

2<sup>nd</sup>



AFREhealth

African Forum For Research and Education in Health

# SYMPOSIUM

TOWARDS ACHIEVING UNIVERSAL  
HEALTH COVERAGE IN AFRICA- CREATING  
SYNERGIES AND CAPACITY THROUGH  
EDUCATION, RESEARCH AND QUALITY  
HEALTH SERVICES.

2018



UNIVERSITY OF  
KWAZULU-NATAL<sup>TM</sup>  
INYUVESI  
YAKWAZULU-NATALI



INSPIRING GREATNESS

# Strengthening Mozambique's Health Post-Graduate Education & Research Systems Through Sustainable Partnerships


Ana O Mocumbi MD PhD, Carla Carrilho MD PhD, Mamudo Ismail MD PhD, Constance Benson MD PhD, Robert T Schooley MD PhD, Alcido Nguenha PhD, Emilia Virginia Noormahomed, MD PhD

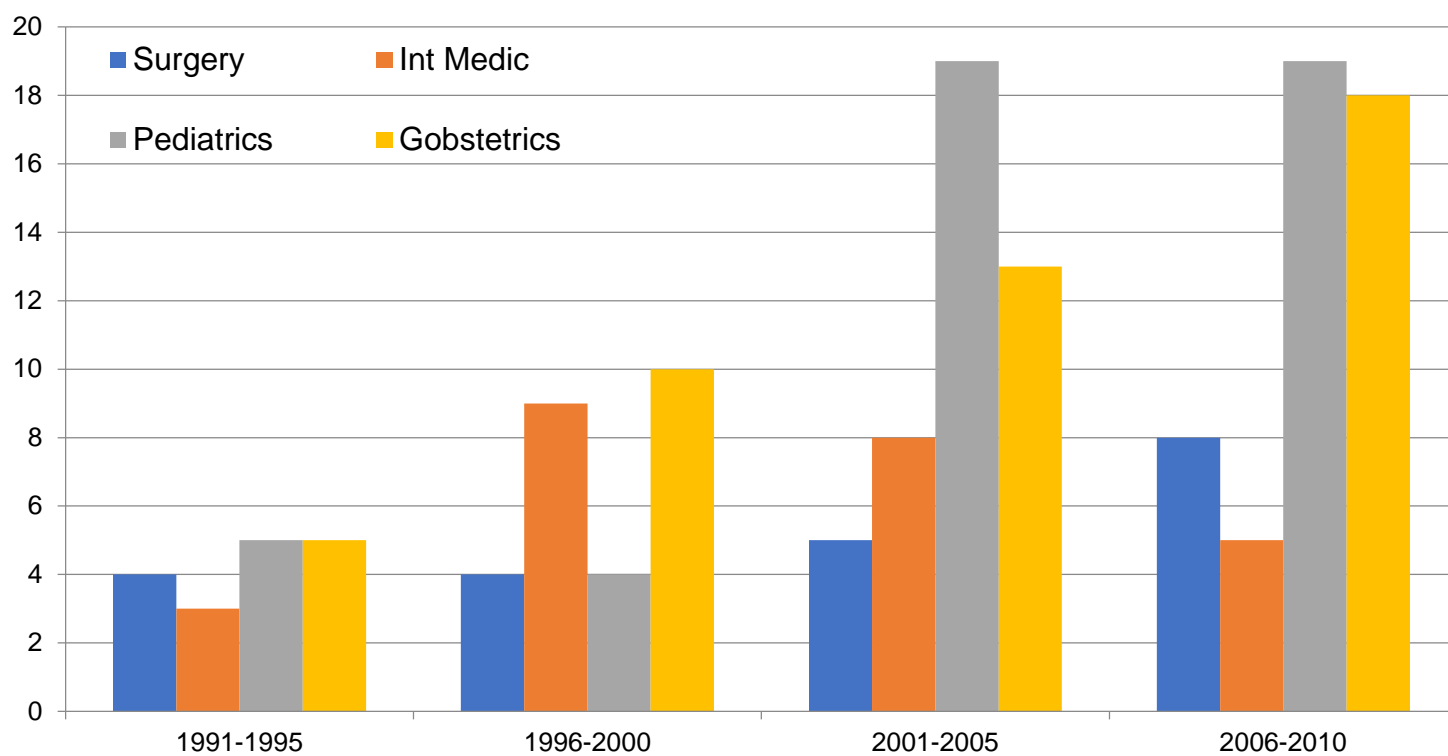
Universidade Eduardo Mondlane, Mozambique; Instituto Nacional de Saúde, Mozambique; University California San Diego, USA; Mozambique Institute of Health Education and Research, Mozambique

# Presentation Outline

- Background
- Aims
- Methods
- Results and Discussion
- Conclusions and Ways Forward
- Acknowledgments

# 1. Background

- Post-graduate training and research within public health sector in Mozambique remains a challenge. Among the factors contributing to this situation are: high working load of health professionals, lack of mentorship, absence of research skills and lack of proficiency in English.
  - The Medical Education Partnership Initiative (MEPI) in Mozambique linked primarily University of California San Diego (UCSD) and Universidade Eduardo Mondlane (UEM), and included two other local public universities in the northern and central parts of Mozambique.
- 




Innovation and Implementation Reports

## Innovative Strategies for Transforming Internal Medicine Residency Training in Resource-Limited Settings: The Mozambique Experience


Ana Olga Mocumbi, MD, PhD, Carla Carrilho, MD, PhD, Eliah Aronoff-Spencer, MD, PhD, Carlos Funzamo, MD, MPH, Sam Patel, MD, Michael Preziosi, MD, Philip Lederer, MD, Winston Tilghman, MD, PhD, Constance A. Benson, MD, PhD, Roberto Badaró, MD, PhD, A. Nguenha, Dip, PhDSc, Robert T. Schooley, MD, PhD, and Emília V. Noormahomed, MD, PhD

Academic Medicine, 2014

## 2. Aims

- Report on a strategy to increase post-graduate training of health professionals and improve research environment
  - Discuss strategies used for sustainability of these changes in a low-income non-English speaking setting (MOZAMBIQUE).
- 

# 3. Methods

- A research support center was created - the Mozambique Institute for Health Education and Research (MIHER).
  - Senior faculty and researchers from overseas mentored local faculty and this mentoring-the-mentor program was replicated from the local mentors to local junior faculty.
  - Local faculty implemented transferable skills courses, led seed research projects, developed post-graduate curricula, and used e-health & distance-learning tools to mentor junior faculty and young researchers.
  - Weak access to bioinformatics and low proficiency in English were addressed through an exchange program for faculty and residents that included short stays overseas.
- 

# 4. Results (1)

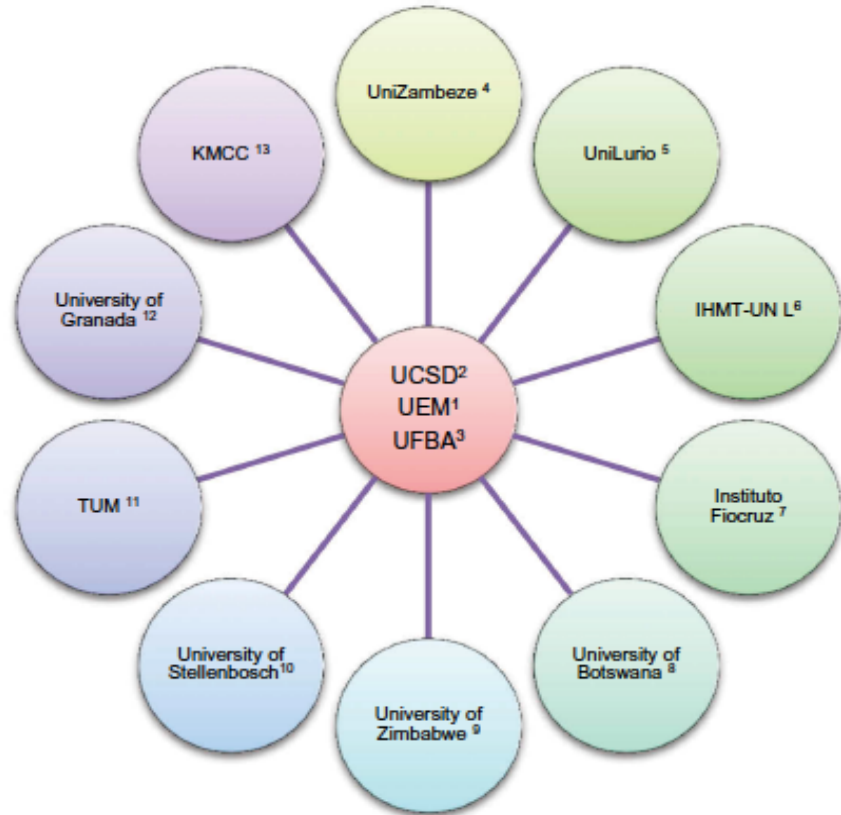
- The current network includes 8 international, 4 regional and 6 local training and research institutions with regular activities throughout the year
  - Residents, postgraduate students and faculty exchange programs were initiated between collaborating institutions.
  - Jointly transferable skills courses (45 among which some to improve proficiency in English) have been delivered and 28 research projects implemented, resulting in 40 publications.
  - 10 new collaborative projects have been initiated and are contributing to build capacity for both health professionals training and multidisciplinary research
- 



# Results (2)

- 65 residents were involved in the exchange program, 4 Master's Degree curricula were developed and implemented by local universities.
  - MIHER administered over 40 collaborative research, joint training projects and events for dissemination of research.
  - Beneficiaries from these projects have started scientific production - grant applications, training manuals, research articles, participation at national and international conferences
- 

# Exchange Programs



Dr Matchecane Cossa and Dr Adriano Tivane were able to attend the American Association of Thoracic Surgery which was held here in San Diego (April 28 - May 1). After informative and highly engaging sessions at AATS, these Mozambican surgeons reconnected with their UC San Diego counterparts for a week, supported by Surgeons in Global Health in 2018.



**The Medical Education Partnership Initiative (MEPI), a collaborative paradigm for institutional and human resources capacity building between high- and low- and middle-income countries: the Mozambique experience**

Emilia Virginia Noormahomed<sup>a,b,c,d</sup>, Carla Carrilho<sup>d,e</sup>, Mamudo Ismail<sup>d,e</sup>, Sérgio Noormahomed<sup>f</sup>, Alcido Nguenha<sup>f</sup>, Constance A. Benson<sup>b</sup>, Ana Olga Mocumbi<sup>d,g,h</sup> and Robert T. Schooley<sup>b</sup>

# Successful Grants Applications

## Involving Post-Graduate Students and Targeting Neglected Diseases

1<sup>st</sup> generation

- CFAR (HIV)
- GLOCAL (NCDs: incidence and outcomes)

2<sup>nd</sup> generation

- MIHER (competitive internal funding MSc/PhD)
- PASCAR RHD (in-Africa sec prophylaxis)
- NRF & INS Mozambique (in-country funding)
- Researcher Initiated Grants (Pfizer, Sanofi, Primary Care International UK)





# Publications

- Noormahomed EV, Mocumbi AO, Preziosi M et al. **Strengthening research capacity through the medical education partnership initiative: the Mozambique experience.** *Hum Resour Health.* 2013;11:62.
- Mocumbi AO, Carrilho C, Aronoff-Spencer E et al. **Innovative strategies for transforming internal medicine residency training in resource-limited settings: the Mozambique experience.** *Acad Med.* 2014;89(8 Suppl):S78-82.
- Bickler SW, Funzamo C, Rose J, et al. **Building surgical research capacity in Mozambique.** *Acad Med.* 2014;89(8 Suppl):S107.
- Virgínia Noormahomed E, Carrilho C, Ismail M et al. **The Medical Education Partnership Initiative (MEPI), a collaborative paradigm for institutional and human resources capacity building between high- and low- and middle-income countries: the Mozambique experience.** *Glob Health Action.* 2017;10(1):1272879.

## Junior Faculty, Residents and Young Researchers

- Madeira G, Chicavel D, Munguambe A, Langa J, Mocumbi A. **Streptococcal pharyngitis in children with painful throat: missed opportunities for rheumatic heart disease prevention in endemic area of Africa.** *Cardiovasc Diagn Ther.* 2017;7(4):421-423.
- Cerveja BZ, Tucuzo RM, Madureira AC, Nhacupe N, Langa IA, Buene T, Banze L, Funzamo C, Noormahomed EV. **Prevalence of Intestinal Parasites Among HIV Infected and HIV Uninfected Patients Treated at the 1° De Maio Health Centre in Maputo, Mozambique.** *EC Microbiol.* 2017;9(6):231-240.
- Gouveia L, Massanganhe H, Mandlate F, Mabunda D, Fumo W, Mocumbi AO, de Jesus Mari J. **Family reintegration of homeless in Maputo and Matola: a descriptive study.** *Int J Ment Health Syst.* 2017;11:25.
- Madeira G, Chicavel D, Munguambe A, Langa J, Mocumbi A. **Streptococcal pharyngitis in children with painful throat: missed opportunities for rheumatic heart disease prevention in endemic area of Africa.** *Cardiovasc Diagn Ther.* 2017;7(4):421-423.

## Multidisciplinary Projects

- Oquendo MA, Duarte C, Gouveia L, Mari JJ, Mello MF, Audet CM, Pinsky I, Vermund SH, Mocumbi AO, Wainberg ML. **Building capacity for global mental health research: challenges to balancing clinical and research training.** *Lancet Psychiatry.* 2018 Aug;5(8):612-613.

# South-South Collaborations

- Ugandan Heart Institute – Aswan Heart Centre – Instituto Nacional de Saúde  
(Uganda) (Egypt) (Mozambique)

Moz Endomyocardial Fibrosis, neglected cardiomyopathy affecting mainly children and adolescents  
Exchange of residents & specialists from September 2017

- University of Stellenbosh, South Africa – Univ Eduardo Mondlane, Mozambique  
EDCTP Grant Application on Cardiovascular Manifestations of HIV, submitted in February 2018  
Fellowships including capacity building training of 2 MSc & 2 PhD

- Southern Africa Non-Communicable Diseases & Injuries Initiative  
Health Professional Training Institutions, Ministries, Health Facilities, Policy-makers  
Lead by MIHER had the Inaugural Meeting in Maputo, June 2018

# South to South Collaboration for Cardiovascular Research in Africa: The Uganda-Mozambique perspective

## problem (not disease) -driven partnership

**Judith Namuyonga, Peter Lwabi, John Omagino, Magdi Yacoub, Ana Olga Mocumbi**

Uganda Heart Institute, Uganda; College of Health Sciences, Makerere University; Aswan Heart Center, Cairo; Mozambique Institute of Health Education and Research; Instituto Nacional de Saúde; Universidade Eduardo Mondlane, Moçambique



Abstract accepted for oral presentation in Dubai,  
World Congress of Cardiology, 2018

*In press* Cardio J Africa



## Meeting Report

### Noncommunicable Diseases and Injuries in Southern Africa: A Dialogue on Science, Implementation and Policy



On June 11<sup>th</sup>-12<sup>th</sup> 2018, colleagues from the Mozambique Institute for Health and Education Research (MIHER), The NCD Synergies team at Partners In Health and the Program in Global NCDs and Social Change at Harvard Medical School, hosted a two-day dialogue with NCD Ministry of Health leads, researchers and clinical implementers from nine countries across the Southern African Region.

## 6. Conclusions & Ways Forward

- North-South partnerships created capacity and synergies that are resulting in improved quality of health professionals training, as well as research and health care in Mozambique.
  - Fostering South-South collaborative projects to support post-graduate training and increase research capacity in Africa is a more efficient and sustainable to ensure retention and promote efficiency (and mobility)
  - Health sector should take leadership in addressing lack of access to health care, reducing health inequalities and gender disparities, as well as ensuring country's progress towards universal health coverage.
- 



## Acknowledgments

Universidade Eduardo Mondlane

Instituto Nacional de Saúde

Universidade Lúrio

Universidade Pedagógica

Ministério da Saúde

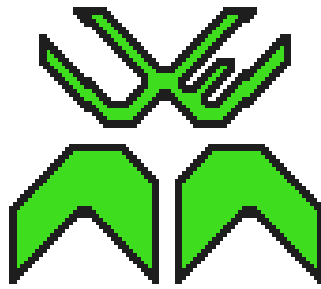
University of California San Diego

University of California San Francisco

Instituto de Higiene e Medicina Tropical

University of Cape Town

University of Stellenbosh



**Muito Obrigada!**  
**Thank you!**  
**Syabonga!**  
**Dankie!**