

# Similarities Between Laboratory Medicine & Anatomic Pathology

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# Anatomic & Clinical Pathology

## Increased Need For Access to Health Care in SSA

- Increasing Population: Will Double by 2050
- Growing Middle Class
- Increasing Longevity
- Urbanization
- Increasing Rates of Non-Communicable Diseases
- Growing Economies

All of These Factors Will ↑ Detectable Disease Burden

# Anatomic & Clinical Pathology

Diagnostic Testing Among Largest Barriers to Access

- Laboratory Medicine
- Anatomic Pathology
- Medical Imaging
- Others

Particularly Important For Cancer Care

# Anatomic & Clinical Pathology

## ↑ Access to Diagnostic Capacity Requires:

- Advocacy
- Country-Specific Strategic Plans
- Alignment of Internal And External Resources
- Focus on Sustainable, In-Country Processes
- Coordination of Efforts
- Partners
- Funding
- Data

# Anatomic & Clinical Pathology

Many Efforts Underway to ↑ Capacity

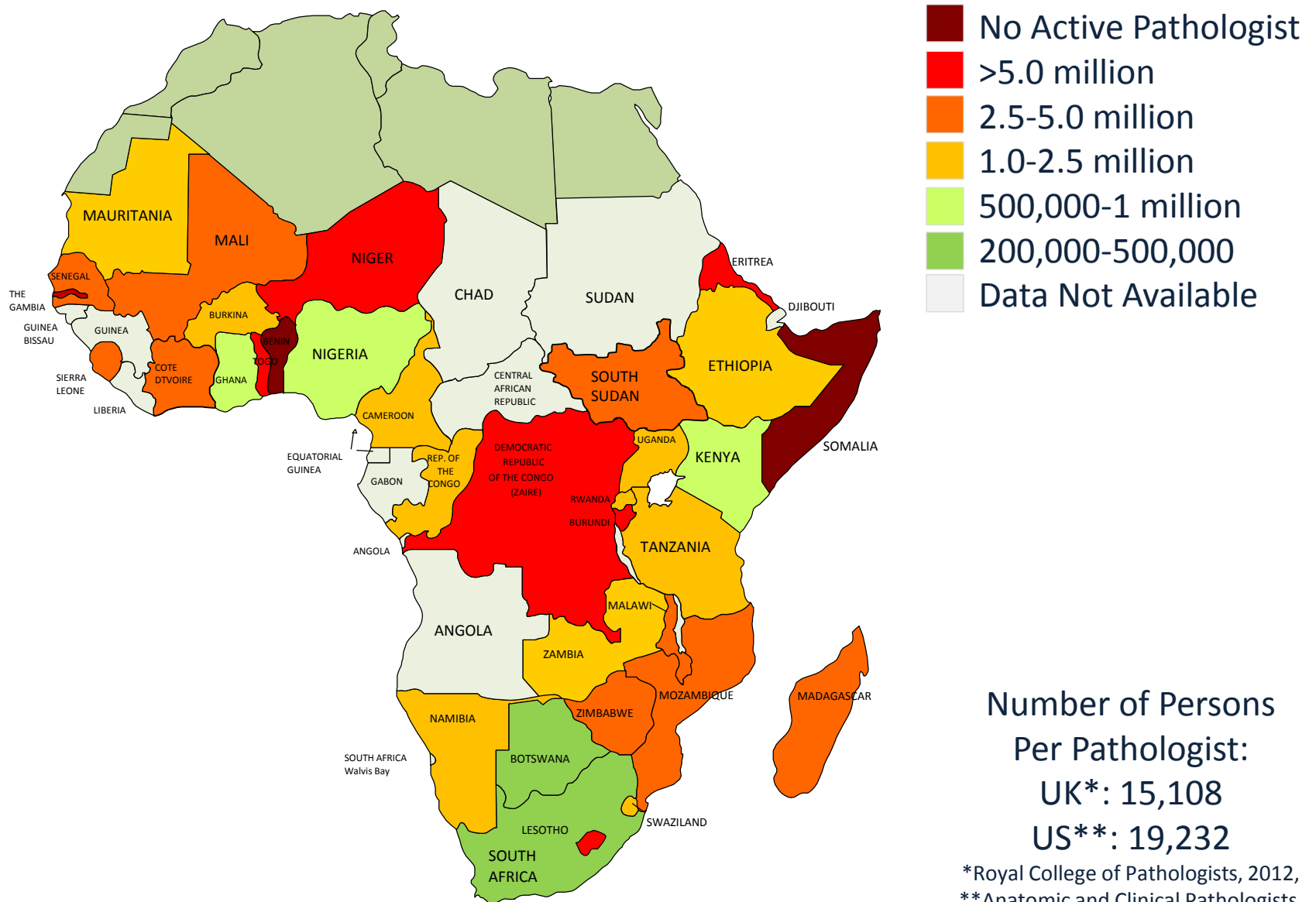
- Need Improved Coordination of Efforts
- More Robust Leveraging of Resources
- Sustainable Funding Streams
- Long-Term Vision/Strategy For Workforce Development

# Anatomic & Clinical Pathology

## Workforce Among Most Important Barriers to Access

- Few Anatomic Pathologists
- Anatomic Pathology Workforce Capacity Roughly Mirrors That of Clinical Pathology Workforce
- Does Solving Workforce Barrier Require Separate Efforts Directed Towards Anatomic Pathology vs. Clinical Pathology?

# 2012 Number of Persons Served Per Pathologist in Sub-Saharan Africa



Number of Persons  
Per Pathologist:  
UK\*: 15,108  
US\*\*: 19,232

\*Royal College of Pathologists, 2012,  
\*\*Anatomic and Clinical Pathologists,  
AAMC, 2007

# Anatomic & Clinical Pathology

## Anatomic (Cellular) Pathology

- Surgical Pathology
- Cytopathology
- Autopsy Pathology
  - Forensic
  - Non-Forensic



# Anatomic & Clinical Pathology

## Clinical Pathology

- Clinical Biochemistry (Chemical Pathology)
- Genetics
- Hematopathology
- Immunology
- Medical Microbiology
- Toxicology
- Transfusion Medicine

# Anatomic & Clinical Pathology

## How Do Anatomic & Clinical Pathology Overlap?

- Used For Screening or Diagnosis of Disease/Conditions
- Must be Aligned With Needs of Population & Providers
- Should be Used as Part of a Health Care System
- Professional Societies, Journals, Research Overlap Extensively

# Anatomic & Clinical Pathology

## How Do Anatomic & Clinical Pathology Overlap?

- High Level of Technical Expertise
- Need Doctoral Level Medical Supervision
- Similar Infrastructure, Workforce, Professionalism
- Extensive Quality Control

# Anatomic & Clinical Pathology

## How Do Anatomic & Clinical Pathology Overlap?

- Depend Upon Reliable, Timely Supply Chain
- Need Close Technical Supervision
- Require Use of Instruments Dependent Upon Technical Support And Maintenance

# Anatomic & Clinical Pathology

## How Do Anatomic & Clinical Pathology Differ?

- Anatomic Pathology - Tissue Diagnosis
- Anatomic Pathology - Subjective Visual Analysis
- Clinical Pathology - Blood/Body Fluid Analysis
- Clinical Pathology - Instruments Generate Numerical Results

Today There is ↑ Overlap Between These Approaches

# Anatomic & Clinical Pathology

## How Do Anatomic & Clinical Pathology Differ?

- Anatomic Pathology:
  - Results Descriptive
  - Available in Days to Weeks
- Clinical Pathology:
  - Results Binary or Numeric
  - Available in Minutes to Hours
  - Exceptions in Microbiology, Genetics, Molecular Diagnostics

# Anatomic & Clinical Pathology

## ↑ Anatomic & Clinical Pathology Capacity

- More Similarities Than Differences
- Infrastructure Can Partly Support Both
- Culture of Quality Control, Supervision Overlap
- Training For Anatomic Pathology Management Can be Used to Supervise Clinical Laboratories With Additional Training

# Anatomic & Clinical Pathology

## ↑ Anatomic & Clinical Pathology Capacity

- Evolving Technology is Blurring Lines Between The Two
  - Molecular Diagnostics
  - Biomarkers
- Both Are Needed And Need to be Integrated
- ↑ Capacity in One Can be Leveraged To ↑ Capacity in Both



# Anatomic & Clinical Pathology

## ↑ Anatomic & Clinical Pathology Capacity

- What is Needed?
  - Vision
  - New Paradigm of Capacity Building
  - Strategy to Guide Projects
  - Sustainable Funding
  - Long-Term Commitment

# Anatomic & Clinical Pathology

Questions?