

Small Capital and Equipment Program

Final report

Enhancing the quality of optometry training within community health centres

Date completed: 16 November 2012

Background and context

The Australian College of Optometry (ACO) has been delivering low-cost eye care services to the Victorian community since establishment in 1940. The Victorian Department of Health has funded the Victorian Eyecare Service (VES) since 1985 and in 2011 the ACO provided over 73 000 services.

The ACO has an established history of contribution to the clinical training for undergraduate optometry students in Victoria. For nearly fifty years the College has hosted clinical placements for University of Melbourne students. In 2011, the ACO provided over 7000 hours of clinical training to fourth and fifth-year University of Melbourne students. All of this training was provided at our main clinic in Carlton. With the establishment of a second optometry course in Victoria (Deakin University), the demand on ACOs clinical teaching program will substantially increase.

To meet the increasing demand for teaching the ACO needs to de-centralise its teaching from the Carlton clinic and expand into our smaller clinics located in community health centres. The first of these is our clinic within the Broadmeadows Health Service with teaching commencing in 2012, however some of the equipment at the site was not up to standard.

The funding obtained under the Small Capital and Equipment Program allowed the ACO to purchase two new slit lamps with video-monitoring equipment. This is a fundamental piece of optometry equipment and is used to detect and investigate abnormalities in both the anterior and posterior regions of the eye. Video-monitored equipment allows clinical educators to see in real time what the student is viewing. Clinical educators are in a better position to identify technique deficiencies in students and it also allows the students to observe the view that can be achieved by an experienced clinician.

Project objectives and expected impacts

- To upgrade equipment within the ACO eye care clinic located at the Broadmeadows Health Service with the purchase of two slit lamp biomicroscopes with video-monitoring equipment.
- To enhance the quality of teaching and learning within the Community Health Centre through the use of video-monitored slit lamps.
- To improve students slit lamp use, enhancing their ability to detect and monitor ocular disease.
- To monitor and evaluate feedback from students, clinical educators and the University of Melbourne as to the impact of using a video-monitored slit lamp in teaching.

- This project centres on improving the quality of undergraduate optometry teaching being undertaken at a community health centre site.
- Improve undergraduate optometry student's ability to use the slit lamp effectively, increasing the likelihood of detecting ocular disease (glaucoma, cataract, macular degeneration) and their ability to monitor disease progression (diabetic retinopathy).
- Support the ACO's expansion of clinical training to community health centres.
- Create a more positive teaching environment for ACO clinical educators.

Project objectives and expected impacts

- To upgrade equipment within the ACO eyecare clinic located at the Broadmeadows Health Service with the purchase of two slit lamp biomicroscopes with video-monitoring equipment.
- To enhance the quality of teaching and learning within the community health centre through the use of video-monitored slit lamps.
- Improve students ability to use a slit lamp effectively, enhancing their ability to detect and monitor ocular disease.
- To monitor and evaluate feedback from students, clinical educators and the University of Melbourne as to the impact of using a video-monitored slit lamp in teaching.
- This project centres on improving the quality of undergraduate optometry teaching being undertaken at a community health centre site.
- Improve undergraduate optometry student's ability to use the slit lamp effectively, increasing the likelihood of detecting ocular disease (glaucoma, cataract, macular degeneration) and their ability to monitor disease progression (diabetic retinopathy).
- Support the ACOs expansion of clinical training to community health centres.
- Create a more positive teaching environment for ACO clinical educators.

Project activities

The ACO purchased and installed two new slit lamp biomicroscopes with video-monitoring equipment into two teaching rooms with within the ACO clinic at the Broadmeadows Health Service.

This video-monitored equipment has been used extensively for clinical teaching that occurs at the site. University of Melbourne students spend three-day blocks at the site, over thirty-one weeks per year. This equipment will also be used for all future teaching activities at the site.

The ACO developed an evaluation tool to gain student feedback about their experiences undertaking clinical placements at the Broadmeadows Health Service; ninety per cent of students surveyed felt that their video-monitored slit lamps enhanced their leaning experience. The other ten per cent said they were unsure. Feedback from ACO clinical educators was also obtained, again reflecting the use of this equipment enabled them to teach this skill to a high standard.

Project management

This project was managed by the Senior Manager of Teaching and Quality (SMTQ). The SMTQ manages all ACO clinical teaching activities and provides a quarterly report to the Clinical Services Committee. All project activities were also reported to the Director of Clinic Operations.

The main partner for this project was the Department of Vision Sciences, University of Melbourne as it was their students that have directly benefited from this new equipment. Regular teaching meetings are held with the University to ensure high-quality outcomes for the teaching program.

The timeline was very simple and did not require software to support its monitoring. The equipment was purchased as per the initial schedule but there were some delays experienced in delivery of goods as the supply company needed to order the equipment from Europe.

As seen from the financial report, ACOs expenditure matches the initial budget. Equipment (slit lamps and video-monitoring equipment) was exactly as budgeted. Expenditure on installation and delivery of equipment was five per cent under budget and expenditure on staff development and training was under budget by just two per cent.

Project activity	Project Deliverable/target	Due date	Status
Purchase and install two new slit lamp biomicroscopes with video-monitoring equipment into two teaching.	Equipment installed into two consulting rooms. Educators provided with details how to make best use of equipment.	30 April 2012	Complete
Rooms at the ACO Clinic in the Broadmeadows Community Health Centre.			
Video-monitored slit lamps used for teaching consultations.	Video-monitoring equipment utilised by clinical educators for all teaching sessions at Broadmeadows Community Health Centre.	1 May 2012 onwards	Complete
Develop evaluation tool for both students and clinical educators.	Evaluation tools developed.	1 May 2012	Complete
Evaluation tool to be used over life of the project.	<ul style="list-style-type: none"> Evaluation sought and analysed from all University of Melbourne students (students will attend the clinic in rotations – two students for three days per week). Feedback sought and analysed from clinical educators at site. Engaged with UM department staff on anecdotal or qualitative observations of students being more efficient at use of slit lamp biomicroscope. 	1 May 2012 until 1 December 2013	Complete

Project outcomes

Objective 1: Upgrade equipment

This was achieved with the purchase and installation two slit lamp biomicroscopes with video-monitoring equipment. The equipment that was at the clinic prior to this project was over ten years old and was not able to be fitted with video-monitoring equipment.

Objective 2: Improve students ability to use a slit lamp effectively

Students and educators have both reported that the use of this new equipment has enhanced student skills in this technique. To allow real-time viewing of what a student is doing, video-monitoring equipment is necessary. This has allowed educators to observe students and provide them with guidance and input to improve their techniques. It has also allowed the students to observe how an experienced clinician can undertake this procedure. Anecdotal reports from the University of Melbourne indicate that they feel that their students are demonstrating a greater level of skill and efficiency in this vital technique.

Objective 3: Monitoring and evaluation

Feedback has been obtained from students, educators and the department. Over ninety per cent of students surveyed felt that the video-monitored slit lamps enhanced their learning experience at the Broadmeadows clinic. Eighty per cent of educators report a greater level of enjoyment from their teaching (which is an important outcome as we put increased demands on our educators). Monitoring and evaluation will be an ongoing activity.

Evaluation

This project allowed the ACO to undertake a much needed upgrade in equipment. This will not only enhance the learning experience of the students but will increase the clinical educator's satisfaction within their role. Feedback from the students and the University of Melbourne has indicated that student capacity for using the slit lamp has been enhanced with the use of this state-of-the-art equipment.

The only slight issue we had was with delays in receiving the equipment which was beyond our control. The project did run to budget. All other activities and outcomes were positive.

Key learnings from this project centre around the positive outcomes associated with having access to this type of teaching equipment. The ACO can see the real benefit from upgrading key equipment to ensure that students and educators have access to high-quality resources. Organisations that provide public health services ensure that income directly supports the provision of care and equipment to support teaching can be considered secondary. This program has highlighted the benefits from expenditure on teaching related activities.

Conclusion

The ACO runs an extensive clinical training program for undergraduate optometry students. Our teaching program has been heavily centred in our main clinic in Carlton. This project has supported the expansion of our teaching program into our clinic within the Broadmeadows Health Service. Teaching with a community health centre provides students exposure to a more multi-disciplinary approach to care. Students and the universities strongly support learning in this type of environment. Having this funding allowed the ACO to install state-of-the-art slit lamps with video-monitoring equipment, ensuring students and educators have access to high-quality equipment. The skill of using a slit lamp is very important and it allows the user to detect and investigate abnormalities in both the anterior and posterior regions of the eye.