women and girls' access to eye care and have mobilised more women in eye care services. This has also enhanced the number of women who are referred from subdistrict and community hospitals to NUK eye hospital for eye care services and surgeries.⁴³



Male-female joint eye screening camp. Photo credit: Mr Shaker Ahmed, Program Coordinator, NUK. 2016



Eye sight screening for school children. Photo credit: Mr Shaker Ahmed, Program Coordinator, NUK. 2016

Engaging men

In Bangladesh, men tend to hold the financial and decision-making power in families and societies, limiting women's autonomy. In order to overcome this barrier, KEH made targeted efforts to engage men in these activities, by strongly encouraging them to accompany their wives to access health services. The various government and community leaders also encourage men to ensure their wives access to eye care services.

School screening

Schoolteachers were invited to sessions with 25-30 people for sensitisation. Further school screening activities raised children's basic eye health awareness and free treatment was provided at camps. At these camps, key messages were also shared with children to bring to the home environment, with the view that they could influence their mothers to seek eye health services more quickly.

Garment workers eye screening

Among health safety issues in the workplace, eyesight has a significant impact on quality of life and capacity to stay in employment. The garment industry

in Bangladesh is mostly comprised of a woman workforce, therefore NUK in association with Social Compliance Initiatives Bangladesh (SCIB) developed and provided occupational eye care at a primary level for garment factory workers. The objectives of this initiative included:

- Raising awareness, and
- Making eye care services easier to use, more accessible and more affordable for factory workers, in turn (a) enhancing the quality of life and job satisfaction for workers and their families, and (b) preventing and controlling occupational eye complications and avoidable blindness.

Due to the working hours at garment factories, labourers have limited access to eye care services even though 70% of labourers have eye problems. As such, NUK Eye Hospital has developed an excellent team of skilled ophthalmologists, surgeons and other technical staff to support the Eye Screening Camps at the factory premises. To date, NUK eye hospital has provided eye screening services to 30,000 garment workers. Garment factory workers and management staff are also provided with awareness-raising sessions on the importance of eye care. They in turn disseminate this information to their families.

Results

- Awareness training was delivered to various stakeholders and ongoing monitoring has indicated that women's attendance at eye health centres has increased. The ratio of female to male patients increased to 50%:50% from 42%:58% respectively at KEH's outpatient department.* This monitoring was undertaken through the existing database and through interviews with female staff and patients. There are now more females than males on all KEH teams, except doctors due to a lack of available skilled female doctors.
- About 90% of outreach eye camp patients are women. They have given positive feedback, with some women saying that they feel encouraged, that they have not been discriminated against in health centres, and are more confident in accessing health services and going to KEH on their own.
- Women are now more confident adopting eye glasses to correct refractive errors, overcoming the stigma that having eye glasses is only fashionable for men.

* Previously unpublished data extracted from KEH's database was provided by Mashuda Khatun Shefali in 2017.



Eye sight screening for garment workers. Photo credit: Mr Shaker Ahmed, Program Coordinator, NUK. 2016.



Eye screening of adolescent girls at high school. Photo credit: Mr Shaker Ahmed, Program Coordinator, NUK. 2016.

- Preliminary evidence indicates that children’s access into KEH services has doubled after sensitisation activities.
- Family support has been enhanced in relation to medical costs and accompanying women patients to the KEH services.
- The research study findings and recommendations have highlighted the importance of gender in eye health at both the national and local levels and hence, have led to a greater number of women patients accessing eye health services nationally. This is important, as the study concluded that without engaging women significantly, the VISION2020 goal will not be achieved.

Conclusion

Private hospitals in Bangladesh do little to address gender inequalities in eye care, as their approach is not rights based, but business based. The National Eye Care Institute is now thinking about the changes they can make, but have not yet implemented these changes, apart from one hospital with separate counters and toilets.

KEH’s future plans

KEH is now planning more gender-responsive activities, with family training sessions to be held

through courtyard meetings, in partnership with Christoffel-Blindenmission (CBM). These are intended to focus on the decision-makers in families in Bangladeshi communities who act as blockers to women accessing eye health services. To this end, KEH will invite male family members, including elders, to the courtyard meetings, where they will be familiarised with the importance, and impact, of women not accessing services in a way that will carry clout for them – i.e. if a women is expected to do household work, raising children, she needs her eye health even more than men do.

The key lesson KEH has learned from past and present gender-inclusive eye health programming is that no eye health intervention addressing only one health system pillar or specific barrier to eye health services will be adequate. Rather, there must be full transitions to an integrated approach over time that addresses every stage of women’s pathways to accessing eye health services. Focusing on continuously improving, rather than implementing small, short term initiatives is the key to achieving improved gender balance in eye health services.

Limitations of the replicability of NUK’s approach

NUK is yet to take more concerted efforts to mainstream gender in the National Eye Care Plan, VISION2020 Committees and the plans of other major eye care providers. By adapting gender policy along with gender-sensitive teams, the aim is to make their services more gender responsive in organizational policy, leadership, governance, human resources, service delivery administration and monitoring. To reach the ambitious goal of reducing gender inequity in eye health and to build on the development of the gender in eye care training curriculum, NUK now requires increased collaboration from other international non-government organisations.

“The key lesson KEH has learned from past and present gender-inclusive eye health programming is that no eye health intervention addressing only one health system pillar or specific barrier to eye health services will be adequate.”

Combining microfinancing with outreach to empower women in Tanzania

KEY MESSAGES

Train women to be their own agents of change

KCCO supports the capacity building of local women to be able to generate their own income. This gives them more financial power and the ability to address their more severe burden of blindness and visual impairment when compared with men in Tanzania

Integration adds value and increases efficiency

KCCO engaged with existing microfinance groups for women in Northern Tanzania, through support for their activities and eye health training to increase the uptake of eye care services among women

Gather sex-disaggregated data and evidence to strengthen the evidence base and to inform your interventions

KCCO monitors changes in intervention contexts and regularly conducts implementation research. In this project, evidence generated showed that the microfinance interventions contributed to reducing the gender gap and enhancing women's roles in these communities

Location: Arusha and Mara regions, Ngorongoro District, Tanzania

Case study contributors: Fortunate Shija, Project Coordinator for Microfinance and Eye Health, the Kilimanjaro Centre for Community Ophthalmology (KCCO) (fshija@kcco.net) and Robert Geneau, Executive Director (rgeneau@kcco.net) of KCCO, Moshi, Tanzania

Adapted by: Christina Roger, Knowledge Management & Innovation Officer (croger@hollows.org), and Camille Neyhouser, Organisational Learning and Knowledge Management Specialist (cneyhouser@hollows.org), The Fred Hollows Foundation

Initial situation

The Kilimanjaro Centre for Community Ophthalmology (KCCO) is an organisation based in Tanzania and South Africa that aims to reduce blindness in Africa and address inequity in eye health through a combination of program development and training to strengthen health systems, and operational research to inform policy, program and practice.⁴⁴ KCCO differentiates itself in their programming context by focusing on capacity building on all aspects of community eye health.⁴⁵

Programming context

In rural areas of Tanzania, there remain unequal power relations between men and women.⁴⁶ Women typically have less autonomy and decision-making power than men in all spheres of life – education, employment, control over financial resources, health care, transportation, etc.⁴⁶ Women in Tanzania access eye health services at lower rates than men due to a number of barriers, despite carrying a heavier burden of avoidable blindness than them.^{46,47} The lack of human resources for eye health in rural settings exacerbates the problem by limiting the volume of patients that eye health care facilities can treat.⁴⁶ A clear example of deprioritisation of women and girls' health compared with men and boys occurs within health facilities in rural areas – for example, Fortunate Shija of KCCO says that if a girl and boy present with similar eye conditions and only one will receive care, the boy will traditionally be selected and prioritised.⁴⁶



The trained microfinance members from Ngorognoro district, Tanzania. Photo credit: Ellen Bee

Evidence-based intervention

Through the collection of gender-disaggregated data, KCCO observed between 2005 and 2012 that women were accessing trichiasis and cataract services in Northern Tanzania at lower rates than men, despite higher prevalence rates of trichiasis and cataract in women.⁴⁸ Most of the women who were accessing health services were those with a source of or income.⁴⁶

As a result of these observations, KCCO began to integrate community eye health training and microfinance mechanisms into their existing outreach programs, to empower Tanzanian women in rural areas by giving them the means to become financially autonomous and to serve their community by helping to identify and refer women and men with visual impairments.⁴⁶

KCCO's microfinancing for women's small businesses

With support from Seva Canada and Seva Foundation, between 2010 and 2017 KCCO has implemented interventions that aim to help women to become their own agents of change. This is achieved through supporting them with their small businesses while also giving them the knowledge and means to reduce the burden of avoidable blindness in their communities.

This microfinancing intervention involved:

- Recruiting a microfinance expert for a limited time period to advise existing, local microfinance groups (at no cost to them) about how to strengthen their activities and make them more sustainable.

- Building local women's awareness of eye diseases and of local eye care services through short training sessions, with transport, meals and beverages provided by KCCO. Topics included: the prevalence of blindness, gender issues in eye care, counselling, confidentiality, and how to motivate behaviour change. Women in the microfinance group were specifically trained to identify, counsel, refer, and assist people with visual problems to use eye care services.
- Providing women with educational materials about eye diseases, as well as referral slips so that KCCO could track the number of community members identified and referred by MF groups.

Results

In 2016, more than 35 microfinance groups were collaborating with KCCO in Northern Tanzania, and their members referred 1,185 people to eye care professionals (of those, 137 were operated for cataract and 202 for TT). A study* conducted in the district of Same showed positive results in the intervention group (pre-post comparisons). More women (127% increase) and men (48% increase) attended outreach events, with KCCO now seeing more women than men.⁴⁸ Compared to the non-intervention group, the average number of cataract patients identified at outreach was greater in the intervention group.

The qualitative assessment of this intervention was also positive, indicating that their eye care responsibilities enhanced women's roles in these communities, as exemplified in this quote: *"The women were trained in the benefits of eye care services and were*

* Supported by Seva Canada, the Seva Foundation and The Fred Hollows Foundation.



*Microfinance group members at work, Kilimanjaro region.
Photo credit: Marceline Finda*

then able to convey the importance of treatment to other women, bypassing the men who traditionally made the decisions on spending, healthcare and other important issues.”⁴⁸

Conclusion

Based on the positive results observed in Tanzania, KCCO is now looking to adapt this model to the Ethiopian context. A key factor to achieving replication of this project’s successes will be to consider the local context, including the degree to which microfinance group members may remain actively engaged and skilled at identifying relevant cases for referral.

Another important factor is sustainability. There is no agreement as to whether financial incentives should be used, and if so, what would be appropriate. Lobbying the government to have a cadre that recognizes these people as CHWs would increase the sustainability of similar interventions, since current members are all volunteers and currently their engagement stops when the projects they support end. KCCO’s project team also recommends creating conditions that would facilitate the use of the same women’s microfinance group members for a long time, perhaps even to cover other villages if feasible, so that they become better at identifying the relevant cases as they build their skills over time.

“We select representatives to be trained (...) and we ask them to go and tell their customers. They help us by referring patients. They have posters and pictures on display in their businesses. They keep repeating the message every day.”⁴⁶

Leading gender equity in eye care in Nepal: Lumbini Eye Institute's 15 year experience

KEY MESSAGES

Empower local women to influence the wider community

The Lumbini Eye Institute (LEI) successfully engaged local women in female community health worker training, which helped achieve significant improvements in the equity of outreach service delivery

Implement a continuous, long-term approach rather than short-term initiatives

Where possible, LEI, with Seva's support, has integrated lessons about what works from previous projects, and the wider health sector, into their work – this has led to an approach that can be maintained and refined over time

Gather sex-disaggregated data and evidence to strengthen the evidence base and to inform your interventions

Seva Canada regularly supports local research into context-specific barriers and change over time, to inform their and others' work

Location: Lumbini Zone, and Chitwan District of Nawalparasi Zone, Nepal

Project team: Lumbini Eye Institute, supported by Seva Canada

Authors: Penny Lyons, Executive Director (director@seva.ca), and Ken Bassett, Program Director (bassett@mail.ubc.ca), Seva Canada Society

Initial situation

The Lumbini Eye Institute ("LEI", also known as Shree Rana Ambika Shah Eye Hospital) in Siddharthanagar, Nepal is a tertiary level training institute linked with secondary eye hospitals in Palpa, a hill district north of Lumbini, and in Bharatpur (Chitwan District) in Narayani Zone to the east, as well as in numerous Primary Eye Care Centres that provide non-surgical care.

As a Seva-supported institution with strong community ophthalmology programs from its inception in 1983, LEI had a well-established monitoring and evaluation infrastructure on which to build gender-specific outreach strategies. Since 2001, LEI has emphasised a specific focus on outreach approaches to reduce inequality in access to eye care for women and girls⁴⁹ and it became part of the international Gender and Blindness Initiative in 2002.⁵⁰ Strategic approaches to address women's needs were integrated both into village-level primary eye care outreach services like school screenings, and into diagnostic-screening and treatment (DST) camps, which are based on the Aravind model.⁵¹

Programming context

Chitwan District and Lumbini Zone are agrarian areas in south-central Nepal, where approximately 40% of the population lives in poverty.⁵¹⁻⁵² Traditional gender roles are prevalent in Lumbini Zone, with women providing 99% of all household work.⁴⁹

In terms of the eye health burden, women in Lumbini comprise a larger proportion of the avoidably blind than men do. This is a global trend, which has been attributed to the favouring of men in cataract surgical utilisation.^{14,16,19,50}

LEI's intervention

In attempting to address the gender disparity in access to eye health services, LEI has developed a focus on: outreach programs; building local human resources for eye health, developing gender specific



School screening. Photo Credit: Ellen Crystal

outreach strategies emphasising women; measuring the impact of its activities and adjusting programming accordingly; and, adopting models that we know work.

Outreach

LEI and its network of facilities developed community-based interventions to increase utilisation of eye care services by men and women. Central to the outreach program are diagnostic, screening and treatment (DST) camps whereby eye conditions are diagnosed and treated in regularly scheduled visits to key villages. At these DST camps modelled on the Aravind approach,⁵³ patients needing referral to the hospital, particularly for cataract surgery, are transported immediately to hospital for treatment the next day. The camps occur twice in a year in most locations.

Female eye health workforce development

In the late 1990s, LEI noted that work in other settings and with other health conditions showed that empowering local women with increased knowledge of health problems improves health-seeking behaviour among community members.⁵⁴⁻⁵⁵ Engaging women in local communities to identify, refer, and counsel patients was seen as a key strategy to increase the proportion of women accepting cataract surgery, when recommended. Identifying local women to assist local eye health personnel to find and refer patients helps to address gaps or heavy workloads faced by the existing eye health workforce. LEI's community engagement focuses on training Female Community Health Volunteers (FCHVs)⁵⁶ to act in primary eye care roles. FCHVs received one day training in eye care once a year. The program trained one to two (1-2) FCHVs for each Village Development Committee (about 1000-2000 people).

Key Results

Implementation of comprehensive, gender-specific community interventions by facilities in affiliation with LEI have increased utilisation of eye care services by women, leading to significant reductions in the burden of eye health disease borne by women.⁵¹

1. **Increased and more equitable cataract surgical coverage:** LEI's community outreach program resulted in a significant increase in cataract surgical coverage (visual acuity less than 6/60) from 42% in a 1995 survey 53 to 65% of people in a 2005 survey.⁴⁹ Cataract surgical coverage over the 10-year period in Lumbini Zone and Chitwan District also showed a more equitable distribution of service delivery by sex and geographic location with the surgical coverage became more rather than less common among women (71%) versus men (62%).⁴⁹



Geta Eye Hospital. Photo credit: Ellen Crystal

2. **Reduction in women's blindness burden:** A 2006 Lumbini survey estimated a blindness (<6/60) prevalence of 4.3% for women and 5% for men, respectively. This represents a reversal of the 1995 ratio which favoured men (4.6%) over women (6.1%). The reversal was almost certainly due to increased cataract surgical coverage in women (70.8%) versus men (61.7%) compared with the 1995 estimates (women 40.6%, men 44.2%). The results from the Lumbini Zone and Chitwan District are much lower than, and paradoxical to, the rest of the country where cataract surgical coverage and blindness prevalence both favour men over



Eye camp. Photo credit: Ellen Crystal

women.⁵⁷ Because there is a greater need for eye health care for women, especially in developing countries with prevalent traditional gender roles, the reversal of proportions is more equitable than prior to the intervention.

3. **Female Community Health Volunteers engaging communities:** FCHVs have raised the awareness of eye care in their communities and increased utilisation of eye care services by women and children. The outreach activities typically serve more adult women (54-55%) versus men (45-46%), which is closer to equitable, given that women carry a disproportionate burden of eye health issues globally.¹⁴
4. **Ongoing refinement of programming:** The eye program located in Bharatpur Eye Hospital (BEH) in Chitwan District has been the most active centre testing and refining strategies to manage gender bias against women in poor and remote regions. A study in 2009 at BEH, funded by Seva Canada and the Canadian International Development Agency, found that, with increased FCHV training, they could maintain gender equity despite cutting the number of outreach camps in half and moving them farther from the base hospital.⁵¹ The changes in the outreach program significantly reduced program costs and increased hospital revenue, with more patients coming directly to the hospital to pay for cataract surgery.

Future steps

Funded by Seva Canada, BEH is entering a new program phase linking eye care activities to local micro-finance organizations. Along with Seva-sponsored programs in Tanzania and Ethiopia, the project will assess the extent to which partnering with microfinance organisations will bring resources to, rather than increase expenditures by, community ophthalmology programs. That is, can a modest initial investment in established microfinance organizations, in the form of business training and health education, result in broad community based support for utilization of available eye services, particularly by women and the poor? Ultimately the project will lead to innovative public health approaches to reduce blindness from cataract through infrastructure development, human resources training and service delivery.

“Engaging women in local communities to identify, refer, and counsel patients was seen as a key strategy to increase the proportion of women accepting cataract surgery, when recommended.”

The Coordinated Approach to Community Health (CATCH) project (Southern & Eastern Africa)

KEY MESSAGES

Understand the barriers specific to your context

Sightsavers supports development of culturally-sensitive, empowering environments in health facilities based on a strong understanding of the barriers women face in their programming contexts. This is complemented by an approach to service delivery that prioritises women’s and girl’s eye health care

Address the out-of-pocket expenses associated with accessing eye health services

Sightsavers offers transport to and from health facilities, plus free glasses for use in tasks that can negatively impact eye health

Facilitating women to be their own agents of change

Women in Sightsavers’ contexts are informal ambassadors for eye care services, formally working in the eye health workforce

Integrate intervention strategies into a whole-of-system approach

The CATCH project undertakes activities that address barriers to, and/or result in enabling conditions for women and girls to access eye health services

Locations: Uganda, Mozambique, Zambia, Kenya and Malawi

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Initial situation

Sightsavers is a UK-based international charity that works in over 30 countries to eliminate avoidable blindness and promote equal opportunities for people with disabilities.⁵⁸ It is widely understood that much of the female blindness in developing countries is due to cataract, because women access surgery at much lower rates than men. Closing the gender gap could significantly decrease the incidence of cataract blindness.

In the Sightsavers programming context before intervention, women comprised approximately 34% of those accessing cataract surgeries, compared with 29% men and 36% whose gender was not known or reported. Targeted communities have high rates of poverty, with high incidence of eye disease, poor hygiene, sanitation, nutrition and limited access to eye health services.⁵⁹

To address these issues, while closing the gender gap and strengthening the evidence base, from 2015, Sightsavers has been implementing the Coordinated Approach to Community Health (CATCH) project,⁵⁹ in five countries across East and Southern Africa: Uganda, Mozambique, Zambia, Kenya and Malawi. The project is expected to be completed in 2019.

The Coordinated Approach to Community Health (CATCH) intervention

The CATCH model (also known as “TT plus” or TT+) is a trachoma partnership innovation based on experiences of several trachoma partners including Sightsavers in Nigeria and in Kenya and The Fred Hollows Foundation in Kenya. It is clear that increased numbers of people have accessed a wider range of eye health services through this innovation. The learning from these programmes is still being



Rosian Lekuye, a 42 year old woman who had never left her rural community in Samburu, northern Kenya, was blind for 3 years and heavily dependent on her daughter for daily tasks. In February 2017, she received surgery at a camp organised by Sightsavers' partner. Photo credit: Maurice Abony, Project Manager, Sightsavers Kenya. February 2017.

analysed to determine which approach is the most cost-effective, as it needs to be compared against, for example, running two separate initiatives in parallel. Sightsavers, The Fred Hollows Foundation and other trachoma sector partners will continue to work together to develop relevant sector-wide approaches for progress towards elimination.

The CATCH project integrates numerous interventions into a strategic approach that aims to address a number of supply and demand side barriers to women accessing health services in Kenya, Malawi, Mozambique, Uganda and Zambia.⁵⁹ This project is an addition to a vast, ongoing trachoma initiative, due to the significant numbers of cataract patients presenting at trachoma camps.⁵⁹

It is worth noting that 75% of those affected by blinding trachoma worldwide are women.⁶⁰ To address this, and close the gender gap, CATCH employs elements of good practice in gender-sensitive eye health programming to address barriers to all people in need of accessing eye health services. Below, they are organised under each health system pillar:

Service delivery and community development

- Women can be accompanied by their chosen guardian to the facility. This includes allowing

elderly women to come with the helper of their preference for surgery. Anecdotal evidence indicates that they prefer the company of their grandchildren or female relatives/friends.

- Women with children are the priority for receiving eye health services now, with women with young babies and expectant women at both screening and facility levels being served first.
- OCOs are required to arrive on time and work the hours planned for eye camps to ensure that patients don't wait for long in the queues. The intention of this is to encourage more women and mothers with young babies to seek services, as in the past, eye camp OCOs often arrived hours later in the day.
- In Uganda, more camps are being run during the dry season to ensure that Sightsavers doesn't miss out on women who might be busy in the field during busier times of the year for agriculture.
- Transport to and from facilities is provided, benefitting women most, as they are the least likely to travel to seek services.
- Men in this programming context tend to accept travelling impromptu but women generally ask for a few days' notice. Sightsavers has become

more flexible in transport arrangements to accommodate women's needs since observing this trend.

Health workforce

- Gender training undertaken by Sightsavers' CATCH project staff helped improve understanding of how to ensure that gender is incorporated into the project, and an internal campaign motivated staff to focus more on the inclusion of marginalised groups like women, the disabled and the elderly.
- When possible, female patients are screened by female Ophthalmic Clinical Officers (OCOs) supported by Sightsavers. OCOs are described as "the backbone of the eye health workforce in East, Central and West Africa."⁶¹
- Most women and children stay in their villages the majority of the time, giving Sightsavers the opportunity to encourage them to take up eye health services in their own environment. Female Village Health Teams (VHTs) and case finders have proven especially useful in mobilising women and girls, as sustained observation indicates that other women feel more comfortable accessing health services in situations where they can avoid interacting with men who they do not know.

Health data and information

- Where possible, Sightsavers ensures there is a person who speaks the local language at screening and operating sites.
- Some Sightsavers-supported OCOs use video clips of women who have successfully gone through surgery to encourage other women to accept surgery.
- Heads of households, who are mainly men, are encouraged to undergo surgery. Often, they allow their spouses to go after their surgery is successful, and women seem to be more willing to undergo cataract surgery if their husband has had a successful operation. In other instances they send them first – to "wait and watch". If the surgery is successful on their wives, some men will be more motivated to attend surgery themselves.
- OCOs undertake patient follow up with the very elderly in some instances in their homes.
- Counselling is provided at screening, before surgery and after surgery to enhance awareness and deliver the right messaging at the right time

to women and other disadvantaged groups. At the point of screening, when diagnosed with cataract, patients receive an explanation of their condition and treatment, including what the condition entails, the treatment offered, where, how and by whom it will be performed, etc. Pre-operative counselling shortly before surgery provides patients with an understanding of exactly what will happen during surgery, what vision expectations they can have and how long the procedure takes. In one instance Sightsavers found that the eye ball used to reduce pressure was interpreted as the eye being removed and placed back, which led to patients declining surgery. Finally, post-operative counselling at the point of discharge informs patients about the healing process, the "do's and don'ts" after surgery, administration of drugs, and other follow up information.

Gender-sensitive data collection to build the evidence base of context-specific barriers and enabling factors for women to access services.

- Sightsavers conducts sex-disaggregated monitoring of activities and their impacts.
- Anecdotal evidence is documented. For example, women have communicated that they are more willing to make the decision to go for surgery if they are widows, or if their spouse has migrated or travelled a significant distance away from their community. This may indicate a lack of decision-making power for married women in the presence of men. This kind of evidence can inform project design to address context-specific barriers.
- In Malawi, focus group discussions ensure that context-specific barriers applying to women stopping them from seeking services are identified.

Medicine, technologies and infrastructure

- Presbyopia glasses are provided for use in chores like beading, reading the bible, etc.
- In culturally sensitive areas where the village norm is to have women and men separate, there are now separate queues for women and men. This is a change to outreach management that Sightsavers has found encourages women to seek and access services in some contexts.
- Beyond the gender training which the CATCH project staff received, tools have been developed to support staff address gender disparities, including gender and eye health checklists,

training and specific technical support. Internally Sightsavers has also recently utilised data visualisation platforms (Power BI) to further motivate staff to address gender disparities.

Health financing

- The majority of patients who cannot afford services or have no access to financial resources are women and girls. By providing free services, the project encourages more women and girls to seek medical treatment.

Leadership and governance (stewardship)

- At the design stage, Sightsavers planned to involve community decision-makers in the project's activities. During implementation, Sightsavers began to work with prominent women in the community who have been operated on, to encourage others to go for surgery.
- Women who have had successful surgeries were recruited as project ambassadors to encourage other women and girls to take up eye care services through informal networks within their close-knit communities.
- The project was coordinated with the activities of organisations conducting advocacy activities in the disability and gender sectors in Uganda, Mozambique and Zambia. A holistic approach to inclusion has allowed project staff to address gender issues alongside disability and inclusion of the elderly. Informal partnerships with local organisations working with these groups has helped Sightsavers to reach segments of the population that they would otherwise not have reached.

Results

The strategies Sightsavers employed in Kenya, Malawi, Mozambique, Uganda and Zambia have enabled more gender equitable proportions of patients accessing eye health services. From a baseline of 36% of cataract surgeries in the programming context being on women in December 2015, women comprised 51% of cataract surgeries by the end of the second year of implementation. Now the figure has dropped slightly, to an almost equal number of women and men, with 48% of cataract surgeries at the end of June 2017 being on women. Prior to intervention, a significant proportion of patient genders was not documented, whereas now data collection for decision-making

is more robust and is gender-disaggregated more consistently. Sightsavers' goal is for women to comprise at least 60% of cataract surgeries by the end of the fourth year: as due to the higher prevalence of cataract in women, on average an equitable coverage rate would mean 60–70% of all cataract surgeries are on women.

Conclusion

The CATCH project has highlighted the importance of positioning gender as one of a number of inclusion issues, and ensure clarity amongst staff and partners on what inclusion entails. If programming staff and partners are well-informed, they can act as "champions" and are likely to own and drive inclusive processes, especially if equipped with tools like simple operational checklists to evaluate gender inclusion. The project team also emphasises the need to ensure that accurate gender-disaggregated data is collected to help monitor trends, and to ensure qualitative feedback is also documented, to inform project operations and potential adjustments.

Limitations of replicability

CATCH is working in trachoma endemic regions amongst the most marginalised communities, hence the level of literacy in these communities might be lower than the national averages, with women in these communities even further marginalised by poverty and illiteracy. Some of the issues above might not apply where literacy levels and poverty levels are not as bad. In pastoralist communities, cultural factors seem to be more dominant and women have less autonomy compared to settled communities. In addition, pastoralist communities live in vast regions with low population density which makes it difficult to reach out to women.

"If programming staff and partners are well-informed, they can act as 'champions' and are likely to own and drive inclusive processes, especially if equipped with tools like simple operational checklists to evaluate gender inclusion."

CONCLUSION

Why we need more evidence of what works for gender equity in eye health programming

As a sector, we are not yet able to confidently state why more women are blind than men

The development of a comprehensive list of factors contributing to the disparity between women and men's attainment of their full eye health potential and how to address them in each context is hindered by:

1. A weak evidence base to inform appropriate, sustainable, effective and accessible gender-responsive eye health interventions;
2. Inconsistent definitions and groupings of diseases;
3. Significant proportions of vision impairment and blindness being attributed to "unidentified" or "other" causes, including 20–30% of MSVI and 20–35% of blindness;
4. Likely underestimation of burdens of disease. The most common method of assessing the burden of eye disease in LMICs is the RAAB, a population-based survey with a standard approach. Standard RAAB methodology includes recording and reporting only one cause of eye disease at the time of measurement. When survey participants have more than one eye condition at the time of assessment (i.e. both trachoma and cataract at the same time), usually only the main cause of blindness (or vision impairment) is recorded for each participant; and,
5. A lack of consistently-reported cause-, age- and sex-disaggregated population eye health data with adequate sample sizes at national and subnational levels in all countries. This results from a shortage of: (i) implementation research during eye health interventions; (ii) eye health human resources (thus heavy workloads on existing skilled eye health workers); and, (iii) appropriate tools and technology for low-resource contexts. The lack of this data limits the evidence base for advocacy and for informing targeted interventions that address the needs in a specific context.¹⁶⁻¹⁷

What we do know is that 90% of avoidably blind women live in developing countries⁶² and that women are exposed to both additional risks of blindness and additional *barriers* to accessing eye care services when compared to men.¹¹

We anecdotally know what works, but we do not have the evidence to say how and why

In identifying case studies for the publication of this manual, it became apparent that the current anecdotal and research-based evidence informing effective, gender-equitable eye health interventions is scarce. There is an urgent need to carry out implementation research providing evidence of what works in gender and eye health programming in a range of contexts in order to inform future interventions. This manual is a step in the right direction but a lot more research is needed to confidently establish 'best practice' in gender and eye health. Our vision and hope is to use the present manual as a foundation to **develop a new, augmented version by 2020** presenting the outcomes of various implementation studies that will hopefully be undertaken by the sector in the meantime. This future 'best practice' manual for gender and eye health programming will be a useful repository for evidence-based interventions, and will inform priority setting, policy development, program planning and resource mobilisation through advocacy.^{14,16}

ANNEX A

Academic and policy arguments for this manual and a future, augmented version

Global commitment to gender equality in health

In 1997, the first UN resolution on gender mainstreaming was adopted, emphasizing the importance of gender sensitivity and women's empowerment as a critical cross-cutting enabling condition in all policies and programs in all sectors in order to reduce inequalities.⁷ Although eye health-specific evidence lacks, there is a strong body of evidence supporting a wide range of social and economic benefits of investing in all areas of women's health: including in population health as a whole, education statuses, poverty alleviation, and economic growth and productivity, with modelled estimates of returns on investment reaching up to nine-fold economic and social returns on investments.^{11,63}

"...the long-term goal of ending avoidable blindness and visual impairment, [is] a shared agenda of global eye health stakeholders."

In light of a global commitment to, and evidence supporting the cost-effectiveness of interventions in women's health, concrete institutional commitments to gender equality and equity and actions to reduce inequalities in all dimensions of women's lives have been adopted by governments and throughout the public and private sectors in all industries. However, 20 years after the Beijing Declaration and Platform for Action for women's rights, global health stakeholders assessing the post-2015 context have highlighted the ever-present health inequality gap between women and men.⁶⁴ This disparity increases inequitable health risks to women and girls and, given that health is a human right, calls for stronger representation of gender equality on the development agenda.⁶⁴

Growing body of evidence and international commitment to gender and eye health

Despite the growing body of evidence of gender disparities in eye health, due to weak and inconsistent data collection,⁶⁵ "most communities, political leaders, and even some eye care workers are not aware of this problem."²³ This growing body of evidence and robust evidence of the cost-effectiveness of investment in women's health, combined with ongoing international commitment to reducing gender disparities in health, informed the development of WHO and IAPB policy and resources, namely the VISION 2020 initiative.²³

VISION 2020: The Right to Sight, a global initiative for the elimination of avoidable blindness jointly developed by the WHO and IAPB, was launched in 1999 and has since gained support and reinforcement by four World Health Assembly (WHA) resolutions as well as the agenda of the UN's Sustainable Development Goals (SDG).⁶⁶ Action plans with targets connected to available baseline evidence have furthered this initiative, with the long-term goal of ending avoidable blindness and visual impairment, a shared agenda of global eye health stakeholders.⁶⁶

Most recently, in 2013, unanimously adopted WHA resolution 66.4 included "Universal Eye Health: A global action plan 2014 - 2019", which reinforces VISION 2020's agenda, supplements said agenda with a goal of "universal access to comprehensive eye care services", and sets a global target of "Reduction in prevalence of avoidable visual impairment by 25% by 2019" using 2010 baseline evidence.⁶⁶ VISION 2020 and the global action plan (GAP) are currently the leading strategic documents behind the shared global eye health agenda and this manual intends to supplement efforts to further this agenda.

ANNEX B: ADDITIONAL CASE STUDIES

The following are supplementary case studies to support in-country programming teams' understanding of how to develop and manage effective gender-responsive eye health programs. The projects or systems overviewed were designed to address specific needs in each intervention context. All three, whether eye-health specific or not, have either strengthened eye health systems or reduced the burden of disease on existing systems.

WHO health system pillar	Case study name	Country(ies) of intervention implementation	Eye health organisation
Service delivery & community development	Gender-sensitive eye health programming in Bangladesh	Bangladesh	The Fred Hollows Foundation
Health workforce	Gender-responsive workforce development in urban poor Sri Lankan communities	Sri Lanka	Brien Holden Vision Institute
Medicines, technologies & infrastructure	Introduction of smokeless, energy efficient stoves by the Health of People & Environment in the Lake Victoria Basin (HoPE-LVB) project	Uganda	Pathfinder International
Health financing	Aravind's model for quality care, without the frills	India	Aravind

Gender-sensitive eye health programming in Bangladesh

KEY MESSAGES

Understand the barriers specific to your context

When a KAP indicated supply and demand barriers, FHF Bangladesh conducted a Gender Analysis to inform their model

Train women to be their own agents of change

The Fred Hollows Foundation's Bangladesh team engaged local female leaders to reach more women

Capitalise on what is already there

Given that marginalised women seek eye health information from pharmacists, pharmacies were engaged to support the project

Provide gender-friendly facilities

Separate waiting rooms and post-operative wards are provided for men and women, as well as breastfeeding areas

Include activities that specifically address intersectional marginalisation

Project activities included specific efforts to engage women over 40 and women from low castes of the minority Hindu community

Reduce how many women are deprioritised in facilities by addressing unconscious biases

An electronic system was developed to alternate female and male patients

Location: Barisal Division, Bangladesh

Project team: The Fred Hollows Foundation Bangladesh

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Adapted by: Christina Roger, Knowledge Management & Innovation Officer (croger@hollows.org), and Camille Neyhouser, Organisational Learning and Knowledge Management Specialist (cneyhouser@hollows.org), The Fred Hollows Foundation

Initial situation

The Fred Hollows Foundation Bangladesh is a country office of The Fred Hollows Foundation ("The Foundation"), an eye health NGO working towards the elimination of avoidable blindness. The Foundation as a whole has been working in gender and eye health for the past 3 years, with a number of country offices leading the gender journey. With global and context-specific data indicating a significant gender gap in access to eye health services in Bangladesh, the Fred Hollows team was motivated to understand the barriers and issues women faced in their context and what measures could mitigate these.

Programming context

Barisal is one of the poorest Divisions in Bangladesh, a country with a national cataract surgical rate (CSR) at 1,207, and national CSC around 32.5%.⁶⁷ In Barisal, the burden of eye health issues is considerable, with women faring worse than men. Men's CSC in Barisal is disproportionately higher than that of women, at 72% compared with 47.4% for women in 2013.⁶⁸ This is despite women carrying more than double the burden of severe visual impairment (best corrected bilateral Visual Acuity <6/60) due to cataract (22,925 women compared with 10,303 men).⁶⁸ Additionally, with increasing age in Barisal comes a higher proportion of females who are visually impaired than men,⁶⁹ indicating lower access to services in elderly women.⁶⁸

The Foundation's gender-sensitive approach

Since 2016, to address gender inequities in access to eye health services, The Fred Hollows Foundation's Bangladesh team has been

implementing a 4-year project titled 'Building Gender Equitable Eye Health Systems in Barisal Division'.^{*70} From the beginning, this project was designed to address gender inequity and to inform The Foundation's future gender and eye health work.

A 2016 Knowledge, Attitudes and Practices (KAP) survey of Barisal Division and its subsequent analysis; a gender strategy produced by a consultant; plus, internal and external discussions of barriers faced by women in this context, informed the project design and implementation of strategies. KAP findings highlighted the following key concerns in this context: an eye health knowledge gap for women; a lack of financial resources or prioritisation for women's eye health service access; a cultural requirement for women to be accompanied in case of need to visit a health care facility and difficult geography, combined with a lack of suitable, affordable transport.

The Foundation is now implementing strategies in Bangladesh to address specific barriers and mitigate gender differences through a three-pronged approach entailing: gender-sensitive infrastructure, community awareness, and female-only screening camps. Private and public partners for implementation include the National Institute of Ophthalmology & Hospital, Divisional Health Director of Barisal, District Civil Surgeons, ophthalmologists and hospitals, International Non-Governmental Organizations (INGOs) and Standard Chartered Bank.⁷⁰

Intervention and Results

The successes of this project so far can be attributed to how it was specifically tailored to the needs of the programming context and beneficiaries. Public hospitals were equipped and renovated to provide gender equitable eye health services and perform successful cataract surgeries, while private institutions like Ispahani Islamia Eye Institute and Hospital and Nizam Hasina Foundation performed gender-focused outreach camps and conducted surgeries. More specific achievements of this project are described below:

Gender-sensitive infrastructure⁷⁰

A number of infrastructure adjustments were made in public district hospitals, mostly frequented by rural and poor women, of which 18 were renovated by this project in 2016. Changes are supported by research findings into infrastructure changes that enable gender equity in eye health service access in Bangladesh,⁴³ and include:

- Provision of **separate seating** for women and **infant nursing/breastfeeding corners** in the Eye Out-Patient Department (OPD) to make women's waiting time more comfortable
- Allocation of **separate post-operative wards** for women
- Introduction of an **electronic token system** that allows doctors to now see female and male patients alternatively, thereby ensuring more gender equitable service delivery. Previously in public hospitals, it was observed that men would push women out of long queues to receive services first.

Community awareness building⁷⁰

- A **Social Behaviour Change Communication (SBCC) strategy** was developed for the project, identifying gender-sensitive and -focused communication messages, channels, media, activation type, timing, location and venue for specific target groups. The SBCC strategy, a working document, will be updated to include other innovative gender strategies, lessons learned, best practices, risks and challenges from time to time. "The gender-sensitive and -focused communication messages and their delivery plan were shared at an INGO Forum where some INGOs expressed an interest in mainstreaming gender in their own project locations in Bangladesh."⁷⁰
- **Existing pharmacy infrastructure was leveraged to provide women with information about basic eye care and common disease symptoms, plus to develop a referral pathway through pharmacies.** In this context, women were found to seek eye care advice from pharmacists. After carrying out detailed pharmacy mapping, a communication kit was developed to orient pharmacists on basic eye care, common disease symptoms and a referral pathway.⁷⁰
- **Focus Group Discussions with elderly women's groups** provided them with eye care knowledge and motivation to uptake services when they have an eye condition, as women over forty in Bangladesh tend to neglect their eye conditions and are more prone to acquiring cataract.
- **Engagement of male family members of female patients**, during patient counselling sessions and awareness-raising sessions.

^{*} As part of a Standard Chartered Bank-funded "Seeing is Believing" (SIB) Phase V initiative



School principal Rani Dutta speaks with local women, encouraging them to seek eye health care services.
Photo credit: Avipsu Arko.

- This project supported gender sensitisation and eye health training for approximately 600 community and village health workers over 1.5 years, increasing the local eye health workforce capacity.

Female-only screening camps

The Bangladesh team has found that giving leadership opportunities with some support to local women in communities where significant gender disparities are found was an effective measure for reducing gender inequality. An International Women's Day special event during this project's implementation involved specifically **addressing the needs of women from the marginalised Hindu community** in Barisal Division. Women receive services at insufficient rates compared with men already, and when women experience intersectional marginalisation*, in this case by being Hindus and especially for those of the lower caste levels, they face even more barriers. Screening was undertaken, focusing on low caste women from the Hindu population of Barisal. This event also served as an **opportunity to build local female leadership**. In particular, a school principal, Rani Dutta (*see image*), significantly supported the process and went as far as to go door-to-door to speak with women from this group and encourage them to seek services.

Overall, through outreach and partner facilities, the project has enabled the screening of **over 80,000 people in 2016 alone, with women representing about 56% of those screened**, a proportion which preliminary data from 2017 indicates is being sustained. Compared with 2015 programming in the same Division, the proportion of female patients screened is equivalent in this project in 2016, but The Foundation saw marginal improvement in the proportion of female patients who received cataract surgery.

Conclusion

From staff field visits and outcomes of the gender strategy, it has been observed that age and economic status play crucial roles in determining women's access in eye health care services. Women over 40 in this context are less likely to take up services, as they do not find any value in it thinking that they don't have much life left to live. On the other hand, poorer women neglect their healthcare and prioritise the family needs instead. Both these concerns were heavily addressed in the SBCC strategy, including through communication packages designed to target the old, poor and other socially marginalised groups, although the effectiveness of these approaches is yet to be assessed.

* Intersectionality refers to people's overlapping identities and cumulative barriers. In the context of gender inequality, it refers to the way gender interacts with other social identities (e.g. poor, disabled, indigenous) to shape discrimination and create additional obstacles for women, also called cumulative barriers. As an example of intersectionality of barriers for women in eye health, a poor, rural, uneducated indigenous woman will face more barriers (economic, geographical, socio-cultural, etc.) than an educated woman from the city, although they will both face barriers in accessing eye health services.

Another key observation has been the value-centric approach of rural community members: although healthcare should be a right and not a privilege, they always look for utilitarian benefits of receiving eye care. The communication campaign was designed to convince community members of the utility of receiving eye care, especially for female family members. Male family members are also considered a very important point of intervention, especially for the SBCC strategy. If we cannot change the point of view of the male members of the family, we cannot ensure women's adequate access to eye care. One major focus of the strategic SBCC will be to reach out to the family members and decision-makers of the family, and engage the male members in a gender-focused discussion. Counselling sessions and focus group discussions for male family members will be organised to engage them in this discussion.

Future Plans

The next few years will see implementation of more innovative gender strategies by The Foundation's Bangladesh team, including:

- **SBCC strategy:** A communication package and SBCC strategy, to specifically address barriers to women's access to eye health information and service access, have been formalised and widely shared among INGOs in Bangladesh.
- **Social welfare fund for consumables:** Due to financial constraints faced by women in their context, The Fred Hollows Foundation Bangladesh is advocating to leading government health actors (Ministry of Health & Family Welfare, plus Divisional and District health leaders) to allocate or earmark funds to eye units for the purchase of consumable items, and to supply these consumable items to patients at a subsidised price. A subsidy approach has increased equity in eye care services access in a variety of contexts and a pilot project is at conceptualisation stage.⁴⁷

- **Garment workers project:** Vision detection corners for eye screening have been set up in garment factories for the first time in Bangladesh.
- **Maternal and child health clinics:** The Foundation is partnering with Pathfinder International to integrate eye care services into existing national Maternal Child Health (MCH) care clinics, where women and girls already access routine health care.

"A subsidy approach has increased equity in eye care services access in a variety of contexts and a pilot project is at conceptualisation stage."

Gender-responsive workforce development in urban poor Sri Lankan communities

KEY MESSAGES

Train women to be their own agents of change

The Institute supports the training and employment of a majority of female eye health service providers

Consider where you can integrate more than one type of health intervention

Instead of only addressing treatment needs, the Institute brought obstetricians and nutritional advice for pregnant women into eye centres, creating an enabling and supportive environment

It's not necessary to "reinvent the wheel"

The Institute has shown the benefits of building on past successes by maintaining and refining an approach over time, rather than implementing many different short-term initiatives

Engage the local community to build ownership for sustainability

The Institute engaged women's groups, while Sightsavers International adapted health promotion messages to target women, plus the women trained as eye health workers were identified from within the community that the Vision Centre serves

Locations: Kolonnawa and Dehiwala, two suburbs of Colombo, Sri Lanka; and Warakapola, Yatiyanthota and Deraniyagala, Kegalle District, Sri Lanka

Project team: Brien Holden Vision Center Sri Lanka

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Initial situation

Brien Holden Vision Institute (The Institute) is an Australian NGO working "to eliminate vision impairment and avoidable blindness,"³⁶ including in Sri Lanka since the 2004 tsunami. The Institute has since shifted from emergency interventions to a health systems strengthening approach, with an emphasis on gender-responsive eye health programming.⁷¹

The Institute's approach in Sri Lanka has been informed by the socioeconomic landscape of the country, where more than half of the population of the capital Colombo are estimated to live in urban slums with poor, overpopulated living conditions.⁷⁰ Urban poor populations bear a disproportionately heavy burden of avoidable blindness and face significant barriers to accessing eye health services.⁷²⁻⁷³ A national, population-representative survey conducted in 2013-14 found a blindness prevalence of 1.7% in adults over 40 years old, with increasing age and poor literacy significantly associated with higher levels of blindness.⁷⁴ Cataract and refractive error contribute to 67% and 12.5% of blindness, respectively, and expenses and family responsibilities are key barriers to service access.⁷⁴ Sri Lanka also faces a severe shortage of trained eye health workers.⁷⁵ The survey did not find a disproportionate burden of eye health issues in women in Sri Lanka, however it did find higher rates of disability in women.⁷⁴

Since 2008, Brien Holden Vision Institute, Sri Lanka has focussed specifically on provision of refractive services and supply of affordable spectacles, with an emphasis on, and significant investment in, human resource development and gender-responsive mechanisms.⁷¹ The Institute's approach has included:



Photo taken in Sri Lanka. Photo credit: Brien Holden Vision

1. The development of sustainable Vision Centres in collaboration with Giving Sight and the Sri Lankan Ministry of Health & Nutrition (MoH&N), and
2. The development of local eye health human resources, through provision of support for the training of Sri Lankans as Optometric Technicians in India, since about 2007.⁷⁶

The Institute's Vision Centre intervention

In the context of high rates of avoidable blindness and a general lack of eye health awareness or education in Sri Lanka, thus often a lack of perceived need for services,⁷⁶ a collaboration between the Brien Holden Vision Institute and the Sri Lankan MoH&N was formed. It led to the establishment of three Vision Centres in Warakapola, Yatiyanthota and Deraniyagala, in Kegalle District in 2009.⁷⁶

Building on the successes and longevity of these three centres,⁷⁶ the Institute began implementing a Standard Chartered Bank (SCB) Seeing is Believing (SiB) project Phase IV in 2010 to develop two more community-based vision centres to provide access to marginalised communities in Kolonnawa and Dehiwala, two Colombo suburbs.⁷⁰ The Institute's approach to setting up contextually-appropriate Vision Centres involved:

- **Sustainable eye care solutions for the elderly, women and underprivileged:** Committed leaders championing and driving action has played a critical role in achieving the project outcomes and the allocation of a MoH&N budget for the continued provision of services at National Eye Hospital. Another key achievement is the strong relationships that have been developed with various stakeholders in Colombo and Kegalle, within the public, NGO and private sectors which have had several positive flow-on effects, including increasing awareness of the need for marginalised communities to have access to eye health. This has translated into positive initiatives by the Sri Lankan Optometric Association, Rotary, the Lions Club, community leaders and several medium-scale commercial businesses, resulting in regular outreach services being provided by the vision centre teams.⁷⁷
- **Strong elements of capacity development, health promotion, and networking:** quality and sustainability of any intervention are dependent on adequate training of staff which requires resources and time. This resulted in a slower build of services but a solid foundation was built which led to better outcomes overall.
- **Identification of 13 local women to train as optometrists, vision technicians and spectacle technicians:** through its targeted activities, the project ensured female participation both as service providers (13 of a total 23 local people trained) and beneficiaries, and empowered them to bring a positive change to eye service provision in Sri Lanka.
- **Establishment of the presence of obstetricians in primary eye care clinics, and**
- **Provision of information to pregnant women on primary immunisations that are important for eye health, like measles.**

“To ensure gender responsiveness of the project, relevant strategies were planned from the project's outset as a way of enhancing the overall project outcomes. These approaches have been integrated into all stages of the project cycle. The establishment of Vision Centres at primary level and optical workshop at [the] National Eye Hospital has made refractive services more accessible, especially for females, and contributed towards addressing the challenges of access, affordability



Kanchana and Apsara. Photo credit: Brien Holden Vision Institute

and awareness. Project intervention process[es] acknowledged and accommodated difference between men and women.”⁷⁰ The challenges faced during the implementation process were addressed by continuously engaging with all stakeholders. To ensure that more women are involved in providing eye health services for girls and women, the project identified women in the local communities to be trained as eye health professionals, administrators and project managers. The vision centres staff (mostly females) were oriented in gender promoting practices. Respecting the culture sensitivity, especially in Muslim communities; targeted health education; and awareness-raising campaign also has a positive impact on more females accessing eye health services at vision centres. “Through direct dialogue with women and girls, [the] project has been more effectively and sustainably addressing the eye health needs of communities.”⁷⁰

Results

“The establishment of the Vision Centres has greatly increased access to affordable eye care for those in most need, offering sustainable eye care solutions to many elderly and underprivileged members of the community who previously had never had received vision care.”⁷⁸

1. Better, more balanced service delivery

The project increased uptake of eye health services (the number of eye examinations in vision centres increased from 552 in year 1 to approximately 20,000 in year 5), and aimed to ensure gender equality while delivering eye health services.⁷⁰ The ratio of female adult and female children accessing eye care services at Kolonnawa Vision Centre is 52% while at Dehiwala vision centre, it is 53%.

Spectacle distribution also increased, from 1,672 in year 1 to 54,114 in year 5. The percentage of spectacles dispensed to female adults at hospital workshops is 53% of the total spectacles dispensed to adults. However, the percentage of spectacles dispensed to female children is slightly lower than male children i.e. 49.3% of overall spectacles dispensed to children. This can be attributed to the fact that there is a robust school screening program going on in Colombo which is very much focused on girl schools. This has resulted in a slight decrease in female numbers as girls are getting free spectacles at schools.”⁷⁰

2. Local engagement and ownership

The project engaged community-based organisations to promote gender equality in the delivery of eye health services. Involvement with



Photo taken in Sri Lanka. Photo credit: Brien Holden Vision Institute

local women's groups, combined with targeted female health promotion activities has helped to reach women effectively.⁷⁰

3. Training of eye health workers, with a focus on women

A total of 77 people were trained over 5 years, and the Institute's approach was to identify women from local communities where possible, to empower local women, as well as provide employment and opportunities for further education. This also ensured that more women were involved in supporting and tracking project activities like providing eye health services for girls and women.⁷⁰ A key feature of the training was in gender promotion, which has equipped the majority female Vision Centre staff to provide safe and welcoming environments at Vision Centres and the National Eye Hospital optical workshop.⁷⁰

4. Ongoing education

Anecdotal evidence also indicates that eye health professionals supported through the human resource development aspect of the Institute's intervention are highly efficient and, in some cases, go on to undertake additional training such as clinical and functional low vision management, prescription and dispensing of contact lens, vision centre management.⁷⁶ This is especially important in Sri Lanka, which ranks 73rd globally in mean years of schooling for females at 13.9 years,⁷⁹ despite access to knowledge being one of the three basic dimensions of human development correlated with health outcomes.⁸⁰

Conclusion

"[T]hrough its various activities, [Brien Holden Vision Institute has, and] will continue to, promote a culture of women participation both as providers and beneficiaries, empower them to bring a positive change to the eye care scenario."⁷⁰ Access to eye health services in Sri Lanka is not equitable yet, but there is movement in the right direction as a result of the Institute's interventions.

A complementary approach to program design is vital to ensure that the project builds upon and also supports existing services and infrastructure. The project plan worked within the accepted structures, systems and norms and was, therefore, more acceptable to all stakeholders, garnered the required support and was successful. The project's learning approach was based on the following aspects:

- **Empowerment** – increasing the ability of project team (clinical and non-clinical staff) helps to improve the eye health situation of respective communities.
- **Participation** – including local stakeholders to take part in critical decision-making is important to achieve success.
- **Partnership** – working together with Government structures is vital to make the most of the resources available and to be as effective as possible.

Given the long-term nature of the project and the challenges associated, the partners had to renegotiate various outputs in order to accommodate for the changes in strategy due to external factors. However, by incorporating a robust communication plan; consultative processes; and sharing of learning, the project has managed to successfully engage with the Government, ensuring long-term health system sustainability.

"Access to eye health services in Sri Lanka is not equitable yet, but there is movement in the right direction as a result of the Institute's interventions."

Introduction of smokeless, energy efficient stoves by the Health of People & Environment in the Lake Victoria Basin (HoPE-LVB) project

KEY MESSAGES

Train women to be their own agents of change

Pathfinder trains women to be able to generate their own income, giving them more financial power

Integration adds value and increases efficiency

The project addressed the complex challenges that communities faced by creating an integrated project that linked activities in natural resource management, maternal and child health, family planning and livelihoods into one project

Health interventions that are not eye-health specific can contribute to the eye health evidence base, if potential impacts are monitored

Although Pathfinder's intervention did not specifically target eye health, we can speculate that the stove component of the intervention had unmonitored impacts on eye health. Monitoring of collateral impacts could contribute to the evidence base for eye health interventions

Location: Bussi Island, Wakiso district, Uganda, Lake Victoria Basin

Project team: Pathfinder International

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Initial situation

Pathfinder International, a sexual and reproductive health-focused organisation, has been implementing a project in rural areas of the Lake Victoria Basin in Uganda and Kenya, named "The Health of People & Environment in the Lake Victoria Basin" (HoPE-LVB) since 2012. The project aims to "provide underserved families and communities with knowledge and skills to improve reproductive health, reduce levels of poverty through livelihoods and sustainably manage local natural resources."⁸¹

HoPE-LVB is an integrated population, health and environment (PHE) project. One component of the PHE project was to introduce the construction and use of smokeless, energy efficient stoves, which aimed to improve the overall health of the women who do the cooking – one impact of that being to protect eye health.

Programming context

Bussi Island in the Wakiso district of Uganda, was selected as one intervention area for the HoPE-LVB project. This Island suffers a deforestation rate of 86.7 percent, caused, in most part, by increased demand for agricultural land, charcoal, and fuel wood by a rapidly growing population.⁸² Prior to the intervention, on Bussi Island, most cooking used the three-brick/stone method. This method uses massive amounts of firewood, increases carbon emissions and impacts health outcomes, including in eye health.⁸²



A young woman demonstrates the use of an energy efficient stove – and the fact that it uses much less firewood than a traditional stove. (Uganda) Photo credit: Pathfinder International Photo

Pathfinder’s intervention

The goal of the intervention on Bussi Island was to address the complex challenges faced by local communities through an approach that integrated natural resource management, maternal and child health, and family planning. As is seen in many integrated PHE interventions, one component of the approach was to introduce energy efficient stoves to promote hassle-free cooking, reduce tree cutting for fuel, and ensure a healthy environment for women in their homes.⁸² To achieve this, the HoPE-LVB project introduced two types of energy-efficient, smokeless stoves to households on Bussi Island: a one-pan and a two-pan stove, both with single fuel feeding ports and simple to make with local materials, as well as to maintain and use. This new technology enables villagers, especially women, to prevent long term health damage from smoke exposure, such as cataract and lung disease, and to use less firewood. Women were also taught to construct stoves, enabling them to sell them for a fee and augment their income.

Evidence-based design

A 2005 case control study from Nepal provides the strongest evidence of a causal relationship between unvented solid-fuel stoves and cataract. The study confirmed “that the use of solid fuels in unimproved stoves and accompanying lack of kitchen ventilation

are associated with an increased risk of cataract’ formation in women doing the cooking, when confounding variables and biases are accounted for.⁸³ It also concludes that “simply increasing ventilation in the absence of improved stove type would not reduce the relative risk associated with unflued stoves,” but that “ideal solution would be to replace the solid-fuel stoves that use liquid fuel or gas.”⁸³

The HoPE-LVB project conducted a baseline study in 2012 to guide project design, including a household survey, a participatory rural assessment, focus groups and an assessment of health facilities. They did not collect data on eye health specifically given that the project did not specifically set out to affect it. They did confirm, however, that traditional gender roles exposed women to smoke.⁸¹

Results⁸¹

1. More than 12,000 stoves have been constructed and more than 5,617 households (in Bussi and Jaguzi, another project site) are using energy-saving stoves built with the project’s support.

This contributes to conservation of firewood, more hygienic cooking atmospheres, reductions in health hazards and a decrease in deforestation. Women can devote more time to community problem-solving and income generation for their families



A Village Health Team (VHT) and Model Family member uses an energy-saving stove in her kitchen on Bussi Island, Uganda. Photo credit: Pathfinder International Photo by Jake Lyell

as the time spent collecting firewood has been significantly reduced.⁸²

2. Women who were trained to construct stoves for a fee have used their earnings to establish a legally-registered group called “Kyanjazi Environment Group.”

Evidence from various areas of health confirms that training women to be agents of change in their own contexts has a multiplier effect on improved health outcomes.⁸⁴ During the baseline study, communities requested more sustainability measures in this campaign, including local community organisations to act as project managers.⁸¹ Sustained observation of eye health interventions suggests that by having local women establish this group themselves, the community will have a greater sense of ownership over future projects developed, coordinated or implemented by this group, leading to a greater impact.

3. Half the female stove builders were trained as village health teams (VHTs) to offer family planning services and information to their community.

What makes the HoPE-LVB project unique is its integrated approach. For example, many female stove builders were trained as multipurpose people in the community. They were VHTs who could discuss the benefits of using smokeless stoves, but also could discuss other areas of need, including family planning, vaccinations, conservation, and agriculture techniques. By design, this project integrated activities to address multiple community needs, which was well-received at mid-term review, indicating an overall community preference for the integration of multiple intervention activities into one project.⁸¹ Beneficiaries expressed to project staff that they were happy about the impact the multipronged intervention had on their lives.

Conclusion

Pathfinder’s HoPE-LVB project demonstrates the potential importance of a wide range of development projects that could be affecting eye health – but not monitoring their impact on it. These types of projects could contribute to the science of eye health with the coordination of data collection where possible – and this data could then influence policy and future interventions, creating more equitable eye health service access and eye health outcomes.

“Evidence from various areas of health confirms that training women to be agents of change in their own contexts has a multiplier effect on improved health outcomes.”

Aravind's model for quality care, without the frills (India)

KEY MESSAGES

Understand the barriers specific to your context

Offering free cataract surgery at the hospital in a distant town did not significantly influence access to care, so Aravind conducted research identifying barriers, to inform their model

Address the out-of-pocket expenses associated with accessing eye health services

Aravind offers a range of pricing for services based on a choice of different levels of amenities, with standardised clinical care

Train women to be their own agents of change

Aravind trains and employs a majority of female health service providers, plus offers patient counselling provided by women both at base hospitals and outreach facilities

Consider your "next best alternative"

Patients who do not comply with referral or miss follow-up visits to base hospitals due to long distance are encouraged to visit the network of local vision centres for outpatient consultations and for follow-up care

Location: India (mostly Tamil Nadu state)

Project team: Lions Aravind Institute of Community Ophthalmology (LAICO), Aravind Eye Care System, Madurai, India

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Initial situation

Aravind Eye Care System (aravind.org) is a WHO-partnered organization based in Tamil Nadu, India, which has a mission to eliminate needless blindness.³⁹

In India, good quality eye care used to be very expensive, creating a barrier for many people's access, and particularly for women, who bear the majority of the burden of poverty in this country, comprising a growing proportion of the urban poor and about half of the rural poor.⁸⁵ Women in India additionally experience a double burden of poverty due to: societal expectations that women conduct the vast majority of informal, unpaid household work, and barriers to women entering the formal job market.⁸⁵

In the 1980s, Aravind adopted an inclusive pricing and outreach model, developed by the Government of India. Two key factors led to this:

1. Observations and a strong understanding of the eye health landscape in India from Aravind's Founder, Dr Venkataswamy (known as Dr V), who was previously running a number of ophthalmology programs for the Indian Government,³⁹ and
2. India's economic profile – one in which financial burden is the main barrier to accessing eye health services.^{86,87}

Evidence-based decision

At the time that outreach camps were first being conducted by Aravind, it was expected that patients would be hurrying to hospitals as they were offered free cataract surgery, but that didn't happen. Aravind undertook a population-based study to identify



An Aravind camp organiser distributing outpatient tickets to patients at a free eye screening camp. Photo credit: Dr Vivekanadan

barriers to accessing eye health services,⁸⁸ and found that even when doing free surgeries, people still wouldn't come to Aravind for care because of other out-of-pocket (OOP) costs including transport, food and lost wages for both the patient and an accompanying person. Most people belonging to rural villages didn't need a private room or sophisticated intra-ocular lens, but wanted basic facilities and good quality surgery. In addition, traveling long distances was a more significant barrier for rural women than for rural men, with OOP expenses often doubled. This is because women in India require more preparation in advance of accessing medical services due to cultural reasons, including: waiting for permission to travel, waiting for finances to be allocated, having an accompanying person, and having to prepare for the time away from informal household tasks expected of them, including childcare.^{20, 87-88}

Evidence from Indian eye health literature indicates that a key barrier for women is access to family money.^{62, 89} Men tend to take up treatment, however, in many scenarios women do not. Due to traditional gender roles, women often prefer for the men to be prioritised to undergo treatment because they are seen as breadwinners. Plus, there is a social stigma around Indian women's eye health: women, especially in poor, rural areas, think there is nothing that can be done.

The intervention: good quality care, with varying amenities

In the late 1980s, patients from remote villages were not able to avail free cataract surgeries offered at the base hospital as they could not afford the cost of travel to the distant town. In order to address this, Aravind started to provide transport free of charges leveraging support from the government. It increased the proportion of referred patients accessing services and also removed the need to have an accompanying person. Aravind would bring groups of referred patients from outreach, using a systematic approach to booking transport through a community partnership. Patients are not encouraged to have an accompanying person unless they are very disabled (e.g. one-eyed, mentally challenged or have issues with mobility) to minimise OOP expenses. The most vulnerable patients are allowed to have an accompanying person.

When the intra-ocular lenses (IOL) came onto the market, very few patients could benefit from them, as they were too expensive for most patients in India, like in other developing countries. In this context of high cost for good quality treatment, Dr V had a vision to make these services available to all, as he believed that everyone should be able to access quality eye care. Dr V, along with a few other likeminded visionaries, advocated to the Government of India to implement a

National Program for Prevention of Blindness (NPCB) at the national level, to provide a subsidy to eye hospitals for every cataract surgery performed free of charge, especially for patients screened and brought from rural community outreach eye camps. Aravind has been availing this from its inception.

Additionally, Dr V started a subsidised section in all Aravind Hospitals for walk-in patients to access cataract surgeries at a low cost of around US\$15 (whereas regular charges for cataract surgery start from US\$100). These initiatives have had a significant impact on the uptake of cataract surgeries by poor patients who would otherwise remain visually impaired. At Aravind, everyone receives the same high quality of clinical care regardless of how much people can afford to pay. The difference between paying and non-paying patients lies in the level of sophistication

of amenities (type of surgery, type of IOL and type of accommodation). Without compromising clinical aspects of care, this pricing model ensures that quality is maintained and that this cross-subsidy model is sustainable. Realising the need for good quality surgery without additional expenses, Aravind removed the sophistication of amenities to match the normal living conditions of rural Indian villagers (e.g. simple mattress, shared rooms, no air conditioning for subsidised patients). The current model has evolved over time to address more barriers, one by one, and now includes an outreach component as well as subsidisation of walk-ins.

Patients can receive three types of care at Aravind, with the clinical component standardised, especially for cataract surgeries, as displayed in Table 1:

Table 1. Different levels of amenity sophistication associated with Aravind's pricing model

Care level	Amenities				
	Cost	Lens	Surgery	Accommodation	Clinical
Walk-in (paying)	Surgery starts at about US\$100	Choice of lens type (expensive imported or AuroLab Indian IOLs)	Choice of surgery type (extracapsular, phaco)	Choice of accommodation (with amenities)	The clinical component is standardised across all amenity levels to maintain quality of surgical outcomes
Walk-in (subsidised)	About US\$15 for the surgery (outpatient services free of charge)	Standard rigid AuroLab Indian IOL	Standard small incision surgery	Standard accommodation (shared, simple mattress, no air conditioning)	
Free Outreach Camp	Free of charge* (includes screening, transport, food, accommodation and post-operative medication)				

*Free due to a government subsidy of \$15.

Another element added to Aravind's model is the establishment of the mid-level ophthalmic personnel (MLOP) program and local vision centres. This MLOP program involves recruitment of women from rural communities at the end of secondary school, based on academic performance and aptitude. These women are trained as Aravind staff for 2 years and are provided with support to stay employed regardless of if they marry or have children (e.g. the pay is good and child care is provided). Thanks to this initiative, now around 70% of all Aravind hospital staff are women.

Vision centres are closer to communities than other eye health service centres and are staffed by 2 people: a trained, experienced refractionist who takes care of the clinical work, and a female counsellor/coordinator from the MLOP program who is local to the community where the vision centre is located. Telemedicine is also deployed in these vision centres to maintain quality of care: both staff from the vision centres and patients are able to talk to and see the ophthalmologist at one of Aravind's base hospitals in real-time. They are able to ask questions, check their diagnosis is correct and in turn the doctor is able to examine patients remotely when necessary. This innovative approach has to a great extent addressed the access barrier due to distance for rural patients, especially for rural women, although at the time of publication, data indicating the impact are not yet available.

Results

The pricing model of having full paying patients, subsidised walk-ins and free outreach camps (including care after referral from outreach), was not actually designed to focus on gender inequality in eye health. Rather, this has been Aravind's model from the beginning. When sex-disaggregated data was analysed, however, a correlation was found between women's uptake of eye care services and the pricing model.⁴¹

Aravind's combination of approaches to addressing barriers to accessing eye health services has increased the volume of cataract surgeries produced in India (mostly in Tamil Nadu state) and the gender equality of patients receiving those surgeries. This experience

gave credibility to Dr V in his advocacy work with the government.

The National Program for Control of Blindness now supports free outreach eye health camps for hospitals that qualify by meeting some basic criteria – i.e. age of hospital, volume of cataract surgeries, etc. And in fact, providing free services where there would usually be OOP expenses is now a requirement in order for a hospital to receive the government subsidy.

Adjusting the actual cost for care addressed the financial barrier. Paired with the outreach camps, anecdotal evidence suggests that Aravind increased the proportion of women accessing services. Outreach screening was done in villages to identify patients for whom transport, accommodation, post-operative medication and food are free of cost during the care, leaving no OOP expenses. This outreach in particular worked to bring patients in. The proportion of women accessing eye health services is higher in free camps and walk-in subsidies than the national average.⁴¹

Limitations of the case

While the principles behind the components of the 'Aravind Model' have been proven to be replicable in the rest of the developing world, it is important note that the practices might not be relevant or appropriate elsewhere. The details will have to be customised with clear understanding of the local scenario.

"Aravind's combination of approaches to addressing barriers to accessing eye health services has increased the volume of cataract surgeries produced in India (mostly in Tamil Nadu state) and the gender equality of patients receiving those surgeries."

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THANK YOU

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