

An in-country model of workforce support for trained mid-level eye care workers in Papua New Guinea and Pacific Islands

Julie Brûlé, Benoit Tousignant, Graeme Nicholls, Matthew G Pearce

ABSTRACT

To alleviate the significant burden of vision impairment and blindness in low-resource settings, addressing the shortage in human resources in eye care is one of the fundamental strategies. With its postgraduate training programmes, The Fred Hollows Foundation New Zealand (FHFNZ) aims to increase workforce capacity in the Pacific Island countries and territories and Papua New Guinea. This paper presents an in-country model to offer support to graduates, an essential element to retain them in the workforce and ensure they are able to perform the tasks they were trained to do. FHFNZ has designed a workforce support programme employing a standardised process, allowing comparable reporting and providing data for FHFNZ to evaluate its training programmes, outputs as well as professional recognition and integration in the workplace.

Blindness and visual impairment are significant public health concerns, impacting quality of life¹ and carrying economic consequences;² an estimated 285 million are visually impaired worldwide, of whom 39 million are blind.³ Ninety percent of vision impairment is found in developing countries and approximately 80% of blindness is avoidable.³

The International Agency for the Prevention of Blindness and the World Health Organization's joint initiative, Vision 2020: the Right to Sight, aims to alleviate this burden.⁴ One of the strategies within this framework addresses the shortage in human resources in eye care.⁵⁻⁷

The Fred Hollows Foundation New Zealand (FHFNZ) is a non-governmental organisation working to reduce the incidence and prevalence of avoidable blindness in developing countries throughout the Pacific Island countries and territories and Papua New Guinea (PNG).⁸ FHFNZ has initiated regional postgraduate

training programmes in Fiji and PNG for mid-level eye care workers (eye nurses and community health workers) and ophthalmologists through partnerships with local ministries of health and universities.⁹⁻¹¹ FHFNZ also supports students through tuition scholarships, accommodation allowances, as well as providing long-term ophthalmic equipment loans. There are now over 150 eye care nurses having graduated from the Postgraduate Diploma in Eyecare (PGDEC) working in Fiji, PNG, Solomon Islands, Samoa, Vanuatu, Tonga, Kiribati and Tokelau.

After the initial training of competent eye care workers, workforce support strategies are essential to maintain the effectiveness of eye care personnel⁹ and introduce them to new skills and knowledge. Offering support to graduates once they've joined their country's workforce is considered paramount in retaining graduates within the workforce and ensuring they are enabled to perform the tasks they were trained to do.^{9,10,12} With

a population of some nine million scattered across remote islands, the Pacific presents an inherent set of challenges: many graduates from FHFNZ eye care training programmes are working in isolated, under-resourced regions.

Although many training programmes aimed at developing human resources in eye care have been implemented worldwide, few reports exist on the impact of training and the integration of graduates into their professional role.^{11,13–16}

To meet the workforce support needs of its graduates, FHFNZ designed a workforce support (WFS) programme, which aims for the provision of complete and consistent support to graduates. The programme also serves as a means to systematically gather data in order to track the professional integration of the trained eye care workers. The current WFS programme was designed to assess key factors of motivation, essential to workforce retention and maintenance (professional integration, financial compensation, working conditions, opportunities for education and career progression, self-confidence)^{10,17,18} as well as some of the WHO's general building blocks of health systems: leadership/governance, health workforce and service delivery.¹⁹ Between October 2013 and December 2015, 66 PGDEC graduates have undergone a WFS visit.

Workforce support (WFS) programme

In line with FHFNZ's commitment to long-term sustainability within its programmes, the WFS programme has been developed to be delivered by trained in-country senior eye care personnel. The programme aims to arrange a WFS visit to graduates within one year of graduation, and then again every 2–3 years following. A WFS visit lasts at least one full day and includes technical/skills support, as well as assistance with eye clinic management issues and advocacy with authorities, when required.

Whenever possible, a preliminary survey is completed by the graduate prior to the WFS visit. This survey gathers data such as background information on the workplace, equipment and supplies availability, confidence levels regarding clinical skills and diagnosing/treatment competencies. The survey also helps to plan complementary

training from the WFS visitor, in order to reinforce the graduate's confidence in areas where it may be lacking.

To ensure that the support provided to all graduates is both exhaustive and consistent, a standardised WFS package was developed to focus on four areas:

1. Evaluation of clinical competencies

An assessment of clinical skills is conducted with both written and clinical testing; observation of clinical skills in action is performed whenever possible.

This assessment of clinical knowledge is part of a process to establish the knowledge retention curve of graduates, with items repeated on each WFS visit. The test items were developed to allow both the evaluation of agreement with graduate self-reported knowledge at the time of the WFS visit, and comparison with a similar assessment, which had been performed upon completion of the training.

2. Evaluation of the systems and workplace

A review and audit of the eye care provider's data collection system is conducted and graduates are encouraged to use reporting templates to record clinical encounters. These reports help establish a portrait of eye care and disease burden in a given area. Moreover, these reports describe the workload faced by graduates, data that can be used to advocate for their roles as eye care providers.

A review of stock control systems, as well as an audit and review of recent patient record cards are also completed. The use of a patient satisfaction questionnaire is discussed and encouraged as a way to promote self-reflection and quality control.

3. Evaluation of professionalism and accountability to lifelong learning

Evidence of self-assessment and reflection are reviewed and discussed. The individual requirements and opportunities for further training are assessed, as is the graduate's awareness of available support programmes, including continuing education provided by FHFNZ. Print copies of relevant continuing education materials are provided at the visit.

4. Evaluation of the WFS visit

Feedback on the WFS visit experience is obtained from the graduate.

Following the visit, analysis of the WFS report information is performed and used to plan future curriculum development, plan future support and guide the selection of continuing education topics when hosting in-country workshops throughout the various Pacific countries. Data on indicators of the graduates' professional integration at a regional level are also secondarily extracted.

Conclusion

This comprehensive workforce support programme, based on WHO's building blocks for health systems, is designed to offer in-country, best-quality support to the graduates of eye care training programmes. It addresses key factors in

workforce maintenance and retention and gathers data that can be used for advocacy to employers and authorities. Workforce support is tantamount to maintaining a vibrant, competent and engaged workforce in the home countries once the graduates have been trained; it is also an important step towards sustainability of any workforce development programme.

The WFS programme employs a standardised process, allowing comparable reporting, providing valuable information for FHFNZ to evaluate its training programmes, outputs, data pertaining to equipment and stocks availability, knowledge retention, clinical skills retention as well as professional recognition and integration in the workplace. It offers an opportunity to improve the delivery of eye care services as a result.

Competing interests:

Dr Nicholls reports affiliation with The Fred Hollows Foundation NZ during the conduct of the study.

Author information:

Julie Brûlé, École d'optométrie, Université de Montréal, Canada; Benoit Tousignant, École d'optométrie, Université de Montréal, Canada; Graeme Nicholls, The Fred Hollows Foundation New Zealand, Auckland; Matthew G Pearce, Northwest Permanente, PC.

Corresponding author:

Julie Brûlé, École d'optométrie, Université de Montréal, 3744 rue Jean-Brillant, Bureau 190-71, Montréal, Qnébec, Canada.
julie.brule@umontreal.ca

URL:

<http://www.nzma.org.nz/journal/read-the-journal/all-issues/2010-2019/2017/vol-130-no-1460-11-august-2017/7333>

REFERENCES:

1. Coleman AL, Yu F, Keeler E, Mangione CM. Treatment of uncorrected refractive error improves vision-specific quality of life. *J Am Geriatr Soc.* 2006; 54(6):883-90.
2. Frick KD, Foster A. The magnitude and cost of global blindness: an increasing problem that can be alleviated. *Am J Ophthalmol.* 2003; 135(4):471-6.
3. World Health Organization. Global data on visual impairments 2010. Geneva 2012.
4. Resnikioff S, Kocur I, Etya'ale DE, Ukety TO. Vision 2020 – the right to sight. *Ann. Trop. Med. Parasitol.* 2008; 102 Suppl 1:3-5.
5. Du Toit R, Brian G. Mid-level cadre providing eye care in the context of Vision 2020. *N Z Med J.* 2009; 122:77-88.
6. Du Toit R, Palagyi A, Brian G. The development of competency-based education for mid-level eye care professionals: a process to foster an appropriate, widely accepted and social-

- ly accountable initiative. *Educ. Health Abingdon Engl.* 2010; 23:368.
7. Palmer JJ, Chinanayi F, Gilbert A, et al. Mapping human resources for eye health in 21 countries of sub-Saharan Africa: current progress towards VISION 2020. *Hum Resour Health.* 2014; 12:44.
 8. The Fred Hollows Foundation New Zealand. Available at: <http://www.hollows.org.nz/about-us> (accessed February 7th, 2017).
 9. Du Toit R, Brian G, Palagyi A, Williams C, Ramke J. Education of eye health professionals to meet the needs of the Pacific. *N Z Med J.* 2009; 1291(122):69–76.
 10. Du Toit R, Hughes F, Mason I, Tousignant B. Facilitating the quality of care in a specialist Pacific ophthalmic nursing workforce. *Int Nurs Rev.* 2011; 58:79–88.
 11. Palagyi A, Brian G, Ramke J. Training and using mid-level eye care workers: early lessons from Timor-Leste. *Clin Experiment Ophthalmol.* 2010; 38:805–811.
 12. World Health Organization (WHO) (2006) Working together for health. Available at: http://www.who.int/whr/2006/whr06_en.pdf (accessed February 16th, 2017).
 13. Tejwani S, Murthy SI, Gadudadri CS, Thomas R, Nirmalan P. Impact of a month-long training program on the clinical skills of ophthalmology residents and practitioners. *Indian J Ophthalmol.* 2010; 58:340–343.
 14. Schémann JF, Traoré L, Audugé A, et al. Devenir des infirmiers et médecins ophtalmologistes formés à l'IOTA. *Cas D'Études Rech Francoph Santé.* 1998; 8:133–135.
 15. Shah K, Naidoo K, Chagunda M, Loughman J. Evaluations of refraction competencies of ophthalmic technicians in Mozambique. *J Optom.* 2016; 9:148–175.
 16. Cui Y, De Souza N, Wilson D, Thurn T, Cronjé S. The impact of continuing professional development on ophthalmic dispensing of progressive addition lenses in the Asia-Pacific region. *Clin Exp Optom.* 2011; 94:219–222.
 17. Joint learning Initiative (2004). Human resources for health: overcoming the crisis. Available at: http://www.who.int/hrh/documents/JLi_hrh_report.pdf (accessed February 26th, 2017).
 18. Kanfer, Ruth. January 1999. Measuring Health Worker Motivation in Developing Countries. Major Applied Research 5, Working Paper 1. Bethesda, MD: Partnerships for Health Reform Project, Abt Associates Inc. Available at: http://pdf.usaid.gov/pdf_docs/Pnach205.pdf (accessed February 28th, 2017).
 19. World health Organization (WHO) http://www.wpro.who.int/health_services/health_systems_framework/en/ (accessed February 14th, 2017).