

- Legal frameworks
- Cultural changes
- Optimized dataintegration
- Interministerial coordination
- Interagency communication

#### National objectives on antimicrobial resistance

| We must reduce the use of antimicrobials and prioritise the use of antimicrobials that carry a lower risk of resistance development                        | We must work<br>towards a more stable<br>and improved supply<br>of antimicrobials. | We must combat<br>any increase and<br>work towards a<br>reduction in the level<br>of infections requiring<br>treatment                            | We must strengthen Denmark's interna- tional involvement and contribution to global efforts to combat antimicrobial resistance     |
|--|--|---|--|
| Indicators   |  |   |  |
| Number of<br>dispensed antibiotic<br>prescriptions<br>in primary care  | Number of market withdrawals of antimicrobials                                     | Bacteraemias per 100,000 inhabitants  | Denmark supports and collaborates with the authorities of other countries and international organisations in the fight against AMR |
| Use of Penicillin V<br>and Mecillinam as<br>a share of total anti-<br>biotic use in primary<br>care, measured<br>in prescriptions per<br>1,000 inhabitants | Number of new market registrations of antimicrobials                               | Incidence of bloodstream infections with carbapenem-resistant Klebsiella pneumoniae (per 100,000 inhabitants)                                     |  |
| Use of critically important antibiotics measured in DDDs per 100 hospital admissions   |  | Incidence of bloodstream infections with methicillin-resistant Staphylococcus aureus (MRSA) (per 100,000 inhabitants)                             |  |
| Share of total anti-<br>biotic consumption<br>represented by<br>the Access group   |  | Incidence of blood-<br>stream infections<br>with third-generation<br>cephalosporin-<br>resistant Escherichia<br>coli (per 100,000<br>inhabitants) |  |
| Total antibiotic consumption in both primary care and the hospital sector, including care facilities (DDD per 1,000 inhabitants per day)                   |  |   |  |



## **2025-2028** National Action Plan targets

#### Indicators

Stable or positive trend



Limited negative trend



Marked negative trend

## **Monitoring** of the actionplan

• To be anchored in the DANMAP report



## Establishment of National AMR-advisory group

- Cross-sectoral advisory group
- Involvement of a wide range of stakeholders
- Focus on implementation
- Patient perspectives to be included

## **National Action Plan 2025-2028**



#### Antimicrobial stewardship

We must reduce the use of antimicrobials and prioritise the use of antimicrobials that carry a lower risk of resistance development.

- Strengthened collaboration between hospitals and municipalities, general practitioners and practising specialists on antimicrobial resistance
- Pilot project to strengthen point-of-care diagnostics
- Assessment of prescription requirements for topical antimicrobials
- Increased harmonisation of medicinal product packaging
- Increased focus on antimicrobial resistance in primary care

#### Access to antimicrobials

We must work towards a more stable and improved supply of antimicrobials.

- Increased European cooperation on innovative procurement models
- Increased Nordic cooperation on the availability of narrowspectrum antibiotics
- Exemption from annual fees for antimicrobials

### **Cross-cutting initiatives**

- 18. Establishment of a national AMR advisory group
- 19. Monitoring
- 20. Research on antimicrobial resistance
- 21. Awareness and information campaigns

## Infection prevention and control

We must combat any increase and work towards a reduction in the amount of infections requiring treatment.

- Enhanced training in hygiene and infection prevention and control
- Health Technology Assessment (HTA) of pneumococcal vaccination
- AMR as a parameter in vaccine assessment
- 12. Simplification of guidance materials
- Elimination of administrative barriers to vaccines with conditional reimbursement

#### International engagement

We must strengthen our international involvement and contribution to global efforts to combat antimicrobial resistance.

- Increased international engagement and cooperation on AMR
- Appointment of a High-Level Representative (HLR)
- Developing and implementing sustainable AMR solutions in low- and middle-income countries through ICARS
- 17. Support for global capacity building

- Politically negotiated
  - Agreement between government and opposition parties
- Funded
  - The 2025 Finance Act allocates DKK 130 million to strengthen efforts against antimicrobial resistance in humans over a four-year period from 2025 to 2028.
- Prioritization of 21 specific initiatives within 4 focus areas:
  - Antimicrobial stewardship
  - Access to antimicrobials
  - Infection Prevention and Control
  - International engagement

New One Health Strategy on Antimicrobial Resistance

# One Health Strategy to be revised



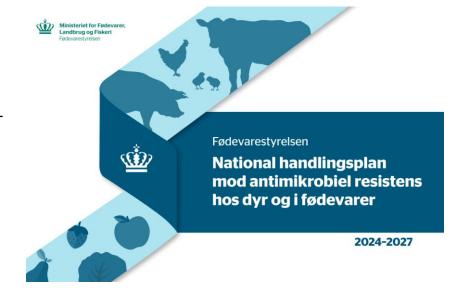
## Sector specific action plans





One Health strategy

## Sector specific action plans



## **EU-JAMRAI 2**





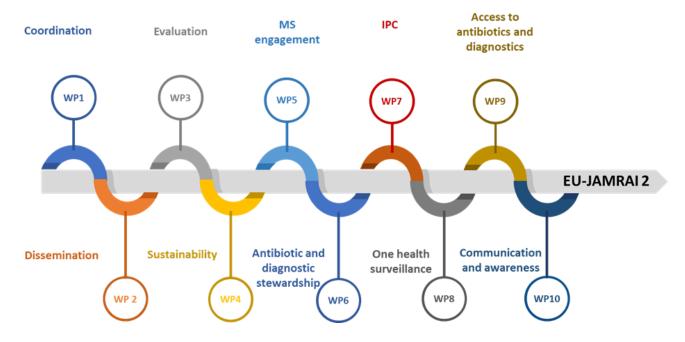
Response to the EU action plan on AMR from 2017 and EU Council recommendations from 2023

- €50 million initiative funded by the European Commission, 128 partners, 30 countries EU-JAMRAI
- Action 2024-2027

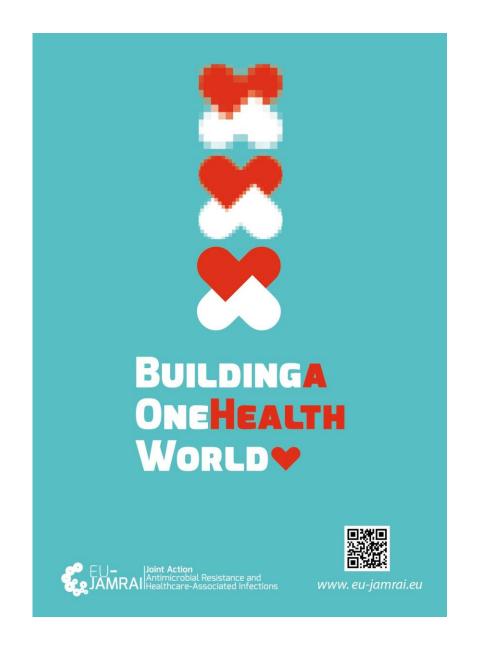
## **Objectives**

- Provide direct and sizable support to help member states in the development and the update of their NAP on AMR
- Strengthen core competencies and **support uptake of** Infection Prevention and Control **(IPC)**, and Antimicrobial Stewardship **(AMS)** strategies
- Strengthen responsiveness and coordination of health systems to protect people from AMR in the Union, including ensuring access to antibiotics
- Promote the **One Health** approach
- Increase awareness and understanding of AMR across Europe

## **EU-JAMRAI 2**



The 10 Work Packages from EU-JAMRAI 2



# **Danish partners in EU-JAMRAI2**

### **Statens Serum Institut – Competent Authority**

WP 7 lead, WP7.1 - Infection prevention and control

WP5 - National actionplans, country engagement, One Health Policy Group

WP8.1 og WP8.2 - surveillance - human and veterinary sector

WP9: Acces to antimicrobials

## **Danish Health Authority**

WP5: National actionplans, country engagement, One Health Policy Group

WP6.1: Antimicrobial stewardship (AMS)

### **University of Copenhagen**

WP6.2 og WP6.3 Antimicrobial stewardship (AMS) - veterinary and environmental sector

WP8.2 Surveillance - veterinary sector

## **Danish Technical University (DTU)**

WP8.1 Surveillance – Human sector

WP7.2 Infectious disease hygiene - veterinary sector

## **Danish Veterinary and Food Administration**

Third party giving in-kind contribution

# **EU-JAMRAI2** Deliverables

| Work Package | Deliverable  |
|--------------|--|
| WP5          | Danish EU-JAMRAI liaison participates in the OH-AMR policy group aiming at strengthening the development and uptake of national actionplans in MS  |
| WP5          | Establishment and participation in a support-programme to assist member states on the development and implementation of national priorites   |
| WP6.1        | Development of a national framework to support AMS in the primary healthcare sector  |
| WP7.1        | Establishment of an online platform that collects and provides learning materials for knowledge sharing on infection prevention and control.   |
| WP7.1        | Update and revision of "kortlægning af kommunale hygiejneindsatser i Danmark"  |
| WP7.4        | Denmark is a partner in an implementation and intervention project on IPC, focusing on behaviour change. The Central Unit for Infection Control at SSI collaborates with Bispebjerg and Frederiksberg Hospitals on this project. |
| WP8.1        | Development of learning materials to strengthen genotypic surveillance and outbreak management of antibiotic-resistant bacteria  |
| WP8.2        | Development of the EARS-VET manual - a protocol outlining methods and standards for monitoring antimicrobial resistance in pathogenic organisms in animals   |
| WP8.2        | Reporting of data to EARS-VET from antimicrobial susceptibility tests for pathogenic organisms in animals  |
| WP9          | Barrier analysis of supply difficulties for selected focus products (antibiotics) and proposals for interventions  |

## **National Priorities in EU-JAMRAI 2**



National framework to support Antimicrobial Stewardship (AMS)

- A coherent national organization for AMS will enable improved management and prioritization of initiatives and highlighting AMS on the political agenda
- Developing AMS in primary care

Strong focus on Infection Prevention and Control (IPC)

- IPC capacity building throughout the healthcare system
- Strengthening IPC in primary care
- Identifying solutions that are implementable and with documented effect

## **Health Care Reform**





- 17 new health councils
  - Tasked with strengthening the primary healthcare system, including political responsibility for the operation of hospitals, local planning of general practice and emergency nursing, as well as ensuring equal access to healthcare services
  - coordination across regions and municipalities, developing local healthcare plans
- New Public Health Act
  - Strengthening the foundation for preventive healthcare efforts across
     Denmark
  - New unit in the Danish Health Authority: **National sundhedsplan og folkesundhedslov**
- Sundhedsvæsenets Kvalitetsinstitut
  - Development of clinical guidelines
  - Assessment of treatment methods and health technology (i.e. POCT in general practice)
  - Operation of regional quality databases