

Primary eye care: opportunities for health system strengthening and improved access to services

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Primary eye care (PEC) is a vital component of primary healthcare (PHC) and is the cornerstone for the progress towards universal eye health coverage. While the concept of PEC is not new, with the increased focus of the global eye-health agenda on equity and people-centred care, it is critical to review experiences of delivering PEC in low- and middle-income countries and to identify common lessons learnt. This commentary builds on the available evidence and focuses specifically on three recently published evaluations of PEC in Sightsavers-supported programmes in Tanzania, Sierra Leone and Pakistan. It argues that systems thinking is critical in the delivery of PEC interventions, as only this approach can ensure that the integration of PEC into PHC is delivered in a comprehensive, coherent and sustainable way.

Keywords: eye health workforce, primary eye care, system strengthening.

Introduction

Primary healthcare (PHC) is a whole-of-society approach to health and well-being centred on the needs and preferences of individuals, families and communities.¹ The WHO considers PHC to be the most inclusive, equitable and cost-effective strategy to enhance people's health^{2–4} and to facilitate global progress towards universal health coverage (UHC) and health-related sustainable development goals.⁵ UHC encourages countries to ensure that everyone has access not merely to services, but to services that are effective, accessible, acceptable and equitable.⁶

Primary eye care (PEC) is a vital component of PHC, which includes the promotion of eye health, the prevention and treatment of conditions that may lead to vision loss, strengthening referral pathways and vision rehabilitation.⁷ The WHO World Report on Vision 2019 (WRV) argues that the integration of PEC into PHC is essential, not only for increasing equitable access to eye care, but also for strengthening service delivery at all levels. The integration of PEC into PHC can be beneficial in all settings, but the gains are greater in places with a limited eye care infrastructure and workforce, such as rural or remote parts of sub-Saharan Africa and South Asia.⁸

As highlighted in the WRV, to achieve universal eye health coverage, each country needs to expand priority eye care services to ensure that more people are covered, and that the costs of eye care do not expose individuals to catastrophic out-of-pocket

expenditure and risk of poverty.⁵ While the concept of PEC is not new, with the increased focus of the global eye health agenda on equity and people-centred care, it is critical to review the past experiences of delivering PEC in different low- and middle-income countries (LMICs) and to identify common lessons learnt across the settings.^{9,10}

Historical examples of the role of PEC in improving access to eye care

There are many examples of the delivery of eye care interventions using primary care and community systems. Some of the earliest historical successes of PEC include community-based vitamin A supplementation and measles immunisation to prevent childhood blindness, as well as the community-directed treatment approaches applied initially in onchocerciasis and later on in trachoma-elimination programmes.¹¹

As the configuration of PHC services varies greatly between countries, models of PEC developed over the years have also taken multiple forms, depending on the local context and workforce available.^{12,13} For example, in the eye care pyramid model developed by the LV Prasad Eye Institute in India and replicated in many other settings, vision guardians at the village level provide initial eye care screening, while vision centres at the community level conduct eye examinations and refractions, supply and

dispense spectacles, treat minor eye illnesses and refer patients with more serious eye conditions to secondary and tertiary facilities. In the well-known eye care programme developed in the 1980s in the Gambia, >1000 village health workers were trained in health promotion activities, identification and referral of cataract and trichiasis cases, as well as recognition and treatment of conjunctivitis. More recently, the national PEC curriculum rolled out in Rwanda in 2012 relies on standardised training for primary care nurses in basic eye examination, counselling and education, diagnosis and treatment of minor eye conditions, such as conjunctivitis and dry eye, as well as unaddressed refractive error in adults, with the dispensing of prescription or readymade reading spectacles. The curriculum formed the basis of the Primary Eye Care Training Manual released by the WHO Regional Office for Africa in 2018.¹⁴

In 2012, Hale et al. reviewed the published evidence on the effectiveness of shifting eye care tasks from specialist cadres to general health workers available in primary care facilities, and, while reflecting on a number of potential benefits of the approach, highlighted some clear challenges. The main difficulties encountered were inadequate training and supervision of primary care workers, the lack of equipment to provide basic eye care services and a low demand for services provided at this level. The review called for a clearer definition of the role of primary care workers in the delivery of eye care services, as well as greater attention to their training, supervision and support.¹⁵ In this paper, we build on the available evidence regarding the operational aspects of the integration of PEC into PHC systems and focus specifically on three recently published evaluations of PEC interventions in Sightsavers-supported programmes in Tanzania, Sierra Leone and Pakistan. We examine to what extent these PEC initiatives managed to address the challenges identified earlier by Hale et al. and highlight common lessons learnt and their implications for future programmes.

What do recent evaluations of PEC interventions tell us?

From 2015 to 2020, Sightsavers conducted three evaluations of PEC interventions in programmes in Tanzania, Sierra Leone and Pakistan. In all three settings, the interventions focused on the training of primary care or community workers and the evaluations used qualitative study designs and explored the experiences of healthcare workers in the delivery of eye care services 18 to 36 mo after the training.

In Tanzania, nurses and clinical officers in primary care centres were trained over 4 d to measure visual acuity, examine the eye, diagnose common eye diseases and administer simple treatments. The evaluation showed that the majority of health workers were satisfied with the training they received and felt more confident in identifying and treating patients with eye conditions. However, there were several challenges in the integration of eye care activities into the general primary care system. There were no adaptations made to staff supervision, procurement, financing or the health management information system (HMIS). Primary health workers lacked basic examination equipment and medicines; the HMIS collected very limited data on eye conditions

and the referral systems were not adequate to ensure the continuum of care. As a result, many healthcare workers had limited opportunities for the application of their knowledge in practice and felt disappointed and demotivated.¹⁶

In Sierra Leone, community health officers (CHOs) were trained over 18 mo in basic ophthalmology, including diagnosing and managing common eye conditions, prescribing and dispensing simple ophthalmic drugs, performing minor eye surgeries and organising outreach services. The evaluation also provided a mixed picture. On one hand, the majority of CHOs were eager to take up their new roles and improve access to eye care for their local communities. They developed good working relationships with community health workers and enjoyed acceptance and respect from the community. On the other hand, systemic issues arising from insufficiently defined pathways for policy implementation and poor system support undermined the success of the programme. There was no clear policy framework defining the scope of work, regulatory norms and career pathways for the new cadre. Despite their specialisation, ophthalmic CHOs did not receive a higher status within the national system, nor were they recognised as a healthcare cadre at the subregional level. In their facilities, there were inadequate supplies of ophthalmic equipment and medicines and there was only one eye care indicator adopted in the HMIS. Due to the lack of human resources in secondary care, some CHOs were inappropriately placed with secondary hospitals, undermining the essence of task-shifting.¹⁷

In Pakistan, lady health workers (LHWs), the cadre established in the 1990s to increase access to healthcare in remote communities, were trained over 1 d to conduct basic eye screening and refer patients with suspected eye conditions to secondary facilities. The evaluation showed that while the LHWs and their supervisors were enthusiastic about their training, there was a lack of clarity about LHWs' responsibilities and what was expected from them; the uptake of LHWs' referrals was low and the procurement of the LHW programme did not change to integrate basic ophthalmic supplies, such as torches or eye drops. The new role was not integrated into the LHW job description and some considered eye care to be a burden, which came with no additional remuneration or support.¹⁸

Key lessons and implications for future programmes

Systems thinking

Our evaluations showed that shifting some eye care tasks to primary care workers has the potential to improve the provision of eye care services to rural and remote populations. However, similar to Hale et al., our evidence suggests that training staff alone is not sufficient to increase patients' access to care. There are other components of the broader health system that need to be adapted to make the integration of the new function a success. PEC should be implemented alongside strengthening the PHC system as a whole, and the system blocks that need to be given particular attention are governance, health financing, procurement and the HMIS. Slow or insufficient adaptations of existing systems can create bottlenecks, resulting in an inability of primary care staff to deliver the services they were trained to deliver.

Workforce development

Our evaluations further showed that while the availability of a skilled and competent health workforce practising close to the communities is essential to achieve UHC, training programmes alone are not enough. The success of PEC is contingent upon other elements of workforce development, including staff motivation, support and retention. New staff roles, employment policies and entitlements need to be clearly defined and the new competencies should be appropriately recognised. Refresher courses and supervision need to be in place to sustain the newly acquired knowledge and skills. Also, the new tasks should be well balanced with the existing staff workload, including systems of support to mitigate the risk of staff burnout and apathy.

Continuum of care

Earlier evaluations of PEC in LMICs argued that, while primary care and community workers can play a critical role in community mobilisation, health education and early identification of eye diseases, many eye conditions can only be addressed at the secondary level, leaving unresolved problems of hospital fees, long distances and transportation. Consistent with this evidence, our evaluations also suggest that strengthening PEC can only be effective alongside strengthening service delivery at the upper levels of the system. Failure to address this may result in large numbers of identified but untreated patients, which will undermine the effectiveness, efficiency and ethics of healthcare provision.

Integration with other sectors and community structures

In contrast to the evaluations included in Hale et al.'s review, one of our three evaluations focused on allied community-based workers. Based on our experiences of working with LHWs in Pakistan, we argue that community-level systems can potentially be engaged in the delivery of eye care services. However, their role and set of competencies need to be clearly defined and the delivery of eye care services should be integrated into their routine activities and job descriptions. We would also argue that the role of private sector providers, such as community pharmacies or patent medicine vendors, remains an underexplored area, and more research into cross-sectoral partnerships in eye care is urgently needed.

Innovation and technology

Finally, there continues to be a dearth of evidence on the role of technological innovations in health promotion, training and eye care service delivery. Many eye care interventions can be delivered more effectively by adopting innovative, cost-effective, technology-based solutions. Some longstanding systemic issues around procurement or data management can also be addressed through these solutions. There is, therefore, an urgent need to develop and test the implementation of such innovations in different contexts.

Conclusion

Our recent evaluations of PEC interventions have once again highlighted that health system strengthening is a complex process. It requires long-term commitment, ownership and the collaboration of a diverse range of stakeholders. However, systems thinking is absolutely critical in the programmes, which focus on the development of PEC within the broader PHC, as only this approach can ensure that the integration is delivered in a comprehensive, coherent and sustainable way.

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