

# Small Capital and Equipment Program

Final report

## BASE Teaching Clinic

**Date completed: 31 May 2013**

### Background and context

Southern Health is Victoria's largest health care network and is committed to the education of health care professionals from a many educational facilities including Monash, Deakin, La Trobe and Victoria Universities. As demand for clinical placements is increasing, Southern Health is seeking opportunities to diversify the type of student experiences it can provide.

The Southern Clinical School (SCS) was established in 2001 as an integrated teaching school with Southern Health hospitals. The school is a part of the Faculty of Medicine, Nursing and Health Sciences at Monash University and is based at Monash Medical Centre (MMC). The SCS offers a diverse range of undergraduate and postgraduate programs. SCS works with Southern Health to create enormous benefits for health professional students. The collaboration of research and teaching groups enhances the ongoing investigation, trials and developments that contribute significantly to innovation and implementation of best practice in the treatment and cure of many conditions. The research precinct includes:

- Monash Institute of Medical Research (MIMR)
- Monash Institute of Health Services Research (MIHSR)
- Prince Henry's Institute
- The Ritchie Centre
- Jean Hailes Institute
- Southern Health.

A new teaching complex was established at Monash University's Notting Hill campus for an integrated facility for sleep, nutrition and dietetics and exercise physiology. The aptly named, 'Be Active Sleep and Eat' lab or 'BASE', is the new unit where this proposed teaching clinic has been established. The clinic will run based on a private practice model and thus be self-sustaining while providing new and exciting teaching opportunities. The complex aims to advance the translation of the science of nutrition, sleep and activity to enhance the healthy lifespan of the Australian population. From the sleep facility and local community, there is a large pool of non-complex clients whose 'lifestyle disease' needs are unable to be met due to lower priority classifications in the acute setting and long waiting lists and exclusion criteria in the community.

The clinic will increase placement capacity by:

- Creating new placements.
- Improving the preparedness of students prior to acute hospital placements reducing demand for the already limited acute hospital learning opportunities.
- Reduced hospital student placement times will allow increased numbers of student rotations. Each day spent in the clinic will result in one less acute placement day a student consumes.

High-quality placement will occur from:

- Providing a primary care placement setting that reflects current employment and career prospects and provides the learning opportunities that prepare graduates for a career that a high percentage will pursue.
- Promoting professional identity by allowing junior students to model high-quality consultations non-invasively with one-way mirror observation rooms.
- Enabling non-technical skill development such as interprofessional communication, small business management, marketing, client dietary analysis, writing of patient education material, in a real-world setting which is consistent with entry-level competencies.
- Elevating student competence prior to placements in the acute care setting.
- Enabling communication and modelling across student year levels.
- Promoting interprofessional learning and comprehensive patient assessment as students of nutrition and dietetics, exercise physiology, social work, nursing, medicine and physiotherapy work together. The current student-led clinic at Peninsula Health has delivered proof that this will result in outstanding outcomes.
- Offering students excellent opportunities to develop the important competencies of communication skills, team work or and other primary care delivery skills.
- Providing students with opportunities to observe and participate in action research through engagement of entry-level students with honours and higher degree by research students based at the clinic.
- Offer additional exposure/observation to clients of culturally and linguistically diverse backgrounds from first-year students onwards.

Evidence to support the effectiveness of clinics in the training of health professional students includes:

- A US university-based nutrition counselling clinic evaluated the client perceptions of their care. Clients rated student dietitians more positively than their instructors on several parameters, including recommending the clinic to others (Green 1990).
- A psychology clinic run by the University of New South Wales evaluated the services provided by students and found that it provided a valuable training forum and relevant service delivery to the community. Some of the benefits included the promotion of clinical and research work encouraging excellence; allowing the opportunity for students to gradually expose themselves to increasingly challenging situations under a more controlled and supervised environment; and to practice skills in assessing, treating and evaluating clients (Murrell et al 2002).
- The Peninsula Health student-led clinic at Golf's Links Road has completed the first complete block of Monash student rotations. The feedback from participants across seven disciplines has been transcribed and indicates very high satisfaction and the predictable outcomes of markedly elevated awareness of the roles of other professionals, enhanced confidence in providing comprehensive services and rewards associated with better knowledge of services available for people with chronic health needs, to list only a few of the many positive findings. This clinic has also identified the long-term financial viability of a relatively low-cost vehicle for provision of health services.

## References

Green G (1990) Client Perceptions of Dietetic Students and Registered Dietitians at a University Based Nutrition Clinic. *Journal American Dietetic Association*. 90, 3: 417–22

Murrell E, Steel Z, Gaston J and Proudfoot H (2002) Training the Clinical Psychologist: Profile of a University-based Clinic. *Australian Psychologist* 37, 2: 123–28

## Project objectives and expected impacts

The clinic will increase placement capacity by:

- Providing new, innovative high-quality student placements.
- Improving the preparedness of students for acute hospital placements reducing hospital placement time.
- Providing a new practice setting that develops skills essential for modern health services delivery.
- Promoting professional identity by allowing junior students to observe consultations non-invasively with one-way mirror observation rooms.
- Enabling non-clinical skills to be practised such as small business management, marketing, client dietary analysis, writing of patient education material etc. in a real-world setting which is consistent with entry-level competencies.
- Improving student confidence prior to placements in the hospital setting.
- Allowing for increased communication between year levels and professional groups.
- Promoting interprofessional learning between students of nutrition and dietetics, exercise physiology, social work and physiotherapy.
- Offering students the opportunity to focus on particular competencies (e.g. communication skills, team work or documentation).
- Providing students with opportunities to observe (or participate in) action research.

## Expected impacts

- Year one of the clinic will pilot with nutrition and dietetics students. These students see approximately two to four patients in the first week of clinical hospital placement. This could be achieved in one day at the clinic. Saving of (e.g. forty students) four placement days per student (equalling approximately one hundred and sixty placement days per year for each year level attending placement).
- Acute placements in a range of areas e.g. musculoskeletal, cardiorespiratory, exercise and diet prescription can be reduced on a day-for-day basis with days spent in the clinic.
- Enhanced confidence and ability will maximise learning outcomes in acute care settings.
- Competencies will be achieved earlier – resulting in further reduction in placement hours.
- One week in student clinic (>10 patients) would allow students to reach basic interview and data collection competencies which would take three weeks in a hospital setting.
- Opportunity for first-year students to observe clinicians at work and establish professional identity (Murrell et al 2002).
- Innovation in health care placements in private practice setting which is currently not available for nutrition and dietetics students in Victoria.
- Preparation of graduates for private practice and industry positions.
- Allow for development of entry-level competencies set by the Dietitians Association of Australia in the area of management and organisation which are difficult to achieve in the clinical placement environment. These include performance criteria such as 'understands and performs simple budgeting and cost control measures' and 'performs and manages administration tasks effectively (e.g. makes appointments, etc.).'
- Students who have an interest in research will have opportunities to participate prior to graduation instead of waiting for post-graduate studies.
- Increased collaboration between Monash University and Southern Health and between the allied health professions – including students, teachers, researchers and clinicians. This will serve to:
  - increase awareness of system resources for all groups
  - improve access for researchers to continue to improve education and service delivery
  - sharing of educational expertise and innovation across the health professions
  - increased collaboration between all stakeholders
  - evaluation and dissemination of the model to others.

## **Project activities**

Due to changes in previously established building works, the one-way mirror was unable to be installed. Therefore a video camera, video learning software (Studiocode) and associated equipment was purchased instead. This allows for the additional benefits of performance debriefing with video footage, online learning applications and extended scope of learning.

## **Project management**

### **Governance**

Management is shared between Simone Gibson, Senior Dietician and Educator at Southern Health and Helen Truby, Professor, Department of Nutrition and Dietetics at the Southern Clinical School and Monash University and this will expand to a steering group to represent all stakeholders. The Monash University Department of Nutrition and Dietetics have been allocated space at Notting Hill which includes the student clinic area. Management will report back to Professor Eric Morand, Head, Southern Clinical School, Monash University Faculty of Medicine, Nursing and Health Sciences who fully supported this proposal.

### **Stakeholder engagement and consultations**

Stakeholders who were included in steering group meetings, the advisory committee and stakeholder meetings included:

- Maryanne Silvers, Manager Nutrition and Dietetics Department, Monash Medical Centre, Southern Health
- Raisa Shaikh, Manager Nutrition and Dietetics Department, Casey Hospital, Southern Health
- Dr Andrew Beveridge, Senior Lecturer, School of Primary Health Care, Monash University
- Professor Jenny Keating, Director Allied Health, School of Medicine, Monash University
- Sheree Smalley, Team Leader, Monashlink Community Health Service
- Nathan Givoni, Director, Lifestyle Breakthrough Dietetic and Exercise Clinics
- Fiona Kent, Course Coordinator/Lecturer, Health Professions Education and Educational Research (HealthPEER) Team, Monash University
- Dr Claire Palermo, Senior Lecturer, Department Nutrition and Dietetics, Monash University
- Dr Kevin Lee, Endocrinologist and PhD scholar, Monash University
- Caroline Bopp, Marketing and Administration Officer, School of Psychiatry, Monash University.

The Advisory Committee met on 30 May 2012. Summary of outcomes:

- Commence clinic with dietetic-only focus and introduce interprofessional learning once clinic and learning activities established.
- Commence student training only once clinic has established patient attendance (i.e. not before semester two in 2013).
- Create a second (and possible third) consulting room to allow for 'wave model' of consultations to minimise time wasted for clinicians.
- Several ideas proposed for learning activities and endorsement of benefits of observation as outlined in project activities.

Working Party met on 15 June 2012. Summary of outcomes:

- Identified referral pathways for Southern Health patients
- Identified patient types who would be likely to utilise the clinic
- Identified necessary information Southern Health would need to enable referrals.

Several working parting meetings, January – May 2013. Summary of outcomes:

- Creation of promotional material
- Marketing strategies
- Planning for clinic launch
- Setting up sessions for endocrinologist, dietician, exercise physiologist and radiographer for clinic.

## Budget

Cost item		Budgeted expenditure	Actual expenditure (to date)	
Lode Corival Ergometer Bike and Treadmill		\$6000	\$4500	Still to purchase treadmill (\$3500)
Seca 720 Column Scale		\$4000	\$1004	
Waiting room furniture: Two sofas and one coffee table		\$2800	\$1537	
Office furniture: Two desks, eight chairs, two cabinets		\$1000 \$2000 \$800	\$380 + \$425 = \$805	
Stationary and business cards		\$1800	\$1800	
Advertising and promotional material		\$4000	\$4000	
iPads		\$4800	\$2760	Still to purchase two more iPads (\$1380)
Laptop – Studiocode compatible		\$1500	\$1364	
Consulting room computers and monitors		\$4000	\$2430	
Booking software – Best Practice with three licences		\$1500	\$1294	
Studiocode software, camera, equipment and installation	Studiocode software, iMac and installation	Not originally budgeted as original plans had two-way mirror installed for student observations of consultations.	\$23 600	Money re-allocated from smart boards, website software (incorporated website into existing page), telephone extensions, projector (substituted for TV screen in camera equipment). NB still awaiting itemised account from Monash University Audiovisual Services.
	Video camera, microphone and installation			
<b>TOTAL (budgeted):</b>		\$49 800	<b>TOTAL (actual spend to date):</b>	\$45,094 (after treadmill and iPads purchase = \$49,974)

Items provided by Monash University:

- Telephones and printer
- IT support
- Website
- Front reception desk, chairs, extra furniture for student learning room
- Construction of two consulting rooms, student learning room and exercise laboratory (including carpet/flooring, air conditioning, lighting, etc.)
- Extra furnishing of waiting room
- Staff time of project leaders and marketing assistance
- Standard Windows and Microsoft Office software
- Catering for clinic launch.

## Timelines

November 2011 to July 2012	Planning for project, building works
21 March 2012	Received notification of successful grant application \$49 800
30 May 2012	Interprofessional Advisory committee meets
15 June 2012	Stakeholder meeting
12 July 2012	Received funding for project
4 February 2013	Ethics approval for evaluating learning activities related to student clinic
March to May 2013	Production and dissemination of marketing material
5 April 2013	Installation of Studiocode and consulting room camera
8 April 2013	Production of videos for learning using clinic and Studiocode
17 April 2013	Official Launch of the Nutrition and Dietetics Teaching Clinic
14 May 2013	Targeted learning activities in student clinic for fourth-year students who are not progressing on placement
1 July 2013	'Go live' with dietician, endocrinologist and radiographer
Semester two, 2013	Utilise student clinic for students with learning gaps on clinical placement
February 2014 onwards	Commence regular student learning activities as part of clinical placement curriculum

## Project performance against stated deliverables

Project activity	Project deliverable/target	Due date	Status
<b>PHASE 1</b> Set-up, staff and patient recruitment and establishment of functioning clinic	Functioning dietetic clinic	1 September 2012	<ul style="list-style-type: none"> <li>Established staffing of dietician, endocrinologist, exercise physiologist and radiographer</li> <li>Commenced student training aspect of clinic</li> <li>In process of recruiting patients</li> </ul>
Clinic set-up	<ul style="list-style-type: none"> <li>Stationary and promotional material produced</li> <li>Purchase of computers, printers, software, etc.</li> <li>Purchase of furniture, dietetic equipment</li> <li>Purchase and installation of Studicode software, camera and equipment</li> </ul>	11 April 2013	Complete
Appointment of dietician/student educator	Schedule times and dates	1 June 2012	Complete
Form interprofessional advisory committee including representatives from allied health disciplines at Southern Health and Monash University/Southern Clinical School.	Meeting minutes and quarterly reports	1 June 2012 and three monthly thereafter	Complete
Referral process pathways <ul style="list-style-type: none"> <li>Working party with representatives of Southern Health acute, sub-acute and rehab and community services to establish patient referral processes. This will link in with the advisory committee</li> <li>Develop referral processes with Sleep Clinic</li> <li>Market to local GPs:               <ul style="list-style-type: none"> <li>Send letters</li> <li>Personal visits</li> <li>Clinic launch cocktail evening</li> </ul> </li> <li>In initial phase, all patients with chronic disease risk factors will be included but not limited to:               <ul style="list-style-type: none"> <li>Overweight and obesity</li> <li>Diabetes</li> <li>Hypercholesterolemia</li> <li>Malnutrition risk</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Referral process pathway.</li> <li>Referral process for sleep clinic patients pathway</li> <li>At least twenty local GPs aware of services</li> <li>Ten patients per week to attend clinic</li> </ul>	<ul style="list-style-type: none"> <li>1 June 2012 and every six months onwards</li> <li>New date: 1 March 2013</li> <li>New date 1 March 2013</li> <li>New date changed to 1 April 2013</li> </ul>	<ul style="list-style-type: none"> <li>Complete</li> <li>In process: regular meetings with sleep clinic staff however their current clients are research-only</li> <li>Complete</li> <li>Not met: delay due to new building works. New date 1 September 2013</li> <li>Established low-cost pathways for SH patients to access service via diabetes groups, etc.</li> <li>Additional potential referral pathway via patients recruited for research purposes</li> </ul>

<b>PHASE 2</b> Ethics approval for research into student learning/patient outcome benefits of attending the Human BASE clinic.	Ethics approval received.	1 February 2013	Complete
Identify and develop research activities to investigate student learning, confidence to practice, preparedness for clinical placement – including effect on clinical placement days.	One dietetic student research project, one interprofessional learning project and one patient outcome project devised (one project can address more than one of these items).	1 May 2013	In progress: Currently reviewing literature
<b>PHASE 3</b> Commence dietetic student training in clinic. These dates will remain the same but in 2012 student numbers will be reduced to enable effective pilot phase and ensure optimal future learning program planned.	Third and fourth-year Southern Health, Bachelor of Nutrition and Dietetics students attend clinic. Southern Health students and educators from physiotherapy, psychology and exercise physiology invited to attend and provide feedback as to training needs.	Semester 2, 2012	In progress: <ul style="list-style-type: none"> <li>Commenced training of third-year dietetic students taking diet histories from simulated patients which were videorecorded.</li> <li>Fourth-year students utilised clinic for their teamwork project BND4032 – video available.</li> </ul>
Third-year students attend clinic for observations of clinician/patient consultations.	Five Southern Health third-year students have at least one session each in the clinic.	15 March 2013	In progress: Official date for patients to commence is 1 July 2013 so using simulated experiences in meantime.
Fourth-year students consult patients on voluntary basis.	At least five students provide dietetic counselling to clinic patients.	April 2013	In progress: One student attended so far but patients are not yet attending clinic.
Further incorporate dietetic students into clinic by liaising with Southern Health dietetic educators, Monash University unit convenors and clinic staff to discover gaps and needs.	Wide range of activities performed by students including client booking, observing consultations, interviewing clients, anthropometric measuring, peer learning, individual and group counselling, interprofessional student group interaction and client management.	1 June 2013	In progress: <ul style="list-style-type: none"> <li>Patients will not be booked into clinic until 1 July 2013</li> <li>Meeting with clinical educators</li> <li>Scheduled for August 2013</li> <li>Results of focus group data indicate need to target 'professional skills'</li> </ul>
<b>PHASE 4</b> Incorporate physiotherapy, psychology and exercise physiology students.	Physiotherapy, psychology and exercise physiology students attend clinic in both observational and active capacities.	1 June 2013	Not met: New date will be semester 1 2014
Consult with academic and Southern Health placement educators to ascertain learning needs and how clinic could address them.	Physiotherapy, psychology and exercise physiology education activities included in clinic.	15 January 2013	Not met: New date will be semester 1 2014
Consult with academic and Southern Health placement educators to develop interprofessional learning activities.	At least one interprofessional learning activity to be experienced by fourth-year dietetic, physiotherapy, psychology and exercise physiology students.	1 June 2013	In progress: Educators will be invited to observe clinic when patient consultations commence.

The project has achieved its objectives in that the clinic is now set-up and ready for patient consultations and student learning. However, although students are now using the clinic for learning, student participation is not at the level anticipated.

## **Objectives achieved**

NB Some objectives have changed since the application for the funding grant due to recommendations from the expert advisory board and building works limitations. These changes enhance student learning and productivity further.

- One fully-equipped consulting room
- One semi-equipped consulting room
- One student learning room
- Exercise laboratory with exercise bike (equipped for VO2 Max testing)
- Video camera, microphone, interactive iPads and Studiocode software linked between one of the consulting rooms and the student learning room
- Furnished waiting area
- Promotional and marketing material produced
- Officially launched on 17 April 2013 with approximately sixty attendees. These included dieticians from Southern Health and other health care networks; the Director of Allied Health, Director of Primary Care and the Head of Department of General Practice from Monash University Faculty Medicine Nursing and Health Science; local doctors and representatives from food industry.
- Dietician, endocrinologist and radiographer appointed and have scheduled sessions for the week beginning 1 July 2013.

## **Objectives not achieved**

- Awaiting installation of medical/booking software. Problems with IT networking have delayed this process.
- Further marketing and promotion in progress. This is ongoing and we attempted to visit local GPs but found it impossible to make times with them. We have now linked in with the Inner East Melbourne Medicare Local with positive results.
- Patients not yet attending clinic – this is planned for week beginning 1 July.

## **Project outcomes**

As the clinic is not yet consulting patients, the level of student interaction is not yet at targets. So far the outcomes are not quantifiable but include:

- Individual student learning sessions using videoed consultations and debriefing for student struggling on placement. Equivalent to approximately four hours of placement time.
- Individual learning session using simulated consultation and feedback for student on Monash Sport's Elite Athlete Support Program who was away for placement preparation sessions. Equivalent to approximately three hours of placement time.
- Creation of videoed consultation learning modules for students to observe prior to placement commencement. This will enhance preparedness for placement and equivalent to two hours of placement time.

It is anticipated the original planned outcomes will be achieved over the next twelve months.

## **Evaluation**

### **Positive aspects**

This program allowed for the purchase of high-quality equipment for our student clinic and we now have a unique learning environment for students and patients that is sustainable and ready to go.

The process of applying for the grant and completing quarterly reports assisted in keeping the project on track and being accountable to original objectives.

### **Difficult aspects**

There were many difficult aspects to this project which can be summarised as 'organisational processes'. As this project is quite innovative, there were no existing processes to follow which required a great deal of negotiation. It was frustrating that some of these decisions were outside of influence but Professor Helen Truby was able to negotiate and advocate at a higher level. These processes were time consuming and held up the appointment of a dietician to work within the clinic. Building works also caused significant delays. As this project 'slotted-in' to existing building works plans, we were reliant on other projects moving forward.

### **Budget**

The project ran over budget mainly due to the purchase of videoing and Studiocode equipment in place of the two-way mirror which was not installed as per the original building plans. This was resolved by reprioritising purchases and fortunately Monash University Department of Nutrition and Dietetics agreed to provide extra funding.

### **Key learnings**

The key learning from this program is to allow for significant amounts of time to resolve organisational processes. Original timelines for the clinic to be fully operating within six months of receipt of funding was extremely over-ambitious. The importance of stakeholder consultations and being able to adapt according to advice and obstacles is also important. Most people were extremely supportive of this project and willing to help network and offer advice which was extremely beneficial. So to summarise, key learnings are:

- Allow sufficient time for the resolution of obstacles and delays
- Be adaptable
- Consult widely and be open minded
- Utilise others 'expertise'.

### **Conclusion**

The Human BASE Teaching Clinic is a functioning clinic and taking patients from 1 July 2013. The clinic has an experienced and accredited dietician, exercise physiologist, endocrinologist and radiographer. This innovative clinic provides health professional students with learning opportunities and guided assessment using real-life experiences with targeted video feedback. The clinic will be able to provide clinical placement hours for students, improve preparedness for clinical placement and offer students opportunities to focus on particular competencies.