



Strengthening Infection Prevention and Control Activities and Embedding IPC in AMR NAP implementation

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Countries in the WHO Eastern Mediterranean Region

- 22 countries
- 731 mill population
- Varied economic and health system status
- 2/3 countries in crisis situation
 - fragile health systems
 - limited resources
 - competing health priorities

Countries in the WHO Eastern Mediterranean Region

Afghanistan
Bahrain
Djibouti
Egypt
Iran
Iraq
Jordan
Kuwait
Lebanon
Libya
Morocco
Oman
Pakistan
Qatar
Saudi Arabia
Somalia
Sudan
Syrian Arab Republic
Tunisia
United Arab Emirates
Yemen



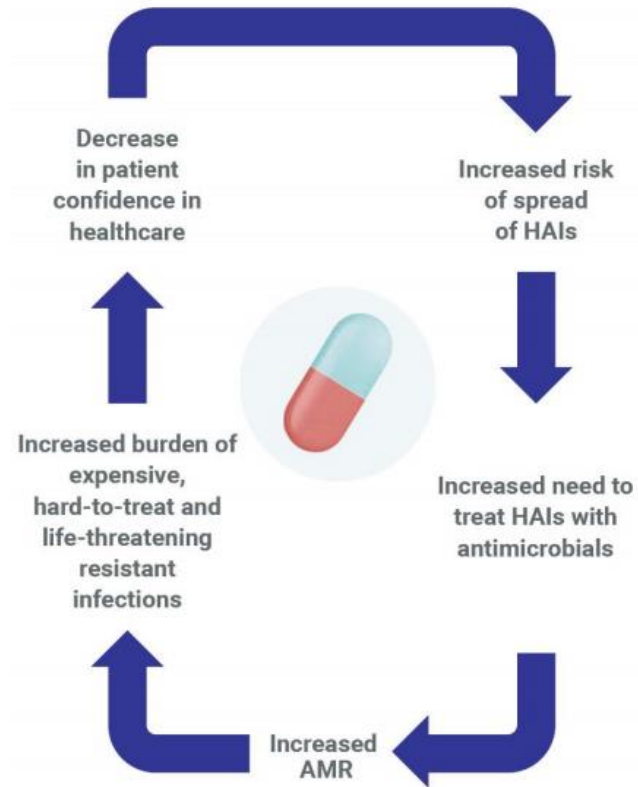
**World Health
Organization**

Regional Office for the Eastern Mediterranean



AMR and Infection Prevention & Control (IPC)

Achieve implementation/improvement of the full requirements of all core components to effectively reduce HAIs and AMR



Source: https://www.who.int/infection-prevention/tools/IPC_AMR_A4.pdf?ua=1



"Strong IPC is vital for protecting health, stopping the spread of drug resistance bacteria and preparing for and responding to outbreaks."

Dr Tedros Adhanom Ghebreyesusand,
Director General WHO

- Without effective IPC, it is impossible to achieve quality health care delivery and the capacity to respond to outbreaks is severely compromised



Overall healthcare-associated infections in high risk patients, 1995-2010 – meta-analysis

High-income countries

- **Overall HAI: 17.0/1000 pt-days**
- CR-BSI: 3.5/1000 cath-days
- CR-UTI: 4.1/1000 cath-days
- VAP: 7.9/1000 vent-days

Low- and middle-income countries

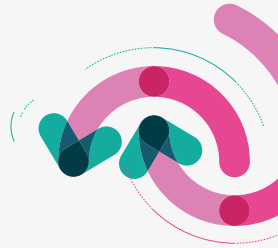
- **Overall HAI: 47.9/1000 pt-days**
- CR-BSI: 12.2/1000 cath-days
- CR-UTI: 8.8/1000 cath-days
- VAP: 23.9/1000 vent-days

- **at least X 2-3**
- **up to 13 times higher in some countries**

WHO Report on the Burden of Endemic Health Care-associated Infection Worldwide



Global AMR Action Plan-Strategic Objectives



GLOBAL ACTION PLAN ON ANTIMICROBIAL RESISTANCE



1. Improve awareness and understanding of AMR through effective communication, education and training
2. Strengthen the knowledge and evidence base through surveillance and research
3. **Reduce the incidence of infection through effective sanitation, hygiene and infection prevention measures**
4. Optimize the use of antimicrobial medicines in human and animal health
5. Develop the economic case for sustainable investment in new medicines, diagnostic tools, vaccines

http://www.who.int/drugresistance/global_action_plan/en

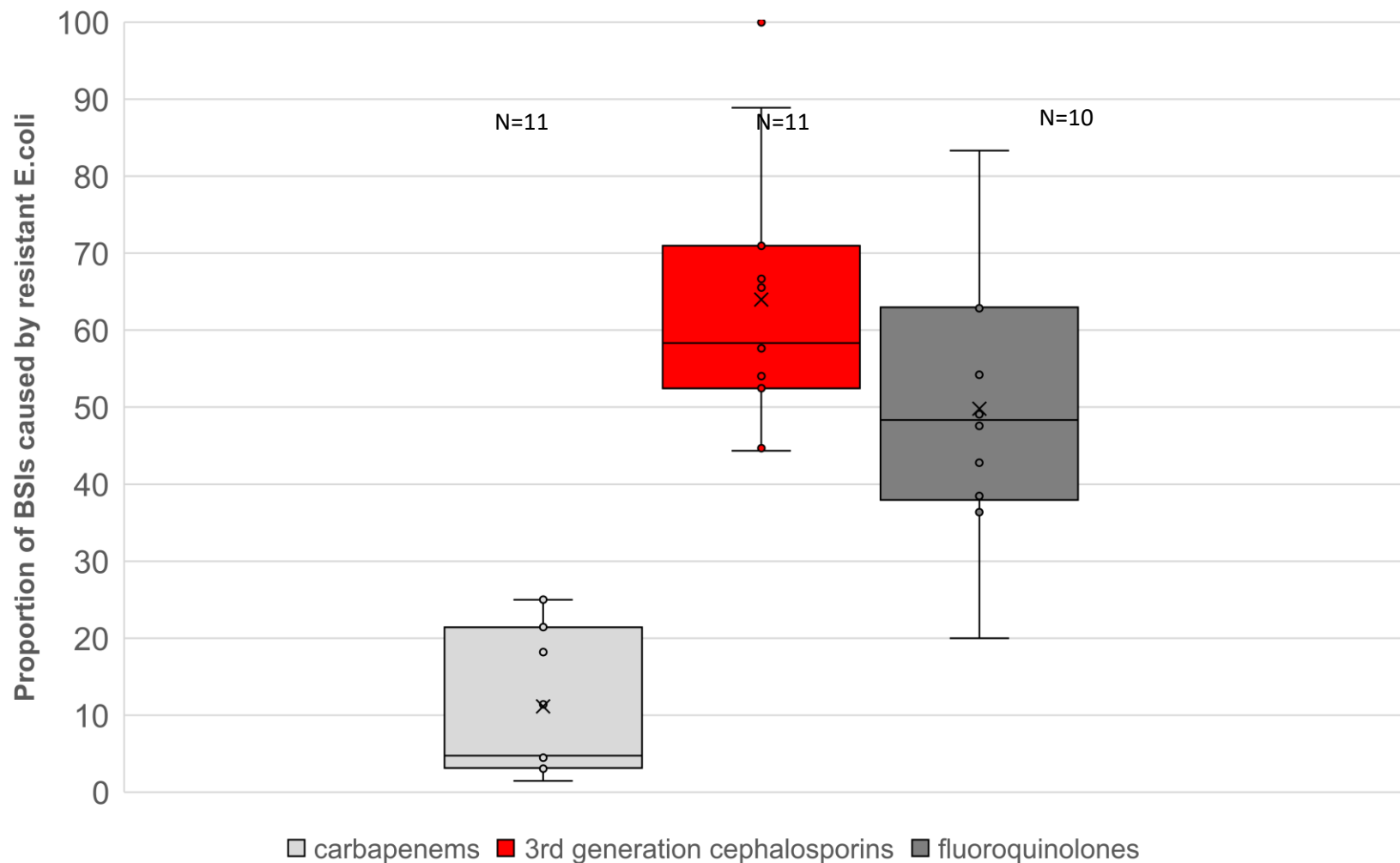


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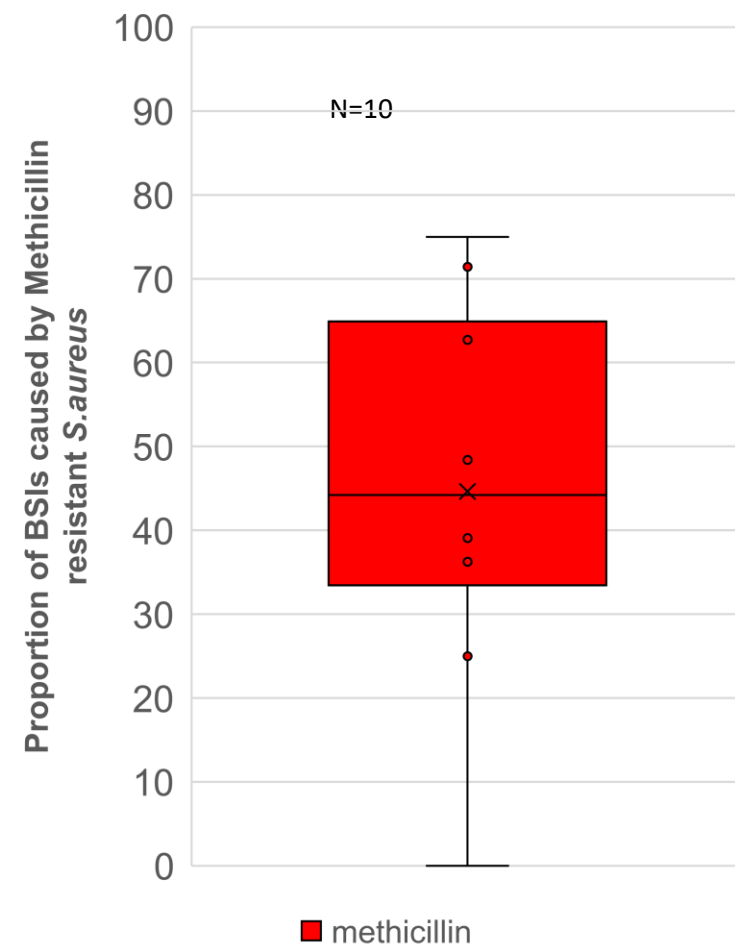


EMRO Bloodstream infections (2019 AMR data)

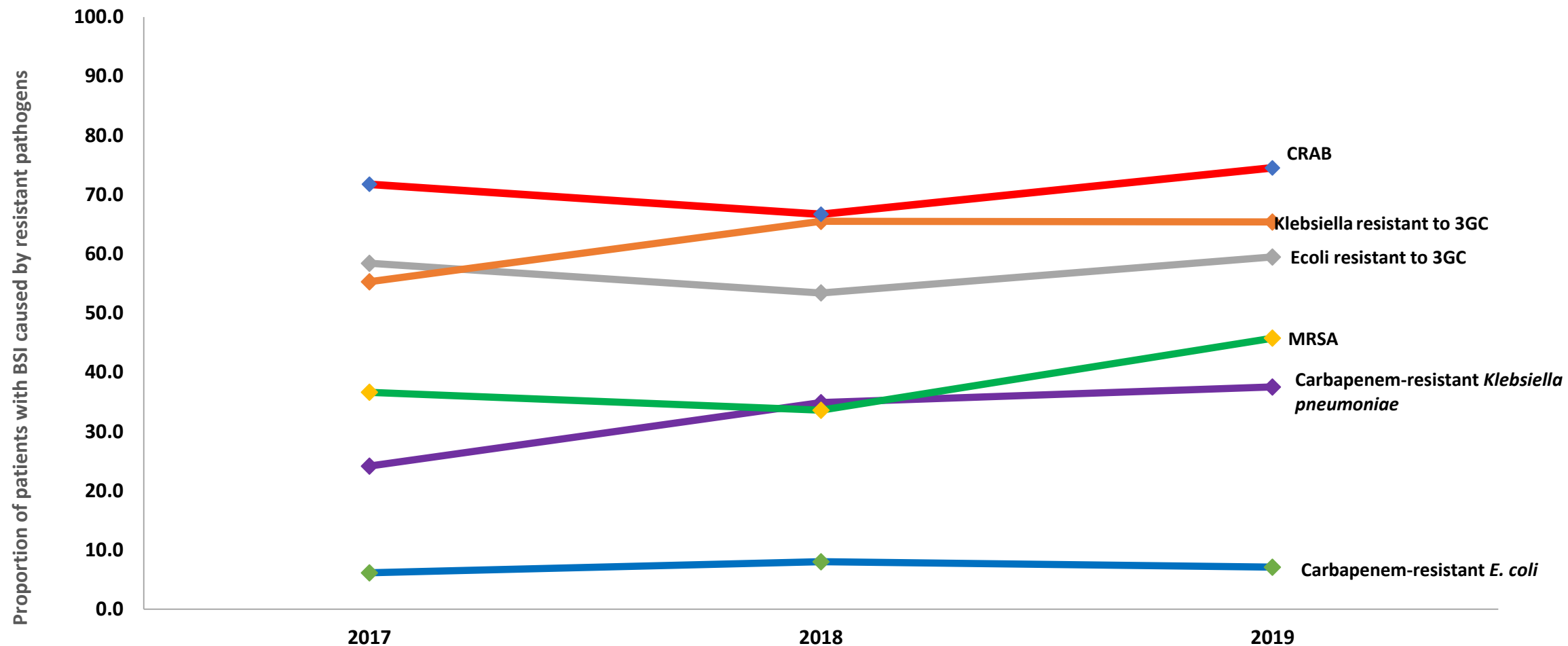
Bloodstream - *E. coli* resistant to 3rd gen cephalosporins



Bloodstream – Methicillin R
S. aureus

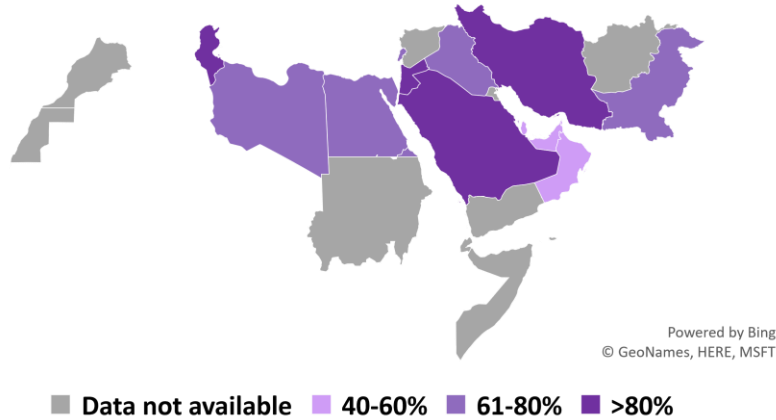


Proportion of Patients with BSI caused by various resistant pathogens, GLASS 2017-2019

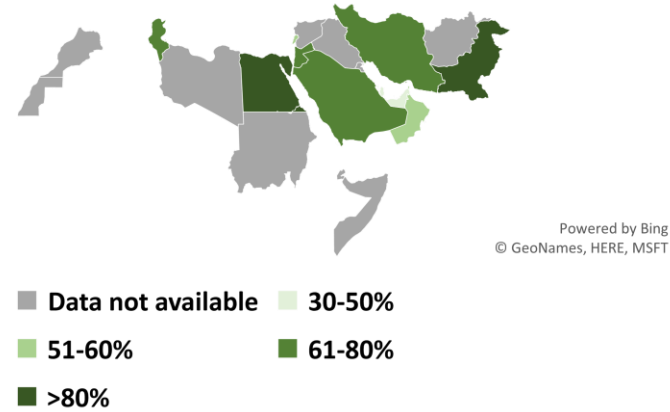


BSI caused by resistant pathogens in EMR, GLASS 2019

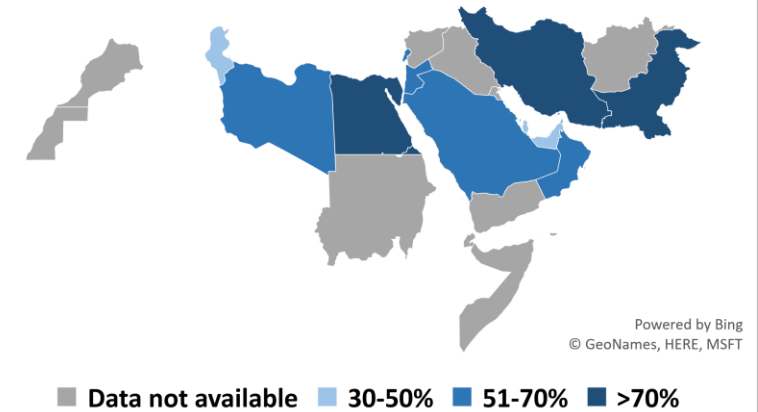
Carbapenem-resistant *Acinetobacter spp.*



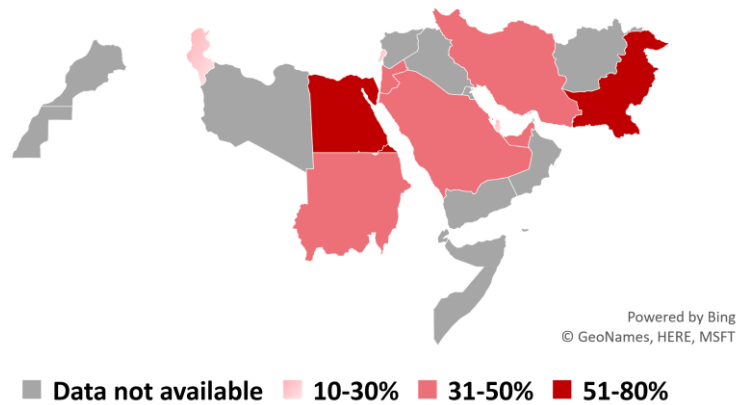
K. pneumoniae resistant to 3GC



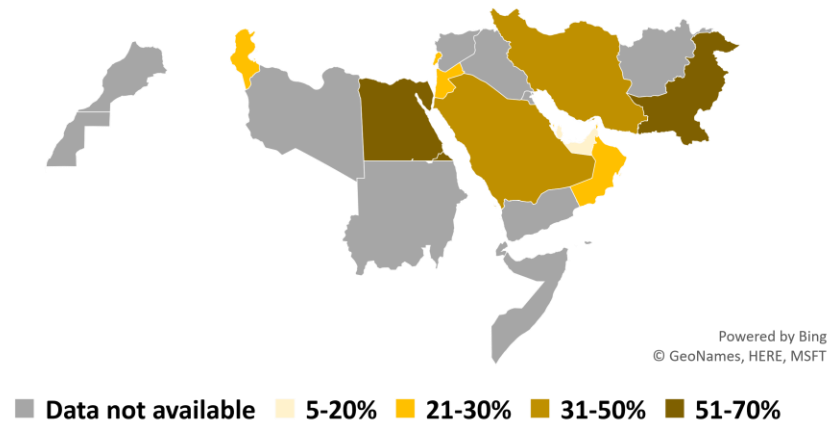
Escherichia coli resistant to 3GC



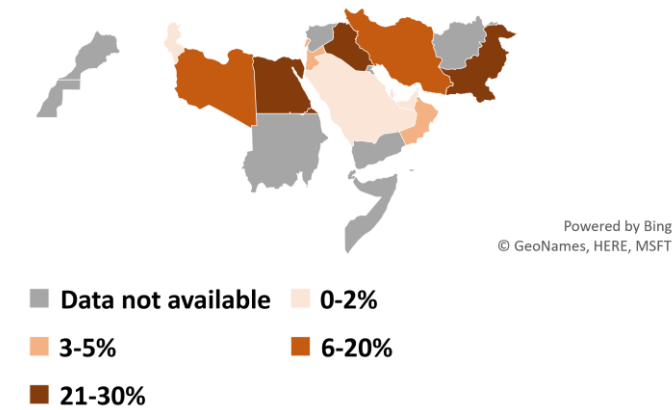
Methicillin-resistant *Staphylococcus aureus*



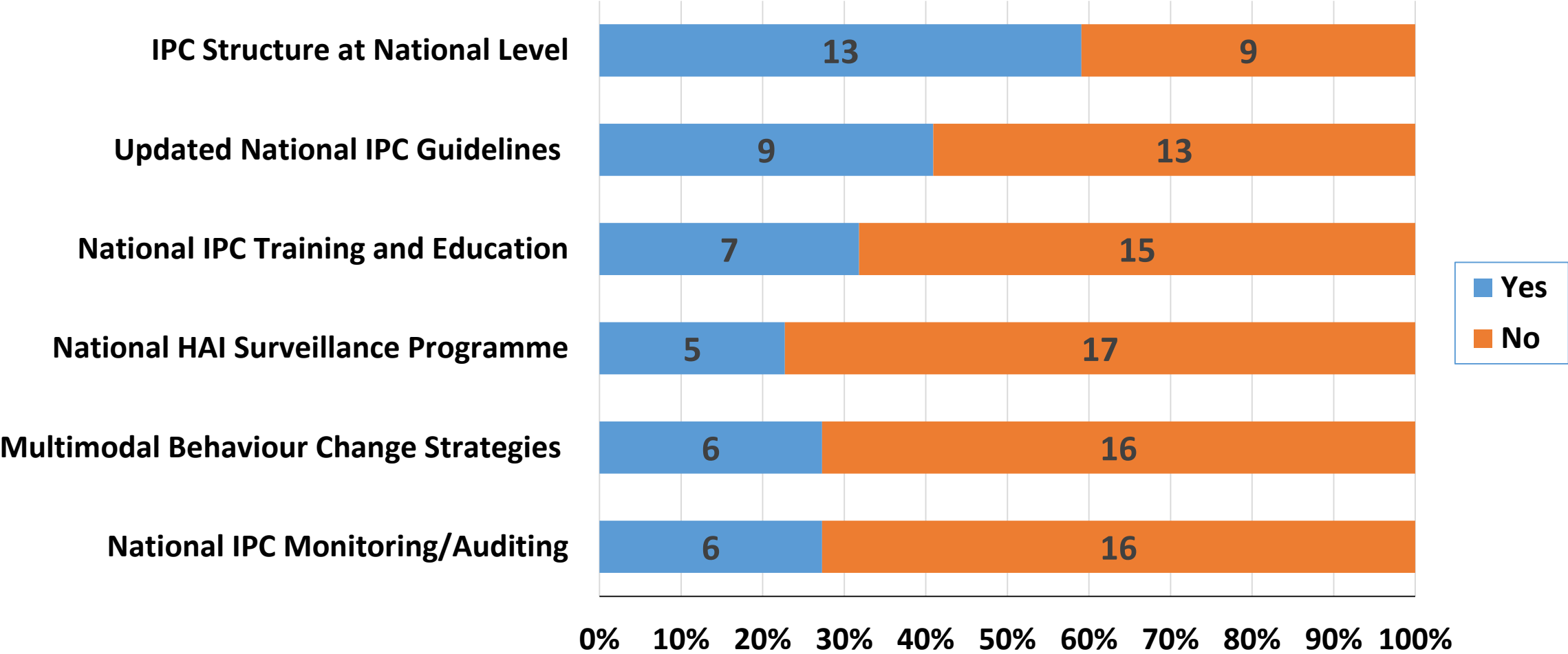
Carbapenem-resistant *Klebsiella pneumoniae*



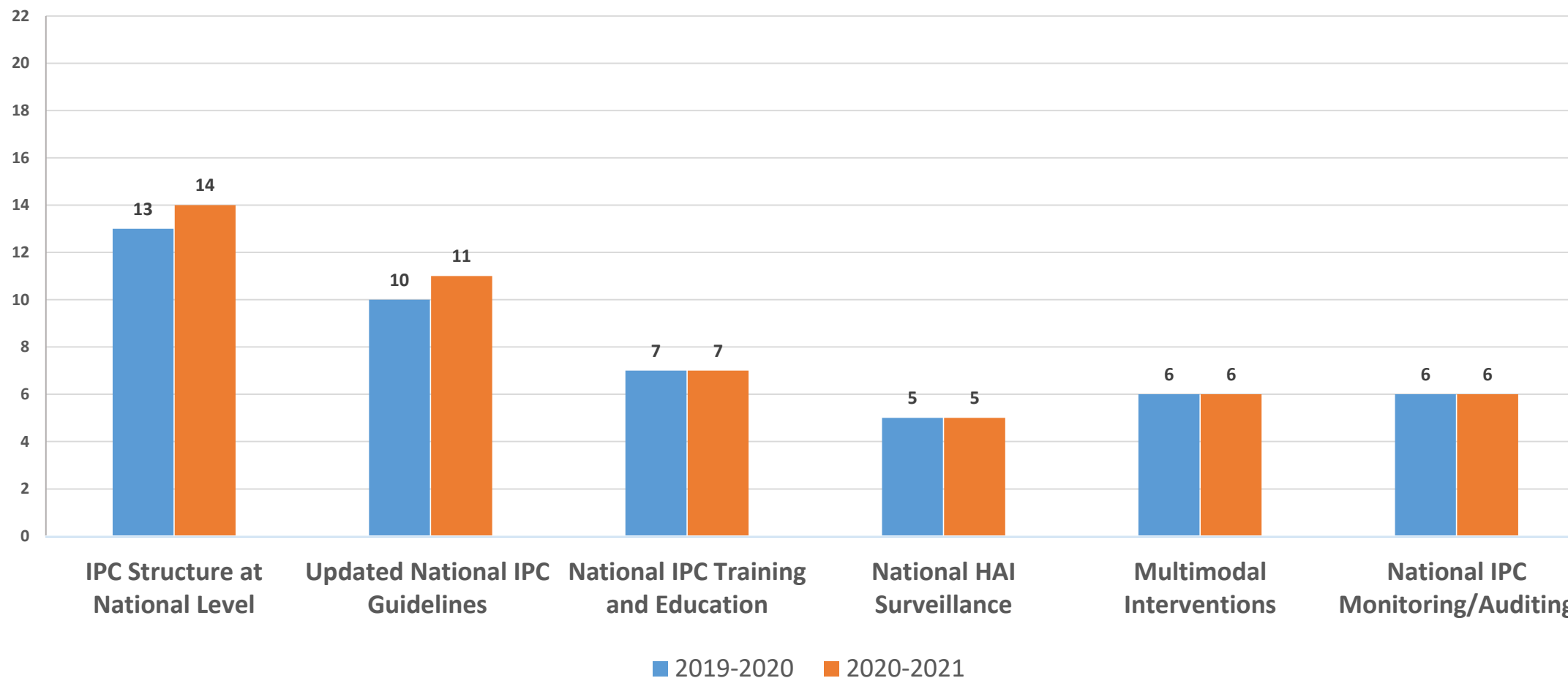
Carbapenem-resistant *Escherichia coli*



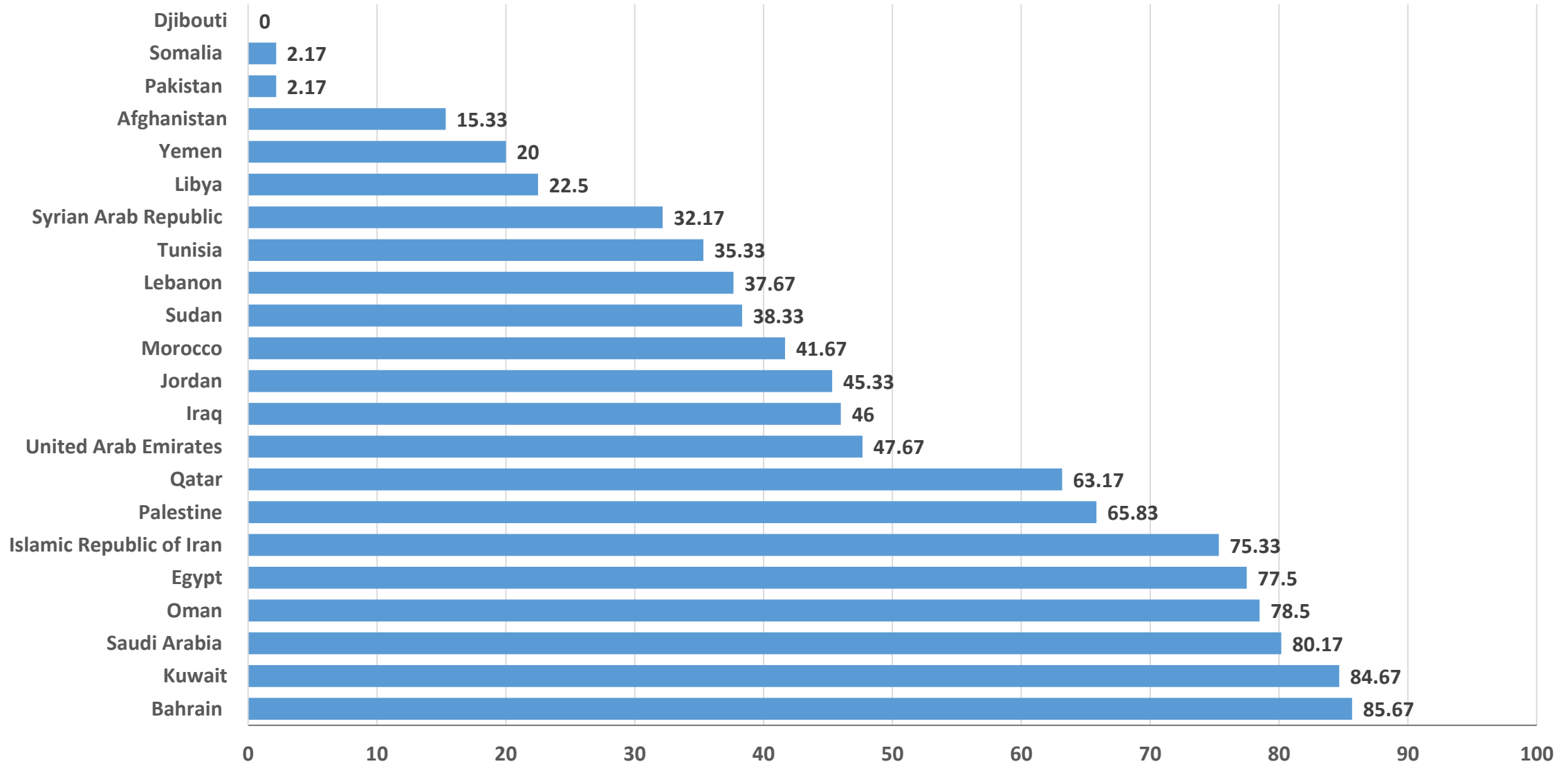
Status of IPC Programs at EMRO Countries- 2020



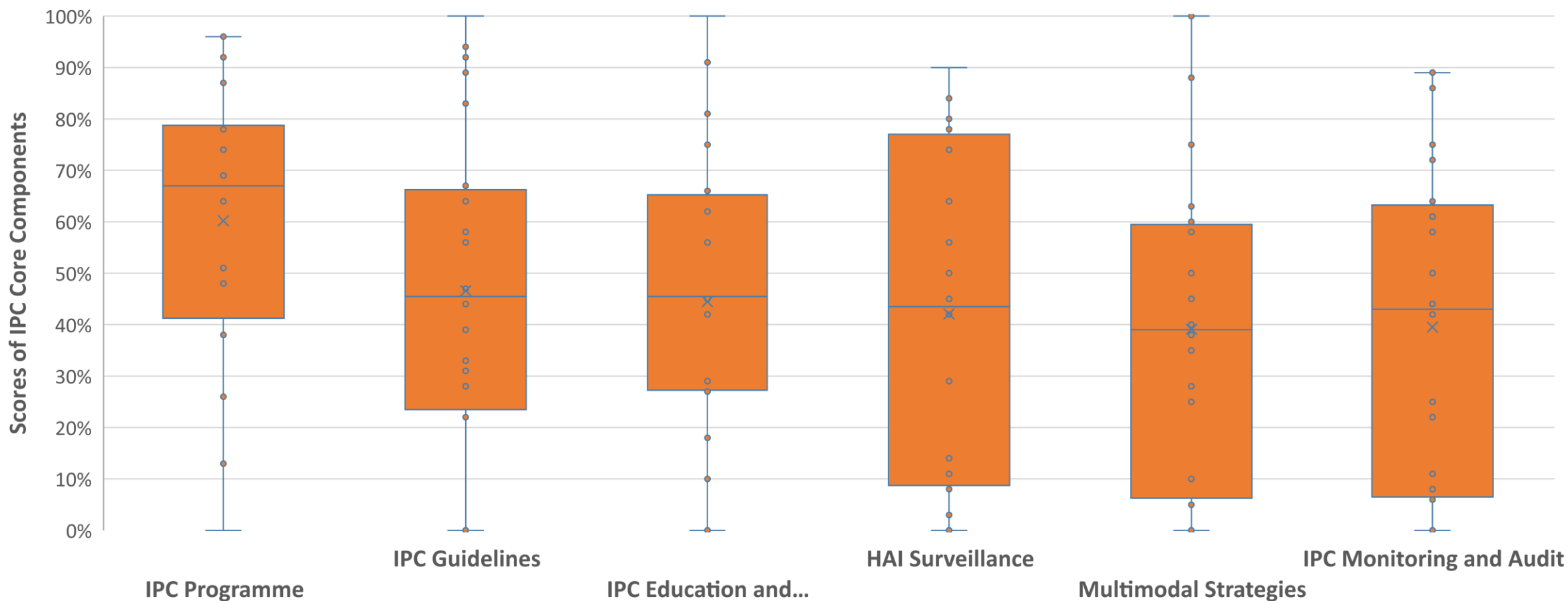
Change in IPC Programme Status at EMR Countries, 2020-2021



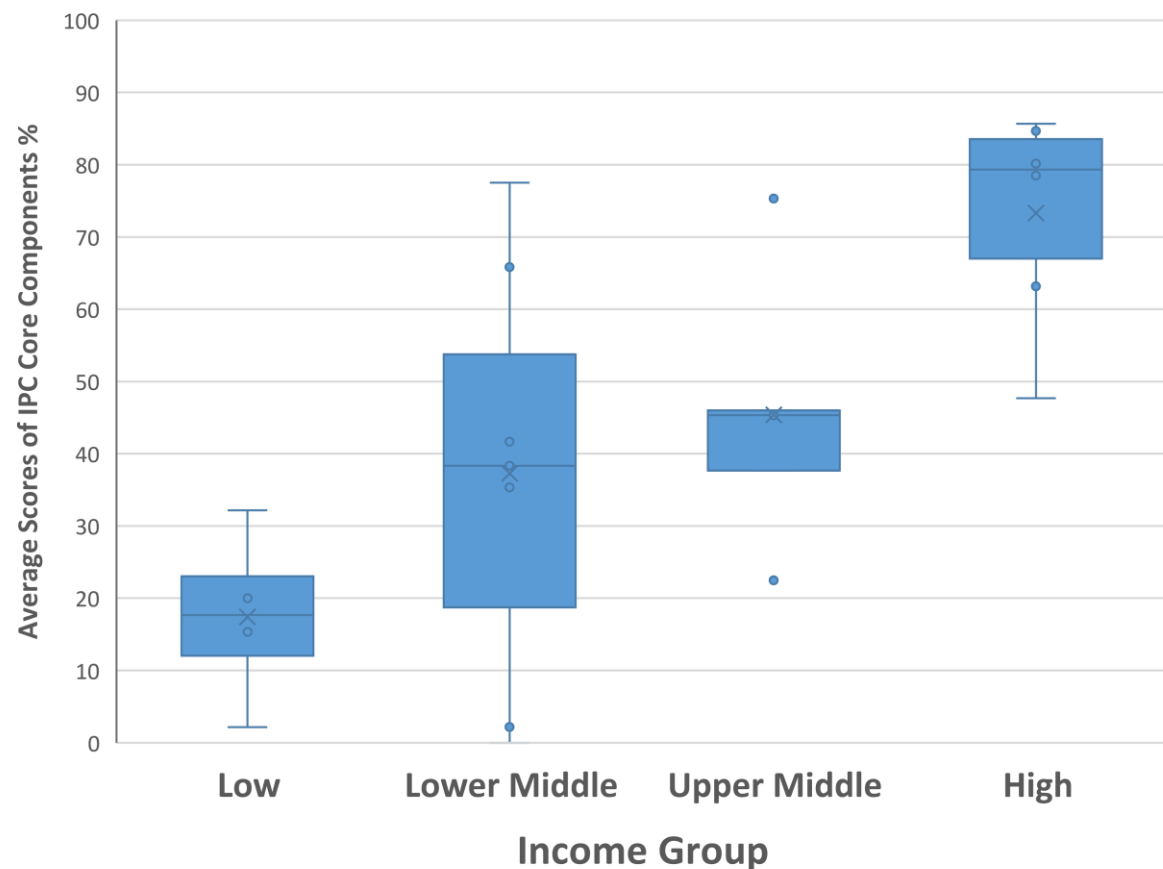
Average Scores of IPC Core Components for EM Countries, 2020 (N=22)



IPC Core Components Scores in EM Countries, 2020 (N=22)

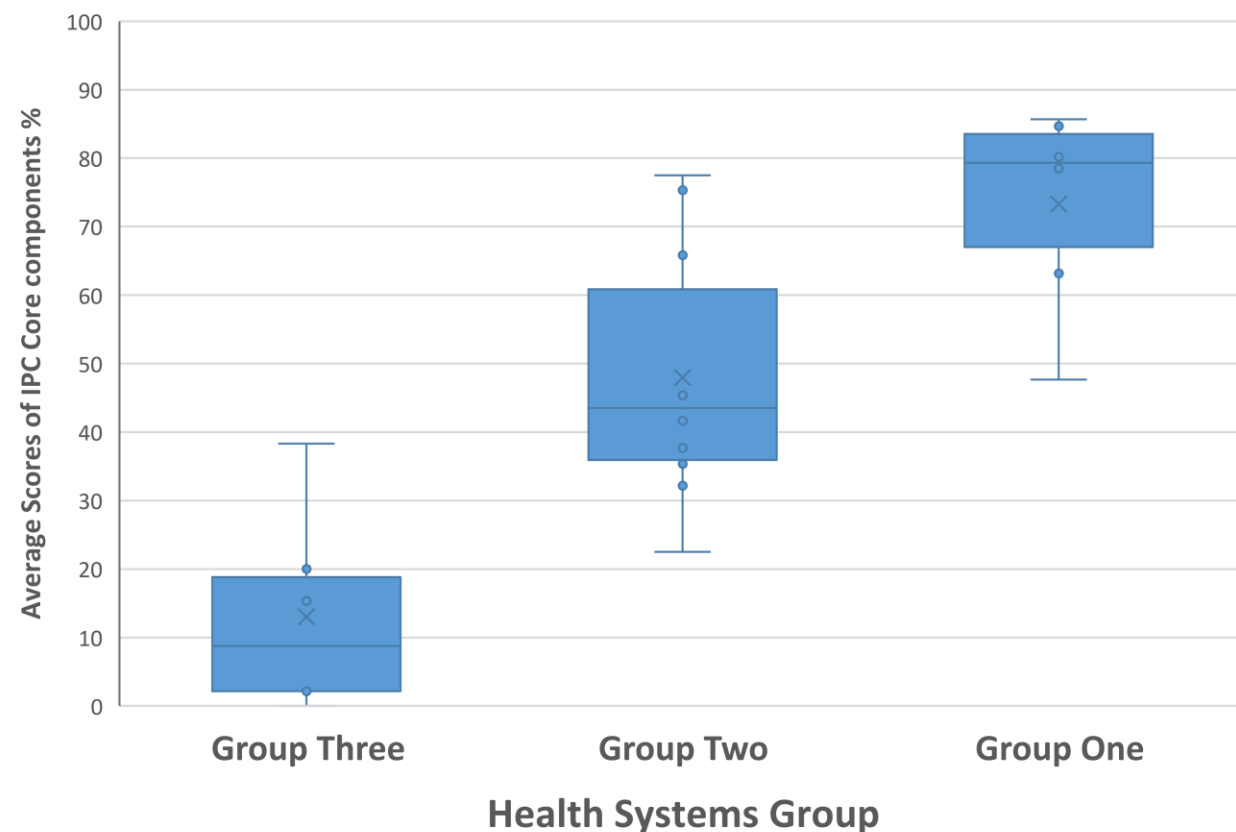


Average IPC CC Scores by Income Group



High Income Countries have significantly higher Scores of IPC Core Components than Low Income Countries (p value = 0.006).

Average IPC CC Scores by Health System Classification



Group One Countries have significantly higher Scores of IPC Core Components than Group Three Countries (p value < 0.001).



Antimicrobial Stewardship and IPC are essential for health systems strengthening

- WHO Policy Guidance of integrated AMS activities
- AMS activities closely linked to IPC & AMR surveillance to support health systems strengthening at national, healthcare facility & community levels
- Policy guidance currently piloted in Egypt & Tunisia to develop “national policy guidance”
- Regional workshop on 15 – 16 September to introduce the policy to EMRO countries

Five pillars of WHO policy guidance

Establish national coordinating mechanisms & develop treatment guidelines

Ensure access to & regulation of antimicrobials

Improve awareness, education & training

Strengthen water, sanitation & IPC

Surveillance, monitoring & evaluation



Regional IPC Activities

- Support countries establish/enhance national IPC programmes
- Support countries develop/update IPC guidelines
- Training on IPC targeting national and facility level IPC focal persons
- Training on IPC in the context of COVID-19
- Provide country missions if needed
- Multimodal intervention package to reduce BSI caused by resistant organisms
 - Baseline assessment of priority IPC practices
 - Identify areas for quality improvement
 - Design and implementation of multimodal intervention packages
 - Regular auditing of practices
- Piloting the updated WHO HAI case definitions to support HAI surveillance
- Support instituting surveillance for HCW infected with COVID-19



Challenges and Opportunities of IPC



Challenges

- Lack of political support at the governance level
- Lack of human resources trained in IPC
- Poor microbiological diagnostic capacities

Opportunities

- ✓ Emergence of Covid-19 pandemic
- ✓ High AMR burden in most countries
- ✓ Hospitals' accreditation
- ✓ Fulfil their AMR NAPs



Thank you

