



## Emergency Medicine in Ghana

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This is a continuing column that examines the practice of emergency medicine in various countries around the world. This issue will look at EM in Ghana. This article is written by Kathryn R. Challoner, MD MPH FACEP. Dr. Challoner is currently the Co-director of the Division of International Emergency Medicine at the Department of Emergency Medicine, Keck School of Medicine, University of Southern California.

### Background

Ghana is a West African nation in the Gulf of Guinea which borders Togo to the east, Burkina Faso to the south and Cote d'Ivoire to the west. In 1957, Ghana became the first British colony in Africa to achieve self-government and independence, and in 1960, Ghana became an independent republic. The republic has remained peaceful for nearly 25 years and has shown steady economic development. The population of Ghana is estimated to be 22 million with an average life expectancy of 57 years. The official language of the nation is English with a 75% literacy rate and a well-developed educational system.

As with other countries in Sub-Saharan Africa, infectious diseases pose the greatest threat to the health of Ghanaians. Diseases causing the greatest morbidity and mortality include the infectious diarrheas (including cholera), malaria, typhoid fever, measles, hepatitis, tuberculosis, yellow fever, HIV/AIDS, schistosomiasis and respiratory infections. Up to 75% of all illnesses are waterborne, although a large percentage is also caused by insect vectors. The nation has shown increasing gains in the areas of access to clean water and sanitation and the HIV/AIDS prevalence rate is estimated at 3.1%. The impact of traumatic injury is increasing, showing a steady increase in accident statistics and casualties.

### Emergency Medicine in Ghana

The pre-hospital care system in Ghana is in the early stages of development. Accident victims have no access to stabilization at the site of the accident and are often transported in vehicles such as taxis and minibuses by untrained personnel. Hospitals frequently lack equipment and trained personnel to manage serious traumatic injury. Emergency medicine does not exist as a specialty in Ghana. The emergency area at Korle-Bu Teaching Hospital is staffed by medical and surgical house officers – patients presenting to the unit are cared for by the house staff of the admitting teams on call for the primary specialties (medicine or surgery). There is a separate accident center operated by the Department of Orthopedics.

Barriers to improving emergency care in Ghana go beyond technical and training issues. Economic and cultural barriers exist as well. Currently, private insurance companies cover only a very few individuals. The government funds 80% of the public health services through general taxation and donor funds. A cash and carry system is present for supplies and medicines resulting in a significant barrier to health care.

Emergency medicine is not a medical student module or elective. The specialty is still not recognized, and hospital emergency areas are not autonomous entities under focused leadership. The development of pre-hospital care services has been fueled by political agenda and leadership. Many positive meetings have been held with College leadership, the Ministry of Health, the president of the West College of Surgeons and the president of the Ghana College of Physicians and Surgeons to explore future developments.

### Ghana Initiatives 2000-2006

After assessment and review, the Division of International Emergency Medicine, Department of Emergency Medicine, Keck School of Medicine, University of Southern California in collaboration with our Ghanaian colleagues designed three specific initiatives:

- 1) Annual Emergency Medicine Symposia: Symposia were held conjointly between the Faculties of the Department of Emergency Medicine, Keck School of Medicine University of Southern California and the College of Health Sciences Accra Ghana that focused on training in the areas of pre-hospital care and the management of traumatic injury and other selected emergencies. The first five years, a large symposium was held with the collaboration of our Ghanaian colleagues at the Korle-Bu Teaching Hospital in Accra. In 2006, a slightly different course was given that worked exclusively with the online providers from the emergency areas and accident center. To date, over 700 healthcare providers have attended one or more of these symposia.
- 2) Scholarship programs: To date, three faculty observational scholarships and one medical student scholarship have allowed three physicians and one medical student from the College of Health Sciences, University of Ghana to travel to the United States to observe the practice and instruction of emergency medicine at the LAC+USC Medical Center in Los Angeles for a one-month period. In 2004, a memorandum of Understanding/Instrument for the exchange of students was signed between the College of Health Sciences, University of Ghana and the Keck School of Medicine, University of Southern California.
- 3) Technology transfer: All medical curricular material including the emergency medicine core curriculum and teaching modules and equipment and lecture presentations on CD were left behind with the College faculty at the conclusion of every symposium. In addition, a free pharmacy was established at Korle-Bu Hospital and hundreds of thousands of dollars of medicines and medical and surgical supplies were donated.

### The Future of Emergency Medicine in Ghana

Evaluations from the symposia and scholarship programs have been outstanding and have had a clear short-term impact. Realistically however, the development of an EMS system and a strong Emergency Medicine/Trauma presence is still years away. There are many barriers to overcome including existing infrastructure, economic concerns and availability of resources. While current collaboration has had immediate benefit, long term goals will require on-going efforts from both institutions.