Reimagining the strategy to tackle Antimicrobial Resistance in India

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AMR needs **One Health** action

- Up to **80%** of consumed antimicrobials are excreted in urine and feces
- **30%** of antimicrobials mfg. are used by humans
- **70%** of antimicrobials mfg. are used in animals
- Up to **75%** of antimicrobials used in aquaculture may be lost to environment
- >**50%** of municipal waste ends up in landfills and open dumps, incl. expired/unused AMs
- Waste from pharma industry

**AMR bacteria**

**Human health**

**Food**

**Animal health**

**Environment**

**Anti-Microbial use**

**AM residues**
NAP-AMR strategic priorities

1. **Awareness & understanding**
   - Communication & IEC
   - Education, Training

2. **Knowledge & evidence**
   - Surveillance of AMR
   - Laboratories

3. **Infection prevention & control**
   - Healthcare, HAI
   - Animal health
   - Community & environment

4. **Optimise use**
   - Regulations, access, AM use
   - Antimicrobial stewardship - human
   - AMS - animals, agriculture

5. **Innovations R&D**
   - New medicines, diagnostics, vaccines
   - Innovations
   - Financing

6. **Collaborations**
   - International collaborations
   - National collaborations
   - State Action Plans

All sectors
Possible strategic options

1. Awareness & understanding
   - Communication & IEC
   - Consolidation of communication and information resources
   - eLearning platforms - DIKSHA (Digital Infrastructure For School Education), iGOT, eGurukul, etc.
   - Awareness campaigns or continuous information

2. Knowledge & evidence
   - Surveillance of AMR
   - Laboratories
   - National standards for AMR
   - Alignment of AMR repositories across ministries
   - National AMR report or dashboard
Possible strategic options

3. Infection prevention & control
- National IPC Programme
- Swachh Bharat Mission
- Ayushman Bharat, PM-JAY
- Kayakalp programme

4. Optimize use
- Regulations, access, AM use
- Antimicrobial stewardship - human
- AMS - animals, agriculture
- Surveillance of AM consumption and use - all levels/sectors
- Implement treatment guidelines for AM use
- Antimicrobial stewardship programs - all levels/sectors
- AMR in accreditation checklists
Possible strategic options

5. Innovations R&D
   ➤ New medicines, diagnostics, vaccines
   ➤ Innovations
   ➤ Financing

6. Collaborations
   ➤ International collaborations
   ➤ National collaborations
   ➤ State Action Plans
   ➤ Multisectoral One Health coordination
   ➤ Alignment with state implementation plans of NHM

One Health AMR research agenda to guide policy making

Make in India, AatmaNirbhar Bharat Abhiyan

Sustainable funding

South-South collaboration

Systematic information sharing amongst national programs - TB, Malaria, HIV/AIDS/STIs, Leprosy

State Action Plans
  • Multisectoral One Health coordination
  • Alignment with state implementation plans of NHM
One Health – stakeholders

MoHFW

MoFAHD

MoAFW

MoST

Jal Shakti

MoEFCC

NITI

PSA/GoI

MoEA

MoI&B

AYUSH

DoP

MoEFCC

Private sector

AatmaNirbhar Bharat Abhiyan
One Health approach – how?

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- Review (rethink) NAP-AMR
  - Achievements - revise priorities, stakeholders, timelines
  - National Authority for Containment of AMR (NACA)
  - Strengthening drug regulation in non-human health sectors

- One Health AMR - mission mode
  - How to budget AMR workplans, including staff
  - Strengthening labs (all sectors) to monitor AMR and AM residues
  - Can Centres of Excellence for AMR containment help

- Innovative coordination mechanisms for One Health AMR
Thank you