



# The Dispenser Cadre in Tanzania

## Adapting pharmaceutical skills to the needs of Primary Health Care facilities in rural areas

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Swiss Agency for Development  
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## Situation

- The estimated shortage of Human Resources for Health in Tanzania is about 50%
- Primarily affects the rural population (70%)
- More pronounced among mid-and lower level health care workers
- Clinical health workers perform duties outside their job descriptions, *including medicines supply and dispensing*
- Dramatically impacts the quality of health service delivery, the attainment of UHC and health outcomes

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

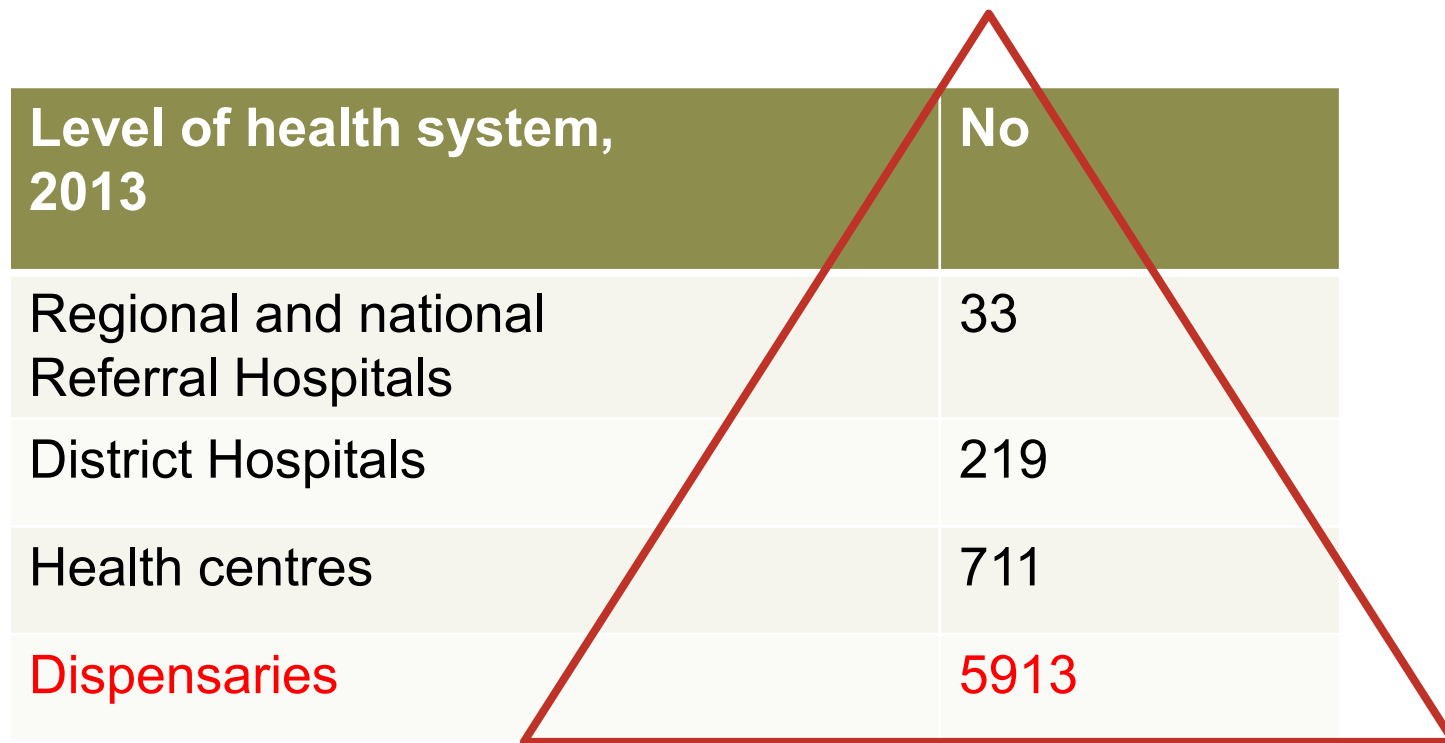
## Why worry about pharmacy workforce?

1. Health facilities cannot operate without medicines
2. National health budgets: up to 40% for medicines
3. Pharmacy staff shortage translates into gaps in pharmaceutical supply and services, causing risks to patients

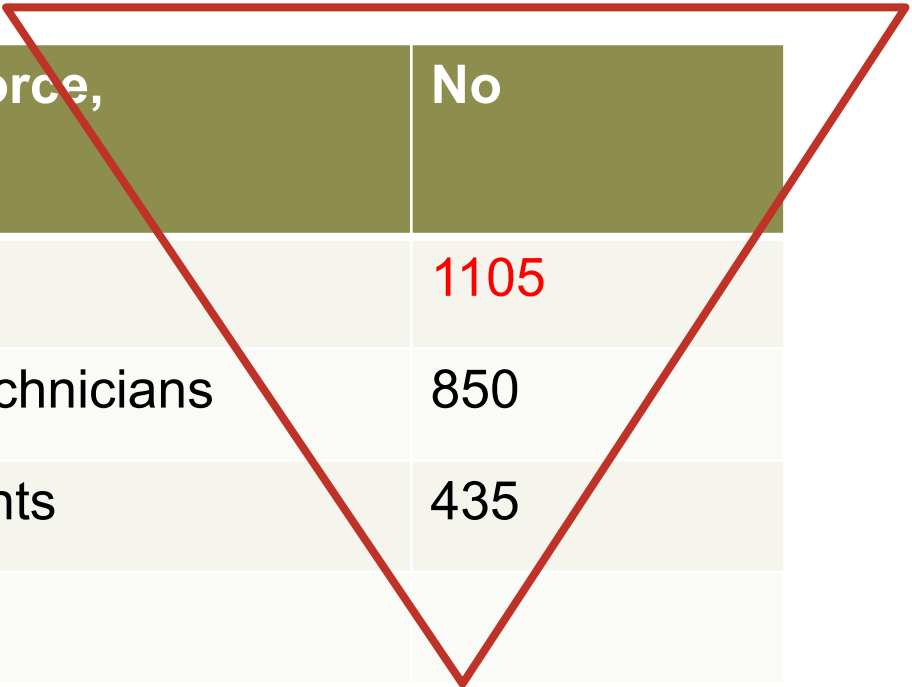
# Challenges for pharmacy workforce

- Insufficient numbers
- Inadequate competences and skills (theory vs practice)
- Imbalances urban-rural, facility level, sectors
- Training based on outdated models and methodology
- Competencies not aligned with local needs and priorities





# Pharmaceutical workforce in Tanzania



Pharmacy workforce, 2013	No
Pharmacists	1105
Pharmaceutical technicians	850
Pharmacy assistants	435

# Staffing level guidelines Tanzania

Level of duty/ health facility	Pharmacist	Pharm. technician	Pharm. assistant	Total
Region	1	0	0	1
District	1	0	0	1
Regional hospital	1-4	3-5	5-14	9-23
District hospital	1-2	2-3	1-8	4-13
Health Center	0	1	0-1	1-2
<b>Dispensary</b>	0	0	1	<b>1</b>

Source:

Tanzania MHSW. Staffing Levels for Ministry of Health and Social Welfare Departments, Health Service Facilities, Health Training Institutions and Agencies 2014 – 2018. 2014.

## Staffing level: required vs actual in 2014

Level of duty/ health facility	No	Pharm staff required	Pharm staff actual
Health Center	27	54	4
Dispensary	213	213	0





# The reality of task shifting

- In **94%** of health facilities, supply management is done by non-pharmaceutically trained staff
- **Informal task shifting** to clinical staff
- Frequent stock-outs and irrational medicine use
- Patient care?



# A change in approach is needed

*"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



- Most pharmaceutical staff work in **urban and higher level** health facilities (hospitals)
- Majority of population lives in **rural areas** and attends primary health care (PHC) facilities
- Academic pharmacists will not work in small rural PHC facilities
- PHC facilities need pharmaceutically trained **technical staff**, allowing clinicians to focus on patient care
- More staff is needed **now**

- Produce basic and adequately trained pharmaceutical staff who will work in PHC facilities:
  - dispensaries
  - health centers
  - Accredited Drug Dispensing Outlets (ADDOs)
- Retain this new cadre in rural areas
- Provide possibility to progress to higher cadres



- Development of curriculum for a basic certificate course in Pharmaceutical Sciences
- Accreditation by the Pharmacy Council of Tanzania and the National Council for Technical Education (NACTE)
- Policy basis:
  - Tanzanian Health Sector Strategic Plan (HSSP IV)
  - HRH Strategic Plan 2014-2019, MoH



## St John's University of Tanzania and Health Promotion and System Strengthening project (HPSS):

- Public private partnership
- Renovation of required laboratories
- Recruitment of dedicated lecturers
- Sponsoring and bonding of some students





## Medicine Dispensers Certificate Course

A 2- semester course in Pharmaceutical Sciences



Accredited by Pharmacy Council of Tanzania &  
National Council for Technical Education (NACTE)

Supported by:

- Entry qualifications: Candidates with Ordinary Level **Secondary Education**
- Course fees: affordable for rural students and sufficient for sustainable operations of course: **Tsh 1.4 mio (600\$)**
- Sponsoring of some students with **bonding contract** (3 years local employment in public sector)
- Possibility to progress to higher levels of pharmaceutical expertise → **career ladder**





A 1 year vocational training course

- 23 weeks for **theoretical training**
- 17 weeks for pharmacy practice, i.e. **practical field work** in supply and store management, dispensing and provision of pharmaceutical services



Basic pharmaceutical and medical sciences knowledge and skills.  
All modules are fundamental to build technical supply chain  
practice competencies



## 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

## Medicine Dispenser Certificate Program


- Official launch of dispenser program in June 2016
- Enrolment numbers up to September 2018

No of enrolled students to date	Graduated to date	Female	Male
<b>668</b>	<b>388</b>	<b>514</b>	<b>153</b>



## Expanded pharmacy workforce in Tanzania

Pharmacy workforce	Education in years	
Pharmacists	4	Bachelor degree
Pharmaceutical technicians	3	Diploma
Pharmacy assistants	2	Certificate
Medicine dispensers	1	Certificate



## Graduates

Sense of competence and impact at their health facility after the course

→ empowerment and satisfaction

## District pharmacists and supervisors

Dispenser graduates are useful in health facilities; improve medical store management and promote rational medicine use → request for more dispensers

## Course

High interest and popularity of course → output likely to increase

## Course content

Relevance and usefulness of course subjects considered high, except for some topics (e.g. compounding) → curriculum review

## Course teaching

High satisfaction, however some topics require better teaching with practical and applied case studies (e.g. communication, computer skills) → specialized teachers

## Deployment

New cadre employed, well received and integrated, but some initial tension with other cadres (pharm and clinical) → support by supervisors and team acceptance

# Marwa Nyituga, dispenser graduate

*"The training has helped me gain more skills in medicine dispensing. I will be able to serve over 2,000 community members ensuring that they receive proper dosages."*



## Medicine dispenser certificate

- Mitigates shortage of HRH
- Responds to **labor market** needs
- Reformed service model focused on **underserved areas**
- Suits the health service **needs of rural** regions
- Aligned with required skills at **PHC level**
- Attractive for **women** who are anchored in community
- Relieves **clinical staff**
- Addresses **retention**
- Strengthens the supply chain **bottom up** (demand side)
- **Embedded** in national education system and **national policy**
- **Fiscal space and deployment** as per staffing guidelines



