Swedish experiences in AMR containment and multisectoral stakeholders mobilization

Johan Struwe
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Sweden has a comparatively favourable situation of antibacterial resistance

Resistance (R+I) to 3rd gen. Cephalosporins,

**E. coli**

**K. pneumoniae**

**S. pneumoniae**: non-susceptible to penicillin

**S. aureus**: resistance to meticillin (MRSA)

Source: ECDC Antimicrobial resistance surveillance in Europe 2014
Also: Antibiotic consumption is fairly low.
We are also among the countries with the lowest consumption of antibiotics in animal husbandry per kilogram produced meat.

Source: ESVAC: Sales of veterinary antimicrobial agents in 26 EU/EEA countries in 2013
Key strategies to contain AMR in Sweden

Political and professional awareness and commitment

- National and local surveillance with standardized methods
  - Resistance patterns
  - Antibiotic usage
  - Health care associated infections

- Reduced need for antibiotics
  - Prevention of disease
  - Prevention of bacterial spread

- Rational use of antibiotics
  - Guidelines for treatment-diagnosis
  - Financial incentives
  - Ban as growth promotors in farm animals 1986

Data
For action
Open benchmarking
Milestones in Swedish work to contain AMR

- "Strama" - The Swedish Strategic Programme Against Antibiotic Resistance (1995)
- National action plan "SPAR" (2000)
- National strategy (2006)
- Intersectorial coordinating mechanism (2012)
- Action plan against AMR and Health-care associated infections for national agencies (2015)
- Updated national strategy (2016)
Champions with high scientific credibility

- Otto Cars
  co-funder of Strama
  funder of ReAct

- Gunnar Kahlmeter
  former president ESCMID
  steering committee EUCAST

- Sigvard Mölstad
  Professor
  General practice

- Christina Greko
  National Veterinary Institute
Steering mechanisms

National:

• Laws (with explanatory background text “Government bills”)
  – The Drug Therapeutics Committees law (1996)
  – The Swedish Health and Medical Services Act (1982)

• Supervision

• Regulations
  – Antibiotics by prescription only

Regions/counties:

• Patient safety

• QA

• Economic (contracts, bonus and fine)
Mandatory notification of AMR of particular concern according to communicable diseases act

Lab + clinical notification within 48 hours
Mandatory contact tracing (except ESBL)
Regulation on basic hygiene in health services 2007, updated 2015

- Includes all types of care, not only hospitals
- Hospitals shall implement basic hygiene procedures
- All staff, including doctors, shall comply to the regulation during examination, care and treatment or other direct contact with patients
National treatment guidelines - implementation strategy

Expert workshops producing National treatment guidelines

Articles in medical journals regarding new guidelines

Treatment guidelines sent to all doctors

Strama-guided prescribing feedback and discussions at Primary Health Care Centres

Monthly updates on prescribing patterns at the PHA website
Antibiotic sales in out-patient care have decreased

(perscriptions/1000 inhabitants and year)

**FIGURE 1.3.** The sales of antibiotics for systemic use in out-patient care (sales on prescriptions) 1987-2015, prescriptions/1000 inhabitants and year, both sexes, different age groups.

Source: Swedres 2015
Use of antibiotics as growth promoters was banned in Sweden already 1986.
Intersectorial Co-ordinating Mechanism (ICM)

Common communication strategy

Action plan against AMR and HAI for national agencies (2015)
Stakeholders of the Swedish Work Against Antimicrobial Resistance and Healthcare Associated Infections Within the Human Sector

NATIONAL LEVEL

- Ministry of Health and Social Affairs
- Intersectoral Coordinating Mechanism
  23 agencies and organisations within different sectors, led by the Public Health Agency and the Swedish Board of Agriculture.
- Public Health Agency
- Strama Collaboration Group
- Strama Programme Council
- Swedish Association of Local Authorities and Regions

LOCAL LEVEL

- County Councils
- Drug and Therapeutic Committees
- Local Strama Groups
- Health Care Providers, Infection Control Units, Microbiological Laboratories
- Departments of Communicable Disease Control
Thank you!