Rational use of Medicines in Public health facilities of Tamil Nadu; A Provider's prescription analysis

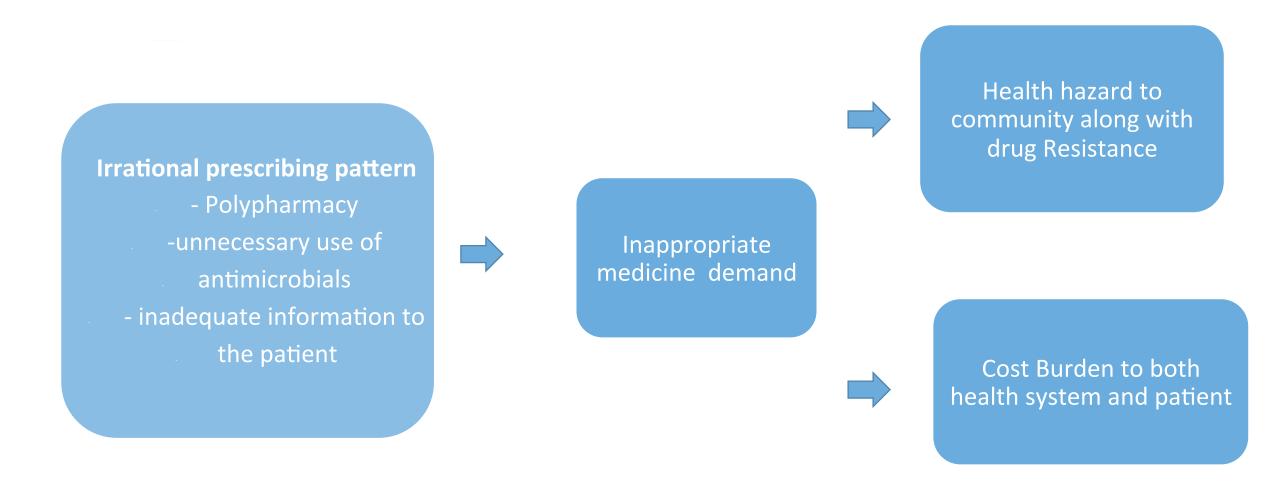
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Introduction

- The rational use of drugs requires that patients receive medications:
 - appropriate to their clinical needs,
 - in doses that meet their own individual requirements for an adequate period of time
 - at the lowest cost
- Worldwide more than 50% of all medicines are prescribed, dispensed, or sold inappropriately,
 while 50% of patients fail to take them correctly (WHO)

Rational drug use problem; health system relevance



Rational drug Use and Quality of care

PROVIDERS PERSPECTIVE **DATA SOURCES Structural Indicators** Integrated facility survey Medicines Infrastructure/HR Equipment's **Process Indicators** Medical vignettes Adherence to standard Providers Prescription - Prescription treatment protocol Practice analysis **Output Indicators** -Integrated facility survey Health facility utilization rate/service coverage -HMIS

CONSUMERS PERSPECTIVE DATA SOURCES Structural Indicators -Client Exit Interview Accessibilit Affordability Availability Client Exit **Process Indicators** Interview &Prescription Perceived quality Rational use of **Audits** of care and User Medicine(patient -KIIs experiences care Indicators) **Output Indicators**

Maternal and Child

health status

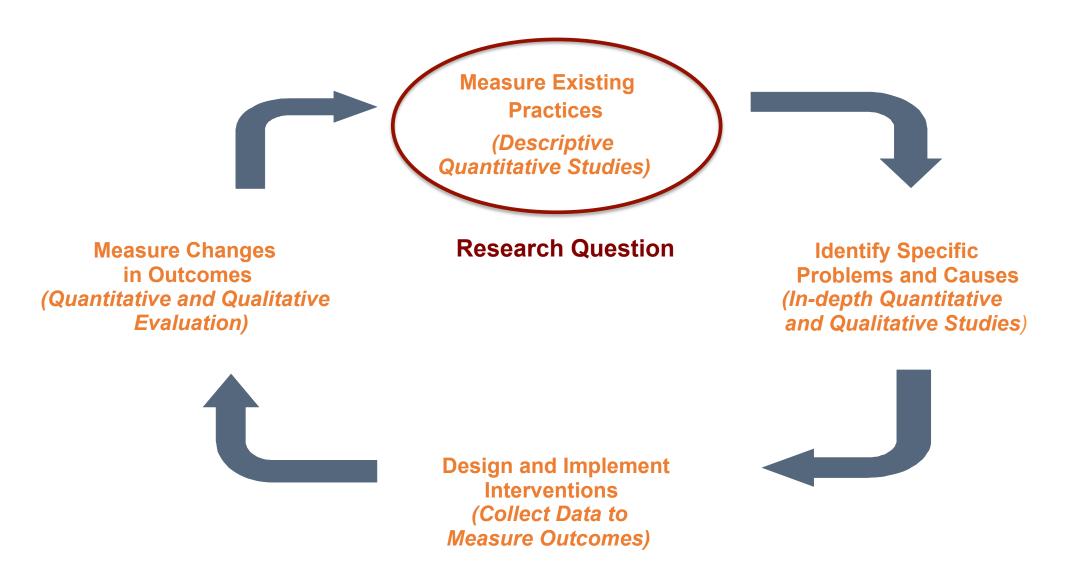
Health seeking

behavior

Household

Survey

Changing drug misuse problem



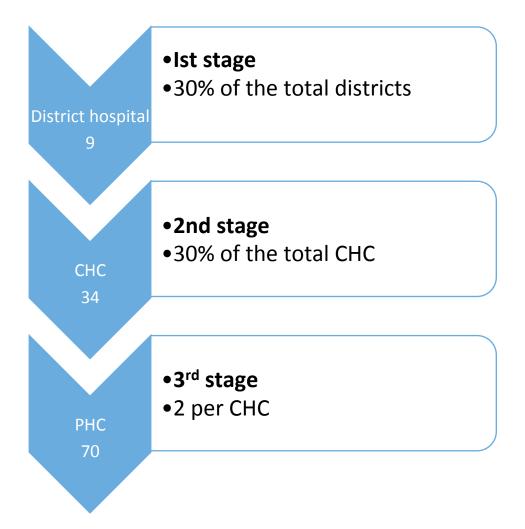
Methodology - WHO/INRUD

Prescribing Indicators

- Average number of medicines prescribed per patient
- medicines prescribed by generic name
- % encounters with an antibiotic prescribed
- % medicines prescribed from essential medicines list
- % of prescription containing fixed dose against single dose

Sampling and Data collection methods

Sampling technique: Multistage cluster sampling



Data collection:

10-15 prescription was collected per facility

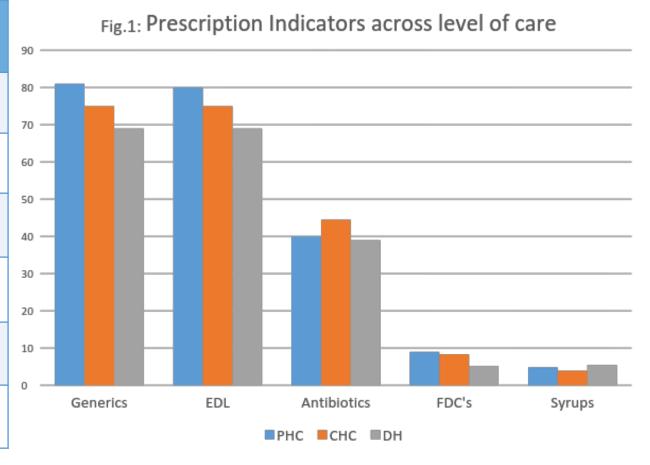
with total of 1589

Unit of analysis: Prescription

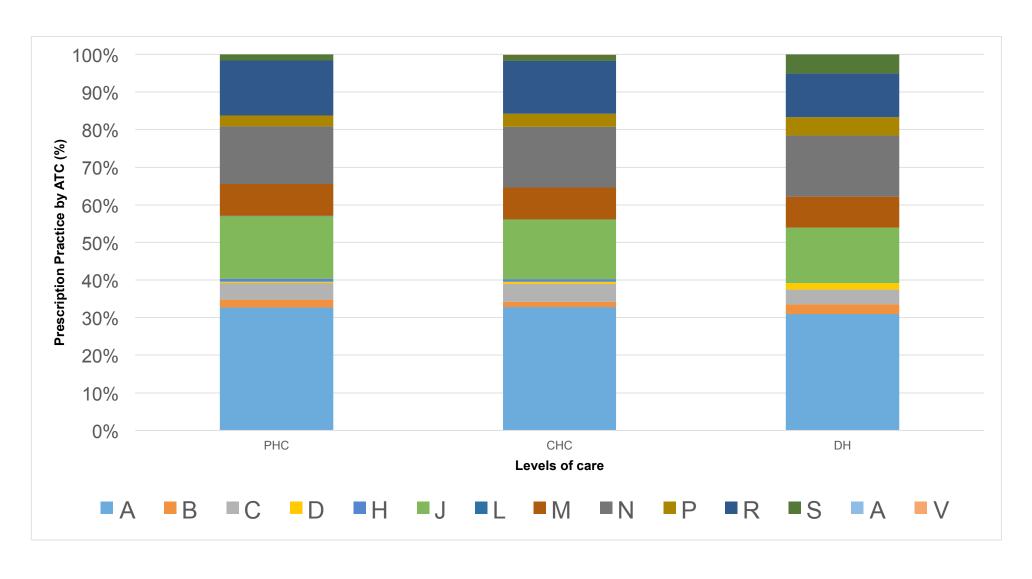
Results

• 1539 prescriptions were used for the analysis which included (62%) from the PHCs, 399(26%) from the CHCs/SDH, 155(10%) from the district hospitals

Table1: Prescription indicator across Tamil Nadu	
Indicator	Quantity/ percentage
Average number of medicines per encounter	2.7
Percentage of prescription having generic drugs	78
Percentage of prescription having FDC	8
Percentage of encounters with antibiotics prescribed	41
Percentage of drugs prescribed from EDL	77



Prescription practice by ATC



Prescription pattern of cat "A" Drugs (%)

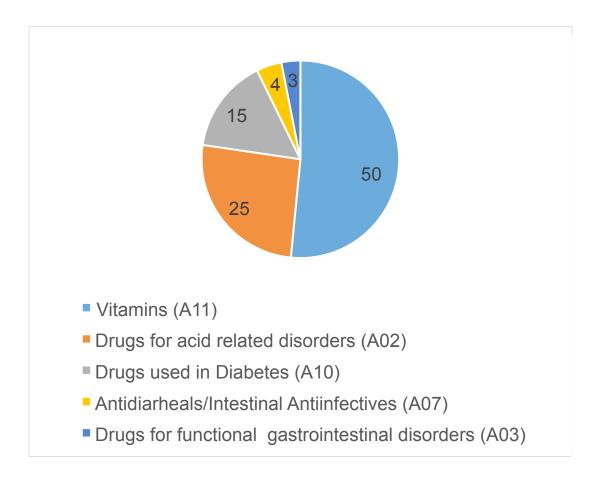
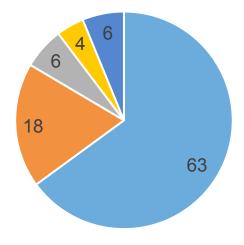


Figure 8.2 Prescription practice of Cat "J" drugs (%)



- Betalactam Antibacterial, penicillin
- Tetracyclines
- Macrolides
- Vaccines
- Other-beta lactam antibacterials

Conclusion and Policy Implication

Strengths

- With high % encounters with generic drugs and drugs from EDL along with relatively low % of FDC's we can comment that the Prescription Practice was fairly good in Tamil Nadu. In Literature this type of prescription pattern is related to:
- containing cost
- retaining patient's faith in public health facilities

Weaknesses

- No significant difference in the prescription pattern across level of care warrants the need to **strengthen** gatekeeping mechanisms in health care
- Percentage of antibiotic encounters were in inappropriate range (20-50%) as per community setting
- With growing concern of antibiotic resistance, a regulation policy for antibiotic usage is recommended

Limitations

- Cannot comment on rationality of prescription as
- 1. Providers Prescription practice depends on
- Patient demand
- supply side factors (availability, affordability, perceived quality)
- Providers competence (Adherence to standard treatment protocols/essential medicine list)
- Incentives to prescribe certain drugs
- 2. Majority prescription didn't have probable diagnosis thus couldn't link to DDD and standard treatment guidelines.

THANK YOU