



MEPI Ghana Newsletter

Kwame Nkrumah University of Science & Technology, Kumasi

July 2015

Message from the Principal Investigator



Prof. Peter Donkor, PI

This issue of the MEPI-GHANA newsletter highlights some of the achievements under the MEPI Emergency Medicine (EM) project. The tremendous achievements made during the past five years in producing locally trained emergency physicians and nurses in Ghana were made possible by the full commitment of our partners including the University of Michigan (UM), Ministry of Health (MOH), Komfo Anokye Teaching Hospital (KATH), and the Ghana College of Physicians and Surgeons (GCPS).

The pilot linked award by NIH/PEPFAR which made the project possible has yielded dividends far beyond its primary goal. Hundred percent of trainees under the project have been retained in-country as specialists who have been deployed to different parts of Ghana. They have become the nucleus for the expansion of emergency services throughout the country.

Training in HIV research, ethics, confidentiality and medico-legal issues, as well as the establishment of a research support center at KNUST were facilitated through supplemental awards by Fogarty International Center and the Office of the Director, National Institutes of Health. The Ministry of Health and the National AIDS Control Programme (NACP) have adopted a manual developed under MEPI for HIV/AIDS care in emergency settings and the training of personnel. The Research

Support Centre has been absorbed into the university system and is playing a leading role in strengthening research administration services at KNUST.

Great strides have been made in developing the next generation of local faculty to work alongside their counterparts from the University of Michigan for the training of more emergency personnel for Ghana and the West African sub-region.

At the heart of these achievements lies the huge financial investment by the Ministry of Health which funds all trainees and also ensures their immediate employment upon completion of the training. This is what will ensure that emergency medicine training started in Ghana five years ago, is sustained indefinitely.

We will forever be grateful to our funders, partners, team members, and external experts who have remained loyal to us throughout the process and helped us get to where we are. No doubt we need to develop research focused faculty if we are to stay on top of our game. We shall continue to seek out new collaborations to make this happen.



The first graduating class of EM Specialists in a pose with the MEPI PI and Head of EM Department, KATH

Project Goals

The Medical Education Partnership Initiative (MEPI) at the Kwame Nkrumah University of Science and Technology is a five-year collaborative project with the University of Michigan as the US partner institution. It is a pilot linked grant funded by PEPFAR and the USA National Institutes of Health (NIH).

The aims are:

- To increase the capacity for the provision of emergency medical care in Ghana through innovative and sustainable, physician, nursing and medical student training programmes;
- To take steps to ensure in-country retention and wide distribution of qualified emergency health care workers;
- To provide training in research and promote the conduct of nationally relevant health research;
- To ensure the sustainability of the programme and;
- To build a community of practice

The University of Michigan has largely been responsible for providing the technical expertise for the training of the emergency manpower under the programme. KomfoAnokye Teaching Hospital, Ministry of Health, Ghana College of Physicians and Surgeons (GCPS), and the National Ambulance Service (NAS) are the major local partners.

KNUST-MEPI executed its activities under four major components namely;

1. Training of Emergency Physicians, Emergency Nurses, Emergency Medical Technicians (EMTs), and undergraduate medical and nursing students.
2. HIV/AIDS-Related Emergency Care, Education and Research
3. Initiative on Research and Innovation Management (iRIM)
4. Medico-legal Training

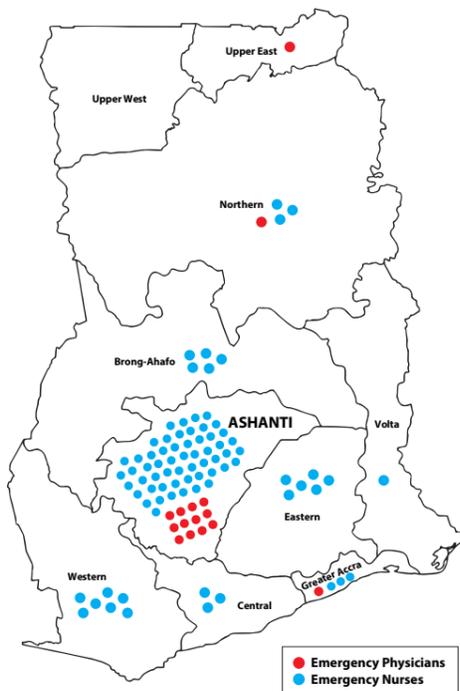
Achievements

Training of Emergency Personnel and Students

The first ever training programme in emergency medicine and nursing in the sub-region has been established

- The first ever residency training programme in emergency medicine in the sub-region has been established in collaboration with the Ghana College of Physicians and Surgeons.

- The first ever emergency nursing degree programme in the sub-region has been established at the Kwame Nkrumah University of Science and Technology.
- 15 Specialist Emergency Physicians have been trained with GCPS membership and currently working in hospitals in Ashanti, Greater Accra and Northern Regions. They provide training in Basic Life support to district health workers in the country, and have also supported rescue efforts during national disasters.
- 11 of the specialists are training for GCPS Fellowship
- 23 residents are at different levels of their 3-year EM specialist training
- EM Specialists and residents are continually conducting locally relevant research to enhance clinical care and operations at the department
- 15 Medical Officers have received one-year training in Emergency Care
- 80 Emergency Nurses have been trained at KNUST and KATH and are working in various hospitals in nine regions of Ghana
- 50 Emergency Nursing trainees are expected to complete by 2016.
- Over 600 EMTs have received training in triaging, resuscitation and acute care management, etc., through training at the EMT Training School and rotations at the KATH Emergency Department.



The current spread of Emergency Medicine and Emergency Nursing graduates across Ghana



An emergency team attending to an acutely ill patient at the KATH Accident and Emergency Centre

“You have a setting where a patient comes in and you do not have to ask any questions. Every patient from the king to the lonely man off the street gets triaged. The nurses have a standardised process... and you are seen by a Specialist who is trained in Emergency Medicine.”
 - Dr. Rockefeller Oteng, UM Emergency Medicine Department/
 Lead Clinician, KATH Emergency Department

Team Training

As a result of the significant role of teamwork in the provision of emergency care, modules on teamwork were included in the training. The Team STEPPS curriculum was used for training the physicians, nurses and other emergency health care workers.

This curriculum aims to produce highly effective medical teams that optimize the use of information, people, and resources to achieve the best clinical outcomes for patients. This evidence-based teamwork system used to improve communication and teamwork skills, was used to assess communication and attitudes in the KATH Emergency Department.



An emergency team made up of Doctors, Nurses and Health Care Assistants at work

It became evident that creating an environment of a more balanced physician-nurse interaction would require increased clinical knowledge, critical thinking skills and decision-making processes of the nursing staff. This finding informed the development of the curriculum and the training.

Research Training



Dr. Doreen Djan, an EM Specialist in a discussion with her research mentor, Dr. Ellis Owusu-Dabo

In order to integrate multidisciplinary, locally-driven research into the practice of Emergency Medicine (EM), EM residents and nurses have been provided with research training and mentorship. This was done through didactic sessions and the conduct of locally relevant mentored research projects by trainees to help develop their research skills and enhance evidence-based practice.

Two manuscript writing workshops have also been conducted for the specialists and residents to hone their scientific writing skills.

Open Educational Resource (OER) Development



Didactic content used for the training of residents, nurses and medical students have been converted into Open Educational Resources and made available for open access. These include:

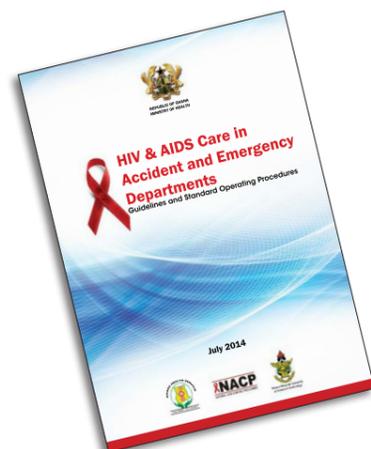
- 121 resident training lectures available for use in open access (<http://open.umich.edu/education/med/em/gemc/materials>)
- 20 lectures for the five-day intensive Advanced Emergency Trauma Course (AETC) <http://open.umich.edu/education/med/em/aetc/2009/materials>
- 25 emergency nurse training lectures (<http://open.umich.edu/education/med/em/gemc/materials>)
- 5 medical student lectures remain available for use in open access. (<http://open.umich.edu/education/med/em/gemc/materials>)

HIV/AIDS-Related Emergency Care, Education and Research

- Trainee Emergency Physicians and Emergency Nurses have received training in HIV-related emergency care and research and actively participate in caring for and treating persons with HIV/AIDS.
- A research project on HIV/AIDS related emergencies; conducted at the KATH A&E Centre indicated an HIV prevalence rate of 13.5%, which is about ten times the national rate.
- A document on "Guidelines and SOPs for HIV/AIDS Care at Emergency Units" has been developed in collaboration with the National AIDS Control Programme (NACP), endorsed by the Ministry of Health; and is available for use in hospitals in all 10 regions of Ghana
- An HIV/AIDS team training curriculum based on the SOPs has been developed and used in training 374 health care workers in the teaching, regional and district hospitals in nine regions across Ghana; with the remaining region scheduled for August 2015.



A training session for Doctors, Nurses, Pharmacists, Physician Assistants and other Health workers on HIV/AIDS care in Emergency Departments



Dr. Myat Htoo Razak, (Program Officer, FIC) and KNUST's Office of Grants and Research team

Initiative on Research & Innovation Management (iRIM)

This initiative aimed at building the research administration capacity at KNUST and enhancing the application for and implementation of sponsored research projects.

- An Office of Grants and Research (OGR) has been established at KNUST to lead and coordinate research administration activities across the university.
- Customizable training modules for Research Administrators have been developed and used in training Research administrators and Researchers.



Research Administrators being trained

- Development of a research proposal roadmap and resources for researchers has been uploaded on the created website of the Office of Grants and Research (OGR) which is always being updated.

These were achieved in collaboration with the University of Michigan, University of Ibadan and Texas State University.

Medico-legal Training



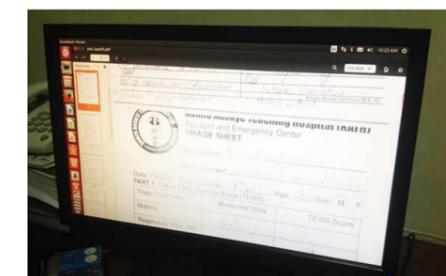
Keeping discussions on patient's medical records professional

To increase emergency health workers' awareness of medico-legal, ethics and confidentiality issues and thus increase patients' confidence in disclosing vital health information e.g. HIV/AIDS status, a series of training workshops have been held for various cadres of health workers. A curriculum on ethics, confidentiality and medico-legal issues for health workers and clinical students has been developed and operationalized.

- Training in ethics, confidentiality and medico-legal issues have been organized for 447 healthcare workers in three regions (Ashanti, Brong Ahafo and Central)
- A Twi Medical Glossary has been developed for use by health workers to help in translations and reduce third-party involvement.
- The system of patient record keeping at KATH has been improved through the acquisition of appropriate equipment to enhance the confidentiality of patient information and security of records. An Electronic Medical Records (EMR) system is being piloted at the A&E directorate at KATH.
- Guidelines for Confidentiality has also been developed for health workers
- Posters and booklets on confidentiality and medico-legal issues have been developed and distributed to teaching, regional and district hospitals across Ghana to create awareness and facilitate continuous education.



Posters for educating health staff on Medico-legal issues



Converting patient's medical records into electronic format

Partnerships



MEPI Team Members, Advisory Board Members, Representatives from Collaborating Institutions and some Graduates and Trainees

This initiative has become possible due to the following key collaborations:

- University of Michigan (UM) through its Department of Emergency Medicine and School of Nursing, has spearheaded faculty support for the training; and garnered additional faculty support from other institutions including University of Utah, University of Cincinnati and Project HOPE among others. UM has also provided opportunities for trainee rotations; played a significant role in building research administration capacity; and provided other resources for the implementation of the various MEPI components.
- Komfo Anokye Teaching Hospital (KATH) is the training centre providing the necessary resources needed for training at its ultra-modern Accident and Emergency Centre.
- The Ghana College of Physicians and Surgeons (GCPS)

approved the curriculum and oversees the training and assessment of the residents.

- The Ministry of Health (MOH) and Ghana Health Service (GHS) provide employment for the trainees and graduates and supports the training process.
- The National Ambulance Service (NAS) works with the MEPI team in training the Emergency Medical Technicians (EMTs).
- National AIDS Control Programme facilitated the activities under the HIV/AIDS-Related Emergency Care, Education and Research component
- University of KwaZulu-Natal (UKZN) played a key role in HIV-related Emergency training for physicians and the Emergency Nursing curriculum development.
- University of Ibadan (UI) and Stellenbosh University (SU) contributed in research administration training

- Texas State University (TSU) also contributed in research administration training and development of institutional structures
- The KNUST MEPI project has shared its emergency medicine curriculum with the University of Zambia who are working on establishing an emergency medicine training programme

“The partnership between the University of Michigan and Ghana has been a long distance run; and the benefits have been tremendous.”

Dr. William Barsan
Professor of Emergency Medicine
University of Michigan
MEPI Co-Principal Investigator



Above: Dr. Rockefeller Oteng addressing the audience at the 2015 Dissemination Meeting



Right: Sections of the audience at the 2015 Dissemination Meeting



Research Dissemination

Efforts have been made to disseminate research findings and outputs from MEPI. Project team members, EM specialists and residents have published sixteen scientific articles in peer-reviewed journals; and more than ten conference papers have been presented across the globe. In addition, two dissemination meetings have been held in Accra and Kumasi respectively where research findings and project outputs were shared with stakeholders and the general public.



Dr. William Barsan (Co-PI), Ms. Nadia Tagoe (Program Manager) and Prof. Peter Donkor (PI) at the 2015 Dissemination Meeting



Dr. Ebenezer Appiah Denkyirah, Director General of GHS (middle) in a discussion with Dr. Joseph Akpaloo, CEO of KATH (left) and Dr. George Oduro, Head of Emergency Department, KATH (right) at the 2015 Dissemination Meeting



Kwame Nkrumah
University of
Science and
Technology



Komfo Anokye
Teaching
Hospital, Kumasi



Ghana College of
Physicians &
Surgeons



University of
Michigan



Republic of
Ghana, Ministry
of Health

**Medical Education
Partnership Initiative
(MEPI), KNUST - Ghana**

College of Health Sciences,
KNUST
Private Mail Bag
University Post Office
Kumasi, Ghana

E-mail: mepi@knust.edu.gh
Tel: (+233) 03220 647979
Mob: (+233) 050 - 8351306

Impact



Above: The site of a National disaster in Accra in 2012 (collapse of a five-storey shopping centre where over 80 people were trapped). The EM Specialists travelled to the site to attend to the injured.

Left: Dr. Maysel Forson, one of the EM Specialists on site.

"We get wonderful job satisfaction. We still have a long way to go but we feel we have made so much impact; and we can be the agents of change for emergency medicine in Ghana." - **Dr. Maysel Forson, EM Specialist, KATH**



"Since Emergency Medicine came, those who are critically ill are seen faster; and their recovery rate is also faster."

Mrs. Marie Ntow
Emergency Nurse, KATH



Dr. Sue Anne Bell, the UM Lead Nursing Faculty (right) with some of the trainees



One of the Specialists, Dr. Godfred Takyi training Residents and Medical Officers at a workshop

"The Specialists are training Residents, Medical Officers, Nurses, Medical Students and Emergency Medical Technicians in Ashanti and other regions across Ghana"

Dr. George Oduro
Head of Emergency Medicine
Department, KATH

This publication is supported by MEPI Award Number R24TW008899 from the Fogarty International Center. The content is solely the responsibility of the authors and does not necessarily represent the official views of the Fogarty International Center or the National Institutes of Health, USA.