



Faculty of Medicine & Health Sciences  
Stellenbosch University  
South Africa



**Annual report**

2012

## FOREWORD

It gives me great pleasure to provide the foreword to the 2012 Annual Report of the Centre for Evidence Based Health Care (CEBHC) constituted to direct and coordinate evidenced based health care in the Faculty of Medicine and Health Sciences at the University of Stellenbosch.

The Centre has in the past year striven resolutely and vigorously towards a vision to be a site of excellence in advancing evidence informed health care in Africa and the rest of the world. This they have done through the delivery and support of exceptional research outputs and through expertise in teaching evidence – informed decision making. These key aspects of the workings of the Centre are sequel to the strategic role it has articulated and allocated itself in terms of teaching, service and research within the health, education and development sector.

The activities of the Centre are to a large extent propelled by the indomitable and indefatigable Director, Dr Taryn Young. She has with the abiding, critical and catalytic support of the Centre’s Governing Board assembled a talented international team of scholars who have embarked on a research, knowledge translation, teaching, training and capacity development agenda which has challenged the praxis and conventional wisdom in the Faculty of Medicine and Health Sciences.

It is gratifying to witness the ever-increasing awareness, appreciation, acknowledgement and applause across all sectors, nationally and internationally of the role and responsibilities of the Centre. The relationship between the CEBHC and fellow evidenced based centres around the world have been strengthened on several fronts over the past year in relation to the trans disciplinary research questions that are addressed, globally networked collaborations that are pursued, international grants that are applied for and high impact scholarly publications and outputs yielded.

The year under review has been largely one of consolidation and dealing with the inordinate demands that are made on the Centre. Major challenges that have reared their heads include funding, recruitment of appropriate expertise and sustainability. The innovative, creative and entrepreneurial manner in which the team at the CEBHC has conducted itself over the past year instils me with confidence that they will rise successfully to the challenges outlined.

I would like to take the opportunity to acknowledge the unstinting efforts of the entire team engaged at the CEBHC. This annual report is the reflection of their dedication and accomplishments.

Professor Usuf Chikte

Chair Governing Board, Centre for Evidenced Based Health Care.

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**Vision** To be the centre of excellence in advancing evidence-informed health care in Africa and the rest of the world through delivering and supporting exceptional research outputs which impact on health and through expertise in teaching Evidence-informed Health Care.

**Mission**

- To conduct and support relevant systematic reviews and primary **research** related to evidence-informed health care
- To enhance evidence informed healthcare knowledge, skills and practices through **teaching** healthcare professionals and other stakeholders
- To promote the **use of best evidence** in healthcare decision making and the uptake of current best evidence in healthcare policy and practice
- To promote the optimal functioning and sustainable growth of the Centre for Evidence-based Health Care

**Values and guiding principles**

- Excellence
- Integrity
- Credibility
- Relevance
- Collaboration



## RESEARCH

Research activities of the CEBHC include a focus on conducting and supporting

- High quality systematic reviews and meta-analysis on relevant questions
- Research on the barriers to and facilitators of the uptake of best evidence in healthcare policy and practice and testing interventions aimed at enhancing evidence-informed decision making
- Research on principles and practices of teaching Evidence-based Health Care (EBHC)

### *Key projects*

In collaboration with national and international partners, the CEBHC, funded by the UK DFID, aims to increase evidence-informed decisions to improve health and health care for the poor in low- and middle-income countries via the Effective Health Care Research Consortium (EHCRC) ([www.evidence4health.org](http://www.evidence4health.org)). The foundation of the Consortium is collaborative work between five international partners based in Africa, East-Asia, China, Norway and the UK. Together partners work towards preparing and updating Cochrane Reviews about the effects of healthcare relevant to low- and middle-income countries; and identifying approaches to ensure dissemination and use of the results of systematic reviews in decision making. The CEBHC leads this work in the African region and work with, and provide project management to, partners in Cameroon, Kenya, Nigeria, South Africa, The Gambia and Uganda. Within South Africa, we work closely with the South African Cochrane Centre (SACC) at the South African Medical Research Council.

### *Publications in peer reviewed journals*

1. **Okwundu CI**, Okoromah CAN, Shah PS. Prophylactic phototherapy for preventing jaundice in preterm or low birth weight infants. Cochrane Database of Systematic Reviews 2012, Issue 1. Art. No.: CD007966. DOI: 10.1002/14651858.CD007966.pub2.
2. Kuteyi T, **Okwundu CI**. Topical treatments for HIV-related oral ulcers. Cochrane Database of Systematic Reviews 2012, Issue 1. Art. No.: CD007975. DOI: 10.1002/14651858.CD007975.pub2.
3. **Schoonees A**, Visser J, **Musekiwa A**, **Volmink J**. Pycnogenol® for the treatment of chronic disorders® for the treatment of chronic disorders. Cochrane Database of Systematic Reviews 2012, Issue 4. Art. No.: CD008294. DOI: 10.1002/14651858.CD008294.pub4.
4. Omeje I, **Okwundu CI**. Effectiveness and safety of first-line tenofovir + emtricitabine + efavirenz for patients with HIV. Cochrane Database of Systematic Reviews 2012, Issue 5. Art. No.: CD007276. DOI: 10.1002/14651858.CD007276.pub3.
5. **Adeniyi FB**, **Young T**. Weight loss interventions for chronic asthma. Cochrane Database of Systematic Reviews 2012, Issue 7. Art. No.: CD009339. DOI: 10.1002/14651858.CD009339.pub2.
6. **Rohwer AC**, **Khondowe O**, **Young T**. Antispasmodics for labour. Cochrane Database of Systematic Reviews 2012, Issue 8. Art. No.: CD009243. DOI: 10.1002/14651858.CD009243.pub2.

7. **Okwundu CI, Uthman OA**, Okoromah CAN. Antiretroviral pre-exposure prophylaxis (PrEP) for preventing HIV in high-risk individuals. *Cochrane Database of Systematic Reviews* 2012, Issue 7. Art. No.: CD007189. DOI: 10.1002/14651858.CD007189.pub3
8. M'Imunya JM, Kredo T, **Volmink J**. Patient education and counselling for promoting adherence to treatment for tuberculosis. *Cochrane Database of Systematic Reviews* 2012, Issue 5. Art. No.: CD006591. DOI: 10.1002/14651858.CD006591.pub2.
9. Nair H, Shu XO, **Volmink J**, Romieu I, Spiegelman D. Cohort studies around the world: methodologies, research questions and integration to address the emerging global epidemic of chronic diseases. *Public Health* 2012. Mar; 126(3):202-5.
10. Burger EH, Groenewald P, Bradshaw D, Ward AM, Yudkin PL, **Volmink J**. Validation study of cause of death statistics in Cape Town, South Africa, found poor agreement. *J Clin Epidemiol* 2012. Mar;65(3):309-16. Epub 2011 Dec 9.
11. Mugambi MN, **Musekiwa A**, Lombard M, **Young T**, Blaauw R. Probiotics, prebiotics infant formula use in preterm or low birth weight infants: a systematic review. *Nutrition Journal* 2012 11:58 doi:10.1186/1475-2891-11-58.
12. Mugambi MN, Musekiwa A, Lombard M, **Young T**, Blaauw R. Synbiotics, probiotics or prebiotics in infant formula for full term infants: a systematic review. *Nutrition Journal* 2012 11:51 doi: 10.1186/1475-2891-11-81
13. Olowoyeye A, **Okwundu CI**. Gene therapy for sickle cell disease. *Cochrane Database of Systematic Reviews* 2012, Issue 11. Art. No.: CD007652. DOI: 10.1002/14651858. CD007652.pub3.

### ***Protocols for Cochrane Reviews published on The Cochrane Library***

1. Mbabazi E, **Uthman OA, Young T**. Optimal timing for discontinuation of *Pneumocystis jirovecii* pneumonia prophylaxis in adult patients on highly active antiretroviral therapy (HAART) for HIV infection (Protocol). *Cochrane Database of Systematic Reviews* 2012, Issue 1. Art. No.: CD009556. DOI: 10.1002/14651858.CD009556.
2. Motaze NV, Mbuagbaw L, **Young T**. Prostaglandins before caesarean section for preventing neonatal respiratory distress (Protocol). *Cochrane Database Systematic Reviews* 2012, Issue 9 Art. No.: CD010087
3. Turawa EB, **Musekiwa A**. Interventions for treating postpartum constipation (Protocol). *Cochrane Database of Systematic Reviews* 2012, Issue 12. Art. No.: CD010273. DOI: 10.1002/14651858.CD010273.

### ***Oral presentations***

1. **Rohwer A, Young T**, Dudley L, Mukinda F, Cameron N, Willems B, Mehtar S, Marais F, Dramowski A, van Heerden B. A document review of the MB,ChB curriculum to inform enhancement of undergraduate public health (PH), evidence-based health care (EBHC), health systems and services research (HSSR) and infection prevention and control (IPC) teaching. SAAHE, fifth national conference. Bloemfontein. 25 June 2012.
2. **Young T**. Induced sputum and GeneXpert for the diagnosis of TB in children: What is the evidence from systematic reviews. *TB Clinical Forum*. 13 July 2012.
3. **Okwundu C**. Antiretroviral pre-exposure prophylaxis for preventing HIV in high risk individuals. Stellenbosch University, Faculty of Medicine Health Sciences Academic year day. 15 August 2012.
4. **Rohwer A, Young T**, Dudley L, Mukinda F, Cameron N, Willems B, Mehtar S, Marais F, Dramowski A, van Heerden B. A document review of the MB,ChB curriculum to inform enhancement of undergraduate public health (PH), evidence-based health care (EBHC), health systems and services research (HSSR) and infection prevention and control (IPC) teaching. Stellenbosch University, Faculty of Medicine Health

Sciences Academic year day. 15 August 2012.

5. **Schoonees A**, Lombard MJ, Musekiwa A, Nel E, Volmink J. Ready-to-use therapeutic food for treating under nutrition in children from 6 months to 5 years of age. Stellenbosch University, Faculty of Medicine Health Sciences Academic year day. 15 August 2012.
6. **Schoonees A**, Lombard MJ, Musekiwa A, Nel E, Volmink J. Ready-to-use therapeutic food for treating under nutrition in children from 6 months to 5 years of age. Nutrition Congress Africa (Bloemfontein). 1 October 2012.
7. **Schoonees A, Young T, Volmink J**. The advertising of nutritional supplements in South African women's magazines: descriptive study. South African Medical Research Council's 6th Annual Conference, Cape Town. 24 October 2012
8. **Rohwer A, Young T**, Dudley L, Mukinda F, Cameron N, Willems B, Mehtar S, Marais F, Dramowski A, van Schalkwyk S, van Heerden B. A Situational Analysis of MB,ChB Teaching in Public Health (PH), Evidence-Based Healthcare (EBHC), Health Systems and Services Research (HSSR) and Infection Prevention and Control (IPC) at SU HELTASA 2012. 30 November 2012.

### **Poster presentations**

1. **Okwundu CI, Uthman OA**, Okoromah CAN. Antiretroviral pre-exposure prophylaxis for preventing HIV in high risk individuals. AIDS 2012 Conference in Washington DC, USA. 22 July 2012
2. **Rohwer A, Young T**. Document review of the undergraduate medical curriculum at Stellenbosch University to inform enhancement of evidence-based health care (EBHC) teaching. ISEHCON 2012. Delhi, India. 7 October 2012
3. **Rohwer A, Young T**, van Schalkwyk S. Teaching evidence-based medicine (EBM) to specialists - Evaluation of a web-based module on EBM for Family Medicine specialists in training at Stellenbosch University. ISEHCON 2012. Delhi, India. 7 October 2012
4. **Rohwer A, Young T**, van Schalkwyk S. Evaluation of a web-based module on evidence-based medicine (EBM) for Family Medicine specialist in training at Stellenbosch University. Stellenbosch University, Faculty of Medicine Health Sciences Academic year day. 15 August 2012.
5. **Rohwer A, Young T**, van Schalkwyk S. Evaluation of a web-based module on evidence-based medicine (EBM) for Family Medicine specialist in training at Stellenbosch University. SAAHE, fifth national conference. Bloemfontein. 21 June 2012.
6. **Schoonees A**, Visser J, Musekiwa A, **Volmink J**. Pycnogenol for the treatment of chronic disorders. Nutrition Congress Africa (Bloemfontein). 1 October 2012.
7. **Schoonees A, Young T, Volmink J**. The advertising of nutritional supplements in South African women's magazines: descriptive study. Nutrition Congress Africa (Bloemfontein). 1 October 2012.
8. **Wiysonge C, Young T**, Rosenbaum S, Glenton C, Oxman A. Enhancing the usefulness and usability of research evidence for childhood immunisation policymakers in Africa. International African Vaccinology Conference. 9-11 November 2012, Cape Town, South Africa.
9. **Young T**, Dudley L, Khondowe O, Chola L, Protsiv M, Zwarenstein M. An evaluation of blended learning for postgraduate health systems and services research programmes at Stellenbosch University. Second Global Symposium on Health Systems Research, 31 October – 3 November 2012, Beijing, China.
10. **Okwundu C, Rohwer A**. Quality of evidence: Are Cochrane review authors speaking the same language. 20 Cochrane Colloquium, 30 September – 3 October 2012, Auckland, New Zealand
11. **Okwundu C, Uthman O**. Antiretroviral pre-exposure prophylaxis (PrEP) for preventing HIV in high-risk individuals. SA HIV Clinician's Conference, 25 – 28 November 2012, CTICC, Cape Town



## KNOWLEDGE TRANSLATION

### *Building awareness of and sharing experiences in knowledge translation*

Healthcare policy development and implementation are complex processes which are influenced by a variety of factors. The decision making process considers, amongst other things, the local burden of disease, resource availability, evidence of the effects of interventions, acceptability and costs of interventions. During each of these considerations research evidence can inform the decision making. Knowledge translation is a dynamic and iterative process that includes the synthesis, dissemination, exchange and ethically sound application of knowledge to improve health, provide more effective health services and products, and strengthen the health care system. In working towards the objective to increase the use of regionally relevant research it is important to learn from other experiences.



KT workshop in Malmesbury – 20 September 2012



KT workshop in Worcester – 3 October 2012

The CEBHC hosted various workshops at the Faculty and within the Western Cape Province, drawing on experiences in knowledge translation from a global network via the Effective Health Care Research Consortium. These workshops aimed to enhance participants' understanding of knowledge translation and why it is important to share successes, challenges and best practices in knowledge translation, illustrate the role of research synthesis in knowledge translation and to stimulate dialogue around knowledge translation. A total of 72 participants from the Faculty of Medicine and Health Sciences as well as other academic institutions in the Western Cape, South African Medical Research Council, the Provincial Department of Health and district health managers participated.

These workshops were a good first step in creating awareness about knowledge translation strategies and the types of activities we, as researchers, can engage in to promote the use, as well as the conduct of relevant research.



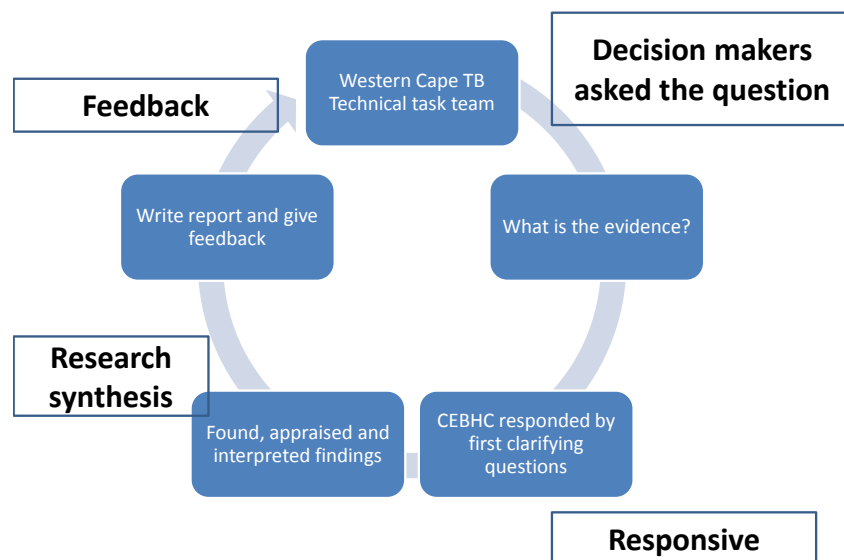
### ***Systematic review on Home or community management of Malaria provides input into WHO guidelines***

Malaria is an important cause of morbidity and mortality, especially among children and pregnant women in sub-Saharan Africa. Prompt access to diagnosis and treatment with effective antimalarial drugs is a central component of the World Health Organization (WHO) strategy for malaria control. Home or community-based programmes for managing malaria are one of the key strategies that have been proposed to overcome the geographical barrier to accessing treatment.

The CEBHC was awarded a contract from WHO to conduct a systematic review on home or community programmes for managing malaria. This review, also registered as a Cochrane Review with the Cochrane Infectious Disease Group, was led by Dr Charles Okwundu and completed in a timely manner to feed into the WHO malaria treatment guideline development.

### ***Responding to policymakers: Evidence on diagnostic tests for Tuberculosis in children***

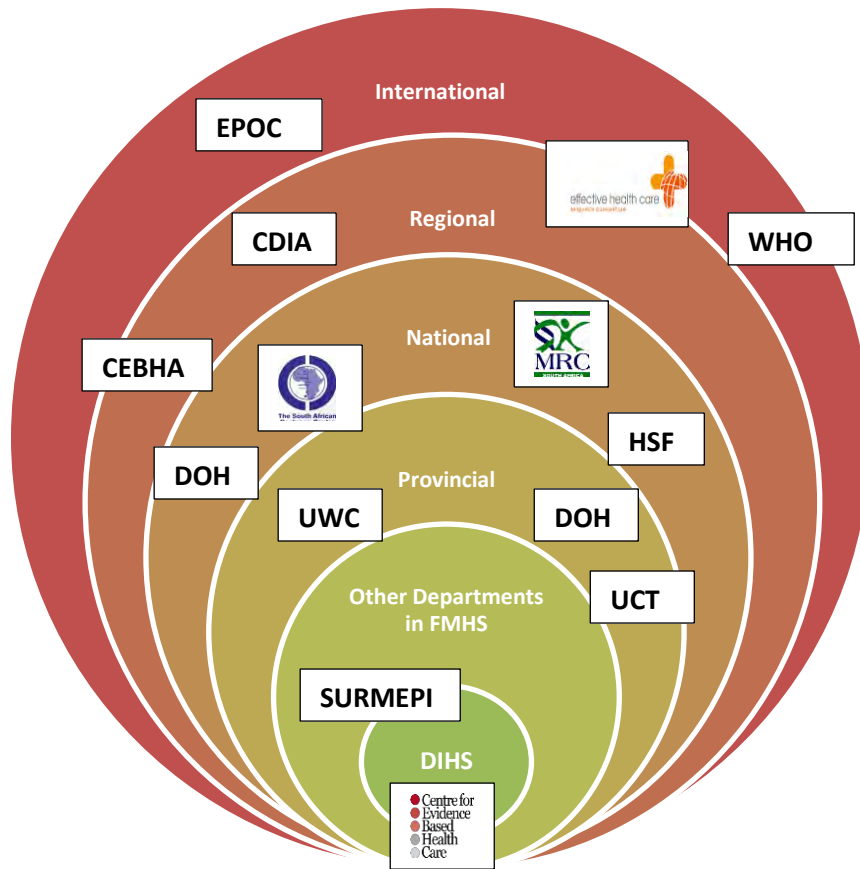
The Western Cape Provincial Tuberculosis (TB) Technical task team in South Africa was considering use of induced sputum for specimen collection for microbiological testing and GeneXpert for diagnosis and confirmation of TB in children at primary health care level. They requested research evidence to help inform decisions. The CEBHC responded by examining available published research. Our objectives were to find, appraise and interpret systematic reviews, and where relevant primary studies, prepare and present the structured report to decision makers in a timely manner. The project had a dedicated team, Dr Taryn Young, Dr Sade Adeniyi and Prof Paul Garner, and synthesised research was the primary evidence base. Our timely response was made possible through collaborative work across the EHCRC consortium including linking with international experts.



The results were fed back to the TB Technical task team in both a report format and by joining their special meeting. They welcomed the feedback and are using it to inform decision making. Furthermore, the completed reports were sent to the National Department of Health.

### **Dialoguing with key stakeholders**

The Centre works in collaboration with a number of local and international institutions. The key principles are to encourage dialogue, enhance EBHC activities and to avoid duplication.



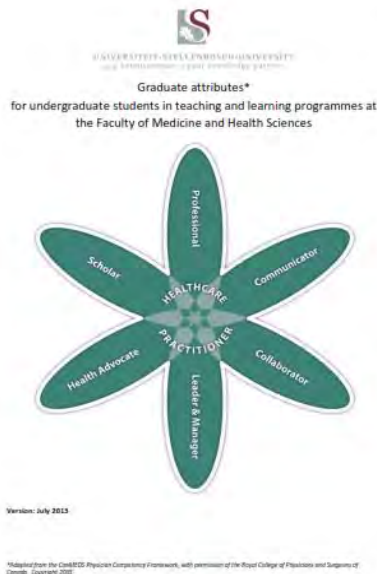
The Centre works with Divisions within the Department of Interdisciplinary Health Sciences (DIHS) and other departments within the Faculty of Medicine and Health Sciences (FMHS), Stellenbosch University. Within the Western Cape Province we contribute to the Healthy Lifestyle Workgroup, one of four workgroups working towards informing Strategic Objective 4 (SO4), which aims to promote wellness, of the Western Cape Provincial Transversal Management System (PTMS). We work with the Heart and Stroke Foundation (HSF), Chronic Disease Initiative in Africa (CDIA) and key stakeholders from the University of the Western Cape (UWC), and University of Cape Town (UCT). At the national level the Centre collaborates with the SACC to support the conduct of Cochrane Reviews and promote EBHC in the African region. We in addition link to the Collaboration for Evidence-based Health in Africa (CEBHA). Internationally, the Centre collaborates with the EHCRC funded by DFID, and working with the Christian Medical College Vellore (India), Chongqing Medical University (China), Liverpool School of Tropical Medicine (UK) and Norwegian Knowledge Centre for the Health Services (Norway) to increase evidence-informed decisions to improve health and health care for the poor in low- and middle-income countries.

The CEBHC works with the Cochrane Effective Practice and Organisation of Care (EPOC) group to develop SUPPORT summaries ([www.support-collaboration.org/summaries.htm](http://www.support-collaboration.org/summaries.htm)) of systematic reviews for a policymaker audience.



## TRAINING AND SUPPORT

### ***Promoting the integration of EBHC teaching in undergraduate and postgraduate curricula***



The FMHS reviewed the desired graduate attributes of a newly qualified healthcare professional, and has adopted a modified version of the CanMEDS framework. It serves as a guide to the essential abilities of a healthcare professional to optimise patient outcomes and defines the attributes of the graduate according to seven interdependent roles: Medical Expert, Scholar (which includes EBHC), Professional, Communicator, Collaborator, Manager and Health Advocate. Staff from the CEBHC played a key role in providing input into defining the competencies of the scholar and continues to work towards the implementation of the scholar attribute.

To inform curriculum development, a document review of the curriculum module guides of the 2011 MB,ChB programme at SU was conducted to assess the learning opportunities and outcomes related to EBHC.

The review captured data on the content, teaching and learning methods, and classified the learning outcomes as knowledge, skills or attitudes. EBHC is covered to varying degrees. Teaching is confined to specific modules and not explicitly integrated in a stepwise fashion, progressing from lower levels of knowledge to acquisition of skills and practical competencies throughout the curriculum. Furthermore, a completed survey of recent SU MB,ChB graduates explored their perceived relevance and utility of EBHC teaching in the undergraduate MB,ChB curriculum. Recent graduates highlighted the need for integration of teaching, especially in the clinical rotations, and suggested that unnecessary duplication of basic concepts should be avoided and attention given to the progression of knowledge gained over the curriculum. This situational analysis is part of the Stellenbosch University Rural Medical Education Partnership Initiative (SURMEPI) funded by USAID/PEPFAR and was done in collaboration with Public Health, Health Systems and Services Research and Infections Prevention and Control. Findings have been shared within the Faculty, presented at the 2012 Academic Year day, and relevant national and international conferences including SAAHE, HELTASA and the international society for EBHC.

To inform and guide enhancing the learning of EBHC in other undergraduate programmes the CEBHC is also conducting an *Evaluation of evidence-based health care (EBHC) teaching in the undergraduate Physiotherapy; Occupational Therapy; Speech, Language and Hearing Therapy; and Human Nutrition programmes*. This is still ongoing and will be completed at the end of 2013.

### ***Teaching within EBHC framework workshops***

For EBHC to become integrated throughout the curricula, teachers need to be trained in EBHC. Together with Susan v Schalkwyk, Centre for Health Professions Education and SURMEPI, and Michael Pather, Family Medicine, we have hosted two workshops for faculty members on *Teaching within an EBHC framework*.

The aim of this workshop was to clarify the understanding of EBHC amongst Stellenbosch University faculty members involved in teaching and to discuss teaching EBHC. A total of 30 faculty members from Family Medicine; Obstetrics and Gynaecology; Psychiatry; Psychology; Dentistry; Paediatrics; South-to-South; Health Systems and Services Research; Health Professions Education; Physiotherapy; and Speech, Hearing and Language Therapy attended. Topics covered included “What is EBHC?”, “Why teach EBHC”, “Teaching in the clinical setting” and discussions on barriers to and facilitators of teaching EBHC.

*“The general discussion around EBHC Teaching helped to make me think more critically about teaching”*



To support EBHC teaching, the CEBHC is developing teaching packages on various aspects of EBHC and expanding capacity development activities for trainers.

### ***Evidence-based health care tutorials at the Rural Clinical School***

As part of the Stellenbosch University Rural Medical Education Partnership Initiative (SURMEPI) project (<http://surmepi.sun.ac.za>), which aims to increase the number and capacity of medical doctors working in rural areas and to increase regionally relevant research, our team developed five two-hour EBHC tutorials and delivered these over the course of 2012 to the 21 student interns working in the rural area.



The aim of these tutorials was to familiarise students with the basic principles of EBHC and the application thereof. The following topics were covered: Introduction to EBHC and formulating questions; searching databases for relevant studies; reading a randomised controlled trial (RCT); reading a systematic review; and reading a clinical guideline. We developed a structured plan with learning outcomes and teaching resources (PowerPoint presentations, class exercises and self-tests) for the tutorials.

During all tutorials we made use of interactive teaching techniques to revise content and to encourage students' participation in the session. We set up an email list to communicate with the students. They were encouraged to contact us with any queries they may have had, related to content and application of EBHC. In addition, we created an online learning site on Edmodo ([www.edmodo.com](http://www.edmodo.com)). We made key EBHC readings, PowerPoint slides and screencasts available on this site. It also provided a platform for discussions and enabled sharing of current events and useful links to other websites.



The series of tutorials was very well received as was demonstrated by the positive feedback after every session. In our experience, having numerous two-hour sessions spread throughout the year was a very effective way of teaching EBHC to undergraduate students. The online learning site and email list worked well to maintain contact with students between tutorials.

*We acknowledge funding received from the U.S. President's Emergency Plan for AIDS Relief (PEPFAR), through HRSA, and via the Stellenbosch University Rural Medical Education Partnership Initiative (SURMEPI)*



### ***Literature reviews and systematic reviews workshop***

Conducting a literature review is a process of taking stock of existing knowledge. This is important to make informed choices – decisions about conduct of new research and informing decisions about health policies and practices. Taking stock of existing knowledge is not merely a summary of previous findings but include a critical examination and synthesis of existing reports to be able to present the current state of knowledge with strengths and limitations of underlying research.

*“The results of a particular research study cannot be interpreted with any confidence unless they have been considered together with the results of other studies addressing the same or similar questions.”*

Iain Chalmers

In taking stock of existing knowledge it is important to understand the principles and differences between conducting traditional literature reviews and systematic reviews. This workshop was held at the Faculty and facilitated by Dr Taryn Young and Prof Sherrilene Classen. Objectives were for participants to understand the principles and characteristics of evidence-based practice; compare and contrast a traditional literature review to a systematic review; identify the core components, procedures, benefits and limitations of conducting a systematic review; and to know of approaches to rate the level of evidence and make recommendations.

A total of 34 faculty members participated in the workshop. Attendees consisted of faculty members from various Divisions such as Psychiatry, Pharmacology, Occupational Therapy, and Physiotherapy.



### **Primer in systematic reviews & research synthesis**

Both users and doers of systematic reviews need to be able to find, appraise, interpret, and consider application of findings of reviews. Researchers, clinicians, and public health policymakers can use findings from up-to-date robust reviews to inform their thinking and answering healthcare questions. For researchers, this is an assessment of the gaps in research, and a rigorous sum of all relevant research to inform their research designs. For clinicians, this identifies the most appropriate treatments. For public health policy specialists, this might be a reliable assessment of what is known about the benefits and harms of various public health policies.

In 2012 the CEBHC lead two 4-day workshops – one at Ikafara Health Institute, Tanzania and another at the PolyTechnic of Namibia in Windhoek. The workshops were facilitated by Taryn Young, Paul Garner, Veronika Kramer and Elizabeth Pienaar from the CEBHC, Liverpool School of Tropical Medicine, and SACC respectively. This formed part of the work with the EHCRC [www.evidence4health.org](http://www.evidence4health.org).

Through seminar and group work 45 participants were equipped with knowledge and skills to phrase clear questions; and to find, understand, appraise and use systematic reviews of effects of interventions. In addition, through a dedicated online learning site we were able to interact and support participants. Participants enjoyed the course and particularly valued the interactive sessions and the use of relevant examples. The course is accredited as a joined short course with the Liverpool School of Tropical Medicine and Stellenbosch University.



*“I enjoyed the fact that the workshop was very practical and a lot of resources were made available for the participants”*

### ***Enhancing and expanding the programmatic offering of the MSc in Clinical Epidemiology***

The MSc in Clinical Epidemiology ([www.sun.ac.za/clinepi](http://www.sun.ac.za/clinepi)), registered within the Division of Community Health, is offering rigorous methodological training for health professionals who wish to pursue a career in clinical research and/or evidence-based health care practice. The academic leadership for this programme is provided by the Director of the CEBHC. The MSc in Clinical Epidemiology programme is inseparable from the work of the CEBHC and staff play a key role in enhancing and expanding the programmatic offering.

#### Teaching assistants of modules, MSc in Clinical Epidemiology

- Systematic Reviews and Meta-Analysis (Anel Schoonees)
- Randomised Controlled Trials (Oswell Khondowe)
- Fundamentals of Epidemiology (Folasade Adeniyi)

#### Development of new structured modules

Folasade Adeniyi, Anke Rohwer and Taryn Young were instrumental in the development of new 12-credit modules on Clinical Guidelines, Teaching EBHC and Infectious Disease Epidemiology. This was done in collaboration with Quinette Louw (Physiotherapy Division, SU), Jean Nachega (Centre for Infectious Diseases, SU), Peter Nyasulu (University of the Witwatersrand), Julia Blitz (Family Medicine, SU), Susan v Schalkwyk (Centre for Health Professions Education, SU), Razeen Davids (Department of Medicine, SU) and Noline Herman (Centre for Teaching and Learning, SU).

#### Co-convenors of modules, MSc Clinical Epidemiology

- Fundamentals of Epidemiology (Taryn Young)
- Systematic Reviews and Meta-Analysis (Taryn Young)
- Randomised Controlled Trials (Taryn Young)
- Writing and Reviewing Scientific papers (Taryn Young)
- Diagnosis and Screening (Anke Rohwer)
- Biostatistics I (Tonya Esterhuizen)
- Biostatistics II (Tonya Esterhuizen)
- Research Proposal Writing and Grantmanship (Tonya Esterhuizen)

### ***Postgraduate student supervision***

CEBHC staff supervise various masters and PhD students. During 2012, six masters students graduated.

1. Tyson Welzel, MSc Clinical Epidemiology, Stellenbosch University – graduated March 2012. Topic: Situational analysis of Healthy lifestyle project in the Cape metropole. (Supervisor: **Taryn Young**)
2. Adel Ferreira, MSc Clinical Epidemiology, Stellenbosch University – graduated March 2012 (Cum Laude). Topic: Partner notification for sexually transmitted diseases. (Supervisor: **Taryn Young**)
3. Folasade Adeniyi, MSc Clinical Epidemiology, Stellenbosch University – graduated March 2012 (Cum Laude). Topic: Weight loss interventions for chronic asthma. (Supervisor: **Taryn Young**)
4. Aramide Lawal, MSc Clinical Epidemiology, Stellenbosch University – graduated March 2012. Topic: Interferon after surgery for women with advanced (Stage II-IV) epithelial ovarian cancer. (Supervisor: **Liesl Nicol**)
5. Michael Reid, MSc Clinical Epidemiology, Stellenbosch University – graduated December 2012. Topic: Forceps-guided versus sleeve-resection methods of male circumcision in Matsapha, Swaziland: a



- comparative study of operating time and safety of the two surgical procedures. (Supervisor: **Tonya Esterhuizen**)
6. Liz Mbabazi, MSc Clinical Epidemiology, Stellenbosch University – graduated December 2012. Topic: Optimal timing for discontinuation of Pneumocystis jiroveci pneumonia prophylaxis in adult patients on highly active antiretroviral therapy (HAART) for HIV infection. (Supervisor: **Taryn Young**)
  7. Hayley Irusen, MSc Clinical Epidemiology, Stellenbosch University – ongoing. Topic: Management of breast abscesses in breastfeeding women for improving outcomes. (Supervisors: **Anke Rohwer** and **Taryn Young**)
  8. Villyen Motaze, MSc Clinical Epidemiology, Stellenbosch University – ongoing. Topic: Prostaglandins before caesarian section for reducing neonatal respiratory distress. (Supervisor: **Taryn Young**)
  9. Donald Nyanguridza, MSc Clinical Epidemiology, Stellenbosch University – ongoing. Topic: Determinants of casting phase duration for clubfoot treatment with Ponseti method in Swaziland. (Supervisor: **Tonya Esterhuizen**)
  10. Nicholas Mangeya, MSc Clinical Epidemiology, Stellenbosch University – ongoing. Topic: Detection of human immunodeficiency virus (HIV) type-1 antibodies in saliva, as an alternative method of HIV diagnosis: a diagnostic accuracy study and a preliminary assessment for home-based HIV testing in South Africa. (Supervisor: **Tonya Esterhuizen**)
  11. Miriam Karinja, MSc Clinical Epidemiology, Stellenbosch University – ongoing. Topic: Variation of Mycobacterial load with sputum volume. (Supervisor: **Tonya Esterhuizen**)
  12. Tapiwa Chirima, MSc Clinical Epidemiology, Stellenbosch University – ongoing. Topic: Inappropriate Antibiotic Prescribing: A Cross-Sectional Study And Qualitative Assessment, Swaziland. (Supervisor: **Tonya Esterhuizen**)
  13. Oluwatoyin Gbabe, MSc Clinical Epidemiology, Stellenbosch University – ongoing. Topic: Treatment of severe or progressive Kaposi's sarcoma in HIV-1 infected adults. A Cochrane systematic review. (Supervisor: **Charles Okwundu**)
  14. Ogunjale Adeniyi, MSc Clinical Epidemiology, Stellenbosch University – ongoing. Topic: Rilpivirine versus Efavirenz as initial therapy in treatment-naive, HIV-1-infected patients. A systematic review. (Supervisor: **Charles Okwundu**)
  15. Eunice Turawa, MSc Clinical Epidemiology, Stellenbosch University – ongoing. Topic: Interventions for treating postpartum constipation. (Supervisor: **Anke Rohwer**)
  16. Jeremy Stockhall, MSc Clinical Epidemiology, Stellenbosch University – ongoing. Topic: South African Physiotherapists' Confidence in Evidence-Based Practice: a Cross Sectional Study. (Supervisor: **Taryn Young**)
  17. Mary Mugambi, PhD, Stellenbosch University - ongoing. Topic: Probiotics, Prebiotics and Synbiotics in Neonates: A critical appraisal of the evidence and evaluation of its application by the food industry. (Supervisor: **Taryn Young**)

### ***Teaching sessions / lectures / workshops***

Promoting and enhancing teaching and learning of EBHC is core to the work of the CEBHC. During 2012, various sessions / workshop were offered at undergraduate, postgraduate and continuing professional development level.

#### Undergraduate

##### *First year health sciences (Interdisciplinary phase) (SU)*

- Esterhuizen T. Biostatistics computer skills, Theme 2B (Tutorials I-V). Lecture to: First year health science students (Group C). Stellenbosch University, Tygerberg Campus. Dates: 3, 13, 16, 20, 23 and 27 February 2012 and 2, 12, 15, 26, and 29 March 2012.

*MB,ChB (SU)*

<i>Year</i>	<i>Sessions</i>
1	<ul style="list-style-type: none"> <li>Esterhuizen T. Probability and sampling distributions. Date: 11 October 2012</li> <li>Esterhuizen T. Estimation and hypothesis testing. Date: 15 October 2012</li> <li>Esterhuizen T. Inferences regarding the mean.. Date: 18 October 2012</li> <li>Young T. Introduction to Evidence-based Medicine (EBM). 19 October 2012</li> <li>Esterhuizen T. Inferences regarding proportions. Date: 22 October 2012</li> </ul>
2	<ul style="list-style-type: none"> <li>Young T. Introduction to clinical epidemiology: focus diagnostic test accuracy. Date: 30 October 2012</li> </ul>
3	<ul style="list-style-type: none"> <li>Rohwer A. Critical appraisal of a RCT. Lecture. Date: 16 August 2012</li> <li>Rohwer A. Evidence-based Medicine. EBM tutorial. Date: 04 October 2012</li> <li>Rohwer A. Critical appraisal of RCTs. Lecture. Date: 11 October 2012</li> </ul>
5	<ul style="list-style-type: none"> <li>Young T. Principles and application of EBM. Date: 1 February 2012</li> <li>Rohwer A. Finding the Evidence. Date: 01 February 2012</li> <li>Okwundu C. Critical appraisal of epidemiological studies. Date: 16 January 2012</li> </ul>
6	<ul style="list-style-type: none"> <li>Rohwer A. Principles and application of EBM. Lecture to: Student interns at RCS. Date: 15 February 2012</li> <li>Rohwer A. Finding the evidence. Lecture to: EBHC tutorials for students in Worcester. Rural Clinical School, Worcester. Date: 06 June 2012</li> <li>Rohwer A. Critical appraisal: RCT. Lecture to: EBHC tutorials for students in Worcester. Rural Clinical School, Worcester. Date: 18 June 2012</li> <li>Schoonees A. Critical appraisal of systematic reviews. Lecture to: 6<sup>th</sup> year medical students. Rural Clinical School, Worcester. Date: 05 September 2012</li> <li>Rohwer A. EBM tutorial: Evidence-based decision-making. Date: 15 October 2012</li> <li>Rohwer A. Engel M. How to read a guideline. Rural Clinical School, Worcester. Date: 17 October 2012</li> </ul>

*Dietetics (SU)*

- Schoonees A. Evidence-based Nutrition. Lecture to: 3<sup>rd</sup> year Dietetics students. Date: 28 February 2012
- Naude C. Nutrigenomics module (part of Therapeutic Nutrition 378). Lecture to: 3<sup>rd</sup> year undergraduate; BSc Dietetics students. Date: 06 September 2012
- Naude C. Nutrigenomics module (part of Therapeutic Nutrition 378). Lecture to: 3<sup>rd</sup> year undergraduate; BSc Dietetics students. Date: 07 September 2012

Postgraduate*MSc in Clinical Epidemiology (SU)*

<i>Module</i>	<i>Session</i>
Biostatistics I	<ul style="list-style-type: none"> <li>Esterhuizen T. Introduction and describing data Lecture. Date: 16 February 2012</li> <li>Esterhuizen T. Describing data Lecture continued. Date: 16 February 2012</li> <li>Esterhuizen T. Describing data Exercise. Date: 16 February 2012</li> <li>Esterhuizen T. Practical: Estimation I and II. Date: 29 March 2012</li> <li>Esterhuizen T. Nonparametric tests Date: 30 March 2012 and 2 May 2012</li> </ul>
Fundamentals of Epidemiology	<ul style="list-style-type: none"> <li>Esterhuizen T. Introduction to Epidemiology and Measures of disease occurrence. Date: 20 February 2012</li> </ul>

	<ul style="list-style-type: none"> <li>• Okwundu C. Measures of disease occurrence. Date: 01 July 2012</li> <li>• Young T. Confounding and effect modification. March 2012</li> <li>• Young T. Measures of effect and association. March 2012</li> <li>• Young T. Study design. March 2012</li> <li>• Young T. Causality. March 2012</li> </ul>
Research proposal writing and grantmanship	<ul style="list-style-type: none"> <li>• Esterhuizen T. Overview: Module in perspective. Date: 16 July 2012</li> <li>• Okwundu C. Literature review, library resources and managing references. Date: 16 July 2012</li> <li>• Esterhuizen T. Study design review and practical exercises. Date: 17 July 2012</li> <li>• Esterhuizen T. Biostatistical applications: Sample size and power calculations – Theory &amp; Practice. Date: 17 July 2012</li> <li>• Esterhuizen T. Sampling techniques. Date: 17 July 2012</li> <li>• Esterhuizen T. Questionnaire design. Date: 13 August 2012</li> <li>• Esterhuizen T. Data Analysis Plan. Date: 13 August 2012</li> <li>• Esterhuizen T. Data Analysis (I) and (II). Date: 19 September 2012</li> </ul>
Diagnosis and screening	<ul style="list-style-type: none"> <li>• Rohwer A. Bias in diagnostic studies. Date: 08 March 2012</li> <li>• Rohwer A. Introduction to screening. Date: 15 March 2012</li> </ul>
Writing and reviewing scientific papers	<ul style="list-style-type: none"> <li>• Schoonees A. Facilitated critical appraisal of cohort studies. Date: 16 May 2012</li> </ul>
Systematic reviews	<ul style="list-style-type: none"> <li>• Young T. Planning &amp; preparation of a SR. Date: 18 July 2012</li> <li>• Young T. Defining the review question &amp; developing criteria for selecting studies. Date: 18 July 2012</li> <li>• Young T. Planning &amp; preparation of a SR. Date: 18 July 2012</li> <li>• Young T. Defining the review question &amp; developing criteria for selecting studies. Date: 18 July 2012</li> <li>• Okwundu C. Presenting results, summary of findings and grading the evidence. Date: 21 September 2012</li> <li>• Okwundu C. Interpreting results and drawing conclusions. Date: 21 September 2012</li> </ul>
Biostatistics II	<ul style="list-style-type: none"> <li>• Esterhuizen T. Analysis of variance (ANOVA). Date: 01 August 2012</li> <li>• Esterhuizen T. Correlation and simple regression. Date: 02 August 2012</li> <li>• Esterhuizen T. Logistic regression. Date: 03 September 2012</li> <li>• Esterhuizen T. I: Survival analysis. Date: 14 September 2012</li> </ul>

#### *MPhil in Rehabilitation (SU)*

- Rohwer A. Research questions and development of study aim and objectives. Date: 20 February 2012
- Rohwer A. Study Designs. Date: 21 February 2012
- Okwundu C. Literature reviews. Date: 20 February 2012
- Okwundu C. Issues of validity and reliability. Date: 20 February 2012

#### *Diploma Infection Prevention and Control (SU)*

- Rohwer A. Principles and application of EBHC. Date: 21 August 2012
- Rohwer A. How to read a Systematic review. Date: 22 August 2012

#### *MPhil Public Mental Health (UCT)*

- Young T. Literature and systematic reviews. Lecture to: MPhil Public Mental health Students at UCT.

University of Cape Town. Date: 23 January 2012

*Postgraduate Certificate in Integrative Medicine (SU)*

- Rohwer A. Online tutoring: Art and Science of EBM. Date: 17-25 September 2012
- Rohwer A. Online tutoring: EBHC: opportunities and challenges. Date: 22-31 October 2012

*MMED Family Medicine (SU)*

- Rohwer A. Young T. Online tutoring: EBM module. Online. Date: August-November 2012

Continuing professional development: Lectures and workshops

**Lectures**

- Rohwer A. Diagnostic Studies: Design and critical appraisal. Lecture to: Short course in clinical research skills. Stellenbosch University, Tygerberg Campus. Date: 04 June 2012
- Schoonees A. Design and critical appraisal of case-control studies. Lecture to: Post-graduate students and clinicians doing the short course in clinical research skills. Stellenbosch University, Tygerberg Campus. Date: 11 June 2012

**Workshops**

- Evidence-based Practice, Systematic reviews & Traditional literature reviews. Stellenbosch University, Tygerberg Campus. Date: 25 July 2012 (Sherrilene Classen, **Taryn Young**)
- Evidence-based health care: Teaching within an EBHC framework. Stellenbosch University, Tygerberg Campus. Date: 29 March 2012 (**Taryn Young, Anke Rohwer**, Lillian Dudley, Susan van Schalkwyk and Michael Pather)
- Evidence-based health care: Teaching within an EBHC framework. Stellenbosch University, Tygerberg Campus. Date: 26 July 2012 (**Taryn Young, Anke Rohwer**, Lillian Dudley, Susan van Schalkwyk and Michael Pather)
- Knowledge translation in health: what is it all about? Stellenbosch University, Tygerberg Campus. Date: 18 June 2012 (Paul Garner, **Taryn Young**, Bridget Jones, Tamara Kreda, **Jimmy Volmink**, Charles Wiysonge, Nathan Ford)
- Knowledge translation in health: what is it all about? Malmesbury. Date: 20 September 2012 (**Taryn Young, Mark Engel, Anke Rohwer**)
- Knowledge translation in health: what is it all about? Worcester. Date: 03 October 2012 (**Taryn Young, Mark Engel, Anke Rohwer**)
- South African Cochrane Centre GRADE workshop. SACC. Date: 01 June 2012 (**Charles Okwundu**)
- GRADE and Summary of Findings Table workshop. Calabar, Nigeria. Date: 08 – 09 July 2012 (**Charles Okwundu**)
- International Vaccinology conference: Evidence-based approaches to Immunization policies. Lagoon Beach. 6 – 8 November 2012 (**Charles Okwundu**)



## MANAGEMENT

The work of the CEBHC is guided by the Constitution of the Centre. The Centre is managed by a Director and her Management Committee, while oversight is provided by a Governing Body.

### Staff

The work of the CEBHC is supported by a great team of full time and part time staff. The full time researchers include Dr Charles Okwundu, Ms Anke Rohwer, Ms Anel Schoonees, while Dr Liesl Nicol, Dr Nazia Peer, Dr Celeste Naude, Mr Oswell Khondowe, Mr Mark Engel and Dr Sade Adeniyi work on a part time basis. Mrs Tonya Esterhuizen, Biostatistician, supports the work of the CEBHC. Mrs Traci Naidoo is the full time project manager and Mrs Lezel Fisher provides part time administrative support. Each staff member has detailed job descriptions and key performance areas were set at the commencement of their contracts.

Academic staff	Qualifications	Appointment	Time
Folasade Adeniyi	MBBS, MScMedSci (ClinEpi)	Ad hoc	Part time
Mark Engel	BSc Med Hons, MPH	01/06/2012-31/12/2012	Part time
Tonya Esterhuizen	BSc Hons, MSc Epidemiology	1/11/2011-1/10/2014	Full time
Oswell Khondowe	MSc Physiotherapy, MScAPA, BScPT, DipPT	1/6/2011-1/12/2012	Part time
Celeste Naude	B.Sc. Dietetics, MSc Nutrition, PhD (Nutritional Sciences)	1/3/2012-31/12/2012	Part time
Liesl Nicol	BSc, PhD	1/7/2011-31/12/2012	Part time
Charles Okwundu	MB BS, MPH	1/6/2011-30/6/2013	Full time
Nazia Peer	MBChB, LLM, FCPHM, MMed	1/9/2012- 31/8/2013	Part time
Anke Rohwer	Bcur, MSc MedSci (Clin Epi)	1/2/2011-31/1/2013	Full time
Anel Schoonees	BSc Food Science, MSc Nutrition, MSc MedSci (ClinEpi)	1/7/2011-30/12/2012	Full time
Taryn Young	MBChB, FCPHM, MMED	1/5/2010-30/4/2013	Full time
Support staff	Qualifications	Appointment	Time
Traci Naidoo	National Diploma – Marketing; project management	1/5/2011-30/4/2014	Full time
Lezel Fisher	Certificate Human Resources; project admin & secretarial	18/7/2011-17/7/2013	Full time

## ***Intellectual input***

### **Taryn Young**

1. Peer reviewer, Cochrane Methodology Group. February 2012
2. Peer reviewer, Cochrane Sexually Transmitted Infections Review Group. April 2012
3. Peer reviewer, Cochrane Occupational Safety and Health Review Group. April 2012
4. External examiner. MPH, University of Cape Town. June 2012
5. Peer reviewer, African Journal of Disability. August 2012
6. WHO Alliance panel to review Centre for Health Systems Systematic reviews - 2012
7. Editor, Cochrane Occupational Health Review Group. 2010 - ongoing
8. Editor, Cochrane Sexually Transmitted Diseases Review Group. July 2008 - ongoing
9. Section Editor, Cochrane Column in International Journal of Epidemiology. 2005 - ongoing
10. Editor, Current Allergy and Clinical Immunology. 2006 – ongoing
11. Chair of the Masters in Clinical Epidemiology programme, selection and bursary committees 2008 -
12. Member of EHCRC Executive Committee 2011- ongoing

### **Celeste Naude**

1. Peer reviewer, South African Journal of Clinical Nutrition. July and November 2012
2. Member of National Department of Health, Nutrition Directorate's National Working Group for the Revised Food-Based Dietary Guidelines for South Africa and author of the technical paper for the revised Food-Based Dietary Guideline on vegetable and fruit intake. 2011 –
3. Member of Provincial Government of the Western Cape's Healthy Lifestyle Workgroup on behalf of the CEBHC.
4. Compiled the Resource Manual on CVD for the Heart and Stroke Foundation of South Africa. 2012 – 2013
5. Member of Scientific Committee for Nutrition Congress Africa 2012. 1-4 October 2012, Bloemfontein
6. Member of Judging Panel at Nutrition Congress Africa 2012. 1-4 October 2012, Bloemfontein

### **Liesl Nicol**

1. Peer reviewer, Journal of the International AIDS Society, July 2012

## ***Staff achievements***

- Taryn Young was nominated by the Academy of Science of South African and selected as one of 18 international Young Physician Leaders by the Inter Academy Medical Panel. She was invited to attend the World Health Summit 2012 *“Research for Health and Sustainable Development”* 21 - 24 October, 2012, in Berlin, Germany, as a special guest of the host committee.
- Celeste Naude was nominated for membership of the South African Young Academy of Science (SAYAS). July 2012
- Celeste Naude received the MRC Career Development Award
- Anke Rohwer won the best oral presentation in under 35 year category for the presentation of the Document review of the MB,ChB curriculum at the Annual Academic year day, FMHS, Stellenbosch University. Oswell Khondowe received the award for the best poster presentation.

## Marketing and social media

A new CEBHC interactive website was developed. The Centre now has a Facebook Page [www.facebook.com/cebhc](http://www.facebook.com/cebhc) as well as 3 blogs on different workshops attended by staff namely

- <http://cebhc3.wordpress.com/> blog by Anke Rohwer on her experience attending Teaching Evidence-based Practice workshop in Oxford from 3-7 September 2012
- <http://cebhc2.wordpress.com/> blog by Anke Rohwer on her learning experience attending The Campbell Colloquium in Copenhagen from 29-31 May 2012
- <http://cebhc.wordpress.com/> blog by Anel Schoonees on her experience attending The Research into Health Policy workshop which took place in Cameroon in May 2012

## Funding

The following funding support the core functions of the CEBHC.

Source	Amount	Period
SURMEPI	USD 187,369/annum	September 2010–August 2015
DFID/EHCRC	GBP 370,465	November 2010–May 2013
WHO	R 246,574.78	March 2011–March 2012
MRC	R175,005.60	July 2011–December 2012
WCDoH	R 50,000.00	November 2011–June 2012
Harry Crossley funds (2)	R36,960.00	January–November 2012
Temp research assitant	R20 650.00	January–November 2012
Faculty strategic funds	R173 000.00	March 2012–March 2013

Stellenbosch University Rural Medical Education Partnership Initiative (SURMEPI): Stellenbosch University received a \$10 million grant over 5 years from the USA for medical education and research training. The funding will be applied to build capacity in medical education and research training initially at Rural Clinical School located in Worcester and then expanding to other rural sites. One of the specific projects within SURMEPI is to integrate EBHC teaching as a core competency in the education of doctors.

Effective Health Care Research Consortium (EHCRC): In collaboration with the international partners, Stellenbosch University has been successful in obtaining funding from the UK DFID to increase evidence-informed decisions to improve health and health care for the poor in low- and middle-income countries.

World Health Organisation (WHO): The CEBHC was successful in obtaining a grant from WHO for the conduct of a systematic review on home management of Malaria.

Harry Crossley and Temporary research assistant: Staff has been successful in obtaining small grants to support the conduct of systematic reviews.

Faculty strategic funds: To inform enhancing the undergraduate curriculum the CEBHC was successful in receiving funds from the Faculty strategic funds to assess the current teaching and learning of EBHC in non-MBChB undergraduate curricula at the Faculty.

***The achievements of the CEBHC are made possible by the excellent team  
who supports the work of the Centre.  
This annual report is a reflection of the teams' dedication and accomplishments.***