



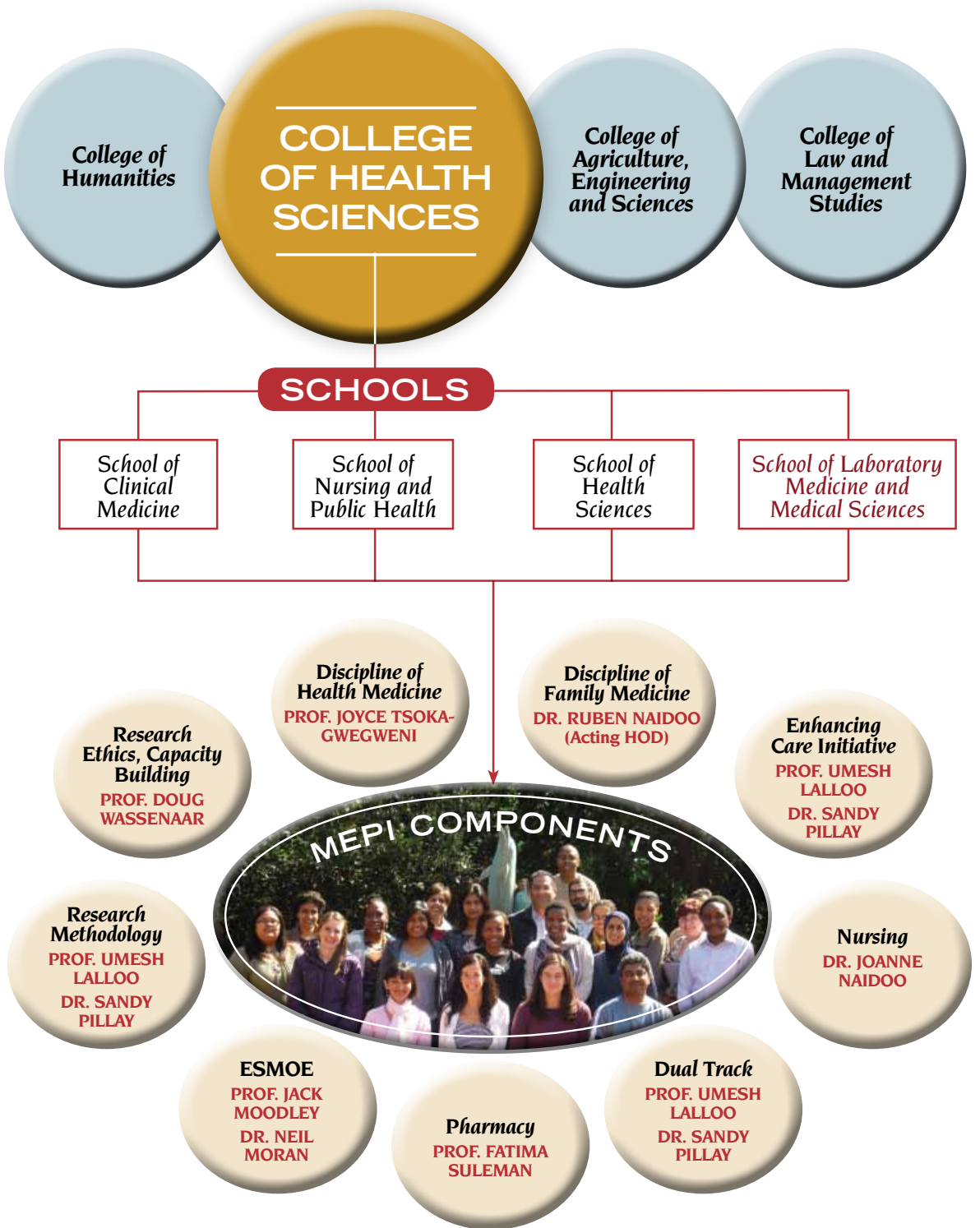
**THE UKZN MEDICAL EDUCATION
PARTNERSHIP INITIATIVE (MEPI) PROJECT**

SECOND QUARTER 2014 REPORT



MEPI WITHIN THE UNIVERSITY OF KWAZULU-NATAL

FOREWORD



THE UKZN MEDICAL EDUCATION PARTNERSHIP INITIATIVE (MEPI) PROJECT - Enhancing Training, Research and Education (ENTREE) Program



In 2011, the University of KwaZulu Natal (UKZN) was proud to be grouped with nine other institutions of higher learning in Africa and awarded the prestigious Medical Education Partnership Initiative (MEPI) grant. This five year National Institutes of Health (NIH) and President's Emergency Plan for Aids Relief (PEPFAR)-funded grant is aimed at achieving a sustainable solution to the health care human resources crisis in Africa by improving the quantity and quality of health care workers in this region by developing, enhancing and expanding models of medical education. Unlike many other funded programs, the MEPI program directly funds grantee institutions thereby encouraging local ownership and allowing awardees to adapt our program to suit our unique resources and health needs.

UKZN MEPI, entitled "Enhancing Training, Research and Education Program (ENTRÉE)", is unique in that it adopts a multidisciplinary approach, bringing together the departments of medicine, pharmacy and nursing. This unprecedented model allows for the concurrent development of the health care team and encourages horizontal integration of medical education and practice. The program also stands out because of its diversity – a multipronged strategy was adopted to target the undergraduate student, fledgling practitioner and seasoned academic. Central to the program is the enrichment of curriculum in the HIV/TB fields, development of a decentralised teaching program underpinned by a strong electronic learning platform and the development of faculty. The latter objective includes a PhD program which is fully subscribed and designed to transform the next generation of academic leadership at UKZN.

Led by a dynamic group of senior academics, the ENTRÉE program has already been highly successful in contributing to a culture of transformative, creative and forward-thinking learning at UKZN. This publication highlights our success and progress in achieving the goals set out towards contributing and shaping our country's health system in universal access for all. Thank you to all those who have made this initiative possible.

PROFESSOR UMESH LALLOO and DR SANDY PILLAY



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PROFESSOR UMESH G LALLOO

Professor Umesh Lalloo is a renowned Pulmonologist, Professor and Chief Specialist.



Apart from having served as Dean of the Nelson R Mandela School of Medicine (NRMSM), Professor Lalloo also serves as Head of the Respiratory and Critical Care unit, Director: Adult HIV Programs, Executive Director: KZN Enhancing Care Initiative, Principal Investigator: International Clinical Trials Unit of the US Division of AIDS and Programme Director of the Medical Education Partnership Initiative (MEPI). He graduated with a MD (PhD equivalent) at UKZN and went on to receive honorary degrees from the American College of Chest Physicians and the Royal College of Physicians in the UK. He was appointed specialist lecturer in 1986 at the Department of Medicine at the former University of Natal and King Edward VIII Hospital and in 1989 Head of the Respiratory Unit in the NRMSM.

Professor Umesh Lalloo is nationally and internationally renowned as an expert in the field of Respiratory and HIV Medicine and has been involved in the training of health care workers and the general public in HIV and TB management over many years. He was also appointed by national Health Minister, Dr Aaron Motsoaledi, to the Board of Directors of the Medical Research Council of South Africa. He is currently also the International Regent of the American College of chest Physicians having been re-elected for a second 3 year term in 2010. He was also awarded the Fellowship of the University of KwaZulu-Natal, and serves on the editorial board of the International Journal, Clinical Infectious Diseases and is section editor for the International Journal of TB and Lung Diseases.

DR SANDY PILLAY



Dr Sandy Pillay completed his medical degree at UKZN and spent many years in family practice, completing post graduate qualifications in occupational medicine and HIV clinical management. In 2004 he led a team that developed South Africa's only coursework post graduate program in clinical HIV management. He was director of the Global Fund's HIV corporate program and coordinated UKZN's clinical HIV services for many years.

Dr Pillay has served as the Aids Clinical Trials Unit Coordinator for many years, participating in various research studies and study protocol teams. He initiated collaboration with the University of Connecticut and was the South African lead in 2 large research studies by this collaborative team. These involved the design and implementation of one the largest HIV risk behaviour studies ever funded by the National Institutes of Mental. Dr Pillay was also co-author of UKZN's prestigious Medical Education Partnership Initiative and remains a co-Principal Investigator of this grant. Dr Pillay has led various capacity development and health systems strengthening projects including a successful partnership with the KZN Department of Health resulting in more than 5000 health care workers being reached with various teaching programs in HIV and TB management and has been involved in various WHO projects, German Backup Initiative and other partners.

CO-PI: PROFESSOR RAZIYA BOBAT

(MBCChB, FCPaed, MD, Paediatric Infectious Disease Specialist)



PROFILE: Born in Durban, South Africa, Professor Bobat began research into paediatric HIV in 1989. She is credited with starting the first paediatric HIV clinic at King Edward VIII hospital in Durban in 1990 and did a Doctoral thesis in natural history of vertically transmitted HIV infection – the only study from Africa.

Professor Bobat has been the recipient of several large research grants for paediatric HIV infection and is a founding member of South African Society for Paediatric Infectious Diseases and is currently the President of South African Paediatric Association.



MEPI PRINCIPAL INVESTIGATORS *(continued)*



PROFESSOR DOUGLAS WASSENAAR

PROFILE: Professor Wassenaar is Professor of Psychology at UKZN School of Applied Human Sciences and chair of the Biomedical Research Ethics Committee at the University of KwaZulu-Natal and South African Human Sciences Research Council's Research Ethics Committee. He is the Principal Investigator (PI) of the US NIH-funded South African Research Ethics Training Initiative and co-PI of the UKZN Medical Education Partnership Initiative (MEPI). He serves on the World Health Organisation/UNAIDS Vaccines Advisory Committee and is a member of the interim steering committee of the Global Forum for Bioethics in Research. Prof Wassenaar is responsible for a programme of the MEPI grant that trains selected UKZN staff and postgraduate students in research ethics.



PROFESSOR SCOTT M. HAMMER MD

"I am honored to be a part of MEPI and to have helped establish Columbia as a true partner in this important educational endeavor."

Dr. Scott Hammer was born and raised in New York City. He received his BA from Columbia College and his MD from the College of Physicians and Surgeons. He completed his medical residency at Columbia Presbyterian and Stanford University Medical Centers and his infectious diseases fellowship at the Massachusetts General Hospital. He serves as the Harold C. Neu Professor of Medicine, Professor of Epidemiology, and Chief of the Division of Infectious

Diseases at the Columbia University Medical Center/NewYork-Presbyterian Hospital. His major investigative interest is the treatment and prevention of HIV disease. He has been a long-standing investigator in the AIDS Clinical Trials Group and the HIV Vaccine Trials Network. He currently serves on the Editorial Board of the New England Journal of Medicine and as Chair of the 2015 Conference on Retroviruses and Opportunistic Infections. Throughout his career, Dr. Hammer has been dedicated to education, training and mentorship at the junior faculty, fellow, resident and medical student levels and has demonstrated this at international, national, regional and institutional levels.



PROFESSOR PHILIP LARUSSA

Professor of Pediatrics, Columbia University Medical Center, New York, USA
Professor Philip LaRussa was the Principal Investigator for the NIH-funded Women's & Infants' Transmission study which investigates transmission of HIV from mother to infant and outcomes in infected infants, and the International Maternal Pediatric Adolescent AIDS Clinical Trial Center which was the clinical trials site for Pediatric HIV treatment studies at Columbia University. His research interests in this area include development of resistance to antiretroviral therapy in HIV-infected women and children, factors associated with increased

risk of transmission from mother to infant, and adherence to antiretroviral therapy in infected children. In addition, he leads a team of physicians and nurse practitioners to conduct training and provide clinical care to HIV-infected children in Vietnam, Ethiopia, South Africa, and China.

Amongst other achievements, Dr. LaRussa is also the Principal Investigator of the CDC-funded Clinical Immunization Safety Assessment Center at Columbia University that conducts multi-centered investigations to determine the causality, pathogenesis, management and prevention of potential vaccine-associated adverse events. Examples of these studies include safety of live-virus vaccines in children with DiGeorge syndrome and mitochondrial disorders, shedding and transmission of rotavirus vaccine virus to immunocompromised children, and safety of zoster vaccine.



PROFESSOR JACK MOODLEY

Jack Moodley is an Emeritus Professor at the University of KwaZulu-Natal. He is currently Chair of the National Committee on Confidential Enquiries into Maternal Deaths in South Africa and is an advisor on maternal health issues to the NDoH. He is also the Chair of the Essential Steps in the Management of Obstetric Emergencies (ESMOE) Advisory Board. He is currently involved in placental research (pre-eclampsia).

KEY PERSONNEL

PROFESSOR FATIMA SULEMAN (B.Pharm, M.Pharm, PhD)



"My work in MEPI has enhanced my skills in curriculum development and implementation and having the experience of changing teaching practices towards Team-Based Learning has been rewarding".

PROFILE: A Fullbright scholar from 2002 – 2004, Ms Suleman is an Associate Professor in the Discipline of Pharmaceutical Sciences, School of Health Sciences, University of KwaZulu-Natal, South Africa. She is also an Adjunct Assistant Professor at the College of Pharmacy and Health Sciences in the Department of Clinical Sciences (2009-2015) at Drake University and co-collaborator for the AIDS Online International course with Dr Sharron Jenkins at Purdue University.

Ms Suleman previously held several key positions including member of the South African Primary Health Care Essential Drugs List Review Committee (1997 – 1998), member of the KZN Provincial Essential Drug Programme Co-ordinating Committee (1997 – 1998) and appointed by the National Minister of Health in 2009 to the Medical Products Technical Task Team and Procurement Task Team. She currently serves on the National Pricing Committee and has been appointed on the World Health Organisation Pricing Policy Guideline Committee (2011-2012). She also has collaborations with the Oslo Cochrane Centre, in the field of pharmaceutical policy.

DR JOANNE NAIDOO



FIELD OF INTERESTS: HIV and AIDS Research in the field of women and psychosocial issues; nursing education (professional development); Evidence-based Nursing.

Dr Joanne Naidoo is a Lecturer in the School of Nursing & Public Health at the University of KwaZulu-Natal, South Africa. She is currently involved in teaching Nursing Research Methods at undergraduate and postgraduate level. Dr Naidoo has worked on several research studies including a multi-national NIH funded study involving five African countries regarding HIV related Stigma and a local study that focused on the progression of HIV and AIDS among women in a rural and urban community in KwaZulu-Natal. Her recent work has been development of a Critically Reflective Community of Practice among nurses working in the context of HIV and AIDS. Dr Naidoo has led the coordination of MEPI activities since 2013 having taken over from Professor Busisiwe Ncama who initiated the programme in the discipline of Nursing. She can be contacted on: Telephone 031 260 2213

DOCTOR NEIL MORAN (BM Bch) Oxford University



British born Dr Moran has worked as a doctor for past 20 years in the public sector in KZN and specialised in Obstetrics and Gynaecology at the University of Natal. He is currently Head of Clinical Department: Obstetrics and Gynaecology for KZN Department of Health

Dr Moran represents KZN on the National Committee for Confidential Enquiries into Maternal Deaths and has contributed towards the reduction of maternal deaths in KZN by 28% since 2010.



MEPI COMPONENT ECI

OVERVIEW

The Enhancing Care Initiative (ECI) was formed in 1998 within the Nelson Mandela School of Medicine following a call at the IAS conference in Geneva for high HIV burden countries to set up Centres of Excellence to address the HIV crisis. ECI's goal is to improve the care of people living with HIV/AIDS amid resource constrained settings through the provision of research and training in HIV and AIDS management within a South African context.

Undergraduate Curriculum Infusion

There has been revision of the undergraduate curriculum to ensure a multi-disciplinary approach to managing HIV. Following discussions with the undergraduate medical education committee in 2011, a series of didactic lectures was adapted from ECI's HIV Diploma programme and included in the Third Year Infectious Diseases Module.

Postgraduate HIV Diploma Programme

25 MEPI-funded Department of Health doctors at strategic rural facilities graduated from ECI's HIV Postgraduate Diploma program in April 2014. In addition, there is continuing education for clinicians, including:

- HIV clinical updates conducted for Family Medicine registrars
- Three-day HIV workshops on ARV therapy for clinicians
- Clinical HIV symposium presented by MEPI Partners in Mozambique (represented by Doctors Connie Benson and Robert Schooley) and Zimbabwe (Dr Steven Johnson).

KEY HIGHLIGHTS:

ECI's programs aim at developing the clinical knowledge of undergraduate students and faculty members. ECI has been able to access local and international expertise to share cutting edge information and the most recent developments in the ever growing field of HIV and TB care. The program has been able to mentor clinicians and specialists by providing them access to some of the world's most renowned experts in these fields.

CURRENT DEVELOPMENTS...

- The intake for the next Postgraduate HIV Diploma Programme will begin in January 2015
- Professors Benson and Schooley from the University of San Diego and Professor Thomas Campbell from the University of Denver are hosting an HIV Clinical

Symposium on 13 August 2014

- MEPI's US partners Columbia University will be holding various workshops, presentations and ward round teachings for residents and MEPI REMETH candidates in the coming academic year
- There will be a two-day workshop on the Management of HIV with Emphasis on HAART for Family Medicine registrars in 2015

Faculty of Nursing

Initially coordinated by Prof. Busi Ncama and Dr Joanne Naidoo - lecturers in the Discipline of Nursing, the Nursing Programmes are aimed at empowering graduate nurses with skills which enable them to respond to HIV community needs, with no further training required by the employer on such issues.

NURSE-INITIATED MANAGEMENT OF ANTIRETROVIRAL THERAPY (NIMART)

A total of 509 nurses have been trained to date under the NIMART programme, with an additional 400 expected to be trained in year five.

CLINICAL MENTOR AND PRECEPTORSHIP AT MEPI LEARNING CENTRES

Ms Silingene Ngcobo is a clinical mentor in the discipline of nursing and is integral to HIV/AIDS education in the undergraduate programme. Fully funded by MEPI, she rotates within accredited clinical training sites, actively engaging students in the clinical skills laboratory, presenting HIV/AIDS counselling workshops and facilitating popular 'hot topics' information-sharing sessions.

Given the success of Ms Ngcobo's contributions, there are plans in place for her to become part of the staff establishment once MEPI has ended.

HIV Case Studies

Developed by Prof Brysiewicz, Dr Sindi Mthembu and Ms Nozipho Mthembu in consultation with facilitators in Bachelor of Nursing programme and assistance from Columbia University's content expert Mr Steven Chang, these are being used in the undergraduate programme:

HIV RESOURCE CORNER

An HIV Resource Room has been created at the clinical skills lab where various posters developed by Ms Ngcobo are available for use in HIV awareness (as part of the community nursing curriculum).



"Team Based Learning was a very good way to help understand the work better. It teaches us to work together as a group sharing our different facts and opinions. I was very pleased with the activities during the tutorial sessions. The team based approach to learning was fun and personally much more effective for me. I was able to remember more of the work and although

I worked hard for the test, this made learning much simpler. I enjoyed the scratch cards as we worked together towards the answers and shared our joy when we discovered a star after scratching the card for the answer. This bonded our team, teaching us team skills which is very important in a work environment."

TAKING PHARMACY FORWARD

OVERVIEW

The Pharmacy sub-component of MEPI – led by Professor Fatima Suleman – is geared at increasing the competency of pharmacy students and integrating all their knowledge about pharmacy. This approach enhances their undergraduate training by curriculum infusion and increased use of technology – and develops a programme to retain qualified academic and research staff by providing a career pathway and research support.

Team-Based Learning

Based on Team-Based Learning (TBL) and themes, the Pharmaceutical Science's new integrated curriculum was implemented in January 2014 following approval from UKZN and the South African Pharmacy Council. Team-Based Learning puts the student at the centre of the learning process. Students read prior to class, get assessed on concepts and then apply those concepts in a practical exercise or a case study based on realistic situations they will encounter on graduation. There is therefore immediacy of understanding how these concepts are relevant to their future work as pharmacists, which ensures successful retention of this knowledge for an extended period of time.



Technology in Learning

Today's student is techno-savvy, used to quick access to information and new ways in which information is presented (sometimes even as entertainment). MEPI's Pharmacy component is taking full advantage of the numerous benefits the digital age brings to the learning environment, for example:

- Ongoing development of an online preceptorship programme for student experiential visits
- Pharmaceutical and medicinal online Chemistry tutorials have been integrated into current modules and form part of the new curriculum
- Learning opportunities on pharmaceutical industry made available via video clips on UKZN servers.

The Pharmacy MEPI sub component hopes to strengthen conceptual innovation in the area of curriculum and pedagogy in pharmaceutical sciences and to undertake joint activities on topics of interest to local, African and International stakeholders and within UKZN.

Hard work is paying off!

- Our case study, implementing the FIPed Global Competency Framework within a South African University, has been accepted for the FIP Conference, Dean's Forum, in Bangkok, Thailand, to take place between 31st August – 4th September 2014.



SUPPORTING PUBLIC HEALTH IN SOUTH AFRICA

With MEPI support, the value of education and research within the Discipline of Public Health Medicine is being enhanced. Here's how...

Undergraduate Medical Education

The **Becoming a Professional** (BAP) module for first year medical students has been strengthened by focussing on building foundation concepts and skills.

- The 'HIV and Me' Workshops conducted in 2013 and 2014 have been reinforced by offering training for the facilitators. MEPI funding was also used to employ extra facilitators. The workshops comprise of five two-hour sessions. The first (additional) workshop – 'A foundation in Reflective Practice: Building self-awareness, discovery and creativity' is facilitated by Ms Sandy Glajchen (Public Health Medicine, MEPI post). The objectives include: building greater self-awareness including discovery of own creativity; emphasising the importance of curiosity in lifelong learning and reflection; and practising active listening skills in these first year medical students. We used 'team-based learning' (learning design included experiential small group learning with whole class 250 students in a single venue) and the workshop was evaluated positively by the students.

During the 5th workshop 'Accepting, Coping, and Living with HIV & AIDS', which is always a highlight, people living positively with HIV engage the class with their stories, and people representing the Lesbian-Gay-Bisexual-Transgender-Intersex (LGBTI) community share their insights with students.

Student responses varied, demonstrating the importance of this exposure for students early in their medical training and necessitated a separate focus on 'classroom etiquette'. This proved to be a difficult but very important issue to address and will become part of this programme in the future.

One of the objectives of these workshops is to 'Know my Status'. More than 2/3 of the class were tested and now know their HIV status – a significant increase since last year.

- Making a Difference: Group community service activity. Students interviewed in 2013 voiced the value of this experience in bridging theory and practice. This year learning outcomes for this activity have been consolidated. A structured longitudinal reflective practice process has been strengthened to consolidate reciprocal learnings and includes an

electronic journaling assignment in which students reflect on their understanding of health and disease after interviewing community members, as well as reflecting on either good or bad emotive experiences.

- The Selectives Programme builds the skills of students in a population perspective on health utilising community oriented primary care approach (COPC). Selectives addressed many of the 'core-competencies' or graduate attributes required in SA. The objectives and assignments have been refined this year ensure compliance with these. Reflective journaling has also been introduced. All assignments, assessments and student feedback are submitted electronically – a truly successful paperless programme.

Postgraduate Education

- Postgraduate students benefitted from the following learning opportunities during 2013:
 - A module on Qualitative Research was offered to 30 graduate students and co-convened by a MEPI appointee.
 - PhD Training Cohort: Quarterly workshops have been conducted for the 2013 and 2013 cohort of students. These week-long workshops, developed by Professors Joyce Tsoka-Gwegweni and Prof Myra Taylor and Dr Anna Voce, were attended by local and international students, as well as UKZN staff, and proved to be an excellent example of adult learning in research methods.

MEPI Lecturer/Research Contributions

Valuable contributions by MEPI lecturers and researchers towards improving the quality of education of healthcare professionals include:

- Contribution to orientation activities for all health science students;
- Reviewing and strengthening first-year community service student and facilitator activities;
- Building transformational learning and problem-solving skills in medical students;
- Conducting literature reviews and gathering evidence with respect to curriculum enhancement;
- Promoting focus on reflective skills for medical students and design of curriculum components; and
- Engaging in research activities, including the quarterly journal club on medical education, participating in teaching and learning conferences and assessing social accountability at UKZN.



EXPANDING FAMILY MEDICINE ACROSS KWAZULU-NATAL

OVERVIEW

While it's been a demanding year for the Family Medicine Sub-Component of MEPI, significant in-roads have still been made towards achieving its goals. These include developing the undergraduate curriculum and teaching sites for the Decentralised Teaching Programme and developing and implementing a Family Medicine Emergency Medicine Updates Programme.

A QUICK WORD ON THE CHALLENGES...

There's been no appointed Head of Family Medicine since 2013 – however, Dr Kantharuben Naidoo has provided steady stewardship as Acting Head during this time. In addition, the MEPI-funded and appointed Family Medicine physicians resigned during 2014 and, as yet, no suitable applicants have been identified for these posts. Dr Mary Anne Kendon remains as the MEPI-employed family physician – her contribution is much appreciated. There have also been some transport and student accommodation issues at Murchison Hospital which have resulted in its being temporarily suspended as a teaching and training platform.

REVISED CURRICULUM

On the positive side, and in response to suggestions by the local Ministry of Health, we've embarked on a restructuring of the curriculum. Our new curriculum, implemented from this year, satisfies the recommendations of the Health Professions Council of South Africa (HSPCA) and is centred on the so-called Decentralised Teaching Programme.

Fourth Year MBC**h**B

Our new programme places greater emphasis on Family Medicine and a completely new clinical attachment, Integrated Primary Care (IPC) 1 – comprising Family Medicine, ENT, Urology and General Surgery – was implemented in January 2014.

Fifth Year MBC**h**B

This will incorporate IPC 2. While the content hasn't yet been finalised, it will include Palliative medicine, practise management, sexual health and emergency obstetrics, and will be the responsibility of the Discipline of Family Medicine.

Sixth Year MBC**h**B

In 2015, the curriculum will comprise IPC 3, including a six-week rural block, the curriculum for which is being developed in collaboration with the Discipline of Rural Health Medicine, which will also be responsible for the co-ordination and teaching of this block.

Postgraduate Programme

Our Postgraduate Programme has been decentralised since 2012, with registrars being placed in decentralised sites under locally and MEPI-appointed Family Medicine physicians. Bethesda Hospital is one such district hospital – funded by MEPI – which is now an accredited satellite teaching and training site. It boasts two Family Medicine specialists and a Family Medicine Registrar.

FAMILY MEDICINE EMERGENCY MEDICINE UPDATE PROGRAMME

With course development and training manuals finalised, training kits and mannequin sets purchased and resource people appointed, our three-day Emergency Medicine Update (EMU) course is now rolling out. The course targets doctors and nurses providing emergency medical care at various health centres in the province. 83 Healthcare workers have been upskilled thus far.



ESSENTIAL STEPS IN MANAGING OBSTETRIC EMERGENCIES (ESMOE)

WORKING TO REDUCE MATERNAL MORTALITY

From 2002 to 2009 the province of KwaZulu-Natal noted a sharp increase in maternal mortalities. Through MEPI, the aim of the ESMOE Programme has been aimed at reversing this trend. We are pleased to report that this has yielded a successful result. Take a look...

KEY APPOINTMENTS

The performance of the MWCH Programme has been strengthened by the appointment of two Provincial Chief Specialists (Obstetrics and Paediatrics) and DCST at District Level. These appointments add considerable value to the aims of the ESMOE Programme and with the launch of CARMMA in 2012 and the tireless input of healthcare professionals working across the province, we're finally turning the corner. Between 2011/12 and 2012/13, the number of maternal deaths in public facilities has decreased from 327 to 317; and the Maternal Mortality Ratio (MMR) decreased from 169/100 000 to 165.5/100 000. Whilst this is a positive and welcome trend, we still have some way to go in achieving the Millennium Development Goal of just 38 maternal deaths per 100 000.

ESMOE ACTIVITIES EFFECTING CHANGE

Here's a round-up of the activities being implemented to achieve our goals:

Train the Trainer (TTT) Workshops

Three-day workshops hosted at the Family Medicine Skills Laboratory at Howard College, UKZN. These small interactive group sessions consist of twelve modules of ninety minutes. Each module includes the following:

- A lecture, skills demonstration via mannequins and/or video, skills
- Practice and case scenarios or role play (also referred to as fire drills).
- Training on maternal and neonatal resuscitation, sepsis and shock, eclampsia and pre-eclampsia, assisted delivery, obstetric complications, surgical skills and HIV in pregnancy.

These workshops are made possible through collaboration – MEPI and UKZN providing venue and equipment, the Provincial Department of Health (DoH) and UKZN providing specialist facilitators (obstetricians, neonatologists, anaesthetists, etc.) and administration



facilitated by the Provincial DoH, UKZN and MEPI. Workshops are accordingly evaluated, revised and updated by a National ESMOE Board independent Quality Assurance Assessor.

ESMOE Master Trainers

The TTT workshops produce so-called ESMOE Master Trainers and, thus far, we've skilled 246 such trainers. These Master Trainers include specialist obstetricians, specialist family physicians, medical officers, midwives, midwifery educators and district clinical specialist team members. Each DCST in each of our eleven districts – across urban, peri-urban and rural settings now has at least one ESMOE Master Trainer and each hospital with comprehensive emergency obstetric care now also boasts at least one ESMOE Master Trainer (with most actually having two, in the form of a doctor and midwife).

ESMOE Fire Drills

These are district-based one-day workshops to provide encouragement, support and guidance for ESMOE Master Trainers to implement fire drills at their own facilities. In collaboration with the National DoH, such workshops have been conducted in Ladysmith, Durban, Zululand and Umkhanyakude, and in collaboration with MEPI at Murchison and Stanger. MEPI is to fund workshops in a further three districts – Sisonke (Ixopo), Umgungdhlovu (Pietermaritzburg) and Uthungulu (Empangeni).

Coming Up...

Future ESMOE activities include:

- Further TTT Workshops
- More Fire Drill Workshops
- DSCT research support
- M&E Publication: BREC Approval
- Certification of the ESMOE workshops by the National ESMOE Board
- Inclusion of an abridged version of ESMOE into Integrate Primary Care (IPC) 2 at Undergraduate Level (Fifth Year MBChB).

RESEARCH ETHICS AND CAPACITY BUILDING (RESCAP)

OVERVIEW

Led by co-PI Professor Doug Wassenaar and managed by Ms Nivedhna Singh, the aim of RESCAP is to decrease the 'gap' in research ethics training, and aims to bring research and ethics closer together. Each activity provides a basis for further/advanced training for all students

Research systems are essential components of innovative evidence-based healthcare systems, and functional, competent research ethics systems are essential components of research systems. The aim of this component is to develop and improve institutional research ethics capacity at UKZN and to capacitate research and innovation both provincially and nationally. RESCAP activities provide beneficiaries with relevant theoretical and applied research ethics training which are held at various times of the year. The training enables our students to progress towards more advanced training in future. MEPI sponsors all students fully or partially.

RESCAP Components

These consist of 5 components which are aimed at research ethics training, using a combination of learning and teaching methods. In brief, the components consist of the following:

Online Research Ethics Module

Launched in 2013, we have published this module specific to South Africa on the Training and Resources in Research Ethics Evaluation (TRREE) website - <http://elearning.tree.org/>. The South African National TRREE Supplement was developed based on South African law, ethics guidance and health regulations.

AIM OF THIS MODULE: To train individuals on how to conduct ethical research in South Africa. Like all other online TRREE modules, it is available free of charge to all users, is certificate-bearing and is easily accessible on low-bandwidth internet connections.

The other four other components of RESCAP are specially designed to create opportunities through scholarships/fellowships to students, allowing them to be trained in conducting ethical research and reviewing research protocols.

The Biomedical Research Ethics Committee (BREC) Fellowship

This fellowship allows two PhD students to shadow the UKZN REC/IRB chair.

Aim: To provide onsite applied REC/IRB training and allow

the candidate to gain an understanding of the theoretical and operational aspects of research ethics review, and the roles and responsibilities of health-related Research Ethics Committees. Students are also required to present literature-based opinions on topical questions to BREC.

SARETI Modular Training

In this component, selected national and international students receive training in topics related to research ethics, HIV/AIDS and ethics review through research ethics modules.

AIM: To offer biomedical staff and postgraduate researchers to gain advanced theoretical and practical knowledge in the ethical review of complex research protocols such as those for HIV prevention trials, and in institutionalising research ethics review in their home institution. These modules are part of another larger FIC/NIH funded programme known as the South African Research Ethics Training initiative (SARETI) (see <http://sareti.ukzn.ac.za/Homepage.aspx>).

RESCAP also invites staff to be trained in grant writing and grant management.

AIM: To enable local and international researchers and research administrators gain an in-depth understanding of funding opportunities, application process, budgeting, management of awards, and reporting.

Research Ethics and Project Management

This final component of RESCAP allows one postgraduate student to be trained in research ethics and project management. This intern manages the RESCAP MEPI portfolio and presents our data at conferences.

RESCAP has collaborated with other international projects (SARETI, TRREE). To date, the UKZN MEPI RESCAP has provided advanced research ethics opportunities for 80 students through scholarships/fellowships both locally and nationally and 1401 South African users have benefited from online training on the TRREE website. We have published a chapter on some of our activities: (Singh, N., & Wassenaar, D.R. (2014). Development of an online research ethics training resource specific to South African Health law and guidance: A UKZN-MEPI funded project. In S. Zvacek, M. T Restivo, J. Uhomibhi, & M. C. Heifert (Eds.), Proceedings of CSEDU 2014, 6th International conference on Computer Supported Education (p.24). Barcelona: Scitepress.) and a paper is currently in preparation.



RESEARCH METHODOLOGY PROGRAMME (REMETH)



BRINGING HEALTH RESEARCH TO THE FORE

Improving the standards and output of health research in South Africa is crucial to improving the quality of care patients receive. However, health research in this country faces numerous obstacles, such as underfunding and the so-called brain drain. Joining forces, MEPI and UKZN are tackling these challenges head on...

The Research Methodology (REMETH) Programme

The programme aims to bridge clinical and basic science with public health medicine through training in clinical research and competencies in epidemiology, biostatistics, research ethics and health systems management, in order to improve health outcomes. In addition, it aims to support faculty personnel at UKZN and in the Department of Health to produce high quality PhD dissertations and publications.

Identifying the Challenges

According to the 2011 National Health Research Summit Report, there are just 2.2 FTE researchers per 1000 employed people in South Africa – compare this to the 7.4 researchers per 1000 employed people in fellow BRICS-nation, Russia.

WHY SO FEW?

Some of the challenges impeding the quality and quantity of health research in South Africa include inadequate funding, a small and ageing research workforce and crumbling health infrastructure. In addition, health care professionals are under considerable pressure to earn money to support their families rather than pursuing postgraduate studies. Then there's the brain drain – South Africa is producing doctorates 'for export', with many graduates leaving the country for opportunities on distant shores. For those who remain in our system, poor staff development, lack of succession planning and a large clinical workload impede research efforts.

Providing a Package of Support

In recognition of the need to support, encourage and stimulate postgraduate research efforts, we assist through the following:

- A bursary worth R50 000
- Epidemiology and Biostatistics support
- Grant and manuscript writing workshops


- Scientific writing assistance
 - Data capturing assistance
 - Research administrative assistance
- As well as the above, our MEP Partner School, Columbia University is providing a valuable mentorship role.

Biostatistics Initiative

Even though developing and applying statistical methods to health research is crucial to its output, there's a grave shortage of biostatisticians in South Africa and in the broader African region. For those candidates registering for PhDs in the College of Health Sciences (CHS) at UKZN, there's a gap in biostatistical knowledge – many have had no formal training in this field in their undergraduate or postgraduate years, with the result that they're unable to undertake their own statistical analyses. A collaborative effort involving MEPI and various stakeholders – including the Department of Statistics in the College of Agriculture, Engineering and Science – at UKZN is aiming to address the knowledge gap through a Biostatistical Programme. Two junior biostatisticians at Masters Level and with extensive applied experience are now based at the CHS faculty and a quantitative epidemiologist, Dr Benn Sartorius, joined in 2013. Furthermore, the Department of Statistics has introduced a Biostatistics module in their Honours programme. An online resource has also been made available to all postgraduate student (further funding would result in a more polished and useful product). The objectives of this collaboration include supporting the development of biostatistics as a discipline at UKZN and strengthening the skills in postgraduate students so that they're better equipped to conduct research and statistical analyses.


Going forward...

Our biostatistics initiative indicates the extent of the knowledge gap and that there is an enormous need for further development in this discipline. A long-term approach needs to be developed to support real progress in health sciences research at UKZN specifically and in South Africa, at large.



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