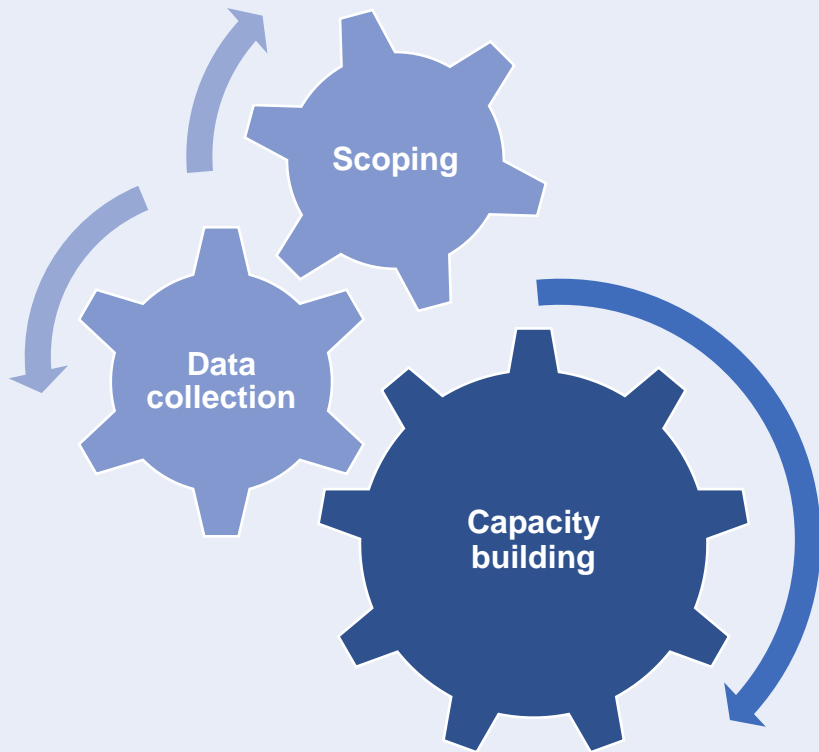


CAPTURA's approach for metadata and data management

Jenny Joh, IVI
28/06/2022

CAPTURA Objectives



Expanding the volume of historical and current data on antimicrobial resistance and usage in Asia

- Data identification, collection, grading and analysis
- Substantial capacity building activities underpinning the program

Types of CAPTURA data

Two data collection streams

Project Metadata

- Facility-related data
- AMR/U Questionnaire
- Laboratory Assessment
- Population metadata

Facility data

- Antimicrobial Resistance data
- Antimicrobial Use data
- Antimicrobial Consumption data

Project Metadata

Facility related Information

- Master list and directory of facilities
- Information gathered from desktop review, key informant interviews and scoping visits
- Data related to facility's location, affiliation and presence of data

AMR/U Questionnaire

- Survey capturing information about facility's capacity
- AMR questionnaire gathered from laboratories, while AMU from pharmacies
- Data related to AST capacity, quantity and format of data, data sharing

Laboratory Assessment

- Tool to assess quality of labs generating AMR data
- Rapid tool developed ("RLQA") based on existing microbiology lab assessments
- Data related to lab's practices (pathogen identification, AST, IQC, EQA) and resources (staffing, equipment)

Dataset related Information

- Readme files from data-providers at start of data collection
- Feedback from data providers following preliminary analyses
- Data related to geographic and time-period of dataset, criteria of data collection, denominators (population data, hospital in-patient days)

To keep in mind...

Facility related Information

- Master list and directory of facilities
- Information gathered from desktop review, interviews and scoping visits
- Data related to facility's location, affiliation and presence of data

AMR/U Questionnaire

- Survey capturing information about facility's capacity
- AMR questionnaire gathered from laboratories, while AMU from pharmacies
- Data related to AST capacity, quantity and format of data, data sharing

Laboratory Assessment

- Tool to assess quality of labs generating AMR data
- Rapid tool developed ("RLQA") based on existing microbiology lab assessments
- Data related to lab's practices (pathogen identification, AST, IQC, EQA) and resources (staffing, equipment)

Dataset related Information

- Readme files from data-providers at start of data collection
- Feedback from data providers following preliminary analyses
- Data related to geographic and time-period of dataset, criteria of data collection, denominators (population data, hospital in-patient days)



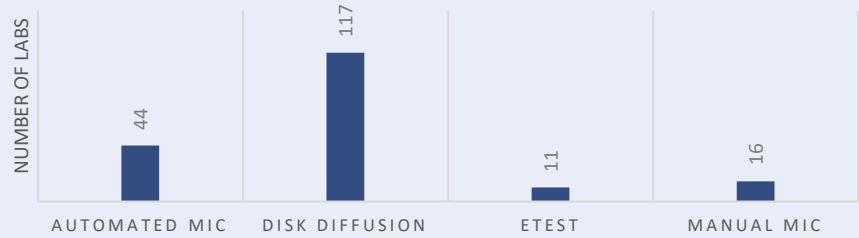
- **Snapshot of the capacity and quality of facility at the time of the survey and assessment**
- **Convenient sampling due to time limitation and COVID pandemic**
- **Flexibly administered by country coordinator/in-country team**
- **Responses not validated**

CAPTURA metadata collected and utilized for CAPTURA purposes

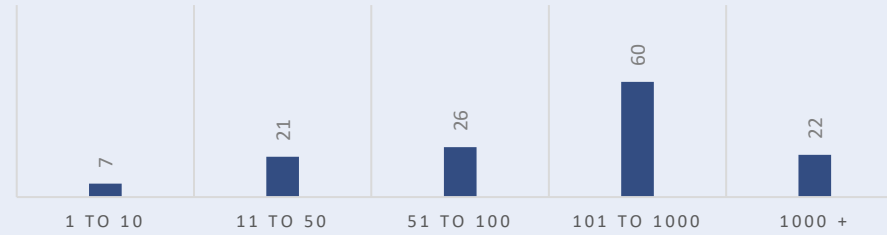
Findings of AMR Questionnaire

151 labs participated, of which 136 answered to conduct AST

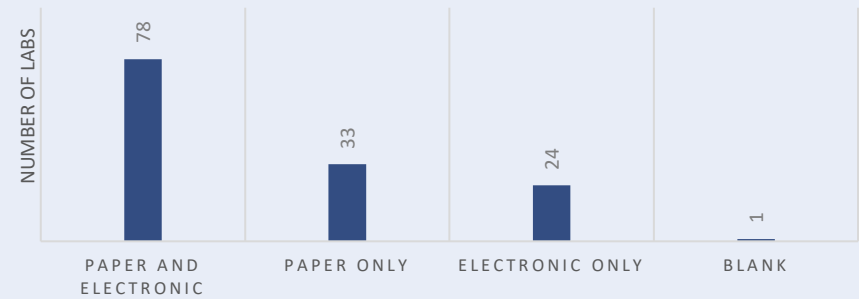
METHODS OF AST



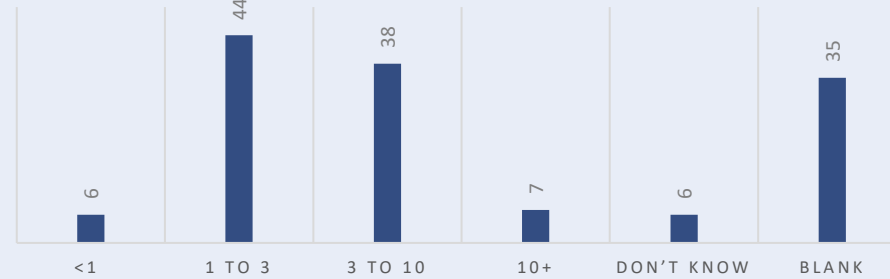
AST PER MONTH



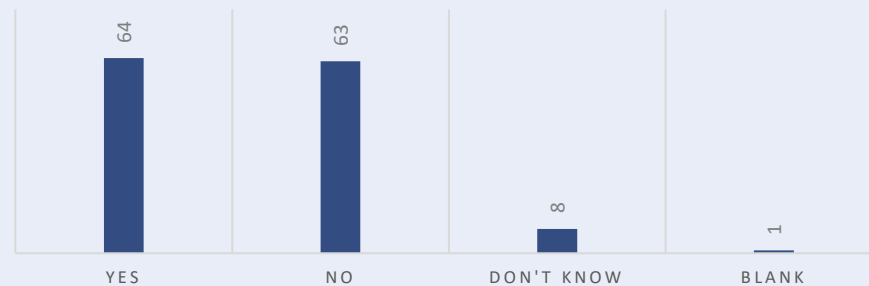
FORMAT OF DATA



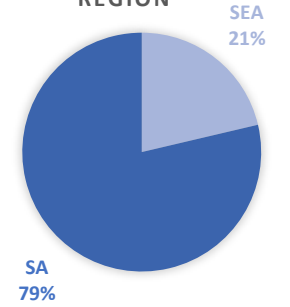
YEARS OF ELECTRONIC (AST) DATA



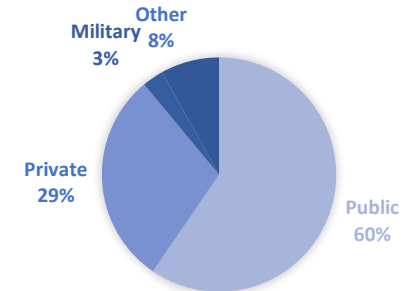
DATA SHARING STATUS



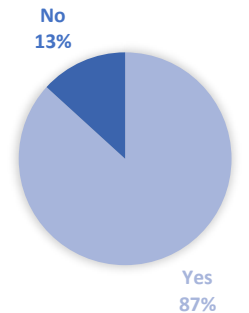
REGION



AFFILIATION OF LABS



LOCATED IN HOSPITAL



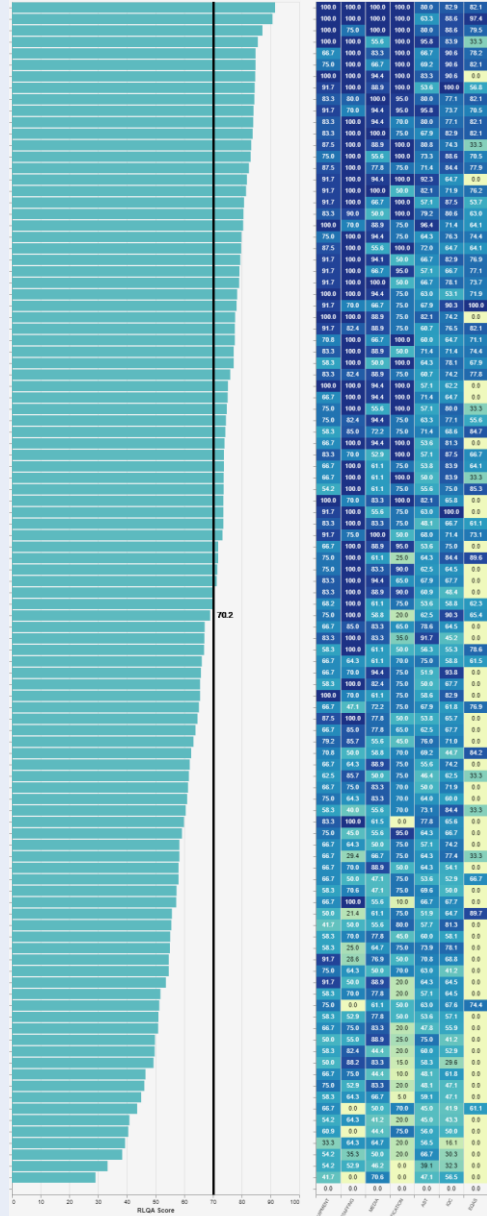
Findings of AMR Questionnaire II

TYPES OF DATA VARIABLES COLLECTED (N=136)



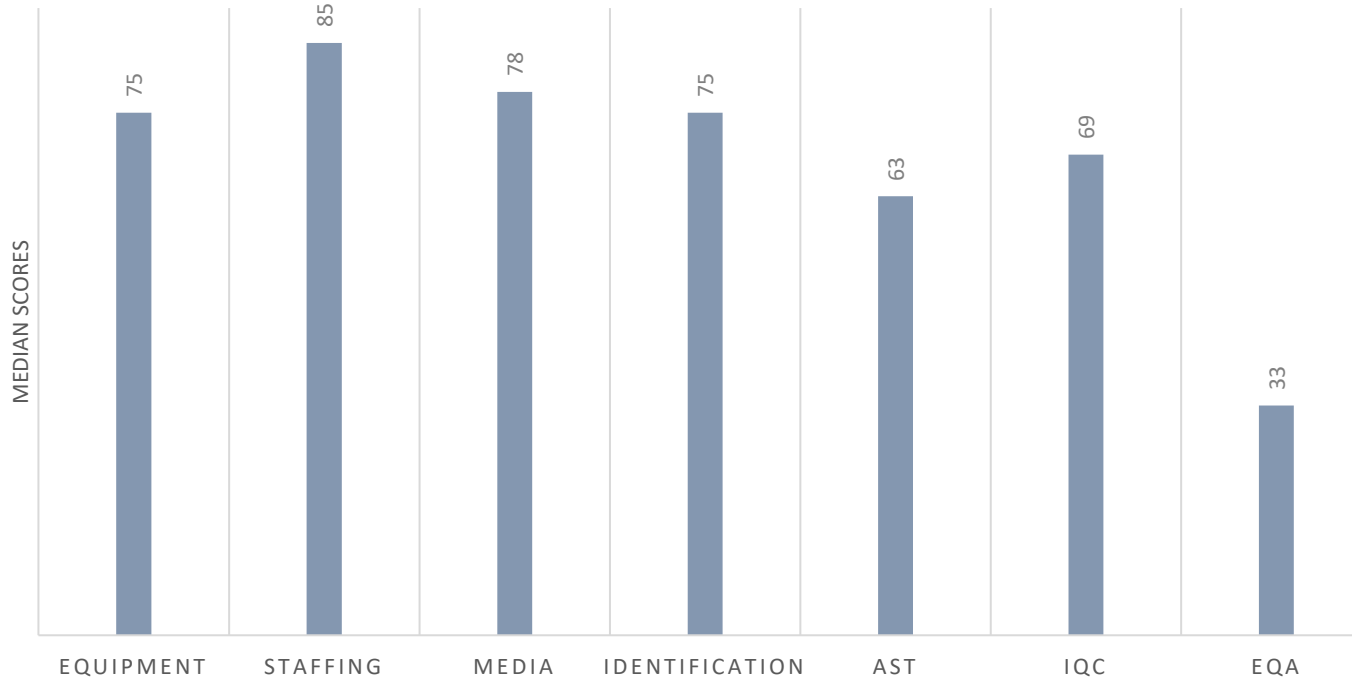
Findings of Rapid Lab Quality Assessment

Rapid Laboratory Quality Assessment (RLQA)

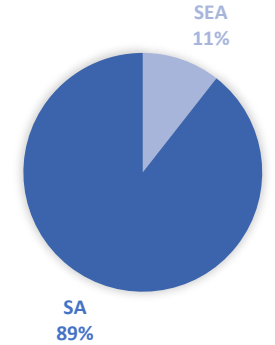


104 Lab Assessments conducted

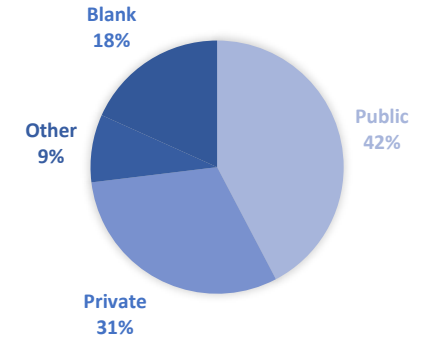
MEDIAN SCORES ACROSS RLQA SECTIONS (N=104)



REGION

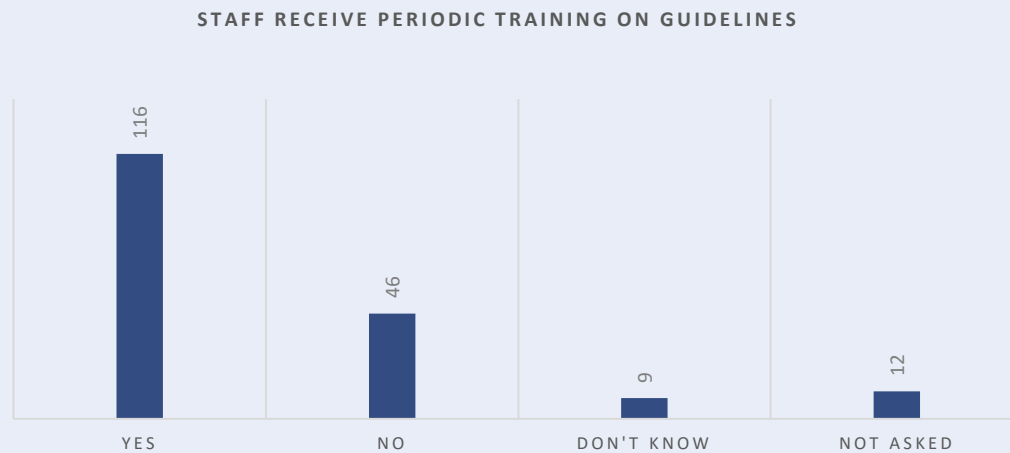
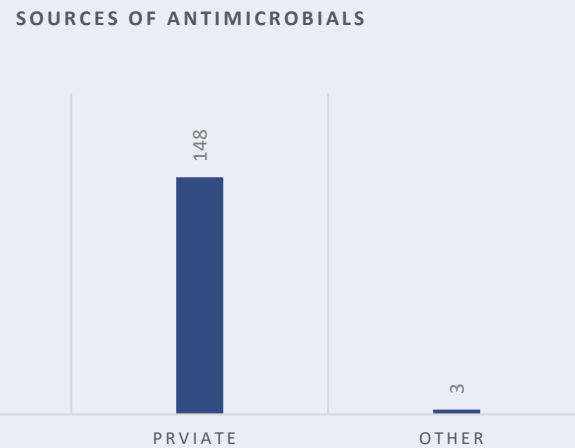
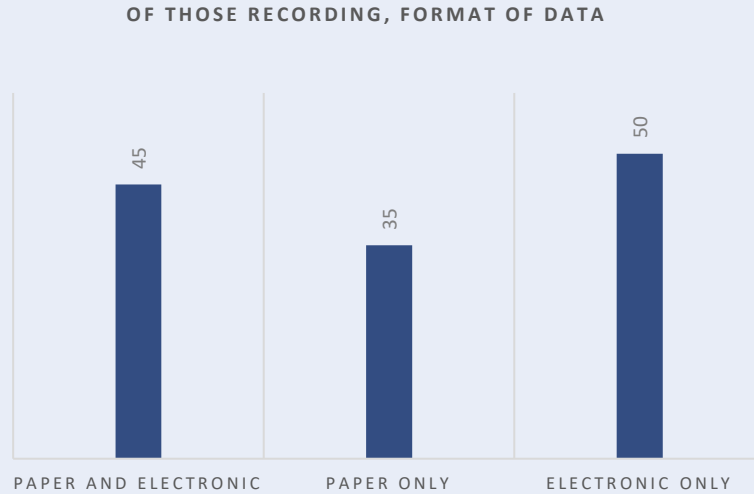
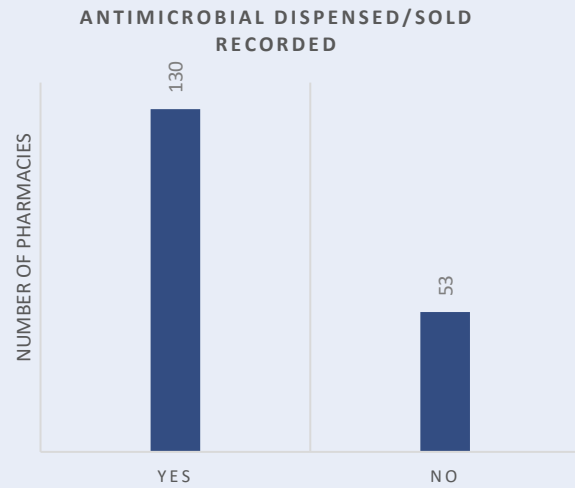


AFFILIATION OF LABS

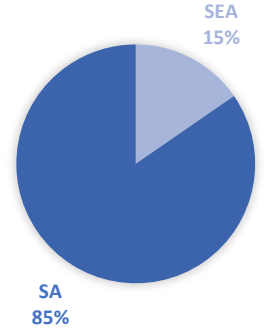


Findings of AMU Questionnaire

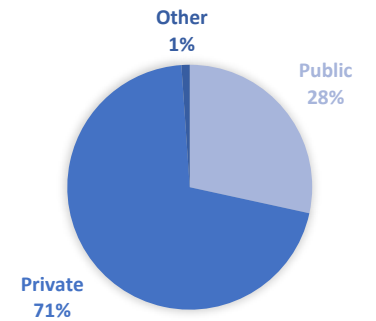
183 pharmacies participated



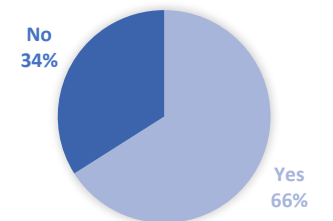
REGION



AFFILIATION OF PHARMACIES



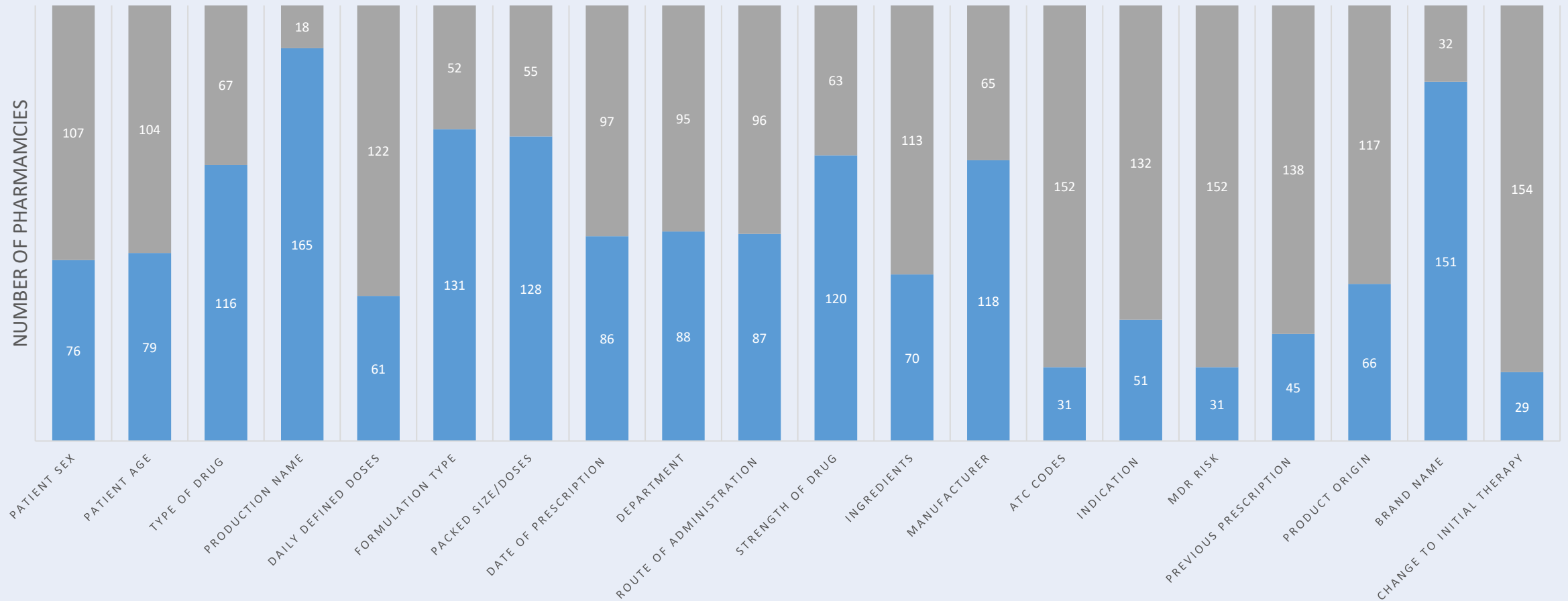
LOCATED IN HOSPITAL



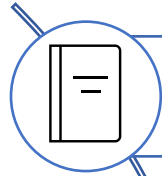
Findings of AMU Questionnaire II

TYPES OF DATA VARIABLES COLLECTED (N=183)

■ COLLECTED ■ NOT COLLECTED



Key Findings



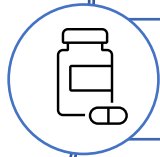
Collection of data in paper/logbook still common in labs and pharmacies



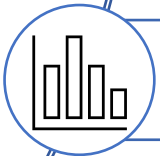
Patient information/clinical data not readily collected in labs and pharmacies



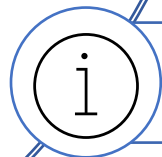
Internal and external quality assessment (IQA, EQA) in labs lacking



Private sector playing a significant role in distribution of antimicrobials



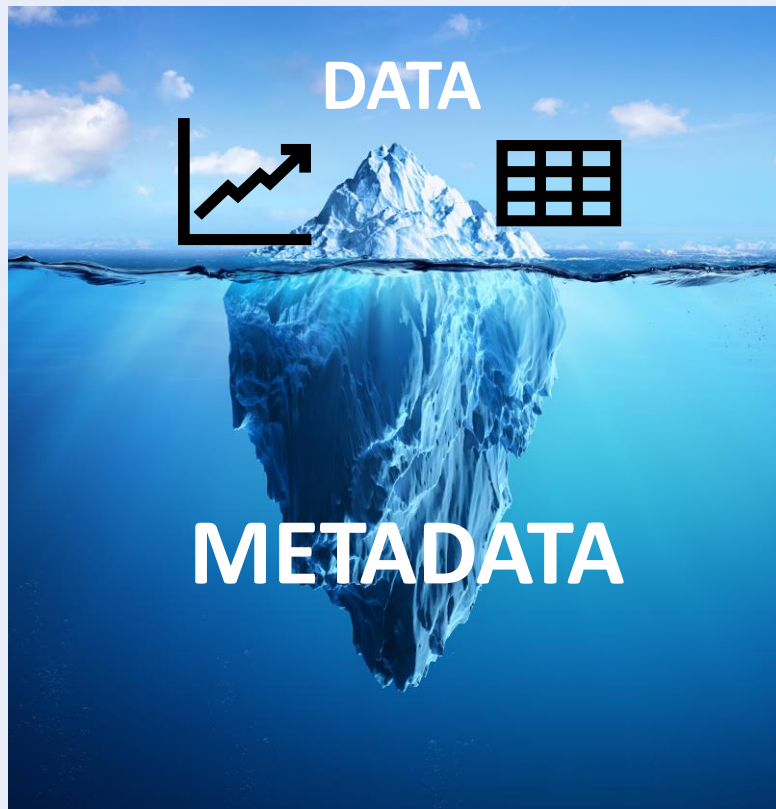
Following data collection, data analysis and data sharing infrequent



Regular metadata collection at facility and national level infrequent

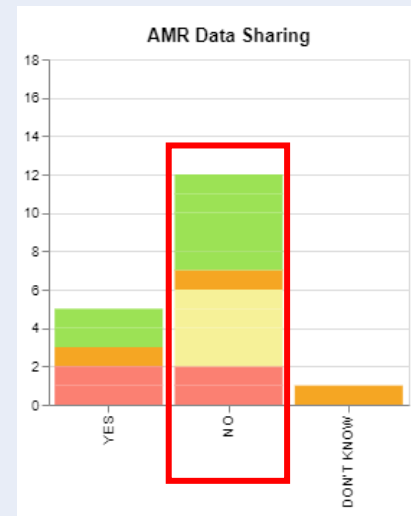
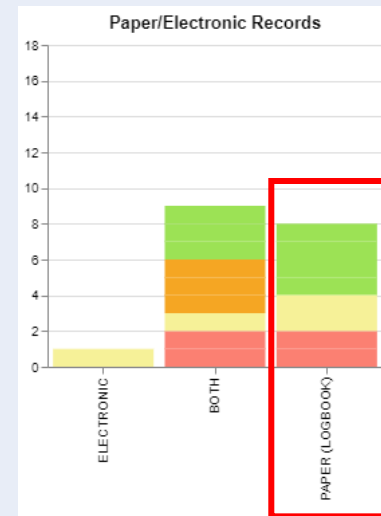
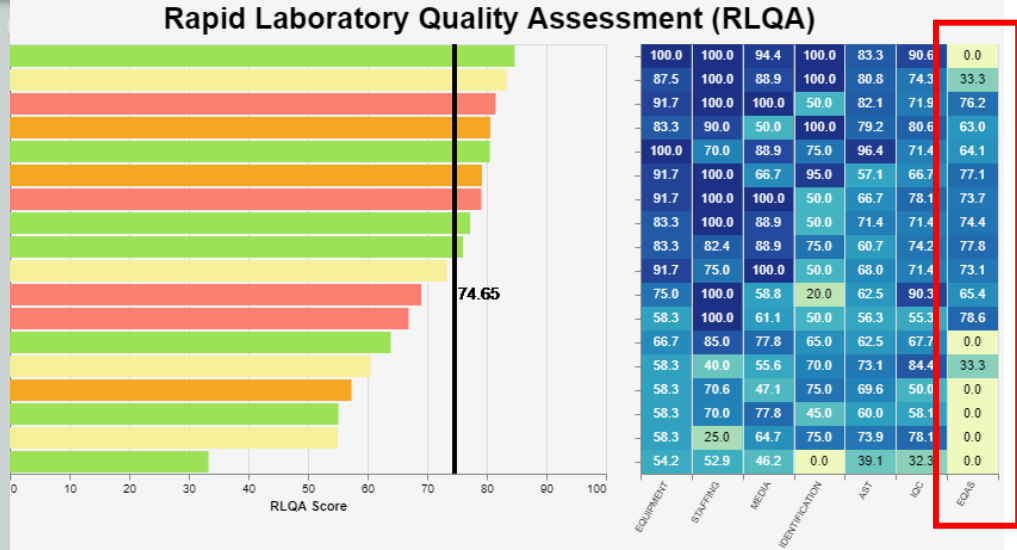
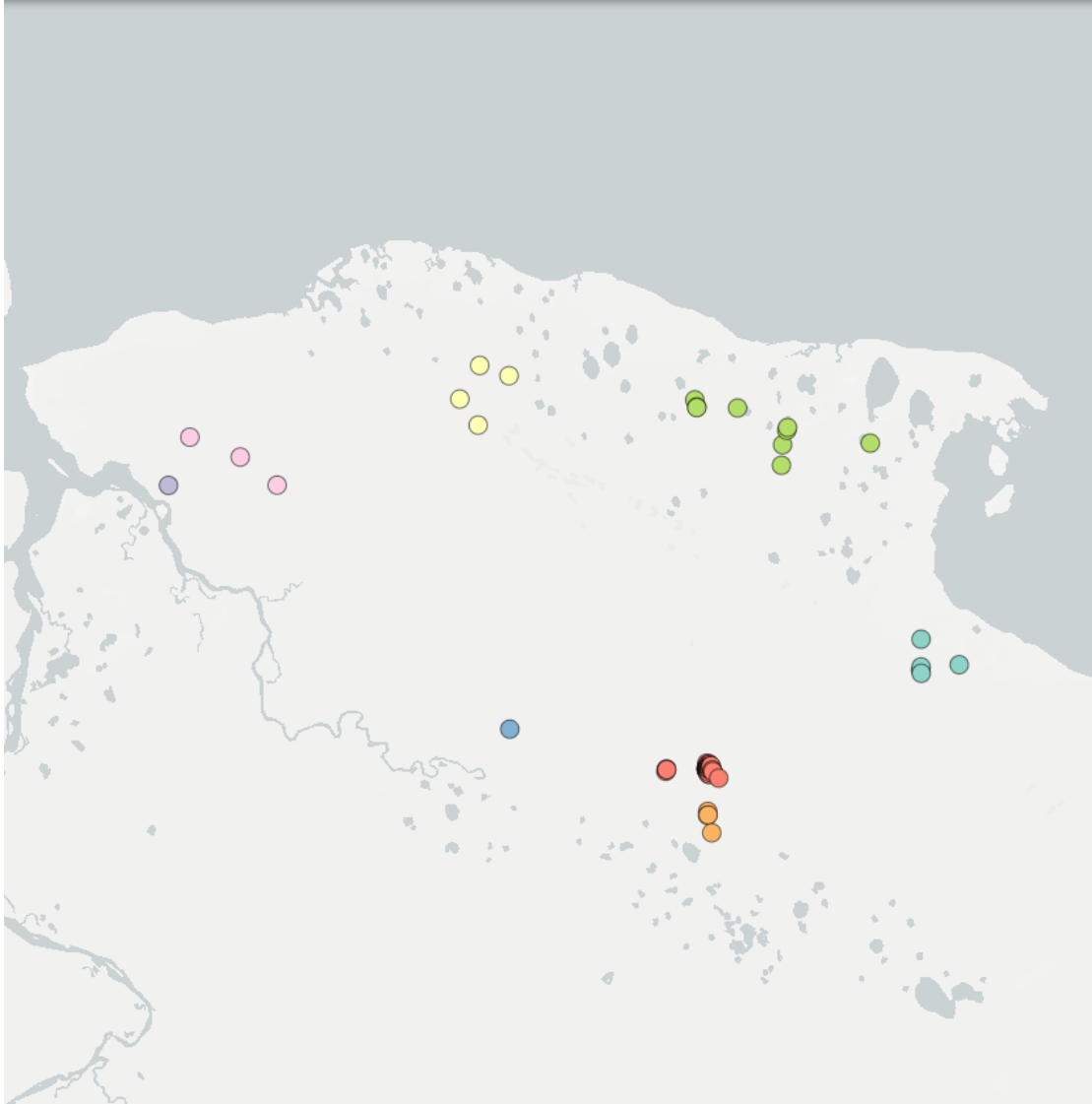
Importance of metadata

Metadata gives contextual information!



- To map out availability of data and data format
- To understand quality of data and facilities generating data
- To interpret data and analyses
- To monitor and assess status of systems in place
- To plan for action and next steps
- To monitor and assess initiatives/projects

Importance of metadata (example)



Use of Metadata in CAPTURA

Metadata guiding varying stages of project

Metadata providing contextual information on quality and system in place

Metadata helping to interpret data

Facility related
Information

AMR/U
Questionnaire

Lab Assessment

Dataset related
Information

Identification of relevant facilities

Confirmation on presence of data

Selection/prioritisation of
facilities for data sharing

Data uploaded to
warehouse

Selection of data
for analyses

Data analyses