



Scaling up use of Peek technology in Kenya

Summary of research conducted by the International Development Institute-Africa



In collaboration with:



Background



According to Kenya's National Strategic Plan for Eye Health 2020-2025, there are an estimated 7.5 million people with vision loss in Kenya. Only 21% of people can access eye health services from public or private facilities. Over 80% of blindness in Kenya is due to curable and preventable causes.

Peek Vision powers eye health programme providers with a software and data intelligence platform to optimise eye health services and strengthen health systems. The **Vision Impact Project (VIP)**, led by CBM Christian Blind Mission and the Kenyan Ministry of Health, is using Peek technology to deliver large-scale eye health screening, referrals and treatment across seven counties in Kenya. The project is funded by CBM and BMZ (The German Ministry for Economic Cooperation and Development) and aims to provide inclusive access to quality public eye health services for millions of people.

Following the successful large-scale adoption of Peek in the VIP, the technology could be adopted more widely, with a potentially transformative effect on Kenya's eye care sector and the vision of its citizens. Peek Vision commissioned the **International Development Institute- Africa (IDIA)** to conduct a detailed study into the use of Peek technology in Kenya.

OBJECTIVES

This study aims to outline a clear and evidenced understanding of the next steps in scaling the use of Peek technology to new counties in Kenya. It helps define pathways to government adoption of eye care programmes using Peek. It also includes recommendations on how Peek can work with county governments to make the case for including eye health programmes using Peek in their budgets.

APPROACH

The study was conducted in nine counties in Kenya. This sample included some counties where the VIP programme using Peek is already running.

- VIP counties: Bomet, Kwale, Vihiga and Meru
- Non-VIP counties: Nairobi, Mombasa, Kisumu, Kakamega and Isiolo

Researchers used a qualitative and quantitative study design across the sample counties. This included facility assessment, literature review, key informant interviews and focus group discussions. Within VIP counties, it also included surveys of people who had been screened using Peek as part of the programme.

Key findings



HEALTH SYSTEM ASSESSMENT

The research highlighted a range of challenges. **Eye health is not currently one of the top priorities in health planning and service delivery in any of the sample counties.** Most counties do not have eye health units established. Emphasis is on priority health areas such as maternal and child health, HIV, TB and malaria.

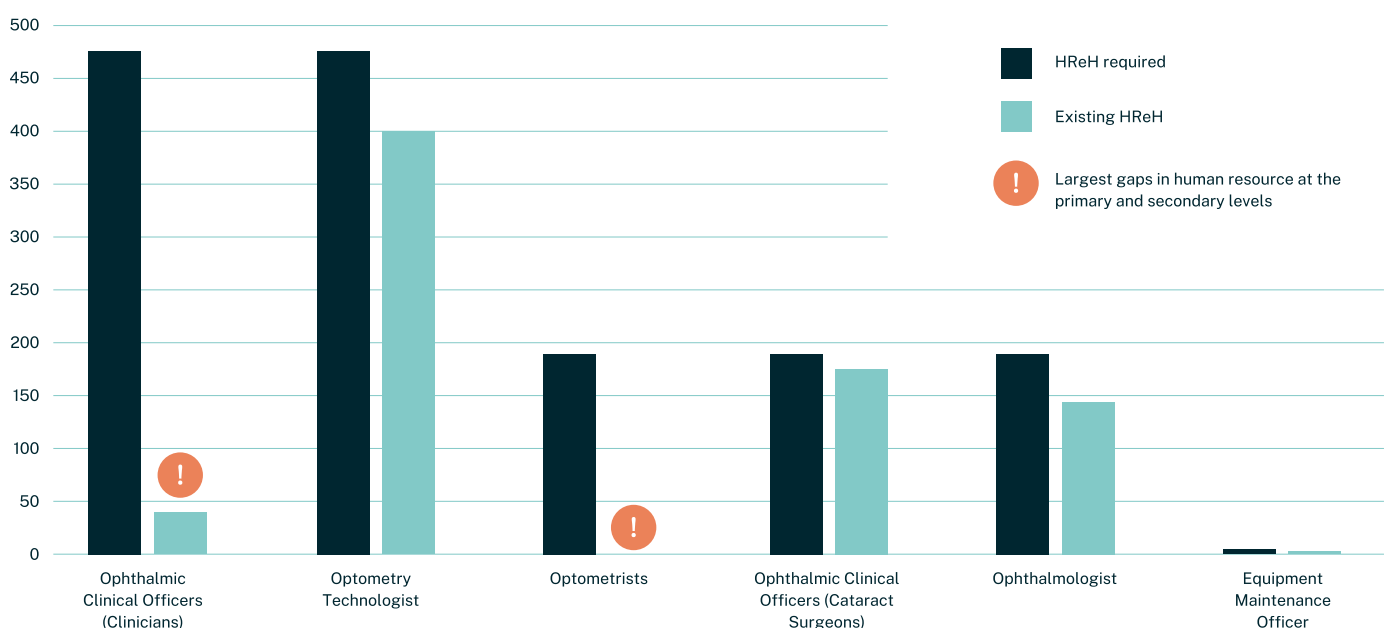
Long travel distances mean patients have limited access to secondary and tertiary eye care services even in counties where the VIP programme is running. Eye care referral systems are very weak, facilities are poorly

equipped and gaps in human resources persist, especially at the primary and secondary levels of eye health care.

There are significant financial barriers demand-side due to community members being unable to afford even the most basic cost of treatment in counties where the VIP programme is not running. Awareness within the community about eye health conditions is generally low and some negative socio-cultural beliefs remain. There is also a high dependence on free services.

In general, Kenya's health system has embraced the use of technology to ensure effective service delivery, with Vihiga and Meru counties providing good examples of this.

The human resources for eye health (HReH) in Kenya are not adequate to meet the current eye health needs



(Based on data from Ministry of Health (2020) the National Strategic Plan for Eye Health 2020-2025).

BUDGET ALLOCATION

To implement the National Strategic Plan for Eye Health, the Ministry of Health requires an estimated total of Ksh. 4.158 billion (approx \$27 million) over five years. The largest proportion of the budget is for health infrastructure (50%) and eye health service delivery (25%).

From the budget estimates reviewed, allocations to county ministries or departments for health overall (rather than eye health specifically) averaged between Ksh. 2 billion (\$12.5 million) and Ksh. 3 billion (\$18.7 million) annually, though there was significant variation between counties.

Significant gaps exist in the allocation of funds for eye health. Most counties do not make provision for eye health services improvement in their County Integrated

Development Plans and sectoral policy and planning documents. This means there is no compelling basis for prioritisation of eye health in county budgets and resource allocation. Most counties do not have budget codes or budget lines specifically dedicated to eye health. NGOs and donors provide the majority of the current funding in the country.

PERCEIVED VALUE OF PEEK-POWERED PROGRAMMES

The key value of Peek was most commonly identified as strengthening the link between community members and health service providers. Decision-makers in the health sector felt the main challenge addressed by using Peek was bridging the resource gap (human, financial and equipment) which prevents community members seeking eye care services.

Patient perspectives

The study included interviews with 822 people screened using Peek as part of the VIP programme. It found:

There is high satisfaction with the Peek screening and referral process

- **98% of people** screened using Peek would recommend it to their family and friends
- **77% of people** were very satisfied with the screening process
- **80% of people** referred for eye care services believed their referral was appropriate
- Peek was described as **“convenient”, “quick and efficient”, and “accurate”**.

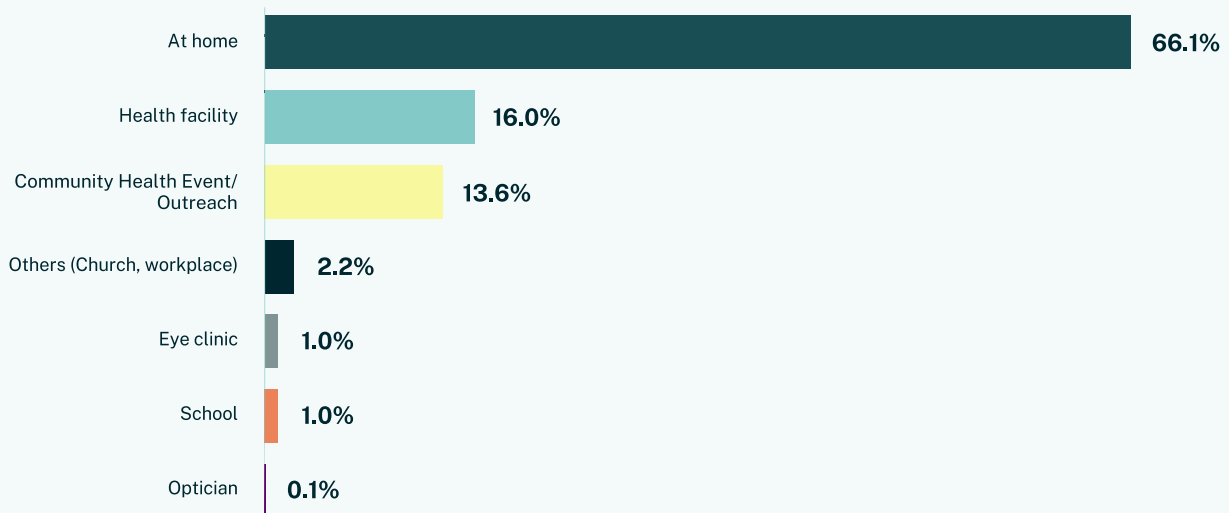
Screening with Peek Capture (Peek’s smartphone-based screening and referral app) is highly accurate in identifying eye problems and connecting patients to care

- **91% of referrals** from household screening using Peek were confirmed as true positives at triage

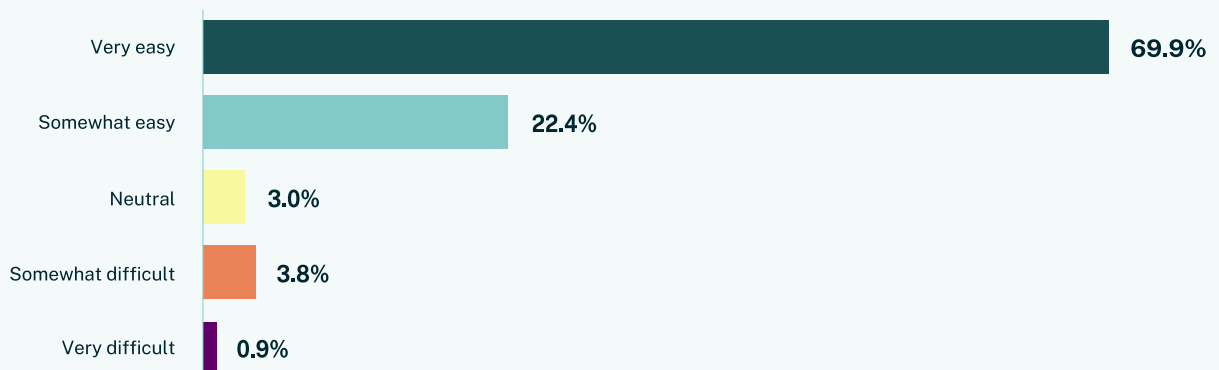
Peek-powered programmes increase access to eye health

- **66% of people** had their first ever eye health screening at home using Peek as part of the Vision Impact Project programme
- **70% of people** said it was very easy to access eye care services they were referred to in the VIP programme

Location of first ever eye health screening according to patients surveyed in the VIP counties



Ease of accessing eye care services according to patients surveyed in the VIP counties



Peek-powered programmes bring eye care services close to communities

- Most people first heard about the services through a community health worker (**60%**) or through a community health event or outreach (**nearly 30%**)
- Nearly **30% of people** travelled **less than 1km** to reach the referral health facility, while 56% travelled between 1 and 5km. 9% travelled between 6 and 10km while 5% travelled more than 10km.

Some respondents noted challenges in accessing care, such as long wait times and a lack of personnel at health facilities.

Evaluation of Peek based on users' experiences

Users of Peek were interviewed for the study. The **advantages** they reported were:

Peek provides valuable insights for decision-making, resource allocation, and tracking the progress of eye health initiatives

The Peek Admin dashboard (part of the Peek software package) enables decision-makers to make timely interventions by providing real-time data on Peek-powered eye health programmes

Peek software is user-friendly and enables task-shifting so limited specialist resources can focus where they are most needed. It allows non-eye health professionals to undertake mass screening in communities and schools and to effectively identify those with eye conditions

Vision screening using smartphones with the Peek software increases accessibility including in remote or underserved areas, by enabling screenings to take place anywhere

Peek software can be configured to specific geographic locations and health systems to deliver screening and referral services that are relevant and appropriate to each county's referral pathways

Some users had experienced **disadvantages** of using Peek that included:

Lack of integration at the health facility level

A need for the capability to integrate Peek with existing government information systems

GOVERNMENT ADOPTION OF PEEK

All the Vision Impact Project (VIP) counties have embraced the use of Peek technology. The VIP programme has drawn attention to the issue of vision impairment and driven decision-makers to consider making eye care a greater health priority.

County government officials interviewed expressed a willingness to adopt Peek to power eye health programmes. They wanted further information on the breakdown of costs associated with using Peek and the financial investment required. They were also interested in understanding how Peek could link in with existing government information systems.

In terms of influence and decision-making, the study identified County Governors and their spouses as often being the most powerful champions of eye health, while County Eye Health Coordinators are the most prominent figures in eye health. Community Health Assistants, Community Health Volunteers/Promoters, County Community Health Focal Persons, Public Health Officers and teachers are also important champions as they facilitate direct links with local communities.

In order to pave the way to government adoption of Peek, priorities include:

Addressing existing health gaps through investment (at a county level) in infrastructural development, human resource capacity building and strengthening of the referral services

Ensuring eye units in government hospitals can access sustainable revenues if they are to finance Peek services

Recommendations and next steps



The report recommendations provide the basis for next steps to support the scale-up of Peek-powered eye health programmes and adoption of Peek technology in Kenya:



- Identify and support counties that can use Peek to demonstrate how Universal Health Coverage is possible
- Conduct a thorough feasibility study in potential target counties to assess their readiness and interest in adopting Peek to power eye health services and programmes
- Engage county governments in VIP counties through activities such as mop-up screening exercises
- Promote the integration of the Peek system with Kenya Health Information System (KHIS)
- Promote capacity building for community health workers (Community Health Assistants (CHAs) and Community Health Promoters (CHPs))
- Build the capacity of the National Eye Health Coordinator's office
- Engage County Health Management Teams (CHMTs) and other decision-makers at county level to facilitate integration and adoption of Peek
- Develop a pricing package for Peek to share with County Governors
- Identify NGOs and other partners who can support short to medium fundraising efforts
- Advocate for eye health prioritisation in county health budgeting with a roadmap to improve the referral system and include Peek-powered eye health services
- Further build the evidence base for eye health needs by completing Rapid Assessment of Avoidable Blindness (RAAB) surveys and School Eye Health Rapid Assessments (SEHRAs), delivered on the Peek platform

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