



Progressing Global Emergency Care: Botswana Perspective



Australasian College for Emergency Medicine

35th Annual Scientific Meeting

22nd November 2018

Dr Kago T. Mokute BMedSc, MBBS (Melbourne),
Mmed (Botswana), FCEM (South Africa)

2018 International ACEM scholarship recipient

Email: kmokute@gmail.com

About Botswana

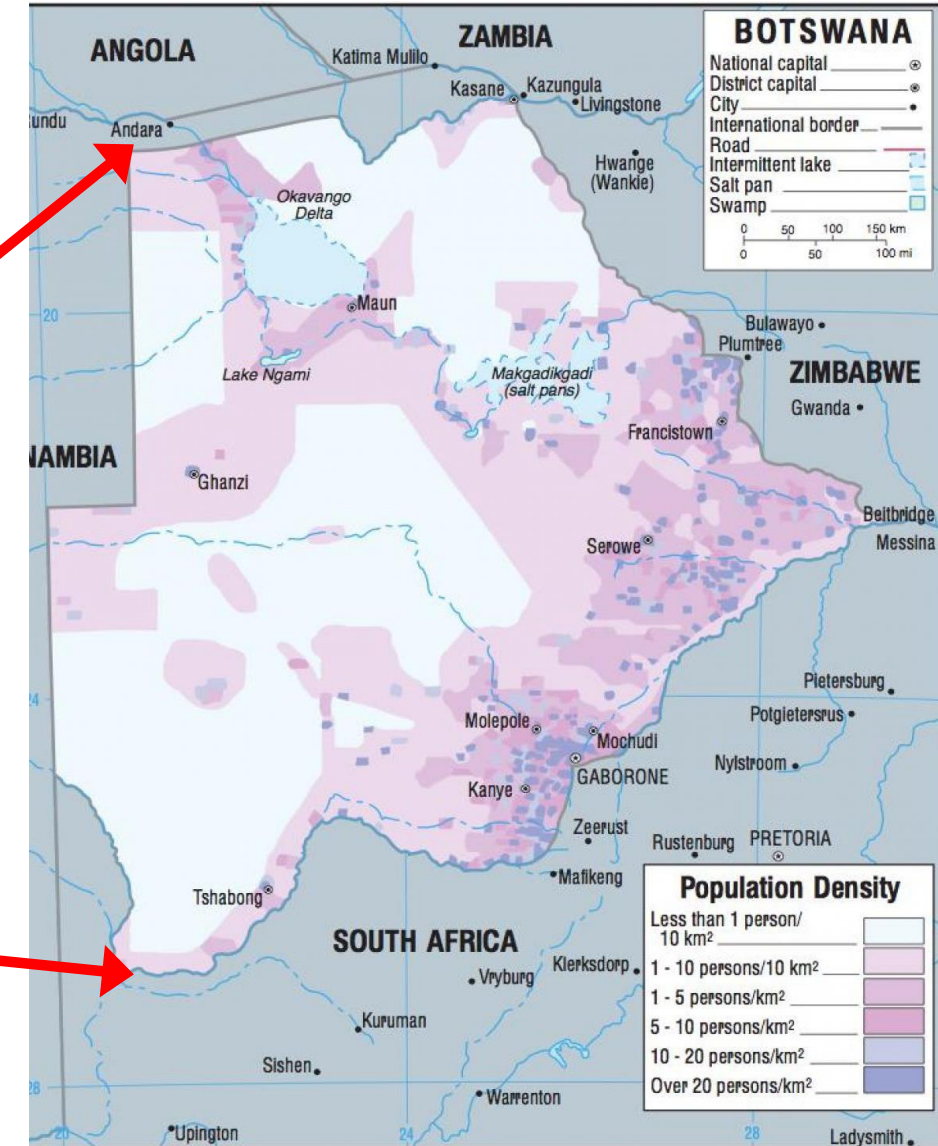


Image sources: <https://geology.com/world/greenland-satellite-image.shtml>;
https://legacy.lib.utexas.edu/maps/africa/botswana-population_density-2005.png

Top 10 causes of death and disability

1. HIV/AIDS
2. Diabetes
3. Tuberculosis
4. Lower respiratory infect
5. Diarrheal diseases
6. Ischemic heart disease
7. Road injuries
8. Skin diseases
9. Cerebrovascular disease
10. Low back & neck pain



Botswana health system

- Botswana has 27 Hospitals
- 2 tertiary referral Hospitals
- **Princess Marina Hospital** is the main referral facility: only site of the EM registrar training.
- **Nyangabwe Referral Hospital** servicing the north has no EM Physicians

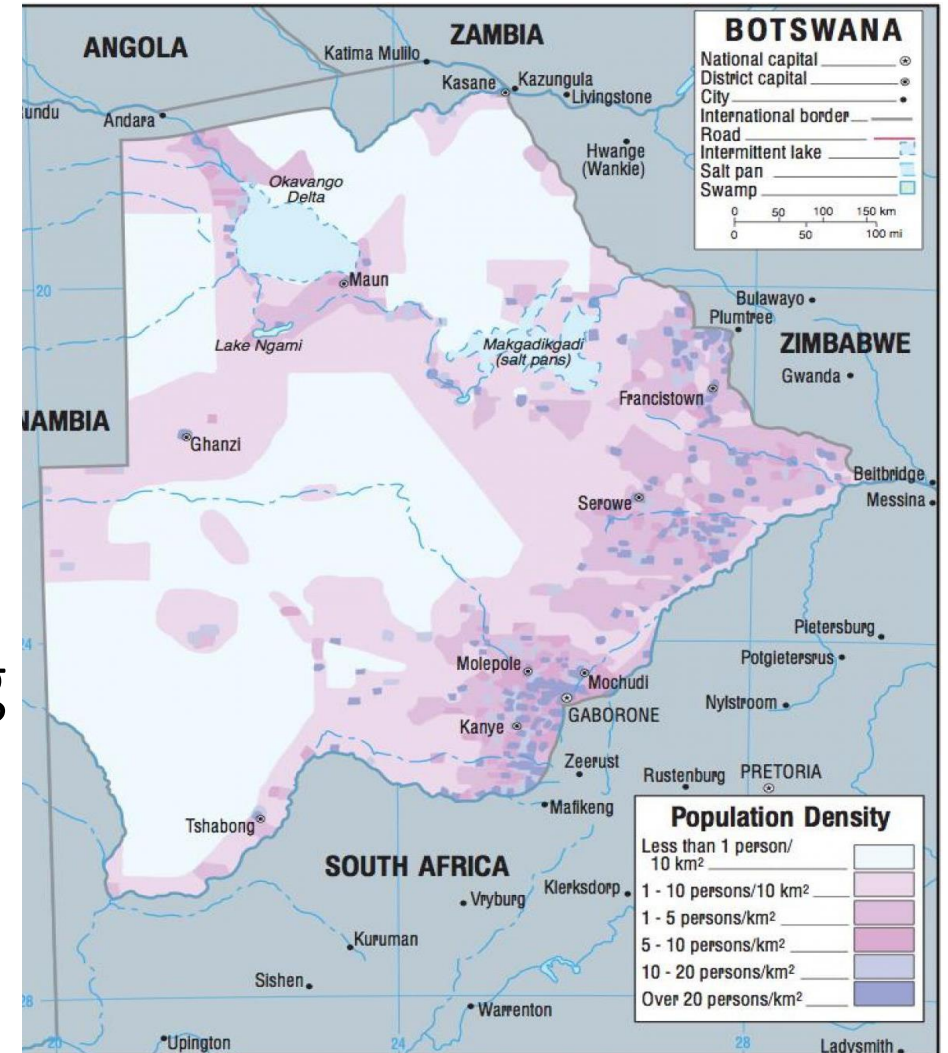


Image source: https://legacy.lib.utexas.edu/maps/africa/botswana-population_density-2005.png

History of Botswana

- Independence in 1966
- 3rd poorest country in the world
- First diamond mine in 1967
- Fastest growing country until 90s
- Until 2009, medical training was done overseas
 - Australia, South Africa, USA, UK, Russia, China, Czech Republic and many others



Image source: <https://www.cvce.eu/content/publication/2015/12/3/b02f1daf-98c3-4d89-ace9-5f2df3205abe/publishable.jpg>

Seretse and Ruth Khama: Botswana's first president and first lady

University of Botswana (UB) opened the first medical school in Botswana in 2009



Undergraduate medical education

- University of Botswana enrolls about 50 students per year.
- Since 2014 about 205 doctors have graduated.
- Contributing a major proportion of doctors in Botswana's healthcare system.



Some of the MBBS graduating class of 2018

Post Graduate Medical training started at UB in 2011

Masters of Medicine Programs started include

- Pediatrics
- Internal Medicine
- Family Medicine
- Public Health
- Pathology
- Emergency Medicine



Some new registrars with faculty from Emergency and Anaesthesia departments

Since 2011

- Transformation of Princess Marina into a teaching hospital.
- Employment of expatriate Emergency Physician lecturers by the University of Botswana.
- First batch of EM registrars Accident and Emergency Department.
- Introduction and validation of a triage system.
- Creation of a Resuscitation room



Original article



Reduced overtriage and undertriage with a new triage system in an urban accident and emergency department in Botswana: a cohort study

Paul C Mullan,¹ Susan B Torrey,² Amit Chandra,³ Ngairu Caruso,³ Andrew Kestler⁴

► Additional material is published online only. To view please visit the journal online (<http://dx.doi.org/10.1136/ememed-2012-201900>).

¹Division of Emergency Medicine, Children's National Medical Center, George Washington University.

ABSTRACT

Background Improvements in triage have demonstrated improved clinical outcomes in resource-limited settings. In 2009, the Accident and Emergency (A&E) Department at the Princess Marina Hospital (PMH) in Botswana identified the need for a more objective triage system and adapted the South African Triage Scale to create the PMH A&E Triage Scale (PATIS).

threatening) or 'III' (non-life-threatening). In August 2009, the concept of improving the triage system was introduced and met with enthusiasm from the A&E staff.

The project implementation team chose the South African Triage Scale (SATS)^{5, 6} as the model for developing a new triage system because they considered that South Africa had relatively similar

University provided advanced medical equipment including ultrasound and simulation



University of Botswana resuscitation training project teaching BLS, ACLS, PALS since 2011



EMS overhauled in 2013

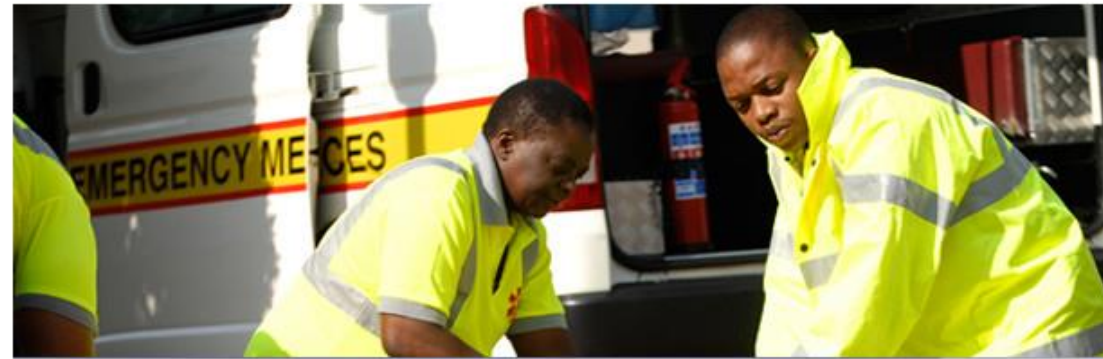


Image Source: http://www.moh.gov.bw/emergency_services.html



Image Source: <http://www.mmegi.bw/index.php?aid=55716&dir=2015/november/14>

Advances in patient care

Presentations	2011 before EMS/EM at UB	2015
Total	24 905	28 304 (13.6% increase)
Admissions	10 429 (42.7% of total)	10 017 (35.7% of total)
Discharges	11 887	18 036
Brought in dead (BID)	416	130
Died in A&E	55 (0.2%)	121 (0.4%)
Paediatric (less than 14yrs)	4320 (17.4%)	? Est 16%

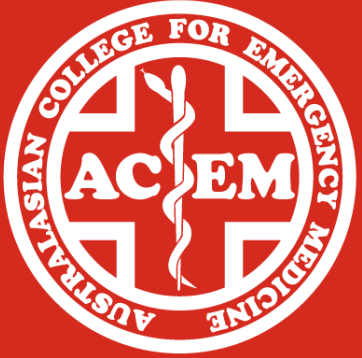
From unpublished departmental records

Advancement through collaboration

- Employment of expatriate EM physician lecturers by the university
- Underlines the importance of having a long-term local representative
- Coordination of collaboration with external bodies.
- Need for continuity



Some pioneers of Emergency Medicine training in Botswana



ACEM
Foundation

Australasian College for Emergency Medicine

34 Jeffcott St

West Melbourne VIC 3003

Australia

t +61 3 9320 0444

admin@acem.org.au

acem.org.au

**Acknowledgements: Dr Megan Cox &
Ms Nichol Dichabeng (UB RTP coordinator)**

Email: kmokute@gmail.com