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## Integrating primary health care with primary eye care boon or bane

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Primary health care (PHC) is a comprehensive and complex approach centered on the needs and preferences of health and well-being of individuals, families, and communities. The concept of PHC was introduced in 1978 in Almata.<sup>[1]</sup> According to WHO, PHC is the most inclusive, equitable, and cost-effective strategy to enhance people's health. It helps to facilitate global progress toward universal health coverage (UHC) and health-related sustainable development goals. UHC not only encourages countries to ensure that everyone has access to services but also makes sure that the services are effective, accessible, acceptable, and equitable. Primary eye care (PEC) is a vital component of PHC which includes the promotion and prevention of eye health and treatment of the conditions which may lead to vision loss.<sup>[2]</sup> Training should be given to GPs, general duty doctors at basic health units and rural health centers, paramedics, and community-based rehabilitation workers to develop PEC.

Integration from PHC to PEC is always a boon. Since our services are disintegrated, we move to several clinics for each part of our body test. Integrated care means the patient sits in one place and gets all the care. The more we integrate and become patient-centric our care is going to improve. Nayanamritham project was multidisciplinary to control blindness due to diabetic retinopathy (DR) in Kerala, where eye photographs of a patient with DR were taken in the primary care and referred to secondary care for laser treatment or anti-VEGF injections. To transfer patients from the primary care to secondary care, we need an electronic medical health record (EMR) system or some form of communication that can be reviewed otherwise we may lose the patient in between the integration stages also the feedback from the secondary care is vital. Electronic health records or Electronic medical health records (EMR) can be shared across hospitals and health-care providers and can be a single source of truth about the patient's medical history.<sup>[3]</sup> Data visualization is a key in the primary and secondary health care. Lifelong training is given to the nurses, technicians, and optometrists to get a good quality screening. Introduction of artificial intelligence (AI) in to the integrated health care system will help for the better diagnosis of a disease with the help of diagnostic tool screening which will further help to decide whether the patient needs referral to a tertiary centre. The Pakistan model started in the 1990s when lady health workers (LHWs) were trained to conduct basic eye screening and refer patients with suspected eye conditions to secondary facilities.<sup>[4]</sup> It has allotted one LHW per 1000 people in the community in a district hospital with an eye health facility. They were trained in eye health with improved infrastructure, equipment, and human resources and the output was measured 1 year later. The community levels became much more aware of eye diseases and there was raise in referrals. There was also seen an increase in the number of surgical procedures and the same process was incorporated in ten districts with ten more partners with the involvement of the government and the model was replicated throughout the

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country. At present, all districts have good eye health programs with good community linkage, where LHWs are performing. The prevalence of blindness turned out to be 1.78% in 1998, 1% in 2022, and the presently estimated prevalence to be 0.5%. The leadership was from the government and many international partners which helped them will achieve comprehensive eye care at the district level. The linkage of lady health personnel and general health personnel having no eye background is linked with the eye care system. The integration models depend from country to country. There is still a point, where medical officers cannot detect glaucoma and DR which are becoming big issues in different parts of the world. Integration needs to be strengthened. Investment in a refractive screening program is too high where non-health-care cadres are used which is placing a lot of burden on completing resources that we need to spend on other programs from the point of view of quality and economics. To maintain substantial progress, there is not only a role for non-health cadres but also a need to focus on gains and sustainable loss which has been made so far. Incorporating a referral system is very important. To make things, universal work has to be done on very extensive models like teleophthalmology. A proper referral system has to be in place to undertake any mass initiative. The way to incentivize referral pathways is not always financial or monetary. The primary health-care structure can be strengthened by addressing the problem swiftly and minimizing the referrals to advanced facilities, where they are not required. Health and wellness structures become important in terms of mobilizing community visits. We need to become more patient-centric. Public eye health awareness and public education play a huge role in reaching and engaging people in communities which helps largely and benefits the referral system by getting more people to the system and providing access. Technology like EMR can play a great role in preventing barriers and promoting the concept of integration. Clinical integration, along with administrative integration, needs to be looked at. Only 30% of the referred cases attend secondary care. Lack of patient education leads to failure from screening to referral. A lot of energy and funding is needed in getting that right.

In 1984, the WHO advocated a PHC approach in the communities to increase access to eye care.<sup>[1]</sup> It is an integrated, participatory, and inclusive approach to the eye health component of PHC which consists of promotive, preventive, curative, and rehabilitative services. Its target is to not only prevent blindness and visual impairment but also to provide services that address ocular morbidity at the grassroots level of the community.<sup>[1,4]</sup> Integration of PHC to PEC by employing qualified eye care practitioners in PHC will create affordable and accessible availability of eye care services to the people at the community level, thereby preventing avoidable blindness and increasing productivity of the individual.<sup>[5]</sup> It also helps reduce the psychological burden of the visually impaired and their dependents.<sup>[1]</sup>

Primary eye care (PEC) is an essential component of the primary health care (PHC) which is responsible for universal eye health coverage and helps in the prevention of avoidable visual impairment and blindness. A narrative approach is used in the evaluation of community needs, government, and PHC facilities. Published literature from around the world and their evaluation show that there is an ability to acquire or integrate PEC into PHC in low-middleincome countries. In the Delta State of Nigeria, specialist eye care providers are present in 24% of local government areas and none in any PHC facility. PHC providers can be trained in PEC diagnosis referral and saving of data with the help of electronic medical records which will ease access to the patient's details and his health issues if they are referred to a higher center. Creating awareness among the communities about eye diseases and educating them can also help largely in referrals and providing access to the services established in PEC.

Integration of PHC into PEC is very important in terms of preventing avoidable visual impairment and increasing access to special education and rehabilitation services in low-middle-income countries. It is an essential building block for the prevention of blindness in all communities and regions of the world. There is an indication of knowledge about how and what to do for integrating health services and can be successfully demonstrated by proper planning and action. Along with clinical integration, administrative integration is also needed to manage the plan. Furthermore, many eye care interventions can be delivered by the adoption of innovative technology-based solutions like AI which helps in the primary diagnosis of the disease, and EMRs to manage the data for the review, referral, and benefit of the patient and better knowledge to the practitioner.

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### Declaration of patient consent

Patient's consent not required as there are no patients in this study.

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### Conflicts of interest

There are no conflicts of interest.

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