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Swiss Tropical and Public Health Institute
Schweizerisches Tropen- und Public Health-Institut
Institut Tropical et de Santé Publique Suisse

Associated Institute of the University of Basel

World Health Organization

HPSS Tuimarishe Afya
Health Promotion and System Strengthening
Tanzania-Swiss Cooperation Project

Symposium on Antimicrobial Resistance, Dar es Salaam

What health workers know and practice - some insights on antibiotic use in Dodoma Region

HANDLE ANTIBIOTICS WITH CARE

Schweizerische Eidgenossenschaft
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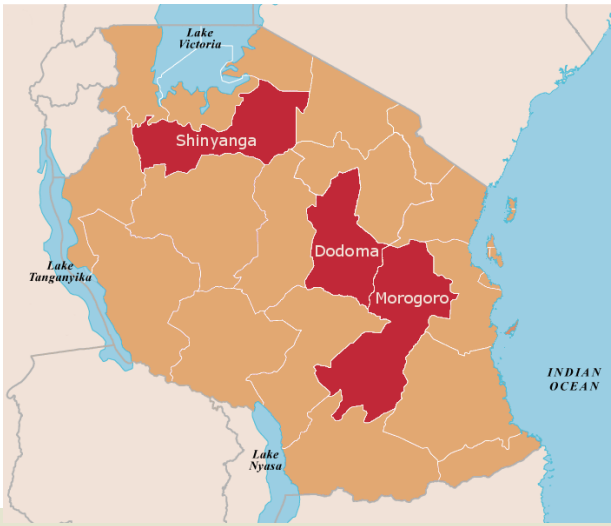
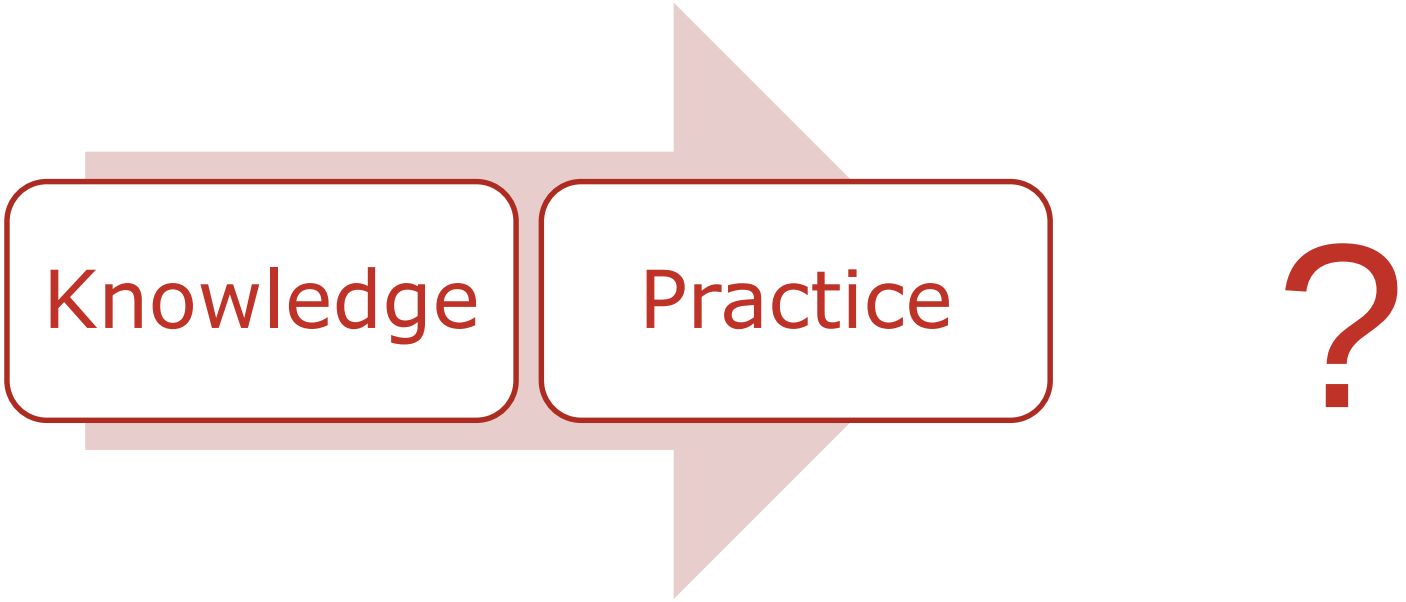
Background

- Health Promotion and System Strengthening Project (HPSS)
- One component supports the regions in strengthening medicines supply management and use
- Operations research was conducted before planning interventions to address pharmacotherapy and responsible use of antibiotics



Introduction

- Survey on knowledge, attitudes and practice regarding antibiotics and antimicrobial resistance in Dodoma Region
- Perspective of **prescribers and dispensers**
- Some insights from the field



KAP of Prescribers and Dispensers

Prescribers

66 prescribers in 46 PHC facilities interviewed

«Prescriber»= Clinical officer, medical attendant, nurse, AMO, clinical assistant

Dispensers

81 dispensers in 81 drug dispensing outlets interviewed

«Dispenser» = Nurse, medical attendant, lab assistant, pharm assistant, pharm tech, pharmacist, clinical assistant

Knowledge of antibiotics and AMR

Question:

Is an antibiotic useful in treating the following disease/condition?

Disease/ Condition	Prescribers	Dispensers	Clients
	% yes	% yes	% yes
Cough	57	79	53
Sore throat	87	84	39
Runny nose	20	28	18
Every fever	7	22	25
Watery diarrhea	41	58	47

Knowledge of antibiotics and AMR

Question:

Are you aware of antibiotic resistance?

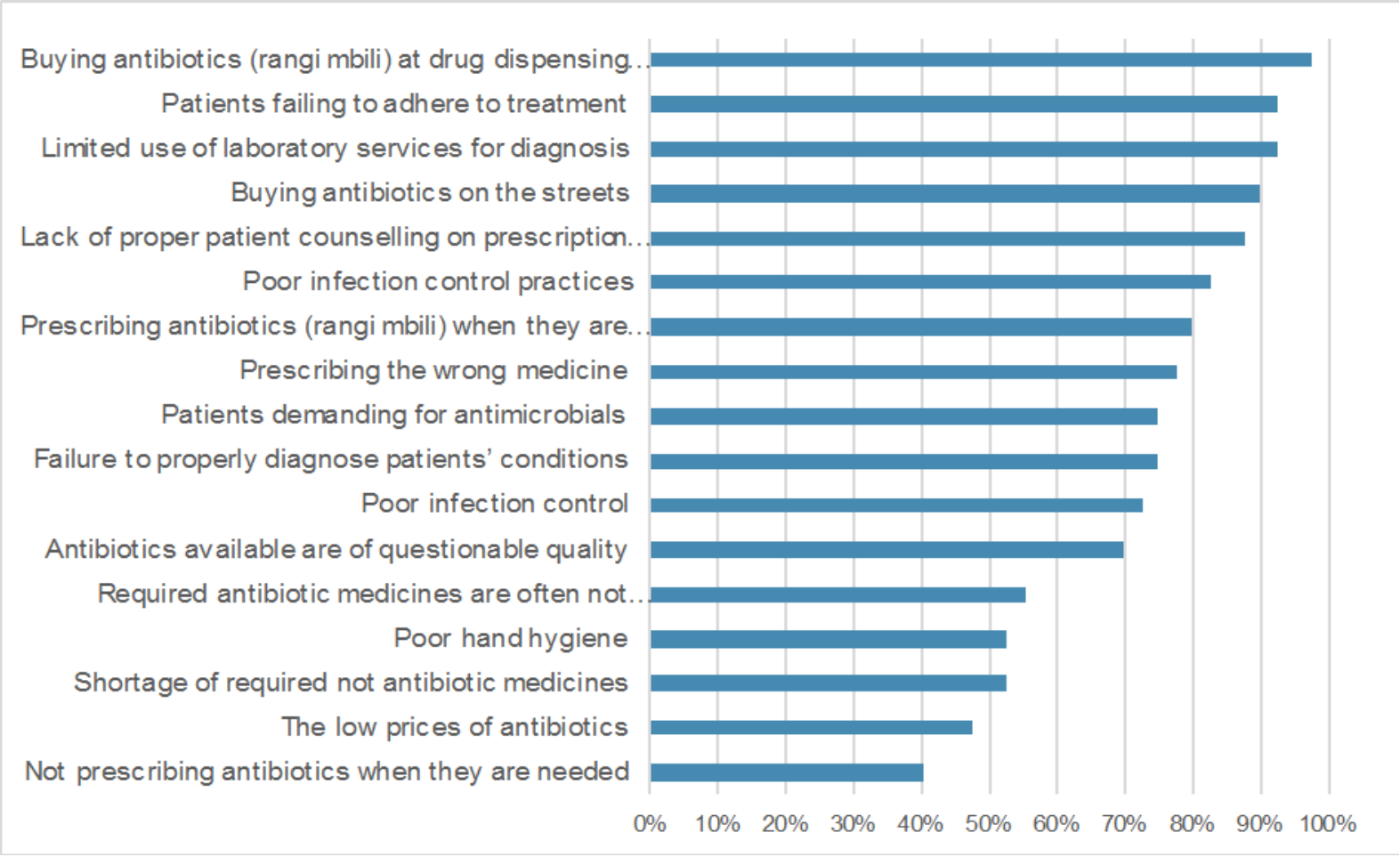
Aware of AMR	Prescribers	Dispensers	Clients
	% yes	% yes	% yes
	87	77	23

Foto T. Schuppisser

Knowledge on AMR

Question to prescribers:

What factors contribute to AMR?



Knowledge on AMR

Question:

What factors contribute to AMR?

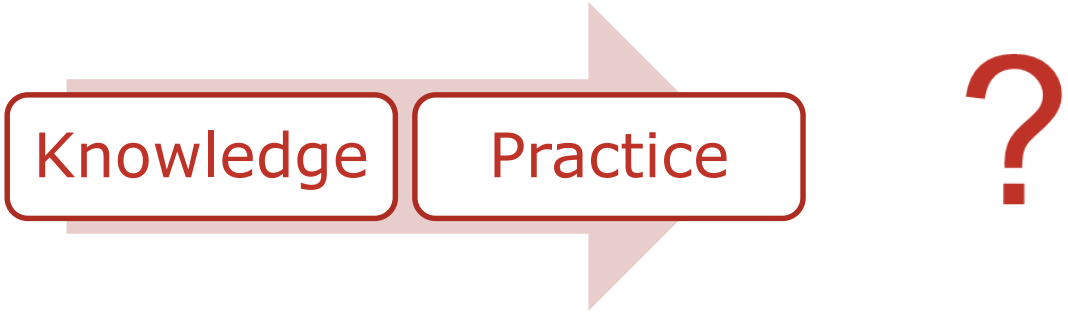
Factor	Prescribers	Dispensers
	%	%
Buying AB without prescription	98	83
Poor adherence of patients	93	94
Limited use of lab services for diagnosis	93	94
Lack of proper counselling	88	87
Poor infection control	73	74
Prescribing AB when not needed	80	86
Patients demanding for AB	75	81

Knowledge of antibiotics and AMR

Question:

Are you aware of antibiotic resistance?

Aware of AMR	Prescribers
	% yes
	87



Prescribing and dispensing

- A baseline study on medicine use based on WHO methodology
- Sample of 120 public health facilities in Dodoma Region with 3510 patient encounters
- Indicators of medicine use to measure performance in PHC

		Type of health facility		
Indicator	**Total**	**Dispensary**	**Health Center**	**Hospital**
Average number of medicines prescribed per encounter	1.9	1.9	2.0	2.0
Percentage of medicines prescribed by generic names	97	97	95	94
Percentage of encounters with an antibiotic prescribed	66	66	69	63
Percentage of encounters with an injection prescribed	9	9	12	10
Percentage of medicines prescribed on essential drug list	98	99	97	96

Prescribing and dispensing

Indicator	Total	Type of health facility		
		Dispensary	Health Center	Hospital
Average consultation time in minutes	4.2	4.3	3.8	4.7
Average dispensing time in seconds	39	38	42	39
Percentage of dispensations interrupted	2	1	5	2
Percentage of prescribed drugs actually dispensed	78	78	74	74
Percentage of patients without medicines as out of stock	17	16	19	21

Adherence to national STG

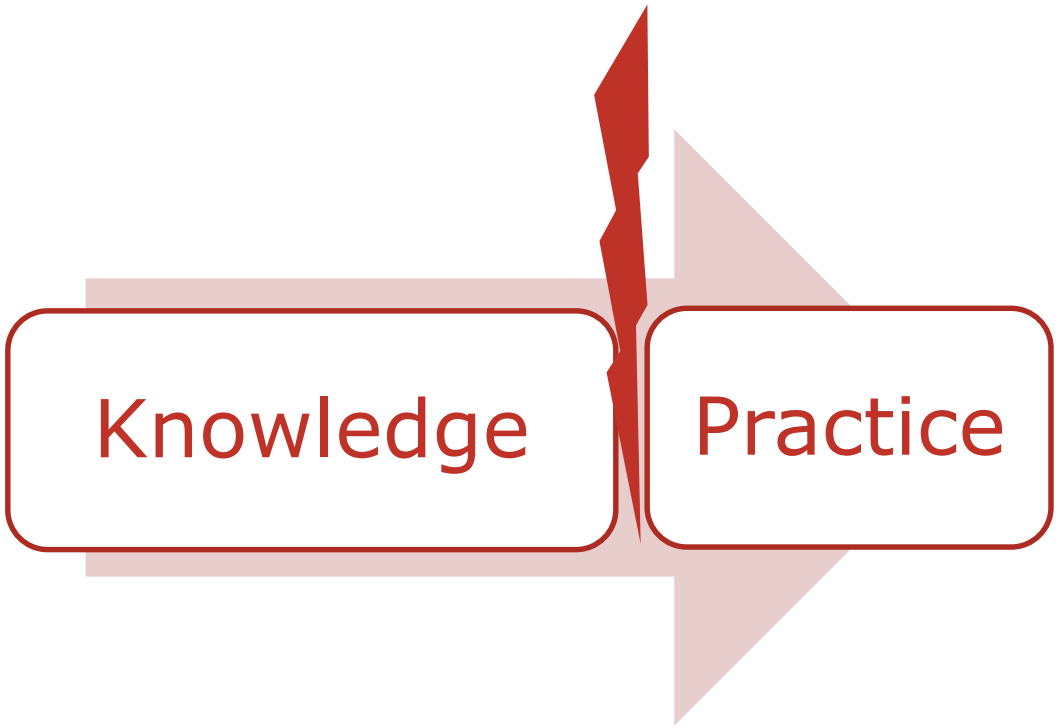
- 3000 patient encounters analysed for diagnoses and medical treatment
- Complete adherence to STG was found in 30.8% cases and wrong treatment in 30.7% of diagnoses
- About one third of cases received the correct medicine but with additional unnecessary or wrong medicines
- 61% of patients received an antibiotic regardless of diagnosis

	Completely adhered %	Partially adhered %	Not adhered %
All diagnoses	**30.8**	**38.0**	**30.7**

Foto T. Schuppisser

Key messages

- The client/patient perspectives may not coincide with the perspective of providers
- Knowledge does not necessarily translate into practice



Key messages

- Variety of actors (health care workers)
- Discrepancy in knowledge between prescribers, dispensers and clients
- Low awareness on AMR in the community
- High awareness and knowledge of AMR by prescribers and dispensers
- Despite knowledge, practice (prescribing and dispensing) is poor with significant overuse of antibiotics and poor adherence to STG

Implications for interventions

Question:

What factors contribute to AMR?

Factor	Prescribers	Dispensers
	%	%
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Conclusion

- Behaviour change is needed
- Knowledge does not directly translate into behaviour and practice
- Simply improving knowledge with training may be futile
- Transfer of knowledge into practice must be promoted
- Various actors need various and targeted approaches
- A focus on medical practice itself may be needed with better diagnostic tools and guidelines
- A combination of interventions needed