

Using evidence for VISION 2020 “district” planning.

Situational analysis

Background

National VISION 2020 planning has been underway in most countries in the past 5 years. National planning focuses on policy, on overall strategies, on practical national targets, on advocacy, and on human resources necessary for VISION 2020. The implementation of VISION 2020 happens at the “district” (population about 1 million) level and the second stage of VISION 2020 workshops has focused on district implementation planning. There are a number of tools, including the VISION 2020 planning CD and the VISION 2020 planning manual, that assist with various aspects of planning.

A particular difficulty in planning at the “district” has been the absence of information prior to planning and (even if information is available) the use of available information for the purpose of planning. Existing manuals do not always provide adequate guidance in this regard.

KCCO, with support from the Centre for Innovation in Eye Care at the Seva Foundation, hosted a meeting December 10-13, 2007 in Moshi, Tanzania in order to review the information that is necessary for VISION 2020 planning at the “district” level in Africa, make suggestions on where this information can be obtained and how it can be used for planning. The original document is on the website www.kcco.net. This version has been altered with input from Drs Babar Qureshi and Juan Carlos Silva to be applicable in most regions, recognizing that not every disease or suggestion for obtaining information will be applicable everywhere.

For the purpose of this report we have defined stakeholders as all of the partners (Ministry of Health, NGOs, service groups, non-government service providers, etc.) involved in service provision and planning for a “district”. It is widely accepted that planning with all stakeholders is critical for long term success of VISION 2020 at the implementation level.

VISION 2020 planning at the national and “district” level

VISION 2020 programmes are planned at two levels; national and district (population 1-2 million). When planning a district level programme it is important to understand both the structure and the function of a national-level programme and how it relates to the district. This will ensure that there is no duplication of work and that the local plan will have detailed information that is specific to the district but feeds into to the national plan.

A national plan is a strategic plan that sets out broad objectives and develops political will. The district plan is the detailed implementation plan for the national plan. The district can determine how best to meet the goals set by the national plan. Details regarding some of the differences in national and district planning are given as an appendix.

Information ideal for planning VISION 2020 at the district level

The type of information that is ideal for planning VISION 2020 at the district level includes information on specific diseases, service delivery, infrastructure and personnel available, personnel practices, and relevant policies. It is best if the data is routinely collected and available,

accurate, up-to-date and covers the full range of eye conditions that the program will address. The data should not be too difficult to collect.

It is helpful if there are consistent definitions used when collecting the data, so that the data can be aggregated, and so that specific data regarding factors such as age and gender can be used in planning. Ideally, the data collected will be able to identify emerging conditions, and signal any changes in the magnitude of the existing disease. This information will not only contribute towards useful and realistic plans, but will also facilitate ongoing monitoring and evaluation of the activities that are being implemented.

Information needed to plan	Where information is obtained	How will this information be used for planning
Disease		

Information needed to plan for specific diseases and general non-blinding conditions

This document includes information that is needed in order to plan for the following eye conditions:

1. Cataract
2. Refractive errors
3. Childhood blindness
4. Trachoma
5. Posterior segment disease (primarily glaucoma, diabetic retinopathy, and ARMD)
6. Common non-blinding conditions

Information needed to plan for cataract

There has been a lot of effort in the last few years to increase the number of cataract surgeries however cataract remains the major cause of avoidable blindness. There is considerable variation in the provision of cataract surgical services in different districts. Some programmes only select patients who are blind or severely visually impaired (<6/60) whereas more mature programmes do not have strict criteria for selection for surgery (the proportion of cases operated at varying levels of visual acuity is referred to as “case mix”). This means that estimating the number of surgeries required to plan for the future becomes district-specific and can be difficult especially when no recent survey data is available. When setting targets for cataract surgical services, keep in mind the following:

- The maturity of the programme determines the type of strategies required.
- The case mix will influence the desired cataract surgical rate
- Barriers to use of cataract services are quite complex and change as a VISION 2020 programme matures.
- Biometry has become widely available and should be a pre-requisite for any hospital-based cataract surgical service.
- There should be a commitment from surgeons to actively audit their outcomes.

Many districts will not have survey data (RAAB or otherwise) but this should not limit the ability to plan for cataract services. Considerable information can be gathered from existing records and stakeholders in order to plan properly.

Population distribution (% of population age 50+)	Census	Determine the potential number of people affected
Cataract surgical rate (by gender)	Surgical records at all hospitals providing the service in the district. It is essential to determine where patients come from and to remove patients who come from outside the district. If a group visits the district and takes patients elsewhere for surgery, these figures need to be included in the CSR. Surgeries in children (age <16) should not be included. CSR should be calculated separately for men and women. If sub-district planning is undertaken, the CSR should also be calculated by sub-district. (Data from private services are difficult to collect, sometimes shall be estimated)	Used as an indicator of current service delivery at the district level. Setting a target for cataract should be based upon current service delivery. If CSR can be calculated for a sub-district this may help identify particular areas with low service use. Evidence suggests that the CSR for women should be between 10-25% higher than the CSR for men. This information is relatively easy to obtain; an excel spreadsheet can be used to calculate the CSR. This information is also important for planning
Productivity of surgeons	If there is more than one surgeon in the district, the total number of surgeries should be divided by the number of surgeons	Decisions on desired levels of productivity are based upon the service delivery.
Outcomes of surgery	Surgical outcome can be obtained from either hospital records or from survey, although there will be some differences. Hospital records that are routinely recorded on the WHO Cataract Outcome programme are the most valuable. Surveys (RAAB) can provide information on the current community-based outcome of surgeries received.	One measure of quality of service. May indicate need for changes to surgery (e.g., use of an A scan on all cases prior to surgery, conversion to SICS, improved selection of cases, or upgrade training in surgical skills)
Prevalence of cataract at different vision cut-offs	Survey (recent RAAB, other recent survey or, if not available, use estimates from nearby areas with similar level of maturity of programme)	Determine number of people affected by cataract for the purpose of advocacy
Cataract surgical	Survey (recent RAAB, other	Provides the proportion of people at different

coverage (by sex)	recent survey or, if not available, use estimates from nearby areas with similar level of maturity of programme)	visual cut-offs who have received services. A CSC of 75% or higher would be considered good coverage. Comparing the coverage by different levels of vision is helpful in assessing the need to revise the desired case mix. Assessing the relative CSC separately for men and women helps identify gaps based on gender.
Service provision		
Type of surgery (ECCE, SICS etc), location of service provision, geography of the area, etc.	Stakeholders can provide information about the programmes in place	Information on the type of service provision is helpful for making decisions regarding changes to how cataract surgery is provided.
Fee for surgery	Stakeholders	Knowing the price charged for surgery helps in assessing if price (or the way the price is packaged) is a barrier. Comparing the price with estimated cost helps to identify the potential level of cost recovery and support needed for the programme
Case finding options	Stakeholders	Knowing the current strategies for case finding (and the level of productivity) is used to decide if additional strategies may be needed.
Definition of vision for operation (vision cut off)	Stakeholders	Knowing if there are specific cut-offs that are used for referral and for selection for surgery is necessary to determine the amount of surgery required to reach the target
Case mix (% of people with vision at various levels prior to surgery)	Records at hospital can be used to determine the proportion of people as well as proportion of eyes at various vision levels	The definition of vision for operation (above) and case mix should provide similar estimates and can be used similarly.
Characteristics of the population		
Barriers to use of cataract services	Focus group discussions and in-depth interviews are the most useful approaches to understand why people do not use existing services	The information on barriers to use of cataract services should be used to re-design how to improve use of services. If awareness of services is low, strategies are needed to improve it; if access to services is poor, strategies to improve access are needed, and if acceptance of surgery is poor, counseling and other strategies are needed. It must be remembered that some patients will continue to refuse surgery, even if the service has addressed all barriers)

Information needed to plan for refractive errors

The epidemiology of refractive error varies greatly in different populations. This will have an impact on which groups need to be targeted.

Presbyopia will be a problem in the older population; although it may be more prevalent in urban than rural populations, rural people still have near vision needs to address. Women may have greater risk for presbyopia than men.

Information needed to plan	Where information is obtained	How will this information be used for planning
<i>Disease</i>		
Number of people age 40+ (by 10 year age groups)	Census	Estimate of potential number of older people
Prevalence of presbyopia in people age 40+	Survey findings (see above for best estimates)	Calculate the potential number of presbyopic people
Number of children age 11-15 years and number enrolled in schools	Census info and MoE	Estimate the number of children in this age group
Prevalence of refractive errors in children 11-15	Survey findings	Main target for providing spectacles if prevalence of RE is high.
Barriers and cultural attitudes to wearing spectacles	Focus group discussions and in-depth interviews can be used to assess barriers.	This information further refines estimates of how many spectacles need to be provided
<i>Service provision</i>		
# of spectacles (with power) provided in past year	Records where spectacles are dispensed (data from private opticians difficult to collect)	This may serve as a baseline in order to establish targets for service delivery in the plan. It should also be used to monitor service provision- to be most useful it should include all the service providers in the District
National policy on spectacle dispensing	MoH	All stakeholders and service providers need to be aware of this before starting services
Service providers, location, type of providers	Stakeholders (be sure to obtain information in sub districts)	Knowing where spectacles and refraction can be obtained will help planners decide on strategies to adopt. It is important to know if government eye care providers use spectacle sales as a method for obtaining extra income.
Price of spectacles and cost for obtaining spectacles	Services that dispense spectacles	Allows planners to assess the level of cost recovery and sustainability achieved through spectacle sales.

Information needed to plan for childhood blindness

The rarity of childhood blindness and the fact that surgical restoration of sight in children needs to be carried out at Child Eye Health Tertiary Facilities (CEHTF) means that planning for childhood blindness requires collaboration among all the Districts included in the CEHTF (generally covering about 10 million people). The focus in many maturing VISION 2020 programmes is ROP, cataract, trauma, retinal conditions, and corneal conditions (variety of causes). Priorities include prevention, surgical intervention (establishing a CEHTF and creating a programme for access to the centre), low vision, rehabilitation and integrated education.

Information needed to plan	Where information is obtained	How will this information be used for planning
<i>Disease</i>		
Estimates of childhood blindness (and their causes)	Surveys currently not available. Best estimates are between 1-5 children per 10,000 children.	Information on the estimate of childhood blindness should be used to calculate the estimated number of children in the district who are blind.
Estimated number of cataract cases per million population (CCSR) in district	It is estimated that the annual incidence of (non-traumatic) childhood cataract is 30 children per million population. Records at the hospital ("Child Eye Health Tertiary Facility") should be compiled by "district" to determine the number of children from a district receiving surgery.	The CEHTF should work with the districts in the catchment area to identify the annual CCSR per district. If less than 30 children per million population, strategies should be put into place to improve case finding and referral.
<i>Service provision</i>		
What % and number of NICUS have a ROP screening program?	Stakeholders should compile this information	Information should be used to estimate the unmet needs and program coverage
Information from schools for the blind, annexes, and integrated programmes (entry criteria, numbers of children, vision of children)	Stakeholders should compile this information	Understanding the criteria for entry and their existing visual acuity and use of low vision devices should be used to design programmes aimed at spectacle provision, low vision services, as well as integrated education
Service providers, location, distance to travel, cost of programme (transport, etc.)	Stakeholders should compile this information	Information on all aspects of service providers and service provision is needed to design strategies to improve recognition, referral, and follow up of children needing eye care services.

Information needed to plan for glaucoma

Glaucoma is an important cause of blindness in many populations. Planning for it has not been a first priority of VISION 2020. However, as programmes “mature” and progress in dealing with the problem of cataract it is reasonable for them to start planning for glaucoma. A “district” level programme will either have to provide its own glaucoma services or have in place a referral system. Population based data on glaucoma disease prevalence indicate that prevalence is variable in different populations. Programmes are advised to consider surveys and data from populations as similar to their own as possible.

Information needed to plan	Where information is obtained	How will this information be used for planning
Prevalence of glaucoma blindness	Surveys (or use evidence from existing surveys above)	Help prioritize, once cataract problem is being adequately addressed
Prevalence of glaucoma	Surveys (or use evidence from existing surveys above)	Estimate number of people who potentially need treatment
Cost of medication	Local investigation hospital and chemists	So that counselors can give patients accurate information about the cost of medical treatment
Location of services	Stakeholders	Needed to set up referral from centers without services
Number of glaucoma surgeries done (by sex) in entire District	Theatre registers for all hospitals in District	Crude method to monitor service provision

Information needed to plan for other posterior segment diseases

As cataract services improve posterior segment disease becomes proportionally a more important cause of blindness. Eye health workers at all levels may not be adequately trained to detect, diagnose or manage these conditions. Equipment needed (e.g. ophthalmoscopes, tonometers, visual field machines, lasers) are not always available. In the various VISION 2020 planning documents there are broad objectives for tackling these conditions.

Information needed to plan	Where information is obtained	How will this information be used for planning
<i>Diabetic Retinopathy</i>		
Mapping of diabetic clinics in the district	Ministry of Health records and stakeholders	Defines initial target population for screening
Number of people with diabetes (blind/at risk)	Survey (or local information on numbers of people with diabetes)	
Number and location of personnel trained to treat diabetic retinopathy	Stakeholders	Needed to design referral service
Number and location of lasers available	Stakeholders	Needed to design referral service
Number of VR surgeries at tertiary level (need to compile based upon the district of residence)	Hospital records	Crude measure to monitor services
<i>ARMD</i>		
Number of cases of ARMD seen (by type)	Hospital records	Crude measure to monitor services
Number and location of low vision services available	Stakeholders	Needed to design referral service
Number of adults with low vision with access to low vision services	Low vision records	

Information needed to plan for trachoma

Trachoma is often referred to as the “leading cause for infectious blindness” and is still a problem in pockets. There are many well-developed tools to assess, plan for, and prevent trachoma.

“*Trachoma Rapid Assessment Toolkit*”, “*Trachoma Guidelines*”, “*Trachoma planning & developing health education materials*”, and “*Vision 2020 planning toolkit*”, which can be downloaded from WHO, VISION 2020, IAPB, and The Carter Center websites. The major difficulty has been the failure, in many settings, to integrate trachoma into district VISION 2020 plans. While it may not be practical to integrate activities related to face washing and environmental control into district VISION 2020 plans, trichiasis surgery can easily be integrated. Antibiotic distribution will vary, depending upon the mode of treatment used. We have summarized the minimum information needed for planning for trichiasis surgery in districts where trachoma exists.

Information needed to plan	Where information is obtained	How will this information be used for planning
Disease		
Estimated number of trichiasis patients	Survey (if survey not practical, eye workers--who already know about the villages through other programme may be able to make an estimate)	Determine number of patients who need surgery (UIG)
Number of trichiasis surgeons, location, instruments & supplies, supervision	Stakeholders	Assist in identifying gaps in service provision
Number of trichiasis surgeries carried out in past year	Surgical registers	Determine activities against the needed UIG, identify levels of productivity of surgeons
Trichiasis surgical outcome	Medical records	Estimate quality of service and need for re-training and certification

Information needed to plan for non-blinding eye conditions

Non-blinding eye conditions are often not planned for in VISION 2020 District plans. For the purpose of planning “non-blinding eye conditions” include the following: itchy eyes, red eyes, headache, squint, photophobia, eye growths/tumors (including pterygium), and chalazion

Information needed for planning	Where information is obtained	How will this information be used for planning
Numbers of patients with these conditions seen at each secondary or tertiary clinic and outreach	Registers at clinic and hospital	To determine the level of over-use of these clinics and allocate resources (for medicines, training) to primary eye care and organize referral networks. Calculate proportions of blinding and non-blinding at all clinics
Numbers of patients seen by primary eye care workers at primary health care clinics	Registers at primary health care clinics and (if possible) with primary eye care workers	To determine the level of under-use of primary health care clinics and allocate resources (for medicines, training) to primary eye care and organize referral networks
Availability of treatment at various levels	Stakeholders (MOH, NGOs)	Drug provision and delivery system Integration of ophthalmic drugs into essential drugs list
Numbers treated (medicines used) for non-blinding conditions at primary health care clinics	Registers at clinics	Assess utilization of eye care services and appropriateness of medical treatment to determine need for additional training or allocation of medicines.
Number of people in district who have received training in eye care and provide service	Stakeholders (MOH and NGO) Survey	Assess training needs and impact of previous training
Numbers non-blinding surgical conditions	Registers OT registration	Assess needs for referral, surgical training, and equipment at different levels

Information on infrastructure and manpower

There is considerable information on information regarding infrastructure and manpower in various VISION 2020 planning manuals and tool kits; this information should be obtained from these documents.

Using information from planning for the purpose of monitoring

There is a strong link between information used to plan and used to monitor against the plan. There are various monitoring tools available and we have summarized below those indicators that should be monitored/reported on a monthly basis in order to assess progress against the plan. District VISION 2020 monitoring should include all service providers (MoH, NGO) and at all levels (base hospital, outreach, and satellite facilities). We have not included indicators for monitoring trachoma and onchocerciasis as these focal diseases already have received considerable attention when it comes to monitoring. The list below should be viewed as a minimum list for monthly monitoring. Annual monitoring of outcome, follow up, case finding, and other programme activities will be needed, as the programme dictates.

Diseases	Indicators	Outreach	Satellite clinics	Base hospital
Cataract:	# Cataract operations # Cataract patients identified			
Refractive errors:	# Spectacles provided (by power)			
Childhood blindness:	# Cataract operations # Other surgeries % of NICUs with ROP screening program	_____		
Trachoma	# Trichiasis operations			
Diabetic retinopathy	# Patients seen with DR # Referrals for laser/VR surgeon # Lasers done for DR			
Glaucoma:	# Patients seen with glaucoma # New patients seen # Operations done			
ARMD:	# Patients seen (by type)			
Non-blinding:	# Total patients seen # Minor surgeries			
Low vision	# Adults and children assessed # Devices dispensed			

District planning includes:

- Specific details on who does what and by when
- Situation analysis of district resources. i.e. Service delivery
- Identify and coordinate all potential stakeholders
- District specific disease prevalence
- Set targets for service delivery
- Working budget
- Integration 'into existing services
- Specific activities needed for each target
- Identifying barriers
- Community involvement
- Identification of gaps
 - Service
 - Infrastructure
 - Human resource
- Monitoring of activities (reporting)
- Training as required to fill gaps
- Advocacy and local commitment
- Coordination and partnership
- Mapping – service delivery

National planning includes:

- I.E.C material development
- National monitoring and standards
- World Sight Day
- Policies – licensing
- Coordination (of partners)
- Global budget
- Definition of a “VISION 2020 District”
- Estimating prevalence
- Systems for procuring and disseminating consumables
- Resource mobilization – Identify funding
- Human resource development (training, posting, priority areas, cadre)
- Coordination with other health plans
- Priority diseases and strategies
- Ensuring good coordination for specific eye disease plans
- Advocacy and political commitment
- Hospitals (national situation) and definition of types
- Definition of primary, secondary, and tertiary care
- Research priorities

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