World Health Organization

Eye care situation analysis tool (ECSAT)

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Contents

Background

The World Health Organization (WHO) World report on vision (WRV) predicts a substantial increase in the number of people with eye conditions and vision impairment in the coming years (https://www.who.int/docs/default-source/documents/publications/world-vision-report-accessible.pdf).

The concept of universal health coverage ensures that all people have access to needed promotive, preventive, curative and rehabilitative health services, of sufficient quality to be effective, while also ensuring that the use of these services does not expose the user to financial hardship. World Health Assembly resolution WHA73.4 (August 2020) (https://apps.who.int/gb/ebwha/pdf_files/WHA73/A73_R4-en.pdf) *Integrated people-centred eye care, including preventable vision impairment and blindness* urges Member States to make eye care an integral part of universal health coverage and to implement people-centred eye care in health systems.

Integrated people-centred eye care (IPEC) refers to eye care services that are managed and delivered to assure a continuum of promotive, preventive, treatment and rehabilitative interventions against the spectrum of eye conditions, coordinated across the different levels and sites of care within and beyond the health sector, and according to people's needs throughout the life course.

The *WHO Eye care situation analysis tool* (ECSAT) intends to support countries in the planning, monitoring of trends and the evaluation of progress towards implementing IPEC. It is designed primarily for national and district Ministry of Health eye care planners and policy-makers.

ECSAT should be initiated and conducted by the Ministry of Health or a relevant, government-endorsed, national eye care coordination body. Key stakeholders will be the Ministry of Health and other programmes, or sectors involved in vision screening or eye care service delivery, e.g., provision of spectacles. Other key stakeholders are WHO and other development partners such as international nongovernmental organizations (NGOs).

ECSAT is a questionnaire-based assessment tool, designed to inform planning. It is intended to be applied at the national level. If responsibility is decentralized to the subnational level, then it can also be applied at this level.

Timing

Allow approximately three months for ECSAT data collection and report writing.

The situation analysis should be done as a key initial step in the development of a strategic eye care plan. It should be updated every 3 to 5 years, as needed.

Resources required

It is recommended to engage a coordinator (external or local) to gather the ECSAT data and write the report. The main cost of conducting ECSAT is that of the coordinator. Other small costs may include consultation meetings and transport. The coordinator does not require an eye care professional background but may have expertise in public health and health services management.

See Annex 1 for suggested terms of reference for the coordinator

Establishment of a Technical Working Group (TWG) consisting of key stakeholder representatives is strongly recommended to provide technical input throughout the analysis period and the other steps in the process. Such a group may already exist and function appropriately, or a new one with specific time-limited terms of reference can be created.

See Annex 2 for a list of potential members of the ECSAT technical working group

Process

The information necessary to complete ECSAT is usually derived from:

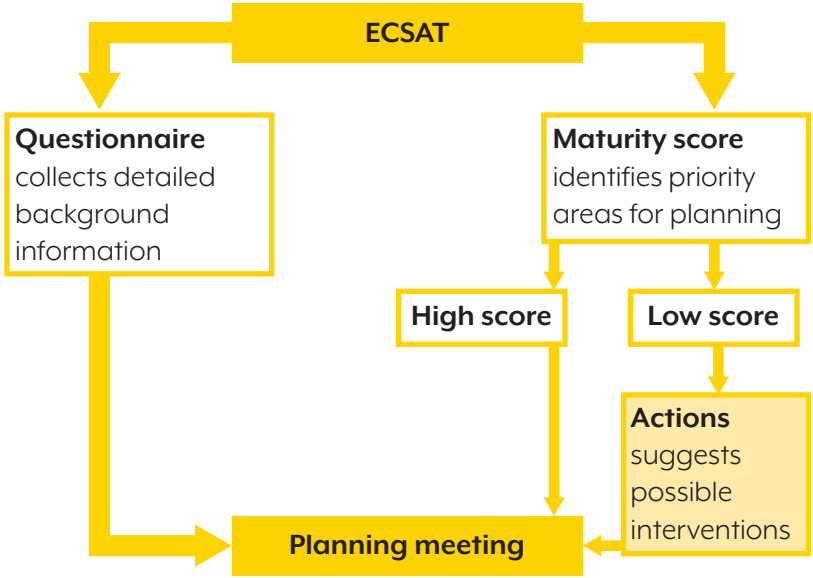
- interviews with personnel at the Ministry of Health and other relevant government institutions (e.g. Ministry of Finance, Ministry of Education), national societies of eye care professionals or organizations for people with visual impairment;
- desk examination of publicly accessible sources and, to a certain extent; and
- proactive collection of information.

The coordinator, working with the TWG, will decide whether the required information can be sought from accessible sources or whether interviews are required. The coordinator may either pre-enter the information, together with gathering the related evidence documents, and then share with the TWG for consensus before finalization, or arrange for a TWG meeting to jointly enter the information. Either way, the TWG should ensure that the data gathered are validated by the relevant stakeholders. This will be best achieved through a data validation workshop.

See Annex 3 for a list of potential interviewees

ECSAT is composed of 31 components informed by, and categorized under, the six WHO health system-building blocks: (i) leadership and governance; (ii) service delivery access; (iii) service delivery quality; (iv) workforce and infrastructure; (v) financing; and (vi) information. The tool is designed for all components to be completed in order to give a comprehensive overview of the available data and information on eye health and eye care service provision.

Each of the 31 ECSAT components consists of a questionnaire, a maturity scoring system and a set of possible actions.



Questionnaire

Purpose of the questionnaire: to gather detailed background information for the planning process

The questions relate to the capacity and performance of the health system in general and of eye care services in particular. Users are encouraged to respond to all questions. Several questions are indicated as “CORE” and require a response in order to go to the next question.

Note: For the questionnaire, Nr = number.

Some questions require related documentation in order to validate responses. These questions are listed correspondingly in the **Documentation or evidence** section, including the type of documentation required for affirmative responses. Please make every effort to provide electronic copies of the requested documentation, if they are available.

The **Notes** section contains additional information relating to the questions.

Maturity scoring system

Purpose of the maturity scoring system: to identify components of eye care that may be prioritized in the planning process, i.e. components with low scores

Following the questionnaire, the user responder is asked to select one of four scenarios and the related score that best reflects the current situation, or level of maturity, for the eye care component to identify if:

Needs no immediate action = score 4
This implies the component is at a high level of maturity and correspondingly performs well. While there may be small concerns that need monitoring and addressing over time, currently no action is needed.

Needs minor strengthening = score 3
This implies the component is at a moderate level of maturity and correspondingly performs moderately well; the component is well established but there are a few areas for improvement.

Needs major strengthening = score 2
This implies the component is at a low level of maturity and correspondingly performs weakly; the component is established but there are many areas that need improvement.

Needs establishing = score 1
This implies the component is at a very low level of maturity, is either not established or just emerging; correspondingly, it performs very weakly.

Users may reflect on their responses in the questionnaire and the supporting documentation in order to select the score, e.g. if most responses to the questions are "No", then this would likely correlate to a low score of 1 or 2. Note that the questionnaire is not directly linked to the scoring system, i.e. the scenarios for scores may address issues not reflected in the questionnaire, and vice versa.

Selecting maturity levels for the six building blocks
Once maturity scores are selected for the 31 components, the user manually calculates the average score for each building block to establish its maturity level. The Building Block Maturity Template (Annex 4) guides through the calculation process and describes maturity levels for the six building blocks. Building block maturity levels are a practical guide to identify immediate areas for national planning and implementation priorities or to set a baseline for monitoring progress over time.

Possible actions

Purpose of the possible actions: to provide suggestions for immediate activities for consideration in the planning process

In case of a component scoring low, a set of possible actions are provided. These actions will be helpful to guide the actual planning process, together with the comprehensive ECSAT report. Note that the activities listed in ECSAT are recommendations only. Actual activities need to be identified during a comprehensive planning workshop.

ECSAT report

Following data input, an ECSAT report is required. The ECSAT report should

a) include description and analysis of the situation,

b) identify priority areas, and

c) identify a set of feasible and justified recommendations.

See Annex 5 for a template for the structure and content of the report, that can be modified based on the situation in the country.

ECSAT components

ECSAT data sharing

- [ ] **WHO may use all of the ECSAT data for monitoring and reporting of global / regional eye care trends**
- [ ] **WHO may use only ECSAT data labelled CORE for monitoring and reporting of global / regional eye care trends**
- [ ] **WHO may not use any ECSAT data for monitoring and reporting of global / regional eye care trends**

Background

Country name:	
WHO region:	
Respondent's contact details:	
First (and middle) name	
Family name	
Profession or position	
Institution	
Street and number	
City	
Post code	

Country

Telephone number

Fax number

E-mail

Was the implementation of ECSAT authorized by the Ministry of Health? Yes No

If no, please summarize how; or if ECSAT implementation was discussed with the Ministry of Health.

Is ECSAT used to analyse the eye care situation at:

National level, i.e. the whole country **Subnational level, i.e. a province or district**

Please provide details

Briefly describe how the data and information presented were obtained

Health care financing

Recommended sources for health expenditure:

http://www.who.int/countries/en/

http://apps.who.int/gho/data/view.main.1920ALL

Total expenditure on health per capita:

Value: Currency: Year:

Total expenditure on health as percentage of gross domestic product (GDP):

Value: Currency: Year:

What is the national median monthly individual income?

What is the national median monthly household income?

More information on eye disease epidemiology in case a rapid assessment of avoidable blindness (RAAB) has been carried out in the past can be found here:

http://www.raabdata.info/

In case no country data are available, epidemiological estimates are available at:

http://atlas.iapb.org/about-vision-atlas/vision-loss-expert-group/

When possible, provide data disaggregated by, e.g. gender, age, rural or urban residence to better understand the needs of population segments, vulnerable and marginalized communities and geographical distribution.

"Presenting" visual acuity is measured based on a person's life situation – if they did not possess a pair of spectacles at the time of assessment, then their acuity would be measured without any correction, or alternatively measured with the spectacles they actually used.

Prevalence and causes of visual impairment

Is there information on the prevalence and causes of visual impairment, including blindness, in the country? ☐ Yes ☐ No

If "Yes", provide the following information:

Category	**Definition** Presenting visual acuity in the better eye for distance, in both eyes for near	**Prevalence** (age standardized, %)	**Three main causes**	**Year to which prevalence applies**
Mild visual impairment	<6/12 to ≥6/18	Male:	1:	
		Female:	2:	
		Total:	3:	
Moderate visual impairment	<6/18 to ≥6/60	Male:	1:	
		Female:	2:	
		Total:	3:	
Severe visual impairment	<6/60 to ≥3/60	Male:	1:	
		Female:	2:	
		Total:	3:	
Moderate and severe visual impairment combined (if data are available only for the joint category of moderate and severe visual impairment)	<6/18 to ≥3/60	Male:	1:	
		Female:	2:	
		Total:	3:	

Category	**Definition** Presenting visual acuity in the better eye for distance, in both eyes for near	**Prevalence** (age standardized, %)	**Three main causes**	**Year to which prevalence applies**
Blindness	<3/60	Male: Female: Total:	1: 2: 3:	
Near visual impairment	N6 or M.08 with existing correction	Male: Female: Total:		

Source of information on prevalence and causes:

- National or regional epidemiological survey (including rapid assessment of avoidable blindness [RAAB])
- Estimate from other studies in the country, including broader health surveys
- Estimate-based on a Vision Loss Expert Group (VLEG) estimate

Provide the published or unpublished references to the sources used:

1

Leadership and governance

Leadership, coordination and coalition-building for eye care

Definition

Leadership refers to the process of influence through which leaders gain support from others to achieve goals associated with improving and strengthening eye care. Coordination relates to the organization of the different efforts to ensure they work together effectively. Coalition-building refers to uniting and aligning stakeholders to form groups, partnerships, networks and alliances that support eye care.

Documentation or evidence

a Health information management system report of the type of eye care services providers delivering services at the different levels of care.

b. Overview of the governance structure for eye care, including details on committees, steering groups, technical working groups, etc.

c. List of coalitions for eye care.

Questionnaire

a. Provide a proportional breakdown of the type of eye care services providers at the three levels of care. (CORE)

Type of eye care services provider	Primary eye care (%)	Secondary eye care (%)	Tertiary eye care (%)
Government services	%	%	%
	Don't know	Don't know	Don't know
Private for-profit services	%	%	%
	Don't know	Don't know	Don't know
Private not-for-profit services, including domestic or foreign nongovermental organizations	%	%	%
	Don't know	Don't know	Don't know
Total	100%	100%	100%

Notes

- For the purposes of this document, primary eye care comprises prevention and treatment of the most common eye conditions and referral for most surgical and advanced treatments (e.g. cataract and glaucoma surgery). Secondary eye care comprises primary eye care services plus surgical services for the most common eye conditions. Tertiary eye care should comprise all subspecialty eye care services, including advanced diagnostic, medical and surgical treatment for both children and adults.
- Most countries have "mixed health systems" where a mix of public and private providers deliver health-related goods and services.
- The private sector is defined here as those individuals and organizations providing eye care services that are not owned or directly controlled by government.
- Future need for eye care services refers to rise in cost, human resources, infrastructure and equipment.

How were these data sourced?

☐ Estimate by the respondent

☐ Evidence-based with documentation provided

☐ Other, specify

b. Describe how eye care is governed and coordinated, including the role of committees, steering groups, boards or task forces. Describe specifically the role of the Ministry of Health. (CORE)

c. Describe the main coalitions and how the main stakeholders for eye care work together.

d. Describe how political and financial commitment from government to eye care has changed in the past five years in the country or district.

e. Are country data available to predict the future need for eye care services to respond to ageing and growing populations?

☐ **Yes** ☐ **No** ☐ **Partial**

If yes, were data used to elevate government priority and allocate additional resources to eye care?

☐ Yes ☐ No

Maturity level score	
Needs no immediate action – 4	— Leadership for eye care is strong and public health focussed; it includes the Ministry of Health; it provides a high level of direction for eye care and exerts influence (through advocacy, promotion of eye care, etc.) that results in high levels of political commitment. — There is a high level of financial sustainability for eye care; its financing is integrated into wider health financing mechanisms and funding is stable or rising. Eye care is included in planning and takes account of current and future population needs. — There are high levels of intersectoral and/or interagency coordination for eye care, the necessary mechanisms, platforms and coalitions function, and roles and responsibilities are clear.
Needs minor strengthening – 3	— Leadership for eye care is evident; it includes the Ministry of Health; it provides a moderate level of direction for eye care and exerts some influence that results in moderate levels of political commitment. — There is a moderate level of financial sustainability for eye care; its financing is integrated into health financing mechanisms and funding levels are moderately stable or rising. Eye care is included in planning and is moderately in line with current and future population needs. — There are moderate levels of intersectoral and/or interagency coordination for eye care; mechanisms, platforms and coalitions function, although a few more are needed, and the roles and responsibilities are mostly clear.
Needs major strengthening – 2	— Leadership for eye care is limited; it includes the Ministry of Health; it provides a little direction for eye care and exerts a small influence that results in limited levels of political commitment. — There is a low level of financial sustainability for eye care; its financing is somewhat integrated into health financing mechanisms but is neither stable nor rising. There has been a little planning for future needs. — There is a small amount of intersectoral and/or interagency coordination for eye care; a small number of mechanisms, platforms and coalitions function, and more are needed; and the roles and responsibilities are developing but need further attention.
Needs establishing – 1	— Leadership for eye care is very limited, ad hoc or non-existent; it may or may not include the Ministry of Health; there is almost no direction for eye care and there is little influence on political commitment. — There is a very low level of financial sustainability for eye care; its financing is not well integrated into wider health financing mechanisms; there are serious concerns that funding is decreasing, and little planning has occurred. — There is very limited, ad hoc or non-existent intersectoral and/or interagency coordination for eye care; mechanisms and platforms do not exist or exist but do not function; they are very much needed.

Possible actions

- Create awareness at the Ministry of Health regarding unmet need for eye care. Support the Ministry of Health to advocate internally for eye care.
- Establish eye care leadership and coordination platforms and groups, develop their terms of reference, ensure they are inclusive with appropriate representation.
- Undertake analysis of financial sustainability of eye care services.
- Embed eye care into health financing mechanisms.
- Develop capacity and political support for eye care within the health ministry.
- Support training and development of the eye care workforce so current and future needs will be met.
- Create or strengthen intersectoral dialogue mechanisms. Develop the role and responsibilities of each agency.
- Create clear mechanisms for coordination of eye care, such as steering groups, technical working groups, or committees and support them to function effectively.

2 Leadership and governance

Eye care integration into legislation, policies and plans

Definition

Eye care legislation refers to the laws and policies developed within a country's constitutional frameworks and legal regimes that encompass eye care. It also includes plans and strategies that relate to eye care. These are commonly agency wide or sector wide, action orientated and aim to achieve specified goals and objectives.

Documentation or evidence

a National health strategic plan with relevant eye care component, if integrated.

b. National eye care strategy or action plan (eye care plan).

d. Reference on eye care integration into the national development agenda.

e. Disaster management plan, if disability inclusive.

Questionnaire

a. Is there a current national health plan/health sector strategic plan? (CORE) ☐ **Yes** ☐ **No**

If yes, is eye care addressed? ☐ Yes ☐ No ☐ Partially

If yes, which of the following aspects are included? Select all that apply.

☐ Eye care legislation/policies/regulations ☐ Eye care services coordination

☐ Eye care financing ☐ Human resources for eye care

☐ Eye care outcomes or outputs

b. Does your country have a national eye care strategy or action plan (eye care plan)? If not required, select NA * (see Notes section below). (CORE) ☐ **Yes** ☐ **No** ☐ **NA**

If yes, indicate its stage. Select one.

☐ Operational ☐ Under development ☐ Not in effect

Notes

- National Health Plans may be known by different names in respective countries. For instance, there may be a national health policy that is supported by a Health Sector Strategic Plan, or Health Sector Strategy or Health Plan. Check with the Ministry of Health for the latest health policy and plan/sector strategy. This may also be sourced on the internet. Check if the plan includes mention of eye care or blindness or vision impairment. In neglected tropical diseases (NTD) endemic countries, there may be a mention of diseases such as onchocerciasis or trachoma.
- * Ideally, all aspects of eye care, including legislation, policies, regulation, services coordination and financing, are integrated within the national health plan. This is more likely to be the case in a more mature/advanced health system. If this is the case, then a specific national plan for eye care or a designated unit and/or coordinator for eye care may not be required.
- The national development agenda may be known by different names depending on your country. Check with the Ministry of Planning and Development for the latest development plan.
- The national/subnational disaster management plan may be called an emergency preparedness plan or something else.
- Check if there is a national epidemic response plan dealing with infectious/communicable diseases. Most countries have updated these in light of the recent COVID-19 pandemic. Determine to what extent the response plan is mindful of the needs of people with disabilities.

If yes, what is the first year of implementation? ☐

If yes, what is the year of expiry? ☐

If yes, does it address multiple sectors? ☐ Yes ☐ No

If yes, does it address multiple stakeholders? ☐ Yes ☐ No

c. Is there a designated unit and/or coordinator for eye care at the Ministry of Health? If not required, select NA * (see Notes section on the left). (CORE) ☐ **Yes** ☐ **No** ☐ **NA**

If yes, is a dedicated budget allocated to the work of the unit or coordinator? ☐ Yes ☐ No ☐ NA

d. Is eye care included in the outcomes or outputs of your current national development agenda? If there is no development agenda, select NA. ☐ **Yes** ☐ **No** ☐ **NA**

e. Are there national/subnational disaster management plans (e.g. for emergencies and disasters, infectious disease outbreaks)? ☐ **Yes** ☐ **No**

If yes, are they disability inclusive? ☐ Yes ☐ No

Maturity level score

Needs no immediate action – 4	— Legislation and policy frameworks encompass all aspects of eye care and provide the necessary governance and direction. — Eye care is integrated into wider health policies and plans. — Legislation, policies and plans were developed with all relevant stakeholder input, including consumers.
Needs minor strengthening – 3	— Legislation and policy frameworks encompass many aspects of eye care but may require additions and/or updating. — Eye care is mostly integrated into wider health policies and plans but some gaps exist. — Legislation, policies and plans were developed with some stakeholder input but some relevant stakeholders were not included.
Needs major strengthening – 2	— Legislation and policy frameworks encompass some aspects of eye care but there are key areas missing. — There is very limited integration of eye care into health policies and plans. — There has been limited stakeholder consultation in the planning of eye care.
Needs establishing – 1	— Legislation and policy frameworks are absent or encompass eye care inadequately. — Eye care is not integrated into health policies and agendas. — There has been only a small amount, or no amount of stakeholder consultation to date..

Possible actions

- Integrate eye care into the national health strategic plan, including targets.
- Integrate eye care into health legislation and relevant policies.
- Clarify eye care within legislation, policies and plans.
- Develop a national plan for eye health and the prevention of blindness, in collaboration with relevant sectors, programmes and nongovernment stakeholders, if integration into the national health strategic plan is lacking.
- Develop standards and or a masterplan for the development/expansion of eye care across health care.
- Ensure that disaster management plans contain disability inclusive measures during emergencies, ensuring equitable access to essential supplies and services, including social protection programmes. Advocate for follow-through. Ensure that public campaigns during disease outbreaks do not further stigmatize people with disabilities and inform the general public on the challenges that people with visual impairment are facing, why they may need to be exempt from certain regulations and what people can do to help.

3

Leadership and governance

Integration of eye care across relevant sectors and programmes

Definition

Eye care services require integration with relevant sectors and programmes (health and non-health) to provide services that are effective, equitable and of high quality.

Documentation or evidence

a. Reference for formal mechanisms for the coordination of eye care between relevant ministries.

   List of major activities undertaken to coordinate eye care service delivery across non-health sectors and/or other health programmes.

b. NCD multisectoral action plan and guidelines that relate to eye care.

g/h. Reference on recent direct engagement of the non-health sector and/or other health programmes in planning and implementation of policies.

Questionnaire

a. Are there formal mechanisms for the coordination of eye care between relevant ministries?
If not required, select NA * (see Notes section below). ☐ **Yes** ☐ **No** ☐ **NA**

b. Does the country have a noncommunicable diseases multisectoral action plan? ☐ **Yes** ☐ **No**

If yes, is eye care addressed? ☐ Yes ☐ No

c. Does the country have a noncommunicable diseases multisectoral committee? ☐ **Yes** ☐ **No**

If yes, is an eye care related-government department, agency or association represented on the committee? ☐ Yes ☐ No

d. Does the country have noncommunicable diseases-related guidelines? ☐ **Yes** ☐ **No**

If yes, is eye care addressed? ☐ Yes ☐ No

e. Is there a Healthy Ageing initiative, aimed at older adults? ☐ **Yes** ☐ **No**

If yes, does it address cataract services? ☐ Yes ☐ No

If yes, does it address refractive and optical services? ☐ Yes ☐ No

Notes

- * Ideally, eye care is integrated across relevant sectors and programmes regarding legislation, policies, regulation, services coordination and financing. This is more likely to be the case in a more mature/advanced health system. If this is the case, then formal mechanisms for coordination of eye care between relevant ministries may not be required.
- Relevant non-health sectors include social services, finance, education and labour. Examples for activities include, for example, building health care facilities, establishing comprehensive rehabilitation services and facilities.
- Other relevant health programmes include maternal and child health, neonatal care, nursing, noncommunicable diseases, rehabilitation and occupational health and safety. Examples for activities include eye care specialists joining diabetes care planning and general nurses joining primary eye care planning.

f. Is there a School Health/Healthy Schools programme, aimed at school-aged children? ☐ **Yes** ☐ **No**

If yes, does it address refractive and optical services? ☐ Yes ☐ No

g. Do representatives from relevant non-health sectors and the eye care sector regularly engage over policy development? ☐ **Yes** ☐ **No**

h. Do representatives from relevant health programmes and the eye care sector regularly engage over policy development? ☐ **Yes** ☐ **No**

Maturity level score

Needs no immediate action – 4	— Eye care services are appropriately integrated across relevant sectors and programmes. There is close engagement for planning and coordination of services at the national level. — Non-health sector representatives are regularly involved in the preparation of eye health policies.
Needs minor strengthening – 3	— Eye care services are somehow integrated across relevant sectors and programmes. There is some engagement for planning and coordination of services at the national level or subnational level. — Non-health sector representatives are sometimes involved in the preparation of eye health policies.
Needs major strengthening – 2	— Eye care services are poorly integrated across relevant sectors and programmes. There is little engagement for planning and coordination of services at any level of the health system. — Non-health sector representatives are rarely involved in the preparation of eye health policies.
Needs establishing – 1	— Eye care services are practically not integrated across relevant sectors and programmes. There is close to no engagement for planning and coordination of services at any level of the health system. — Non-health sector representatives are not involved in the preparation of eye health policies.

Possible actions

- Identify priority sectors and programmes for integration strengthening.
- Actively engage stakeholders from relevant sectors and programmes into eye care planning.
- Ensure eye care sector representation at strategy planning meetings and discussions among relevant sectors and programmes, including noncommunicable diseases.
- Ensure eye care indicators are included within frameworks of relevant sectors and programmes, including noncommunicable diseases.

4

Leadership and governance

Reorientation of eye care services towards primary eye care within primary health care

Definition

Reorienting the model of care involves ensuring that health care services prioritize primary and community eye care services. Prioritization includes adequate funding, workforce training and coordination with other services to ensure effective referral systems. Primary health care services are delivered in settings such as general practices, community health centres, allied health practices and via communication technologies such as telehealth and video consultations.

Documentation or evidence

a. List of major activities undertaken to orient workforce planning and coordination towards primary care settings.

b. List of major activities undertaken to strengthen primary eye care coordination and referral systems.

c/d. Policies or guidelines that define the type and scope of eye care services and ophthalmic equipment to be provided at the primary level of care.

Note

— Primary health care refers to core functions of a nation's health system. Encompassing front-line health service delivery (primary care) as well as health system structure, governance and financing, the intersectoral policy environment, and social determinants of health, primary health care provides essential health interventions according to a community's needs and expectations.

Questionnaire

a. Is primary eye care prioritized within wider eye care services planning? ☐ **Yes** ☐ **No**

b. Are evidence-based guidelines/protocols/standards available for the management (diagnosis and treatment) of eye conditions, among broader health conditions, through a primary care approach? ☐ **Yes** ☐ **No**

If yes, do they contain standard criteria for the referral of patients from primary care to a higher level of care (secondary/tertiary)? ☐ Yes ☐ No

If yes, are they being utilized in at least 50% of primary level health care facilities? ☐ Yes ☐ No

c. Does the country have a defined list of medical equipment for provision of primary health care? ☐ **Yes** ☐ **No**

If yes, does it include ophthalmic equipment, e.g. ophthalmoscopes, vision charts, etc.? ☐ Yes ☐ No

d. Does the country have a defined package of services for provision of primary health care? (CORE) ☐ **Yes** ☐ **No**

If yes, are eye care services/interventions integrated in the package? ☐ Yes ☐ No

e. Is there a primary health care programme? ☐ **Yes** ☐ **No**

If yes, does it address eye care? ☐ Yes ☐ No

f. Is there a national programme for community health workers? ☐ **Yes** ☐ **No**

If yes, does it address eye care? ☐ Yes ☐ No

g. Is eye care integrated into the training of primary care providers, i.e. health care workers, nurses? (CORE) ☐ **Yes** ☐ **No**

Maturity level score

Needs no immediate action – 4	— Primary eye care services are an integral part of primary health care settings throughout the country. — Frameworks are in place to guide the scope and type of eye care delivered at the primary level, including workforce training, essential medicines for eye care and effective referral systems.
Needs minor strengthening – 3	— Primary eye care services are part of primary health care settings in some areas. — Some frameworks are in place to guide the scope and type of eye care delivered at the primary level.
Needs major strengthening – 2	— Primary eye care services are sometimes available in primary health care settings. — Frameworks to guide the scope and type of eye care delivered at the primary level are not commonly in place.
Needs establishing – 1	— Primary eye care services are generally not available in primary health care settings. — Frameworks to guide the scope and type of eye care delivered at the primary level are not in place.

Possible actions

- Advocate for adequate funding of eye care in primary health care.
- Undertake health economics assessments on the cost-effectiveness of primary eye care in the country and use for advocacy.
- Strengthen appropriate primary level workforce training for eye care and develop strategies for workforce sustainability.
- Develop/strengthen coordination with other services and sectors and with effectively planned referral systems.
- Develop referral programmes between the primary level of care and dedicated eye care facilities at secondary or tertiary levels.

5

Service delivery – access

Equity of eye care services coverage across disadvantaged population groups

Definition

Equity is the absence of avoidable, unfair or remediable differences among groups of people, whether those groups are defined socially, economically, demographically or geographically or by other means of stratification. Equity is considered in terms of the eye care services coverage of marginalized or vulnerable groups that exist in the population, e.g. women, poor communities, indigenous people, ethnic minorities, people with disabilities, people in aged care, prisons, refugee camps.

Documentation or evidence

b. List of disadvantaged populations for eye care services identified in the country.

   Reference on how evidence is used to advocate for government to improve equity of eye care services.

c. References on systems or strategies to ensure that the primary health care system effectively serves the most marginalized and disadvantaged groups in society.

d References for policies on private sector eye care services, including staff training, service quality, and dual practice.

f. Reference on the review process to reduce inequity for eye care services.

Note

— The WHO Health Equity Assessment Toolkit can be used to assess inequities in a country (https://www.who.int/gho/health_equity/assessment_toolkit/en/).

Questionnaire

a. Is there a national or subnational strategy to strengthen governance for health equity in the country? ☐ **Yes** ☐ **No**

b. Is evidence available in the country about equity of eye care services coverage? ☐ **Yes** ☐ **No**

If yes, are disadvantaged groups identified? ☐ Yes ☐ No

If yes, is evidence used to advocate for government to improve equity of eye care services? ☐ Yes ☐ No

c. Are systems or strategies in place to ensure that primary health care, including primary eye care, effectively serves the most marginalized and disadvantaged groups in society? (CORE) ☐ **Yes** ☐ **No**

d. Are policies in place to regulate the private sector to ensure equitable access to quality health care services, including eye care? ☐ **Yes** ☐ **No**

e. Are the centrally collected data on eye care in the country disaggregated by the following? Select all that apply.

- ☐ **Sex**
- ☐ **Age**
- ☐ **Education level**
- ☐ **Wealth indicators**
- ☐ **District or other administrative unit**
- ☐ **Other, specify**

f. Is progress to reduce inequity in eye care services coverage reviewed regularly?

- ☐ **Yes**
- ☐ **No**

If yes, are local people and stakeholders involved in the problem definition and solution development?

- ☐ Yes
- ☐ No

Maturity level score

Needs no immediate action – 4	— There is a high level of equitable access to eye care. There are no disadvantaged population groups that miss out on the eye care they need. — Inequities in eye care services coverage are frequently assessed, understood and appropriately addressed.
Needs minor strengthening – 3	— There is a moderate level of equitable access to eye care. There are a few disadvantaged population groups that miss out on the eye care they need. The gap between groups is not very large. — Inequities in eye care services coverage are sometimes assessed, mostly understood and addressed.
Needs major strengthening – 2	— There is a low level of equitable access to eye care. There are some disadvantaged population groups that miss out on the eye care they need. The gap between groups is reasonably large. — Inequities in eye care services coverage are infrequently assessed and not well understood nor addressed.
Needs establishing – 1	— There is a very low level of equitable access to eye care. There are many disadvantaged population groups that miss out on the eye care they need. The disadvantaged group is very large. The gap between groups is very large. — Inequities in eye care services coverage are not assessed, understood nor addressed.

Possible actions

- Identify groups that may not be accessing the eye care they need or are provided lower quality of care.
- Develop the necessary legislation and regulations to strengthen joint accountability for equity in eye care, across sectors and decision-makers and within and outside of government.
- Use mechanisms that actively promote involvement of local people and stakeholders in problem definition and solution development.
- Ensure regular joint review of progress, which fosters common understanding and sustains commitment to deliver shared results over time.

6

Service delivery – access

Primary level eye care services integrated into primary health care

Definition

Primary care is that level of a health system that provides entry into the system for all new needs and problems, provides person-focused (not disease-oriented) care over time, provides care for all but very uncommon or unusual conditions, and coordinates or integrates care provided elsewhere or by others. It is a whole-of-society approach that includes health promotion, disease prevention, treatment, rehabilitation and palliative care. Most eye conditions can be addressed at the primary level and eye care services need to be fully integrated.

Documentation or evidence

a. Reports or publications about perceived access barriers to primary eye care.

Notes

- Rehabilitation refers to a set of measures that assist individuals who experience, or are likely to experience, disability to achieve and maintain optimal functioning in interaction with their environments.
- Essential drug availability measures the number of unexpired drugs in a health facility compared to the total expected number of drugs on the list defined by WHO (https://www.who.int/groups/expert-committee-on-selection-and-use-of-essential-medicines/essential-medicines-lists).
- Electronic health or mobile health refers to innovative use of technology for early detection of eye conditions as well as telehealth communication solutions to enable face-to-face communication between patients and eye care professionals or between health care providers and eye care professionals.

Questionnaire

a. Are refractive and optical services available at public primary level health facilities? (CORE) ☐ Yes ☐ No

b. Are systems or strategies in place to periodically assess functioning of primary health care facilities, including whether staff are motivated, competent and equipped to provide quality services, including eye care? ☐ Yes ☐ No

c. Is research undertaken in the country about perceived access barriers to primary eye care? ☐ Yes ☐ No

d. Is essential drug availability, including ophthalmic drugs, assessed periodically at the primary level? ☐ Yes ☐ No

e. Are electronic health or mobile health (e-health) solutions commonly implemented at the primary level?

☐ **Yes** ☐ **No**

If yes, do they facilitate access to eye care?

☐ Yes ☐ No

If yes, what are the main areas of application? Select all that apply.

☐ Prevention ☐ Early detection ☐ Patient consultation

☐ Others, specify

Maturity level score

Needs no immediate action – 4

- Patients, including the most disadvantaged, have access to affordable and quality eye care outside ophthalmic clinics and hospitals.
- There is a high level of integration of eye care into primary health care; delivery of eye care interventions occurs where needed; optometrists and opticians work in primary health care.
- There is a high level of distribution of eye care in primary health care; there are no geographic gaps and urban and rural areas are similarly served.

Needs minor strengthening – 3

- Patients, including the most disadvantaged, have some access to affordable and quality eye care outside ophthalmic clinics and hospitals.
- There is a moderate level of integration of eye care into primary health care; delivery of eye care interventions occurs some of the time it is needed; optometrists or opticians are moderately available in primary health care.
- There is a moderate level of distribution of eye care in primary health care but there are some geographic gaps and urban areas are significantly better served.

Needs major strengthening – 2	— Patients, including the most disadvantaged, have little access eye care outside ophthalmic clinics and hospitals. — There is a low level of integration of eye care into primary health care; a small number of eye care personnel work at this level; some optometrists or opticians are available in primary health care. — There is a low level of distribution of eye care in primary health care; there are many geographic gaps and urban areas are significantly better served.
Needs establishing – 1	— Patients, including the most disadvantaged, generally do not have access to eye care outside ophthalmic clinics and hospitals. — There is very low to no integration of eye care into primary health care; delivery of eye care interventions rarely occurs in this care; there are no eye care professionals at this level. — There is very low to no level of distribution of eye care in primary health care; most geographic areas are not served; at best the major urban areas have a small amount.

Possible actions

- Expand eye care into key primary health care facilities.
- Increase coverage across districts.
- Develop outreach and mobile clinic programmes to deliver primary eye care.
- Assess who is not accessing care due to financial constraints and develop strategies to improve financial access, e.g. community-based health insurance, removal or reduction of user fees, conditional cash transfers, voucher programmes.
- Review transportation issues and develop solutions for geographically convenient service delivery.
- Improve timely access by reviewing facility operational hours, appointment systems and waiting times.
- Introduce or expand electronic health or mobile health (e-health) to facilitate access to eye care.

7

Service delivery – access

Community-delivered eye care services

Definition

Community health services provide support across a range of needs and age groups but are most often used by children and older people. Community services often support people with multiple, complex health needs. Community-delivered eye care refers to programmes or services that are integrated into other community-delivered health programmes. The defining feature is that they are delivered in community settings and usually are a form of secondary care. Delivery settings commonly include local health facilities, homes, schools and child care settings.

Documentation or evidence

a. References about efforts to improve equity of community eye care provision.

   References about the even distribution of community-delivered eye care services.

b. Details of World Sight Day activities, including who conducted them.

Notes

- Community outreach services describe any type of health service that mobilizes health workers to provide services to the population or to other health workers, away from the location where they usually work and live.
- Mobile clinics offer flexible and viable options for treating isolated and vulnerable groups. Mobile health care teams may operate by foot, bike, moto, boat or vehicle.
- World Sight Day is observed annually on the second Thursday in October. National activities include free eye clinics, eye health information booths, programmes on television, radio, the internet, tweets, billboards, brochures. For more information, see: https://www.iapb.org/advocacy/world-sight-day/world-sight-day-2019/.

Questionnaire

a. Are eye care services periodically being delivered in the community? (CORE) ☐ **Yes** ☐ **No**

If yes, which agency provides these services? Select all that apply.

☐ Ministry of Health ☐ Private not-for-profit sector ☐ Private for-profit sector

☐ Community outreach ☐ Mobile clinics

If yes, what are the key activities? Select all that apply.

☐ Condition specific, e.g. myopia, cataract, trachoma

☐ Other, specify

If yes, are community-delivered eye care services mainly part of wider community health care programmes (integrated) or eye care specific (standalone)?

☐ Integrated ☐ Standalone

If yes, are community-delivered eye care services distributed evenly across geographic areas and population groups? ☐ Yes ☐ No

If yes, what is the number of districts with periodic delivery of community-delivered eye care services in relation to the total number of districts in the country?

_____ Number of districts with services _____ Total number of districts

☐ Don't know

b. Is World Sight Day observed in the country? ☐ **Yes** ☐ **No**

Maturity level score

Needs no immediate action – 4	— There is a high level of distribution/coverage of community-delivered eye care in the country. There are no geographic areas or population groups that are missing out on the community-delivered eye care they need. — There is an appropriate mix of community-delivered eye care programmes based on population need; these programmes are designed to create awareness and screen and are integrated into a wide range of other community-delivered health programmes.
Needs minor strengthening – 3	— There is a moderate level of distribution/coverage of community-delivered eye care in the country. There are some geographic areas or population groups that miss out on the community-delivered eye care they need. — There is a limited mix of community-delivered eye care programmes based on population need; these programmes may include activities to create awareness and screen and are integrated into a wide range of other community-delivered health programmes although there are gaps.
Needs major strengthening – 2	— There is a low level of distribution/coverage of community-delivered eye care in the country. There are many geographic areas or population groups that miss out on the community-delivered eye care they need. — There is a very small mix of community-delivered eye care programmes based on population need; these programmes may be – but are not necessarily – integrated into a wide range of other community-delivered health programmes although there are large gaps.
Needs establishing – 1	— There is a low level of distribution/coverage of community-delivered eye care in the country. There are many geographic areas or population groups that miss out on the community-delivered eye care they need. — There is no mix of community-delivered eye care programmes based on population need.

Possible actions

- Develop community-delivered eye care programmes.
- Integrate eye care into other health programmes delivered to communities.
- Increase coverage across districts.
- Integrate eye care into health training curricula.
- Undertake community awareness-raising actions, e.g. programmes on television, radio, the internet, tweets, billboards and brochures to emphasize the importance of eye care, raise awareness about the availability of effective interventions that address all eye care needs across the life course, and raise awareness of the availability of vision rehabilitation.
- Governments may contract nongovermental organizations to deliver flexible community-delivered eye care.

8

Service delivery – access

Integrated paediatric eye care services

Definition

This refers to the accessibility of paediatric eye care, including screening at maternity facilities and schools. Target populations include newborn infants, low-birth weight infants at risk of retinopathy of prematurity, and school-aged children.

Documentation or evidence

a. Guidelines for eye examinations of newborn infants.

c. Guidelines for screening and management of retinopathy of prematurity.

g. Guidelines for routine, periodic eye examinations for school-aged children.

Notes

— Screening refers to measures preformed across an apparently healthy population in order to identify individuals who are at high risk or in the early stages of disease but do not yet have symptoms.

— Routine examinations for newborn infants do not necessarily require eye care professionals, as the examinations can be done by obstetricians, neonatologists or midwives.

Questionnaire

a. Are there guidelines for routine eye examinations of newborn infants? ☐ **Yes** ☐ **No**

If yes, do they include prevention of ophthalmia neonatorum? ☐ Yes ☐ No

b. Are all newborn infants given routine examinations for congenital and other eye conditions? (CORE) ☐ **Yes** ☐ **No**

If no, why not? Select all that apply.

☐ Lack of guidelines

☐ Lack of trained personnel

☐ Ineffective referral system/lack of coordination

☐ Lack of cost recovery for provider

☐ Other, specify

c. Are there guidelines for screening and management of retinopathy of prematurity? ☐ **Yes** ☐ **No**

d. Are all pre-term and/or low birth weight infants screened for retinopathy of prematurity? (CORE) ☐ **Yes** ☐ **No**

If no, what proportion of premature infants were screened in the past 12 months? _____ % ☐ Don't know

If no, why not? Select all that apply.

☐ Lack of guidelines
☐ Lack of trained personnel
☐ Ineffective referral system/lack of coordination
☐ Lack of cost recovery for provider
☐ Other, specify _____

e. Are there specialized tertiary eye care centres for management of retinopathy of prematurity? ☐ **Yes** ☐ **No**

f. Are retinopathy of prematurity treatment services affordable for disadvantaged people? ☐ **Yes** ☐ **No**

If no, provide details on the cost for patients (in current US$). _____ US$

g. Are there guidelines for routine, periodic eye examinations for school-aged children? ☐ **Yes** ☐ **No**

h. Is screening for eye conditions, including amblyopia, commonly conducted in pre-schools? ☐ **Yes** ☐ **No**

i. Are all children at primary or secondary level schools screened for eye conditions, including uncorrected refractive error? (CORE) ☐ **Yes** ☐ **No**

If no, what proportion of primary and secondary level school children were screened in the past 12 months? _____ % ☐ Don't know

If no, why not? Select all that apply.

☐ Lack of guidelines
☐ Lack of trained personnel
☐ Ineffective referral system/lack of coordination
☐ Lack of cost recovery for provider
☐ Other, specify _____

Who conducts the screening? Select all that apply.

☐ Ministry of Health
☐ Ministry of Education
☐ Nongovernmental organization
☐ Other, specify _____

Maturity level score

Needs no immediate action – 4	— Paediatric eye care services are available everywhere for the whole population. — Services are available in all locations and costs are paid by insurance schemes, subsidized by the state or available free of charge.
Needs minor strengthening – 3	— Paediatric eye care services are available everywhere but do not reach some of the population. — Services are available in most rural and urban areas providing care at district, regional, provincial and tertiary levels, however, costs and transport are barriers for some patients.
Needs major strengthening – 2	— Some paediatric eye care services are available to part of the population. — Services are available in regional hospitals or health centres and are partly paid by the patients. Populations in rural areas cannot reach services easily; transport to the health facilities and the cost of service are the main barriers.
Needs establishing – 1	— Paediatric eye care services are available in few places and only to a few people. — Services are not available everywhere; they can be found only in large hospitals and are accessible only to those who can pay.

Possible actions

- Strengthen/develop effective, cross-sectoral screening and referral systems.
- Ensure that up-to-date evidence-based guidelines (national or international) are in place for screening, referral and management of paediatric eye care.
- Monitor adherence to guidelines among health care providers.
- Strengthen integration of eye health into maternity and child health programmes, including screening newborn infants.
- Develop systems for screening and management of retinopathy of prematurity.
- Reach out to the education sector and parents to advocate for eye care during school ages, including periodic vision screening.

9

Service delivery – access

Integrated cataract surgical services

Definition

This refers to the accessibility, quality and affordability of cataract surgical services to all people in need, regardless of the level of vision loss due to cataract.

Documentation or evidence

e. Source of population number used for the cataract surgical rate (CSR) (if the information is available, provide disaggregated data).

Reference to the prevalence survey used for calculation of cataract surgical coverage (CSC) and effective cataract surgical coverage (eCSC) (if the information is available, provide disaggregated data).

g. Reference for the system to review and address key barriers to cataract surgical services.

h. Description of the process and tools used for cataract surgical outcomes monitoring.

Detail on how the quality of cataract surgery services are monitored, including follow-up action if performance is inadequate.

i. Describe options for low-income citizens to receive surgery for free or at minimal cost.

Questionnaire

a. What is the visual acuity definition for the population in "need" of cataract surgery in the country? Select one.

- ☐ Best corrected visual acuity less than 6/12 in the better eye (WHO recommendation)
- ☐ Other, specify
- ☐ Not defined

b. What is the visual acuity definition for an "effective" cataract surgical outcome in the country? Select one.

- ☐ Presenting visual acuity 6/12 or better in the operated eye (WHO recommendation)
- ☐ Other, specify
- ☐ Not defined

Notes

- The definition of "need" for cataract surgery is equivalent to "operable" cataract.
- CSR is the number of cataract operations performed per year per 1 million population. It can be calculated annually at the national or subnational level. For the latest population data, use the most recent census data or the United Nations estimate, and indicate the year to which the figure applies. Estimates can be obtained from the United Nations Department of Economic and Social Affairs website: http://esa.un.org/unpd/wpp/unpp/panel_population.htm
- CSC is calculated to assess the degree to which cataract surgical services are meeting the need. It is defined as the number of people in a defined population with operated cataract as a proportion of those needing surgery (i.e. best corrected vision less than 6/12 with cataract as the main cause of vision impairment or blindness) plus operated cataract. Calculation must use data from methodologically sound and representative prevalence surveys.

continued on next page

c. Total number of cataract operations performed in the past calendar year, by sector. (CORE)

Number of cataract operations by sector		
Government	**Private for-profit**	**Private not-for-profit**
Nr	Nr	Nr
Don't know	Don't know	Don't know

d. Total number of cataract operations performed in the past calendar year, by type of surgery.

Number of cataract operations by type of surgery		
Phaco	**ECCE/SICs**	**Other**
Nr	Nr	Nr
Don't know	Don't know	Don't know

e. Cataract surgical rate (CSR), cataract surgical coverage (CSC) and effective cataract surgical coverage (eCSC) in the past calendar year (current data).

Current data – past calendar year			
	Cataract surgical rate (CSR)	**Cataract surgical coverage (CSC)**	**Effective cataract surgical coverage (eCSC)**
Year applicable to			
All	Nr	Nr	Nr
	Don't know	Don't know	Don't know
Female	Nr	Nr	Nr
	Don't know	Don't know	Don't know

Notes (continued)

— eCSC not only captures the magnitude of coverage, but also the concept of "effective" coverage to ensure that people who need health services receive them with sufficient quality to produce the desired gain in vision. It is defined as the proportion of people who have received cataract surgery and have a resultant good quality outcome (i.e. presenting vision 6/12 or better) relative to the number of people in need of cataract surgery. eCSC is calculated as follows:

$$\left(\frac{a+b}{c+d+e}\right) \times 100$$

a = individuals with unilateral operated cataract achieving PVA ≥6/12 in the operated eye and have BCVA <6/12 with cataract as the main cause of vision impairment or blindness in the other eye

b = individuals with bilateral operated cataract achieving PVA ≥6/12 in at least one eye

c = individuals with unilateral operated cataract and BCVA <6/12 with cataract as the main cause of vision impairment or blindness in the other eye

d = individuals with bilateral operated cataract, regardless of visual acuity

e = individuals with BCVA <6/12 with cataract as the main cause of vision impairment or blindness in both eyes

BCVA = best corrected visual acuity (pinhole or refraction)

PVA = presenting visual acuity

continued on next page

Male	Nr	Nr	Nr
	Don't know	Don't know	Don't know
Rural	Nr	Nr	Nr
	Don't know	Don't know	Don't know
Urban	Nr	Nr	Nr
	Don't know	Don't know	Don't know

f. Cataract surgical rate (CSR), cataract surgical coverage (CSC) and effective cataract surgical coverage (eCSC) five years previously (trend data).

Trend data – 5 years before the current year			
	Cataract surgical rate (CSR)	**Cataract surgical coverage (CSC)**	**Effective cataract surgical coverage (eCSC)**
Year applicable to			
All	Nr	Nr	Nr
	Don't know	Don't know	Don't know

How were these data sourced?

- Rapid population-based eye health surveys
- Comprehensive population-based eye health surveys
- Non-eye health surveys
- Statistical modelling
- Other, specify

Notes (continued)

- CSC and eCSC are among the coverage indicators to track universal health coverage: https://www.who.int/healthinfo/universal_health_coverage/report/2017/en/
- Trend data: if data on CSR, CSC and eCSC are not available from 5 years ago, then report available historic data and specify the year applicable.
- Cutoffs for the number of cataract surgeries reimbursed by a national insurance scheme may refer to individual surgeons or facilities and are a strategy to reduce growing cost to insurers.

g. Does the health information system periodically collect data on barriers to cataract surgical services, including from surveys? ☐ **Yes** ☐ **No**

If yes, is a system in place to review and address key barriers? ☐ Yes ☐ No

h. Is the quality of cataract surgery services systematically monitored? (CORE) ☐ **Yes** ☐ **No**

If yes, at what level? Select all that apply.

☐ National ☐ District ☐ Institutional

If yes, what systems are in place to monitor cataract surgery services? Select all that apply.

☐ Facility/teams ☐ Individual surgeon ☐ Quality assurance programmes

☐ Facility-level accreditation programmes ☐ Service audits

☐ Regular service user feedback analysis

i. Are government-based health financing mechanisms in place and available to make cataract surgery more affordable, including for low-income patients? (CORE) ☐ **Yes** ☐ **No**

j. Are cutoffs in place that limit the number of cataract surgeries reimbursed by a national insurance scheme? ☐ **Yes** ☐ **No**

Maturity level score

Needs no immediate action – 4	— Services are available everywhere for the whole population, covering the needs in the country. — Services are paid by insurance schemes, subsidized by the state or available free of charge for those that cannot pay.
Needs minor strengthening – 3	— Services are available everywhere but do not reach some of the population. — Services cost is a barrier for many.
Needs major strengthening – 2	— Some services are available to part of the population, only in large urban areas. — Services cost is a barrier for some.
Needs establishing – 1	— Services are available in few places and only to a few people. — Services are available only to the few patients who can afford them.

Possible actions

- Review cataract surgical services performance and outcomes, including patient perception of services.
- Develop strategies to increase surgical volume and improve quality of service.
- Engage with the private sector to increase population reach.
- Advocate to government for the cost-effectiveness of cataract surgery in order to improve access for low-income citizens.
- Review national insurance schemes reimbursement strategies for cataract surgery to minimize expenditure while maintaining quality services.

10

Service delivery – access

Integrated diabetic eye care services

Definition

Prevention of visual impairment from diabetic retinopathy is achieved principally through control of diabetes, early detection of retinal changes and timely treatment. Population awareness, adherence, detection and early treatment rely on eye care being integrated into diabetes programmes and services at all levels.

Documentation or evidence

a. Reference for data on the proportion of the population covered by diabetic retinopathy services.

d. References for national guidelines or programmes for detection, treatment, referral and periodic follow-up of diabetic retinopathy.

f. *Tool for the assessment of diabetic retinopathy and diabetes management systems* (TADDS) reports and details on how the results were translated and/or used for planning (WHO website https://www.who.int/blindness/publications/tadds/en/).

Notes

— If case national estimates from surveys for the prevalence of diabetes are not available, then refer to online estimates, for example, the IDF Diabetes Atlas at: https://www.diabetesatlas.org/en/.

— Proportion of people with diabetes who have been diagnosed with diabetic retinopathy: please use main hospitals as reference for the estimate.

Questionnaire

a. What is the prevalence of diabetes in the country? (CORE) _____ **%**

_____ **Don't know**

Of those with diabetes, what proportion have been diagnosed with diabetic retinopathy? _____ %

_____ Don't know

Of those with diabetes, what proportion periodically receive eye examinations? _____ %

_____ Don't know

How were these data sourced?

_____ Estimate by the respondent

_____ Government source, specify _____

_____ Other, specify _____

b. Are there programmes (including awareness, screening, treatment) for diabetic eye care? (CORE) ☐ **Yes** ☐ **No**

If yes, where are they provided? Select all that apply.

☐ National level ☐ Subnational level ☐ Individual hospital

☐ Other, specify

c. Are evidence-based guidelines (national or international) available for the management of diabetes? ☐ **Yes** ☐ **No**

If yes, is diabetic retinopathy included as a component? ☐ Yes ☐ No

If yes, are they being used?

☐ Not used ☐ Moderately used ☐ Widely used

d. Are evidence-based guidelines (national or international) available for the management of diabetic retinopathy? ☐ **Yes** ☐ **No**

If yes, are they being used?

☐ Not used ☐ Moderately used ☐ Widely used

If yes, do they request people with diabetes to have periodic eye examinations, even if asymptomatic? ☐ Yes ☐ No

e. Is retinal laser therapy for diabetic retinopathy available in the country? (CORE) ☐ **Yes** ☐ **No**

If patients have to pay, what is the cost of a regular laser retina photocoagulation session (in current US$)? US$ ☐ Don't know

f. Has the WHO *Tool for the assessment of diabetic retinopathy and diabetes management systems* (TADDS) been implemented? ☐ **Yes** ☐ **No**

Maturity level score

Needs no immediate action – 4	— Diabetic eye care services are available everywhere for the whole population. — Services are available in all locations and costs are paid by insurance schemes, subsidized by the state or available free of charge.
Needs minor strengthening – 3	— Diabetic eye care services are available everywhere but do not reach some of the population. — Services are available in most rural and urban areas providing care at district, regional, provincial and tertiary levels, however, costs and transport are barriers for some patients.
Needs major strengthening – 2	— Some diabetic eye care services are available to part of the population. — Services are available in regional hospitals or health centres and are partly paid by the patients. Populations in rural areas cannot reach services easily; transport to the health facilities and the cost of service are the main barriers.
Needs establishing – 1	— Diabetic eye care services are available in few places and only to a few people. — Services are not available everywhere; they can be found only in large hospitals and are accessible only to those who can pay.

Possible actions

- Develop evidence-based programmes for detection, treatment, referral and periodic follow-up of diabetic retinopathy.
- Monitor clinician and patient adherence to ensure periodic eye examinations for people with diabetes, even if asymptomatic.
- Raise awareness among stakeholders, including national noncommunicable diseases/diabetes programmes, about the eye care needs of people with diabetes.
- Implement the WHO Tool for the assessment of diabetes and diabetic retinopathy (TADDS) to inform a situation analysis and the development of diabetic retinopathy programmes.

11

Service delivery – access

Integrated refractive and optical services

Definition

Refractive services refer to an assessment of the corrective needs of a person with uncorrected refractive error. Optical services refer to provision of correction spectacles or contact lenses.

Documentation or evidence

b. Reference to the prevalence survey used for calculation of REC and eREC (if the information is available, provide disaggregated data).

f. Details on existing health financing mechanisms to make spectacles more affordable.

g. WHO *Tool for the assessment of refractive error services* (TARES) reports.

Questionnaire

a. Total number of spectacles provided in the past calendar year in the whole country.

Number of spectacles provided in the past calendar year by sector		
Government eye care services	**Private for-profit**	**Private not-for-profit**
Nr	Nr	Nr
Don't know	Don't know	Don't know

How were these data sourced?

- Estimate by the respondent
- Evidence-based with documentation provided
- Other, specify

Notes

- Optical services refer to provision of correction spectacles and contact lenses.
- In order to calculate spectacle coverage, population surveys need to collect data not only on the unmet need (uncorrected refractive error, assessed by testing presenting visual acuity), but also the met need in the population (refractive error that has been corrected with spectacles or contact lenses, assessed by testing uncorrected visual acuity).
- REC is calculated to assess the degree to which refractive error services are meeting the need. It is defined as the number of people in a defined population with refractive error correction as a proportion of those needing correction plus those corrected. Calculation must use data from methodologically sound and representative prevalence surveys.
- eREC not only captures the magnitude of coverage, but also the concept of "effective" coverage to ensure that people who need health services receive them with sufficient quality to produce the desired gain in vision. It is defined as the proportion of people who have received refractive error services (i.e. spectacles, contact lenses or surgery) and have a resultant good quality outcome (i.e. presenting visual acuity less than 6/12 in the better eye that improves to 6/12 or better on pinhole visual acuity or refraction) relative to the number of people in need of refractive error services. eREC is calculated as follows:

continued on next page

b. Refractive error coverage (REC) and effective refractive error coverage (eREC) – distance vision.

Current data – past calendar year		
	Refractive error coverage (REC) distance	**Effective refractive error coverage (eREC) distance**
Year applicable to		
All	Nr Don't know	Nr Don't know
Female	Nr Don't know	Nr Don't know
Male	Nr Don't know	Nr Don't know
0–18 years	Nr Don't know	Nr Don't know
19–50 years	Nr Don't know	Nr Don't know
Over 51 years	Nr Don't know	Nr Don't know
Rural	Nr Don't know	Nr Don't know
Urban	Nr Don't know	Nr Don't know

Notes (continued)

Effective spectacle coverage for distance refractive error and near vision impairment due to presbyopia should be measured and reported separately.

Distance effective coverage of refractive error

$$\left(\frac{a+b}{a+b+c+d}\right) \times 100$$

a = Individuals with UCVA <6/12 in the better eye who present with spectacles or contact lenses for distance and whose PVA is ≥6/12 in the better eye (met need)

b = Individuals with a history of refractive surgery whose UCVA is ≥6/12 in the better eye (met need)

c = Individuals with UCVA <6/12 in the better eye who present with spectacles or contact lenses for distance or a history of refractive surgery and a PVA of <6/12 in the better eye but who improve to ≥6/12 on PH VA or refraction (undermet need)

d = Individuals with UCVA <6/12 in the better eye who do not have distance correction and who improve to ≥6/12 on PH VA or refraction (unmet need)

continued on next page

c. Refractive error coverage (REC) and effective refractive error coverage (eREC) – near vision.

Current data – past calendar year		
	Refractive error coverage (REC) near	**Effective refractive error coverage (eREC) near**
Year applicable to		
All	Nr Don't know	Nr Don't know
Female	Nr Don't know	Nr Don't know
Male	Nr Don't know	Nr Don't know
Rural	Nr Don't know	Nr Don't know
Urban	Nr Don't know	Nr Don't know

Notes (continued)

Near effective coverage of refractive error

$$\left(\frac{a}{a+b+c}\right) \times 100$$

a = Individuals with UCVA <N6 at 40 centimetres who present with spectacles for near and whose PVA is ≥N6 with both eyes open (met need)

b = Individuals with distance BCVA of ≥6/12 in at least one eye who present with spectacles for near and whose PVA was <N6 (undermet need)

c = Individuals with distance BCVA of ≥6/12 in at least one eye who do not have correction for near and whose UCVA was <N6 (unmet need)

BCVA = best corrected visual acuity (pinhole or refraction)

PH VA = pinhole visual acuity

PVA = presenting visual acuity

UCVA = uncorrected visual acuity

- REC and eREC are among the coverage indicators to track universal health coverage: https://www.who.int/healthinfo/universal_health_coverage/report/2017/en/
- Trend data: if data on cataract surgical rate (CSR), cataract surgical coverage (CSC) and effective cataract surgical coverage (eCSC) are not available from 5 years ago, then report available historic data and specify the applicable year.
- The WHO *Tool for the assessment of refractive error services* (TARES) can be accessed on the WHO website (XXX)

d. Refractive error coverage (REC) and effective refractive error coverage (eREC) five years previously (trend data) – distance vision.

Trend data – 5 years previously		
	Refractive error coverage (REC) distance	**Effective refractive error coverage (eREC) distance**
Year applicable to		
All	Nr Don't know	Nr Don't know

e. Refractive error coverage (REC) and effective refractive error coverage (eREC) five years previously (trend data) – near vision.

Trend data – 5 years previously		
	Refractive error coverage (REC) near	**Effective refractive error coverage (eREC) near**
Year applicable to		
All	Nr Don't know	Nr Don't know

How were these data sourced?

- Rapid population-based eye health surveys
- Comprehensive population-based eye health surveys
- Non-eye health surveys
- Statistical modelling
- Other, specify

f. Are government-based health financing mechanisms in place and available to make spectacles more affordable, including for low-income patients? (CORE)

☐ **Yes** ☐ **No**

If yes, what is the interval for eligibility to receive new prescription spectacles covered by health insurance or government funding (in years)?

☐ Years

g. Has the WHO *Tool for the assessment of refractive error services* (TARES) been implemented?

☐ **Yes** ☐ **No**

Maturity level score

Needs no immediate action – 4	— Refractive and optical services are accessible for the whole population. — Optical services are accessible in public and private facilities and costs are paid by insurance schemes, subsidized by the state or spectacles are available free of charge for these who need them.
Needs minor strengthening – 3	— Refractive and optical services are available everywhere but do not reach some of the population. — Optical services are available in public and private facilities although costs and transport are barriers for some patients.
Needs major strengthening – 2	— Some refractive and optical services are available to part of the population. — Optical services are available in private facilities and in some regional hospitals and are fully paid by the patients. Populations in rural areas cannot reach services easily; transport to the health facilities and the cost of service are the main barriers.
Needs establishing – 1	— Refractive and optical services are available in few places and only to a few people. — Optical services are not available everywhere; they can be found only in private facilities and are accessible only to those who can pay.

Possible actions

- Advocate for the provision of spectacles as responsibility of the health system, in line with the WHO *Priority assistive products list* (APL) (https://www.who.int/phi/implementation/assistive_technology/EMP_PHI_2016.01/en/), which includes spectacles.
- Develop health financing mechanisms to make spectacles more affordable and accessible for low-income patients.
- Develop a system for certification of the prescription and dispensing of spectacles to ensure quality services.
- Consider advocacy for price subsidies for frames/lenses dispenses in the public sector in order to improve affordability for low-income patients.

12

Service delivery – access

Integrated low-vision and vision rehabilitation services

Definition

Low-vision and vision rehabilitation services are for people who have residual vision that can be used and enhanced by aids, making them fully functional. Services may include provision of habilitation, rehabilitation, assistive technology and assistance and support services.

Documentation or evidence

d. Details on existing health financing mechanisms to make low-vision aids more affordable.

h. List of the organizations for visually impaired and blind children and adults, including contact details.

i. WHO *Tool for assessment of rehabilitation services and systems* (TARSS) reports and details on how the results were translated and/or used for planning (https://www.who.int/blindness/publications/TARSS/en/).

Notes

— Vision rehabilitation refers to a continuum of activities from assessment of visual functions through to provision of appropriate assistive devices and technologies, and social inclusion, all geared to optimizing visual functioning and a sense of well-being.

— The term "low vision" as used here refers to functional low vision and must not be confused with the WHO definitions of moderate and severe visual impairment.

Questionnaire

a. Are low-vision and vision rehabilitation services available in the country? (CORE) ☐ **Yes** ☐ **No**

If yes, how many low-vision and rehabilitation centres are there in the country? ☐ Nr ☐ Don't know

If yes, where are they situated? Select all that apply.

☐ Tertiary level eye hospitals
☐ Provincial or district hospitals
☐ Rehabilitation facilities
☐ Private eye clinics
☐ Nongovernment services

If yes, what is the share of low-vision and vision rehabilitation services provided by government: ☐ % ☐ Don't know

Private for-profit sector ☐ % ☐ Don't know

Private not-for-profit sector ☐ % ☐ Don't know

b. Who can prescribe low-vision aids?

- Any ophthalmologist or optometrist
- An ophthalmologist or optometrist specialized or licenced in low-vision services
- Others, specify

c. Who covers the costs of low-vision and vision rehabilitation services? Select all that apply.

- Government
- Health insurance (any)
- Nongovernment
- Patients
- Other, specify

d. Are health financing mechanisms in place and available to make low-vision devices more affordable, including for low-income patients? **Yes** **No**

If yes, what is the interval for eligibility to receive new low-vision devices covered by health insurance or government funding (in years)? Years

e. Indicate the available schooling for blind and visually impaired children.

- They can be enrolled only in schools for the blind
- There are no schools for the blind, they are fully integrated into regular schools
- They can attend either schools for the blind or are integrated in regular schools
- Other, specify

f. What proportion of blind and visually impaired children attend each of the following (note: should add up to 100%):

Schools for the blind ☐ %

☐ Don't know

Regular schools ☐ %

☐ Don't know

g. Are there referral and communication systems between eye care professionals and others (e.g. schools, general practitioners) for the provision of:

Low-vision aids ☐ Yes ☐ No

Rehabilitation services ☐ Yes ☐ No

h. Are there any organizations for visually impaired and blind children and adults? ☐ Yes ☐ No

i. Has the WHO *Tool for assessment of rehabilitation services and systems* (TARSS) been implemented? ☐ Yes ☐ No

Maturity level score

Needs no immediate action – 4	— Low-vision and vision rehabilitation services are available everywhere for the whole population. — Services are available in all urban areas providing care at district, regional, provincial and tertiary levels and costs are paid by insurance schemes, subsidized by the state or available free of charge for those who cannot afford.
Needs minor strengthening – 3	— Low-vision and vision rehabilitation services are available everywhere but do not reach some of the population. — Services are available in most urban areas providing care at district, regional, provincial and tertiary levels although costs and transport are barriers for some patients.
Needs major strengthening – 2	— Some low-vision and vision rehabilitation services are available to part of the population. — Services are available in regional hospitals and are partly paid by the patients. Populations in rural areas cannot reach services easily; transport to the health facilities and the cost of service are the main barriers.
Needs establishing – 1	— Low-vision and vision rehabilitation services are available in few places and only to a few people. — Services are not available everywhere; they can be found only in large hospitals and are accessible only to those who can pay.

Possible actions

- Advocate for the societal obligation to fulfil the rights of individuals with vision impairment and blindness that cannot be treated, to participate in society on an equal basis with others.
- Develop policies and plans for services that are integrated and decentralized, for example, rehabilitation and habilitation services provision within primary and secondary health care settings.
- Develop funding mechanisms for services to reduce out-of-pocket costs for those that cannot afford services.
- Train professionals to provide services.
- Raise population awareness of the availability of services.

13

Service delivery – quality

Extent to which eye care services are delivered in a timely way and along a continuum, with effective referral practices

Definition

Timely refers to eye care being provided quickly, or as required, after a need is recognized. It includes care delivered on a continuum that results in a smooth transition between health services. Referral practices are highlighted as a key component in the achievement of timely care and are important for increasing access to care.

Documentation or evidence

a. Reference for the package of eye care services.

c. Reports of eye care referral system assessments.

References for strategies and approaches to improve eye care referral management.

Questionnaire

a. Does the health system define the package of eye care services to be provided at each level of care? (CORE) ☐ **Yes** ☐ **No**

b. Are national referral guidelines for health practitioners in place? ☐ **Yes** ☐ **No**

If yes, does it include eye health? ☐ Yes ☐ No

c. Has there been an assessment of the efficiency of the referral system for eye care within the past 10 years?

If yes, did it include barriers for compliance with referrals? ☐ Yes ☐ No

d. What is the average waiting list time period to receive cataract surgery (in days)? (CORE)

At government facilities ☐ **Days**

At private facilities ☐ **Days**

Notes

- Case management refers to a collaborative process of assessment, planning, facilitation and advocacy for options and services to meet an individual's health needs through communication and available resources to promote quality cost-effective outcomes. It typically involves a single case manager working with a patient. The role of the case manager is to undertake assessment, monitoring, planning, advocacy and linking of the patient with services.
- Case coordination refers to communication, information sharing and collaboration, and occurs regularly with case management and other staff serving the patient within and between agencies in the community. Coordination activities may include directly arranging access, reducing barriers to obtaining services, establishing linkages, and other activities recorded in progress notes.
- Health services directories are designed to enable consumers and health providers to access reliable and consistent information about health services available in the country.

e. Is the concept of case coordination and/or case management actively promoted and applied across the health system in the country? ☐ **Yes** ☐ **No**

If yes, do case coordinators and/or case managers commonly support people seeking eye care? ☐ Yes ☐ No

f. Is a health service directory available to the public? ☐ **Yes** ☐ **No**

If yes, does it include

☐ Ophthalmologists ☐ Optometrists ☐ Low-vision and vision rehabilitation service providers

Maturity level score

Needs no immediate action – 4	— There is a high level of timely eye care across all levels of care. Services are widely available with minimal waiting lists. — There is a high level of continuum of care for eye care and between eye care and other services, and transitions occur very smoothly at a high level of frequency. Multiple efforts and mechanisms exist to achieve this, including models of care, referral pathways, two-way clinical referral communication, service directories, case management and case coordination.
Needs minor strengthening – 3	— There is a moderate level of timely eye care across most levels of care. Services are mostly timely with a few waiting lists. — There is a moderate level of continuum of care for eye care and between eye care and other services, and transitions occur moderately smoothly at a moderate level of frequency. Some efforts and mechanisms exist to achieve this – but more are needed. Efforts may include models of care, referral pathways, two-way clinical referral communication, service directories, case management and case coordination.
Needs major strengthening – 2	— There is a low level of timely eye care across most levels of care. Services commonly have waiting lists. — There is a low level of continuum of care for eye care and between eye care and other services and smooth transitions occur at a low level of frequency. Few efforts and mechanisms exist to achieve this – many more are needed.
Needs establishing – 1	— There is a very low level of timely eye care across all levels of care. Services commonly have long waiting lists. — There is a very low level of continuum of care for eye care and between eye care and other services and smooth transitions occur at a very low level of frequency. Very few efforts and mechanisms exist to achieve this – many more are needed.

Possible actions

- Carry out a health system referral assessment to identify current problems with the referral system, including levels of patient satisfaction and confidence in services at each level.
- Identify solutions to increase services efficiency to reduce waiting lists.
- Identify aims for policy changes to overcome common issues such as overuse of hospitals in urban areas and underuse in rural areas or by disadvantaged groups.
- Strengthen mechanisms to support a continuum, such as clinical guidelines, referral practices, case management and service directories.

14

Service delivery – quality

Extend to which eye care services are person-centred, flexible and engage patients in decision-making

Definition

Person-centred care refers to the way in which care is delivered; it is a way of thinking and doing things that sees people as equal partners in planning, and supports individualized, flexible adaptation and adjustment of care to meet the person's needs and priorities.

Documentation or evidence

c. References or reports on patient care experience data in eye care settings and/or patient satisfaction with eye care services.

d. References on approaches to frequently adapt eye care to the needs and priorities of patients and their families.

Notes

- Person-centred care is focused and organized around the health needs and expectations of people and communities rather than on diseases. It extends the concept of patient-centred care to individuals, families, communities and society.
- Patient experience is a process indicator and reflects the interpersonal aspects of quality of care received. This indicator is broadly composed of three domains: effective communication; respect and dignity; and emotional support.
- Patient satisfaction is an outcome measure of a patient's experiences of care, along with health outcomes and confidence in the health system, reflecting whether or not the care provided has met the patient's needs and expectations.
- For more information, see the WHO *Global strategy on people-centred and integrated health services* at: http://www.who.int/topics/primary_health_care/en/.

Questionnaire

a. Is person-centred care recognized as a dimension of quality in its own right in strategic and other policy documentation in the country? (CORE) ☐ **Yes** ☐ **No**

b. Is person-centred care a component of undergraduate and postgraduate education programmes for health professionals? ☐ **Yes** ☐ **No**

If yes, is it also a component of ophthalmology training? If such training is not provided, select NA. ☐ Yes ☐ No ☐ NA

If yes, is it also a component of ophthalmic nursing training? If such training is not provided, select NA. ☐ Yes ☐ No ☐ NA

c. Does the health system systematically collect in key health care settings:

Patient care experience data for eye care patients? ☐ **Yes** ☐ **No**

Patient satisfaction data for eye care patients? ☐ **Yes** ☐ **No**

d. If collected, are data on patient care experience and patient satisfaction used to adapt eye care to the needs and priorities of patients and their family? ☐ **Yes** ☐ **No**

Maturity level score

Needs no immediate action – 4	— The concept and practice of person-centred care are widely understood across health and there is a high level of person-centred eye care. — The delivery of eye care is frequently tailored and adapted to the needs and priorities of patients and their families.
Needs minor strengthening – 3	— The concept and practice of person-centred care are moderately understood across health and there is a moderate level of person-centred eye care. — The delivery of eye care is sometimes tailored and adapted to the needs and priorities of patients and their families.
Needs major strengthening – 2	— The concept and practice of person-centred care are not widely understood across health. A small number of personnel may practice it when they can. There is a low level of person-centred eye care. — The delivery of eye care is occasionally tailored and adapted to the needs and priorities of patients and their families.
Needs establishing – 1	— The concept and practice of person-centred care are not understood in eye care. There is a very low level of person-centred eye care. — The delivery of eye care is rarely tailored and adapted to the needs and priorities of patients and their families.

Possible actions

- Train eye care practitioners on person-centred care.
- Train/promote education and empowerment of users and their families/carers in eye care and develop more education materials for families.
- Ensure input of users and their families for services decision-making, delivering flexible and tailored services.
- Develop case management and coordination practices with users engaged in the decision-making for delivering eye care that is flexible and tailored.

15

Service delivery – quality

Eye care services acceptability and adherence

Definition

This refers to people's willingness to seek eye care – an indication that people are not discouraged from seeking services by factors such as cost or accessibility. Acceptability is high when users perceive services to be of good quality, effective, socially and culturally appropriate, accessible and convenient.

Documentation or evidence

a. Reference on health information management system data on eye care patient perception and adherence.

   Reference on use of information to improve acceptability of eye care services.

b. Details on health literacy activities aiming at eye care patients.

c. Details on training provided to eye care personnel on appropriate services.

Notes

— Patient adherence refers to the extent to which a person's behaviour – e.g. taking medication, following a diet and/or executing lifestyle changes – corresponds with agreed recommendations from a health care provider.

— Health literacy is the capacity to obtain and understand basic health information required to make appropriate health decisions on the part of patients, families and the wider communities. Poor health literacy is a challenge for health care quality, for example, patients with low literacy have difficulty following medical instructions, interacting with the health care system and reading or complying with medicine prescriptions.

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Questionnaire

a. Does the health information system periodically collect information about patient perception and adherence? ☐ **Yes** ☐ **No**

If yes, are eye care services included? ☐ Yes ☐ No

If yes, is the information used to improve acceptability of eye care services? ☐ Yes ☐ No

b. Is there a programme to promote health literacy, including adherence, to eye care patients? ☐ **Yes** ☐ **No**

c. Is there a programme to improve the health literacy environments within the eye care service, to match the health literacy level of the people who use the services? ☐ **Yes** ☐ **No**

d. Are reports on the quality and cost of eye care services at government facilities commonly made available to the public? ☐ **Yes** ☐ **No**

Notes (Continued)

- Health literacy environment is the way services are provided, and the things that make it easier or harder for people to access, understand and use information and services.
- Public reports on quality and cost refer to comparative information on performance aimed at consumers, payers, health care organizations and providers to increase transparency and accountability for eye care services, for example, report cards on hospital performance, comparative prices and costs in a community.

e. Do recruitment processes for eye care commonly consider workforce characteristics and ability (e.g. sex, language, culture, age) to maximize patient acceptability and promote demand for services? ☐ **Yes** ☐ **No**

Maturity level score

Needs no immediate action – 4	— The community perceives eye care services to be of a high level of quality and effectiveness, and they are highly valued and experience strong demand. — The organization of services and delivery of eye care interventions are convenient. — The eye care workforce reflects all the characteristics required (sex, language, age, ethnicity, etc.) to deliver socially and culturally appropriate and acceptable services.
Needs minor strengthening – 3	— The community perceives eye care services to be of a moderate level of quality and effectiveness; is the services are moderately valued and experience good demand. — The organization of services and delivery of eye care interventions are convenient, and they are somewhat easy to reach. — The eye care workforce reflects some of the characteristics required (sex, language, age, ethnicity, etc.) to deliver socially and culturally appropriate and acceptable services.
Needs major strengthening – 2	— The community perceives eye care services to be of a low level of quality and effectiveness, and they are not valued very much and experience low levels of demand. — The organization of services and delivery of eye care interventions are such that they are often inconvenient to reach. — The eye care workforce reflects few of the characteristics required (sex, language, age, ethnicity, etc.) to deliver socially and culturally appropriate and acceptable services.

Needs establishing – 1

- The community perceives eye care services to be of a very low level of quality and effectiveness, and they are not at all valued and experience low levels of demand.
- The organization of services and delivery of eye care interventions are such that they are very often inconvenient to reach.
- The eye care workforce reflects very few of the characteristics required (sex, language, age, ethnicity, etc.) to deliver socially and culturally appropriate and acceptable services.

Possible actions

- Undertake actions that address concerns with quality.
- Invite patients or representative groups to join committees or working groups to participate in the planning of eye care services delivery.
- Develop eye care services that are convenient, culturally safe and suitable to population needs.
- Provide the best information to the needs of each person and checking that it is understood.
- Provide information to users and their families in a variety of formats, including written and spoken information, pictures, diagrams, models, audio-video demonstrations and group discussions using plain language.
- Improve eye health literacy environments within health services, to match the eye health literacy levels of the people who use the services.
- Consider the physical design and layout of services.
- Provide staff orientation and ongoing training.
- Develop a diverse eye care workforce to make eye care socially and culturally acceptable across the population.

16

Service delivery – quality

Extent to which eye care interventions are evidence based

Definition

Evidence-based eye care interventions are those that have been peer-reviewed, documented and show empirical evidence of effectiveness.

Documentation or evidence

a. Clinical practice guidelines for eye care services.

b. Reference on how the level of evidence of clinical practice guidelines, models of care, standards or protocols is assessed.

Reference on how adherence to clinical practice guidelines, models of care, standards or protocols is assessed.

Notes

Not applicable

Questionnaire

a. Are there clinical practice guidelines for eye care services? (CORE)

- ☐ **National guidelines exist**
- ☐ **National guidelines do not exist but international guidelines are in place**
- ☐ **No guidelines in place**

If yes, are they being used?

☐ Not used ☐ Moderately used ☐ Widely used

b. Is there a process by which government assesses the level of evidence for clinical practice guidelines, models of care, standards or protocols that are used to guide health care services, including eye care, in the country? ☐ **Yes** ☐ **No**

If yes, is there a government platform or portal to review and share these documents? ☐ Yes ☐ No

c. Is there a process by which government assesses the level of adherence to clinical practice guidelines, models of care, standards or protocols? ☐ **Yes** ☐ **No**

Maturity level score

Needs no immediate action – 4	— There is a high level of evidenced-based eye care interventions utilized; there is wide availability of national clinical practice guidelines, protocols, standards of care, models of care and other guidance that supports their utilization for a wide range of conditions.
Needs minor strengthening – 3	— There is a moderate level of evidenced-based eye care interventions utilized; there are some national clinical practice guidelines, protocols, standards of care, models of care and other guidance that support the utilization but gaps exist and a few more are needed.
Needs major strengthening – 2	— There is a low level of evidenced-based eye care interventions utilized; there are only a few national clinical practice guidelines, protocols, standards of care, models of care and other guidance that support the utilization of evidence-based eye care interventions but more needed.
Needs establishing – 1	— There is a very low level of evidenced-based eye care interventions utilized; there are very few or no national clinical practice guidelines, protocols, standards of care, models of care and other guidance that support the utilization of evidence-based eye care interventions but many more are needed.

Possible actions

- Develop clinical practice guidelines, standards of care, models of care and other guidance for priority conditions.
- Promote adherence to guidelines and standards.
- Enable multidisciplinary teamwork practices.
- Strengthen the standard of education and increase professional development opportunities. Develop supervision and mentoring programmes.
- Develop research capacity.

17

Service delivery – quality

Safety of eye care services

Definition

Patient safety refers to the absence of preventable harm to a patient during the process of providing eye care and to keeping the risk of unnecessary harm associated with eye care provision to an acceptable minimum. Unsafe medical care may lead patients, especially in low-income countries, to opt out of using the formal health care system, thereby making unsafe care a significant barrier to access for many of the world's poor. Quality and safety of patient care are intimately linked with clinical and organizational governance and management.

Documentation or evidence

b. Clinical guidelines for patient safety, if they mention eye care.

c. Reports or case studies on patient care assessments for eye care services, including building of staff capacity in patient safety and patient involvement in improving safety.

Notes

— Patient safety standards are a set of requirements that are critical for the establishment of a patient safety programme at the hospital level, for example, inspection of institutions for minimum safety standards, safety protocols or surgical checklists approved by the Ministry of Health.

— Guidelines for patient safety are commonly developed by the medical college responsible for the training and professional development of ophthalmologists.

Questionnaire

a. Are government accredited mechanisms in place to ensure patient safety standards across health care? (CORE) ☐ **Yes** ☐ **No**

If yes, do they include eye care? ☐ Yes ☐ No

b. Do clinical guidelines for patient safety exist? ☐ **Yes** ☐ **No**

If yes, do they include aspects of eye care? ☐ Yes ☐ No

c. Are ophthalmic teams periodically assessed on being up-to-date in their safety practices? ☐ **Yes** ☐ **No**

d. Which of the following systems are in place in the country, regarding eye care? Select all that apply.

☐ **Identify and manage patient-related risks**

☐ **Report and analyse incidents**

☐ **Report adverse events from medications and devices (including contact lenses and prescribed spectacles)**

☐ **None**

Maturity level score

Needs no immediate action – 4	— There is a high level of patient safety as health care has many mechanisms in place to support delivery of safe care, and eye care is well integrated into these practices. — Quality improvement, quality assurance and/or quality learning systems are strongly integrated across eye care; actions such as incident reporting occur and are tracked and acted upon.
Needs minor strengthening – 3	— There is a moderate level of patient safety as health care has a few mechanisms in place to support delivery of safe care, and eye care is moderately well integrated into these practices. — Quality improvement, quality assurance and/or quality learning systems are integrated across eye care; actions such as incident reporting occur and are mostly tracked and acted upon.
Needs major strengthening – 2	— There is a low level of patient safety as health care has only a few mechanisms to support delivery of safe care, and eye care is not well integrated into these practices. — Quality improvement, quality assurance and/or quality learning systems are not well established across eye care; actions such as incident reporting do not occur.
Needs establishing – 1	— There is a very low level of patient safety as health care does not have established mechanisms to support delivery of safe care, and eye care is very poorly integrated into these practices. — Quality improvement, quality assurance and/or quality learning systems are not established across eye care; actions such as incident reporting do not occur.

Possible actions

- Ensure integration of eye care into mechanisms across health care that support safety.
- Review leadership of national ophthalmology professional associations or colleges on all matters of quality and safety of ophthalmic care.
- Promote reporting of patient safety incidents.
- Involve and communicate with patients and the public.
- Promote clinician submitted quality improvement reports in eye care.

18

Service delivery – quality

Multilevel accountability for performance of eye care services

Definition

This refers to accountability at the level of individual health personnel, health service providers and governing agencies. Accountability means roles and responsibilities are clear and people are held to account. Accountability and transparency occur when there is acceptance of the consequences of actions for the areas of health for which people assume responsibility.

Documentation or evidence

a. Performance review templates.

Note

— Performance-based remuneration refers to remuneration of health care providers at the individual or group level, based on performance measures. Often the amount contingent on performance is a subcomponent of the full payment, which may be based on fee for service, capitation or other calculations.

Questionnaire

a. Which of these systems are in place to systematically monitor eye care services in the country? (CORE)
Select all that apply.

- ☐ Quality assurance programmes
- ☐ Facility level accreditation programmes
- ☐ Service audits
- ☐ Regular service user feedback analysis
- ☐ None

b. Does the national eye care plan or a national strategy identify goals and targets?
If it doesn't exist, select NA.

	Yes	**No**	**NA**
If yes, is there a formal process or reporting against goals and targets?		Yes	No
If yes, are the roles and responsibilities in relation to goals and targets identified for health services providers and governing agencies?		Yes	No
If yes, is a process in place for actions by the Ministry of Health if goals or targets are not achieved?		Yes	No

c.	**Are staff performance reviews conducted periodically for health workers?**	**Yes**	**No**
	If yes, is accountability for the care experience of patients commonly integrated into the staff performance review process?	Yes	No
d.	**Is the concept of performance-based remuneration for health workers commonly applied in government facilities?**	**Yes**	**No**
	If yes, does it include eye care workers?	Yes	No
e.	**Is the compliance of the people who provide information on eye care data within the Health Information System monitored?**	**Yes**	**No**

Maturity level score

Needs no immediate action – 4	— There is a high level of accountability for eye care within governing agencies, service providers and health personnel. Agencies and individuals have a high level of clarity regarding roles and responsibilities; they are held to account for their performance through rewards and sanctions. — Accountability for eye care is underpinned by many mechanisms, including routine performance reviews and regular reporting against baselines and targets.
Needs minor strengthening – 3	— There is a moderate level of accountability for eye care within governing agencies, service providers and health personnel. Agencies and individuals have a moderate level of clarity regarding roles and responsibilities. They are mostly held to account for their performance through rewards and sanctions. — Accountability for eye care is underpinned by a moderate range of mechanisms, including some performance reviews and some reporting against baselines and targets.
Needs major strengthening – 2	— There is a low level of accountability for eye care within governing agencies, service providers and health personnel. Agencies and individuals have a low level of clarity regarding roles and responsibilities. People are not consistently held to account for their performance through rewards and sanctions. — Accountability for eye care is underpinned by few mechanisms and low levels of reporting against baselines and targets.
Needs establishing – 1	— There is a very low level of accountability for eye care within governing agencies, service providers and health personnel. Agencies and individuals have a very low level of clarity regarding roles and responsibilities. People are rarely held to account for their performance through rewards and sanctions. — There are very few or no mechanisms ensuring accountability for eye care and there is no reporting on eye care.

Possible actions

- Establish a monitoring and evaluation framework for eye care, including results and/or performance measurement.
- Introduce quality assurance, service audits and service user feedback.
- Clarify and document the governance and accountability structure for eye care, including roles and responsibilities.
- Establish regular reporting requirements.
- Consider establishing sanctions and rewards.

19

Workforce and infrastructure

Workforce availability

Definition

This refers to the availability of eye care personnel such as ophthalmologists, optometrists and allied ophthalmic personnel.

Documentation or evidence

a. Reference and date of collection for the number of eye care personnel in the country, by sector.

c. Reference on assessments on the availability of health workers with skills in eye care.

d. Information on the training curriculum for "cataract surgeons", the estimated number in the country and the types of cataract surgery they usually perform.

e. Reports on measures to ensure appropriate distribution of eye care personnel.

Note

— The *National health workforce accounts: a handbook* (NHWA) was developed by WHO to assess eye care workforce dynamics and may be used to assess availability of health workers with skills in eye care (https://www.who.int/hrh/statistics/nhwa/en/).

Questionnaire

a. Total number of eye care personnel (public and private), by level of the health system. Specify gender if the information is available. Select NA if the profession does not exist.

		Primary level	Secondary level	Tertiary level	Total current year	Total 5 years ago
Total ophthalmologists	NA	Nr	Nr	Nr	Nr	Nr
		Don't know	Don't know	Don't know	Don't know	Don't know
General ophthalmologists	NA	Nr	Nr	Nr	Nr	Nr
		Don't know	Don't know	Don't know	Don't know	Don't know
Retinal ophthalmologists	NA	Nr	Nr	Nr	Nr	Nr
		Don't know	Don't know	Don't know	Don't know	Don't know
Paediatric ophthalmologists	NA	Nr	Nr	Nr	Nr	Nr
		Don't know	Don't know	Don't know	Don't know	Don't know
Other ophthalmic subspecialists	NA	Nr	Nr	Nr	Nr	Nr
		Don't know	Don't know	Don't know	Don't know	Don't know

		Primary level	Secondary level	Tertiary level	Total current year	Total 5 years ago
Total optometrists	NA	Nr	Nr	Nr	Nr	Nr
		Don't know	Don't know	Don't know	Don't know	Don't know
Total allied ophthalmic personnel	NA	Nr	Nr	Nr	Nr	Nr
		Don't know	Don't know	Don't know	Don't know	Don't know
Opticians	NA	Nr	Nr	Nr	Nr	Nr
		Don't know	Don't know	Don't know	Don't know	Don't know
Ophthalmic nurses	NA	Nr	Nr	Nr	Nr	Nr
		Don't know	Don't know	Don't know	Don't know	Don't know
Orthoptists	NA	Nr	Nr	Nr	Nr	Nr
		Don't know	Don't know	Don't know	Don't know	Don't know
Ophthalmic and optometric assistants	NA	Nr	Nr	Nr	Nr	Nr
		Don't know	Don't know	Don't know	Don't know	Don't know
Ophthalmic and optometric technicians	NA	Nr	Nr	Nr	Nr	Nr
		Don't know	Don't know	Don't know	Don't know	Don't know
Vision therapists	NA	Nr	Nr	Nr	Nr	Nr
		Don't know	Don't know	Don't know	Don't know	Don't know
Ophthalmic photographers and imagers	NA	Nr	Nr	Nr	Nr	Nr
		Don't know	Don't know	Don't know	Don't know	Don't know

		Primary level	Secondary level	Tertiary level	Total current year	Total 5 years ago
Ophthalmic administrators	NA	Nr	Nr	Nr	Nr	Nr
		Don't know	Don't know	Don't know	Don't know	Don't know

b. Total number of eye care personnel (public and private), by geographic distribution. Specify gender if the information is available. Select NA if the profession does not exist. (CORE)

		Urban	Semi-urban	Rural
Ophthalmologists	NA	Nr	Nr	Nr
		Don't know	Don't know	Don't know
Optometrists	NA	Nr	Nr	Nr
		Don't know	Don't know	Don't know
Allied ophthalmic personnel	NA	Nr	Nr	Nr
		Don't know	Don't know	Don't know

How were these data sourced?

- Estimate by the respondent
- Government source
- Other, specify

c. Are comprehensive assessments carried out on the availability of health workers with skills in eye care? (CORE) **Yes** **No**

d. Is the profession "cataract surgeon" (non-ophthalmologists that operate cataract) defined and accepted by the government? **Yes** **No**

e. Does the government take measures to ensure appropriate distribution of professionals, including for eye care, in all geographical areas, where needed? (CORE) ☐ **Yes** ☐ **No**

If yes, which, if any, of these support, supervision and mentoring mechanisms are typically in place for personnel in rural and remote contexts? Select all that apply.

- ☐ Access to appropriate and adequate training
- ☐ Accessible and adequate resources
- ☐ Active involvement in programme design, implementation and evaluation
- ☐ Financial incentives
- ☐ Regular feedback and evaluation of the programme
- ☐ Other, specify

Maturity level score

Needs no immediate action – 4	— There is an appropriate number (not too many nor too few) of eye care personnel available, regardless of geographic areas and including at the primary level of care. — Graduate numbers meet market demand.
Needs minor strengthening – 3	— There is an adequate number of eye care personnel available with small over- or under-supply issues. There are minor workforce shortages outside urban centres and at the primary level of care. — Graduate numbers are slightly lower than required.
Needs major strengthening – 2	— There is a mismatch between the number of eye care personnel available and market demand. There are moderate workforce shortages, especially outside urban centres and at the primary level of care. — Graduate numbers are unlikely to meet future demand.
Needs establishing – 1	— There are major deficits in the eye care workforce; too few are being trained to meet basic population needs, even in urban centres. There are severe workforce shortages at the primary level of care. — Graduate numbers are insufficient to meet future demand.

Possible actions

- Undertake an analysis of the eye care workforce and plan accordingly.
- Establish new eye care training programmes.
- Identify areas (level of the health system and geographic distribution) where there are chronic eye care workforce shortages and develop specific strategies to address this.
- Prioritize eye care workforce development to serve communities at the primary level of care.

20

Workforce and infrastructure

Workforce training and competencies

Definition

This refers to the undergraduate, postgraduate and other training that ensures development of an appropriate set of eye care competencies in the health workforce, comprising of ophthalmologists, optometrists, ophthalmic nurses, orthoptists and opticians.

Documentation or evidence

a. References for the professional definitions, type and length of training for ophthalmologist, optometrist, orthoptists, optician and certified ophthalmic nurse.

Reference and date of compiling the number of eye care personnel graduating each year, by training institution.

Reference for national curricula ophthalmologists, optometrists, orthoptists, opticians, ophthalmic nurses, others.

e. Reference for continuing medical education in eye care.

Notes

— Competency refers to sufficient knowledge and psychomotor, communication and decision-making skills and attitudes to enable the performance of actions and specific tasks to a defined level of proficiency.

— Definitions of professional groups are usually based on the minimal education and examinations required to obtain a licence to practise the profession.

Questionnaire

Training and competencies

	Ophthalmologist	Optometrist	Certified ophthalmic nurse	Orthoptist	Optician
a. What is the number of eye care personnel graduating each year? (CORE)	☐ Nr ☐ Don't know	☐ Nr ☐ Don't know	☐ Nr ☐ Don't know	☐ Nr ☐ Don't know	☐ Nr ☐ Don't know
b. Is the range of provided eye care services regulated and endorsed by the government or the relevant professional bodies? (CORE)	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
c. Is the type and length of training specified by the government, regulatory or accreditation body?	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
d. Is it compulsory for national curricula to be used by educational institutions?	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No

	Ophthalmologist	Optometrist	Certified ophthalmic nurse	Orthoptist	Optician
e. Is there compulsory continuing medical education (CME) and continuing professional development (CPD)? (CORE)	Yes No	Yes No	Yes No	Yes No	Yes No
If yes, at what frequency is training provided (in years)?	Years	Years	Years	Years	Years
If yes, who provides the training?					

Maturity level score

Needs no immediate action – 4	— There is a high level of knowledge of the eye care needs in the country, and training courses have been developed to meet population needs or market demand. — The standard of eye care training courses is high and there is a large range of training opportunities at the undergraduate and postgraduate level. — Eye care is integrated across many other areas of health professional training.
Needs minor strengthening – 3	— There have been efforts to identify country-specific eye care needs and develop training courses accordingly. — The standard of eye care training courses is moderate and there is a satisfactory range of training opportunities at the undergraduate and postgraduate level. — Eye care is integrated across some other areas of health professional training.
Needs major strengthening – 2	— There has been little effort to identify country-specific eye care needs and develop training courses accordingly. — The standard of eye care training courses is moderate to low and few training opportunities at the undergraduate and postgraduate level exist, leaving considerable scope for improvement. — Eye care is integrated across a small number of other areas of health professional training.
Needs establishing – 1	— Graduate and training courses are very limited and not well designed for the country's needs. — The standard of eye care training courses is low (based on international comparison) and there are extremely limited opportunities for undergraduate and postgraduate training. — Eye care is not integrated across other areas of health professional training.

Possible actions

- Support development of eye care training courses that are suited to the population needs and country context.
- Support postgraduate training and professional development opportunities.
- Development of evidence-based continuing medical education (CME) and continuing professional development (CPD).
- Support development of specializations and special interest groups for eye care professionals.

21

Workforce and infrastructure

Workforce planning and management

Definition

This refers to the leadership, management, planning and implementation of initiatives that strengthen the eye care workforce.

Documentation or evidence

a. Reference on government plans or strategies for the development of human resources for health that include human resources for eye care.

b. Reference on how licenses for ophthalmologists, optometrists and opticians are issued.

c. Reference or websites for codes of conducts for ophthalmologists and optometrists.

e. Case studies on the development of human resources for eye care in the country and how they were used to influence policy or high-level decision-making.

Note

— Task shifting has the potential to expand the number of mid-level health care workers that can safely provide clinical tasks, or key components of tasks, that would otherwise be restricted to higher level cadres such as ophthalmologists. Such a shift would require action on the continuous professional education and on educational accreditation mechanisms.

Questionnaire

a. Do government plans or strategies for the development of human resources for health care include human resources for eye care? (CORE) ☐ **Yes** ☐ **No**

If yes, are eye care training institutions, if they exist, involved in preparing plans or strategies for the eye health workforce? If they don't exist, select NA. ☐ Yes ☐ No ☐ NA

b. Is there an official process for issuing a government-endorsed registration and licence to practise for the following professions, if they exist; if not select NA?

Ophthalmologists	☐ **Yes**	☐ **No**	☐ **NA**
Optometrists	☐ **Yes**	☐ **No**	☐ **NA**

c. Is there a nationally accepted code of conduct for the following professions, if they exist; if not select NA?

Ophthalmologists	☐ **Yes**	☐ **No**	☐ **NA**
Optometrists	☐ **Yes**	☐ **No**	☐ **NA**

d. Is task shifting commonly practised as a strategy for mid-level health care workers to provide eye care-related tasks? ☐ **Yes** ☐ **No**

e. Have case studies been conducted on the development of human resources for eye care in the country (e.g. on distribution, retention strategies, subspecialty training)? ☐ **Yes** ☐ **No**

If yes, have results influenced policy or high-level decision-making in the area of eye care, including rehabilitation? ☐ Yes ☐ No

f. If there is a shortage of eye care workers, which, if any, of the following mechanisms are currently being implemented to scale up the eye care workforce? Select all that apply.

- ☐ **Government-led planning**
- ☐ **Increasing the number of posts available**
- ☐ **Government scholarships for eye care personnel**
- ☐ **International recruitment**
- ☐ **Mandated work setting post-graduation (e.g. rural)**
- ☐ **Financial incentives to retain skilled eye care professionals**
- ☐ **Other, specify**
- ☐ **NA (there is no shortage of eye care workers)**

Maturity level score

Needs no immediate action – 4	— Eye care workforce planning practices are strong; eye care is integrated into wider health workforce planning and has a targeted approach to meet sector needs. Planning is routine and comprehensive. — Information about the situation of eye care personnel is available. There is an understanding of what personnel exist, who and where they are, and of any significant issues.
Needs minor strengthening – 3	— Eye care workforce planning practices are at a moderate level and in some cases eye care is integrated into wider health workforce planning. Planning has been regular but not always routine or comprehensive. — Information about the situation of eye care personnel is available but there are a few gaps across some areas.
Needs major strengthening – 2	— Eye care workforce planning practices are limited, and eye care is not integrated into wider health workforce planning. Some planning has occurred but it is ad hoc and limited in scope. — Information about the situation of eye care personnel is limited and there are many gaps.
Needs establishing – 1	— Eye care workforce planning practices are extremely limited and almost non-existent; very little to no integration of eye care has occurred in wider health workforce planning. — Information about the situation of eye care personnel has not been collected or collated; there is very limited to no understanding of the situation.

Possible actions

- Collect routine data on the eye care workforce.
- Include planning for the eye care workforce in broader health workforce planning initiatives.
- Develop a specific plan for the eye care workforce, and/or ensure it is integrated into wider strategic planning for eye care services, including at the primary level of care.
- Ensure systems are in place for government-endorsed licencing to practise for ophthalmologists and optometrists as a minimum of eye care professions.

22

Workforce and infrastructure

Refractive and optical services regulation

Definition

Regulations refer to service quality, staff training and dual practice. Refractive services refer to an assessment of the corrective needs of a person with uncorrected refractive error. Optical services refer to provision of correction spectacles or contact lenses.

Documentation or evidence

c. References on plans or initiatives to integrate optical services.

e. References on policies to regulate the private sector providing refractive and optical services.

Note

— Efforts to integrate optical services may include advocacy in line with the WHO *Priority assistive products list* (APL) (https://www.who.int/phi/implementation/assistive_technology/EMP_PHI_2016.01/en/, which includes spectacles).

Questionnaire

a. Is certification required to:

Carry out a refraction ☐ **Yes** ☐ **No**

Write a prescription for spectacles ☐ **Yes** ☐ **No**

Dispense spectacles (CORE) ☐ **Yes** ☐ **No**

b. Which professions are allowed to:

Refract? Select all that apply.

☐ **Optometrists** ☐ **Opticians**

☐ **Other allied ophthalmic personnel, specify** _____

Prescribe spectacles? Select all that apply.

☐ **Optometrists** ☐ **Opticians**

☐ **Other allied ophthalmic personnel, specify** _____

c. Are optical services available in the public health system? (CORE) ☐ **Yes** ☐ **No**

If no, are there plans or initiatives to integrate optical services? ☐ Yes ☐ No

d. Which government department oversees the distribution/dispensing of spectacles?

- Ministry of Health
- Ministry of Trade
- Other, specify

e. Are there policies to regulate the private sector providing refractive and optical services?

- Yes
- No

f. What is the education/career path for optometrists? Select NA if the profession does not exist.

- No formal training required
- Technical school/college course
- University course
- Other, specify
- NA

g. What is the education/career path for opticians? Select NA if the profession does not exist.

- No formal training required
- Technical school/college course
- University course
- Other, specify
- NA

h. Are education institutions for optometrists, if they exist, required to be accredited by the government/regulatory body? If they don't exist, select NA.

- Yes
- No
- NA

i. Are education institutions for opticians, if they exist, required to be accredited by the government/regulatory body? If they don't exist, select NA.

- Yes
- No
- NA

Maturity level score

Needs no immediate action – 4	— Comprehensive policies are in place to regulate the private sector providing refractive and optical services. — Practising optometrists and opticians require a government-issued licence. — Educational institutions for optometrists and opticians require national accreditation from a government body.
Needs minor strengthening – 3	— Some policies are in place to regulate the private sector providing refractive and optical services. — While optometrists require a government-issued licence, opticians do not. — Educational institutions for optometrists require national accreditation from a government body but institutions for opticians do not.
Needs major strengthening – 2	— Few policies are in place to regulate the private sector providing refractive and optical services. — Neither optometrists nor opticians require a government-issued licence to practise. — Educational institutions for optometrists and opticians do not require national accreditation from a government body.
Needs establishing – 1	— There are no policies in place to regulate the private sector providing refractive and optical services. — The title optometrist or optician is not protected, and anyone can provide refractive and optical services in the private sector. — Educational institutions for optometrists and opticians do not exist.

Possible actions

- Advocate for strategy development to improve integration of refractive and optical services into the health system, including training for optometrists and opticians.
- Advocate for education institutions for optometrists and opticians to require government accreditation.
- Situation analysis to assess the scope, effectiveness and quality of refractive and optical services.
- Advocate for public sector and private sector collaboration to ensure refractive and optical services coverage to be accessible to all.
- Strengthen/develop career pathways for optometrists and opticians within public health care.

23

Workforce and infrastructure

Workforce mobility, motivation and support

Definition

Mobility refers to the impact of international mobility of eye care professionals on the availability and effectiveness of the workforce. Motivation refers to the degree of willingness and effort towards attaining organizational or client goals demonstrated by eye care personnel. Support refers to the extent of support experienced in a workplace with a focus on workplace support and supervision mechanisms.

Documentation or evidence

a. Reference on rates of attrition (source countries) or international recruitment (receiving country).

b. References on governmental measures to secure retention of the professionals in the country (source country).

c. References on governmental measures to ensure the rights and welfare of migrant professionals (receiving country).

d. List of the main societies of eye care professionals and contact details or websites.

e. Reference on programmes to assess and improve motivation of health care workers.

Notes

— Source country refers to countries from which health professionals commonly migrate to work abroad

— Receiving country refers to countries to which health professionals commonly migrate for work

Questionnaire

a. Is the rate of attrition/international recruitment of eye care professionals monitored? If it doesn't apply, select NA. (CORE) ☐ Yes ☐ No ☐ NA

b. If you are a source country: Are there governmental measures in place to secure retention of the professionals in the country, including for eye care? If it doesn't apply, select NA. ☐ Yes ☐ No ☐ NA

c. If you are a receiving country: Are there governmental measures in place to ensure the rights and welfare of migrant professionals, including for eye care? If it doesn't apply, select NA. ☐ Yes ☐ No ☐ NA

d. Are there professional associations or national societies for the following professions, if they exist? If they don't exist, select NA.

Ophthalmologists ☐ Yes ☐ No ☐ NA

Optometrists ☐ Yes ☐ No ☐ NA

e. Are there government-led programmes to assess and improve motivation of health care workers, including eye care personnel? ☐ Yes ☐ No

	Maturity level score
Needs no immediate action – 4	— International mobility of eye care personnel may or may not be commonplace. Its benefits are maximized, and adverse effects are mitigated. — The eye care workforce is highly motivated. There are good career pathways and many people remain in the profession. — Eye care personnel can access the support and supervision they need. Robust mechanisms exist in workplaces and there are mentoring and coaching opportunities for personnel seeking additional support (e.g. if they are isolated, junior).
Needs minor strengthening – 3	— International mobility of eye care personnel may or may not be commonplace but it has a discernible adverse effect on the strength of the workforce. — The eye care workforce is moderately motivated. There are satisfactory career pathways, though many people leave the profession to find more desirable work. — Eye care personnel can access some of the support and supervision they need, and some mentoring and coaching opportunities exist for personnel seeking additional support (e.g. if they are isolated, junior).
Needs major strengthening – 2	— International mobility of eye care personnel is commonplace and has a clear adverse effect on the strength of the workforce. — The eye care workforce has a moderate to low level of motivation. There may be limited remuneration or other disincentives that impact on motivation and evidence of absenteeism. Eye care professions are somewhat attractive but it can be difficult to get people to enter undergraduate training courses. — Eye care personnel have limited access to support and supervision they need, and to mentoring and coaching opportunities.
Needs establishing – 1	— International mobility of eye care personnel is commonplace and has a major impact on the strength of the workforce. — The eye care workforce suffers from widespread low levels of motivation. There are poor remuneration and incentives that impact on motivation and evidence of absenteeism. Eye care professions are not attractive, and it is difficult to get people to enter undergraduate training courses and retain people. — Eye care personnel have very little or no access to the support and supervision they need, nor to mentoring and coaching opportunities.

Possible actions

- Take a pro-active approach to monitoring and managing international mobility. Source country management strategies may include appropriate training for the health worker's place of employment and making it easy for them to return home after working abroad. Receiving country strategies may include concern for the rights and welfare of migrant health workers and responsiveness to the adverse consequences in source countries associated with their absence.
- Engage with the eye care workforce regarding motivation concerns and focus on the issues that can be addressed.
- Strengthen the support, supervision and mentoring available to rural personnel.
- Support initiatives that build the status of eye care and highlight the contribution it makes to health outcomes.
- Promote the profession within the health sector and in health sector planning.
- Support the establishment of professional associations, special interest groups and networks.
- Support extensive training opportunities and research activities.

24

Workforce and infrastructure

Eye care infrastructure and equipment

Definition

This refers to the physical infrastructure where eye care services are commonly delivered. It includes treatment rooms, dedicated centres and other infrastructure.

Documentation or evidence

b. Standard list of essential medicines, medical products and technologies for eye care issued by the Ministry of Health. WHO Model List of Essential Medicines (https://www.who.int/groups/expert-committee-on-selection-and-use-of-essential-medicines/essential-medicines-lists).

   Best practices and case studies for ensuring equitable access to essential medicines for eye care.

c. Reference on the process of assessing eye care services infrastructure needs and/or essential ophthalmic equipment.

g. Reference on which government institutions negotiate and monitor procurement prices for eye medicines and approve their domestic use.

Note

— Surveys of essential ophthalmic equipment may be carried out at the national, provincial or district level or for major individual facilities.

Questionnaire

a. Number of public facilities that provide eye care services at each level of the health system. (CORE)

	Primary facilities, e.g. health centres, health posts	Secondary facilities, e.g. district hospitals, including eye hospitals	Tertiary facilities, e.g. specialist hospitals, including eye hospitals
Total number	☐ Nr	☐ Nr	☐ Nr
	☐ Don't know	☐ Don't know	☐ Don't know
With functional eye care	☐ Nr	☐ Nr	☐ Nr
	☐ Don't know	☐ Don't know	☐ Don't know

b. Is there a standard list of essential medicines, medical products and technologies (WHO Model List of Essential Medicines) issued by the Ministry of Health? (CORE) ☐ **Yes** ☐ **No**

If yes, does the WHO Model List of Essential Medicines include a section on essential eye care medicines, medical products and technologies? ☐ Yes ☐ No

If yes, select the options that best describe the current situation regarding the eye care medicines on the list:

- Must be available in eye care provider establishments and in pharmacies at all times
- Provided by pharmacies free of charge to patients with a physician's prescription
- Provided free of charge to patients during hospitalization
- Not provided for free but are fully reimbursed for patients with health insurance
- Paid by patients
- Other, specify

If yes, how often is the list updated (in years)? Years

If yes, what is the procedure for updating the list?

- The list is updated by an independent panel of experts coordinated by a government institution
- The list is updated by the Ministry of Health
- Other, specify

c. Are eye care services infrastructure needs formally assessed periodically? **Yes** **No**

If yes, is the information integrated into future health facility planning? Yes No

d. Are surveys on the availability of essential ophthalmic equipment periodically carried out in the public system? (CORE) **Yes** **No**

If yes, how often (in years)? Years

If yes, which level of the health system do they cover? Select all that apply.

Primary level Secondary level Tertiary level

e. Are trained technicians available to provide ophthalmic equipment maintenance? ☐ **Yes** ☐ **No**

If yes, are they available in sufficient numbers anywhere in the country? ☐ Yes ☐ No

f. Do national minimum health service delivery standards, if they exist, include ophthalmic equipment requirements? If they don't exist, select NA. ☐ **Yes** ☐ **No** ☐ **NA**

g. Is there a government system to negotiate and monitor procurement prices for eye medicines? ☐ **Yes** ☐ **No**

h. Can imported medicines, medical products and technologies be used without approval by the government? ☐ **Yes** ☐ **No**

i. Do domestic companies produce medicines, medical products or technologies for eye care? ☐ **Yes** ☐ **No**

Maturity level score

Needs no immediate action – 4	— All necessary infrastructure for effective eye care services is available; there is a high level of availability across all services; there are no infrastructure limitations impacting negatively on the services provided. — All necessary equipment for effective eye care is available across all services and is well maintained.
Needs minor strengthening – 3	— Most of the necessary infrastructure for effective eye care services is available. There is a moderate level of availability within health care but a few gaps exist that occasionally impact services provided. — Most of the necessary equipment for effective eye care is available though there may be some deficiencies in coverage and maintenance across facilities.
Needs major strengthening – 2	— Some of the necessary infrastructure for effective eye care services is available, although there are many gaps across facilities. There is a low level of availability within health care and this frequently impacts on services provided. — Some of the necessary equipment for effective eye care is available, although there are clear deficiencies in maintenance and coverage across facilities.
Needs establishing – 1	— Most of the necessary infrastructure for effective eye care services is unavailable. There is a very low level of eye care infrastructure within health care and this very frequently impacts on services provided. — There is extremely limited equipment for eye care in health care and many deficiencies in maintenance and coverage.

Possible actions

- Build eye care services infrastructure and maintenance into future health facility planning.
- Develop service standards and include eye care equipment requirements at each level of the health system.
- Integrate ophthalmic equipment requirements into national service standards.
- Develop and implement a list of essential medicines, medical products and technologies for eye care.
- Periodically monitor eye care equipment needs and ensure requests are made and budgeted for.

25

Financing

Population covered by eye care financing mechanisms

Definition

This refers to the health financing mechanisms and the extent to which those that include eye care services also cover the population. Common health financing mechanisms include government tax-based systems or the national health, private or social insurance systems.

Documentation or evidence

a. List of all health insurance schemes available in the country, including eligibility criteria, source of revenue and premium collection.

Note

— A country may have multiple insurances schemes in place, for example, private, government or mixed.

Questionnaire

a. Is (any kind of) health insurance available in the country? (CORE) ☐ **Yes** ☐ **No**

If yes, what proportion of the population is not covered by any kind of health insurance? ☐ % ☐ Unknown

If yes, is information available about the sociodemographic/ethnic background of people not covered? ☐ Yes ☐ No

If yes, are there measures of quality or satisfaction with the scheme(s)? ☐ Yes ☐ No

b. If the government is a provider of health insurance, are all citizens eligible? If it doesn't apply, select NA. ☐ **Yes** ☐ **No** ☐ **NA**

c. How do patients pay for government eye care services? Select all that apply.

☐ **All services are fully paid by patients**

☐ **Services are partly covered by health insurance schemes or government with some out-of-pocket expenses**

☐ **Services are fully covered for all by health insurance schemes or government**

☐ **Other, specify**

d. Are there private health insurance companies with which citizens can make individual arrangements? ☐ Yes ☐ No

e. How do patients pay for eye care services provided by ophthalmologists in private practice? Select all that apply.

- ☐ Services are fully paid by patients
- ☐ Services are partly covered by health insurance schemes with some out-of-pocket expenses
- ☐ Services are fully covered by health insurance
- ☐ Costs are reimbursed by employers
- ☐ Other, specify
- ☐ NA (there are no ophthalmologists in private practice)

f. How do patients pay for eye care services provided by optometrists in private practice? Select all that apply.

- ☐ Services are fully paid by patients
- ☐ Services are partly covered by health insurance schemes with some out-of-pocket expenses
- ☐ Services are fully covered by health insurance
- ☐ Costs are reimbursed by employers
- ☐ Other, specify
- ☐ NA (there are no optometrists in private practice)

g. Are employers a provider of health insurance? ☐ **Yes** ☐ **No**

If yes, are all employers required to provide health insurance? ☐ Yes ☐ No

If yes, are all employees entitled to be enrolled? ☐ Yes ☐ No

h. Are there private not-for-profit providers of eye care services in the country, including domestic or foreign nongovernmental organizations? ☐ **Yes** ☐ **No**

If yes, select the financing mechanisms that apply. Select all that apply.

☐ Eye care services are free for selected individuals

☐ Patients pay a nominal fee

☐ Some eye care services are free, and some are partly covered

☐ Other, specify

i. Why might some people in the country not be covered by health insurance? Select all that apply.

☐ **The government and/or employers do not have health insurance schemes; citizens must subscribe to insurance privately, and the cost is onerous for most**

☐ **Employers offer health insurance but the cost to the employee is too high**

☐ **As health insurance is not universally available, the least advantaged citizens may be excluded**

☐ **Most eye care providers do not treat patients who have health insurance**

☐ **Other, specify**

Maturity level score

Needs no immediate action – 4	— Eye care financing is integrated into all the appropriate financing mechanisms used for the provision of health care. — The eye care financing mechanisms and available expenditure ensure everyone in the population is covered; there is a "universal" approach to financing, and all populations (regardless of ethnicity, homelessness, location, etc.) have access to adequately financed eye care services.
Needs minor strengthening – 3	— Eye care financing is integrated into most of the financing mechanisms used for the provision of health care. — The eye care financing mechanisms and available expenditure ensure most people in the population are covered; there is an effort to achieve "universal" coverage although not quite all people are included in the arrangements.
Needs major strengthening – 2	— There is limited integration of eye care into financing mechanisms used for the provision of health care; many opportunities exist to expand the integration. — The eye care financing mechanisms and available expenditure are limited; only a few people are included in arrangements and covered for the eye care services they need.
Needs establishing – 1	— There is very little to no integration of eye care into health financing mechanisms. — The eye care financing mechanisms and available expenditure for eye care are very limited and very few people are included in arrangements and appropriately covered for the eye care services they need.

Possible actions

— Advocate for a universal approach to eye health financing to ensure no population groups will miss out.

— Integrate eye care into the various health care financing mechanisms that exist to cover all the population.

— Develop specific programmes and initiatives that address any gaps in eye care service coverage for disadvantaged population groups.

26

Financing

Scope and range of eye care interventions, services and assistive products included in health financing

Definition

This refers to the range of eye care interventions, services and assistive products that are financed and subsequently made available to the population. Assistive products include spectacles and low-vision devices.

Documentation or evidence

b. Details of cost–benefit research of services for prevention of avoidable visual impairment and rehabilitation services

Notes

Not applicable

Questionnaire

a. Specify the categories of services and medication that are mostly covered, i.e. at no or minimal cost, by the government or government provided health insurance. If not available, select NA. Select all that apply. (CORE)

	Covered fully or in part by government, including government-provided health insurance
All services provided in government eye care establishments	☐ Fully ☐ Partly ☐ Not covered ☐ NA
Refraction examination and prescription of spectacles	☐ Fully ☐ Partly ☐ Not covered ☐ NA
Provision of spectacles in a selected price range and of a specific type	☐ Fully ☐ Partly ☐ Not covered ☐ NA
Comprehensive eye examination	☐ Fully ☐ Partly ☐ Not covered ☐ NA
Stay at an eye inpatient department	☐ Fully ☐ Partly ☐ Not covered ☐ NA
Eye care medication	☐ Fully ☐ Partly ☐ Not covered ☐ NA
Retinal laser therapy for diabetic retinopathy	☐ Fully ☐ Partly ☐ Not covered ☐ NA
Treatment against anti-vascular endothelial growth factor	☐ Fully ☐ Partly ☐ Not covered ☐ NA

	Covered fully or in part by government, including government-provided health insurance
Glaucoma drops	Fully Partly Not covered NA
Glaucoma surgery	Fully Partly Not covered NA
Cataract surgery – phaco	Fully Partly Not covered NA
Cataract surgery – ECCE/SICs	Fully Partly Not covered NA
Cataract surgery without intraocular lens	Fully Partly Not covered NA
Vitreo-retinal surgery	Fully Partly Not covered NA
Corneal transplantation (keratoplasty)	Fully Partly Not covered NA
Strabismus	Fully Partly Not covered NA
Retinopathy of prematurity	Fully Partly Not covered NA
Other, specify:	

b. Has cost–benefit research been carried out on prevention of avoidable visual impairment and rehabilitation services? **Yes** **No**

If yes, were data used to elevate government priority and allocate additional resources to eye care? Yes No

Maturity level score

Needs no immediate action – 4	— The full range of eye care interventions, services and assistive products that are needed by the population are financed and made available.
Needs minor strengthening – 3	— A moderate range of eye care interventions, services and assistive products that are needed by the population are financed and made available but there are a few unmet needs.
Needs major strengthening – 2	— A small range of eye care interventions, services and assistive products are financed and made available to the population but there are many unmet needs.
Needs establishing – 1	— A very small and limited range of eye care interventions, services and assistive products are financed and available, resulting in many profound unmet needs.

Possible actions

- In line with the national universal health coverage strategy, advocate for the integration of a wide scope and range of eye care interventions, services and assistive products (e.g. spectacles, low-vision devices) into health financing mechanisms, including service package planning and financing.
- Consider local research on the cost-effectiveness/benefit and impact of eye care interventions for advocacy to increase financing for eye care.

27

Financing

Financing of eye care and out-of-pocket costs

Definition

This refers to the extent to which eye care is financed, impacting the proportion of out-of-pocket costs. The out-of-pocket costs refer to costs paid by consumers when accessing eye care services; this includes fees for services and assistive products as well as other expenses related to accessing the services. Assistive products include spectacles and low-vision devices.

Documentation or evidence

a. Reference for domestic general government expenditure and out-of-pocket expenditure for health and for eye care.

b/c. Reference for out-of-pocket costs for cataract surgery and prescription spectacles.

Notes

- Domestic general government health expenditure refers to public expenditure on health from domestic sources.
- Out-of-pocket cost refers to payments made by the patient at point of service (excluding transport, accommodation and sustenance).
- In most countries, a value-added tax is levied on all or most goods and services sold for domestic consumption. The tax is paid by consumers but it is remitted to the government by the businesses selling the goods and services, for example, value-added tax (VAT) representing 10% of the retail price. Some countries, however, impose sales taxes instead. Unlike VAT, sales taxes are levied at the point of retail on the total value of goods and services purchased.

Questionnaire

a. What are the annual domestic general government expenditure and out-of-pocket expenditure for health versus for eye care (in current US$)?

	For health (current US$)	For eye care (current US$)
Domestic general government expenditure per capita	US$	US$
	Don't know	Don't know
Out-of-pocket expenditure per capita	US$	US$
	Don't know	Don't know

b. What is the out-of-pocket expenditure for cataract surgery across the sector (in current US$)? If a sector does not provide eye care services, select NA. (CORE)

Out-of-pocket cost	Government services (current US$)	Private for-profit sector (current US$)	Private not-for-profit sector (current US$)
	NA	NA	NA
Phaco	Average	Average	Average
	Range	Range	Range
	Don't know	Don't know	Don't know
ECCE/SICs	Average	Average	Average
	Range	Range	Range
	Don't know	Don't know	Don't know
Intraocular lenses (IOLs) (if separate from the surgery)	Average	Average	Average
	Range	Range	Range
	Don't know	Don't know	Don't know

How were these data sourced?

- Estimate by the respondent
- Evidence based with documentation provided
- Other, specify

c. What is the out-of-pocket expenditure for basic good-quality spectacles? If a sector does not provide eye care services, select NA. (CORE)

Out-of-pocket cost	Government services (current US$)	Private for-profit sector (current US$)	Private not-for-profit sector (current US$)
	NA	NA	NA
Prescription monofocal/single vision spectacles (including lenses and frame)	Average	Average	Average
	Range	Range	Range
	Don't know	Don't know	Don't know

How were these data sourced?

Estimate by the respondent

Evidence based with documentation provided

Other, specify

d. What tax(es) are imposed on the importation and supply of spectacles frames/lenses and intraocular lenses (IOLs)?

Value-added tax	Importation (%)	Supply (%)
Spectacle frames/lenses	%	%
	Don't know	Don't know
Intraocular lenses (IOLs)	%	%
	Don't know	Don't know

Maturity level score

Needs no immediate action – 4	— The extent of the financing for eye care interventions (including assistive product provision) results in no or very small out-of-pocket costs, so all people in need of eye care are able to afford it. — There are numerous well-functioning mechanisms that reduce out-of-pocket costs associated with service fees, travel, accommodation, carers, etc., particularly for those with long-term needs. — There is no catastrophic health expenditure from eye care in the country, and this is carefully monitored.
Needs minor strengthening – 3	— The extent of the financing of all eye care interventions (including assistive product provision) results in low out-of-pocket costs, although there are programmes where costs can be prohibitive. Fee structures for eye care are suitable for average and low-income groups. — There are some mechanisms that reduce out-of-pocket costs associated with service fees, travel, accommodation, carers, etc., particularly for those with long-term needs. — Catastrophic health expenditure from eye care is relatively low in the country.
Needs major strengthening – 2	— The extent of the financing of all eye care interventions (including assistive product provision) results in regular restrictions in service access because of out-of-pocket costs. Fees for eye care services do not accommodate all clients, especially from low-income groups and for people with long-term needs. — Limited or no funds or support are available for costs associated with accessing eye care services. — Catastrophic health expenditure from eye care occurs quite often. There are few risk-pooling mechanisms used in health financing.
Needs establishing – 1	— Financial protection is inadequate; there are high out-of-pocket costs and many services are unavailable to the population because of significant financial barriers. — There is no support available for costs associated with accessing eye care services. — Catastrophic health expenditure from eye care occurs frequently when accessing health care.

Possible actions

— Increase funding support for high-cost eye care interventions to avoid catastrophic health expenditure.

— Ensure fee structure for eye care accommodates the repeated and sometimes long-term need for treatment.

— Review out-of-pocket costs for key eye care interventions, such as cataract surgery and spectacles, within the public system and develop sustainable strategies to ensure affordability.

28

Information

Health systems data on availability and utilization of eye care services

Definition

This refers to the availability of information regarding w eye care services are available and where they exist across the health services. It also includes information about the extent of utilization of eye care services and the features of this utilization, for example, age and geographic area.

Documentation or evidence

a. Reference on which institution(s) operate the national health information system (HIS) or other mechanism for collecting national health data and information.

b/c. Reports or other publications, including case studies, on availability and utilization of eye care services in the country and process to translate findings.

Notes

- Availability of eye care services refers to services and human resources for eye health in primary health care facilities, secondary/ district hospitals, tertiary/teaching hospitals.
- Utilization of eye care services refers to outpatient attendances, inpatient admissions and eye operations.
- The national health information system (HIS) refers to the annual or regular reporting system of the National Statistical Office or Ministry of Health. The system provides the underpinnings for decision-making and has four key functions: data generation; compilation; analysis and synthesis; and communication and use. HIS collects data from the health sector and other relevant sectors, analyses the data and ensures their overall quality, relevance and timeliness, and converts data into information for health-related decision-making.

Questionnaire

a. Are selected health data and information collected and centrally administered in the country? (CORE) ☐ **Yes** ☐ **No**

b. Does the national health information system (HIS) periodically collect information about availability of eye care services? ☐ **Yes** ☐ **No**

If yes, how often (in months)? _____ Months

If yes, how is it collected? Select all that apply.

☐ Health facilities reports ☐ Situation assessments

☐ Other, specify _____

If yes, as part of broader reports or assessments (integrated) or eye care specific (standalone)?

☐ Integrated ☐ Standalone

If yes, is there a process to review data completeness and accuracy? ☐ Yes ☐ No

c. Does the national health information system (HIS) periodically collect information about utilization of eye care services? (CORE) ☐ **Yes** ☐ **No**

If yes, how often (in months)? _____ Months

If yes, how is it collected? Select all that apply.

☐ Health facilities reports ☐ Situation assessments

☐ Other, specify

If yes, as part of broader reports or assessments (integrated) or eye care specific (standalone)?

☐ Integrated ☐ Standalone

If yes, is there a process to review data completeness and accuracy? ☐ Yes ☐ No

d. Are private sector (for-profit and not-for-profit) data on availability and/or utilization of eye care services available? (CORE) ☐ **Yes** ☐ **No**

If yes, is it shared with government? ☐ Yes ☐ No

Maturity level score

Needs no immediate action – 4	— Health information systems produce a high level of reliable reporting on the status of eye care in the country. Situation assessments, evaluation and reviews, monitoring framework reports and other targeted reports are routinely developed with a high level of completeness. — Health information systems produce a high level of reliable and detailed reporting on the utilization of eye care within health services.
Needs minor strengthening – 3	— Health information systems produce a moderate level of reliable reporting on where and what eye care services are available across health services. Some situation assessments, evaluation and reviews, monitoring framework reports and other targeted reports have been developed but not routinely and a few gaps exist. — Health information systems produce a moderate level of reliable and detailed reporting on the utilization of eye care services within health services.
Needs major strengthening – 2	— Health information systems produce a low level of reliable reporting on where and what eye care services are available across health services. A small number of situation assessments, evaluation and reviews, monitoring framework reports and other targeted reports have been developed but many gaps exist. — Health information systems produce a low level of reliable and detailed reporting on the utilization of eye care services within health services.
Needs establishing – 1	— Health information systems do not report on where and what eye care services are available across health services. There are no reports and very limited data or the data are not reliable. — Health information systems do not report on the utilization of eye care services within health services.

Possible actions

- Ensure basic eye care services information is collated in the health information system.
- Establish a system that reports regularly, for example, as part of district health management information systems (DHMIS).
- Assess and improve, if required, data completeness and accuracy.
- Data on availability and utilization of eye care services may be collected periodically or through population-based surveys.

29

Information

Information on outcomes and quality of eye care services

Definition

This refers to the extent that information on the functioning outcome of eye care interventions is collected. It also refers to the extent that information about the quality of eye care services is available, for example, the timeliness, patient satisfaction and safety.

Documentation or evidence

a. Reference towards indicators for eye care services performance.

b. Reports on research findings on outcomes, quality and efficiency of eye care services in the country.

Note

— Alongside technical measures of quality, attention should be given to manifestations of quality, for example, acceptability, cultural appropriateness and responsiveness. Strategies to improve clinical quality only have the potential to increase demand for care if the general public's perceptions of the quality of the care available also improve.

Questionnaire

a. Does the national health information system (HIS) periodically collect information about outcomes and quality of eye care services? (CORE) ☐ **Yes** ☐ **No**

If yes, how often (in months)? ☐ Months

If yes, how is it collected? Select all that apply

☐ Health facilities reporting ☐ Situation assessments ☐ Population-based surveys

☐ Other, specify

If yes, as part of broader reports or assessments (integrated) or eye care specific (standalone)?

☐ Integrated ☐ Standalone

If yes, is there a process to review data completeness and accuracy? ☐ Yes ☐ No

b. Is research on outcomes and quality of eye care services conducted regularly in the country? ☐ **Yes** ☐ **No**

Maturity level score

Needs no immediate action – 4	— Health information systems routinely generate comprehensive data from across many health facilities/programmes regarding outcomes and the quality of eye care. — Eye research is very often conducted and contributes to knowledge regarding outcomes, quality and efficiency of eye care services in the country.
Needs minor strengthening – 3	— Health information systems generate some data from some health facilities/programmes regarding outcomes and the quality of eye care but they may not be comprehensive or routine. — Eye research is often conducted and contributes somewhat to knowledge regarding outcomes, quality and efficiency of eye care services in the country.
Needs major strengthening – 2	— Health information systems generate a little data from a few health facilities/programmes regarding the outcomes and quality of eye care. — Eye research is occasionally conducted and contributes a little to knowledge regarding outcomes, the quality and efficiency of eye care services in the country.
Needs establishing – 1	— Health information systems generate no data from across any health facilities/programmes regarding outcomes and the quality of eye care. — Eye research is not conducted thus does not contribute to knowledge regarding outcomes or the quality and efficiency of eye care services in the country.

Possible actions

- Support/build eye research capacity, including establishing national priorities.
- Set eye research priorities that are policy and programme relevant.
- Build linkages between eye researchers and policy and programme decision-makers.
- Ensure eye care outcomes are monitored and evaluated, including cataract surgical outcomes, with efficiency data collated as well.
- Make eye care outcomes data available to national health information systems (HIS).
- Capacity-building and advocacy to increase commitment to quality in eye care.

30

Information

Population-based data on prevalence and trends of eye conditions and visual impairment

Definition

This refers to the availability of population-level data on eye conditions and visual impairment, to assess current levels of service provision and predict need for services in a country.

Documentation or evidence

a. Reports on epidemiological studies conducted in the past five years.

c. National or district health survey template, if questions on eye care are included.

e. National census questionnaire template, if questions on eye care are included.

References of any other periodic reports that include information on eye care.

Notes

- Population-based surveys on eye conditions and visual impairment may be implemented at the national or subnational level (district or provincial).
- In order to assess health system capacity needs to deliver comprehensive eye care, surveys should include prevalence of eye conditions even if they do not cause vision impairment. In order to assess met need for spectacle correction, surveys should include testing of uncorrected visual acuity, i.e. without spectacles.
- Disease surveillance may cover trachoma, eye complications in HIV/AIDS, neonatal ophthalmia, some external eye infections, inflammatory conditions and retinopathy of prematurity.

Questionnaire

a. Was any population-based survey on eye conditions and visual impairment conducted within the past five years? (CORE) ☐ **Yes** ☐ **No**

If no, why not? Select all that apply.

☐ No perceived need, data are available from previous surveys (more than five years ago) and no change is expected

☐ Perceived need but lack of sector advocacy and coordination

☐ Lack of funding

☐ Other, specify

b. Does the country have the technical capacity for data collection and analysis? ☐ **Yes** ☐ **No**

c. Was any national or district health survey conducted within the past five years? ☐ **Yes** ☐ **No**

If yes, were questions on eye care included? ☐ Yes ☐ No

d. Are eye conditions included in periodic national or district disease surveillance? (CORE) ☐ Yes ☐ No

e. Were any questions on eye health included in the last national census questionnaire? ☐ Yes ☐ No

Maturity level score

Needs no immediate action – 4	— Regular population surveys on eye conditions and visual impairment are carried out and the data are reliable and comprehensive. — There is a high level of technical capacity in the country for data collection, analysis and report writing, and the information available is well coordinated and harmonized. — A large amount of information and many reports are available regarding prevalence and trends of eye conditions and visual impairment related to the eye care needs in the population.
Needs minor strengthening – 3	— There have been periodic population surveys on eye conditions and visual impairment in the past decade, and the data are relatively reliable and comprehensive. — There is a moderate level of technical capacity in the country for data collection, analysis and report writing, and the information available is partly coordinated and harmonized. — A moderate amount of information and a moderate number of reports are available regarding prevalence and trends of eye conditions and visual impairment related to the eye care needs in the population.
Needs major strengthening – 2	— There have been no population surveys on eye conditions and visual impairment, other than inclusion of eye care questions in censuses, and information is not comprehensive. — There is a low level of technical capacity in the country for data collection, analysis and report writing, and there is little coordination and harmonization. — Little information and few reports are available regarding prevalence and trends of eye conditions and visual impairment related to the eye care needs in the population.
Needs establishing – 1	— There have been no population surveys on eye conditions and visual impairment, and data are inadequate. — There is very low or no technical capacity in the country for collection, analysis and report writing. — Neither national reports nor information are available regarding prevalence and trends of eye conditions and visual impairment related to the eye care needs in the population.

Possible actions

- Undertake intermittent epidemiological surveys for eye conditions and visual impairment.
- Build capacity in eye care data collection, analysis and reporting.
- Undertake analysis of specific trends in health conditions to inform eye care needs for specific groups.
- If there is no section on visual impairment in the national census questionnaire, then consider including it among the questions on disability.

31

Information

Use of evidence for decision-making and planning

Definition

This refers to the extent to which relevant eye care information is available and utilized by decision-makers during the process of health and or eye care policy and programme planning.

Documentation or evidence

b. References on non-eye care reports that include eye care information.

c. Reference on policies or plans for eye research and evaluation on the impact of interventions and policies.

d. Examples of how evidence was used to inform planning and programme decision-making.

f. Reference on the processes of how data collected in eye care facilities or during eye care surveys reach the Ministry of Health unit/ coordinator for eye care and prevention of blindness.

Notes

— Not applicable

Questionnaire

a. What is the source for eye care data and information in the country? Select all that apply. (CORE)

- ☐ Government eye care establishments
- ☐ Private eye care establishments
- ☐ Eye care establishments run by national or international nongovernmental organizations
- ☐ Professional eye care associations and societies
- ☐ Health insurance companies
- ☐ Other, specify

b. Do any other periodic reports, e.g. on newborn infants, school screening, comprehensive health care for people with diabetes mellitus, include information on eye care? ☐ Yes ☐ No

c. Is there a policy or plan for eye research and evaluation on the impact of interventions and policies? ☐ Yes ☐ No

d. Is information, including international evidence, national reports and research, frequently used to inform planning and programme decision-making? ☐ Yes ☐ No

e. Are policy-makers commonly involved in some or all aspects of designing, developing and interpreting eye research? ☐ Yes ☐ No

f. Is the process for the translation and utilization of eye care data into policies and plans clearly defined? ☐ Yes ☐ No

g. How are eye care data shared with the relevant decision-makers at the Ministry of Health? Select all that apply. (CORE)

☐ Technical report ☐ Technical workshop ☐ Stakeholders meeting

☐ Other, specify

Maturity level score

Needs no immediate action – 4	— There are comprehensive and routine reports regarding the status, performance and quality of eye care; they provide decision-makers with all the information they need. — Information, including international evidence, national reports and research, is very frequently used to inform planning and programme decision-making; there are many examples of this.
Needs minor strengthening – 3	— There are routine reports regarding the status, performance and quality of eye care; they provide decision-makers with most of the information they need. — Information, including international evidence, national reports and research, is frequently used to inform planning and programme decision-making; there are some examples of this.
Needs major strengthening – 2	— There are a small number of ad hoc reports regarding the status, performance and quality of eye care; they provide decision-makers with a limited amount of the information they need. — Information, including international evidence, national reports and research, is infrequently used to inform planning and programme decision-making; there are few examples of this.
Needs establishing – 1	— There are no reports on the status, performance and quality of eye care; decision-makers have very little to no information. — Information, including international evidence, national reports and research, is rarely or not at all used to inform planning and programme decision-making; there are very few or no examples of this.

Possible actions

- Undertake a situation assessment of eye care data collection and utilization.
- Develop and implement an eye care monitoring, evaluation and review platform.
- Integrate eye care across district health management information systems (DHMIS).
- Build data utilization practices across eye care planning.

Annex 1
Suggested terms of reference for the coordinator

- To identify key stakeholders and establish a Technical Working Group (TWG).
- To collate and validate information required for completion of the ECSAT by means of a desk review using available information sources and via interviews.
- To input findings into the situation analysis and provide feedback in form of a draft report.
- To assist the government identify priorities to be included in the eye care strategic plan.
- To assist the government draft the strategic plan, its objectives and actions, and provide feedback on drafts.
- To support implementation of the strategic plan and engage in monitoring, evaluation and review processes.

Annex 2
List of potential members of the ECSAT technical working group

- Ministry of Health personnel from central and provincial level
- Senior eye care personnel
- Medical specialists who work closely with eye care personnel
- Other relevant government agencies
- Eye care user group
- Professional associations
- Academia
- Nongovernmental organizations delivering eye care
- Development partners
- WHO

Annex 3
List of potential interviewees

- Ministry of Health eye care officers, focal points
- Ministry of Health directors and senior personnel, central level
- Ministry of Health representatives from provincial health levels
- Ministry of Social Affairs, Ministry of Education, and any other relevant government stakeholder for eye care, such as national health insurance agencies
- National societies of eye care professionals
- Eye care personnel from across profession
- Professional associations for the eye care profession
- Medical specialists working with eye care
- Academics
- Organizations for people with visual impairment
- Eye care users and their representative groups including disabled persons' organizations
- Key nongovernmental organizations
- Development partners (bilateral/UN) active in eye care

Annex 4
Building Block Maturity Template

Step 1: Add-up all component scores for each building block

Step 2: Divide the total component scores by the number of components in the building block to calculate the average building block score (maturity level)

Step 3: Review the definitions for the final maturity level for each building block to identify priority areas, i.e. low maturity scores

Eye care leadership and governance	Eye care service delivery –access	Eye care service delivery – quality	Eye care workforce and infrastructure	Eye care financing	Eye care information
Added-up score for components 1-4	Added-up score for components 5-12	Added-up score for components 13-18	Added-up score for components 19-24	Added-up score for components 25-27	Added-up score for components 28-31
/ 4	/ 8	/ 6	/ 6	/ 3	/ 4
= **maturity level**	= **maturity level**	= **maturity level**	= **maturity level**	= **maturity level**	= **maturity level**

Maturity level	Eye care leadership and governance	Eye care service delivery – access	Eye care service delivery – quality	Eye care workforce and infrastructure	Eye care financing	Eye care information
4	Leadership is strong and public health focussed, with high levels of political commitment. Integrated into health policies and plans or across relevant sectors and programmes.	High level of equitable access to eye care and no disadvantaged population groups miss out on the care they need. High level of distribution of eye care in primary health care, with no geographical gaps.	High level of evidenced-based interventions utilized. The community perceives eye care services to be of a high level of quality and effectiveness; it is highly valued and experiences strong demand.	Optimal number of personnel available, regardless of geographic areas and including at the primary level of care. All necessary infrastructure and equipment for effective services are available.	High level of financial protection; all people in need of care are able to afford it. High level of financial sustainability for eye care; its financing is integrated into wider health financing mechanisms.	A large amount of information and many reports are available regarding prevalence and trends. The national HIS produces a high level of reliable and detailed reporting on the utilization, outcomes and the quality of eye care.
3	Leadership is evident, with moderate levels of political commitment. Mostly integrated into health policies and plans or across relevant sectors and programmes, but some gaps exist.	Moderate level of equitable access to eye care and few disadvantaged population groups miss out on the care they need. Moderate level of distribution of eye care in primary health care.	Moderate level of evidenced-based interventions utilized. The community perceives eye care services to be of a moderate level of quality and effectiveness; it is moderately valued and experiences good demand.	Adequate number of personnel available with small over- or under-supply issues. Most of the necessary infrastructure and equipment for effective services are available.	Moderate level of financial protection. Fee structures for eye care are suitable for average and low-income groups. Moderate level of financial sustainability for eye care.	A moderate amount of information and reports are available regarding prevalence and trends. The national HIS produces a moderate level of reliable and detailed reporting on the utilization, outcomes and quality of eye care.
2	Leadership is limited with low levels of political commitment. Very limited integration into health policies and plans or across relevant sectors and programmes.	Low level of equitable access to eye care and some disadvantaged population groups miss out on the care they need. Low level of distribution of eye care in primary health care.	Low level of evidenced-based interventions utilized. The community perceives eye care to be of a low level of quality and effectiveness; it is not valued very much and experiences low levels of demand.	Mismatch between the number of personnel available and market needs. Some of the necessary infrastructure and equipment for effective services are available, although there are many gaps across facilities.	Low level of financial protection. Fees for eye care do not accommodate all patients, especially from low-income groups and for people with long-term needs; its financing is somewhat integrated into health financing mechanisms.	Little information and few reports are available regarding prevalence and trends. The national HIS produces a low level of reporting on the utilization of services, outcomes and quality of eye care.
1	Leadership is very limited, ad hoc or non-existent, with little influence on political commitment. No integration into health policies and plans or across relevant sectors and programmes.	Very low level of equitable access to eye care and many disadvantaged population groups miss out on the care they need. Very low to no level of distribution of eye care in primary health care.	Very low level of evidenced-based interventions utilized. The community perceives eye care to be of a very low level of quality and effectiveness.	Major deficits in the workforce. Most of the necessary infrastructure and equipment for effective services are unavailable.	Financial protection is inadequate with high out-of-pocket costs. Level of financial sustainability for eye care is low; its financing is not well integrated into wider health financing mechanisms.	Neither national reports nor information is available regarding prevalence and trends. The national HIS generates no data regarding utilization of services, outcomes and the quality of eye care.

Annex 5
Sample template for the structure and content of the ECSAT report

Table of Contents, including for tables or figures **Acronyms**	
Executive summary	A 2-page summary of the report, including: — Key findings (e.g. strengths of the system) — Identification of the priority areas for action — Full set of recommendations
Background and methodology	Explain the background and rationale for the assessment, include both the global and country perspectives Link with increasing need for eye care Describe how government has expressed its commitment to strengthen eye care Describe the methodology used for the assessment
Introduction to Integrated People-Centred Eye Care (IPEC)	Utilizing the World report on vision as a guide, introduce the reader to the concept of IPEC and explain its importance to health systems and universal health coverage Introduce the ECSAT as a first step toward IPEC planning in the country
Health trends and eye care needs	Describe health trends in the country and highlight current and potential eye care needs Include data, and Global Burden of Disease Country Profiles on vision impairment including blindness Include other trends that impact eye care needs, e.g. noncommunicable diseases, ageing, and the country's health pyramid

Overview to the health system	Provide, in one short paragraph, basic information about the country, its population, socio-economic situation and relevant features Outline basic structure to the health system Include any recent reforms to and developments in the health and social system relevant to eye care
Outline of eye care in country	Briefly outline the eye care situation in the country, including key stakeholders and the programmes and services that exist Describe how eye care intersects with other sectors or programmes and include any governance linkages
Summary of key findings separately for each of the six building block areas	Prioritize responses to 'Core' questions. Present all maturity scores in a table (total scores for each of the six building block areas and scores for each of the 31 components). Use the maturity scores to identify priority areas. Note: The contents of the maturity model can be used as prompts for describing the situation. Highlight both strengths and challenges. Include responses regarding the four attributes of high-performing health systems – equity, efficiency, accountability and sustainability. Focus on underserved populations. Use concrete examples to describe the situation.

Conclusions and recommendations	Bring together the main findings of the assessment and: — Draw conclusions about the strengths of eye care; — Identify remaining challenges and priority areas for action; and — Make recommendations for strengthening eye care. The three subheadings below should read as a logical progression and be comprehensive, coherent and concise. **Strengths of eye care** Synthesize findings and present them as strengths and challenges. The content should reflect the strengths, weaknesses, opportunities and threats (SWOT) of eye care and address both internal and external drivers of the system. **Remaining challenges and priority areas for action** Outline remaining challenges that are also clear and actionable priority areas to strengthen eye care. Recommendations in the next section should flow logically from this section. **Recommendations for strengthening eye care** Set out a shortlist of recommendations for strengthening the eye care within the health system in the country. This section should focus on a limited number of realistic and feasible priority actions within the context of the country – both short- and longer-term.

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