

Ensuring the Right to Heal for all

FAU Grand Rounds

Jaymie Henry, MD, MPH
PGY-2 General Surgery
Florida Atlantic University

Disclosure

- Nothing to disclose

- Introduction
- The Right to Heal film
- Global burden of disease
- From MDGs to SDGs: the road to 2030
- Current state of global surgical care: initiatives
- The promise of procedure-based primary care: primary care 2.0
- The future of Global Surgery

THE RIGHT TO HEAL

Global burden of disease

486  
Scientists, including many from HSPH

302  
Institutions

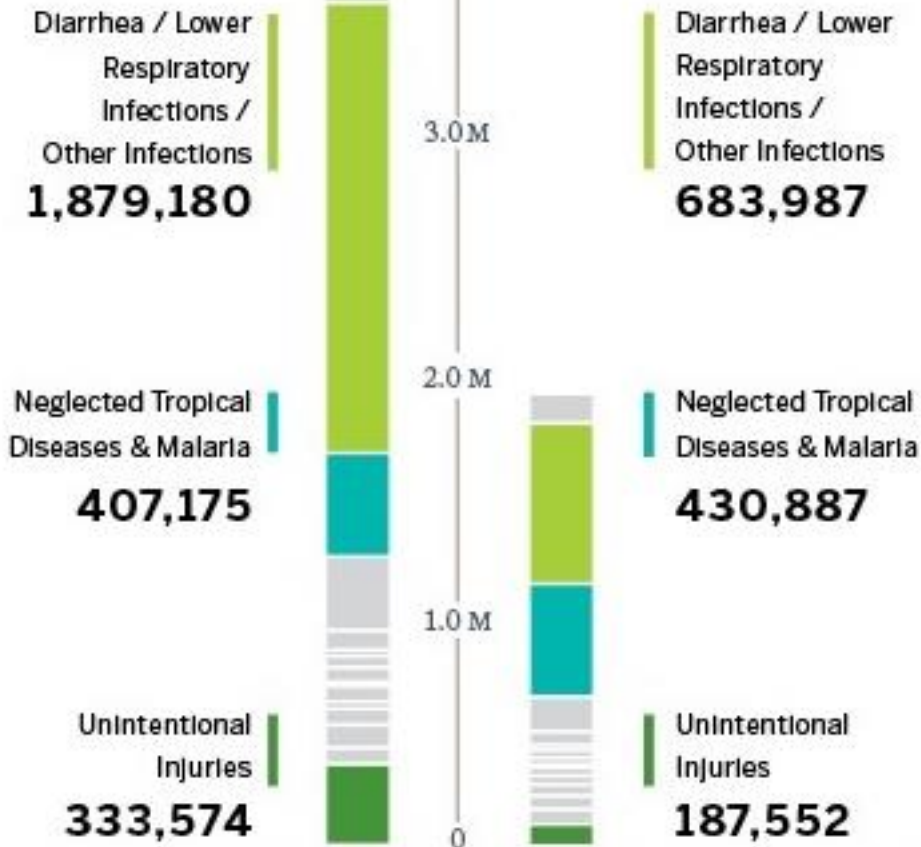
50 
Countries

THE GOOD NEWS ABOUT GLOBAL HEALTH



MORTALITY OF CHILDREN
age 1-4 has **declined significantly**.

— 1990 — 4.0 M — 2010 —



...AND ITS UNEXPECTED CONSEQUENCES.



GLOBALLY, PEOPLE ARE LIVING LONGER.
Life expectancy has increased in 19 of 21 regions around the world. But people are spending their later years in poor health, particularly as a result of chronic diseases.

In 2010:



8 MILLION
people died of cancer.



1.3 MILLION
people died of diabetes.

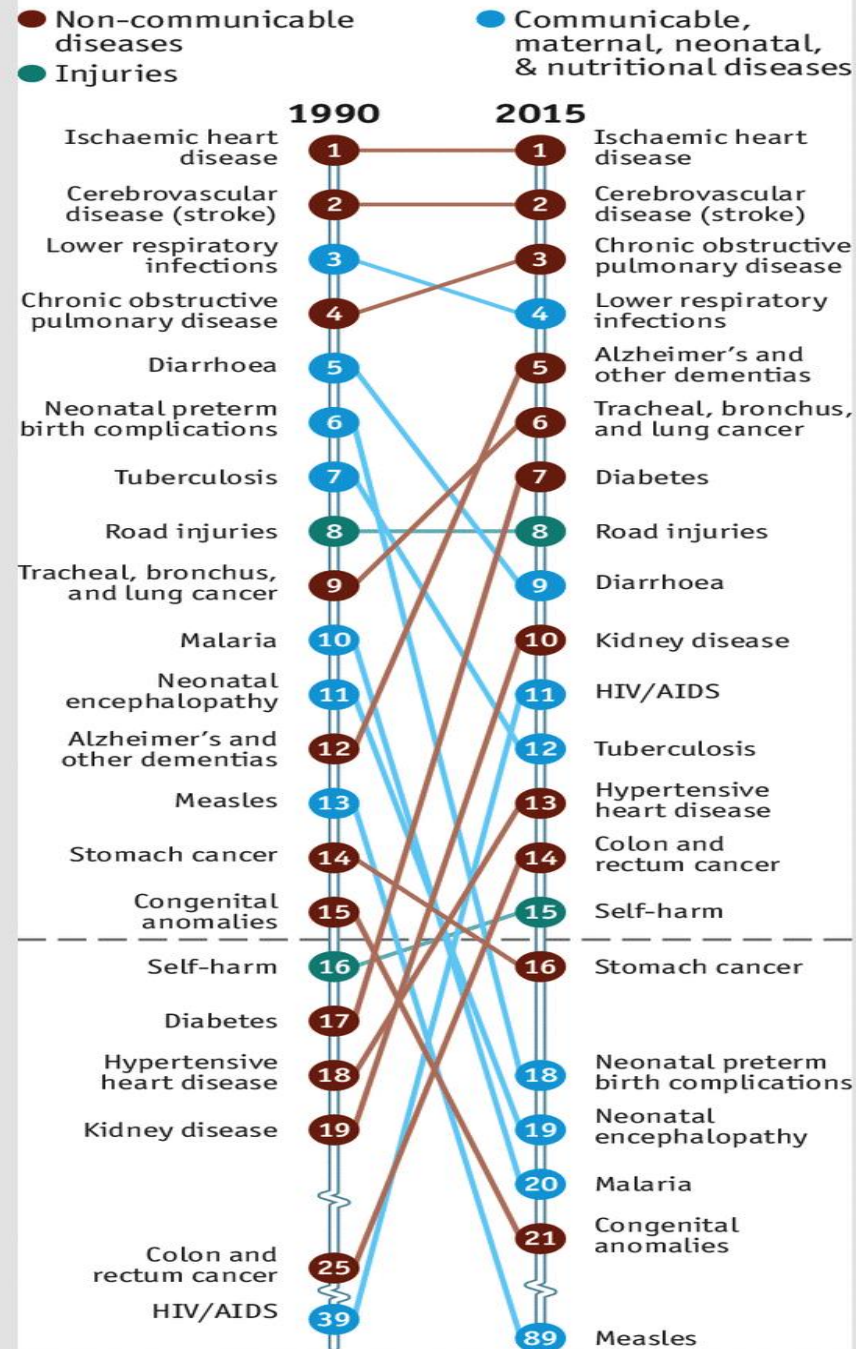


POOR DIET
is the leading risk factor for death and burden of disease across the planet, followed by blood pressure, tobacco, and household air pollution.



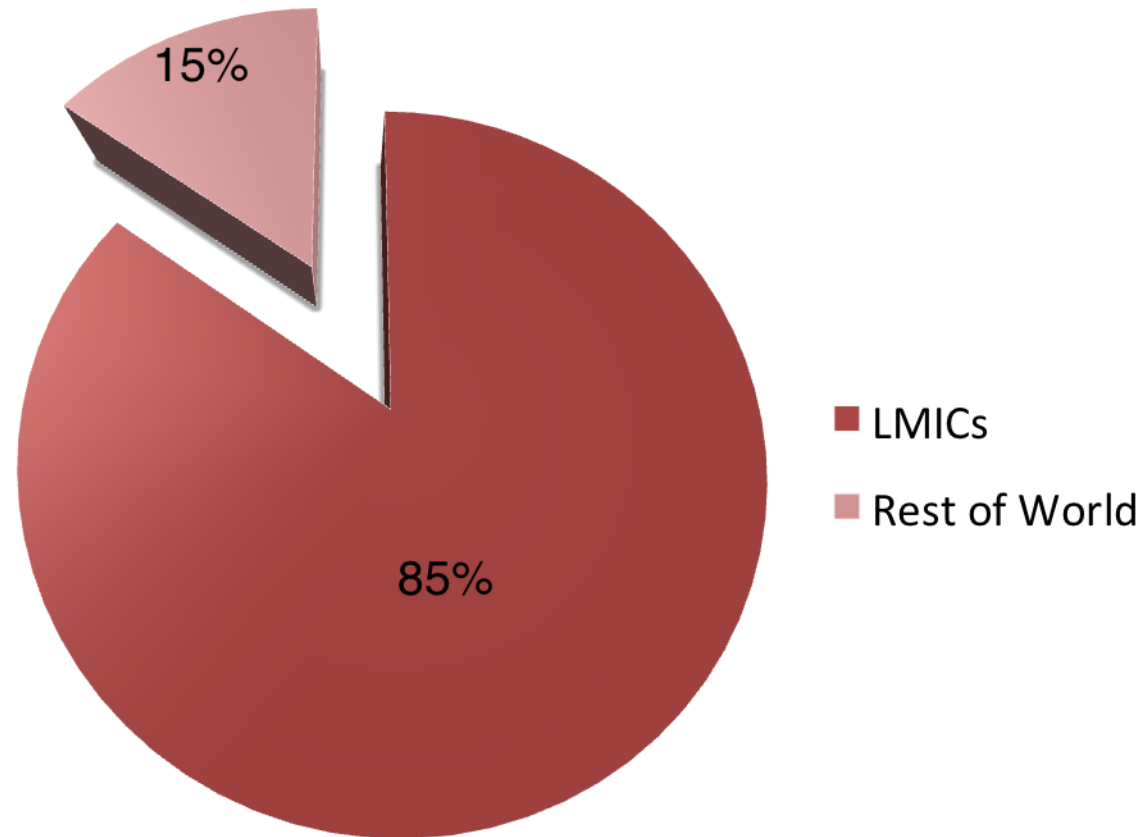
DEATHS FROM ROAD INJURIES
have increased by almost half.

Leading causes of death



Source: IHME, University of Washington

Road Traffic Injury Deaths: 1.2M per year



Source: WHO Violence and Injury Department

Surgical care in developing countries



ICRC

International Committee of the Red Cross
February 17, 1863, Geneva, Switzerland



American Red Cross

American Red Cross
May 21, 1881, Washington, D.C.



ICRC

International Red Cross and Red Cres...
1863, Geneva, Switzerland



International Federation of Red Cross an...
1919



Doctors Without Borders
December 20, 1971, Paris, France



Amnesty International
July 1961, London, United Kingdom



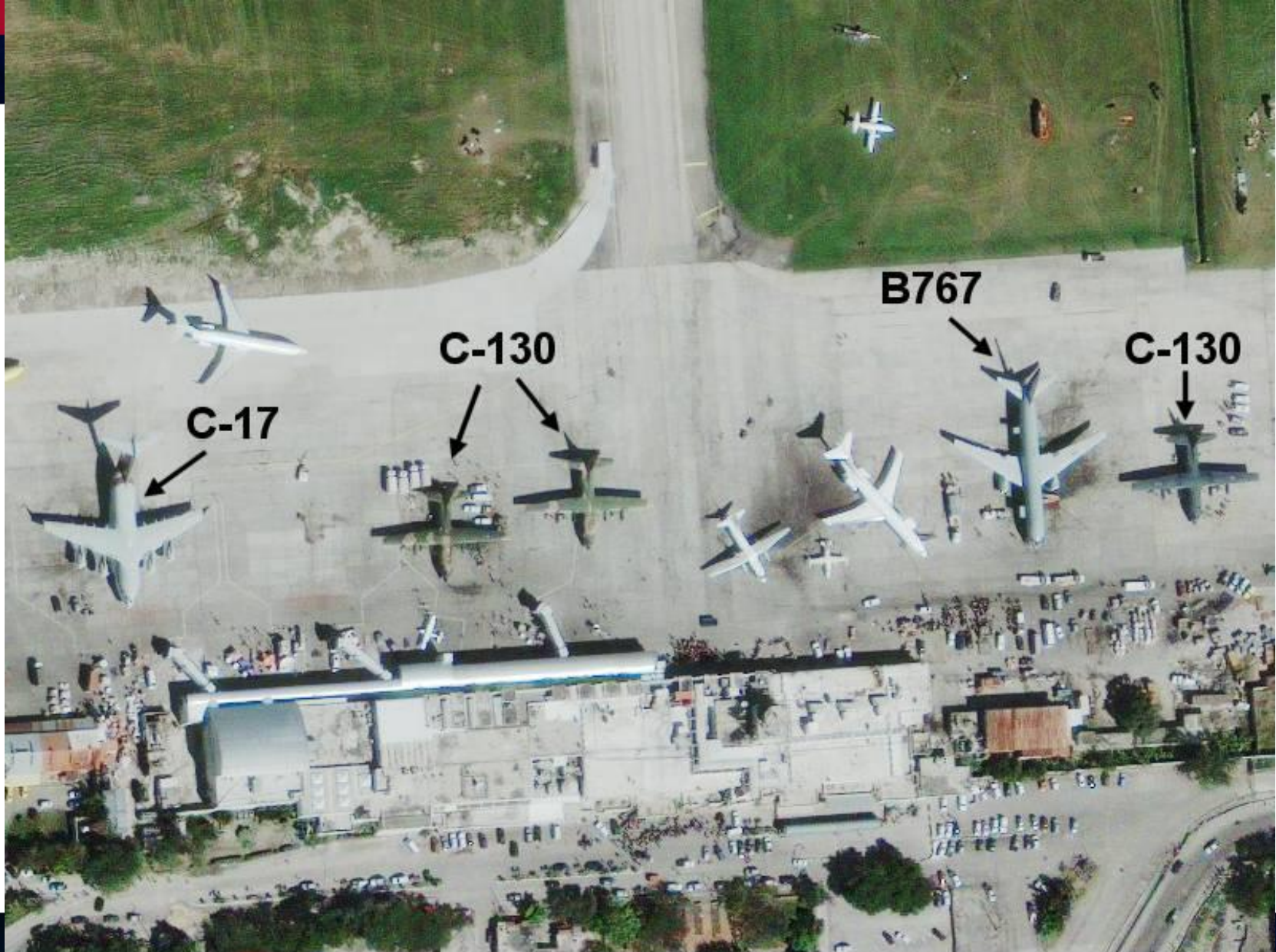
for every child

UNICEF
December 11, 1946, New York City, NY





Death toll: 230,000



C-17

C-130

B767

C-130



Human cost of disasters

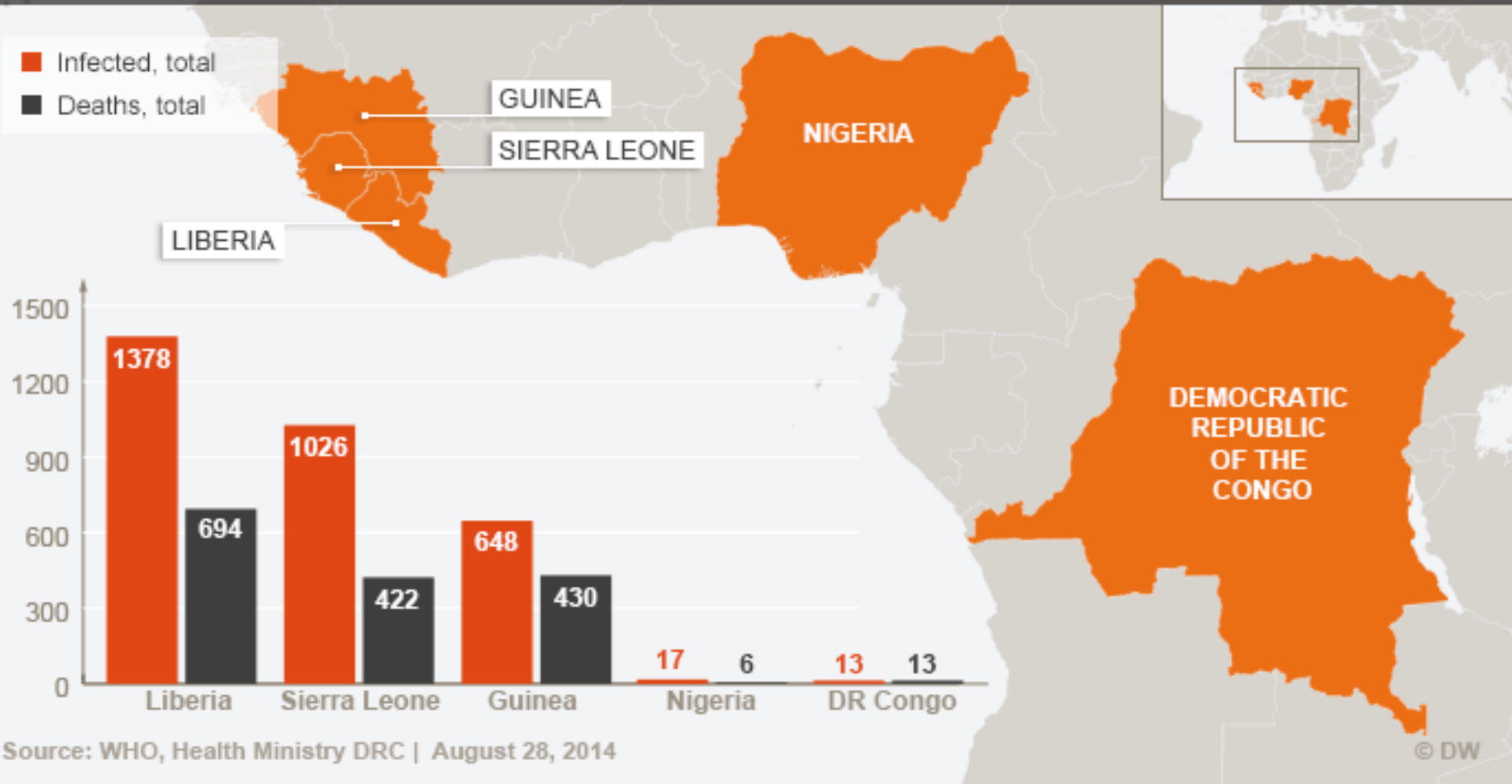
- 1994-2013
 - 6,873 natural disasters worldwide
 - claimed 1.35 million lives or 68,000 lives on average/year
 - 218 million people were affected by natural disasters on average per annum

<http://reliefweb.int/report/world/human-cost-natural-disasters-2015-global-perspective>

When does it affect us?

- When infectious diseases start destabilizing national safety and crosses national borders

Ebola outbreak in West and Central Africa





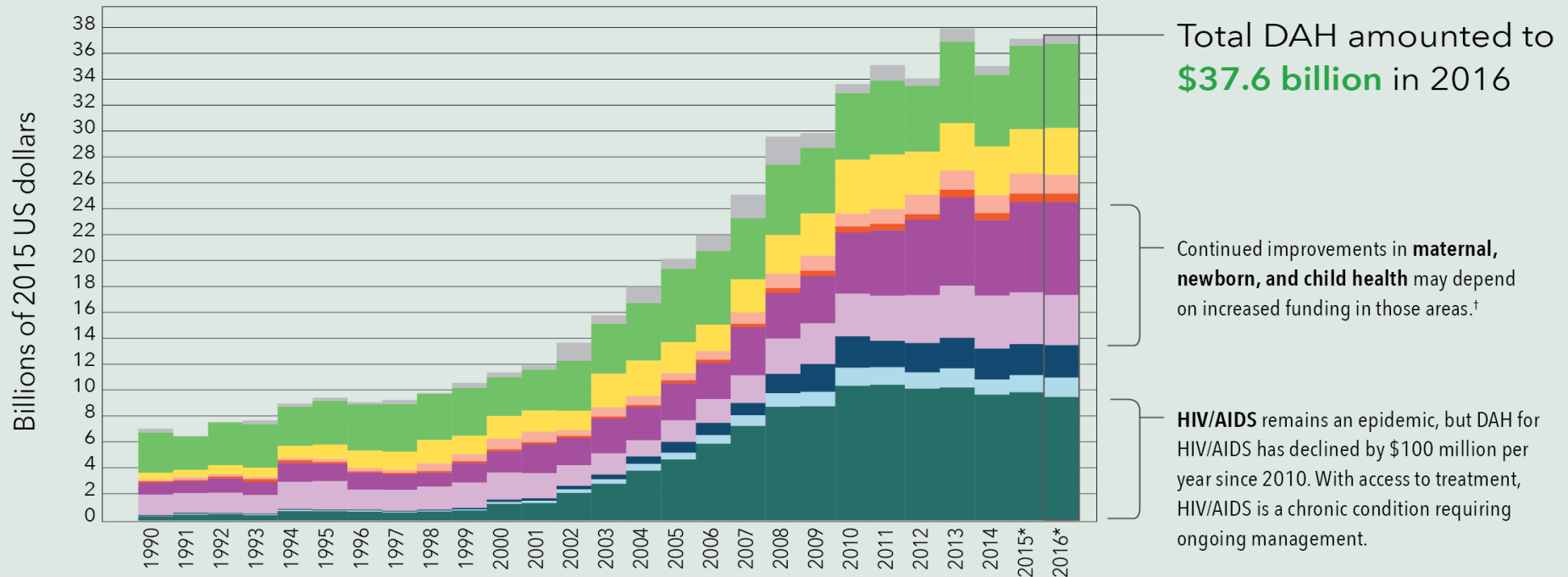
What does it tell us when it does?

- We weren't prepared
- Our global health systems are not robust
- We've failed
- We're wasting energy repicking the same picked fruit when we're done
 - Billions poured into that one last polio case
 - It runs contrary to the reason we pursue vaccines to begin with

Development assistance for health (DAH)

Growth is stagnant, but the needs haven't gone away

DAH by health focus area, 1990-2016



- Unidentified
- Other
- Health system strengthening/ Sector-wide approaches
- Other infectious diseases
- Non-communicable diseases
- Newborn and child health
- Maternal health
- Malaria
- Tuberculosis
- HIV/AIDS

*2015 and 2016 are preliminary estimates.

[†]The majority of countries did not reach their goals for MDGs 4 and 5 (reducing child and maternal mortality).

Note: Health assistance for which we have no health focus area information is designated as "unidentified." "Other" captures DAH for which we have project-level information but which is not identified as funding any of the health focus areas tracked.

From MDGs to SDGs: the road to 2030

- How did we get here?



1

**ERADICATE
EXTREME POVERTY
AND HUNGER**



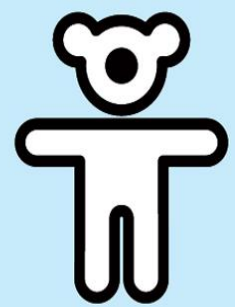
2

**ACHIEVE UNIVERSAL
PRIMARY EDUCATION**



3

**PROMOTE GENDER
EQUALITY AND
EMPOWER WOMEN**



4

**REDUCE
CHILD MORTALITY**



5

**IMPROVE MATERNAL
HEALTH**



6

**COMBAT HIV/AIDS,
MALARIA AND OTHER
DISEASES**



7

**ENSURE
ENVIRONMENTAL
SUSTAINABILITY**



8

**A GLOBAL
PARTNERSHIP FOR
DEVELOPMENT**

HEALTH IN THE SDG ERA



Health MDGs



A: Reduce the under-five mortality rate by two-thirds



A: Reduce the maternal mortality ratio by three-quarters
B: Achieve universal access to reproductive health



A: Halt and reverse the spread of HIV/AIDS
B: Achieve universal access to treatment for HIV/AIDS
C: Halt and reverse the incidence of malaria and other major diseases

Direct Health SDG



- A:** Reduce the global maternal mortality ratio
- B:** End preventable deaths of newborns and children under 5 years of age
- C:** End current epidemics and combat communicable diseases
- D:** Reduce premature mortality from non-communicable diseases
- E:** Strengthen the prevention and treatment of substance abuse
- F:** Halve the number of global deaths and injuries from road traffic accidents
- G:** Ensure universal access to sexual and reproductive health-care services
- H:** Achieve universal health coverage
- I:** Reduce deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination

Surgery exists within a system



WHO health system building blocks

Surgery is the perfect forcing function for health systems strengthening

This declaration is supported by



Praveen Aggarwal
Academic College



Kelly McQueen
Alliance for Surgery



Michael Klein
American Pediatric Society

American Society of Anesthesiologists

John Abenstein
American Society of Anesthesiologists



Mamta Swaroop
Association for Anesthesiologists



Linda Groah
Association of Anesthesiologists



John Moorehead
Association of Anesthesiologists



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Gradian Health Systems



Michael Cotton
International Collaboration for Essential Surgery



Peter Reemst
International Federation for Rural Surgery



Robert Lane
International Federation of Surgical Colleges



Jelle Stekelenburg
International Safe Motherhood and Reproductive Health



Harshad Sanghvi
Jhpiego Corporation



Henri Winters
Netherlands Society for Plastic Surgery



Elisabeth Ogboli-Nwasor
Nigerian Society of Anaesthetists



Susan Koshy
Pan-African Academy of Christian Surgeons



Sara Anderson
ReSurge International



Dedan Magee
Royal College of Surgeons in Ireland



Rosemaru Mukunzi
Rwanda Society of Anaesthesiologists



Emile Rwamasirabo
Rwanda Surgical Society



Roger Eltringham
Safe Anaesthesia Worldwide



Netherlands Society for Plastic Surgery



Nigerian Society of Anaesthetists



Operation Smile



Pan-African Academy of Christian Surgeons



ReSurge International



Royal College of Surgeons in Ireland



Rwanda Society of Anaesthesiologists



Rwanda Surgical Society



Safe Anaesthesia Worldwide



Shivani Garg Patel
Samahope



Erin Stieber
SmileTrain



South African Society of Anaesthesiologists



Surgical Society of Ethiopia



Symposium Surgery in Low Resource Settings



The Right to Heal



UroLink, British Association of Urological Surgeons



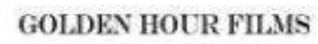
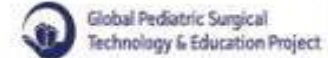
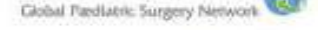
Voluntary Service Overseas



World Federation of Societies of Anaesthesiologists



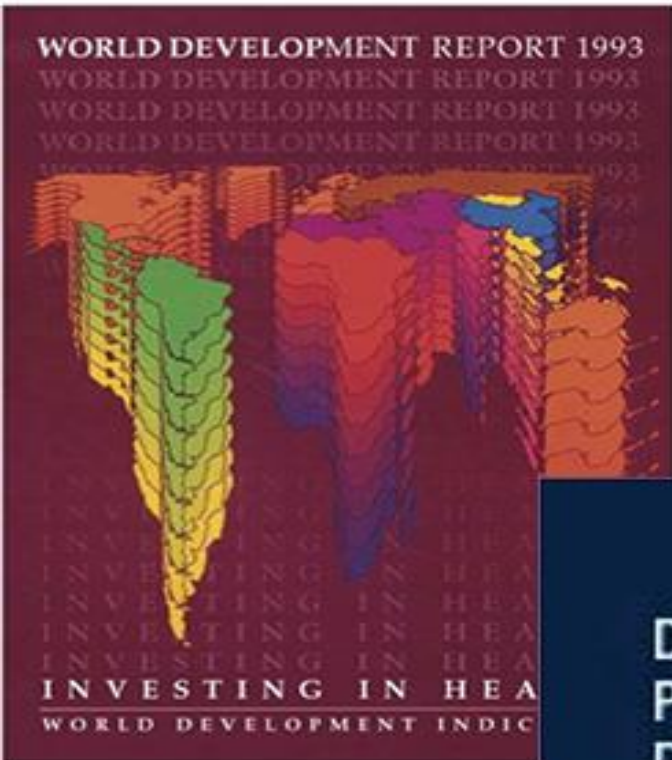
World Orthopedic Concern





GLOBAL SURGERY 2030

EVIDENCE AND SOLUTIONS FOR ACHIEVING HEALTH, WELFARE, AND ECONOMIC DEVELOPMENT



136th session

EB136.R7

Agenda item 10.1

29 January 2015

Strengthening emergency and essential surgical care and anaesthesia as a component of universal health coverage



Surgical and Anesthesia Capacity of Government Hospitals in Malawi: Key Insights

Jaymie Ang Henry, MD, MPH (US)

Erica Frenkel, MPA (US)

Eric Borgstein, MD (Malawi)

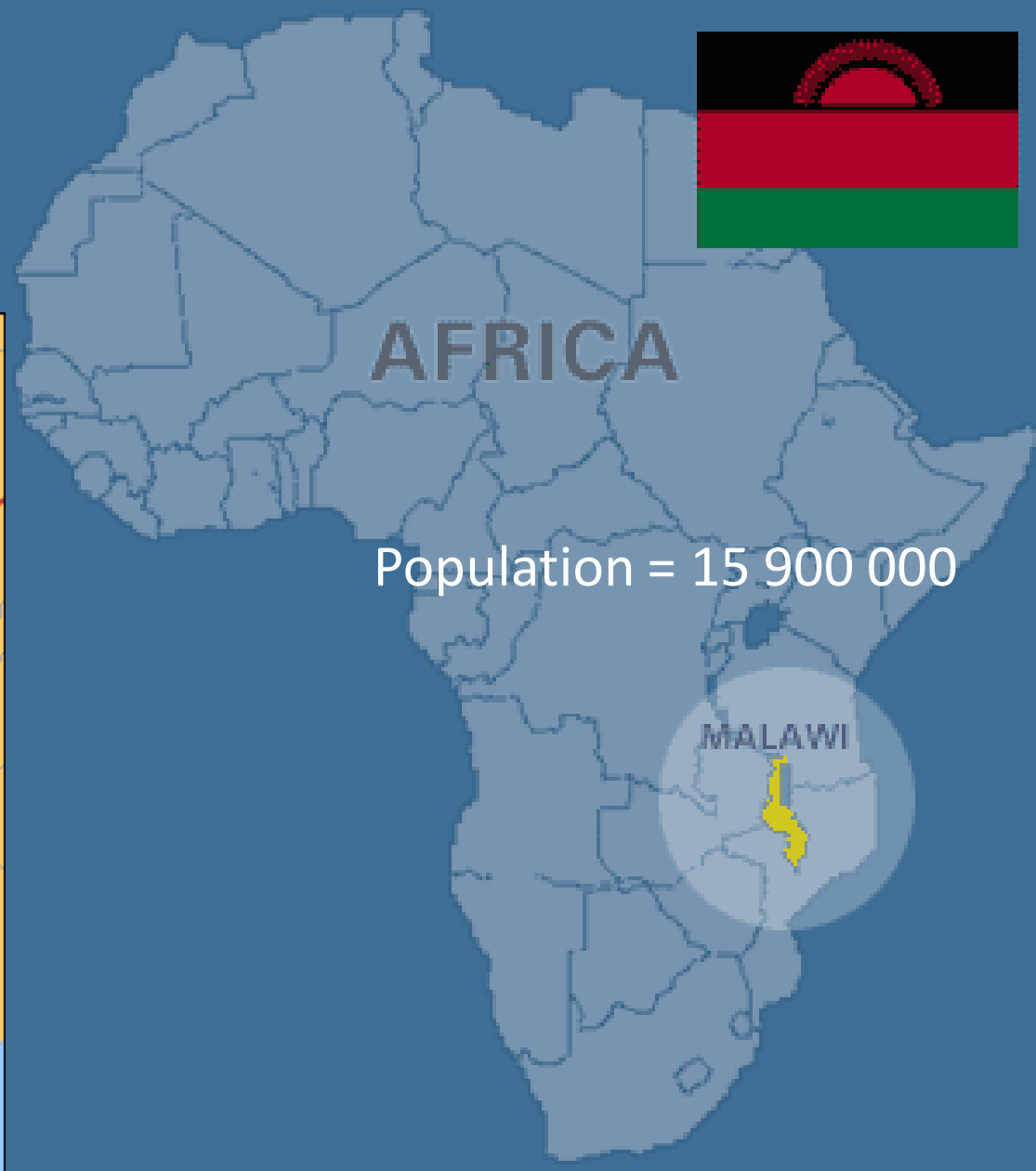
Nyengo Mkandawire, MD (Malawi)

Cyril Goddia, ACO (Malawi)





MALAWI



Population = 15 900 000

Health indices



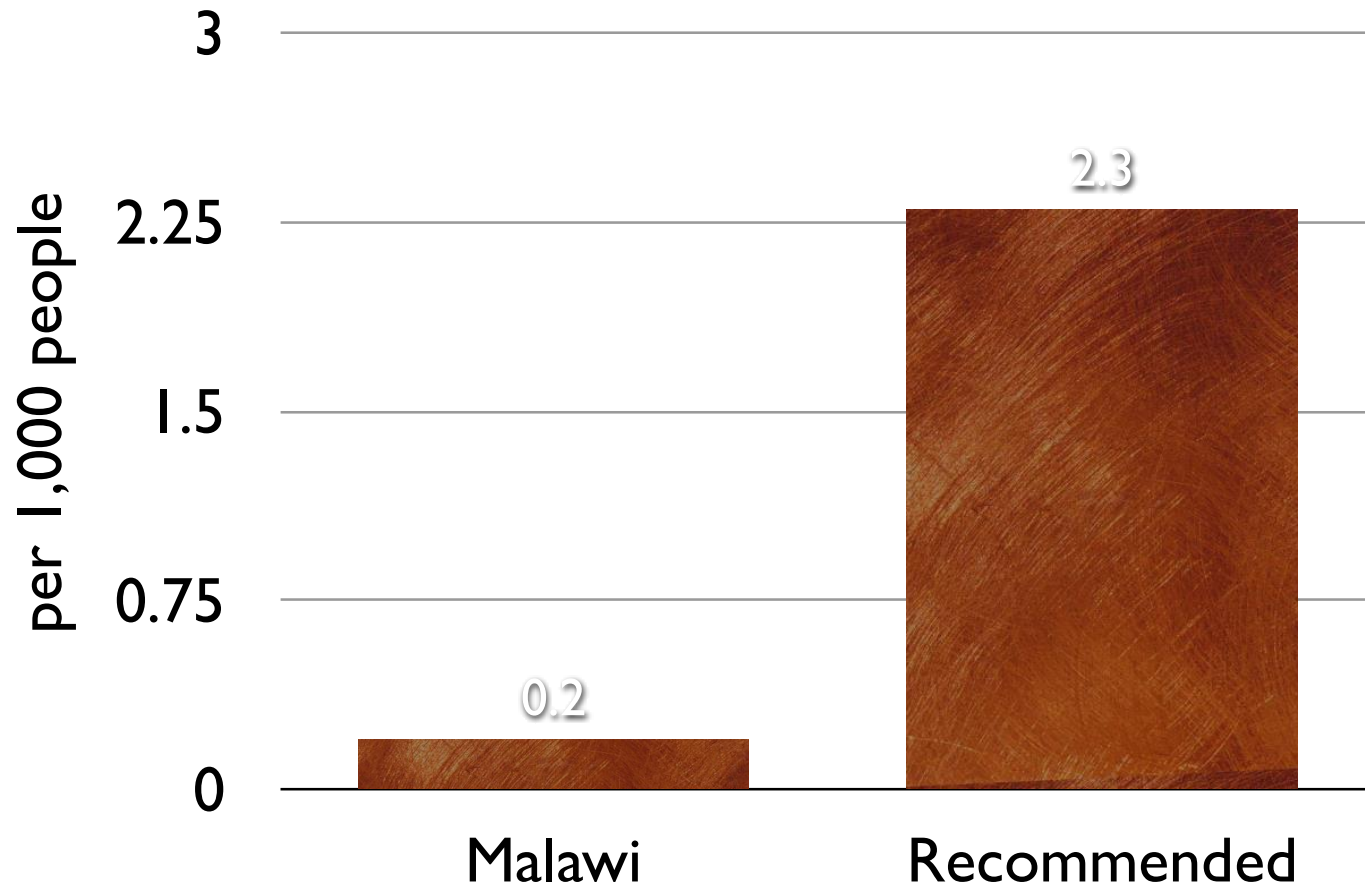


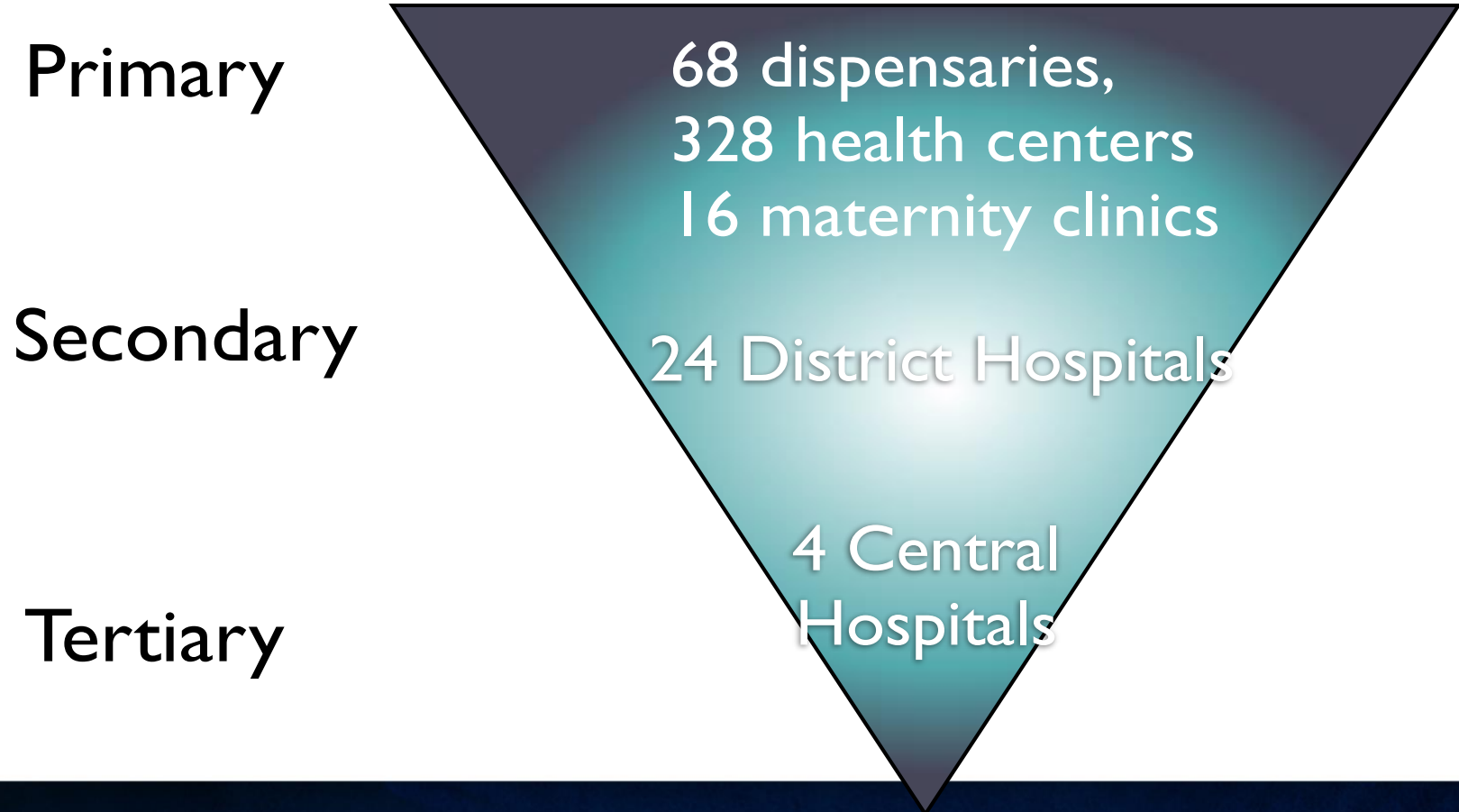
Infant mortality

Maternal mortality



Physician Density





Surgical Training in Malawi



Non-physician clinicians



Health Policy and Planning

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All Health Poli



Surgical and anaesthetic capacity of hospitals in Malawi: key insights

Jaymie Ang Henry , Erica Frenkel, Eric Borgstein, Nyengo Mkandawire, Cyril Goddia

Health Policy Plan (2015) 30 (8): 985-994. DOI: <https://doi.org/10.1093/heapol/czu102>

Published: 26 September 2014 **Article history** ▾

Objectives of the study

- Describe the current health system
- Survey the elements of the system
- Gain insight on the health system
- Suggest points for improvement

Methods

- Site visits
- Surgical caseload
- Surgical workforce rates
- Data analysis

Survey

PIPES Surgical Assessment		
COUNTRY:		
Interviewer: Name/contact info		
Health Care Facility: Name/address		
Phone interview or site visit:		
Respondent: Name/contact info:		
Type of Healthcare Facility: (Health Center, District, Tertiary, Univ, Private, NGO, Mission)		
	Total number	
Hospital beds		
Number functioning operating rooms		
PERSONNEL (4)	Total number	
General surgeon		
Anesthesiologists (MD)		
Medical doctors (doing surgery)		
Nurse anesthetists		
INFRASTRUCTURE (13)	Always available	Not always available
Running water?		
External electricity?		
Functioning back-up generator?		
Incinerator?		
Medical records?		
Emergency department?		
Postoperative care area?		

November 2012 to January 2013

Personnel

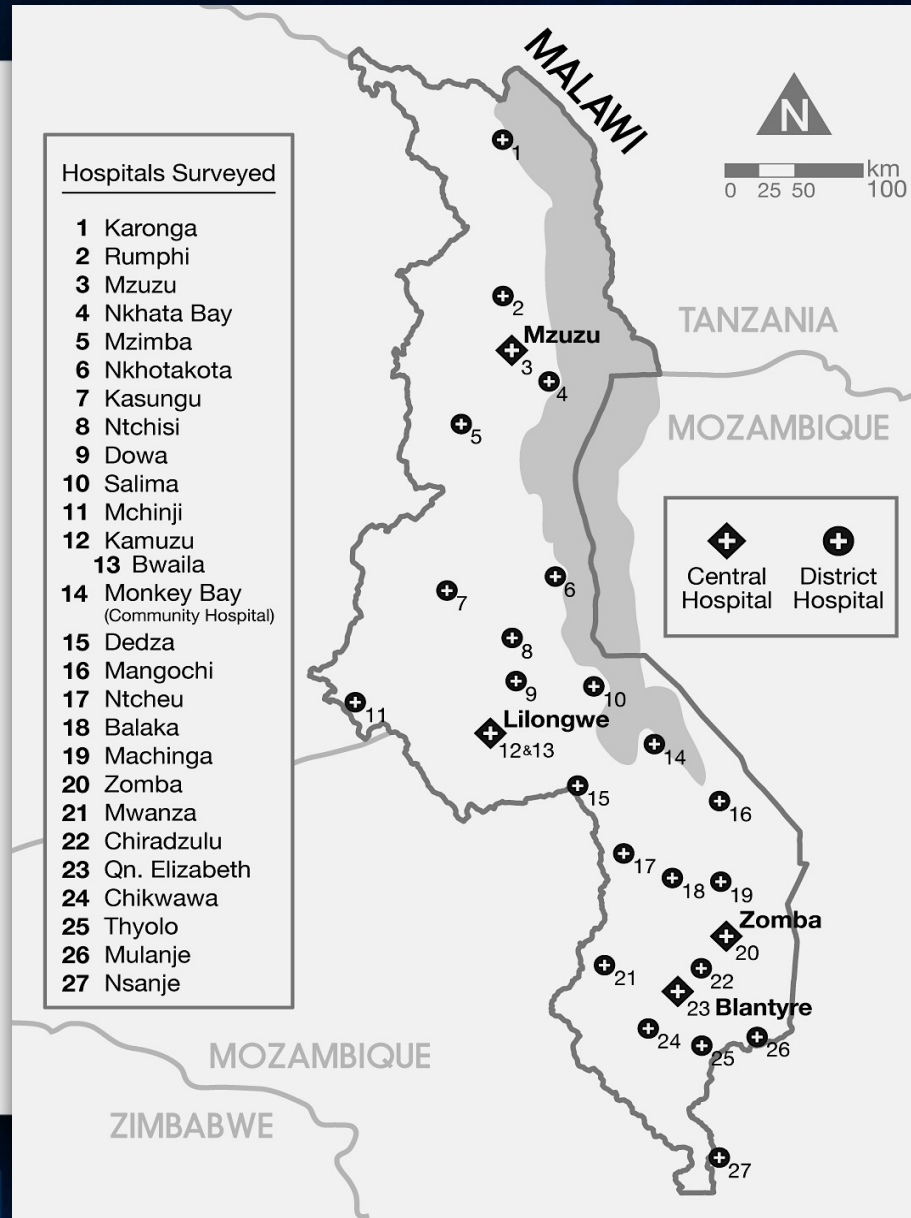
Infrastructure

Procedures

Equipment

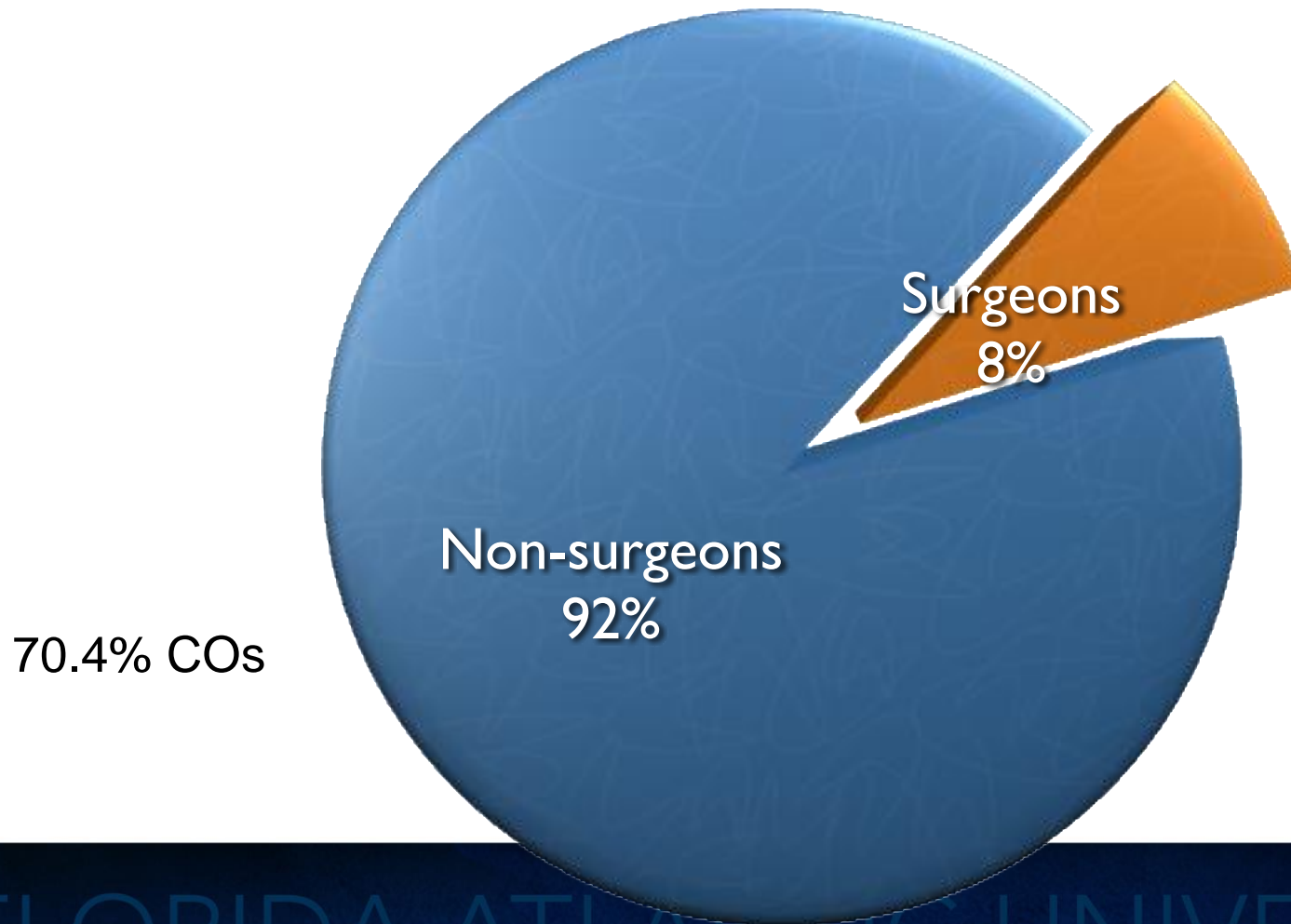
Supplies

Results

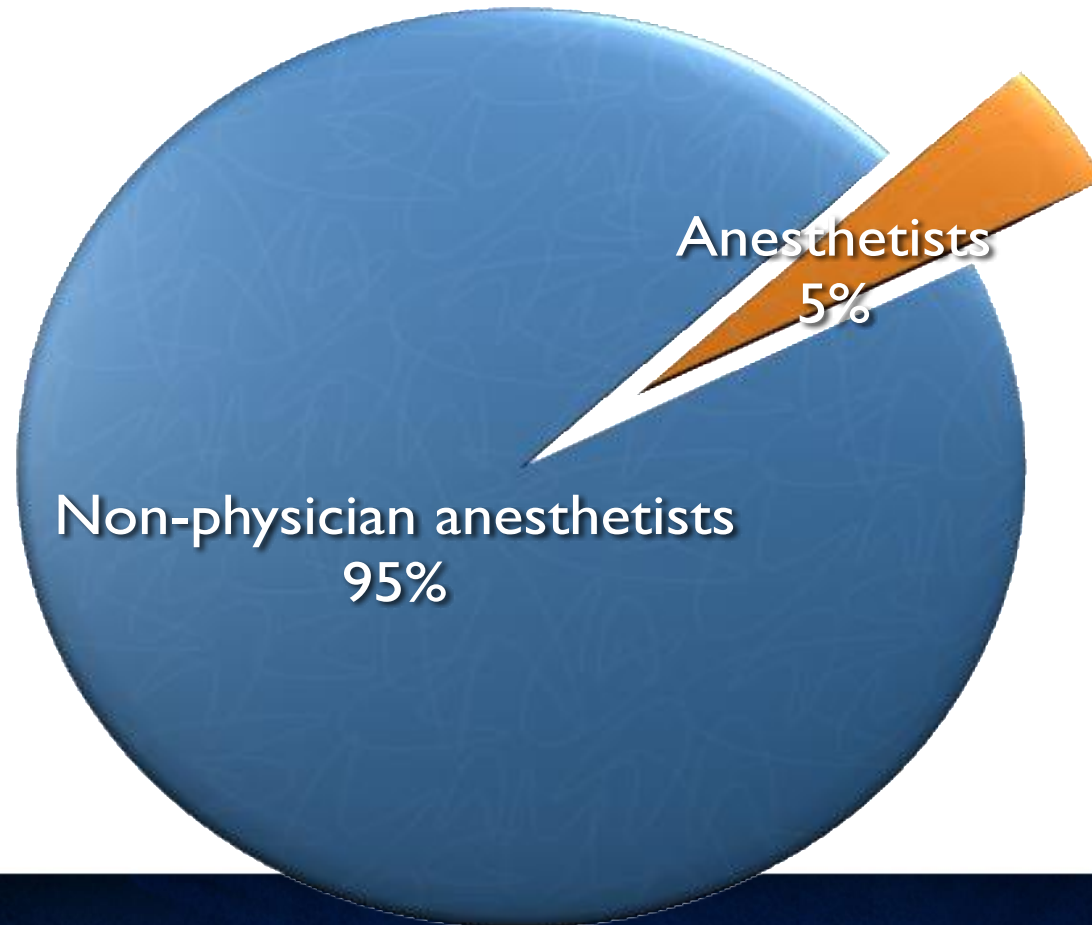


Study Coverage:
91.7% District
100% Central

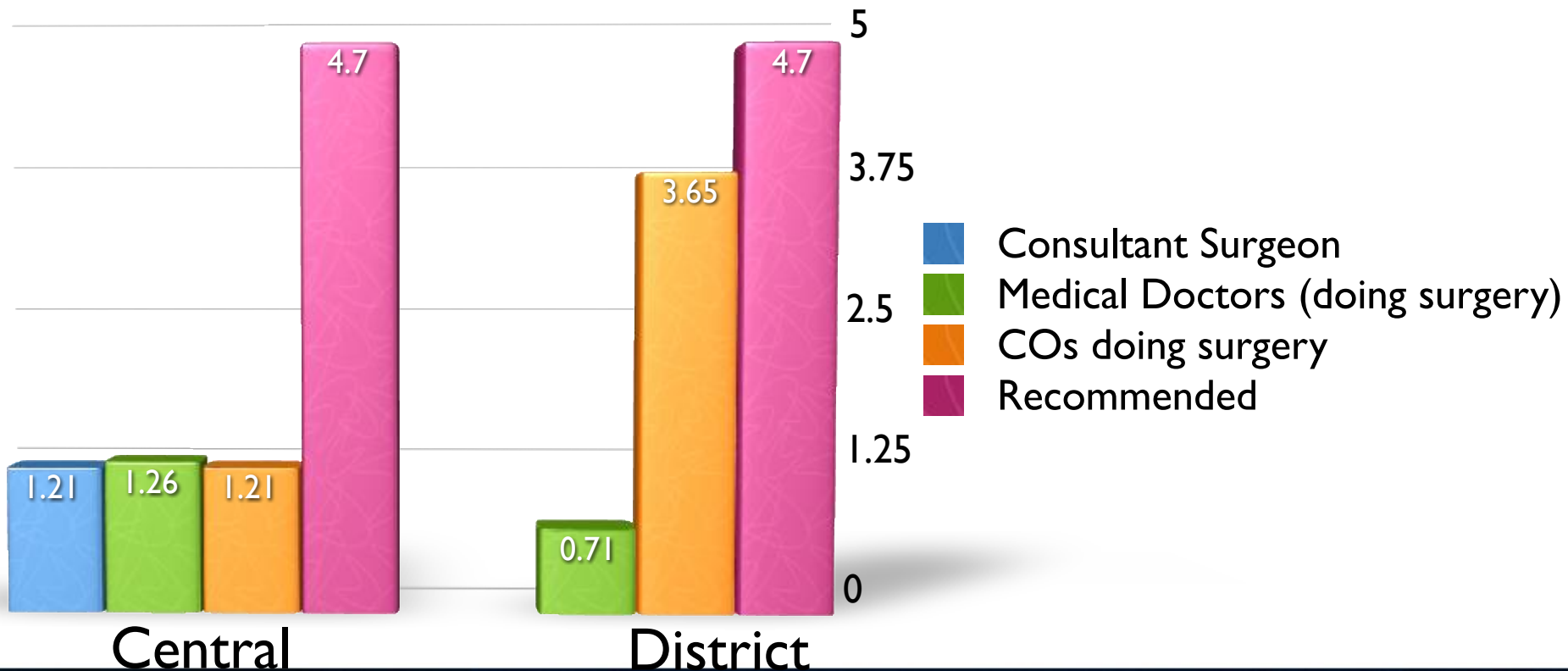
Surgical providers



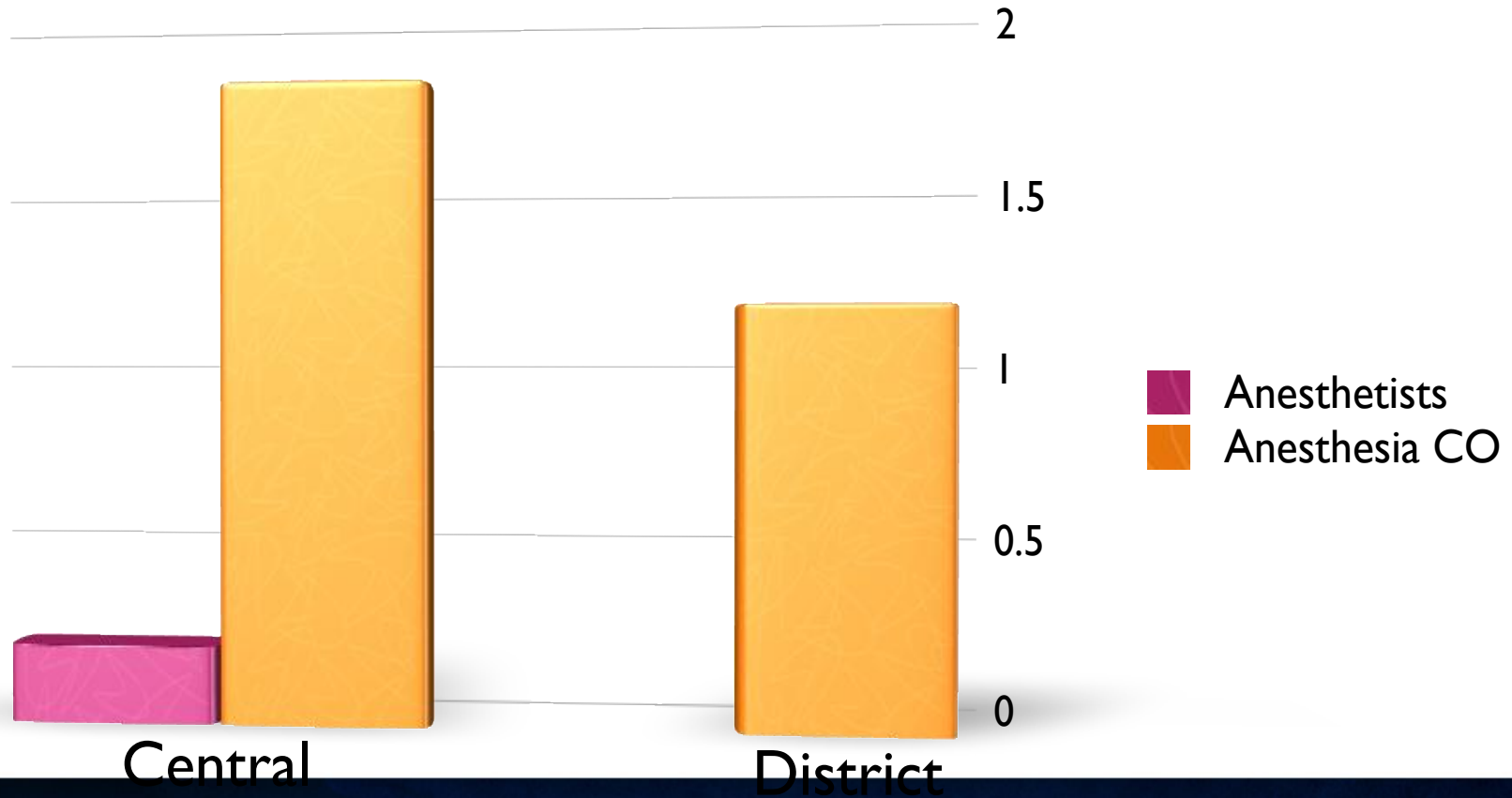
Anesthesia providers



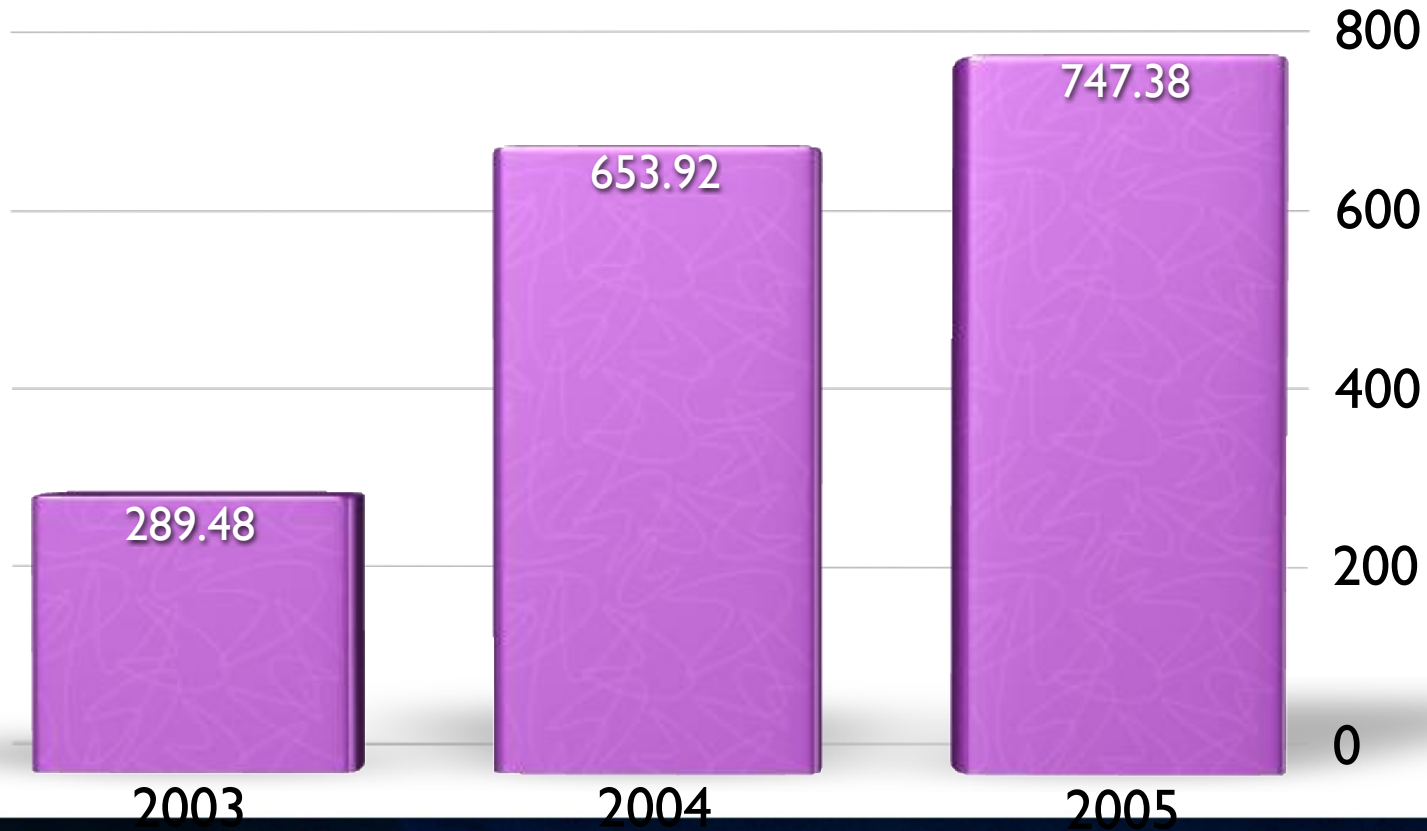
Surgical workforce density (per 100,000 people)



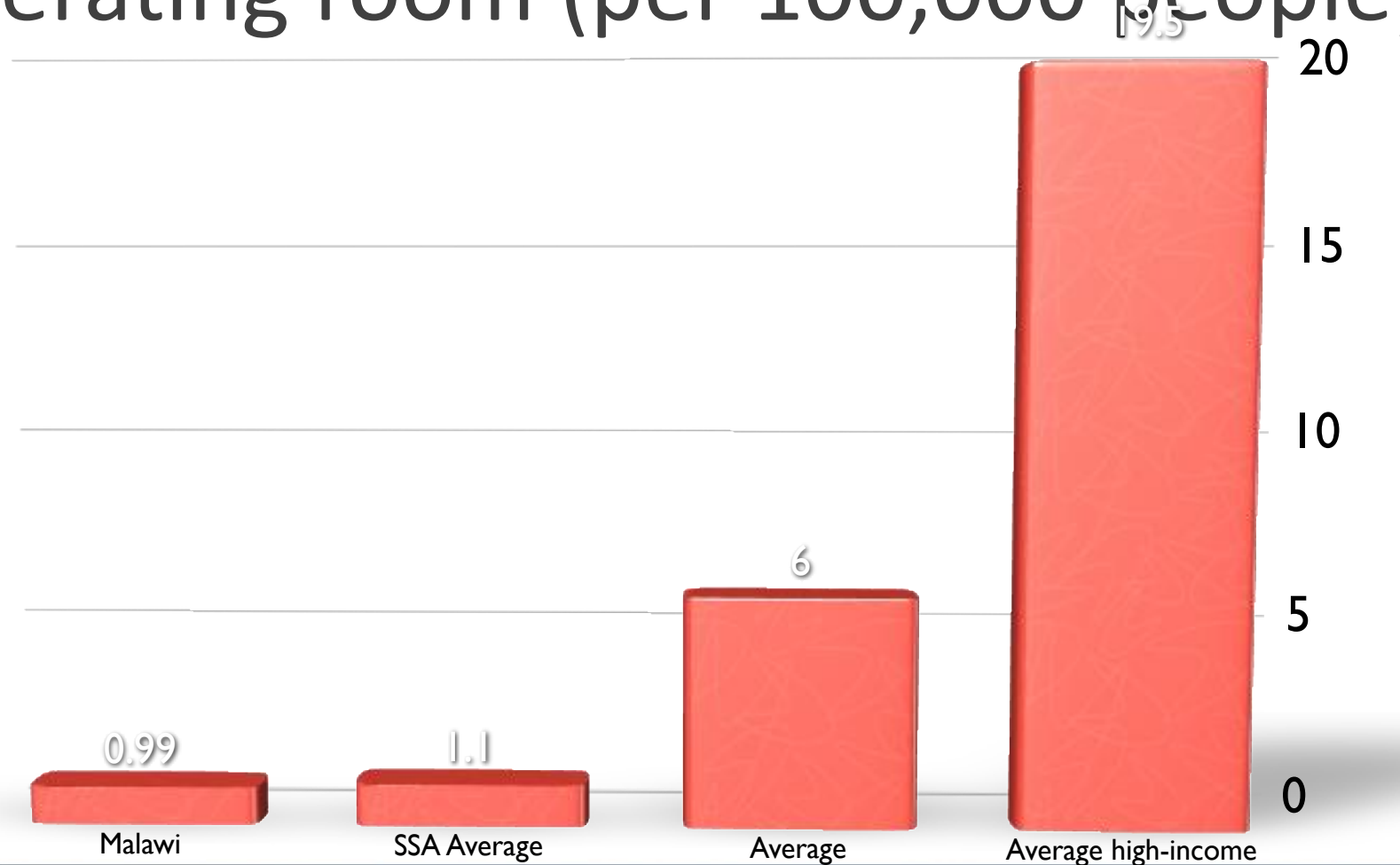
Anesthesia workforce density (per 100,000 people)



Surgical caseload (per 100,000 people)



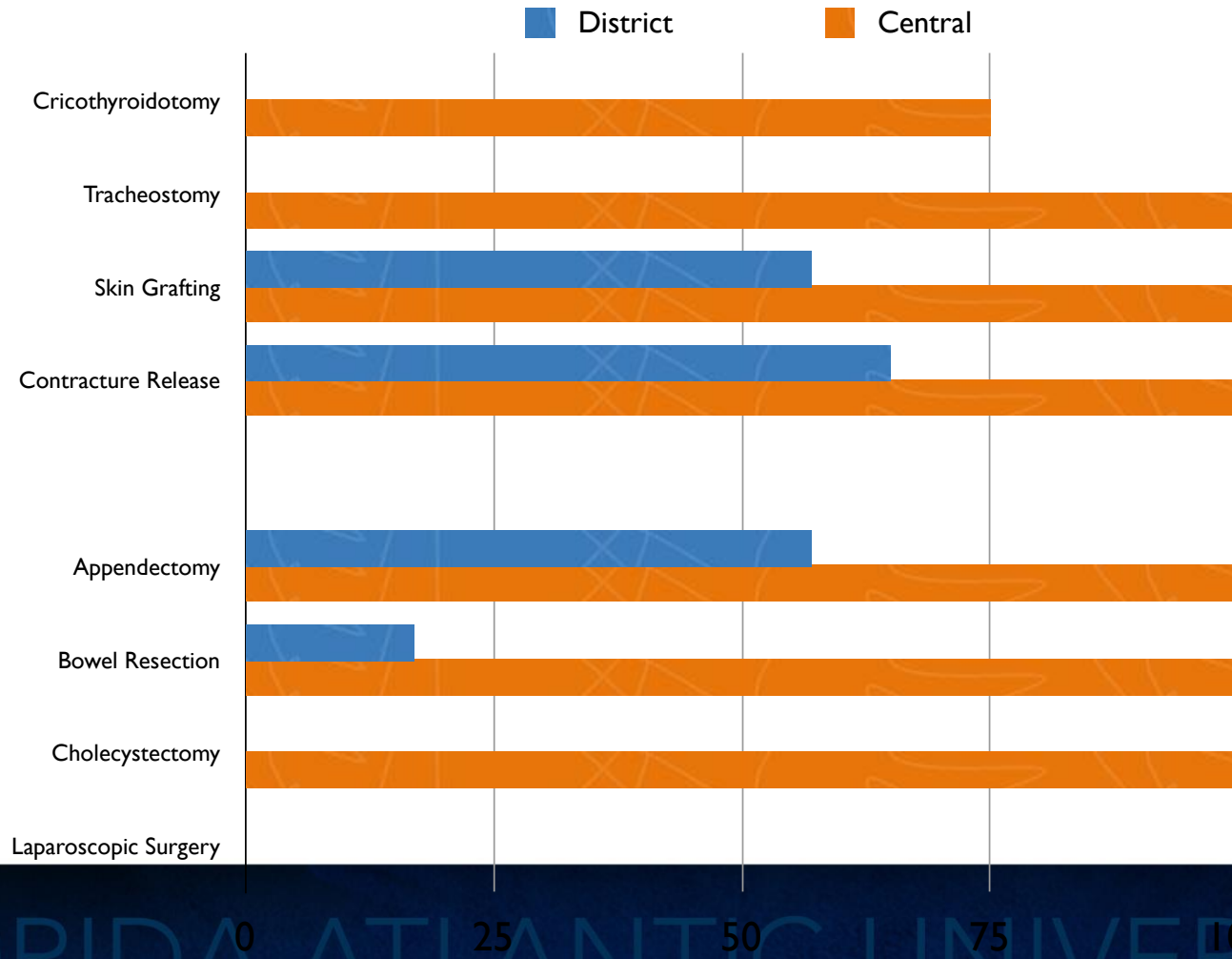
Operating room (per 100,000 people)



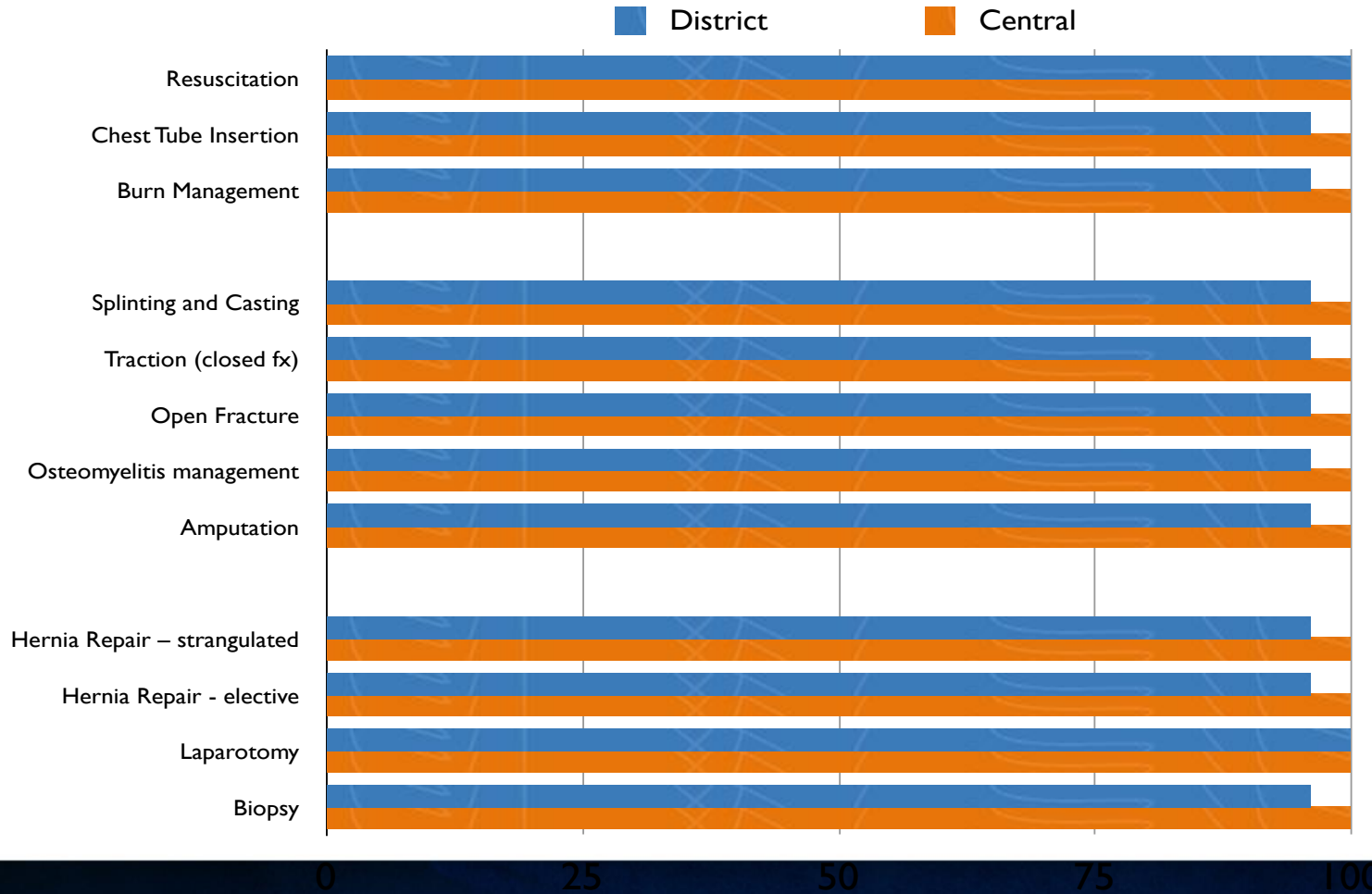
Essential Surgical Procedures



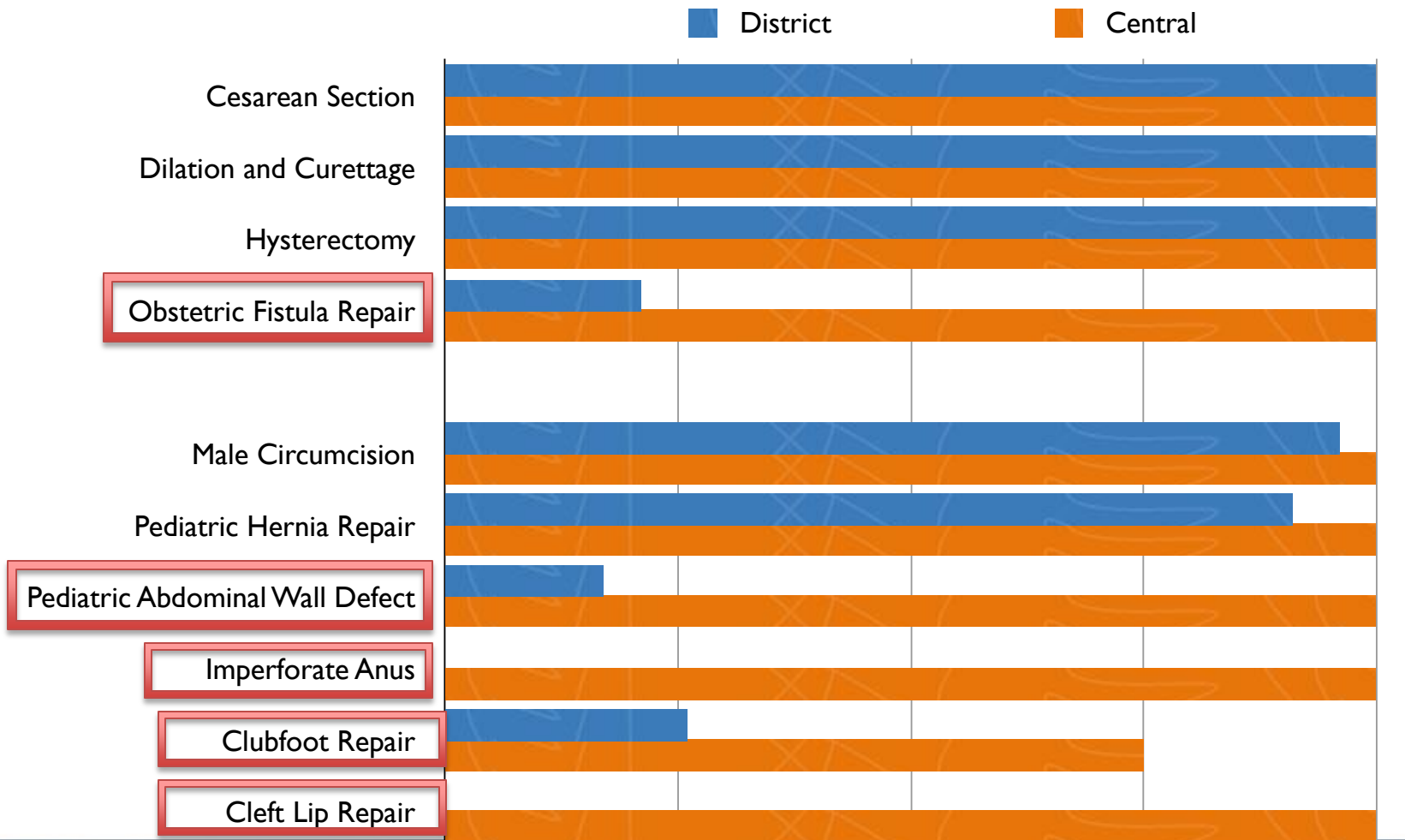
Select Essential Procedures



Other procedures



Obstetric and Pediatric Surgery



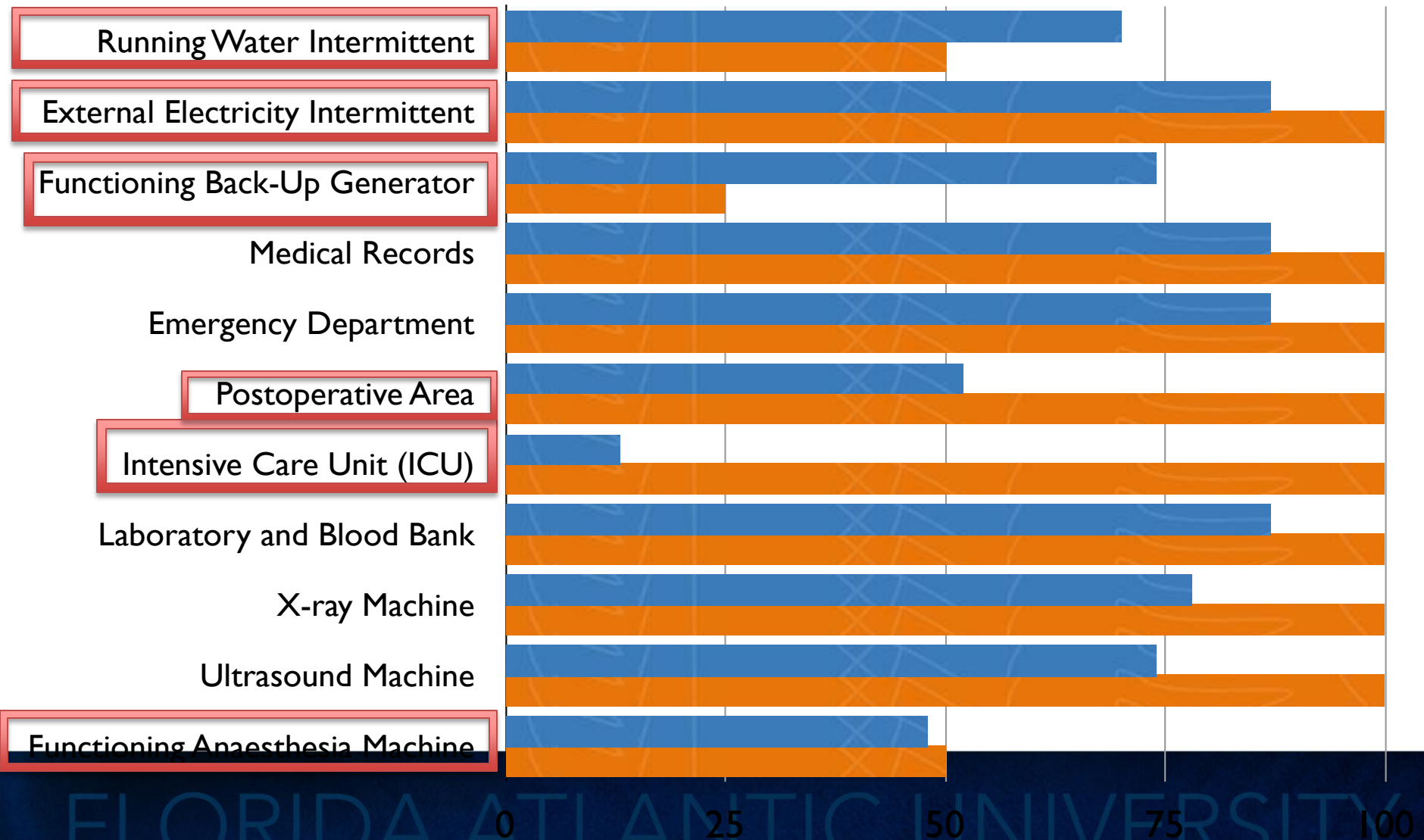
Infrastructure



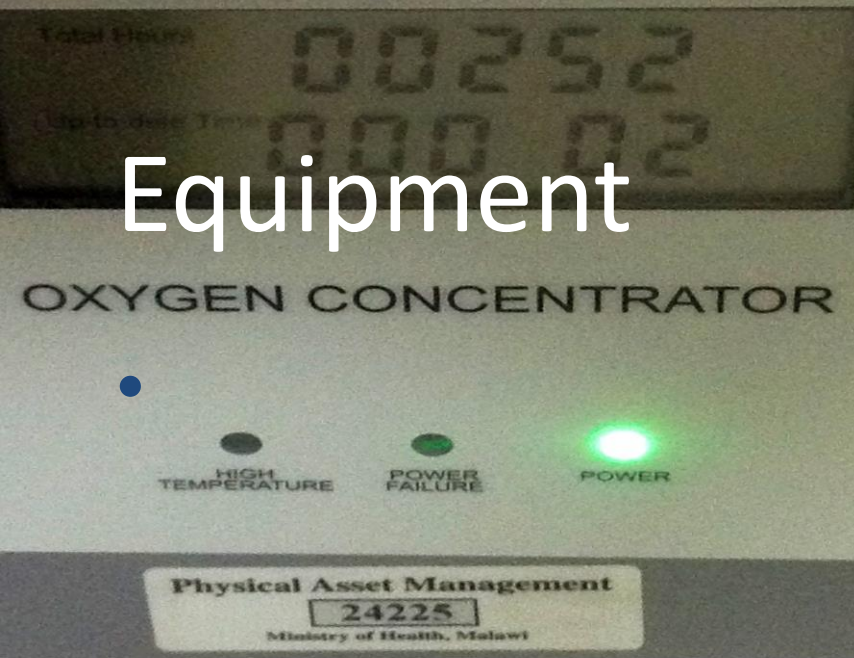
Infrastructure

District

Central



Equipment



Dedza. Minor Theatre. Malawi machine. Empty oxygen cylinder, pin index.



Mzuzu Central. Theatre 1. Drager Narkomed. Back view.

- Major deficiencies in:
 - Basic infrastructure- ie, electricity not reliable
 - Basic equipment- ie, functioning anesthesia machine only present in half
 - Basic resources for safe surgery and anesthesia
 - >60% without a pulse oximeter
 - 70% without reliable compressed oxygen
 - Basic skills that save lives and prevent disability at point of care
 - Cricothyroidotomy/tracheostomy not available at DH
 - Bowel resection only done in 17% of DH

The promise of procedure- based primary care: primary care 2.0

1978- Alma Ata Declaration-I.



- Health for All
- Primary Health Care
- Health a Fundamental Human Right
- Equity
- Appropriate Technology
- Inter-sectoral Development
- Community Participation.

Alma Ata, 1978:

The International Conference on Primary Health Care calls for urgent action by all governments, all health and development workers, and the world community to protect and promote the health of all the people of the world by the year 2000.

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Alma-Ata

Published: September 13, 2008

Executive Summary

30 years on, what is the relevance of the Alma-Ata Declaration in 2008? In short, primary health care is now offering global health a lifeline. Progress towards the Millenium Development Goals (MDGs) has stalled. Weak health systems have restricted the success of efforts to improve maternal, newborn, and child health, and to reduce the disease burden from malaria and tuberculosis. New epidemics of chronic disease threaten to reverse what small gains have been achieved. To get back on track, and to meet the MDGs by 2015, countries need to strengthen their health systems through the implementation of effective primary health care.



Series Comment

Return to Alma-Ata

Margaret Chan

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Audio

[Download](#)

Alma-Ata: Rebirth and Revision

Learn more from *Save the Children* on the

Recommendations

- Strengthen **health-service infrastructure** (human resources and essential drugs)
- **Remove user fees** for primary health-care services to improve use
- A continuum of care for **maternal, newborn, and child health services** is needed
- Evidence-based, **integrated packages of community and primary curative and preventive care** should be adapted to country contexts, assessed, and scaled up.
- **Community participation** and **community health workers** linked to strengthened primary-care facilities and first-referral services are needed

Tracer area	Tracer indicator
Reproductive, maternal, newborn and child health	
a. Family planning	Demand satisfied with a modern method among women aged 15–49 years (%)
b. Pregnancy and delivery care	Antenatal care – four or more visits (%)
c. Child immunization	One-year-old children who have received three doses of a vaccine containing diphtheria, tetanus and pertussis (%)
d. Child treatment	Care-seeking behaviour for children with suspected pneumonia (%)
Infectious diseases	
a. TB treatment	TB cases detected and treated (%)
b. HIV treatment	People living with HIV receiving ART (%)
c. Malaria prevention	Population at risk sleeping under insecticide-treated bed nets (%)
d. Water and sanitation	Households with access to improved sanitation (%)
Noncommunicable diseases	
a. Treatment of cardiovascular diseases	Prevalence of non-raised blood pressure (%)
b. Management of diabetes	Mean fasting plasma glucose (FPG) (mmol/l)
c. Cervical cancer screening	Cervical cancer screening among women aged 30–49 years (%)
d. Tobacco control	Adults aged \geq 15 years not smoking tobacco in last 30 days (%)
Service capacity and access	
a. Hospital access	Hospital beds per capita (in relation to a minimum threshold)
b. Health worker density	Health professionals per capita (in relation to a minimum threshold): physicians, psychiatrists and surgeons
c. Essential medicines	Proportion of health facilities with basket of essential medicines available
d. Health security	IHR core capacity index

Primary care 2.0

Maternal health

- Family planning
- Pregnancy and delivery care
- **Emergency obstetric care (C section)**
- Antenatal care

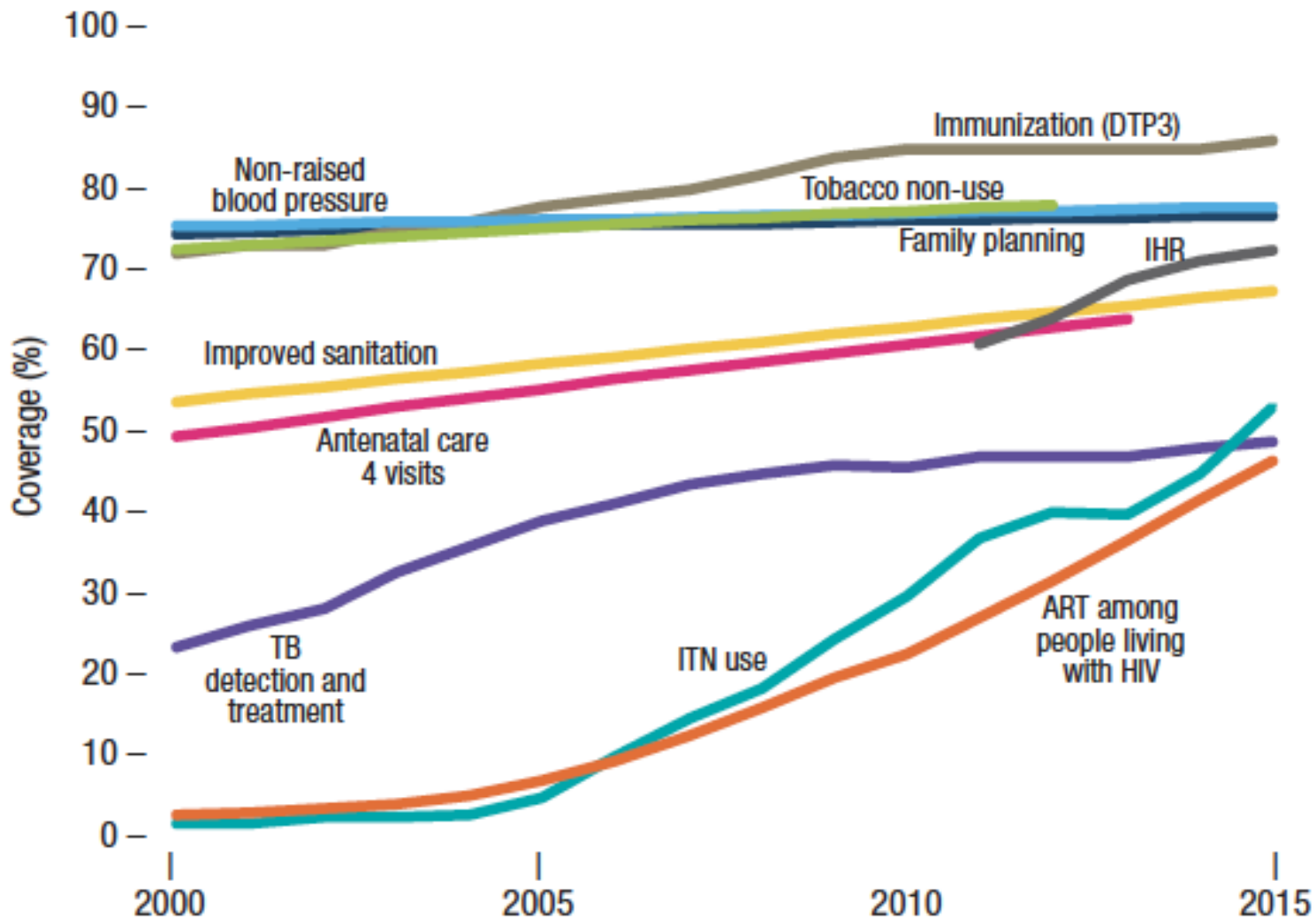
Newborn and child health

- Child immunization
- Child treatment (i.e. pneumonia)
- **Cleft lip, cataracts, clubfoot**

Trauma care

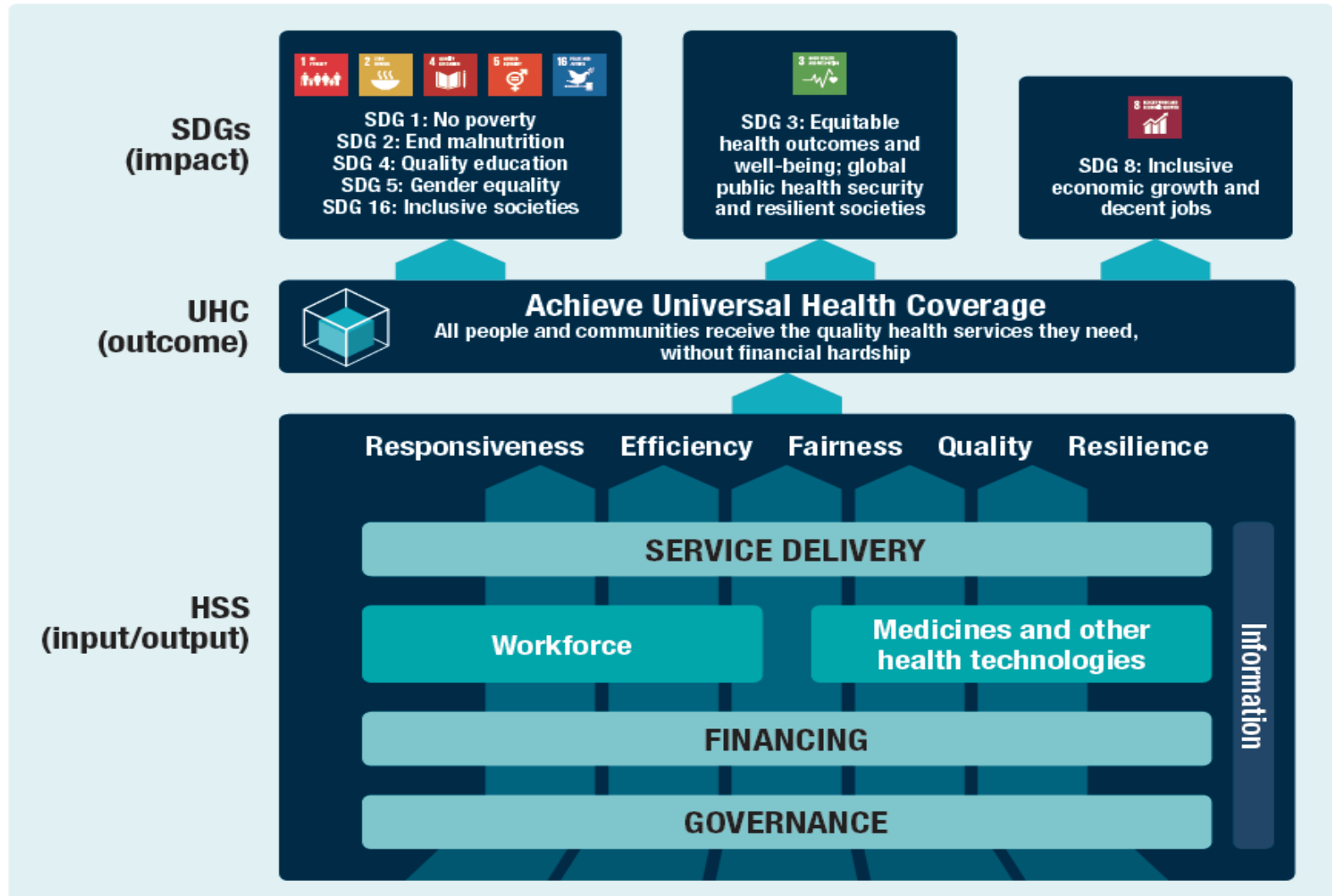
- **Essential trauma care**

Figure 1.5
Trends in global coverage of tracer indicators of essential health services, 2000–2015



The Future of Global Surgery

Figure 1.4
Health system strengthening, universal health coverage and the SDGs





Thank you

- Existing gross inequality in the health status of the people is unacceptable
- People have a right and duty in participating individually and collectively
- Primary health care is essential health care
- An acceptable level of health for all the people by 2000