



World Antimicrobial Awareness Week  
(WAAW) 2025 Webinar Series

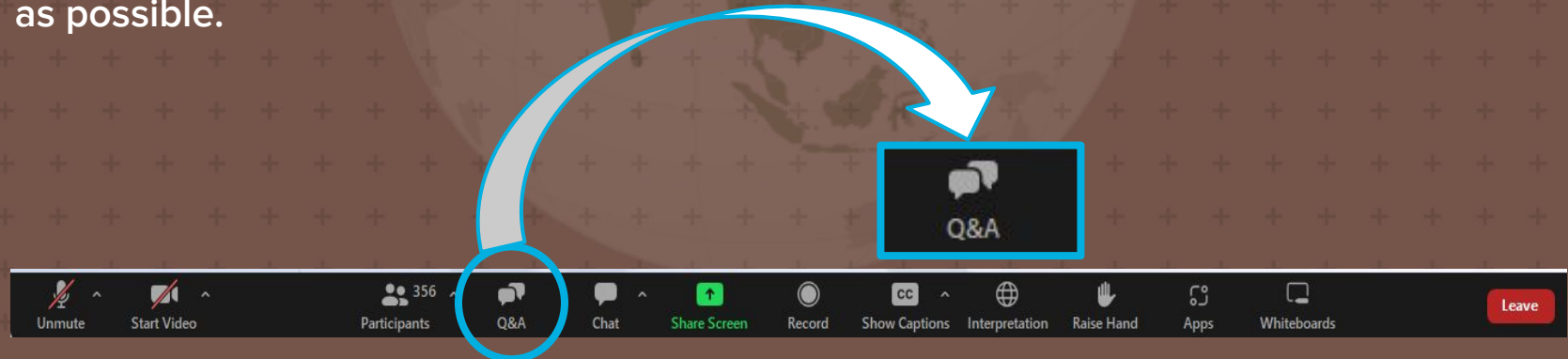
# One Health in Action: Asian strategies to tackle AMR across human, animal, and environmental health

When: **19th November 2025**  
Time: **10:00 GMT**



# Housekeeping

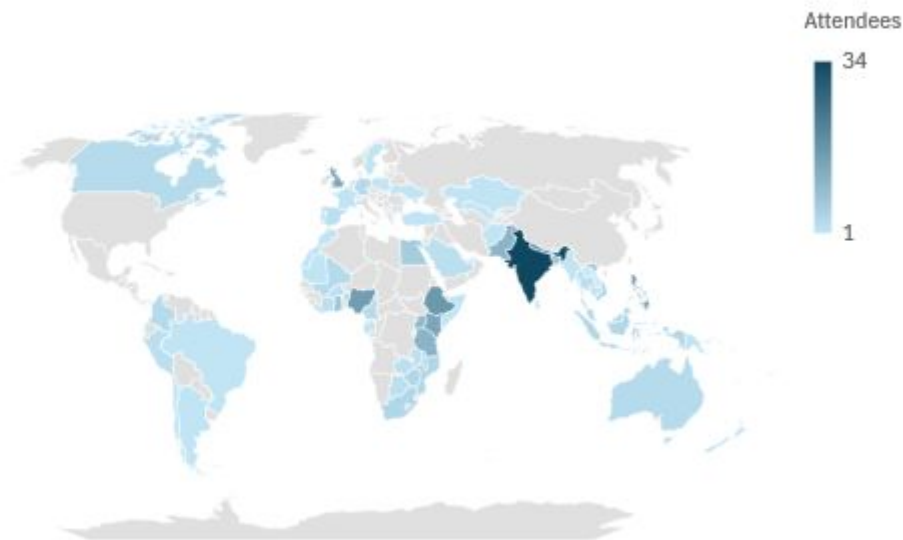
- This webinar is being recorded and will be shared on The Global Health Network.
- Due to the number of participants your camera and microphone are disabled.
- Please use the *Chat* feature for any technical issues.
- Please use the **Q&A** feature to post your questions. You can post anonymously.
- We have dedicated time allocated for Q&A so we'll try to get through as many questions as possible.



# Registered for today's webinar - Thank you!

Country	Attendees
India	34
Ethiopia	17
Philippines	17
Nigeria	16
Nepal	15
Kenya	14
United Kingdom	14
Pakistan	11
Tanzania	11
Uganda	10
Bangladesh	9
Ghana	7
Egypt	6
Malawi	6
Vietnam	6
DRC	5
Benin	4
Indonesia	4
Malaysia	4
Mozambique	4

## One Health in Action: Asian Strategies to Tackle AMR Across Human, Animal, and Environmental Health



Powered by Bing  
© Australian Bureau of Statistics, GeoNames, Microsoft, Navinfo, Open Places, OpenStreetMap, Overture Maps Foundation, TomTom, Zenrin

# Panel & Agenda

**Chair: Godwin Pius Ohemu** - Graduate Assistant, AMR Knowledge Hub and CoP, The Global Health Network, University of Oxford, UK

**Welcome/Opening Remark: Dr. Hamsadvani Kuganantham** - Consultant, The Global Health Network, University of Oxford, UK

**AMR Commitments and Initiatives at the Sub-national Level in India-** **Dr. Anuj Sharma**, Technical focal point – AMR & IPC, WHO India

**Setting up an IPC Program in Low-Resource Settings** - **Prof. Geetanjali Kapoor**, AMR Consultant, India; Visiting Academic, University of Oxford

**Addressing Gender Inequalities in AMR Interventions** - **Dr. Tine Rikke Jorgensen**, Strategic Adviser, The Globe Institute, University of Copenhagen, The Global Health Network, and Former AMR Programme Coordinator, WHO, HQ Geneva and Europe.

**Q&A** - Prof. Geetanjali Kapoor, Dr. Tine Rikke Jorgensen and Dr. Anuj Sharma

**Closing Remark** - **Dr. Hamsadvani Kuganantham/Adam Dale**, The Global Health Network

**Scribe** - **Nana Osei Bonsu**, AfOx Ubuntu Fellow

# **AMR Commitments and Initiatives at the Sub-national Level in India**

**Dr. Anuj Sharma**

Technical focal point – AMR & IPC,  
WHO India



**Dr. Anuj Sharma**

Technical focal point – AMR & IPC,  
WHO India





# Setting up an IPC Program & Impact Assessment

**Prof. Geetanjali Kapoor**

AMR Consultant, India

Visiting Academic, University of Oxford



# Prof. Geetanjali Kapoor

AMR Consultant, India  
Visiting Academic, University of Oxford





# Setting up an IPC Program & Impact Assessment

**Prof. Geetanjali Kapoor**

AMR Consultant, India

Visiting Academic, University of Oxford

# Agenda

AMR accelerators

AMR burden

SENIC - Formal start of IPC

Key components of IPC

- Precautions – Standard and Transmission-based

- Environment Cleaning & Disinfection

- Environment & Engineering Control

- WASH

- Vaccination

- Food Safety

How to measure impact of IPC interventions

- IPC indicators

- MDRO

- HAI and its surveillance

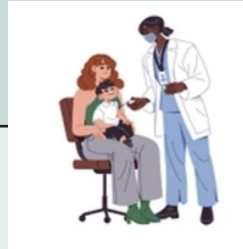
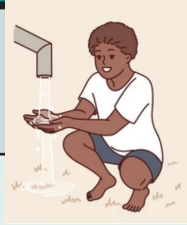
Emerging questions

# AMR | Accelerators

## Conducive environment for microbe and antimicrobial interactions

### More microbes

- Poor IPC & WASH
- Low vaccine coverage

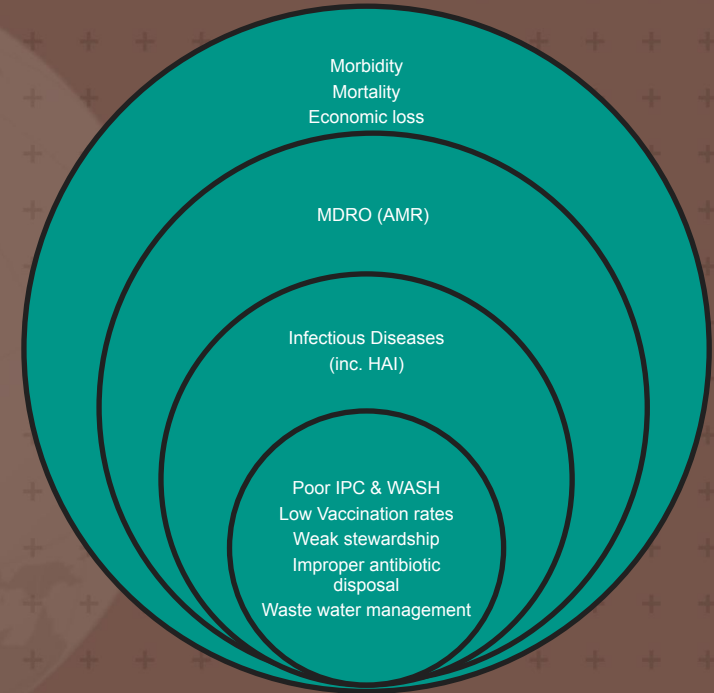


### More antimicrobials

- Weak stewardship
- Weak enforcement of regulations
- Improper disposal practices

### Environmental

- Wastewater management in human dwellings, animal farms and agriculture



Strong IPC = cornerstone of AMR containment

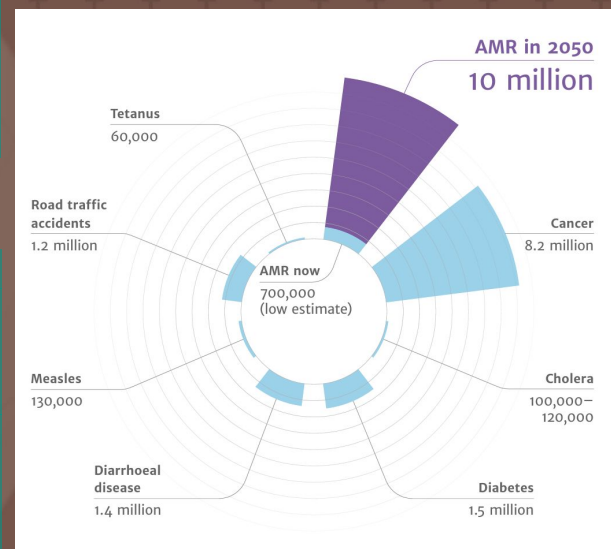
# AMR Burden

AMR infections	AMR attributed deaths	AMR associated deaths	Year	Scope	Source
-	0.7 M*	-	2014	Global	Lord Jim O'Neill
-	1.3 M**	4.9 M	2019	Global	Lancet report
2.8 M	35,000	-	-	USA	CDC AR threat report 2019

\*Including HIV, TB, malaria; rise to 10M/year by 2050, if no action taken

\*\*Bacterial AMR (TB included)

AMR's impact by 2050						Source
Decline in global livestock output	Decline in global exports	Decline in GDP	Decline in global economy	Rise in healthcare expenses	Rise in extreme global poverty	
11 %	1.1-3.8%	1.1-3.8%	-	\$0.33-1.2 trillion	24 million people	World Bank
-	-	-	100 trillion	-	-	Lord Jim O'Neill



AMR attributed deaths

## SENIC study (1970s-1980s)

Study of the Efficacy of Nosocomial Infection Control (SENIC)

SENIC showed infection rates ↓ by 1/3 with 4 interventions:

- Clinician or microbiologist with specialized training

- Dedicated infection preventionist

- Good surveillance systems with regular feedback to staff

- Strict enforcement of preventive practices

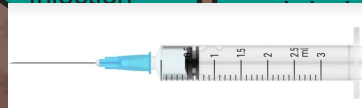
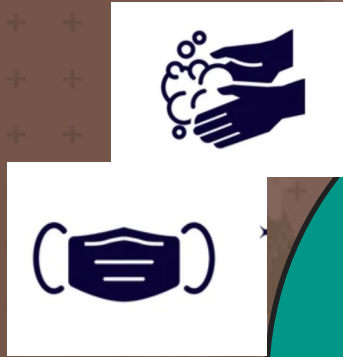
Formal origin of IPC programs

Strong IPC = cornerstone of AMR containment

\* Healthcare Associated Infection

\$ Infection prevention: General principles. UpToDate; August 2025

# Components of Infection Prevention

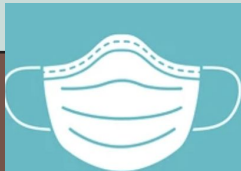




# Precautions

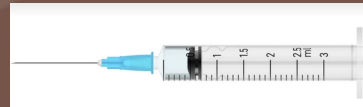
## Standard (for all patients, always)

- Hand hygiene
- Use of PPE (gloves, gown, mask, eye protection as risk requires)
- Respiratory hygiene/cough etiquette
- Safe injection practices
- Environmental cleaning & waste management



## Transmission-Based (added for suspected/confirmed cases)

- Airborne: e.g., TB, measles, COVID-19 → N95 respirator, negative pressure room
- Droplet: e.g., influenza, pertussis → surgical mask, patient placement
- Contact: e.g., MRSA, C. difficile → gloves, gowns, dedicated equipment



# Standard Precautions

Applied to all patients in all healthcare settings, regardless of infection status; primary strategy for preventing healthcare-associated transmission

## Components

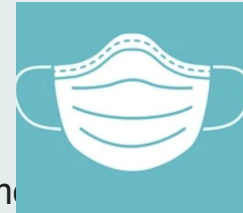
### Hand hygiene

- Single most important practice to reduce the transmission of infectious agents
- No artificial fingernails and extenders when with high-risk patients
- Hand hygiene = final step after PPE removal



### Personal Protective Equipment (PPE)

- Gowns are usually the first piece of PPE to be donned
- Face protection: masks, goggles, face shields
- Selection depends on patient interaction and mode of transmission
- Removal of a face shield, goggles and mask performed after gloves removed
- Designated containers for used PPE disposal/collection



### Respiratory Hygiene/Cough Etiquette

- Masking may be difficult in some settings, (e.g., pediatrics)
- Cough etiquette

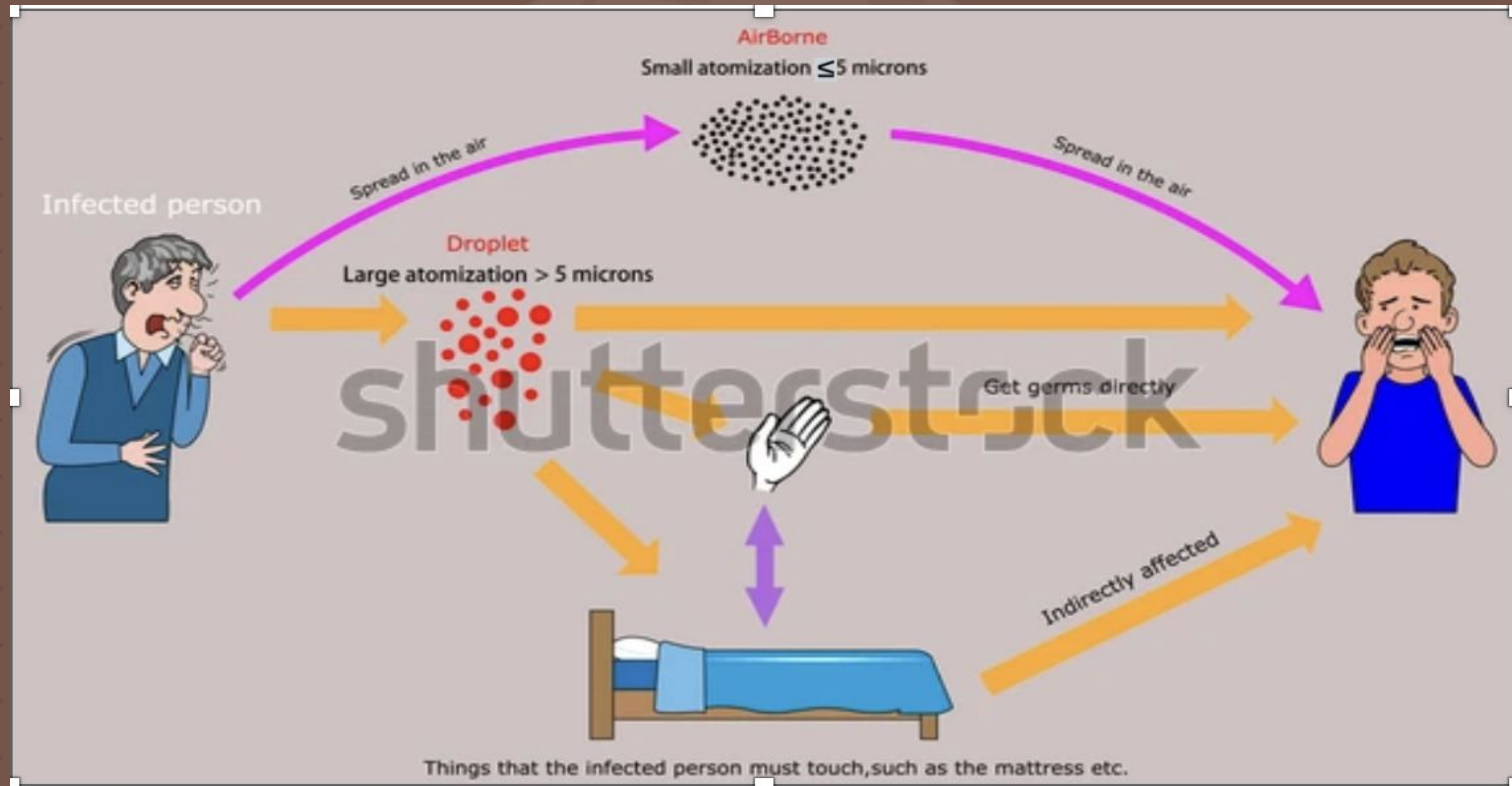


### Safe injection practices



Courtesy: Shutterstock images

# Transmission-Based Precautions



# Transmission-Based Precautions

Applied when the route(s) of transmission not interrupted using Standard Precautions alone

## Components

### Airborne Precautions

- Why: To interrupt pathogens that stay as droplet nuclei (desiccated suspended droplets i.e.  $\leq 5 \mu\text{m}$  size) or as fine airborne particles and hence are in the respirable size range & remain infective over time and distance
- Ex: M. tuberculosis, Rubella (measles) virus, Varicella-zoster virus (chickenpox), spores of *Aspergillus* spp
- Patient placement in Airborne Infection Isolation Room (AIIR): Single-patient room with negative pressure, 12 ACH for new construction/renovation and 6 for existing facilities#; air exhausted directly to the outside or recirculated through HEPA filtration before return
- Alternate: Masking of patient and placement in private room with the door closed; N95 or higher level respirators for healthcare personnel

### Droplet Precautions

- Why: To interrupt pathogens that move in respiratory droplets ( $> 5 \mu\text{m}$ ) and usually over short distances ( $\leq 3 \text{ feet}$ )\*
- Scenarios: Cough/cough induction, sneeze, talk, suctioning, endotracheal intubation, CPR
- Ex of pathogens: *Neisseria meningitidis*, *Bordetella pertussis*, *Mycoplasma pneumoniae*, GAS, Influenza virus, Adenovirus, Rhinovirus, SARS-CoV
- Facial protection

### Contact Precautions

- Herpes simplex, localized zoster in an immunocompetent host or vaccinia viruses most likely
- Ebola: Contact & Droplet

#as of 2001 vs before 2001

\*but should not be the sole criteria as maximum distance is variable/unresolved

# Environment Cleaning & Disinfection

## Spaulding Classification

Critical items : enter the body (need highest level of sterilization)

Semi critical items : touch mucosa (need high-level disinfection)

Non-critical items : touch skin (need low-level disinfection)

- Follow manufacturers' instructions if available
- Alcohol (60-90%) works for small surfaces (rubber stoppers, thermometers, steths)
- Barrier protection as for frequently touched operating light in dental care setting
- High-touch patient-care items (e.g., blood pressure cuffs) should be disposable in isolation settings

Housekeeping surface

- High touch surface (doorknob, bedrail, switch, curtain edge)
- Infrequent hand contact (window sills) – upon patient discharge and when soiled
- Window curtains, walls, blinds – when soiled

## CDC recommendations

- Disinfectant fogging not recommended for general infection control in routine patient care areas
- Routine environmental (air, water, surface) culturing not recommended as infection rates are not linked to general microbial contamination and no environment standards exist for safe levels (except: outbreak, research, change in IPC practice)

# Environment & Engineering Control

**Purpose:** Prevention of environmentally mediated infections particularly among HCW & immunocompromised

**Likely Pathogens:** *Aspergillus* spp., *Legionella* spp., *M. tb*, VZV

## Recommendations

Adherence to ventilation standards for special environments

- Daily monitoring of of negative airflow in renovation and construction area
- Daily monitoring of of negative airflow in Airborne Infection Isolation
- Daily monitoring of of positive airflow in protective environment rooms (PE) and

Adherence to water quality standards for safe hemodialyzer reprocessing

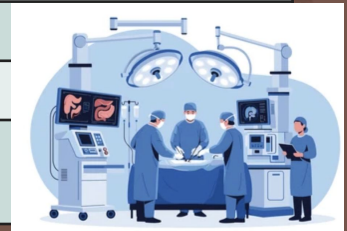
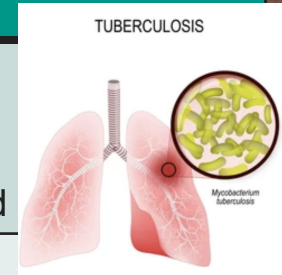
- Monthly (min) water testing to rule out endotoxin

Identify and respond to water related damages

Adherence to proper use of disinfectants

Adherence to proper maintenance of medical equipment that uses water (endoscopes and hydrotherapy equipment)

Routine environmental sampling is not recommended





# Water, Sanitation & Hygiene (WASH)

## Rationale and Actions

### Rationale

- Removes infection sources and breaks the chain of transmission
- Supports AMR mitigation & antimicrobial stewardship

### Actions

- Ensure safe water supply (40–60 L/patient/day; 2 days' storage)
- Provide hand hygiene facilities at points of care & food prep areas
- Regularly test water quality (chlorine 0.2–0.5 mg/L; *E. coli* absent in 100 ml)
- Maintain sanitation infrastructure (toilets, wastewater, waste segregation)
- Strengthen waste management (segregation, safe transport, treatment & disposal)



# Vaccination

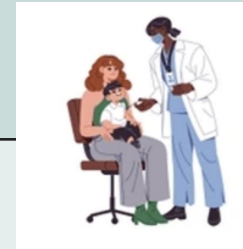
## Rationale and Actions

### Rationale

- Mimics a real infection and hence trains the immune system to fight diseases
- Reduction in disease burden
- Supports AMR mitigation & antimicrobial stewardship

### Actions

- Ensure routine immunization for all population and at-risk groups
- Immunize healthcare workers against influenza, Hepatitis B, COVID-19, etc.
- Integrate vaccination into IPC programs at facility and community levels



# Food Safety

## Rationale and Actions

### Rationale

- Prevents foodborne infections and breaks the chain of transmission
- Supports AMR mitigation & antimicrobial stewardship

### Actions

#### Follow WHO's Five Keys to Safer Food:

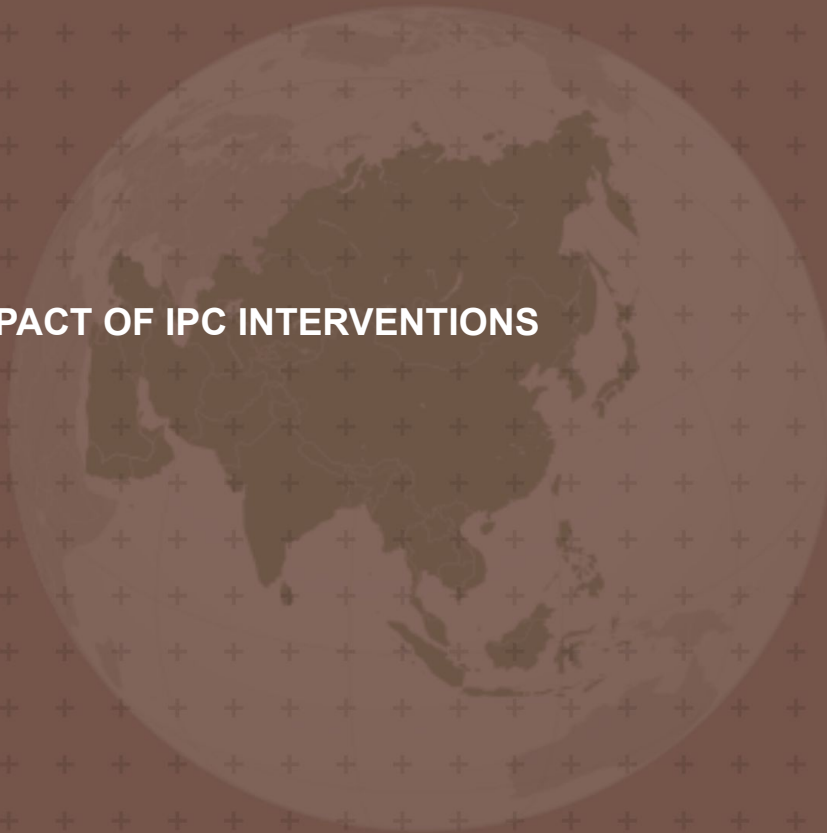
- Keep clean – strict hand hygiene, PPE for food handlers
- Separate raw & cooked to avoid cross-contamination
- Cook thoroughly ( $\geq 70^{\circ}\text{C}$  core temperature)
- Keep at safe temperatures (hot  $>60^{\circ}\text{C}$ , cold  $<5^{\circ}\text{C}$ )
- Use safe water & raw materials (wash produce, discard expired/rotting food)

#### Apply Hazard Analysis and Critical Control Point (HACCP) or similar food safety systems in healthcare food services

- Identify hazards (biological, chemical, physical)
- Determine critical control points (CCPs)
- Set limits (cooking/storage temperatures)
- Monitor, correct, keep records, and verify compliance



# HOW TO MEASURE IMPACT OF IPC INTERVENTIONS



# IPC Indicators



---

Knowledge, Attitude and Practice

---

Compliance to IPC practices

---

Multidrug Resistant Organism  
Prevalence

---

Infection (HAI) Rates

# Multidrug-resistant organisms (MDROs)

## RESERVOIR & TRANSMISSION

### S. Aureus

- Humans are the main reservoir

### VRE

- Colonized patients especially immunocompromised

### ESBL producers & CRE

- Human gut, urinary tract, wounds, medical devices, hospital surface

### Transmission Routes

- Direct (patient-to-patient contact)
- Indirect (Healthcare workers' hands and contaminated surfaces)

## CONTAINMENT

Administrative commitment of fiscal and human resources

IPC (Standard and Contact Precautions)

AMS (judicious use of antimicrobials)

Environmental measures

Surveillance (routine and enhanced)

Education and decolonization

IPC

MDRO

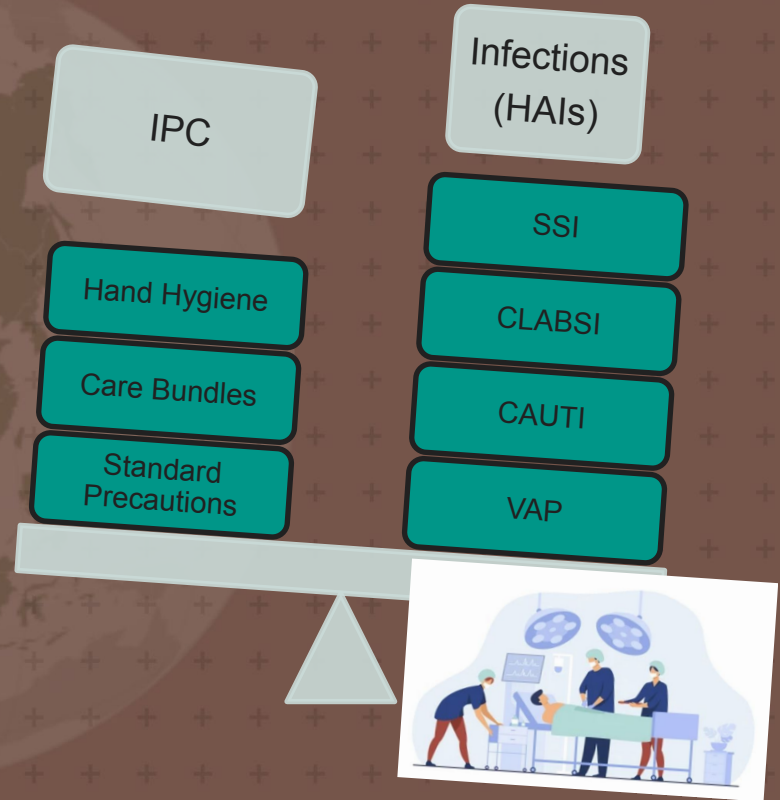


# Healthcare-associated infections (HAIs)

An infection that develops in a patient who has received health care (infection was not incubating or present at the time healthcare was provided).

Acute care hospital  
Chronic care facility  
Ambulatory clinic  
Dialysis center  
Surgicenter

Healthcare-acquired  
Nosocomial infection





# Steps of HAI surveillance

## 1. DEFINE SCOPE & CASE DEFINITIONS



Select high-risk areas  
Agree on standards and case definitions with clinicians and microbiologists

## 2. CREATE PROTOCOLS



Create SOPs

## 3. TRAIN SURVEILLANCE STAFF



Train and retrain surveillance staff

## 4. CASE IDENTIFICATION



Daily rounds, review records, labs, radiology  
Confirm cases with clinicians

## 5. DATA MANAGEMENT



Enter into secure database  
Validate and resolve discrepancies

## 6. DATA ANALYSIS



Analyze trends & outcomes

## 7. ACTION




Train hospital staff (IPC Bundles) and build hospital capacity for sustained surveillance

## 8. PRESENTATION & REPORT WRITING



## Emerging Questions in IPC



- Evaluate significance of airborne pathogens in surgical field
- Importance of particulate sampling instead of microbiological in ultra clean environment
- Newer methods of water treatment
- Innate pathogen resistance to germicides
- Newer techniques to inactivate emerging pathogens in medical waste
- Call to Action- Linking research gaps with policy/practice

## References

Accessible version: <https://www.cdc.gov/infection-control/hcp/isolation-precautions/index.html>



### 2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings

Last update: September 2024

Accessible version: <https://www.cdc.gov/infection-control/hcp/disinfection-and-sterilization/index.html>



### Guideline for Disinfection and Sterilization in Healthcare Facilities, 2008

Update: June 2024



World Health Organization



### Water, sanitation and hygiene and infection prevention and control measures for infectious diarrhoea in health-care settings

*Operational guide*

September 2024

Accessible version: <https://www.cdc.gov/infection-control/hcp/environmental-control/index.html>



### Guidelines for Environmental Infection Control in Health-Care Facilities

Recommendations of CDC and the Healthcare Infection Control Practices Advisory Committee (HICPAC)

U.S. Department of Health and Human Services  
Centers for Disease Control and Prevention (CDC)  
Atlanta, GA 30329

2003

Updated: July 2019

## THE REVIEW ON ANTIMICROBIAL RESISTANCE

CHAired BY JIM O'NEILL

MAY 2016



**Thank you!!**



# Addressing Gender Inequalities in AMR Interventions

**Dr. Tine Rikke Jorgensen**

Strategic Adviser, The Globe Institute, University of Copenhagen,  
The Global Health Network, and Former AMR Programme  
Coordinator, WHO, HQ Geneva and Europe.



# Dr. Tine Rikke Jorgensen

Strategic Adviser, The Globe Institute, University of Copenhagen, and The Global Health Network  
Former AMR Programme Coordinator, WHO, HQ Geneva and Europe.



# Addressing gender inequalities in national action plans on antimicrobial resistance



Tine Rikke Jorgensen

Strategic Advisor, The Globe Institute, University of Copenhagen and the Global Health Network, University of Oxford

Former AMR Programme Coordinator, WHO

21 November 2025

# Agenda

- Global perspective of AMR
- Why is a gender lens on AMR needed ?
- National Action Plans on AMR and Gender





“The growing threat of AMR may send us back to the time before antibiotics, when even a routine injury could kill. Already, AMR is estimated to lead to 5 million deaths every year.

“.. we can only truly address the major health challenges of our time with a One Health approach. AMR has impacts for every sector, and every sector must be engaged in the response: the public and private sectors, across health, agriculture and environment.”

## WHO objective

**WHO's goal is to have antimicrobial treatments that work today and in the future.**

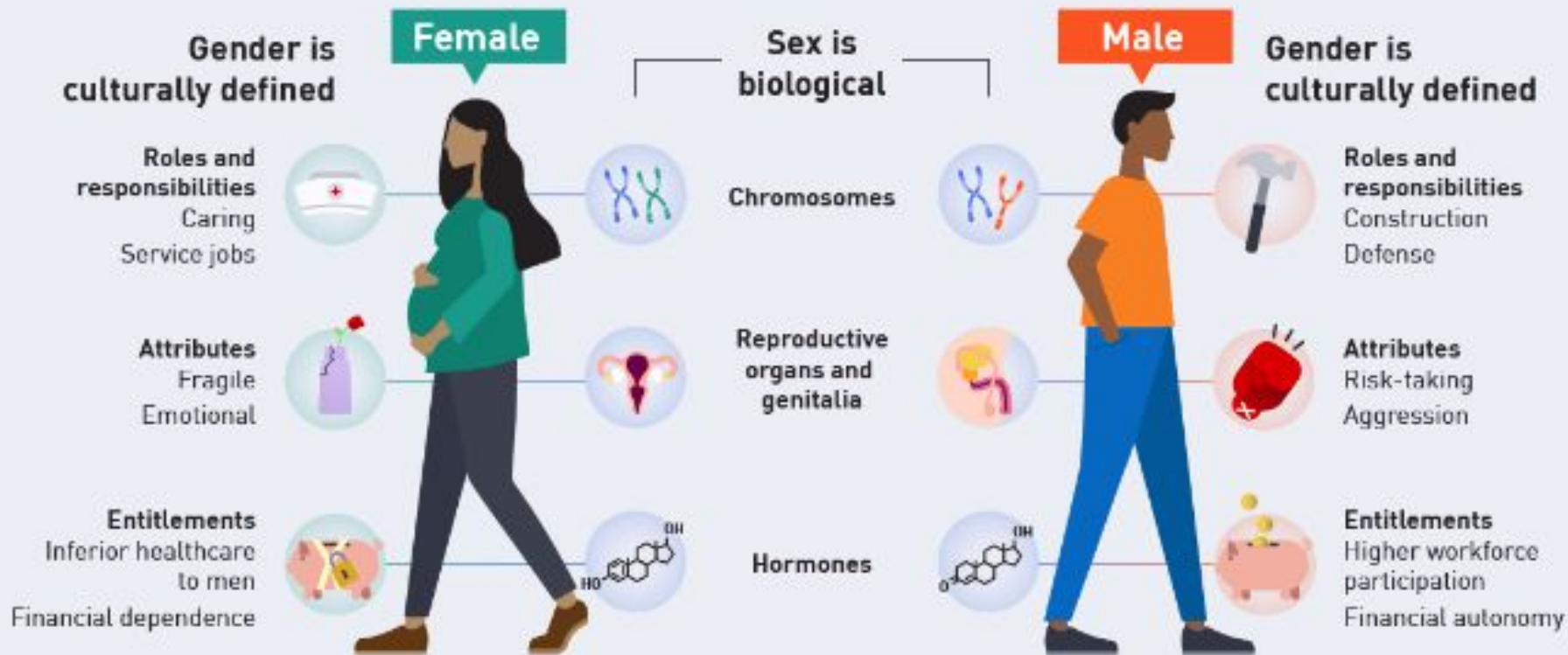


# Call for data and evidence - for action

In 2007, the World Health Assembly adopted a resolution urging Member States to “formulate national strategies for addressing gender issues in health policies, programmes and research,” **to apply a gender-equality perspective in health care delivery and services, and to collect and analyse sex-disaggregated data.**



# Sex vs Gender



THE LANCET

Source: Lancet Series on Gender Equality, Norms and Health. Paper 1, 2019



# Resistance bacteria circulate in the environment

De





# Addressing gender inequalities in AMR National Action Plans (NAPs), 16 September 2024

The guidance on how to address gender inequalities in AMR NAPs to WHO Member States, has 20 actionable recommendations.

The publication is aimed at

- identifying and addressing gender-specific vulnerabilities,
- embedding gender analysis into AMR research, and
- promoting equitable access to antibiotics.

## Addressing gender inequalities in national action plans on antimicrobial resistance

Guidance to complement the people-centred approach



[Addressing gender inequalities in national action plans on antimicrobial resistance \(who.int\)](https://www.who.int/publications-detail/addressing-gender-inequalities-in-national-action-plans-on-antimicrobial-resistance)

# Addressing gender inequalities in AMR NAPs



## Structure

20 recommendations building on a people-centered approach

3 overarching recommendation –data for action, research and gender in NAPs

## 5 pillars

- Governance, awareness, education and
- Data for action through surveillance and research
- Prevention
- Access to essential health services
- Timely accurate diagnosis
- Appropriate, quality assured diagnosis

## People-centred approach to addressing antimicrobial resistance in human health:

WHO core package of interventions to support national action plans



[People-centred approach to addressing antimicrobial resistance in human health: WHO core package of interventions to support national action plans](#)

# Addressing gender inequalities in AMR NAPs

A review of National Action Plans (NAPs) on antimicrobial resistance (AMR) showed **minimal attention to gender considerations**.

- Out of 145 publicly available NAPs, 125 did not mention sex or gender.
- However, on AMR research indicates that gender influences:
  - Exposure and susceptibility to infections
  - Health-seeking behaviours and access to health care
  - Patterns of antimicrobial prescribing and use

Gender may also impact who has access to resources and decision-making power for care and treatment of drug-resistant infections.

Gender disparities contribute to differences in the quality of care received and patient outcomes.

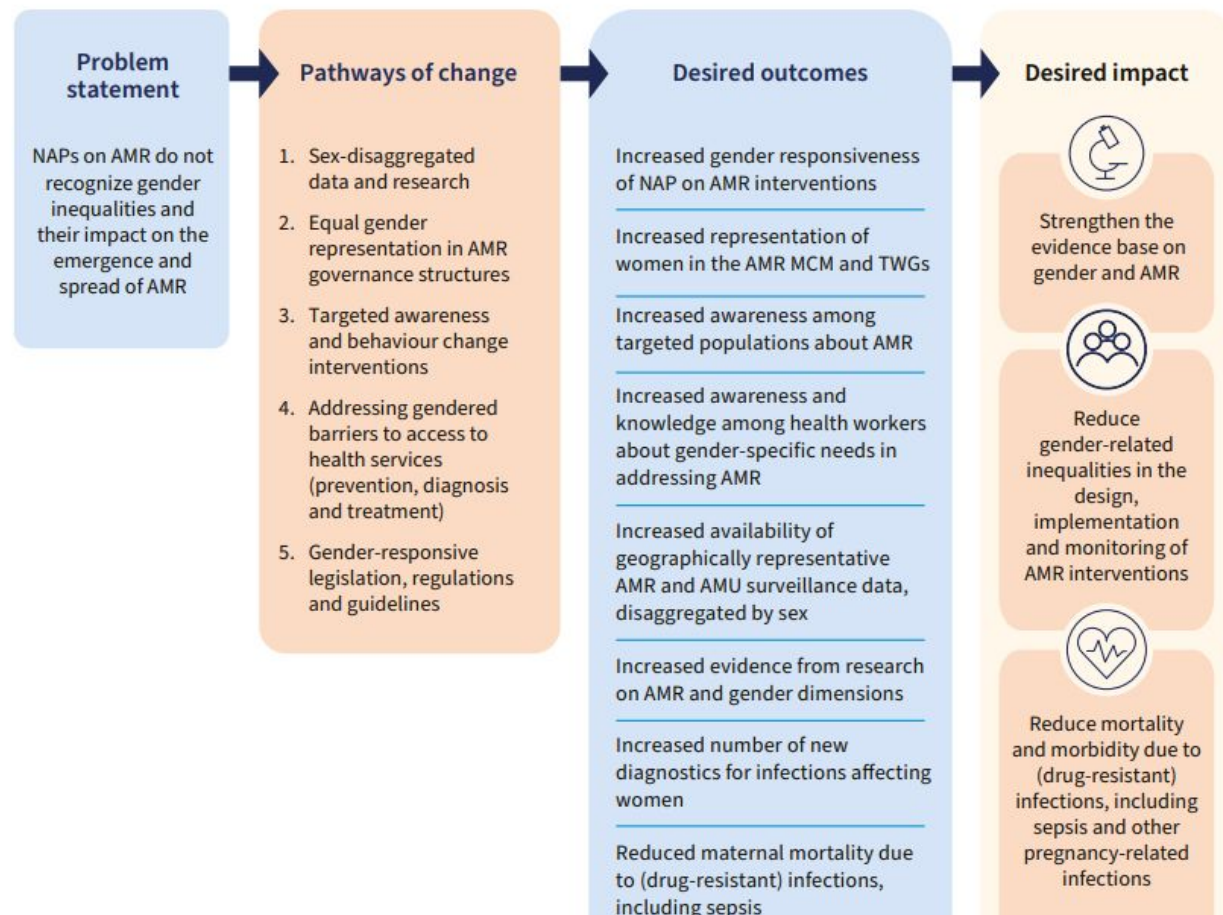
[Addressing gender inequalities in national action plans on antimicrobial resistance \(who.int\)](https://www.who.int/publications-detail/addressing-gender-inequalities-in-national-action-plans-on-antimicrobial-resistance)

Addressing gender inequalities  
in national action plans on  
antimicrobial resistance

Guidance to complement the people-centred approach



**Fig. 2. Theory of change for addressing gender inequalities in NAPs on AMR**



# Disaggregate data, gender lens review of NAPs, research

## Summary of AMR and gender recommendations

### Overarching

1. **Short term.** Capture and disaggregate data on AMR and surveillance of antimicrobial use and other relevant data by, at minimum, sex and age and, where feasible, other social stratifiers.
2. **Short term.** Review existing national plans or strategies in the health sector or other relevant areas and incorporate policies or actions that strive for gender equality into the national action plan on AMR.
3. **Medium term.** Promote research to strengthen the evidence base on the intersections between gender and AMR.

**Call to apply a gender- equality perspective in health care delivery and services, and to collect and analyse sex-disaggregated data zooming in on AMR.**



# Conclusion

AMR and gender is highly relevant to WHO's goal of having antimicrobial treatments that work today and in the future.



The recent published WHO guidance support NAPs in incorporation of gender relevant lens

Continued focus and prioritization on gender is needed to ensure policies that address men and women in AMR prevention and control.







**Q&A**

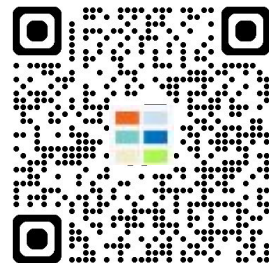


## Thank You!

Thousands of global health professionals, like you, have taken part in free webinars and workshops hosted by The Global Health Network.

Your support keeps these sessions free for researchers and health workers everywhere, helping them conduct studies even in times of crisis.

Please give what you can today:  
<https://hub.tghn.org/support-us/donate/>



---

# AMR commitments and initiatives

– at the sub-national level in India

Dr Anuj Sharma

Technical Officer – AMR & IPC

WHO Country Office for India

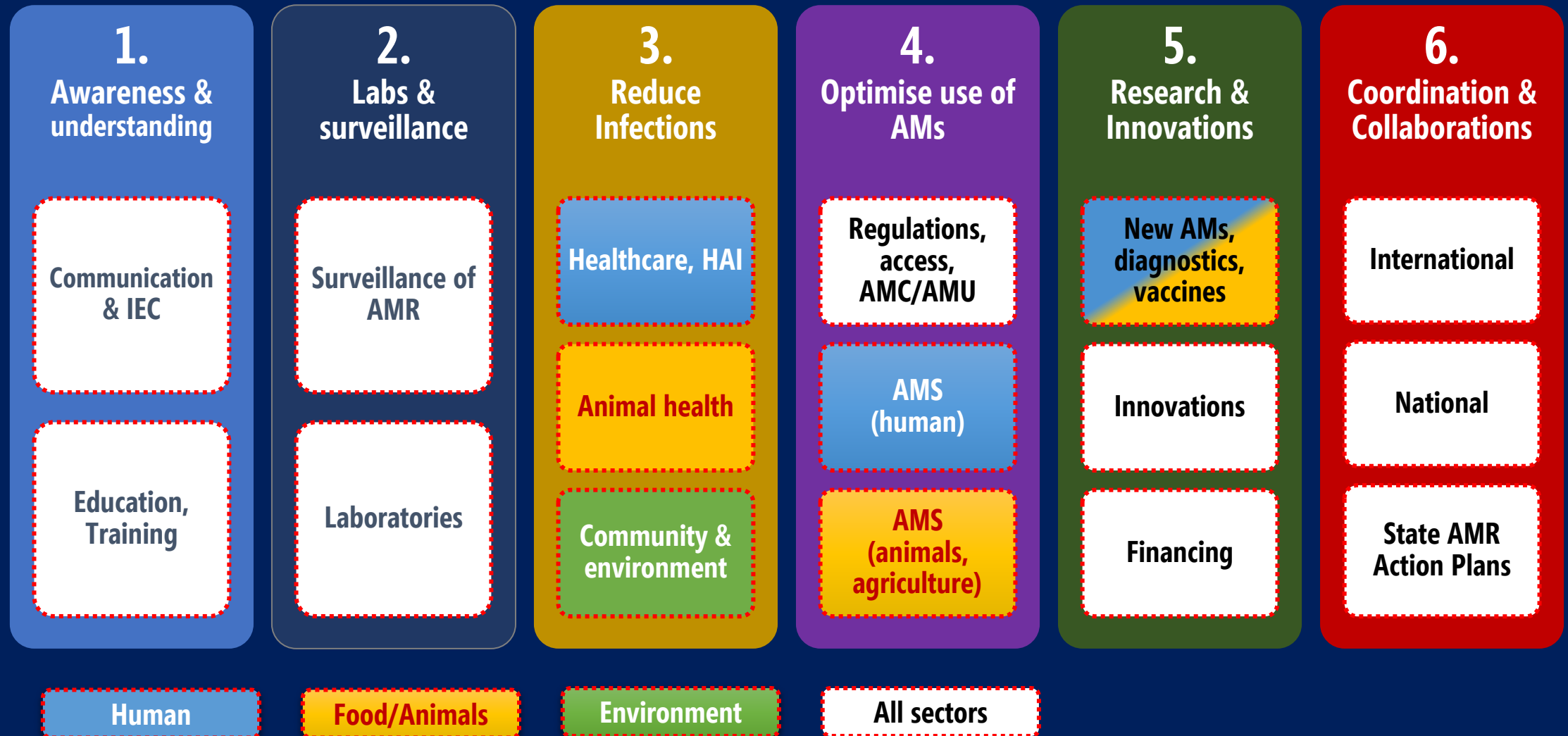


# AMR challenges – in India

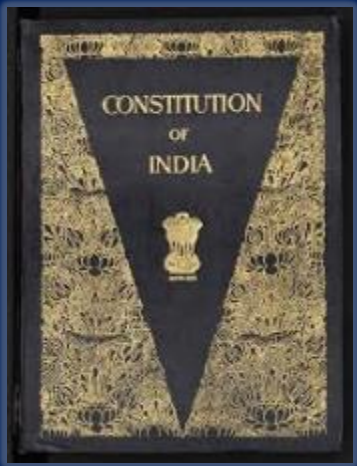
- High burden of communicable diseases; largest consumer of antimicrobials (humans)
- OTC availability of antimicrobials despite regulations, quality of AMs
- Inadequate IPC/WASH and access to quality healthcare services
- High levels of AMR, with limited representative AMR surveillance across sectors
- Low awareness about AMR amongst the public with OTC use/prescription sharing
- Inter-sectoral coordination; overuse and misuse of antibiotics – across sectors
- Prioritization of AMR in States/UTs

# NAP-AMR (and SAPCAR)

*NAP-AMR 2.0 launched  
on 18 Nov 2025*



# States & Union Territories in India



## 1. **UNION** list

- National policy, national AMR programme, R&D, intersectoral coordination, collaborations

## 2. **STATE** list

- Human health, animal health, fisheries/aquaculture, agriculture, water/sanitation (environment)

## 3. **CONCURRENT** list

- Food, drugs, education



→ **SAPCAR**  
(State Action  
Plans for  
Containment of  
Antimicrobial  
Resistance)



# AMR & AMC surveillance



## NARS-NET

National AMR  
Surveillance Network  
(GLASS-AMR)

## NAC-NET

National Antimicrobial  
Consumption Network  
(GLASS-AMC)

**WHONET**

[www.whonet.org](http://www.whonet.org)

**AMC Tool**

[www.amu-tools.org](http://www.amu-tools.org)

## MAHASAR

Maharashtra Surveillance  
of AMR Network



## KARS-NET

Kerala AMR  
Surveillance Network



## DeNSAR

Delhi Network for  
Surveillance of AMR



**One Health AMR (GujSAR)**  
(Gujarat)

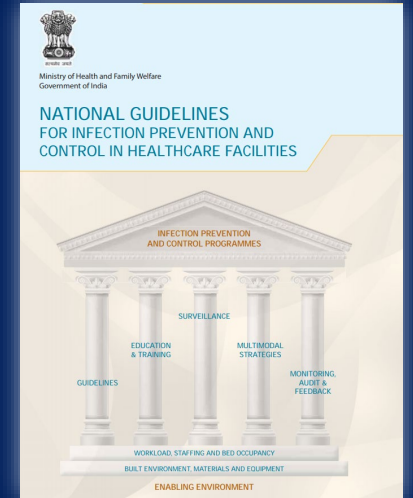
**RajSAR**  
(Rajasthan)

**PARS-NET**  
(Puducherry)

Funding support from USAID and Fleming Fund

# IPC trainings

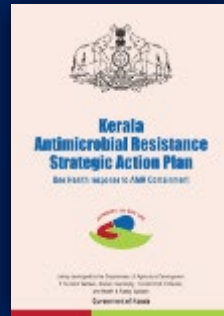
- National Guidelines for Infection Prevention and Control in Healthcare Facilities
- COVID-19 IPC trainings
- National Training of Trainers on IPC – Nov 2021; Dec 2022 (2) Sept 2023
- **Kerala** State IPC Plan (9 Nov 2022 /Trivandrum)
- State Trainings of Trainers on IPC (10-11 Nov 2022/Trivandrum)
- **Madhya Pradesh** State IPC Plan (23-24 Nov 2022/Bhopal)
- State Trainings of Trainers on IPC (5-6 Dec 2022/Bhopal)
- State Trainings of Trainers on IPC – **Chhattisgarh** (13-14 Sep 2023/Raipur)
- State Trainings of Trainers on IPC – **Assam** (21-22 Jan 2025/Guwahati)
- State Trainings of Trainers on IPC – **Maharashtra** (29-30 Jan 2025/Pune & 5-6 Feb 2025/Mumbai)



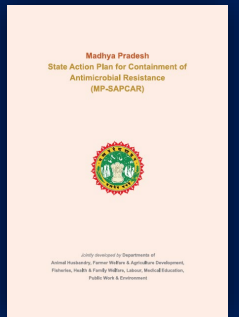
# State Action Plans for Containment of AMR



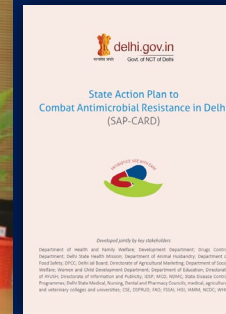
**KARSAP** (Kerala Antimicrobial Resistance Strategic Action Plan) 25 Oct 2018



**SAP-CARD** (State Action Plan to Combat AMR in Delhi) 3 Jan 2020



**MP-SAPCAR** (Madhya Pradesh State Action Plan for Containment of AMR) 26 Jul 2019



# Kerala government – AMR firsts

Kochi Declaration on One Health Action on AMR

- First SAPCAR – Oct 2018
- AMRITH (AMR in Total Health) programme – no OTC – INR 1,200 crores savings
- AWaRe-based reporting of AST
- Antibiotic Smart Hospitals
- State Pollution Control Board – Environmental AMR Lab – AMR/AM residues
- PROUD – Programme for Return of Unused Drugs
- Antibiotic-literate Kerala – Malayalam, district/block committees, ASHA
- One Health programme – World Bank support





# Regional SAPCAR workshop



South region, Kochi | 31 Jan – 1 Feb 2020



# Colloquium on State Action Plans on AMR



ReAct-WHO-WAP | New Delhi | 14 Mar 2022



# National Workshop on Development and Implementation of State Action Plans on AMR



CSE-WHO | AAETI, Neemli | 8–10 Aug 2022



# SAPCAR



**AP-APCAR** (Andhra Pradesh Action Plan for Containment of AMR) 27 Jun 2022



**S-SAPCAR** (Sikkim State Action Plan on Containment of AMR) 12 Jan 2024



**SAPCAR-G** (State Action Plan for Containment of AMR in Gujarat) 15 Jul 2024



**RAPCAR** (Rajasthan Action Plan for Containment of AMR) 21 Nov 2024

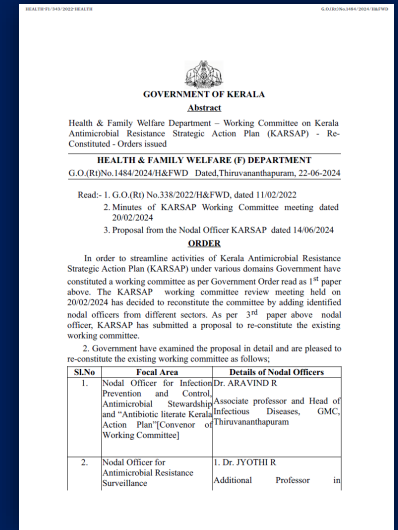
# SAPCARs

- Punjab SAPCAR – 15 Sep 2025
- SAPCARs drafted
  - Maharashtra, Karnataka, West Bengal ...
- State SAPCAR workshops
  - Bihar, Chhattisgarh, Haryana, Manipur, Meghalaya, Puducherry, Tamil Nadu, ...



# Best practices from sub-national level

- Oversight and prioritization by policy makers – Kerala, Karnataka ...  
– Kochi Declaration (Kerala), *Bhopal Ghoshna patra (Madhya Pradesh)*
- Stewardship by advisors / influencers – Kerala, Karnataka, Andhra Pradesh ...
- Designated AMR focal points – Kerala, Gujarat, Andhra Pradesh, Maharashtra ...
- AMR governance committees / monitoring of SAPCAR – Kerala ...
- AMR surveillance networks → programmes – Maharashtra, Kerala, Delhi, Gujarat ...
- State IPC trainings/plans → programmes – Kerala, Madhya Pradesh, Assam, Maharashtra ...





# Key AMR stakeholders in India

## ❖ Health & Family Welfare

– NCDC, DHR/ICMR, CDSCO, FSSAI, NHM

## ❖ Ministry of Fisheries, Animal Husbandry & Dairying

– DAHD, DoF

## ❖ Agriculture and Farmers Welfare – DARE/ICAR

## ❖ Environment Forest & Climate Change – CPCB

**NITI** Aayog, **PSA** Office

Professional councils – NMC, VCI, PCI, NCI, DCI

Medical colleges/hosp.

Veterinary colleges/hosp.

Professional associations & civil society/NGOs

Research organizations

- Science and Technology – DBT, DST, CSIR
- Commerce & Industry – QCI (NABH, NABL)
- Chemicals & Fertilizers – Pharmaceuticals
- Drinking Water and Sanitation
- AYUSH
- Consumer Affairs, Food & Public Distribution
- Food Processing Industries
- Information and Broadcasting
- Education
- Finance; External Affairs
- Defence; Railways; Labour (ESI)

Private sector

Students

Quad-Tri-partite (FAO-UNEP-WHO), donors, partners

# *AMR is Everybody's Business!*

**Act Now:**  
Protect Our Present.  
Preserve Our Future.

**Stakeholders** – Governments at all levels (policy makers), technical experts, public, farmers, researchers, professional associations, industry, civil society/NGOs

**Influencers** & AMR champions



**Sectors** – human health, animal health, food, agriculture, environment, pharma

**Disciplines** – clinicians, nursing, pharmacy, microbiology, public health, regulators

**Facilities** – hospitals, veterinary hospitals, farms, fisheries, dairies

**6 strategic priorities:** GAP-AMR, NAP-AMR, SAPCAR

**It's time to mainstream AMR in all programmes**