

A new pharmaceutical cadre to support supply chain management in rural Primary Health Care facilities



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A new pharmaceutical cadre to support supply chain management in rural Primary Health Care facilities

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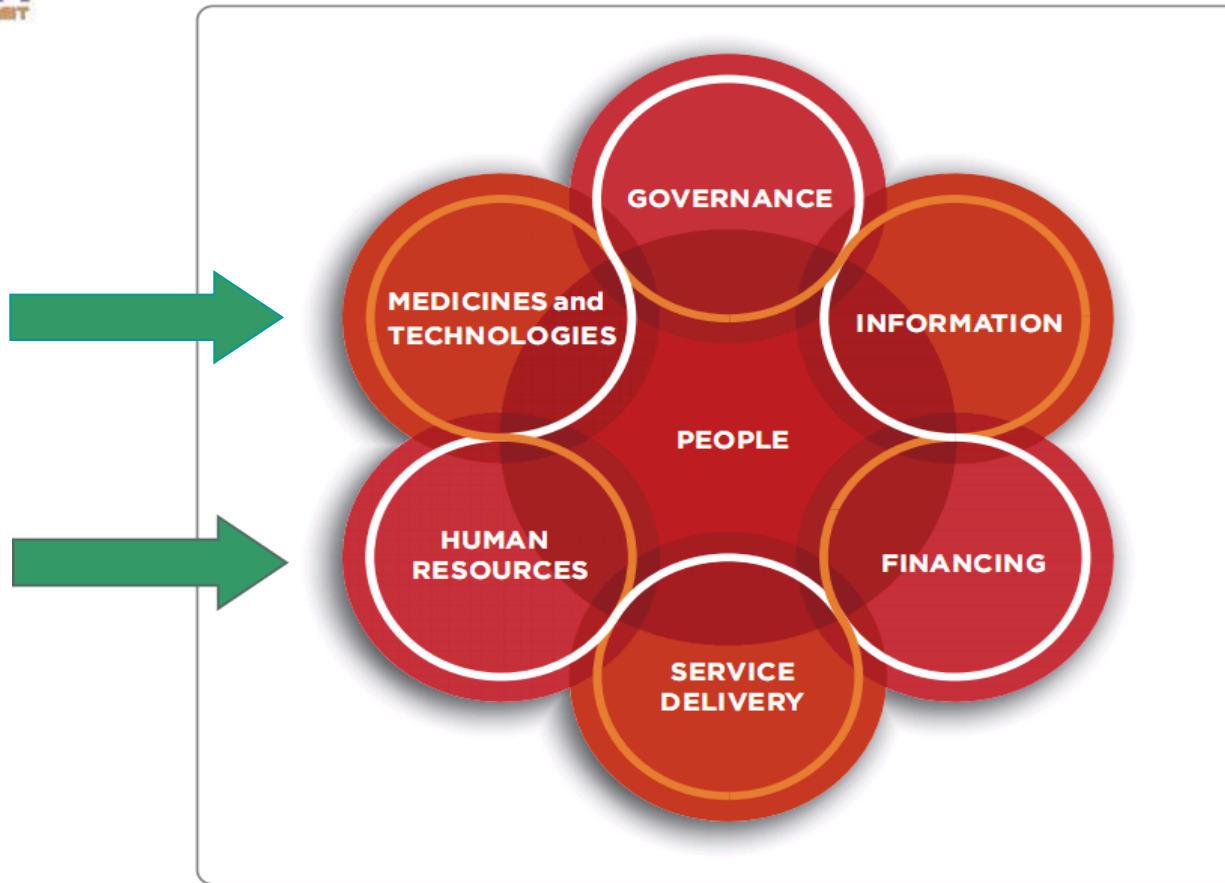
Senior pharmaceutical expert

Former Chief pharmacist

Senior lecturer at St. John's University

Tanzania

Health system thinking



WHO 2009: Systems thinking for health systems strengthening



Workforce for health Tanzania

Situation

- Human resource crisis in the Tanzanian health sector
- Primarily affects the rural population (70%)
- Dramatically impacts the quality of health service delivery, the attainment of universal health coverage, and the achievement of desirable health outcomes.
- More pronounced among mid-and lower level health care workers such as nurses, associate clinicians, midwives, dental therapists, health officers, and pharmaceutical and laboratory technicians.

Source:

- 1) TASK SHARING POLICY GUIDELINES FOR HEALTH SECTOR SERVICES IN TANZANIA, JANUARY 2016, MOHCDGEC
- 2) HUMAN RESOURCE FOR HEALTH AND SOCIAL WELFARE STRATEGIC PLAN, 2014 – 2019, MOHCDGEC

Situation

- In 2014, the estimated shortage of Human Resources for Health in Tanzania was about 56%.
- Health care workers are reported to be performing duties outside their official job descriptions, including medicines supply and dispensing
 - over 75% at health centre level
 - around 95% at dispensary level



Source:

1) HUMAN RESOURCE FOR HEALTH AND SOCIAL WELFARE STRATEGIC PLAN, 2014 – 2019, MOHCDGEC, NIMR, 2012



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Pharmaceutical workforce in Tanzania

YEAR	PHARMACIST	PHARM TECH	PHARM ASST
2006	604	375	325
2007	695	414	337
2008	729	463	353
2009	782	508	375
2010	832	553	379
2011	890	648	390
2012	996	770	403
2013	1105	850	435
Deceased	9	5	1
TOTAL	1096	845	434



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A change in approach is needed

Unqualified staff
managing public
health supply
chains

Poor availability
of health
commodities at
facilities, wasted
resources



Supply chains
poorly managed
and insufficiently
resourced

Poor
performance of
health
programs and
unachieved
health goals



"When you use a nurse or a physician as a logistician, you lose the nurse or physician and you don't get a good logistician!" Prof. Saracino, former Minister of Health, Côte d'Ivoire



Rationale

- Most pharmaceutical staff work in urban and higher level health facilities (hospitals)
- Majority of population lives in rural areas and attends PHC facilities for health care
- Inverse pharmacy staffing cadre pyramide
- PHC facilities don't need academic pharmacists but practically trained medicines supply staff, allowing clinicians to focus on patient care

Strategy



- A concept of a basic pharmaceutical cadre was first formulated by the Pharmacy Council of Tanzania
- St John's University of Tanzania (SJUT) together with Health Promotion and System Strengthening project (HPSS) responded to the observed situation
- Decision to establish a modular one year course for pharmacy dispensers to address the critical shortage of basic pharmaceutical staff in Tanzania





Goal

- to produce adequately trained medicine dispensers who will work predominately in lower primary health care (PHC) facilities such as dispensaries, health centers and Accredited Drug Dispensing Outlets (ADDOs)
- to retain this new cadre in rural areas
- to assure sustainability of the proposed programme



Methodology

- Development of curriculum for a basic certificate course in Pharmaceutical Sciences
- Accreditation by the Pharmacy Council of Tanzania
- Accreditation by the National Council for Technical Education (NACTE)
- Modular structure for possibility to progress to higher levels of pharmaceutical expertise
- Course fees: affordable for rural students and sufficient for sustainable operations of course



Methodology

Financial and technical support by Swiss funded HPSS during its phase II (2015-2019) to facilitate the successful implementation

- Renovation of required laboratories
- Recruitment of lecturers
- Advertising of course program
- Enrolment and registration of students
- Launch of program
- Public private partnership HPSS-SJUT
- Basis: Tanzanian Health Sector Strategic Plan (HSSP IV)



Students

- ❑ Entry qualifications: Candidates with Ordinary Level Secondary Education with four passes at D level or above. Two of them must be Chemistry & Biology. English and Mathematics is an added advantage.
- ❑ Cost for 1 year including tuition fee and books: Tsh 1.4 mio
- ❑ Sponsoring of 20 (35) students by HPSS based on bonding contract (3 years local employment in public sector)
- ❑ Possibility to progress to higher levels of pharmaceutical expertise: pharmaceutical assistant (Certificate) and pharmaceutical technician (Diploma)



Course program

- The one (1) year course is comprised of 13 modules divided in two semesters.
- Each semester has 20 weeks which include theory and practical training.
- Twenty three (23) weeks are set aside for theoretical training and seventeen (17) weeks are designated for pharmacy practice, i.e. field work in supply management and dispensing.
- Students required to work under supervision in dispensing, store and compounding areas in order to gain hands-on experience in the provision of pharmaceutical services as well as patient/client management and care.



Course content

- ❑ This level is meant to teach basic pharmaceutical sciences knowledge, skills and appropriate attitudes.
- ❑ All modules are fundamental and are intended to build students' competencies for modern practice of supply chain management and instill motivation for life-long learning.

MODULE TITLES

Communication Skills

Basic Computer Applications

Basic Inorganic and Physical Chemistry

Environmental Hygiene

Basic Anatomy and Physiology

Pharmaceutical Calculations

Medicines Dispensing

Pharmaceutical Compounding

Management of Communicable Diseases

Basic Pharmacology

Pharmaceutical Inventory Management

Field work

Results

- Public private partnership (PPP) between HPSS-SJUT
- Memorandum of Understanding (MoU) as basis
- Financial and technical support by Swiss funded HPSS to facilitate the successful implementation
- Administration and training provided by SJUT





Results

- Official launch of this new course program in June 2016
- Renovated laboratories
- Employment of 2 dedicated lecturers
- 110 students enrolled for first batch 2016/2017
- 71 female and 39 male students
- 20 students sponsored by HPSS with bonded scholarship agreement
- Opportunity to progress to higher levels of pharmaceutical expertise such as pharmaceutical assistant and technician, hence providing a career ladder for dispenser graduates.



Conclusion

- The new accredited 1-year certificate course is designed to suit the needs of the health sector, the labour market demands and professional needs that exist in the country.
- It emphasizes the underlying rationale that PHC facilities don't need academic pharmacists but practically trained medicines supply staff, allowing clinicians to focus on patient care.
- For a supply chain to function, the downstream demand/pull side at rural health facilities needs to be strengthened.
- **The new pharmaceutical cadre will thus fill a critical gap in the supply chain in rural areas contributing to better medical care.**



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