



Cataract evidence gap map brief | September 2020

Cataract is the third cause of vision impairment globally and the leading cause of blindness, affecting an estimated 65.2 million people. People over 70 are at particular risk, but where treatment is not readily available, cataract can also be a major cause of blindness among children. Cataract is therefore a primary focus of eye care programmes. However, even though cataract surgery is a cost-effective and relatively simple intervention, the prevalence of the condition remains high and not everyone has access to treatment.

At Sightsavers, our research into eye health includes exploring what opportunities there are for the scale-up of quality cataract services, as well as identifying innovative approaches to strengthen eye care services in the context of broader health systems.

Evidence gap maps (EGMs)

bring together systematic or literature reviews, a type of desk-based research study done to identify, appraise and synthesise the evidence on a specific topic. When they are well done, these reviews are useful because they identify gaps in knowledge and can inform best practice guidance in a specific area. EGMs provide easy access to these reviews, their methodological quality and the strength of their conclusions.

This brief presents the findings of our cataract EGM as of September 2020.

What is included in the cataract EGM

- Sightsavers' cataract EGM is divided into five sections: burden of disease, biomedical research, service delivery, health systems, and impact and economic evaluation. It includes **80 reviews** of research on these topics.
- To reflect the breadth of synthesis work on cataract, the EGM includes reviews focusing on age-related cataract as well as paediatric cataract, with the understanding that these conditions often have different causes and treatment solutions.
- 13% of cataract reviews are country-specific, 5% cover a whole region, 6% are global. The large majority (76%) include a mix of countries from different regions. In reading these reviews, it is important to consider if there are factors that make the results only applicable to a specific setting or if they are easily generalisable.
- More than 90% of reviews on cataract relate to studies done in high income countries (34%) or include a mix of income levels. Only 8% of reviews include studies exclusively about low and middle income countries.

Key messages

- **More evidence is needed on all aspects of the delivery of cataract services.** No reviews about health systems were identified, which is an important gap in evidence synthesis as we work towards the goals of universal health coverage and health systems strengthening.
- **Future research should focus on responding to identified gaps.** Out of 80 reviews, only 46 reach a conclusive answer to the research question. This implies that the available studies are of low quality or do not provide sufficient evidence to respond adequately to the question asked in the review.
- **The quality of the methodological approach in the available reviews is inconsistent.** Out of 80 reviews included in the EGM, only 24 are deemed to be of a high methodological standard. Given the importance of synthesis work for decision-making, this is an important point to consider. For example:
 - The bulk of the reviews are on biomedical research (risk factors and prevention), with 46 studies, but only 15 of these are considered of high quality methodologically.
 - Most of the reviews on service delivery focus on quality of services (22/29), but the majority of quality reviews are unable able to draw clear and strong conclusions.
 - There are three reviews on cost, all seemingly providing a useful response to their respective research question, but only one is deemed as methodologically appropriate.
- **High quality evidence is needed from low income settings where the need is greatest.** Reviews that concentrate on evidence from low income countries are mostly of low methodological quality (80%), while the quality is more mixed for reviews that include studies from a range of income levels.
- **A greater focus on equity is needed.** Further research into the prevalence of cataract among different population groups and equity in access to care is needed. For example, only 5% of the included reviews have a focus on gender equity.



Sectors														
Strength of Evidence	Burden of disease			Service Delivery				Health Systems				Impact/Economic Evaluation		
	Epi	Risk	Treat	C.Detect	QCC	QNCC	Access	Workforce	Financing	Leadership	HMIS	Tech	QoL	Cost
Strong	1	1	6		3									
		5	5		3								1	1
	1	4	2		7		5							2

Sightsavers' **cataract EGM** is available on our **research centre**.

How to read the cataract EGM

Research evidence from systematic or literature reviews is displayed in a matrix. The columns show thematic areas that are relevant to the theme of cataracts, labelled as sectors and sub-sectors. The rows show the strength of the evidence in each review: strong, inconclusive, or weak. If the authors of a particular review were able to reach a conclusive answer to their research question using the evidence available, the evidence is classed as strong. If they were unable to reach a conclusive answer given insufficient evidence, the evidence is classed as weak. If the outcome was somewhere in between, the evidence is classed as inconclusive.

The numbers displayed in each box indicate the number of systematic or literature reviews. The reviews are split by confidence level, which is an indicator of the methodological quality of the reviews themselves. We have rated the methodological confidence in each review as strong (green hexagon), medium (yellow square) or low (red circle). On the research centre, by clicking on one of the hyperlinks, you will be taken to a separate webpage to read a summary of that individual review.

About this brief

This brief was prepared by Anne Roca, global advisor for research uptake and learning at Sightsavers. The cataract EGM was produced by Bhavisha Virendrakumar, research associate for evidence synthesis at Sightsavers.

Suggested reference for the cataract EGM:

Sightsavers (2020). Cataract Evidence Gap Map. [online] available at: <https://research.sightsavers.org/gap-maps/cataract-gap-map/> [add date accessed].

Please address questions/comments about this brief to RUL@sightsavers.org.