



# Antibiotic Smart Community Project

React Asia Pacific  
India



# ReAct - Action on Antibiotic Resistance

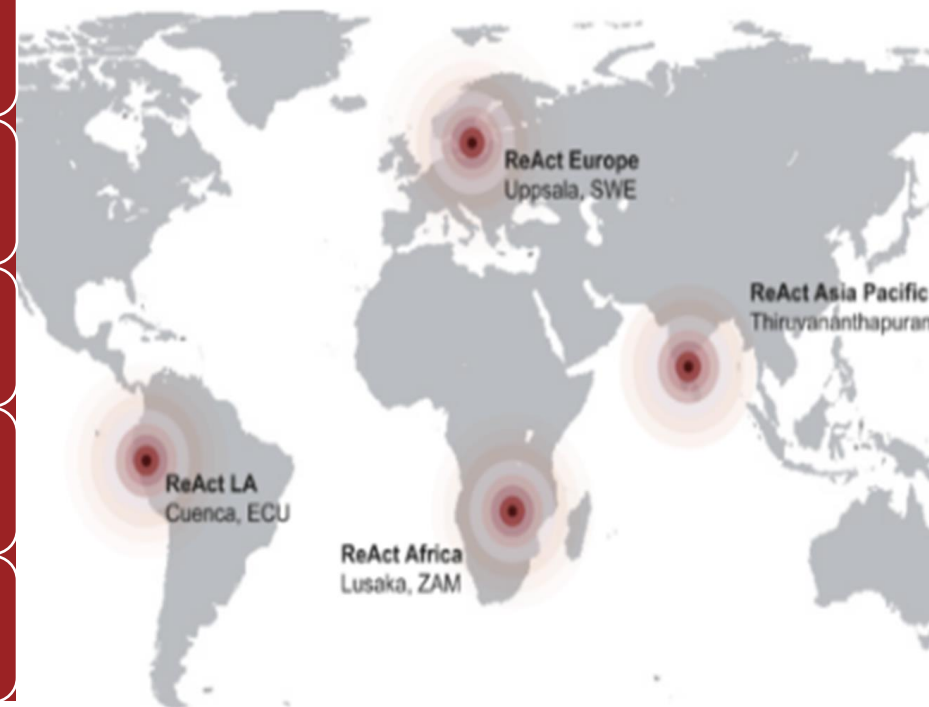
Launched in 2005 in Uppsala

One of the first international independent networks to articulate the complex nature of antibiotic resistance and its drivers.

**ReAct's nodes:** Latin America, Asia Pacific, Africa, Europe

ReAct Asia Pacific was hosted by CMC Vellore from 2016 to 2023

Since January 2024, RAP is hosted by the Global Institute Public Health, Trivandrum, Kerala



## Our vision

A world free from untreatable infections.

## Our Mission

To enable collective action that ensures sustainable and equitable access to effective antibiotics for all.

# Objectives for Engaging Communities



# Antibiotic smart community project

- Focus on public-health driven innovation to solve the complex issue which has several community-level drivers
- Optimal strategies to engage various community stakeholder groups
- Creation of resources for community stakeholders to understand and act on the issue.
- Strategizing on NAP implementation through decentralization and community mobilization

**Multiparameter index for measuring 'antibiotic smartness'**

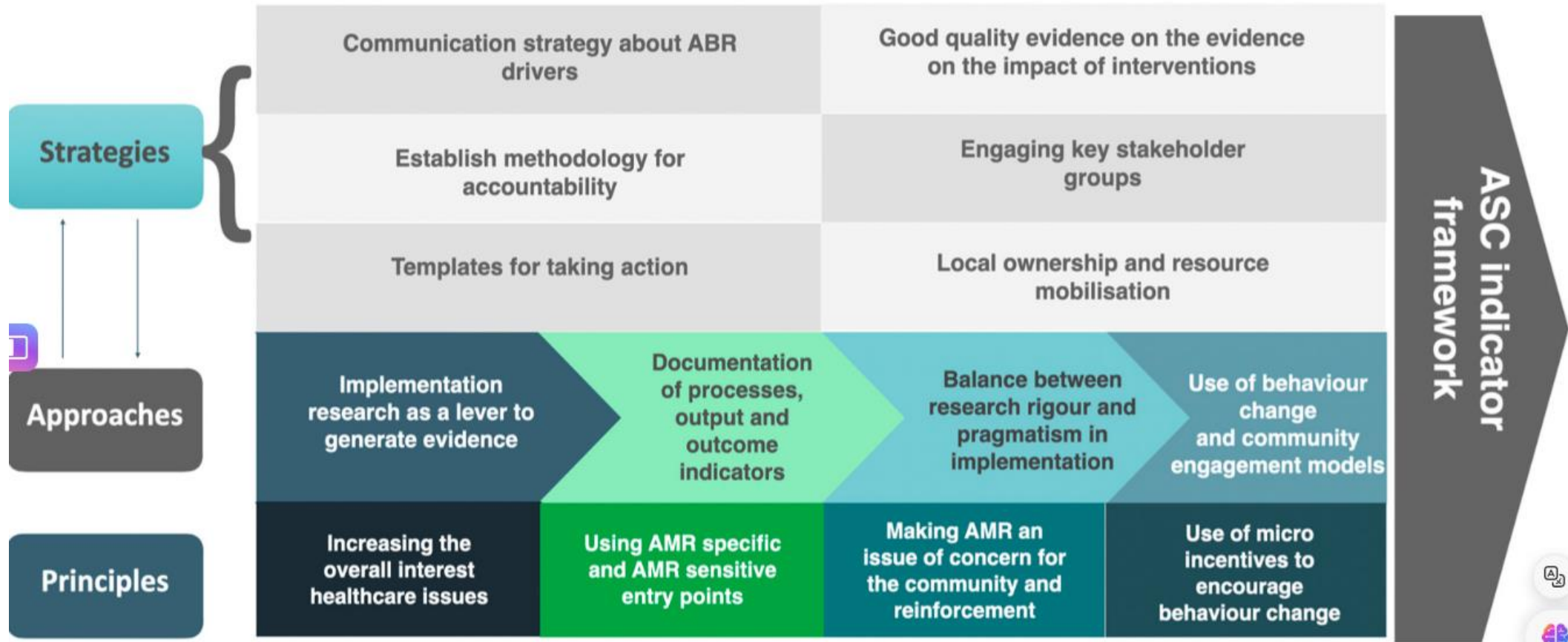
**Approaches and best strategies to engage specific stakeholders**

**Deliverables**

**Toolkits and manuals to educate and build capacity in specific groups**

**Novel interventions to tackle antimicrobial resistance in community contexts**

# Conceptual Framework



# ASC Indicator Framework

- A Set of 15 Indicators to measure ‘antibiotic smartness’ of a community.



## Examples of Indicators

- Hygiene facilities in primary and secondary schools in the community
- Access to Individual Household Latrine (IHHL) with water supply in households
- Coverage for pediatric vaccines as per the national immunization schedule
- Antibiotic protocols in healthcare facilities
- Over-the-counter (OTC) availability of antibiotics in retail pharmacies in the area
- Veterinary laboratory services for disease diagnostics
- Use of chemical/synthetic pesticides, herbicides, and other biocides in farms

## Indicator framework leading to action agenda

- In Mallapuzhassery, Kerala, the Indicator framework scores were used as the foundation for determining the action agenda.
- The indicator framework served as a point of entry for antibiotic resistance-focused community engagement efforts.
- The action agenda consisted of twelve contextualized activities, delivered in partnership with various local groups.
- The baseline score obtained was 34/45

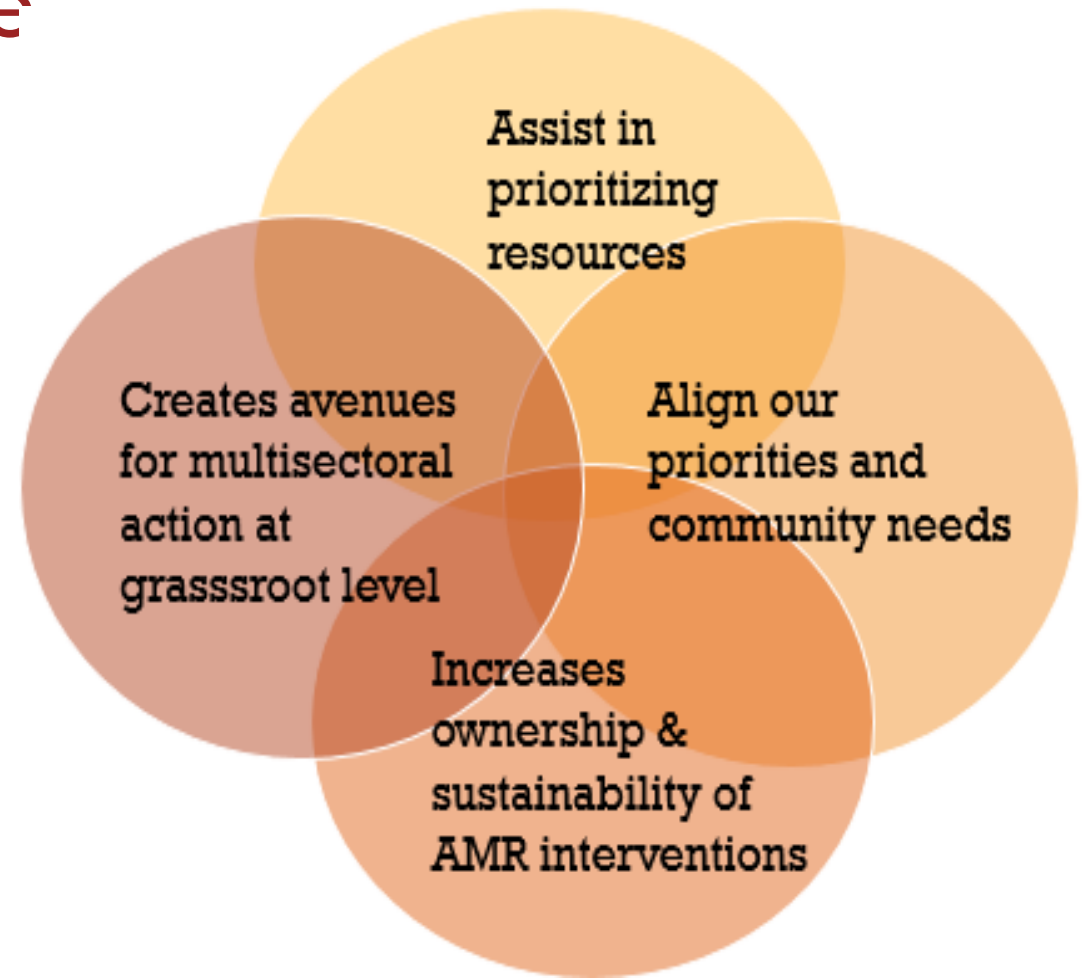


**Figure 1: Advantages of having the indicator framework in place.**



# Action agenda for ASC site

- The indicator framework scores obtained in the community site, (Mallapuzhassery, Kerala, India) were used to design specific interventions (termed as 'action agenda')
- The indicator framework served as a point of entry for antibiotic resistance-related community interventions.
- The action agenda consisted of twelve contextualized activities in consensus with local stakeholders.





# Examples of a few interventions as part of the Action Agenda

## Introduction to ComRADe Mobile Application

### Targeted Indicators

- Percentage of Access antibiotics (as per AWaRe classification of WHO) in total antibiotics dispensed in out-patient settings at healthcare facilities.
- Over-the-counter availability of antibiotics in retail pharmacies in the area

### Stakeholders

- Local Pharmacists
- Civil society, PIMS,



Antibiotics Colour Codes		
Search Amoxicillin		
J01CA04	Amoxicillin Penicillins	Access
J01CR02	Amoxicillin/ clavulanic Acid Beta lactam - beta lactamase inhibitor	Access
	amoxicillin/ bacillus coagulans/ cloxacillin	Not Recommended

## Introduction to sustainable mixed-method farming practices

### Targeted Indicators

- Use of chemical/synthetic pesticides, herbicides, and other biocides in farms

### Stakeholders

- Krishi Vigyan Kendra, Community Health, Punnakkadu, MGNREGS, Kudumbashree, Civil Society- GVS



# Examples of a few interventions as part of the Action Agenda

## Training and demonstration of soakage pit and compost pit construction

### Targeted Indicator

- Proportion of wastewater treated using any established wastewater treatment technologies, as per WHO's guidelines on Sanitation & Health (2019)
- Farm waste contaminating water resources in the community

### Stakeholders

- Local Self-government, MGNREGS, Kudumbashree.



## Demonstration of Biosecurity measures in Animal Husbandry

### Targeted Indicators

- Use of Highest Priority Critically Important Antibiotics in agriculture
- Educational initiatives in the last year to increase awareness about antibiotic or biocide use among farmers

### Stakeholders

- Krishi Vigyan Kendra, MGNREGS, Kudumbashree, Civil Society



## Change in scores over the six months for indicators with scope for improvement.

Indicators	Initial Score(out of 3)	Post agenda Score
• Hygiene facilities in primary and secondary schools in the community	3	3
• Access to Individual Household Latrine (IHHL) with water supply, in households	3	3
• Coverage for pediatric vaccines as per the national immunization schedule	3	3
• Percentage of Access antibiotics (as per AWaRe classification of WHO) in total antibiotics dispensed in outpatient settings at healthcare facilities	2	2
• Antibiotic protocols in healthcare facilities	2	3

## Change in scores over the six months for indicators with scope for improvement

Indicators	Initial Score (out of 3)	Post agenda Score
• Access to safely managed drinking water services	3	3
• <b>Over-the-counter availability of antibiotics in retail pharmacies in the area</b>	1	2
• <b>Use of Highest Priority Critically Important Antibiotics in Agriculture</b>	2	3
• Presence of functional veterinary health facilities and services in the community	3	3
• Veterinary laboratory services for disease diagnostics	2	2

## Change in scores over the six months for indicators with scope for improvement.

Indicators	Initial Score(out of 3)	Post agenda Score
• Educational initiatives on antibiotic use among farmers	1	2
• Biomedical waste management system in healthcare facilities	2	3
• Treatment of wastewater generated in households	2	2
• Use of chemical/synthetic pesticides, herbicides and other biocides in farms	2	2
• Farm waste contaminating water resources in the community	3	3

# Insights from the project

**Incorporating Gender, Environment, and Development Perspectives**

**Identifying and leveraging existing community structures.**

**Engaging local governance**

**De-Jargonizing AMR**

**Planning a clear exit strategy**

**Linking AMR to WASH**

**Contextual Approach for Entry Points.**

**Resource Prioritization and System-Level Advocacy**

# Challenges in Community Engagement

Communicating AMR to community

Competing priorities

Lack of Awareness and Understanding

Creating Trust in External Interventions

Challenges in Sustaining Engagement

Resource Constraints



For more details please scan the QR



Publication on the  
framework



Short video  
summary of the  
project



Handbook for  
data collection