Brien Holden Vision Institute

VISION CENTRE MANUAL

A Toolkit and Planning Resource

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INTRODUCTION

The purpose of this manual is to describe the vision centre model, and its functions and stages of development. It provides an overview of how the vision centre may be used as an effective and sustainable strategy to develop and implement eye care services and infrastructure.

The manual addresses all stages of vision centre development including identifying an area of need, planning, implementation, management of the ongoing operations, monitoring and evaluation. The necessary information, guidelines and tools are also provided to help facilitate the entire process.

Every context is different. A vision centre that has been established in a public hospital in one country may have very different needs to a vision centre that has been established in a similar setting in another country. This means that it may be necessary to adapt the processes and information contained in this manual to suit the needs of the specific situation.

Accompanying this manual is a Vision Centre Tool Kit providing tools, guidelines and processes to assist with the establishment and management of the operations of a vision centre. Where applicable in the manual, reference is made to the Tool Kit.

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THE VISION CENTRE CONCEPT

1.1 Introduction

In this section the vision centre concept and its applications are discussed. It is important to understand exactly what a vision centre is, how it functions and the strategic advantage of applying this concept to a particular situation in order to make an impact.

A vision centre may not be the most appropriate strategy to follow in every situation. It is important to consider what the particular objectives and ultimate goals of the centre are, to ensure that a vision centre is the most appropriate method to tackle the problem. It is also necessary to keep in mind that the model may be adapted and changed to suit the circumstances.

1.2 The Vision Centre Model

Refractive Error:	**The eye's inability to refract or focus light sharply on to the retina (back surface of the eye) due to irregular shape and/or size. There are four main types of refractive error: myopia, hyperopia, astigmatism and presbyopia. A person who has a refractive error will need to wear spectacles so that they can see clearly and comfortably. An eye examination that tests for refractive error is called refraction.**

The vision centre model was pioneered and successfully implemented by Dr Gullapalli Nag Rao at the LV Prasad Eye Institute (LVPEI) in India as a way of taking vision care services, including refraction, spectacle dispensing and detection of sight-threatening diseases out into the community. The vision centre in the LVPEI system is part of a hierarchical eye care pyramid system ranging from Village Guardians through Vision Centres to Secondary and Tertiary Centres and a Centre of Excellence (Figure 1.1). The vision centre part of this model has subsequently been implemented in other developing countries and has inspired the development of numerous variations of the model.

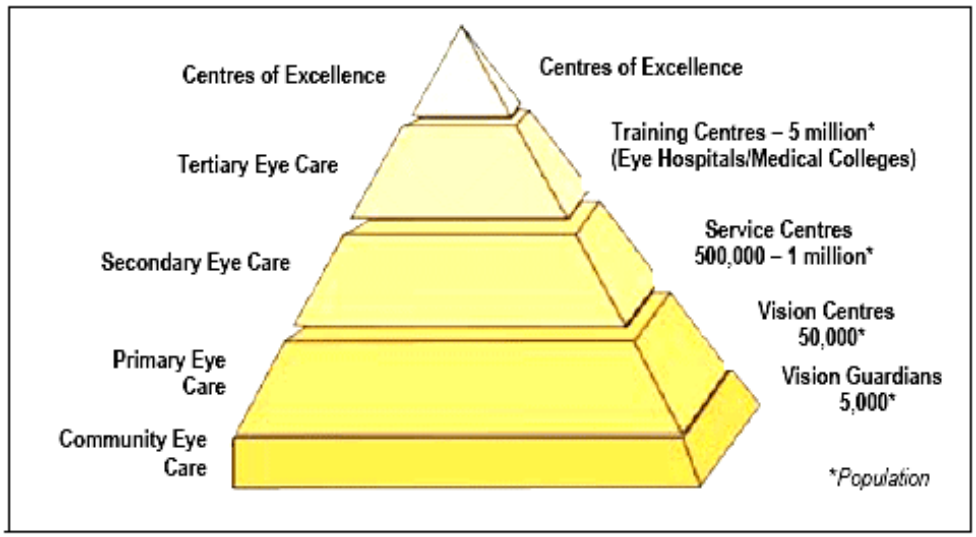

Figure 1.1: *The LVPEI model for eye care service delivery*

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In this pyramid model, initial eye care screening is done by Vision Guardians (at a ratio of 1 per 5,000 people) at the village level. Primary eye care and refractive error services are provided by Vision Centres at the community level (1:50,000), while secondary and tertiary eye care takes place at the Service Centres (local or district hospitals, 1:500,000) and advanced care at Training Centres (1:5 million) or at the Centre of Excellence level (1:50 million).

This structure allows eye care tasks to be divided amongst the available workforce, ensuring that the relatively few individuals capable of high end tasks are freed to deliver those services.

A vision centre is an eye care facility that provides a range of eye care services, including:

- eye screenings;
- refraction (i.e. determining the spectacle prescription required);
- full eye examinations;
- prescribing spectacles;
- supply and dispensing of affordable spectacles;
- detection of potentially blinding diseases;
- treatment of minor eye problems and provision of first aid within the skills set of the eye care person(s)staffing the Centre;
- appropriate referral of patients with more complex eye conditions to higher levels of a health care system.

Depending on the size, staff capacity and activities of specific vision centres, they can also assist with:

- coordination of community screening programs;
- assistance with other community eye care activities (such as Vitamin A campaigns and non-surgical aspects of trachoma control);
- post-operative patient care.

Vision centres are most effective if there is coordination, cooperation and integration of the vision centre services with secondary and tertiary eye care services, including outreach, health promotion through vision guardians, and collaboration with rural and regional hospitals.

In many parts of the developing world, quality eye care services are only available at urban regional hospitals – creating barriers of distance, cost and accessibility. The location and provision of eye examinations and spectacles closer to communities will help in minimising these barriers.

The following definitions are from the *"Strategy for the Elimination of Vision Impairment from Uncorrected Refractive Error"* by the Refractive Error Program Committee of the International Agency for the Prevention of Blindness:

- Blindness is presenting vision worse than 3/60 in the better eye.

- Vision Impairment (VI) is presenting vision worse than 6/18 in the better eye. It includes people who are blind and people who have some vision, but which is inadequate to perform daily tasks.

- Presenting vision is visual acuity with the best spectacles the individual owns when they arrive at a hospital / clinic / vision screening.

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The advantages of a vision centre are:

- A significant proportion of eye problems can be diagnosed and corrected at this level, particularly refractive error.
- It accommodates for early detection of more serious eye diseases and facilitates the referral of these cases for further diagnosis and treatment.
- Patients are better able to access services at a primary eye care level, as services are more available and geographically spread.
- Larger volumes of patients can be examined at this level because of the level of service offered. This means that patients who can have their eye health problems resolved at the vision centre avoid having to needlessly wait for long periods of time, during which their condition may deteriorate further or escalate into more serious conditions.

1.3 The Structure and Key Functions of a Vision Centre

The key functions of a vision centre are to:

- refract;
- detect basic eye disease;
- dispense appropriate optical aids (spectacles and basic low vision devices)
- refer when necessary.

1.3.1 Refraction Services and Eye Disease Detection

This service is provided by an optometrist or appropriately trained clinical personnel (see section 3.5.5 for further details). The qualifications of staff employed in vision centres vary depending on the regulatory requirements, availability of skilled people and the extent of the services provided.

The clinician (optometrist or appropriately trained person) will examine the patients and those diagnosed with a refractive error will be issued with a prescription for a pair of spectacles to correct the problem. In a vision centre where the skills are available to diagnose and address low vision problems, basic low vision assistive devices may be dispensed to the patients. Where more complex examinations and low vision services are required, the patient will be appropriately referred to another professional or department within the existing service delivery structure.

When other eye diseases or conditions are detected which are beyond the scope of the clinician, the patients are referred for further diagnosis or treatment. Referrals may be made to other eye care professionals or health institutions, depending on the circumstances in each country.

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1.3.2 Dispensing Facility

After patients receive their prescription for a custom-made spectacle, they will require assistance to choose an appropriate frame, have measurements taken and make payment. This service could be provided by the clinician, spectacle technician or optical assistant. The spectacles will then be made and the patient will be notified once they are ready to be collected. Readymade spectacles can be dispensed straight away. When the spectacles are dispensed, the clinician / spectacle technician / optical assistant will adjust the frames to fit the patient, and give advice on spectacle care and maintenance.

1.3.3 Optical Workshop

The optical workshop is where the spectacles are made. A spectacle technician, who is trained to edge and fit optical lenses into spectacle frames, will then make the spectacles using the optical lenses prescribed and the frame chosen by the patient. Once the spectacles are made, it is then sent to the dispensing facility where the patient will collect it.

Where several vision centres are being set up, it is possible to have one centralised optical workshop (perhaps at the busiest location). This has the advantage of reducing set-up costs and reducing the number of spectacle technicians required, however, it is important to ensure that delivery pathways are efficient to ensure timely return of spectacles to patients.

1.4 Vision Centre Models

In the above section, the functions of a vision centre were discussed. While it is critical that a vision centre serves these functions, it is also important that there is flexibility in how it is established, how services flow and how it is integrated into existing health institutions and systems. Where the Ministry of Health is eager to develop eye care services, it may be possible to integrate the vision centre into a public health care institution (e.g. a hospital), bolstering existing eye care facilities. In other situations, it may be necessary to establish a vision centre in the community due to a combination of factors such as ease of access through community donated facilities, lack of space in government premises, or lack of resources in the public health sector. If the vision centre is to be established in the community, it is important to ensure referral pathways are set up (e.g. to the local hospital eye unit), to ensure that more complex cases are able to receive appropriate care.

(See A1_1_Vision centre models)

In 2007, the Brien Holden Vision Institute, in partnership with the Zambian Ministry of Health (MOH) and CBM (Christian Blind Mission), set up the Kitwe vision centre, at Kitwe Community Hospital. At this vision centre, the MOH provide the premises, pay salaries and cover the utility expenses. Using the funds generated from the sale of spectacles, this vision centre covers the cost to replenish inventory and top up allowances for the staff. These top up allowances are to fill the shortfall in salaries paid by the MOH.

In comparison to this, Brien Holden Vision Institute in Sri Lanka set up three vision centres in the Kegalle district. These centres operate as a cluster whereby one vision centre includes an optical workshop which cuts and fits prescription lenses for all three vision centres. The vision centres are located in a predominantly rural and underserved district, where eye care services are limited. These centres are quite

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different. The Zambian Kitwe Centre is based in a hospital, allowing referral pathways to be easily accessed, whereas the Sri Lankan Kegalle vision centres refer to the hospital which is in a separate location. The key point is that the vision centre concept is fluid and the implementation of the concept is flexible and easily adapted to specific situations. It is important that however the concept is implemented, it must be sustainable, ensuring that communities are provided with long term, affordable eye care services.

1.5 Vision Centre Sustainability

Vision centres should aim to become self-sufficient in their management of resources and finances through a combination of strategies:

- Engaging in local partnerships;
- Integration of the vision centre within the existing health care system /services in the region;
- Cost recovery through the sale of quality affordable spectacles;
- Committing sponsors for the vision centre;
- Providing excellent services and follow-up.

To help ensure access to affordable, good quality spectacles, a vision centre stocks a supply of affordable readymade spectacles. These are affordable and convenient in that they can be dispensed at the time of the eye examination. However, approximately 30% to 50% of patients will require prescription custom-made spectacles for conditions such as significant anisometropia (unequal refractive error in the two eyes) and significant astigmatism[1][2][3]. These types of prescription spectacle lenses require an optical workshop staffed by a spectacle technician trained to cut and fit optical lenses to frames. One optical workshop can service more than one vision centre.

Well-established optical workshops associated with a vision centre or a "cluster" of vision centres will be able to create a cost recovery element that helps ensure self-sustainability. Sustainable and comprehensive eye care delivery systems can be created where the supply of primary eye care and refractive error services can fund more costly initiatives, such as the provision of low vision devices.

The guiding principles for a *VISION 2020* Action Plan, which can be summarised in the acronym "ISEE" are important when considering the establishment of a vision centre:

Integrated – into existing health care systems.

Sustainable – in terms of money and other resources.

Equitable – care and services available to all people in need, regardless of circumstance.

Excellence – a high standard of care throughout.

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[1] Bourne RRA, Dineen BP, Huq DMN, Ali SM, Johnson GJ. Correction of Refractive Error in the Adult Population of Bangladesh: Meeting the Unmet Need. *Invest Ophthalmol Vis Sci.* February 1, 2004 2004;45(2):410-417.

[2] Maini R, Keeffe J, Weih LA, McCarty CA, Taylor HR. Correction of refractive error in the Victorian population: the feasibility of "off the shelf" spectacles. *British Journal of Ophthalmology.* November 1, 2001 2001;85(11):1283-1286.

[3] Ramke J, Brian G. Are readymade spectacles sufficient in developing countries? *Clin Experiment Ophthalmol.* 2009;37(9):900-902.

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STAGE 1: Planning and Advocacy

2.1 Introduction

The establishment of a vision centre requires extensive planning and advocacy. Prioritising where to establish a vision centre may be a time consuming and therefore costly exercise. Engaging and strengthening relationships with the applicable government ministries and other stakeholders also take time but is an important factor in the success of the centre. Without proper planning and advocacy, project success will be compromised. In the following section we look at the important analyses that must be completed and the stakeholder interaction that needs to take place to acquire information for decision making and planning.

2.2 Situational Analysis

When planning, designing and developing a vision centre, it is essential to understand the need for eye care services among the local population, the gaps in current existing eye care services and the barriers to accessing existing services. This will provide a much clearer understanding of where each vision centre needs to be established.

Early research involves conducting a comprehensive situational analysis of the target area to gain a picture of the current status with respect to eye care infrastructure, services and personnel. Information regarding the prevalence of certain eye conditions and diseases within the population is invaluable however often does not exist.

Conducting a comprehensive situational analysis is the most effective way to identify the need for particular services in an area. Conducting a situational analysis helps:

- identify the current existing services available in the target area.
- identify the current services that exist.
- identify the barriers to accessing services by the local population.
- identify the current and future availability of trained eye care staff in the region.
- collate information on the current political support for eye care in the region.
- identify the availability of suppliers of optical products.
- analyse the economic viability of establishing a vision centre.
- consider the potential partners and competitors in the area.
- identify and/or understand other essential issues that need to be addressed.

The necessary depth of each analysis in each of these areas will depend on the model that will be established, as well as the results and impact one aspires to achieve by establishing a vision centre. Conducting a situational analysis is time consuming and can be costly; however, it is invaluable to the successful development and the delivery of ongoing services of the vision centre.

The information gathered and understood can be utilised, where suitable, throughout the implementation of other vision centres, and it will also encourage the development of vision centres on a district-by-district basis to be more cost-effective and at the same time ensure broader access to eye care services in an area.

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A situational analysis is a living document and needs to be regularly updated to suit local circumstances. Local demographics change, as does the economy, politics, need for services and new services reaching the local area. As these changes arise, your in-depth situational analysis must also change. The Tool Kit provides a template for conducting Situational Analysis. This template should be up-dated as changes occur – usually as information comes to hand – but at least annually. When conducting a situational analysis it is best (and most cost-effective) to start with desktop research and supplement information through in-country visits or contacts.

(See B1_1 In-Depth situational analysis template)

Additionally, the Tool Kit contains a template to verify the availability and condition of existing equipment should you be planning to upgrade an existing eye unit or add services to existing eye care services in a health care centre or hospital. In these circumstances, the hospital may already have some equipment. It is important to verify that all existing equipment is in working order. In situations where hospitals request new equipment, it is also important to verify the suitability of the existing equipment as some might be in perfect working order and the funding, therefore, can be better spent elsewhere.

(See B1_2_Existing equipment checklist)

2.3 High Level Risk Analysis

Risk is the probability of a threat or an unpredictable occurrence that is caused by either external or internal forces. This may affect the organisation, its resources and strategies. Failure to consider and plan for the risks involved can seriously jeopardise the organisation.

At this stage, it is therefore crucial to do a comprehensive risk analysis in order to allow you to evaluate the risks to the organisation, its partners and existing obligations and strategies. If the risk profile is too high, you may decide to discontinue the project at this stage, or put contingency plans in place to manage the risk during the project planning phase before the project has commenced.

Some examples of risk you may want to consider at this stage include:

- A project partner or supplier may not live up to their commitments resulting in project failure;
- Intended partner organisation is engaged in illegal activities that clash with your own organisational values and policies;
- Difficulties or lack of communication between project team members may affect project success;
- Political unrest may make project activities impossible.

(see B2_1_Risk analysis template)
(see B2_2_Prospective partner assessment)

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2.4 Advocacy

Advocacy can be defined as "a set of targeted actions in support of a cause or an issue, because one wants to build support for that cause or issue, influence others to support it; or try to influence or change legislation that affects it."[4] It is a process targeted at influencing laws, policy, regulations, programmes or decision on funding, made at the uppermost levels of public or private sector institutions, and focuses upon achieving a change. It is inclusive of both single issue, time limited campaigns, as well as ongoing work undertaken around a range of issues, and is inclusive of activities at a national, regional or local level.

Done well, it provides a critical mass for change, as it coordinates activities, reduces duplication, facilitates the exchange of information, skills and experience, and provides peer support, encouragement, motivation and professional recognition. However, advocacy can also be difficult to effect well. The collaborative effort which makes it powerful can also hinder, as a loose structure without clear leadership can make action, communication and trust between organisations difficult. It can also be hindered by a lack of clear objectives and common resources or by excessive bureaucracy.

2.4.1 The Importance of Advocacy

Unfortunately, consistent government support and funding for eye care has been lacking. It is believed that future success in the fight against avoidable vision impairment and blindness will depend on strong advocacy campaigns, especially at national levels.

Common factors for successful advocacy have been identified as[5]:

- generation of evidence data;
- effective utilization of the data with an appropriate forum and media;
- developing a credible relationship with prominent decision makers;
- aligning eye care programming to the broad health and development agendas;
- forming a coalition of all stakeholders to increase strength of advocacy message.

(see B3_1_The advocacy process)

2.4.2 Target Audience

Advocacy campaigns can be aimed at, or target, a wide spectrum of audiences, among which are:

- policy-makers;
- government officials;

[4] Boulmetis J, Dutwin P. *The ABCs of Evaluation: Timeless Techniques for Program and Project Managers*: Jossey-Bass, Inc., 350 Sansome Street, San Francisco, CA 94194 , (2000)

[5] Mansur Rabiu M, Al Rajhi A, Babar Qureshi M, Gersbeck J. Enhancing Advocacy for Eye Care at National Levels: What Steps to Take for the Next Decade? *Middle East African Journal of Ophthalmology*. 2012, 19 (1).

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- the public – local communities and others;
- professional associations;
- enterprises / businesses;
- donor organizations;
- trade unions;
- NGOs;
- media.

All of these audiences will support a vision centre project for different reasons, however, it is the responsibility of the organisation to identify the incentive for each one and build a message that appeals to them. In eye care programs it is important to recognise that the focus of our activities needs to be on integrating eye care programs into national health plans and programs. Government officials and policy-makers are therefore a critical target audience and gaining their support will help ensure the success of your program.

(see B3_1_The advocacy process)

2.4.3 Key Issues for Advocacy – Why Do We Need Vision Centres?

The estimated prevalence of Blindness and Vision impairment:

	Number of people (millions) globally
Blindness and vision impairment due to refractive error	
Vision loss due to distance refractive error	**123**
Blind	1
Vision impaired	122
Vision loss due to near refractive error (presbyopia)	**517**
Sub-total	***640 million***
Blindness and vision impairment due to eye disease	
Blind	38
Vision impaired	124
Sub-total	***162million***
TOTAL BLINDNESS & VI	***802 MILLION***

2.4.3.1 Prevalence of Vision Impairment

Vision Impairment (VI) is an important public health problem due to its high and uneven prevalence:

- Globally it is estimated that 162 million people have VI from eye diseases, 38 million of whom are blind.[6]

- Globally it is estimated that 123 million people have VI due to uncorrected refractive errors, 1 million of whom are blind. [7]

[6] Pascolini D, Mariotti SP. Global estimates of visual impairment: 2010. British Journal of Ophthalmology. 2011.

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- Globally it is estimated that 517 million people have significant uncorrected presbyopia, causing them to have difficulty seeing things that are close to them.[8]

- There is a significant imbalance in the global distribution of VI – in excess of 80% of VI occurs in developing countries due to inadequate health care infrastructure and human resources, and high barriers to accessing existing services.[9]

- There is a significant imbalance in local distributions of VI – in most communities, poorer, less educated, more rural, older women are the most likely to have VI.[10]

VI is an important public health issue because so much of it can be prevented or treated:[11]

- Approximately 80% of VI in developing countries is avoidable using available and relatively low cost interventions – no new inventions are needed, most VI can be eliminated if resources are mobilised and systematic action undertaken.[12]

- The major causes of VI are cataract (solvable with case-finding, an eye examination and surgery) and uncorrected refractive errors (solvable with case-finding, an eye examination and spectacles).[13]

- Blindness attributable to glaucoma (10.1% of blindness caused by eye disease), age-related macular degeneration (7.1%), corneal opacities (4.2%), diabetic retinopathy (3.9%) and childhood blindness (3.2%) are all important in their own right, particularly as they mostly require prevention rather than cure.[14]

VI deserves *more* attention *now*, because:

- VI from uncorrected refractive errors including presbyopia (640 million cases combined) place a substantial burden on the individual and in turn on society – distance VI from uncorrected refractive errors alone (presbyopia excluded) has been estimated to cause $269 billion in lost global productivity annually.[15,16]

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[7] Pascolini D, Mariotti SP. Global estimates of visual impairment: 2010. British Journal of Ophthalmology. 2011.

[8] Holden BA, Fricke TR, Ho SM, et al. Global vision impairment due to uncorrected presbyopia. *Arch Ophthalmol.* Dec 2008;126(12):1731-1739.

[9] Pascolini D, Mariotti SP, Pokharel GP, et al. 2002 Global update of available data on visual impairment: a compilation of population-based prevalence studies. *Ophthalmic Epidemiology.* 2004;11(2):67-115.

[10] West S. Poverty and Human Development: Not a Stretch for Ophthalmology. *Arch Ophthalmol.* November 1, 2007 2007;125(11):1564-1565.

[11] Pascolini D, Mariotti SP, Pokharel GP, et al. 2002 Global update of available data on visual impairment: a compilation of population-based prevalence studies. *Ophthalmic Epidemiology.* 2004;11(2):67-115.

[12] World Health Organization, International Agency for the Prevention of Blindness, Vision 2020: The Right to Sight. *Global Initiative for the Elimination of Avoidable Blindness - Action Plan 2006-2011*: World Health Organization; 2007.

[13] Resnikoff S, Pascolini D, Mariotti SP, Pokharel GP. Global magnitude of visual impairment caused by uncorrected refractive errors in 2004. *Bull World Health Organ.* 2008;86(1):63-70.

[14] Resnikoff S, Pascolini D, Mariotti SP, Pokharel GP. Global magnitude of visual impairment caused by uncorrected refractive errors in 2004. *Bull World Health Organ.* 2008;86(1):63-70.

[15] Holden BA, Fricke TR, Ho SM, et al. Global vision impairment due to uncorrected presbyopia. *Arch Ophthalmol.* Dec 2008;126(12):1731-1739.

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- the lack of refraction and spectacle provision in eye care services in underserved, particularly rural areas have important negative consequences in terms of lost educational and employment opportunities.[17]

- corneal blindness (responsible for 4.2% of blindness caused by eye disease), can be caused by childhood dietary insufficiencies (vitamin A deficiency), infections (e.g. measles), or trauma – it is easier and more cost-effective to prevent rather than treat.[18]

- eye infections causing corneal blindness are sometimes linked to the use of traditional medicines, which can either cause direct damage or delay other treatments – coordination and creating awareness between traditional and western medicine practitioners has been shown to improve outcomes.

- blindness due to glaucoma is preventable by surgery or medicine if it is detected early with a good eye examination (involving measurement of eye pressure and optic nerve examination) – this level of eye examination is difficult to access for most people in developing countries and some in developed countries, so both awareness and access need to improve.[19]

2.4.3.2 Primary Eye Care: an Important Part of the Solution to Avoidable VI

Three important reasons for establishing Primary Eye Care (PEC) include:

1. a significant proportion of eye problems can be corrected or detected at the primary care level.
2. there would be substantial savings to the individual and community.
3. the division of labour inherent in the model enhances efficiency.

The objectives of PEC are to:

- work toward creating systems that bring eye care within access of the most marginalised populations.

- create eye care services appropriate to this level based on a foundation of excellence, equity and efficiency on a sustainable basis.

- integrate with other levels of vision care e.g. vision centres developed for the primary level should link to secondary eye care services.

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[16] Smith T, Frick K, Holden B, Fricke T, Naidoo K. Potential lost productivity resulting from the global burden of uncorrected refractive error. *Bulletin of the World Health Organization.* 2009;87:431-437.

[17] World Health Organisation. Sight test and glasses could dramatically improve the lives of 150 million people with poor vision. *World Sight Day Press Release* [http://www.who.int/mediacentre/news/releases/2006/pr55/en/index.html. Accessed November 22, 2007.

[18] Taylor HR, Pezzullo ML, Nesbitt SJ, Keeffe JE. Costs of Interventions for Visual Impairment. *American Journal of Ophthalmology.* 2007;143(4):561-565.e561.

[19] H A Quigley, AT Broman. Number of people with glaucoma worldwide in 2010 and 2020. *Br J Ophthalmol* 2006 90: 262-267)

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- develop innovative community participatory programs to aid uptake of services, including Eye Health Promotion and disease control measures that include preventive, curative and rehabilitative aspects.

2.4.3.3 Advocacy around vision centres – vision centres an important part of the solution

Vision centres are part of a PEC service delivery model focused on infrastructure development, human resource development and integration.

Vision centres aim to:

- create a permanent and committed primary eye care system.
- address the two major challenges of eye care – accessibility and affordability.
- bring suitable primary eye care resources to underserved areas.
- prevent needless VI through increasing community awareness, provision of eye examinations, provision of refractive care and referral of eye disease.
- focus on addressing the major causes of VI (e.g. a vision centre serving an older population in Africa would focus on cataract, while a vision centre serving a young population in China would focus on myopia).

(See B3_1_The advocacy process)

The advocacy process may result in an agreement with key stakeholders allowing for the establishment of a vision centre. Whilst this agreement may be particular to a specific situation, there are certain clauses based on your organisation's values, strategies and working methods that will remain standard. A template that includes the terms of agreement, contributions of parties and other aspects such as child protection and gender equality is in the Tool Kit.

(see B3_2_MOU Template)

2.5 Suggested Reading List on Uncorrected Refractive Error and Presbyopia to Assist Advocacy

- Bourne RRA (2007). Uncorrected refractive error and presbyopia: accommodating the unmet need. *Brit J Ophthalmol,* 91(7):848-850.
- Cochrane GM, du Toit R, Le Mesurier RT (2010). Management of refractive errors. *Brit Med J* (Clinical research ed.), 340.
- Frick KD, Riva-Clement, Shankar MB (2009). Screening for refractive error and fitting with spectacles in rural and urban India: Cost-effectiveness. *Ophthalmic Epidemiol*, 16(6):378-387.
- Holden BA, et al (2008). Global vision impairment due to uncorrected presbyopia. *Arch Ophthalmol*, 126(12):1731-1739.
- Marmamula S, Keeffe J, Rao G (2009). Uncorrected refractive errors, presbyopia and spectacle coverage: results from a rapid assessment of refractive error survey. *Ophthalmic Epidemiol,* 16(5):269-274.

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- Owsley C, McGwin G, Scilley K, Meek G, Seeker D, Dyer A (2007). Effect of refractive error correction on health-related quality of life and depression in older nursing home residents. *Arch Ophthalmol,* 125(11):1471-1477.
- Patel I, Munoz B, Burke AG, Kayongoya A, McHiwa W, Schwarzwalder AW, West SK (2006). Impact of presbyopia on quality of life in a rural African setting. *Ophthalmology,* 113(5):728-734.
- Resnikoff S., et al (2008). Global magnitude of visual impairment caused by uncorrected refractive errors in 2004. *Bull World Health Organization*, 86(1):63-70.
- Smith T, et al (2009). Potential lost productivity resulting from the global burden of uncorrected refractive error. *Bull World Health Organization*, 87:431-437.

(see B3_3_ Reading List Abstracts)

2.6 Conclusion

Getting all the relevant information will help one have an accurate picture of the situation in the country and make informed decisions. Being thorough and meticulous during this stage will bode well for the success of the establishment and development of a vision centre.

Once the initial research, fact-finding and planning are conducted, the relevant stakeholders have been engaged, and the feasibility considered, a decision will be made whether or not to establish a vision centre and then which approach will be most appropriate to implement.

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STAGE 2: Setting Up The Vision Centre

3.1 Introduction

After a decision has been made to establish a vision centre, the next step is to further develop the project plan. A broad plan would have been formulated in the planning and advocacy stage of the project, resulting in the formalisation of an agreement. This would constitute the terms of reference and guide the planning phase from start to finish.

3.2 The Project Plan

The project plan is a document that provides direction and focus for all aspects of the project. It also provides a step-by-step plan for allocating resources and timelines and designating responsibility. A typical project plan for a vision centre will include advocacy, risk management and other design elements but also the following information:

Background: The situation in a country with respect to eye care i.e. the prevalence of particular eye conditions, the existing service delivery structures, the problems and challenges. Much of this information will be available from the situational analysis conducted.

The purpose, goals and outcome: Why the vision centre will be established, what it will accomplish and the expected impact. This must be related to the background as articulated in the previous point.

Development of indicators: Indicators are developed as measures of progress and achievement and assist with reporting, and are therefore required to ensure that the goals of the project are being met. For example, if your goal is to reduce the number of people with uncorrected refractive error, the monitoring indicators may be the number of people dispensed spectacles in the vision centre. Other indicators may include:

- Number of people attending;
- Number refracted;
- Number of referrals;
- Number of spectacles dispensed.

You may consider disaggregating your data by sex (Male or Female) and by age group (Adult or Child) to monitor the inclusivity of the vision centre. It is important that the indicators developed are relevant to the goals of the centre and are measurable.

Budget: The funds available and allocated for each line item. The line items refer to the costs that will be incurred during the establishment of the vision centre e.g. building, equipment, training costs, etc. It is important to cover all costs expected and make educated estimates based on past experience. This will prevent under-budgeting and unnecessary interruptions due to the shortage of funds.

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Timelines: This will indicate the duration and deadlines for each task leading up to the establishment of a fully operational vision centre e.g. the renovation of the premises should take 2 weeks and must be completed by the 10th March 2020.

Areas of responsibility and specific tasks for project team members and stakeholders: This will indicate the specific tasks of each person involved in establishing the vision centre, from the funding organisation, the project team, to the stakeholders in the public health sector and other participating organisations e.g. Mr Peter, from City Community Hospital, where the vision centre is to be established, will be responsible for arranging with the hospital maintenance to install additional electricity plug points and a wash basin.

Dates for reviews and evaluations: These are dates when meetings between the project team will be held to discuss the progress of the project and if things are going well. It is also an opportunity to discuss changes and put interventions in place where things have gone wrong. These meetings are critical to ensure that everything goes according to plan and to prevent the waste of resources because of misconceptions or poor communication.

A project plan does not need to be unnecessarily long and complex. It should be kept simple so that anyone can refer to it and understand it. It is also a document that may be revised several times due to new developments or unforeseen factors. It is important that the plan is updated and circulated to all parties involved.

(See C1_1_Project plan)

3.3 Further Risk Analysis and Management

There will be risks involved in any vision centre project, and these have the potential to affect personnel, business or project plans. It is, therefore, important to indentify and plan for potential risks that may affect the project, whether in project development, implementation or the ongoing operations of the vision centre.

Failure to understand and plan for the risks involved can seriously jeopardise the project. Risk analysis and management is necessary to:

- identify the potential risks and where they come from (internal or external);
- predict the probability of each risk and the impact it will have on the project;
- minimise the impact on the project;
- change the direction of the project;
- make quick and appropriate decisions;
- ensure the sustainability of the project.

Some examples of internal and external risks during project implementation include:

- The income generated by the vision centre may not sustain the operations as anticipated;
- Prices of lenses and frames may escalate suddenly because of economic factors;
- Staff skill levels fall short of the expected standards;
- Trained human resources leave the vision centre, hindering service delivery;
- Appropriate optical product suppliers cannot be found, making service delivery impossible;
- Project stakeholder fails to provide support for certain project activities, resulting in project failure.

(See B2_1_Risk analysis template)

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3.3.1 Integrating Risk Management Activities into Work Plan

Once a risk has been identified, the next step is to decide on the likelihood of the risk occurring, and to form a contingency plan to avoid, reduce or manage the risk during the project planning and implementation phase.

For example, if the risk identified is that refraction skill levels fall short of the expected standard, the contingency plan may be to assess the refractionist on commencement of employment, and if necessary to up-skill them. If the risk of this is low, then the decision to plan for the assessment, but not plan for the up-skilling in the budget seems reasonable. If the risk of this is high (e.g. in places where the training is poor, or there is a shortage of human resources), it may be prudent to build an up-skilling component into the budget to ensure that there is funding to complete the up-skilling if necessary.

These risk management activities should be built into the work plan, especially high level risk management activities, which should be managed on a more frequent basis. In this case, if the risk becomes reality, the plan (and funding) exists to manage the problem promptly.

If this risk had not been considered, this could have had an adverse affect on the project – for instance if poor quality refractions resulted in incorrect spectacles being given to patients. The negative perception in the community that may occur from this could be very difficult to overcome, and not only affect the project, but also future projects in the area. By having a plan to deal with this, we can ensure that the project has a good chance of success.

Although we cannot mitigate for every risk, a good risk management plan can help to minimise the impact of unexpected events on the project.

(See C1_1_Project plan)
(See C1_2_Workplan -Vision centre development)

3.4 Project Team

A project team will be formed to manage and implement the project. Some of the team members may be people that were already involved in the conception phase of the project, advocacy and early research and planning. The number and skill level of team members, and the nature and duration of their contribution will depend largely on the scale and complexity of the vision centre project.

3.5 Key Activities

There are key tasks that need to be covered in a project plan. Each will be linked to activities, requiring the application of resources and time to complete.

(See C1_2_Workplan -Vision centre development, for a list of main activities)

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3.5.1 Site Selection

The site for the vision centre will need to be selected. Although this will, to some extent, have been decided in the planning and advocacy stage (e.g. in a public hospital or within the community, or elsewhere), the specific site will need to be agreed upon. Preferably this would have been done earlier to form part of the MOU. There should be enough space for refraction services and/or a dispensing workshop.

(See C2_1_Site selection and infrastructure considerations)
(See C2_2_Vision centre layout guidelines)

3.5.2 Developing Vision Centre Infrastructure

The layout of the vision centre must be determined. The space should be adequate. It is likely that the premises chosen for the centre will require some kind of refurbishment, e.g. painting, electricity or security upgrades.

Contractors may then be required to conduct the necessary tasks, which may include painting, installation of additional electricity plug points, shelving and plumbing. There may be other things such as the repair of window panes, ceiling boards and so on, which may require attention as well. It is important to agree on the terms and conditions with contractors upfront and bind them to a contractual agreement. This may be helpful in preventing disputes later on and ensuring contractors honour their obligations.

(See C3_1_Contractors agreement template)

3.5.3 Equipment and Furniture

To function as planned; a vision centre must be adequately equipped and appropriately furnished. Some of the clinical equipment purchased will depend on the cadre of the eye care professionals employed at the vision centre and their level of qualifications e.g. if the refractionist has not been trained in prescribing low vision devices, low vision devices are of no use and should not be purchased.

(See C4_1_Startup budget and equipment template)
(See C4_2_Common questions about equipment and stock in vision centres)
(See C4_3_Vision centre lens seed stock example)

3.5.4 Operations – Ensuring Good Governance and Accountability

Registration and accreditation: Permits for operation may be required. In the case of the Social Entrepreneurship model, Business and Tax Registration may be necessary. It is important to research and apply for these as early as possible as the application processes can be lengthy. These applications may require payment therefore it may be necessary to accommodate for these costs in the budget.

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Bank account: A bank account may need to be opened to facilitate safekeeping and management of cash flows. Find out the requirements for opening a bank account and the related fees, if applicable.

Regulatory Bodies: Register with the relevant regulatory bodies. For example in South Africa, an optometrist needs to register, on an annual basis, with the Health Professionals Council of South Africa (HPCSA), in order to practice legally within the country.

It is also important to identify the titles and qualifications associated with specific job titles as these may vary in different countries. For example the qualifications of optometrists may vary from country to country with varying titles for the same position. It is important to adopt the job titles which correctly reflect the qualifications, skills and expertise associated with that position in that country. Failure to do so may be viewed as misrepresentation or fraud, for which the vision centre may face serious legal action.

Labour Law Policies: Each country may have basic conditions of employment which are enforced by law. Ensure the necessary legal requirements in this respect are met and applied. The vision centre must ensure that its employment practices and management of staff are consistent with these laws.

Financial Reports: Depending on the registration and accreditation classification, the entity may have set criteria for the submission of financial reports to the relevant authorities. Investigate the requirements for the type of entity that the vision centre is registered under.

Standard Operating Procedures: it is important to develop standard operating procedures at this stage, to ensure that good operating procedures will occur from day one. It is difficult to change operating procedures once operational, so it is important to set processes up early. The way we develop SOPs is very important if we want them to be successful. It has to be a process that gains the input of everyone with an interest in the procedure's success.

(For more information, see D1_1_Standard Operating Procedure guidelines)

3.5.5 Staffing and Human Resource Development

Recruiting the appropriate staff and candidates for training must be well planned. This will ensure that the best candidates with the relevant competencies and potential are chosen. Failure to do this at the planning stage will result in poor service delivery from commencement of the vision centre. This could mean inefficiencies that may be costly to the vision centre, patients receiving poor treatment and even mismanagement of the operations.

The resource requirements of the vision centre should be identified in the planning stage.

- **Cadres of Clinical Personnel**

  Below are general descriptions of clinical personnel. Cadres and their level of training and competency vary from country to country for various reasons including local circumstance and regulatory environments, thus rendering any generalisation contentious. Acknowledging this rather sensitive issue, below are broad descriptions of cadres that may work in a vision centre.

  Refractionist - is a person who has been trained to conduct refraction tests and produce appropriate spectacle prescriptions. They typically have been trained for 3 to 12 months.

  Vision Technician - is a person who has been trained to conduct refraction tests, identify basic eye diseases, produce appropriate prescriptions and refer to a secondary or tertiary service provider.

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They are able to use instruments such as a retinoscope, ophthalmoscope, tonometer, and slit-lamp biomicroscopy. They typically have been trained for 12 months.

Optometric Technician or Ophthalmic Technician – similar skills as the Vision Technician and trained for 12 to 24 months. They may also be able to prescribe basic low vision aids.

Eye Nurse or Ophthalmic Nurse - is a qualified nurse who has trained in eye health and refraction. In addition to the skills of a Vision Technician, they are also able to prescribe basic medication for the eye and assist ophthalmologists during ocular surgery. They typically have been trained for 12 months in eye health care (in addition to their nursing qualification).

Orthoptist - is a qualified health cadre who has completed university training for 3 years. They usually work under the supervision of ophthalmologists in hospitals and in the community. They perform ophthalmic tests such as refraction, IOP measures, ultrasound, photography, binocular alignment and provide the results to their ophthalmologist who manages the patients. Some orthoptists specialise in low vision care, spectacle prescribing or binocular vision abnormalities.

Optometrist – is a qualified health practitioner, who has completed university training for 3 to 6 years. The considerable variation in number of years training required, is mainly due to varying scope of practice and local legislation. Optometrists are able to conduct refraction and low vision tests, diagnose and manage eye diseases, dispense spectacles, low vision devices and contact lenses, and refer appropriately to a secondary or tertiary service provider. Some optometrists specialise in particular areas which include paediatrics, low vision, public health and sports vision. Most optometrists work independently.

Ophthalmologist - is a medical doctor, who has completed postgraduate training specialising in treatment of eye diseases. They are trained in all aspects of medical and surgical diagnosis and treatment of eye diseases, with complete background in general medicine. They typically train for 6 or more years. Generally referrals are made to ophthalmologists external to the vision centre.

- **Technical Personnel**
  As with the descriptions of clinical personnel above, the definitions of technical personnel differ from country to country due to regulatory and other reasons. Below are broad descriptions of technical personnel that may work in a vision centre.

  Optical Dispenser (also known as an optician or dispensing optician) - is a person who has a formal qualification in dispensing of spectacles. They typically have been trained for 1 to 3 years of formal training.

  Spectacle Technician - is a technician who has been taught to take appropriate facial measurements, edge and fit lenses, then fit and advise people on the use of their spectacles. They typically have been trained for 8 days to 3 months.

  Optical Assistant - is a person who can assist in the dispensing of spectacles. They can help people to select spectacles, give advice to people collecting spectacles, and fit spectacles for people. They typically have guided (and assessed) on-the-job training.

- **Administration Personnel**
  Administrator – an administrator's role is to assist with the day-to-day operational administrative duties of the vision centre and reports to the Vision Centre Manager.

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Vision Centre Manager – is a person responsible for managing the administrative and operational processes of a vision centre. The manager oversees all patient data entry and reporting, financial transactions, inventory control and staff management.

- **Identification of Personnel**

  The qualifications and competencies of staff working in vision centres vary depending on the availability of skilled people, the country context, and the extent of the services provided e.g. one vision centre may have an optometrist that can also do basic low vision examinations, while another may have a refractionist who does refractions only.

  Personnel may require training depending on the level of experience they have or the level of training required for the position. In some circumstances, due to HR constraints, it may be necessary to recruit students who have no previous eye care experience and train them. If the HR exists, it is much more cost-effective to recruit fully-trained personnel with a number of years of work experience.

- **Selection and Recruitment**

  Selection and recruitment of personnel is a process that requires thought and time and should not be rushed. The time and methods of recruiting vary widely country to country. A selection and recruitment checklist has been attached to guide you through the process. It is important to define position descriptions at the outset of the selection and recruitment process so we have a clear idea of the type of staff we are looking for.

  (See C5_1_Selection and recruitment checklist)
  (See C5_2_Template of position description – clinical)
  (See C5_3_Template of position description – technical)

- **Advertising for Staff**

  The methods for reaching potential employees will differ country to country. Some organisations may recruit externally, using different methods such as Internet job postings or newspaper advertisements. Other organisations may rely heavily on applicants referred by current employees, or through other contacts within the industry.

  The methods chosen will vary depending on your situation. If possible, liasing with people in that country (e.g. acquaintances made during the advocacy stage) can help identify the most appropriate method.

- **Examining Resumes**

  A resume provides an opportunity to collect important job-related information about each applicant's training and experience. Each candidate should be required to provide a resume in order to be considered for the position.
  Once you have received resumes for the position, the first step is to match your candidates against your position description. After that, here are some things to look for:
  1) Technical skills
  2) Years of experience
  3) Achievements in previous roles
  4) Past promotions

- **The Interview Process**

  Candidates with the desired skills, experience and salary expectations should be offered an interview. The interview process will vary depending on the personnel you are looking for.

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Have a clear idea of the information that you expect to gain from the interview. It is advisable to follow a script for consistency, so that each applicant is asked the same questions. Interviewees will range in age, experience and culture. Questions therefore need to be developed with this in mind. Candidates who have just completed high school, often may not have limited experience and they may find it difficult to answer certain questions. Questions need to be culturally appropriate; recognising that the suitability of questions can vary for each role and country context. Ask open-ended questions (that cannot be answered with a yes/no answer). Give candidates plenty of time to respond, and allow them to do most of the talking.

- **Skills Evaluation**

  When interviewing for technical positions where no previous experience is required (mainly for spectacle technicians), testing aptitude (e.g. a basic maths test or Excel test) can help to separate the applicants. With applicants who have work experience, a clinical and/or technical assessment can take place as part of the interview process.

  This assessment needs to be carefully planned for and conducted:
  - Select the right observer.
  - Use a competence checklist should be developed which is a list of the specific skills to be assessed.
  - Inform candidates of the process
  - During the observation, the observer must be clear about what they are looking for and focus on one activity at a time.
  - Following the observation the observer should report on the results for each candidate, which will inform the selection process.

  (See C5_4_Example of an aptitude test – Excel)

- **Induction**
  Once personnel have been selected and employed, they need to go through an induction program. This provides an opportunity to present the employment conditions to personnel and explain key elements of the employee contract and organisation.

  The induction is an opportunity to discuss the operations of the organisation in more detail, its mission and goals e.g. the initial stage of the induction should introduce the organisational structure and the mission / goals of the organisation as it is important for new staff to understand where their role fits within the company structure.

  (See C5_5_Example of induction programme)

3.5.6 Training

When candidates without experience or qualifications are employed, training will have to be conducted before they can work in the vision centre. Areas of training include:

- refraction;
- primary eye care (both mid-level and community level);
- optical dispensing course;
- spectacle technicians course;
- optical assistants course;
- vision centre management course.

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In addition to this, it can be necessary to assess and up-skill staff that have previously received training. For example, the staff member may have previously received on-the-job training, and may lack the theoretical underpinning to their practice. Other staff may have problems with specific clinical techniques (such as cross-cyl or retinoscopy). Further, monitoring and mentoring of vision centre staff is an essential component to ensure that the standard of services provided by the vision centre is of a high quality.

(see C5_6_Job competencies)

3.5.7 Formal Launch / Opening

Although often overlooked, a formal launch / opening is a key activity of the project. It is an opportunity to invite the local community to share in a celebration of the partnership and what has been achieved. It also allows the community to tour the centre and examine the services it has on offer. It helps to promote buy-in from the local community, demonstrating a sense of achievement, and is a useful health promotion activity.

3.6 Conclusion

Project planning will examine all aspects of infrastructure, governance, accountability and staffing and will help avoid unnecessary delays, ensure consequential and cost-effective implementation. Finally a comprehensive risk management plan and regular consultation with stakeholders will help to minimise disruptions to the project.

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STAGE 3: Managing The Vision Centre

4.1 Introduction

The purpose of this section is to outline all of the aspects involved in operating and managing a vision centre on a day-to-day basis.

Once the vision centre has been set-up, operational systems and processes must be implemented to manage and coordinate operations and the staff. This should include the following areas.

- Operational systems and processes;
- Clinical activities;
- Spectacle manufacture;
- Administrative tasks;
- Financial processes;
- Record keeping;
- Monitoring;
- Evaluation;
- Reporting;
- Stock management;
- Equipment maintenance and repair;
- Health promotion;
- Clinics outside the vision centre;
- Human resource policies

For example, the following questions should be addressed:

- *What type of clinical services will be available at the vision centre?*
- *What type of spectacles will we sell?*
- *How long will spectacles take for order to being ready for delivery?*
- *What should be the opening hours of the vision centre?*
- *When and who should clean the vision centre?*
- *How will money be received and accounted for in the vision centre?*
- *What should we do with the money we receive from patient sales?*
- *How can we purchase petty (minor) items and large product or equipment purchases?*
- *How will we collect patient data and what should we do with it?*
- *Where do we source our products from?*
- *Which suppliers do we choose?*
- *What is our plan for maintaining equipment?*
- *How will the public be aware of our centre?*
- *Will we provide clinics outside of the vision centre?*
- *How should we handle human resource issues, such as sick days and annual leave?*

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The questions are endless and these are only some of the questions you may be asking yourself – however the answers to these questions and many more like this will be addressed in the following chapter of the vision centre Tool Kit.

Many staff members will be unfamiliar with the concept of a vision centre and, thus, unfamiliar with the operational systems and processes that are required. To ensure that everyone is comfortable with the processes involved, adequate staff training should be conducted in all areas.

4.2 Standard Operating Procedures

Standard operating procedures (SOP's) will help staff understand how the vision centre will function and be managed on a day-to-day basis. SOP's should be written as a team which includes everyone with an interest in the procedure's success. By creating the document in this way and discussing it with all staff, it will help to provide staff with all information required to perform a job properly, ensure that processes are completed to an agreed schedule, and should therefore aid in the smooth running of the centre.

The best time to draft SOP's is before the jobs start, to establish a standard expectation of what should occur. The SOP's to be written need to include at a minimum:

- **Clinical and technical:**
  - Eye examinations
  - Spectacle manufacture
  - Dispensing spectacles to a patient
- **Financial:**
  - Cash handling
  - Banking
- **Stock management:**
  - Job orders and tracking
  - Stock take
  - Stock level maintenance
- **Administration:**
  - Record keeping
  - Monitoring and evaluation
- **Vision centre equipment maintenance**

SOP's should appear as written manuals as an ongoing reference for the vision centre staff. This is especially the case if there are staff in the vision centre that have previous experience in eye care delivery. This will be an evolving document that may change over time to improve efficiencies and accommodate changes. Revise them whenever jobs change, new equipment is installed or when there is a change in the setup of the vision centre.

(See D1_1_Standard Operating Procedure guidelines)

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4.3 Service Delivery Activities

It is important that service delivery activities are managed well as these services are the patient's main reason for visiting the vision centre.

4.3.1 Clinical Activities

You need to ensure that patients are receiving the best clinical care that can be offered. The cornerstone of this is strong staff training in clinical skills and excellent communication skills.

4.3.2 Spectacle Manufacture

For a vision centre to be successful, quality spectacles need to be provided quickly to patients. This requires commitment and ability from your spectacle technicians and also excellent stock management procedures.

4.3.3 Communication & Customer Service

The goal of the vision centre is to serve patients in your community. The patients that pass through your vision centre have to be the number one priority of you and your staff. It's important to make sure that the patients experience in the vision centre is a positive one. Patients value customer service very highly, and a satisfied patient is likely to 'spread the word' about our services to others. This will result in the vision centre being able to serve more members of the community.

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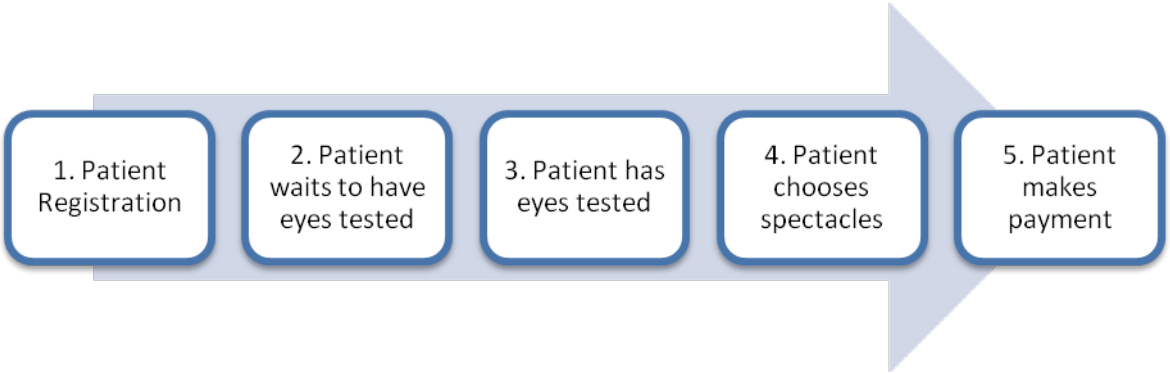
4.4 Administrative Tasks

4.4.1 Patient Flow

The way the patients move through the vision centre is very consistent. The patient who has their eyes examined and purchases spectacles may follow the steps as listed below:



You must ensure that each patient is well cared for at all times. This will require training and SOP's for each of the steps.

4.4.2 Appointments

It is best to see patients on a 'walk-in' basis. However, as the vision centre gets busy, this may not be possible any more. At this point, if appropriate, you may need to put an appointment system in place to manage patients adequately.

4.4.3 Opening Hours

It is important that the vision centre staff understand the open / closing times and open days of the vision centre. This may vary from country to country, e.g. in some countries it may be custom to open on Saturday and close on Monday or there may be local events (such as markets) that dictate when the centre should be open / closed. Local standards and employment conditions must also be considered when determining the centre opening times.

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4.4.4 Record Keeping

Why do we want to capture patient data? Capturing patient data:

- ensures the vision centre keeps records on all patients.
- helps with clinical care for that visit and in the future.
- captures the patients' spectacle prescription details.
- provides a medical history for the patient.
- allows the vision centre to monitor and understand the most common local eye health issues.
- provides the vision centre with data on the number of patients it is seeing, as well as the breakdown of patients (i.e. gender, children or adults, etc.).
- ensures that we are achieving our goals and reaching members of the community.

These are some of the reasons to why capturing patient data is so important,

Therefore, quality record keeping is crucial to the success of the vision centre. Investing time in managing the following processes will be time well spent:

- Patient record card
- Record storage
- Filing
- Data accuracy
- Backup of data

The quality of record keeping in the vision centre relies on all staff to fill in the patient record card accurately and consistently. Data accuracy is a major element to the success of capturing this information and should be emphasised to all staff and monitored to ensure it is happening correctly. A standard patient record card with prescription and referral form should be used.

(See D1_2_Patient record card)
(See D1_3_Prescription form)
(See D1_4_Referral form)

Central record storage

If we are using paper record cards, we should record the details from the patient's visit in another place too. This is so we can generate reports of our activities much faster, such as summaries of finances or patients seen. It can also make generating orders easier and provide faster access to patient information.

There are different options for doing this, which include:

- Computer database
- Record log book

Logbooks are economical and easy to maintain, however computer databases will be faster and have more flexibility and options. An example of a basic Excel patient database is included with the toolkit.

(See D1_5_Basic excel patient database)

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4.4.5 Monitoring and Evaluation

You need to ensure that vision centre staff provide key monitoring data on an agreed schedule, as this information can be used to plan future vision centre activities and provide the most appropriate services. More information on Monitoring and Evaluation is provided in the next section (Stage 4).

4.5 Managing Clinics Outside The Vision Centre

Clinics outside the vision centre may be provided to achieve various goals. These include:

- to provide refractive services to those without easy access to the vision centre (outreach), and
- to screen for uncorrected refractive error and other eye diseases (vision screening).

4.5.1 Outreach

Outreach clinics provide full eye services outside of the vision centre to people without easy access. If your vision centre conducts outreach programs, it is your responsibility to manage and develop them. Working with local communities to provide services and increase awareness of uncorrected refractive error are key outputs of outreach programs.

4.5.2 Vision Screening

Most people only have an eye examination if they think they have a problem with their eyes, but many eye problems do not have symptoms. This means people might not know they have a problem.

Vision screenings use quick and basic eye tests so we can:

- screen a large number of people within a short period of time
- find out who needs a more detailed examination
- refer these people to the vision centre for this examination.

Your role may include developing and managing a vision screening program.

(See D2_1_Vision screening forms)

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4.6 Financial Processes

Proper financial management is a major factor for the ongoing success and sustainability of the vision centre. Sound financial practice is important for any organisation, and a vision centre is no different.

4.6.1 Management of vision centre finances

Financial process must be implemented to keep proper records of financial transactions and cash flow. For example, we must record the income and expenses of the centre so we can determine its financial position. It may also be a criteria set by donors or other stakeholders who may want to monitor the financial management of the vision centre.

To achieve this, either a paper based system or an accounting software package can be used. The decision of which one to use is dependent on the resources available. There may already be a financial system in the organization in which the vision centre is operating. In this case the financial processes of the vision centre may be managed through this system or separately. Irrespective of the system used, it must be a user-friendly, efficient and effective so that financial data can be quickly accessed, when there are queries or audits.

The best accounting system will not work without adequate human resources. To this end, a responsible person who understands basic financial terms and transactions is required. This can form part of the responsibilities of a general administrator or the vision centre manager.

(See D3_1_Financial fundamentals for vision centres)
(See D3_2_Income statements)

4.6.2 Basic vision centre financial processes

Although the responsibility of financial reporting can remain with the general administrator / vision centre manager, it is essential to remember that most staff will be involved in financial transactions at the vision centre (for example taking a payment from a patient). It is therefore a good idea to ensure that all staff understand why good financial processes and accountability are important. They also need to be trained in how to complete these processes, such as cash handling, the issuing of receipts, recording of payment received, and daily reconciliation.

(See D3_3_Basic financial processes in the vision centre)
(See D3_4_Money collection form)
(See D3_5_Daily reconciliation form)

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4.7 Stock Management

Patients usually think of quality service as availability of goods they want when they want them. Therefore, always having good quality materials on hand is important both for our patients and the operations of our vision centre. We require a regular and reliable source of affordable and acceptable optical frames, lenses and other optical products.

Requirements for Effective Stock Management

Having good stock on hand at all times requires good stock management. This is critical for the success of the vision centre. This means there must be systems in place to track and record all stock movements. This system can be either paper or software based depending on resources available.

Keeping optimal levels of stock that are adequate to meet service delivery needs, but do not remain on the shelf for long durations of time, can help to free up cash flow. To achieve this it is necessary to understand what levels of stock to keep, how to plan ordering and managing stock effectively. Further details can be found in section *D4_2_Stock management guidelines.*

(See D4_1_Stock management guidelines)
(See D4_2_Stock order form template)
(See D4_3_Stock take reconciliation template and guidelines)

Responsibility for Managing Stock

Although one person will primarily be responsible for stock management, it is important to engage all staff in good stock control. Helping staff to understand the importance of record keeping, and following operational procedures, will help maintain good stock control. In conclusion, good stock management improves the efficiency of operations, saves money, and is an important component in ensuring patient satisfaction. Failure to do so may seriously impact service delivery and compromise desired outcomes.

Choosing a range of frames and lenses

Dispensing quality spectacles in a timely way is a key part of the services of a vision centre. However, choosing products to keep in the vision centre can be challenging. Holding the wrong mix of stock can affect the service your vision centre provides to your patients.

For example, if the centre stocks poor quality frames, it will quickly develop a negative reputation in the community. Even if the suppliers are changed to provide better quality frames, this negative reputation is very difficult to overcome. Furthermore, stock involves a significant financial investment, and poor decisions regarding stock may result in a large financial loss to the vision centre.

When purchasing stock, try to purchase items that are of good quality yet still able to be priced in a way that is affordable to the community. In addition to this, it is essential that the stock is cosmetically acceptable, and also there is a range of frames and lenses to suit the community being serviced (e.g. ensuring that there are adequate children's frames).

(Further details can be found in section D4_1_Stock management guidelines)

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4.7.1 Supply Chain

A vision centre requires a regular and reliable supply of affordable spectacles, optical frames, lenses and other optical consumables. It is important that a complete supply chain is in place before the opening of the vision centre, to ensure an uninterrupted delivery of services. Where possible, local suppliers should be used, however in some cases, it may be necessary to source externally. If the decision to source externally is made, it is important, not only to understand the impacts of this upon development, but also the impact on delivery time this will have. If stock is to be sourced externally, consider holding an increased range of stock in the vision centre (for example, an increased range of lens powers), to ensure that the greatest number of people can have access to services without undue delays.

(See D5_1_Supply chain)

Example: Benefits of local supply
In Cambodia, one is able to source good quality, low cost spectacle frames and lenses locally. This means that only small quantities of stock need to be held in the centre, and when required (whether for replenishment of existing stock, or for a non-stock lens order), the stock is procured from local suppliers. In the Solomon Islands, there is no local supplier for frames, lenses or other optical supplies. Due to this, a larger inventory of frames (3-6 months of stock) and expanded inventory of lens powers are required and therefore held in the centre, and bulk orders are done every 3-6 months. Any lens order that is not held in stock is ordered from Australia, significantly increasing cost and delivery time. This example clearly illustrates the benefit of local supply - reducing cost and short waiting periods for patients to get their spectacles.

A vision centre with a poor supply chain or poor inventory management will struggle to service the community. The person managing the inventory within the vision centre will require training to ensure that they are able to interact with stakeholders in the Supply Chain when sourcing and procuring inventory.

4.8 Equipment Maintenance

Equipment in a vision centre is subject to regular use and therefore must be kept in good working order to ensure that the equipment works effectively and does not malfunction resulting in delays or poor quality products to patients and a potential safety hazard.

It is important that the staff understand the importance of using equipment safely, maintaining it, and storing it away safely when not in use. The vision centre manager is responsible for monitoring and managing staff to make sure equipment maintenance procedures are being followed in the vision centre. They may also be responsible for arranging all servicing, repairs and payments regarding equipment in the vision centre. A maintenance guideline for key pieces of equipment used in a vision centre has been included in the Tool Kit. This does not cover an exhaustive list of equipment, but provides a starting point to which other pieces of equipment can be added.

(See D6_1_Equipment maintenance guideline)

Even when following the best equipment maintenance procedures, sometimes repairs will be needed. Simple repairs may be able to be done by staff in the vision centre, depending on the level of training that they have received. More complex repairs will be carried out by specialised maintenance personnel; they

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might come to the vision centre or you may have to send the equipment to them for repairs. Therefore, establishing a system for repair by such maintenance personnel is very important.

4.9 Health Promotion

In order to make the desired impact, the vision centre needs to ensure that people in the surrounding areas are aware of its services. It must also create awareness about eye health and educate people about the topic. This can be achieved through health promotion. Health promotion is the endorsement of good health for all people. It involves making people aware of the potential threats to their health (not only eye or vision related), promotes the practice of healthy living and makes them aware of health services available to them. It can take place at a national, provincial, district and community level.

Health promotion is imperative to the success of the centre. Many of the communities that the vision centre intends to service may be unaware or may have misconceptions of the services the centre offers, e.g. they may believe that the centre is only for people requiring acute care or only for the elderly. Some of these communities may never have had access to eye care, and thus health promotion is an essential task to inform communities about the importance of eye care. Besides the health aspect, the sustainability of the vision centre is very much dependent on the number of people accessing the service.

The more aware patients are of the services that the vision centre offers, the more patients will utilise it. This not only aids the sustainability of the centre, but also means that the centre is more effective at serving the community.

Examples of health promotion activities may include brochures on promoting eye health through face washing as part of the SAFE strategy to address trachoma or educational material or posters on what uncorrected refractive error is and what to do about it. These can be placed in locations that people access frequently, such as community centres, or put up during vision screenings at local schools or through talks / lectures delivered to community groups.

(See D7_1_Health promotion tools - why have an eye test – English)
(See D7_2_Health promotion tools - why have an eye test – Khmer)
(See D7_3_Health promotion tools - vision centre services – Vietnamese)
(See D7_4_Health promotion tools - children need For glasses – Mongolian)
(See D7_5_Health promotion tools - hand washing - PNG Pidgin)

4.10 Managing Human Resources

An organisation performs best when its human resources are managed well. At vision centres with effective management of human resources, both vision centre staff and customers tend to be more satisfied. There are a number of reasons for this:

- Human resources are valuable. High-quality vision centre staff provide a much-needed needed service directly to the community.
- Good human resources may be scarce or hard to find. These professions may not exist in your country. Even if they do, sometimes we can spend months looking for a talented and experienced refractionists, spectacle technicians or administrative staff.
- When people are well trained and highly motivated, they learn, develop their abilities, and care about patients in the vision centre.

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4.10.1 Managing staff

The vision centre manager must remember that their employees are the face of the organisation. Without their support the vision centre is sure to fail. Patient satisfaction is vital, and vision centre staff need to make sure they are working towards providing this at all times. Here are some key areas to focus on when managing staff:

- **Communication**
  - sharing information and directing staff
- **Delegating**
  - assigning responsibilities to the team
- **Appraisal**
  - evaluating the performance of employees
- **Motivating your team**
  - encouraging the performance of your team

(See D8_1_ Techniques for managing staff)

4.10.2 Employee manual

All the human resource activities require fair and consistent decision-making. Organisations must establish policies related to hiring, promotions, discipline and benefits. These can be collated into an employee manual, which is a governing document which covers issues such as:

- the rights of the employer and employees;
- the obligations of the employer and employees;
- the conduct of employer and employees;
- protocols for the interaction between employer and employees;
- performance management process i.e. how staff performance is appraised and actions taken thereafter;
- leave and other benefits.

The contents of an Employee Manual can be expanded beyond this list as necessary. The manual ensures that all employees in the vision centre understand the policies governing their employment. It provides transparency and consistency in how staff are managed, and that all staff understand their rights and responsibilities. It is important to remember that these rights and responsibilities will differ from country to country, thus the employee manual should be changed accordingly.

(See D9_1_Example of an employee manual)

The first stage of human resource management for new employees will be the staff induction. It is essential to highlight that the information discussed in this section will need to be introduced during the employee induction. The information should be viewed with the understanding that it may need to be changed to reflect the implemented vision centre model, employee contracts and local conditions.

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4.11 Conclusion

Once the vision centre has been set up, guidelines, processes and protocols need to be established to ensure the smooth running of the centre. A solid supply chain and good inventory management, coupled with health awareness / health promotion, will help to give a solid foundation on which the vision centre can grow.

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STAGE 4: Monitoring, Evaluation and Impact Study

5.1 Introduction

The direct objective of a vision centre is to provide quality eye care services that are accessible to any member of the target community who needs them. vision centres aim to make a broader difference in the target community – flow on effects from improved vision such as increased productivity, improved educational outcomes and better quality of life, as well as community development functions such as health and environmental awareness.

Monitoring, evaluation and impact studies provide important feedback about how the vision centre is achieving its goals. It can be useful to the implementing agency, donors, the community and other stakeholders. Amongst other outcomes, it may determine whether or not the vision centre strategy should continue to be used to address the eye health problems in a particular region or country, the priority level for new interventions, and/or the type of new interventions needed.

5.2 Purpose of Monitoring and Evaluation

It is important to ensure that the vision centre is servicing the community and meeting its objectives. Monitoring and evaluation is an ongoing process that measures how well the vision centre is progressing. It is a process that requires regular collection and analysis of the data collected each day in the vision centre. Monitoring and evaluation should not be looked upon as a policing system. If done correctly and with attention to detail it can be a rewarding exercise that ultimately leads to:

- improvement in vision centre services;
- better accountability to stakeholders;
- increased ability to share information with partners.

5.3 Monitoring

Monitoring is an ongoing process which measures how well your vision centre is reaching its targets, based on the monitoring indicators that were developed in the project plan. It is an ongoing process that looks to regularly collect data and analyse information.

This assists in timely decision-making for managers, ensures accountability and provides the basis for evaluation and learning.[20] It can be used by managers to reflect on the month and look at sales / stock / patient trends or patterns. Accordingly you may be able to change the way you attract people to your vision centre allowing them to take advantage of your services.

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[20] Boulmetis J, Dutwin P. *The ABCs of Evaluation: Timeless Techniques for Program and Project Managers*: Jossey-Bass, Inc., 350 Sansome Street, San Francisco, CA 94194 ($29.95). Tel: 888-378-2537 (Toll free); Fax: 800-605-2665; Web site: www. josseybass. com.; 2000

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To use a simple example, you may find that, although 50% of the patients seen at the centre are male, only 20% of the spectacles purchased are by male patients. On further investigation, you find that there is only a small range of frames suitable for males. By improving the choice of frames you increase the percentage of spectacles dispensed to males. By examining the monitoring data, you are able to make changes to better service your target population.

Monitoring indicators should be collected regularly. It is suggested that monitoring indicators are collected daily by vision centre staff, and reported monthly, with reviews against targets occurring regularly (e.g. 6 monthly).

(E1_1_Guidelines for Using M&E tools)
(See E1_2_Data collection tools-manual capturing)
(See E1_3_Data collection tools-electronic capturing)

5.4 Using Reports

Reporting is a way of keeping track of whether the project is meeting its targets. Reporting will also be required beyond the life of the project for purposes of ensuring a well-functioning centre and demonstrating accountability.

During the planning and setting up phase of the project, reporting allows you to see if the project is on track, and on budget. It also affords an opportunity to reflect on the project, and think about any upcoming threats or opportunities for the project.

After the project is set up, reporting should include information about the monitoring indicators that were developed in the project plan. This will allow insight into the project and if it is meeting the set targets. These types of reports should be completed monthly, tracking the projects progress. For example, managers can reflect on sales / stock / patient trends or patterns for each month, and compare them to established targets. Accordingly they may be able to change the way they attract people to the vision centre, manage stock processes or sell products, for example. The person in charge may also choose to add to reporting requirements to ensure better service provision

Outside of these internal organisational benefits, reporting requirements and frequency may be driven by a funding organisation. Generally, a longer, more detailed report is completed annually for these purposes. Producing this type of report can also have similar internal benefits as those listed above.

A standard template can aid reporting, and make it a quick and efficient procedure.

(See E2_1_Monthly report template)
(See E2_2_Annual report template)

Having a software package that can provide the necessary reports makes data easily accessible and maintains the integrity of the data better than when it is manually compiled and transferred.

Finally, as part of your advocacy efforts, you should try to publish some of your vision centre achievements in local media – newspapers, community tabloids, hospital newsletters, etc. The data collected here can help you add some numbers to your story. However, you should get permission from all your stakeholders first before engaging in these publications.

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5.5 Evaluation

Evaluation is conducted to determine how well (or poorly) a vision centre is delivering its service to its intended users. An evaluation should provide information that is credible and useful, offering concrete lessons learned to help partners and funding agencies make decisions.[21]

What should be evaluated?

Evaluation can be broken up into the following broad areas:

- Vision centre staff;
- Operational systems and processes;
- Financial processes;
- Inventory and inventory control;
- Supply chain;
- Equipment;
- Community engagement and health promotion.

There are many ways to evaluate how well you are delivering a service to the community through your vision centre. Tools that will evaluate how well services were delivered, how services can be improved, and how the vision centre is affecting the community include:

- **Formal skills assessments** – evaluate the skills of the vision centre staff.

- **Formal observational evaluations** – evaluate operational systems and processes, equipment and supply chain.

- **Audit** – evaluate financial processes.

- **Patient experience surveys** – measure how your patients felt about your service as they leave your vision centre. They will need to be translated as necessary and the results analysed and acted upon.

  (See E3_1_Patient satisfaction survey long)
  (See E3_2_Patient satisfaction survey short)

- **Who should do the evaluation?**
  There are two kinds of evaluation – internal evaluations and external evaluations. Internal evaluations are cheaper, and can be easier to organise, however it is useful to have an external evaluation, particularly at the end of a project cycle. An external evaluator can offer an outside opinion on the project, and also give new ideas on how to improve the project.

  (See E3_3_Vision centre evaluation form)

[21] Boulmetis J, Dutwin P. *The ABCs of Evaluation: Timeless Techniques for Program and Project Managers*: Jossey-Bass, Inc., 350 Sansome Street, San Francisco, CA 94194 Web site: www. josseybass.com.; 2000

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5.6 Impact Study

An impact assessment can illustrate the success or failure of a vision centre over a longer period of time. A proper impact study requires early planning, similar to the vision centre data captured during the situational analysis phase; the study must be comprehensive and credible. If this is not done properly, then the results of the evaluations and impact assessment will be weak. Therefore, using the correct tools and understanding the results is critical from the beginning.

Methods to consider when conducting research and impact assessments are:

- **Epidemiological surveys** – provide high quality evidence on the prevalence and causes of vision impairment. They are usually complicated exercises that are carried out at the region or country level. Alternatives to a full epidemiological survey are a Rapid Assessments of Avoidable Blindness (RAAB) or Rapid Assessments of Refractive Error (RARE). These survey types provide high quality evidence for less time, expense and human resources than full epidemiological surveys (although they are still generally conducted in populations of around 5 million people in order to balance cost-effectiveness with generalisability).

- **Knowledge / Attitude / Practice (KAP) surveys** – measure how your services impact on your target community's understanding of eye care, how they intend to look after their vision, and how they do look after their vision.

- **Quality of Life Study** - measures how your services impact on the vision related quality of life of your target community.

- **Patient Satisfaction / Patient Experience Surveys.**

- **Willingness to pay / Ability to pay Surveys.**

- **Spectacle Utilisation Surveys.**

A reading list is provided on key papers published, utilising above research methodologies.

(See E4_1 Recommended reading list)

5.7 Conclusion

Once the vision centre is open, it is important to ensure that it is servicing the community and meeting its objectives. Collecting and analysing data for decision making and studies provides valuable information about the success of a strategy and the impact made. It also provides valuable information for publications and studies, to create awareness and encourage others to take action. It is important to note that data and facts are the best advocacy tool when communicating with any stakeholders regarding funding or support. It is therefore important that monitoring, evaluation and impact studies are seen as an integral part of the vision centre strategy and not a sideline activity given minimal attention.

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CONCLUSION

Globally it is estimated that at least 800 million people are unnecessarily blind or vision impaired. This figure includes an estimated 123 million with vision loss due to distance refractive error, a further 517 million people who have significant vision loss due to near refractive error (presbyopia), as well as 162 million who are blind or vision impaired due to eye disease.

Vision centres can be a powerful way of addressing this need. Sustainable implementation of vision centres, creates a permanent and committed part of the primary eye care system, bringing quality, affordable, accessible and appropriate care to underserved areas.

This manual, although not exhaustive, is a guide on the vision centre concept, on how to plan, set up, manage and then monitor and evaluate a vision centre. It is hoped that through the sharing of this information, we can help to address the loss in income, educational opportunities and quality of life issues that are raised from avoidable blindness.

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REFERENCES

Agyepong IA, Anafi P, Asiamah E, Ansah EK, Ashon DA, Narh-Dometey C (2004). Health worker (internal customer) satisfaction and motivation in the public sector in Ghana. *The International J Health Planning Management.*;19:319-336.

Badr HE, Mourad H (2009). Assessment of visual disability using the WHO disability assessment scale (WHO-DAS-II): Role of gender. *Br J Ophthalmol.* 93(10):1365-1370, Epub, June 10.

Boulmetis J, Dutwin P (2000). *The ABCs of Evaluation: Timeless Techniques for Program and Project Managers*: Jossey-Bass, Inc., 350 Sansome Street, San Francisco, CA 94194.

Bourne RRA, Dineen BP, Huq DMN, Ali SM, Johnson GJ. Correction of Refractive Error in the Adult Population of Bangladesh: Meeting the Unmet Need. *Invest Ophthalmol Vis Sci.* February 1, 2004 2004;45(2):410-417.
Courtright P, Lewallen S (2006). Gender and Eye Health, *Comm Eye Health J,* 19(60):59-60.

Dandona L, Dandona R, Srinivas M, Giridah P, Vilas K (2001). Blindness in the Indian State of Andhra Pradesh. *Invest Ophthalmol Vis Sci,* 42:908-916.

du Toit RD, Ramke J, Palagyi A, Brian G (2008). Spectacles in Fiji: Need, acquisition, use and willingness to pay. *Clin Exp Optom,* 91:538-544.

Gilbert C, Shah S, Jadoon M, Bourne R (2007). Poverty and Blindness in Pakistan: Results from the Pakistan National Blindness and Visual Impairment Survey. *Brit Med J*,336(29)

Ho VH, Schwab IR (2001). Social economic development in the prevention of global blindness. *Br J* Ophthalmol, 85:653–657.

Holden BA, Fricke TR, Ho SM, et al. Global vision impairment due to uncorrected presbyopia. *Arch Ophthalmol.* Dec 2008;126(12):1731-1739.

International Centre for Eye Health. A package for entry and analysis of data from population based Rapid Assessments of Avoidable Blindness. London, UK: International Centre for Eye Health, London School of Hygiene and Tropical Medicine; 2007.

Kaliyaperumal K (2004). Guideline for Conducting a Knowledge, Attitude and Practice (KAP) Study. *Comm Ophthalmol,* IV:7-9.

Kalua K, Patel D, Muhit M, Courtright P (2008). Productivity of key informants for identifying blind children: Evidence from a pilot study in Malawi Eye, 23(1): 7-9, Epub Mar 14.

Keay L, Gandhi M, Brady C, et al (2010). A randomized clinical trial to evaluate ready-made spectacles in an adult population in India. *Int J Epidemiology*,39(3): 877-888.

Khanna R, Raman U, Rao GN (2007). Blindness and poverty in India: The way forward. *Clin Exp Optom,* 90(6):406-414.

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Kipp W, Tindyebwa D, Rubaale T, Karamagi E, Bajenja, E (2007). Family caregivers in rural Uganda: The hidden reality. *Health Care Women Int,* 28(10):856-871.

Kuper H, Polack S, Eusebio C, Mathenge W, Wadud Z, Foster A (2009). A case study to assess the relationship between poverty and visual impairment from cataract in Kenya, the Philippines and Bangladesh. *PLoS Medicine Policy Forum,* 5:12.

Kuper H, Polack S, Limburg H (2006). Rapid assessment of avoidadable blindness. *Comm Eye Health / Int Centre Eye Health,* 19:68.

Laviers HR, Omar F, Jecha H, Kassim G, Gilbert C (2010). Presbyopic spectacle coverage, willingness to pay for near correction and the impact of correcting uncorrected presbyopia in adults in Zanzibar, East Africa. *Invest Ophthalmol Vis Sci,* iovs.08-3154.

Lewallen S, Geneau R, Mahande M, Msangi J, Nyaupumbwe S, Kitumba R (2006). Willingness to pay for cataract surgery in two regions of Tanzania. *Brit J Ophthalmol,* 90:11-13.

Mansur Rabiu M, Al Rajhi A, Babar Qureshi M, Gersbeck J. Enhancing Advocacy for Eye Care at National Levels: What Steps to Take for the Next Decade? *Middle East African Journal of Ophthalmology*. 2012, 19 (1).

Maini R, Keeffe J, Weih LA, McCarty CA, Taylor HR. Correction of refractive error in the Victorian population: the feasibility of "off the shelf" spectacles. *British Journal of Ophthalmology.* November 1, 2001 2001;85(11):1283-1286.

Margolis MK, Coyne K, Kennedy-Martin T, Baker T, Schein O, Revicki DA (2002). Vision-specific instruments for the assessment of health-related quality of life and visual functioning: A literature review. *Pharmacoeconomics,* 20:791-812.

Marmamula S, Keeffe JE, Khanna R, Rao G (2007). Rapid assessment methods and their use in assessing refractive errors. *Comm Eye Health, Indian Supplement,* 20:S95-97.

Odedra N, Wedner SH, Shigongo ZS, Nyalali K, Gilbert C (2008). Barriers to spectacle use in Tanzanian secondary school students. *Ophthalmic Epidemiol,* 15:410-417.

Palagyi A, Ramke J, du Toit R, Brian G (2008). Eye care in Timor-Leste: A population-based study of utilization and barriers. *Clin Exp Ophthalmol,* 36:47-53.

Parimalam P, Kamalamma N, Ganguli AK (2007). Knowledge, attitude and practices related to occupational health problems among garment workers in Tamil Nadu, India. *J Occup Health,* 49:528-534.

Pascolini D, Mariotti SP, Pokharel GP, et al. 2002 Global update of available data on visual impairment: a compilation of population-based prevalence studies. *Ophthalmic Epidemiology.* 2004;11(2):67-115.

Pinquart M, Sörensen S (2003). Differences between caregivers and noncaregivers in psychological health and physical health: a meta-analysis. *Psychol Aging,* 18(2):250-267.

Quigley, H.A., Broman, A.T. (2006) Number of people with glaucoma worldwide in 2010 and 2020. *Br J Ophthalmol* 90: 262-267

Rahman M, Huq S (2009). Biodemographic and health seeking behaviour factors influencing neonatal and postneonatal mortality in Bangladesh: Evidence from DHS data. *East Afr J Pub Health,* 6(1):77-84.

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Ramke J, Palagyi A, du Toit R, Brian G (2009). Stated and actual willingness to pay for spectacles in Timor-Leste. *Ophthalmic Epidemiol,* 16:224-230.

Ramke J, Palagyi A, du Toit R, Brian G (2008). Using assessment of willingness to pay to improve a Cambodian spectacle service. *Brit J Ophthalmol,* 92:170-174.

Rao KD, Peters DH, Bandeen-Roche K (2006). Towards patient-centered health services in India--a scale to measure patient perceptions of quality. *Int J Qual Health Care,* 18:414-421.

Resnikoff S, Pascolini D, Etyaále D, Kocur I, Pararajasegaram R (2004). Global data on vision impairment for the Year 2002. *Bull World Health Organisation,* 82:844-851.

[1] Smith T, Frick K, Holden B, Fricke T, Naidoo K. Potential lost productivity resulting from the global burden of uncorrected refractive error. *Bulletin of the World Health Organization.* 2009;87:431-437.
Taylor HR, Pezzullo ML, Nesbitt SJ, Keeffe JE. Costs of Interventions for Visual Impairment. *American Journal of Ophthalmology.* 2007;143(4):561-565.e561.

The Fred Hollows Foundation (2004). Report on the Socio-Economic Impact Survey of Post-Operative Cataract Surgery Patients in Three Provinces of Cambodia, March.

Vitale S, Schein OD, Vitale S, Schein OD (2003). Qualitative research in functional vision. *Int Ophthalmol Clin,* 43:17-30.

Wedner S, Masanja H, Bowman R, Todd J, Bowman R, Gilbert C (2008). Two strategies for correcting refractive errors in school students in Tanzania: Randomised comparison, with implications for screening programmes. *Brit J Ophthalmol,* 92:19-24.

West S. Poverty and Human Development: Not a Stretch for Ophthalmology. *Arch Ophthalmol.* November 1, 2007 2007;125(11):1564-1565.
World Health Organization, International Agency for the Prevention of Blindness, Vision 2020: The Right to Sight. *Global Initiative for the Elimination of Avoidable Blindness - Action Plan 2006-2011*: World Health Organization; 2007.

World Health Organisation. Sight test and glasses could dramatically improve the lives of 150 million people with poor vision. *World Sight Day Press Release* [http://www.who.int/mediacentre/news/releases/2006/pr55/en/index.html. Accessed November 22, 2007.

Zeng Y, Keay L, He M, et al (2009). A randomized, clinical trial evaluating ready-made and custom spectacles delivered via a school-based screening program in China. *Ophthalmology,* 116:1839-1845.

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