

# Rapid assessment of avoidable blindness in Sierra Leone

Rapid Assessment of Avoidable Blindness (RAAB) is a standardised survey methodology. RAABs are designed to measure the magnitude and causes of visual impairment and the extent to which services are reaching different groups of people.

## What did we do in this study?

In December 2021, we conducted a RAAB in Sierra Leone, to assess the prevalence and causes of blindness and visual impairment. The results were compared to a similar RAAB conducted in Sierra Leone in 2010/2011 to assess how eye health status and service coverage have changed over that period of time.

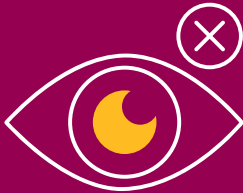
## How did we do it?

We conducted the study across the whole of Sierra Leone. We randomly selected 2,600 people from 52 clusters spread across the country to examine their eyes and ask some questions. Our participants were people aged 50 years and above. This is because the majority of visual impairment is found in this age group. The mean age of participants was 62 years and 57% of participants were female. Compared to the national population of Sierra Leone, the study participants were relatively well-off, with 57% belonging to the top 2 quintiles, and only 28% belonging to the bottom two quintiles.

We measured participants' presenting visual acuity using a pinhole. We examined their lenses, and for people with a visual impairment, we conducted a direct ophthalmoscope exam. We asked for details about cataract operations, and reasons for not having one. We asked everyone about their household wealth and difficulties functioning.

# Key findings

## Prevalence of blindness and visual impairment



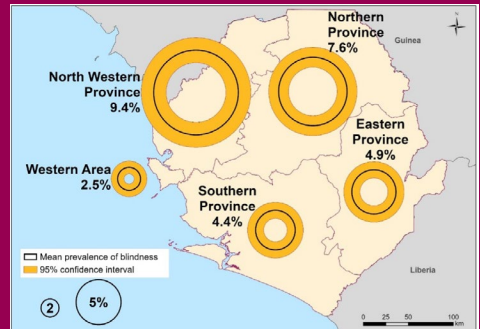
The prevalence of blindness is now **5.4%**, not much of a change since 2011 when it was **4.9%**.\*

The prevalence of severe visual impairment and moderate visual impairment have decreased slightly (from **3.8%** in 2011 to **2.9%** in 2021, and **11.0%** in 2011 to **7.2%** in 2021, respectively).



The prevalence of blindness is **22%** among people who have additional (non-visual) disabilities, and **3%** among people without additional disabilities.

Blindness is spread unevenly throughout the country, with the North Western and Northern Provinces being worst affected.



Mean prevalence of all-cause bilateral blindness among sample, by province

Blindness is strongly associated with household wealth. When ordering people into 5 groups of increasing wealth, the prevalence of blindness is **8.2%** among the poorest households, **6.5%** among the second poorest, **4.7%** in the middle households, **5.6%** in the second wealthiest, and **3.6%** among the wealthiest.

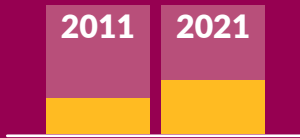
\* To be comparable, and to account for differences between the age and sex structure of the sample and real populations, these figures have been adjusted using the composition of the population by age and sex in 2011 and 2021.

## Causes of visual impairment

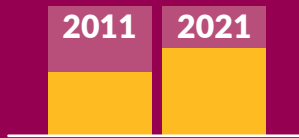
Unoperated cataracts are responsible for more than half of all blindness and visual impairments. Glaucoma and other posterior segment diseases cause more than 1 in 4 cases of severe visual impairment and blindness. Unaddressed refractive error is responsible for 15% of moderate visual impairment, down from 50% in 2011.

## Cataract surgical coverage

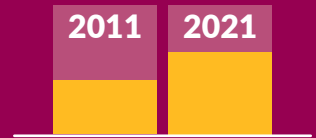
Cataract surgical coverage has increased between 2011 and 2021 for males:



For males who have moderate visual impairment, from **28%** to **42%**

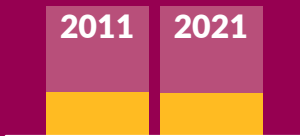


For males who are blind, from **49%** in 2011 to **68%** in 2021

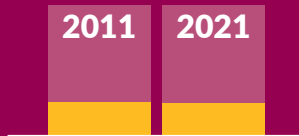


For males who have severe visual impairment, from **42%** to **64%**

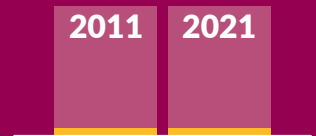
For females, cataract surgery coverage is stagnating:



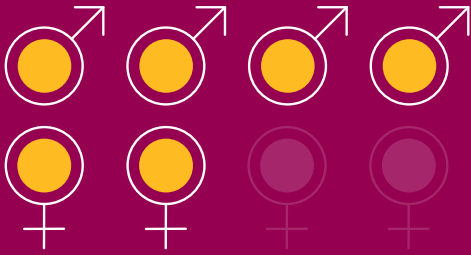
For females who are blind, from **34%** to **33%**



For females who have severe visual impairment, from **26%** to **25%**



For females who have moderate visual impairment, from **6%** to **4%**

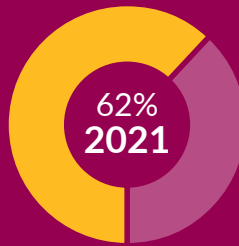
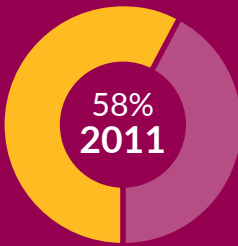
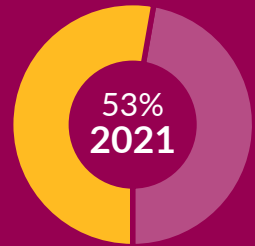
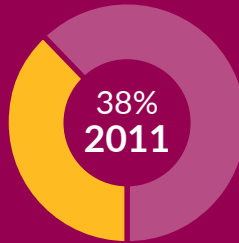


Coverage among males is now more than double that of females (**68%** vs **33%**)

## Visual outcome after cataract surgery

Good visual outcomes among operated eyes have also increased between 2011 and 2021.

In 2021, **53%** of people operated had good presenting vision after surgery, compared to **38%** in 2011



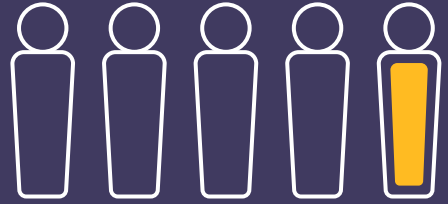
In 2021, **62%** had good vision in their best corrected eye, compared to **58%** in 2011

Provision of spectacles has played a **large part** in this improvement.



## Key messages

An aging population means that visual impairment remains a significant public health problem in Sierra Leone, with more than **one in five** people aged over 50 living with some level of visual impairment.



Cataract remains the **leading cause of visual impairment** in Sierra Leone, and despite improvements in access to cataract surgical services since 2010, inequalities exist, particularly for women, poorer people, people with functional difficulties, and people living in the Northern and North-Western provinces.



Despite the need for more and better cataract services, recent developments in services to address refractive error, glaucoma, corneal scarring and other conditions are important and **must be supported** and coordinated through the National Eye Health Programme.

## More information

Visit: [www.sightsavers.org](http://www.sightsavers.org)

Sightsavers research centre: [www.research.sightsavers.org](http://www.research.sightsavers.org)

For the full report on the RAAB, please visit:  
<https://bit.ly/SRRAAB2021>

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