Rapid Assessment of Avoidable Blindness (RAAB), Kogi State, Nigeria

Research summary
October 2020
Introduction

Rapid Assessment of Avoidable Blindness (RAABs) are a standardised survey methodology. They are designed to measure the magnitude and causes of visual impairment and the extent to which services are reaching different groups of people. RAABs focus on people aged over 50 years because the majority of blindness and visual impairment is found in this age group.

In September 2019, we conducted a RAAB in Kogi State, Nigeria, to assess the prevalence and causes of blindness and visual impairment. We also used additional internationally comparable measures of self-reported functional impairments and relative household wealth to help us better understand the associations between eye health outcomes, poverty and disability.

Why is this issue important?

There are an estimated 253 million blind and visually impaired people around the world. The overwhelming majority of these people live in resource-poor settings, where treatments for the most common causes of avoidable visual impairment – refractive error and cataract – are often inaccessible. Efforts to improve eye health have therefore focused on increasing access to quality and comprehensive eye care services.

Planning for eye health services depends on access to up-to-date data on the prevalence and causes of visual impairment. Improving equity in eye health requires an understanding of how many people live with vision loss and whether more vulnerable groups of people, such as people living in poverty and people with disabilities, have access to eye care services.

The data presented in this study can be used to inform state level planning for eye care services, as well as to improve equity in eye health outcomes.

Glossary

Prevalence: the proportion of people with a disease or disability in a given population at a specific point in time.

Refractive error: this occurs when the eye cannot clearly focus on the images it receives from the outside world. Refractive error results in blurred vision which can be severe enough to cause visual impairment.

Cataract surgical coverage: the proportion of people eligible for cataract surgery who have been operated on in a given population.

Non-visual disability: difficulties in areas including hearing, mobility, cognition, self-care, communication, upper-body activities, and mental health.
What do the research findings tell us?

Key findings

- The overall prevalence of blindness in 2020 was similar to the prevalence observed in the last major survey completed in 2007.
- Cataract surgical coverage among blind people was almost 50 per cent, and coverage was higher in men who were blind than women who were blind.
- Roughly half of all operated eyes had good vision, which is an improvement on cataract surgical outcomes in the last survey.
- Moderate visual impairment, most commonly caused by uncorrected refractive error, was almost twice as high among the poorest 20 per cent of families compared to the richest 20 per cent.
- Severe visual impairment or blindness was more than 27 times higher among people living with additional non-visual disabilities than among people with no disability.

Summary

We recruited 4,150 individuals aged 50 years and over, of whom 3,926 were examined (94.6% response rate). We assessed blindness by measuring their vision and then comparing their vision in their better eye to an internationally-approved vision threshold. Adjusting for any differences between men and women and between different age groups, we found that the overall prevalence of blindness was 3.5%, which was similar to the 3.7% observed in the 2005-2007 Nigeria national blindness and visual impairment survey. We found that the overall prevalence of blindness among men and women was very similar.

We found that the main cause of blindness and severe visual impairment was untreated cataracts. Cataract surgical coverage among bilaterally blind people was almost 50%, although coverage was higher among blind men compared to blind women. Roughly half of all people operated on (52.6%) had good vision, which was an improvement compared with the previous national survey, which found only 30.8% per cent of operations had a good outcome.

Uncorrected refractive errors were the most common cause of moderate visual impairment. The prevalence of moderate visual impairment was almost twice as high among the poorest 20% of families, compared to the richest 20% (9.5% vs 5.5%, respectively). People with additional non-visual disabilities and people with no disabilities showed very different levels of blindness and visual impairment. The prevalence of severe visual impairment or blindness was more than 27 times higher among people living with additional non-visual disabilities than people with no disability. Men with additional non-visual disabilities were also significantly more likely to be blind or visually impaired compared with women who had non-visual disabilities.
Limitations

This study has several limitations that are common to all RAAB surveys. RAABs cannot capture information about diseases of the retina, choroid (veins in the eye) and optic nerve, which can often lead to blindness. It was also not possible to measure more than one cause of vision impairment per eye. In addition, the estimated prevalence of blindness and visual impairment excludes people under 50 years of age. The distribution of sex among the people we surveyed was different compared to the distribution in the general population. This means that the study results may be unrepresentative of the prevalence and causes of visual impairment among men in Kogi State, although we addressed this weakness using statistical adjustments.

Learn more

- Sightsavers research team contact: Ben Gascoyne.
- Read the full report here.
- Access RAABs for other countries here.
- Learn more about the types and causes of visual impairment here.