

Pathology: “The Missing Link” in Global Health Delivery -

Building Capacity through Partnerships

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Summary of the presentation

- Brief Introduction
- Pathology situation in Tanzania and ECOSA Region
- Reasons for the poor situation of Pathology in Tanzania and other ECOSA countries
- Examples of successful solutions for addressing the challenges
- Conclusions

Introduction

- Pathology is important in diagnosis and management of many conditions and in research of disease processes.
- Has however, become a bottleneck in the delivery of quality health care in SSA due to inadequate resources leading to poor quality results.
- The poor quality testing, diagnosis and slow TAT generates unreliable results and consequently, delay or lead to inappropriate treatment.

Training of pathologists –Tanzanian situation

- 1972 to 1981: Only three pathologists (One Anatomic, one Hematopath, one Chempath) trained, only at the Teaching Hospital at Muhimbili.
- 1976 – 1981: Active recruitment of students in Pathology started and reached a total of **11 pathologists in 1985** and **39 in 2006**.
- **But the training and employment of pathologists has never matched the population growth of the country,**
- The few trained pathologists are confined to Muhimbili Teaching Hospital and four other referral hospitals - no Pathologists in more than 23 Regional Hospitals

Pathology workforce in ECSA Region 1985, 2006 and 2018 *(Updated from Pathology Consensus Meeting Proceedings Dar Es Salaam, 2008)*

Country	Population 2018 (Millions)	1985		2006		2018	
		No. of Pathologists	Per Capita Coverage/100,000	No. of Pathologists	Per Capita Coverage/100,000	No. of Pathologists	Per Capita Coverage/100,000
Kenya	50.5	25	0.125	39	0.111	30	0.059
Tanzania	58.1	11	0.056	39	0.100	35	0.060
Uganda	43.8	11	0.052	28	0.100	21	0.048
Zimbabwe	16.5	10	0.133	5	0.040	14	0.084
Zambia	17.4	-	-	-	-	13	0.022
Malawi	18.6	-	-	-	-	3	0.016
Rwanda	12.4	-	-	-	-	4	0.032
Burundi	11.1	-	-	-	-	3	0.027
TOTAL	228.4	59	0.065	124	0.083	112	0.049

What are the bottlenecks of inadequacy and inequitable access to pathology service?

- Low priority given to lab medicine by the policy makers and generally – inadequate funding
- Inadequate infrastructure,
- Inappropriate training of pathologists and other lab staff
- **Stigmatization of the profession – Anatomical Pathology**
- Lack of quality assurance systems and standardization.
- **The low pathology profile, inadequate funding, and low production of pathologists have negative impact on quality of diagnosis and health outcomes in Tanzania and other SSA Countries.**

What solutions are available and what has been done to address the challenges?

- Successful partnerships for building capacity and improve access through Global Health

1. MUHAS Partnership with Karolinska Institute (KI) Sweden through – Sida funding

- Bilateral program initially conducting HIV and AIDS studies; MUHAS Pathology partnered with Pathology at KI, Sweden, as a platform for building capacity.
- Three Faculty (up to PhD; one to Master level) trained, and 4 residents were attached to the project to do their dissertations. The project is still ongoing.
- Four Histotechnologists trained on IMHC, ISH and other diagnostic techniques,
- Diagnostic and research equipment are purchased through the program to improve diagnosis and teaching of pathology.

The program substantially improved the Lab capacity and quality of diagnosis, number of pathologists, quality of teaching and this was the beginning of attracting students to join pathology residency.

2. USCF-MUHAS Twinning Partnership funded by Bill and Melinda Gates Foundation (2008-12) to enhance:-

- Capacity of MUHAS to provide the quality and quantity of graduates to meet Tanzania's needs and to contribute to global health (pathology training included).
- The capacity of UCSF to educate its graduates to contribute to global health.

This was an institutional wide partnership but impacted on pathology through:-

- Transformed curricula to train more competent pathology graduates.
- Strengthening teaching capacity – through faculty development.
- Harnessed research to inform pathology professionals education for quality of practice/care.
- Improved training infrastructure by construction of a Center for Health Professions Education.

Centre for Health Professions Education



Training of pathologists in Tanzania: Admission and Graduation of Residents at MUHAS after the KI and MUHAS – UCSF Partnerships

Residents admission and Graduation	2009-2013 (4yrs)	2014-2016 (2yrs)	2017 and 2018 (2yrs)
Admission	2	10	14
Graduation	3	4	(6)

3. LabSkills Africa in terms of Pathology Capacity building:

- A two-year collaboration between the Royal College of Pathologists - UK, COPECSA and the BD-IAP, funded by a grant from the UK Department for International Development (DFID).
- Leveraged on efforts and skills of UK Pathologists and biomedical scientists and Pathologists, technologists, managers, and biomedical scientists in, Tanzania, Kenya, Uganda, Zambia and Zimbabwe.

Contributed to improvement of clinical decision-making and improved quality of care, raising the standards and quality of specific laboratory tests through: -

- Laboratory Leadership & Quality Management training.
- Laboratory Technical Skills Improvement Courses.
- Laboratory Improvement Projects.
- Laboratory Improvement Network.

What were the achievements in improving capacity and access in the Countries?

- Created inter-country/inter-region laboratory networking, very visible in Tanzania.
- Built capacity in the face of challenges e.g. at Garissa Provincial General Hospital, in Kenya.
- Supported implementation of national health strategy plans for diagnosis of malaria before treatment in Uganda.
- Changed the lab culture and practice for example in Kafue District Hospital, Zambia.
- Enhanced professional relationships between laboratory health workers and clinicians more visible in Zimbabwe.

MUHAS Academic Medical Center



Conclusion – Successful GH Partnerships

- **We therefore need to use available opportunities to include pathology in Global Health partnerships which: -**
 - Are strategic to produce tangible impact, usually interdisciplinary, involving other pathology units and other disciplines.
 - Guarantee mutual respect and benefits for the partners.
 - Are developed on the basis of equal and shared responsibilities where no one party dominates the development of globally competent graduates.
- **Both the Governments and the institutions should commit funds to support pathology and for sustainability of other efforts.**

Questions to all of us

- How can we make sure we sustain the achievements of the funded partnerships after projects end?
- What other solutions can we think about to ensure we address equity, access and quality in Lab medicine?

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*THANK YOU FOR YOUR
ATTENTION*