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To Realize Universal Eye Health We Must Strengthen Implementation Research

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The Universal Eye Health: Global action plan 2014–2019 was endorsed by the World Health Assembly in 2013.[1] The plan aims to reduce the prevalence of visual impairment and its unequal distribution, and aligns with the principles of universal health coverage and the sustainable development goals. The plan also calls for more evidence from cross-sectional visual impairment prevalence surveys. Data from these surveys summarize the magnitude and causes of eye and vision problems so that decision-makers can plan services and monitor change over time. Recent global projections from prevalence surveys predict that the number who are blind and visually impaired will increase in the coming years, highlighting that "more of the same" will not achieve universal eye health.[2]

A lack of knowledge on how to deliver universal eye health is a major barrier to effectively scaling up efforts. When planning eye health programs and services, there is very limited evidence of what works, for whom, and in what circumstances.[3] This evidence gap puts us at great risk of being ineffective, repeating mistakes, and wasting resources. One strategy to reduce the evidence gap is to undertake and disseminate more implementation research, which aims to "understand what, why, and how interventions work in real world settings and test approaches to improve them."[4] Implementation research is a collaboration between researchers and users of research, including decision-makers, practitioners, and service users. It is a growing research field which uses a wide variety of quantitative and qualitative methods to measure one or more of the following domains: acceptability, adoption, appropriateness, feasibility, fidelity, cost, coverage, and sustainability of implementation.[4]

An example of a barrier to universal eye health that implementation research could address is poor cataract surgical outcomes, which prevalence surveys persistently identify.[5] Several strategies can improve postoperative outcomes, such as ensuring adequate equipment and skills of the surgical team. Where these are in place outcomes can improve when surgeons monitor their outcomes through audit and feedback.[6] However, outcome monitoring is not widespread. Tools such as the forthcoming BOOST app[7] promise to simplify postoperative monitoring. Once the tool is available, implementation research could explore barriers and enablers to the adoption of the monitoring process across different settings, and design effective interventions to increase acceptability and feasibility. If the interventions are implemented and

compared across different settings, the research can produce generalizable knowledge on what works to increase surgeons monitoring their outcomes, and why.[8] If this knowledge is disseminated, decision-makers can draw on it when considering how to strengthen monitoring in their setting.

Implementation research could help answer countless questions on how to deliver universal eye health, including what are the most cost-effective and sustainable approaches to improving the uptake of cataract surgery among disadvantaged groups, including health financing mechanisms? What is the best combination of technology and personnel to screen for diabetic retinopathy at the primary level of health care delivery? Which interventions improve spectacle wear among children in school eye health programs? What approaches are effective at identifying adults with glaucoma in the community and at the primary level of health-care delivery? What is the best approach for delivering continuing professional development for allied eye care professionals?

The effective dissemination of new knowledge from implementation research will require detailed reporting so that end users can understand under what circumstances and to what extent policies and strategies effective in one setting might work in another. These "potential fit" decisions require a sufficient description of the context in which the implementation occurred, including aspects of the social, cultural, economic, political, and physical environment, as well as demography, disease epidemiology, and health system structure.[4,9]

Another strategy that could help disseminate evidence on how to deliver universal eye health is to establish a "knowledge library." The Lancet identified a major barrier to delivering universal health coverage was the absence of a "library of knowledge" for decision-makers to understand advantages and disadvantages of policy options.[10] We see great value in a "knowledge library" for universal eye health and believe a structured approach to implementation research should be a key strategy in developing the library. Developers of the library could draw on the lessons learned from the RAAB Repository which houses prevalence survey data,[5] and explore opportunities to collaborate with those already involved in dissemination, including the Cochrane Collaboration, Community Eye Health Journal, and EyeNet (www.aao.org/eyenet).

Implementation research is an essential component of any strategy to avoid the projected increase in visual impairment, and we call on the global eye health community to expand their research focus and strengthen capacity to generate more evidence on what works, for whom, and in what circumstances. We urge stakeholders to strengthen partnerships between decision-makers, service providers, academics, and funders to collaboratively design, undertake and disseminate more implementation research to better understand how to deliver universal eye health.

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