

Spectacle Systems: Research And Development

Most people never consider the extensive network of systems that make purchasing a pair of spectacles possible in a country such as Australia.

Generally, these systems do not exist in developing countries. As a result, spectacles are not widely available or affordable.

For this reason, in conjunction with Government Health Departments in countries such as Timor Leste, Papua New Guinea, Cambodia and Tuvalu, ICEE is researching and developing spectacle policy and legal frameworks, product standards,

preferred practice guidelines for eyecare personnel, and management and financial systems that can be integrated into national eye care plans. The aim is to facilitate the efficient, equitable and sustainable provision of quality spectacles to all who require them.

There are similarities in the systems required for the provision of medicines and spectacles. Consequently, ICEE is following an approach used by the World Health Organisation with respect to its Essential Medicines List. The major components of this approach are:

Selection → Procurement → Distribution → Use of Spectacles

Selection

Spectacles will be selected to meet quality standards and be readily available in adequate amounts.

The supply will depend on the:

- Refractive errors of the population
 - Capabilities of eyecare personnel
 - Number of treatment facilities in the country
- A more limited range can be selected if readymade spectacles are used.

A limited range has the following benefits:

- Easier procurement, storage and distribution
- Increased availability
- Lower stocks mean lower prices
- Better quality assurance
- Easier dispensing means training can be more focused and therefore easier

Research activities on selection being undertaken by ICEE include:

- Development and application of minimum quality standards for readymade spectacles;
- Development, implementation and evaluation of treatment guidelines regarding refractive errors.

Procurement

This process includes finding a source and obtaining the spectacles.

For ready-made spectacles the entire pair of spectacles is procured.

For made to order spectacles both the frames and lenses have to be sourced separately.

The source of the spectacles or spectacle components should:

- Be reputable, consistently meeting the quality standards, at the best price.
- Have stock readily available and promptly dispatch the correct orders.

Research activity on procurement being undertaken by ICEE:

- Undertake the large-scale procurement of good quality ready-made spectacles for distribution at a national level.

Distribution

This process includes port/customs clearing, receipt and inspection, inventory control, storage, requisitioning of supplies, delivery, dispensing to patients and consumption reporting.

A well-run system should:

- Maintain constant supply of spectacles;
- Keep spectacles in good condition;
- Rationalize storage points;
- Use available transport as efficiently as possible;
- Reduce theft and fraud; and
- Provide information for forecasting future needs.

Research activity on distribution being undertaken by ICEE:

- Development, implementation and evaluation of a public sector, ready-made spectacle distribution system

Use of Spectacles

This process includes diagnosis, prescribing, dispensing, compliance and follow-up.

To run effectively, it requires:

- Appropriately trained and experienced personnel working in a supportive environment;
- Rational prescribing (so only those in need of spectacles are prescribed them);
- Good dispensing (the correct pair of spectacles delivered to the right patient, and adjusted for maximum comfort and function);
- The use of the spectacles should be explained and the patients' understanding of this should be checked);
- Appropriate use by patients

Research activities on use being undertaken by ICEE include:

- Investigate the tolerance to induced prism in readymade spectacles;
- Development, implementation and evaluation of dispensing guidelines.
- Develop and conduct survey of patient expectation and satisfaction for spectacles.
- Develop and conduct survey on refraction services and spectacle utilization and barriers.

OPTOMETRY GIVING SIGHT

Is your Optometrist an *Optometry Giving Sight* supporter?

Optometry Giving Sight (OGS) is a global campaign whereby optometrists have been invited to commit to supporting prevention of blindness and low vision initiatives.

ICEE is one of the three international organisations that have initiated and are implementing OGS. As such, ICEE will be a beneficiary of funds raised from these optometrists. This money will be used to help deliver ICEE's projects in such countries as East Timor, Papua New Guinea, Vanuatu, Tuvalu, and Cambodia.

You can support ICEE by using the professional services of an optometrist who supports *Optometry Giving Sight*. Does your current optometrist support OGS?

Making a Donation to ICEE

ICEE receives no government funding. You can make donations to ICEE by cash, cheque or credit card. In Australia, all donations of \$2 and over are tax deductible.

Tel: 1300 66 42 33 Email: donations@icce.org On Line: www.icce.org

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To print, envelope & post this newsletter costs ICEE less than AUD \$1

2004-3



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Photo: René du Toit, ICEE
Eye Nurse Practitioner Training, Vanuatu, April 2004.

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Newsletter 2004 Edition 3

Extending Eye Care in Vanuatu - Eye Nurse Practitioners Training General Nurses

Vanuatu is a nation of 200,000 people living on 83 islands scattered over 450,000 square kilometres of Pacific Ocean. At least 80% of its population lives in rural communities. Public transport is poorly developed, and there are insufficient health facilities and trained health care professionals. Access to eye care is difficult.

In 2001 Dr John Szetu, a Solomon Islands eye surgeon forced to flee the ethnic crisis erupting in his own country, moved to Vanuatu. Dr Szetu has been instrumental in setting up The Vanuatu National Eye Care Program. This is a joint program of the Vanuatu Ministry of Health and The Fred Hollows Foundation.

The backbone of this program is the training of local eye nurse practitioners, competent to provide good quality eye care to the communities in which they live. ICEE has been a significant contributor to the education of these nurses.

In 2001, ICEE provided vision testing training for five nurses undertaking an eye nurse practitioner training program run by Dr Szetu. Seed stock of readymade spectacles from ICEE's Affordable Spectacles Program were also supplied to the nurses, so they could provide comprehensive refractive care when they returned to their district clinics.

ICEE Educational Consultants May Ho and Genevieve Napper returned to Vanuatu in 2002. They evaluated the work of the previously trained eye nurse practitioners, and conducted a course for a further four nurse practitioners in training.

Today these eye nurse practitioners work independently, helping ease Vanuatu's burden of blindness, poor vision and eye disease. However, with just one nurse per 20,000 people, there is still a great need unmet.

To help overcome this problem of insufficient eye care providers, ICEE was invited to train the existing nine eye nurse practitioners in the skills necessary to train general nurses to identify and manage common eye conditions. This would create a local ongoing educational capacity capable of training existing and new nurses.

In April 2004, ICEE's Renée du Toit and Bernie Eastwood conducted a workshop in training techniques and skills. Initially, the eye nurse practitioners learnt about communication skills, how people learn and how to effectively teach knowledge, skills and attitude related to eye care. Then, opportunities were provided for the eye nurse practitioners to practise their new skills by teaching a group of general nurses. The classes were innovative and fun, and the outcome was excellent. The general nurses scored an average of 72% in the theory test, and all passed the practical sessions.

These trained general nurses will be the first of many to be taught how to incorporate good primary eye care into their everyday work. To enable the eye nurse practitioners to continue this education, ICEE has provided them with manuals, visual aids and vision charts.

Ultimately, when a villager with an eye complaint presents to a rural health post anywhere in Vanuatu, that condition will be identified and treated or the person referred for more sophisticated medical investigation. By strengthening the backbone of the Vanuatu Eye Care Program, eye care will be accessible to all.

ICEE wishes to thank Kosmac & Clemens Optometrists located in Central Victoria for generously supporting the Vanuatu Eye Care Program. ICEE does not have government funding, and therefore relies on the generosity of general public and industry supporters.



Photo: Dr John Szetu, Vanuatu Eye Nurse Practitioner Training, Vanuatu, 2004.

Student Quotes

"Thanks a billion times to the trainers, they are the best we've had. I can now go back to my island satisfied knowing what I should do. The most useful thing I learnt was understanding eye conditions and the right time for referral to an ophthalmologist."

"I am now able to teach other nurses and to help educate people about the importance of eyes and how to care for their eyes."

"At first I was scared and nervous to give lectures. The course made me feel confident of myself and I can now stand in front of many people to give lectures."

"The teachers were flexible and easy to understand which gave me great confidence to ask questions and do the activities that enable me to learn further without any frustrations."

Photo: Dr John Szetu, Vanuatu Eye Care Program Renée du Toit discussing a case with Nurse Practitioner Participant.



In Kind Donations

We would like to thank the following organisations that have made recent donations of lenses, frames or spectacle cases to ICEE. These items will be used to provide eyecare to those in need.



Springwood East Timor Support Goup recently made a contribution towards ICEE's East Timor Eye Care Program. The group donated shipping costs for two pallets of optical supplies to Dili, East Timor.

Spectacle Systems in the Developing World

It's easy in the developed world. Our optometrist gives us a prescription and it is dispensed in spectacle frames of our choice. Several payment options exist, including private insurance and, for some, a government-subsidy scheme.

It is different in developing countries. Often people are unaware that spectacles may help if they have poor vision. But even if they know this, refraction services rarely exist outside major cities. And then, where these do exist, the spectacles available are frequently unaffordable.

We benefit from the use of spectacles in our daily lives. The activities undertaken by people in developing countries may be different, but the benefits of good vision to accomplish those activities are not.

People in developing countries need access to spectacles. Recycling used spectacles from developed world wearers is one strategy. With effort and expense these are collected, cleaned, packed and transported. Every endeavour may be made to ensure the donated spectacles are useful. However, the evidence is that this is neither cost-effective nor efficient, with many unsuitable or unacceptable being delivered to developing country settings.

As with dentures or orthopaedic shoes, it is uncommon that spectacles made to fit one person will exactly match those needed by someone else, or that someone will prefer to wear them instead of a new pair.

When given a choice, people in developing countries often prefer to pay a small price for a new pair of spectacles, rather than receiving a second-hand recycled pair at no cost. As with dentures or orthopaedic shoes, it is uncommon that spectacles made to fit one person will exactly match those needed by someone else, or that someone will prefer to wear them instead of a new pair.

The recycled spectacles strategy can inhibit the development of a sustainable, local solution by perpetuating reliance on outside resources. It also creates a false expectation that spectacles should be available at no charge.



Photo: Jacqueline Ramke, ICEE. An East Timorese man wearing an ill fitting, outdated pair of donated recycled spectacles.

Another problem is the lack of integration of these schemes into local eye care programs. Consultation with local health facilities can be scant, thus preventing the development of systems and skills to receive and dispense the spectacles. Spectacles then often remain unused.

“. . . donations [medical supplies] can reduce suffering, but only as a temporary measure. Donations [medical supplies] do not create a sustainable system and some may actually prevent or delay it."
World Health Organisation

For these reasons, ICEE has chosen alternative strategies to address the long-term spectacle needs of communities in developing countries. These are based on the principles of efficiency, quality, equity and sustainability, and depend on local consultation and implementation. This is in accordance with the World Health Organisation's Refractive Error Working Group's recommendation that recycled spectacles not be used.

One ICEE strategy, which is further outlined in the research and development article in this newsletter, is the use of affordable readymade spectacles. ICEE is developing, implementing and evaluating various elements of an overall spectacle system in Timor Leste, Papua New Guinea and Tuvalu, with a view to this being adapted and applied in other countries.

As this system develops, it will include streamlined locally owned and operated optical workshops, to enable the correction of refractive errors not fixed by ready-made spectacles. Affordable appropriate spectacles will be available to all.



Photo: Rénée du Toit, ICEE Using the ICEE Primary EyeCare manual to identify an eye problem.