

Global and European progress on AMR-containment – the WHO perspective

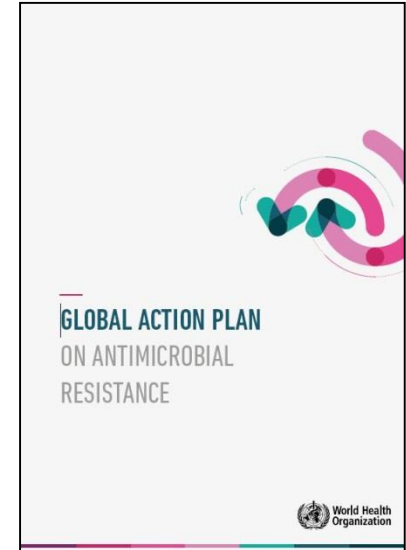
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Programme Manager for Control of Antimicrobial Resistance



Global AMR Action Plan - Strategic Objectives

<http://who.int/antimicrobial-resistance/global-action-plan/en/>

1. Improve awareness and understanding
2. Strengthen knowledge and evidence base
3. Reduce incidence of infection
4. Optimize use of antimicrobial medicines
5. Develop economic case for sustainable investment



Global activities

- World Antibiotic Awareness Week (2015)
- Global AMR Surveillance System (GLASS) (2015)
- Global Antibiotic Research & Development Partnership (GARDP) (2016)
- Infection Prevention and Control core components (2016)
- Global Priority Pathogens List of Antibiotic-Resistant Bacteria (2017)
- Updated Essential Medicines List update (2017)
- WHO Competency Framework for health workers (2018)



Awareness Week



Materials

- Infographs
- Websites
- Videos
- Press releases
- Presentations



Activities

- Country events (press conferences, seminars, workshops)
- Social media (incl. global twitter chat)



Objectives of GLASS

Foster national AMR surveillance systems through harmonized global standards to:

- Monitor AMR trends
- Detect emerging resistance
- Inform estimates of AMR burden

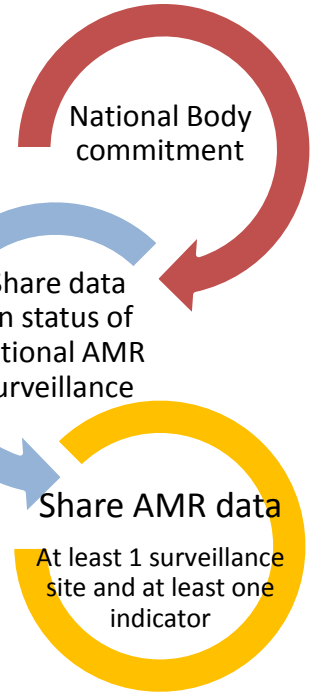
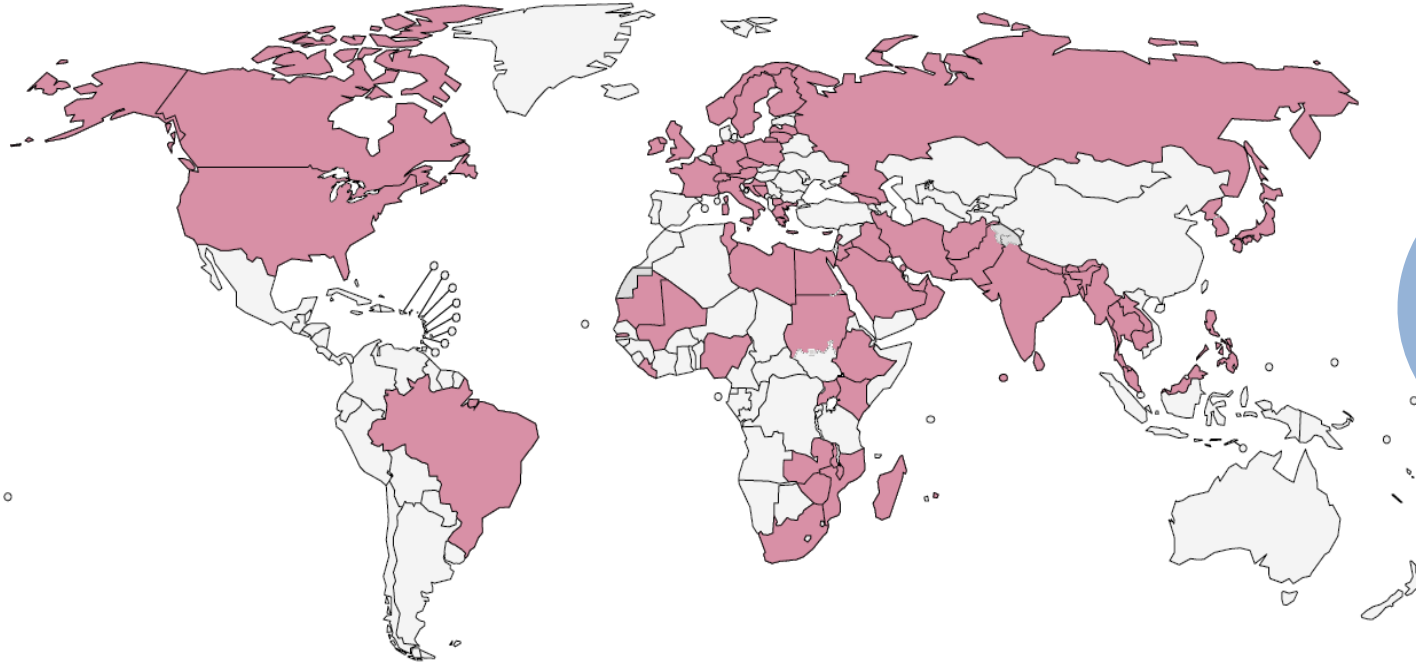
Initial focus:

Bacterial infections in humans



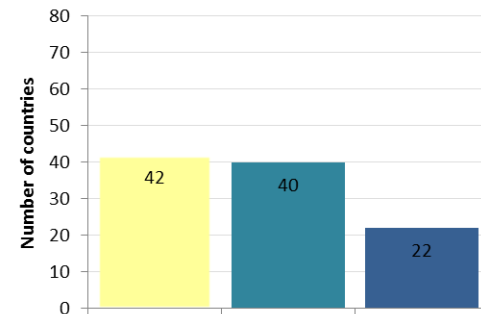
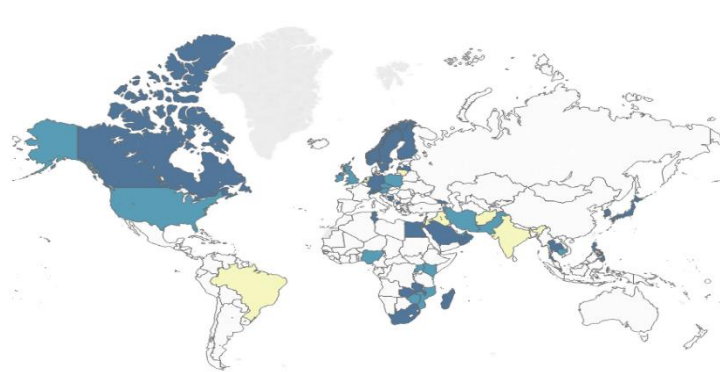
Countries enrolled in GLASS

74 countries As of 13 February 2019*

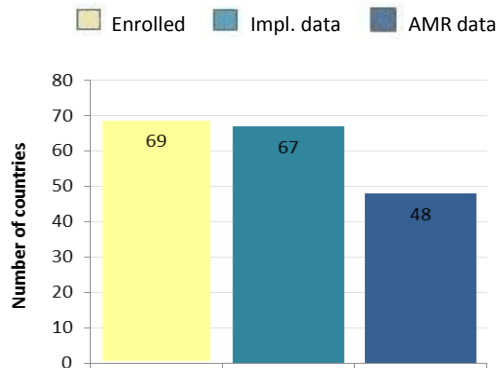
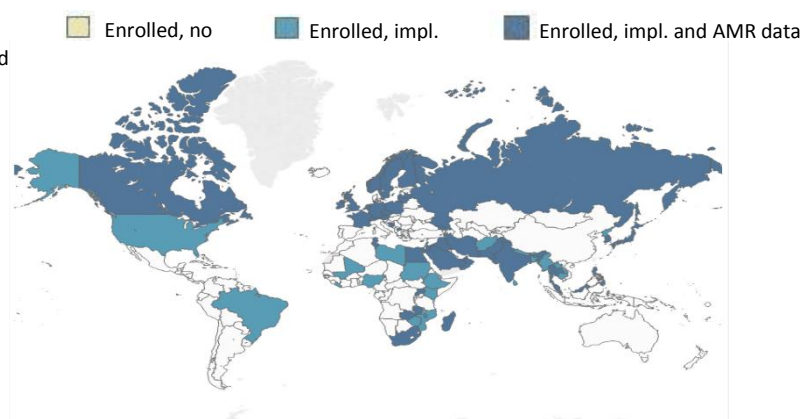


Second data call: May-July 2018

2017 data call



2018 data call



Core components of infection prevention and control programmes at the national and acute health care facility level



Core Component 1
IPC Programme



Core Component 2
IPC Guidelines



Core Component 3
IPC Training/Education



Core Component 4
HAI Surveillance



Core Component 5
Multimodal Strategies



Core Component 6
Monitoring, audit & feedback



Core Component 7
Workload, staffing & bed occupancy

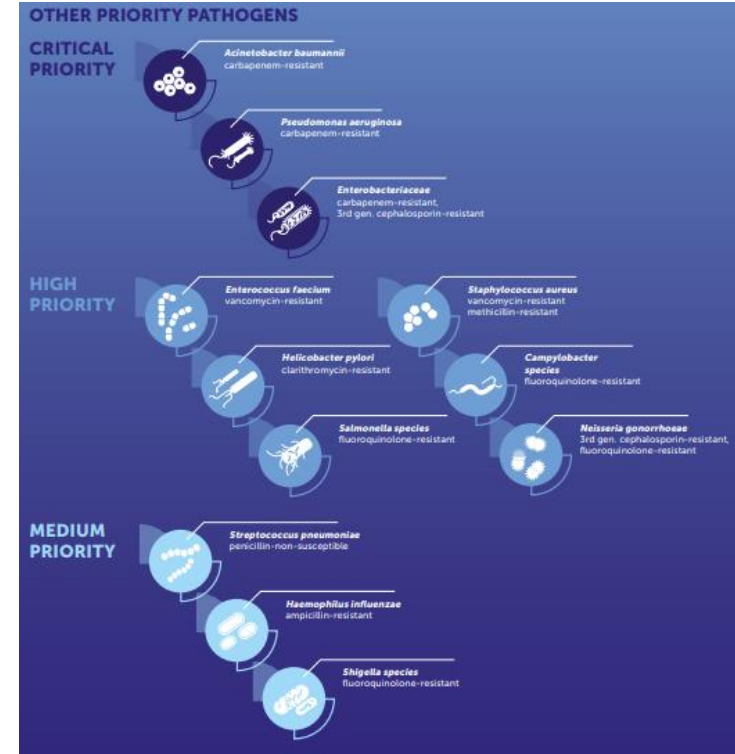


Core Component 8
Built environment, materials & equipment for IPC

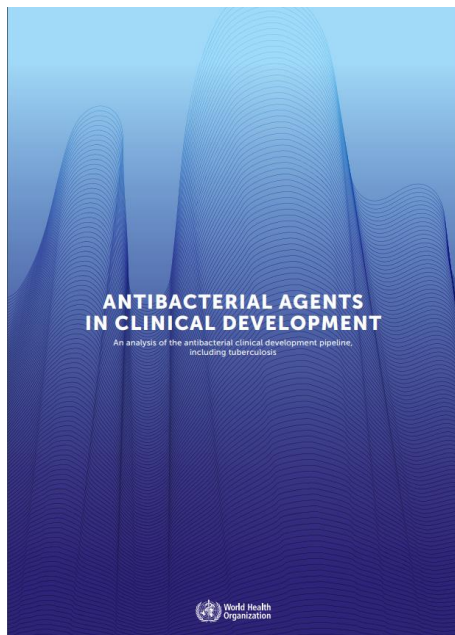
Priority pathogens for R&D

Critical needs:

- Drug-resistant TB
- Gram-negative bacteria:
 - Carbapenem-resistant *A. baumannii*
 - Carbapenem-resistant *P. aeruginosa*
 - Carbapenem-resistant and 3rd generation cephalosporin resistant *Enterobacteriaceae*



Antibacterial agents in clinical development



- **51** new antibiotics in the clinical pipeline
- **33** against priority pathogens
- **~9** are innovative
- Of **10 phase-I** antibiotics to tackle gram-negative bacteria only **1-2** will make it to market in **7 years**
- **Pipeline is insufficient to treat priority pathogens & TB**

WHO Guidelines and Resources

WHO Model List of Essential Medicines - Updated in 2017

- Added 30 medicines for adults and 25 for children
- Antibiotics now grouped into 3 categories:
 - **ACCESS** Antibiotics that should be available at all times (29 AB)
 - **WATCH** Antibiotics recommended as first- or second-choice (7 AB) treatments for a small number of infections
 - **RESERVE** Antibiotics that are last-resort options (8 AB)

AMR competency framework

To guide education and training of health workers:

- Awareness
- Appropriate use
- Infection prevention and control
- Diagnostic stewardship and surveillance

Antimicrobial resistance domains ^a	Category 1: All health workers ^b	Category 2: Prescribers ^c
<p>Appropriate use of antimicrobial agents</p> <p>Competency statement: Health worker demonstrates that they have the knowledge and understanding, according to their field and level of expertise, to facilitate optimal and safe use of antimicrobial agents for management of infections.</p>	<p>Relevance: High</p> <p>Knowledge:</p> <ol style="list-style-type: none"> 1. Understand that antimicrobials have different resistance potential (AWaRE categories). 2. Understand the specific roles of other health care workers. 3. Understand the consequences (intended and unintended) of the use of antimicrobial therapy in humans. <p>Skills:</p> <ol style="list-style-type: none"> 1. Ensure effective management of antimicrobials (according to scope of practice) in infection therapy. <p>Attitudes:</p> <ol style="list-style-type: none"> 1. Encourage patient and peer professional interactions on antimicrobial prescription and therapy. 2. Ensure timely and appropriate feedback to prescribers and other care groups. 	<p>Relevance: High</p> <p>Knowledge:</p> <ol style="list-style-type: none"> 1. Diagnosis of disease including the ability to discriminate diseases of different infectious pathology. 2. Indication for antimicrobial therapy, including assessment of the severity of the infection (sepsis syndrome recognition) to inform urgency for therapy. 3. Understand that travel, recent hospitalization or previous microbiology findings of resistant bacteria are factors that predispose to colonization/ infection with a resistant pathogen. 4. Understand common drug interactions between antimicrobials and other therapeutic agents, and between antimicrobials and food. Understand their clinical significance and the strategies to avoid interactions.

Online Community of Practice (CoP)

- Access to prompt technical advice for operational challenges for which answers are not readily accessible in current guidelines
- Informal peer-to-peer discussions



The screenshot displays the website for AMR National Action Plans. The header is green with a menu bar containing 'Home', 'Discussions', 'Library', 'Calendar', 'Members', and 'Admin'. Below the header, a central banner features the World Health Organization logo and the text: 'Online discussion forum for those developing and implementing national action plans to combat antimicrobial resistance (AMR)'. To the right of the banner is a 'Recent discussions' section with three entries, each featuring a circular profile picture and text: 'Kerala adopts an AMR s Africa, and cutting antibi Breeda Hickey on Decembe', 'Development of guidanc s.wakhusama@oie.int on D', and 'Global review finds cons Breeda Hickey on Decembe'. At the bottom, there are four logos for the World Health Organization in different languages: English ('World Health Organization'), French ('Organisation mondiale de la Santé'), German ('Weltgesundheitsorganisation'), and Russian ('Всемирная организация здравоохранения').

AMR National Action Plans

Home Discussions Library Calendar Members Admin

World Health Organization

Online discussion forum for those developing and implementing national action plans to combat antimicrobial resistance (AMR)

Recent discussions

- Kerala adopts an AMR s Africa, and cutting antibi Breeda Hickey on Decembe
- Development of guidanc s.wakhusama@oie.int on D
- Global review finds cons Breeda Hickey on Decembe

World Health Organization
REGIONAL OFFICE FOR Europe

Organisation mondiale de la Santé
BUREAU REGIONAL DE L'Europe

Weltgesundheitsorganisation
REGIONALBÜRO FÜR Europa

Всемирная организация здравоохранения
Европейское региональное бюро

CoP activities

- Focused discussion weeks on relevant topics:
 - What makes a good NAP?
 - Situation analysis for AMR
 - Civil society engagement
 - The role of infection prevention and control
 - Antimicrobial stewardship
 - AMR competency framework for health workers
 - Links to primary health care
- Documenting lessons from discussions
- Sub-community on health workforce education
- Library of resources
- Notifications on upcoming webinars, events, new publications
- Networking

NAP Implementation Guidance

- AMR and Multi sectoral working
<https://www.who.int/antimicrobial-resistance/publications/workingpaper1multisectoralcoordinationAMR/en/>
- AMR and Gender
<https://www.who.int/antimicrobial-resistance/national-action-plans/workingpaper5enhancingthefocusongenderandequity/en/>
- AMR and Primary Health Care
https://www.who.int/docs/default-source/primary-health-care-conference/amr.pdf?sfvrsn=8817d5ba_2
- AMR and Universal Health Coverage (To be published Spring 2019)
- AMR and Monitoring (Under development)
- AMR and costing (Under development)

Tripartite Plus



Food and Agriculture
Organization of the
United Nations



World Health
Organization



- May 2018: Tripartite MoU for AMR signed
- Sep 2018: Workplan Developed
- March 2019: Final workplan to be approved



"One Health" Approach: Tripartite Plus workplan

1. Awareness and behavioural change
 2. Surveillance and monitoring of antimicrobial resistance and use
 3. Fostering Research and development, access stewardship and optimized use
 4. Implementation of national action plans (NAPS), optimal use and legislation
 5. Monitoring and Evaluation
- Ten priority countries
 - Trust fund being established to support joint implementation



Monitoring global progress on AMR

- 2nd global tri-partite self-assessment survey
- 154 out of 194 Member States responded
 - Response rate 79.4%
 - Representing 91.3% of world population
 - Representing 95.9% of global GDP
- 50 out of 53 European Member States responded
- Report available online
- Global Database for AMR Country Self Assessment



Choose your question and filters:

Survey year

2017

Country

All

Map View

Visualization View

Table View

Response Overview

Documents

Print

← Scroll table to see all results →

Country	Question 4.1	Question 4.2	Question 5.1	Question 5.2	Question 6.1	Question 6.2	Question 6.2.1	Question 6.2.2	Question 6.2.3	Question 6.2.4	Question 6.2.5
Afghanistan	B	N	D	Y	C	C	C				
Albania	B	N	C	Y	C	B	B	A	B	C	
Algeria	B	Y	B		D						
Andorra		N									
Angola	C	N	B	Y	B	B	A	B			
Antigua and Barbuda	B	Y	B	N	C	B	B	E	B	B	
Argentina	B	N	D	Y	B	C	C	A	C	C	
Armenia	B	N	D	N	D	B	B	A		A	
Australia	E	N	D	Y	D	D	D	A	D	D	
Austria	E	Y	D	N	D	E	E		E	E	
Azerbaijan	B	N	B	Y	C	C	C				
Bahamas (the)	B	Y	B	N	C	A	A	A	A	A	
Bahrain	A	N	B	N	C	C	A	A	A	A	
Bangladesh	B	N	C	Y	C	A					

Print

2017-18

4.1 Multi-sector and One Health

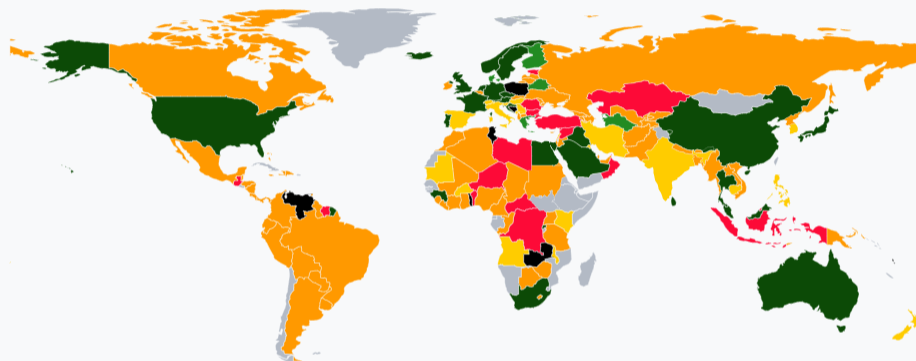
WHO

WHO Region

All

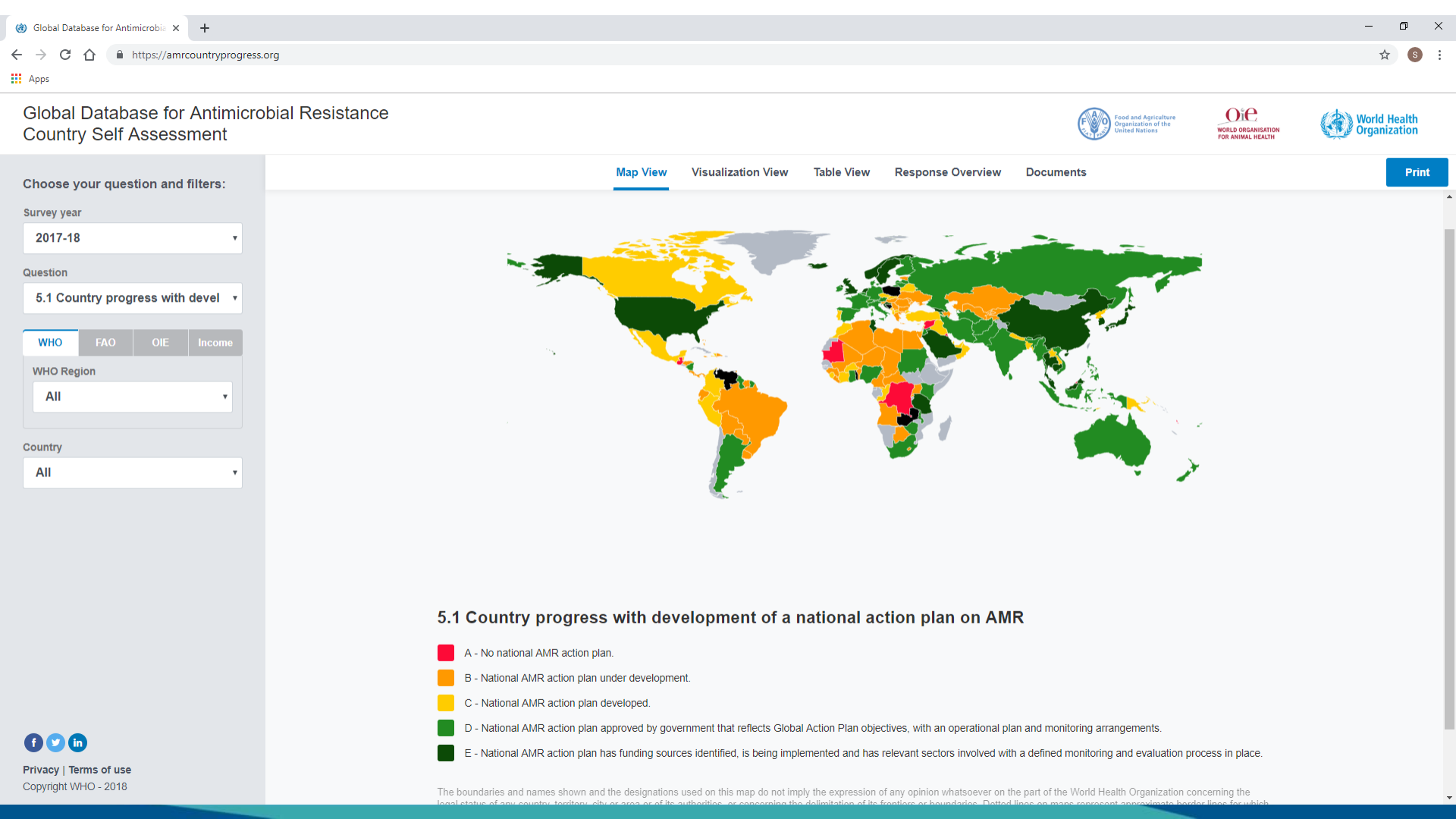
Country

All



4.1 Multi-sector and One Health collaboration/coordination

- A - No formal multi-sectoral governance or coordination mechanism exists.
- B - Multi-sectoral working group(s) or coordination committee on AMR established with Government leadership.
- C - Multi-sectoral working group(s) is (are) functional, with clear terms of reference; regular meetings, and funding for working group(s). Activities and reporting/accountability arrangements are defined.
- D - Joint working on issues including agreement on common objectives, including restriction of use of critically important antimicrobials.
- E - Integrated approaches used to implement the national AMR action plan.



Map View

Visualization View

Table View

Response Overview

Documents

Print

6.1 Raising awareness and understanding of antibiotic resistance risks and response in human health

- A - No significant awareness-raising activities on antibiotic resistance.
- B - Some activities in parts of the country to raise awareness about risks of antibiotic resistance and actions that can be taken to address it.
- C - Limited or small-scale antibiotic resistance awareness campaign targeting some, but not all, relevant stakeholders (e.g. general public, doctors, pharmacists, nurses, medicine sellers).
- D - Nationwide, government-supported antibiotic awareness campaign targeting all or the majority of stakeholders.
- E - Focused, national scale government-supported activities implemented to change behaviour regarding antibiotic resistance in target groups in human health, both public and private sectors, with monitoring undertaken of their awareness and behaviour change over last 5 years.

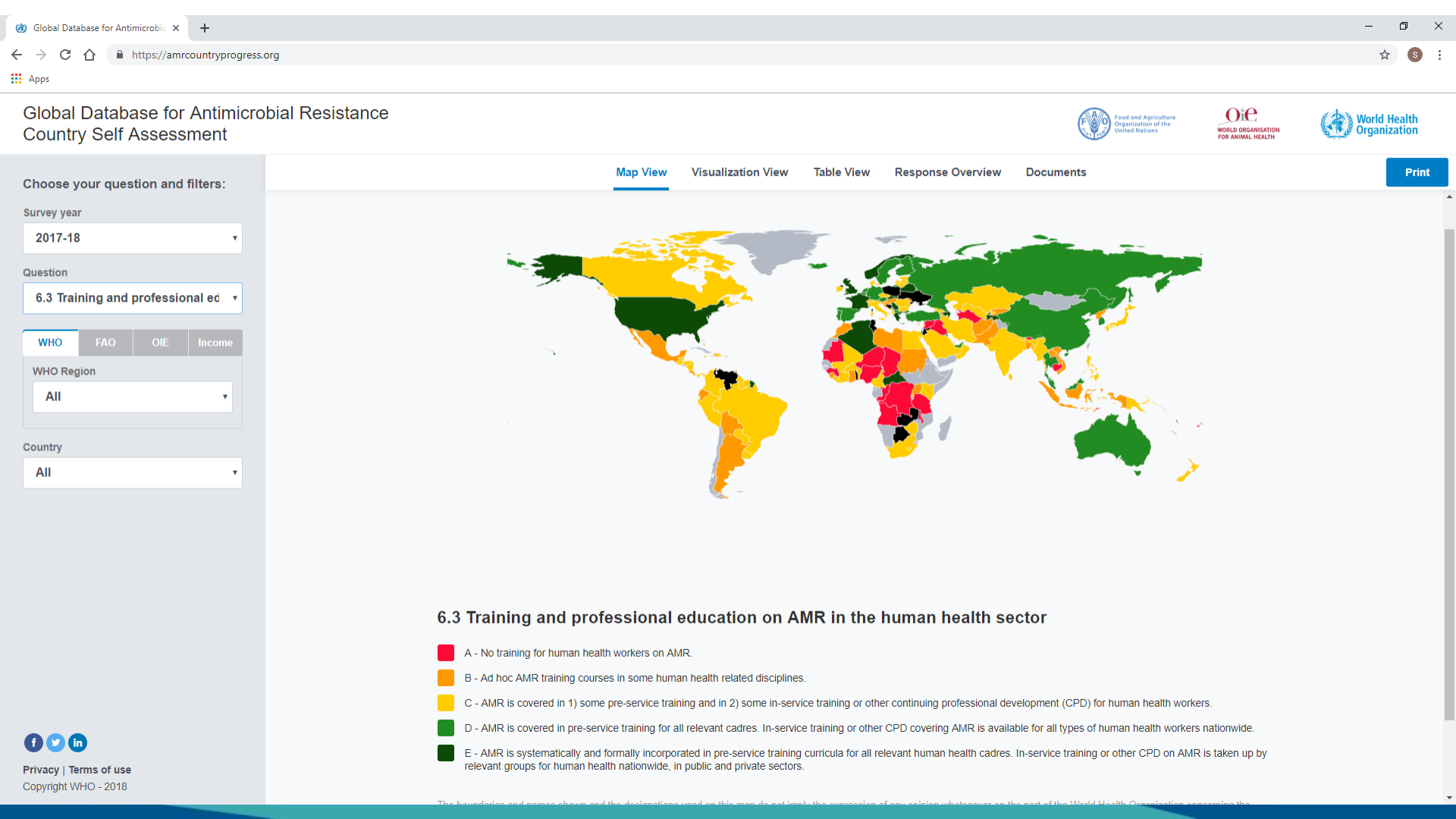
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Global Database for Antimicrobial Resistance

Country Self Assessment

Choose your question and filters:

Survey year

2017-18

Question

7.1 National monitoring system

WHO

FAO

OIE

Income

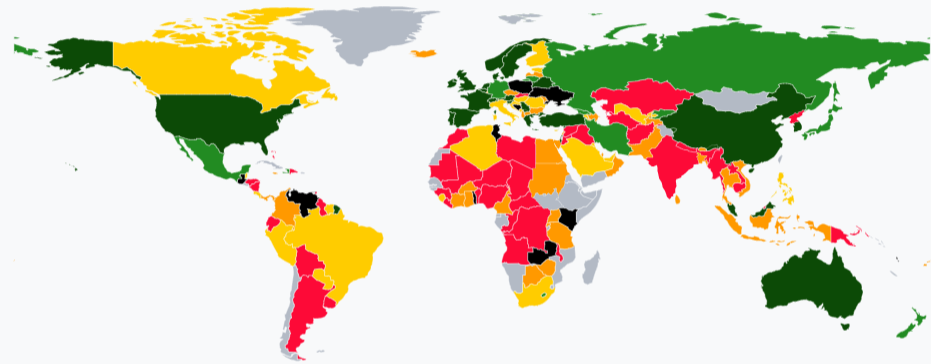
WHO Region

All

Country

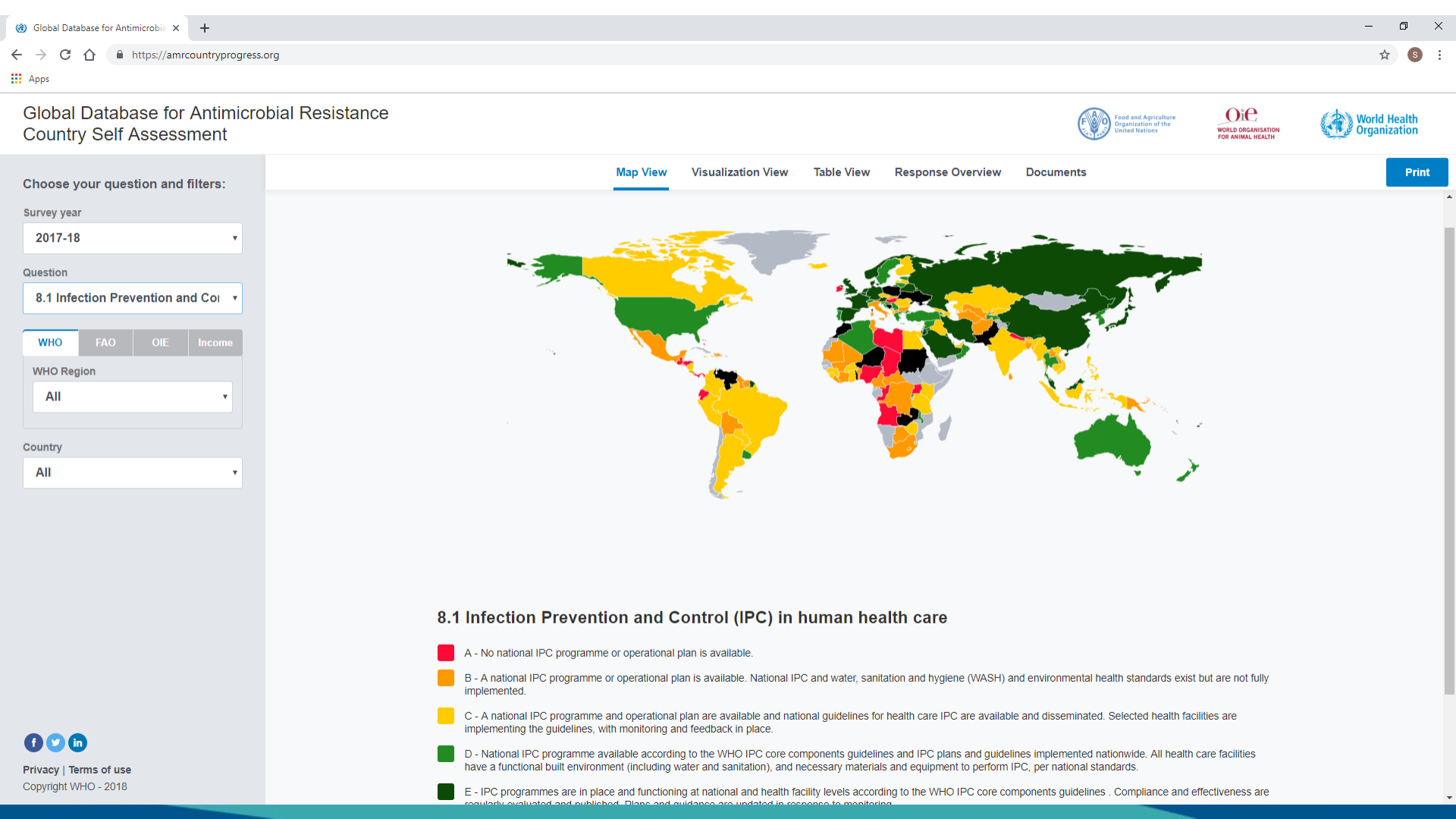
All

Map View Visualization View Table View Response Overview Documents



7.1 National monitoring system for consumption and rational use of antimicrobials in human health

- A - No national plan or system for monitoring use of antimicrobials.
- B - System designed for surveillance of antimicrobial use, that includes monitoring national level sales or consumption of antibiotics in health services.
- C - Total sales of antimicrobials are monitored at national level and/or some monitoring of antibiotic use at sub-national level.
- D - Prescribing practices and quality of antibiotic use are monitored in a national sample of healthcare settings.
- E - On a regular basis (every year/two years) data is collected and reported on: a) Antimicrobial sales or consumption at national level for human use; and b) Antibiotic prescribing and appropriate/rational use, in a representative sample of health facilities, public and private.



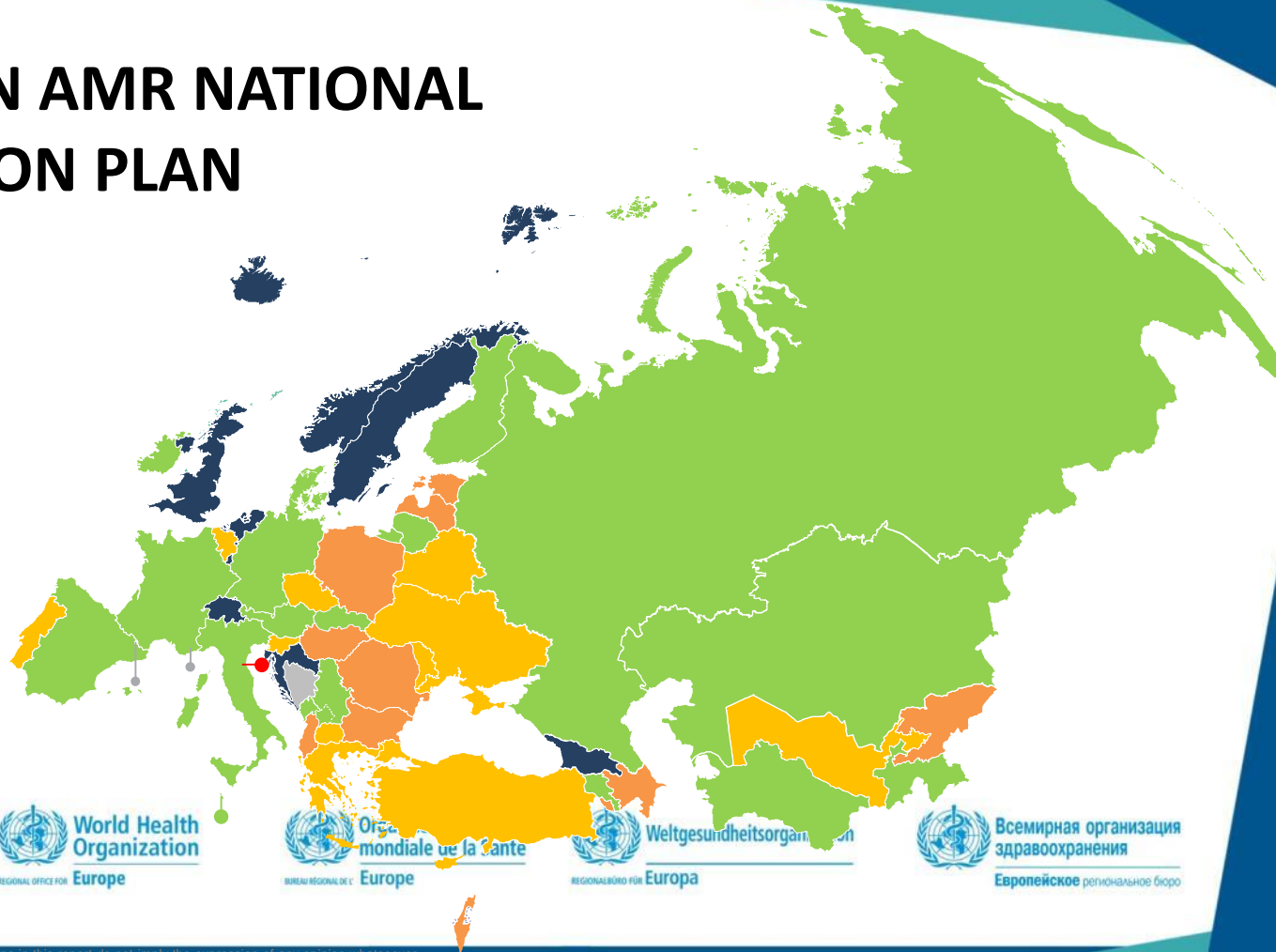
Progress in the European region

Selected results from the 3rd Global Survey



PROGRESS ON AMR NATIONAL ACTION PLAN

- Funded and implemented
- Approved by government
- Developed
- Under development
- None
- NA



Map source: United Nations Geospatial Information Section.

Data source: World Health Organization.

Notes: The boundaries and names shown and the designations used on the maps in this report do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

ONE HEALTH COLLABORATION/COORDINATION

- Integrated approach
- Joint working
- Functional
- Established
- None
- NA



Map source: United Nations Geospatial Information Section.

Data source: World Health Organization.

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AWARENESS CAMPAIGNS IN HUMAN HEALTH

- Nationwide campaigns with monitoring undertaken
- Nationwide campaigns
- Limited awareness campaigns
- Some activities
- No awareness activities
- NA



Map source: United Nations Geospatial Information Section.

Data source: World Health Organization.

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TRAINING AND PROFESSIONAL EDUCATION ON AMR

- Systematic training
- Nationwide training
- Some training
- Ad-hoc training
- No training
- NA



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INFECTION PREVENTION AND CONTROL IN HUMAN HEALTH CARE

- Monitoring
- Nationwide implementation
- Partial implementation
- Limited
- None
- NA



Map source: United Nations Geospatial Information Section.

Data source: World Health Organization.

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NATIONAL SURVEILLANCE SYSTEM FOR AMR IN HUMANS

- Integrated surveillance across sectors
- Functional surveillance in hospitals / outpatients
- Surveillance of common pathogens
- Data collected locally
- No capacity
- Not



Map source: United Nations Geospatial Information Section.

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Making progress

- Progressing on all strategic objectives
- Broad collaboration
 - Within WHO (Global – Regional – National)
 - With International Organizations (FAO, OIE)
 - With external partners (international, national)
 - With donors (countries, foundations)
- Supporting materials /tools developed and distributed
- Pool of experts/consultants



Thank you for your attention

