

Survey on the activities of the World Health Organization (WHO) against antimicrobial resistance (AMR)

Ida Marie Nyhagen Vikan¹, Didier Wernli², Stefan Harbarth³, John Arne Røttingen⁴, Gunnar Skov Simonsen¹

¹Host Microbe Interactions research group, Department of Medical Biology, UiT The Arctic University of Norway, Tromsø, Norway, ²Infection Control Program, Department of Internal Medicine, Geneva University Hospitals and Faculty of Medicine, Switzerland, ³Global Studies Institute, University of Geneva, Switzerland, ⁴Norwegian Institute of Public Health, Oslo, Norway

JAR and SH are leading partners of the DRIVE-AB project, which is supported by the IMI Joint Undertaking under the DRIVE-AB grant agreement no. 115618, resources of which are composed of financial contribution from the European Union's 7th Framework Programme and EPPIA companies' in-kind contribution.

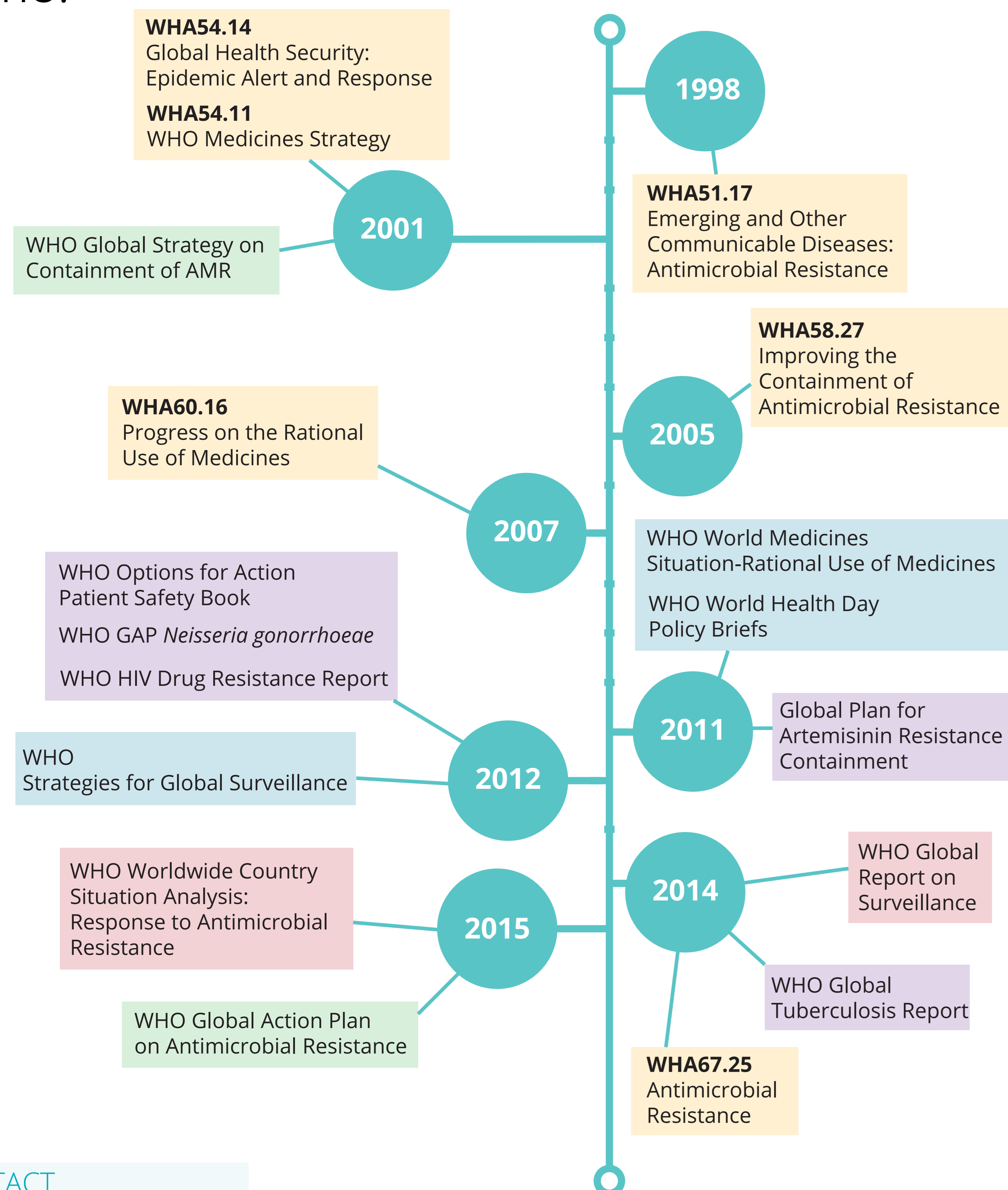
OBJECTIVE

The aim of the project was to survey how experts working on AMR evaluate WHO's efforts in combating AMR, and suggest how the organization should move forward when implementing the Global Action Plan.

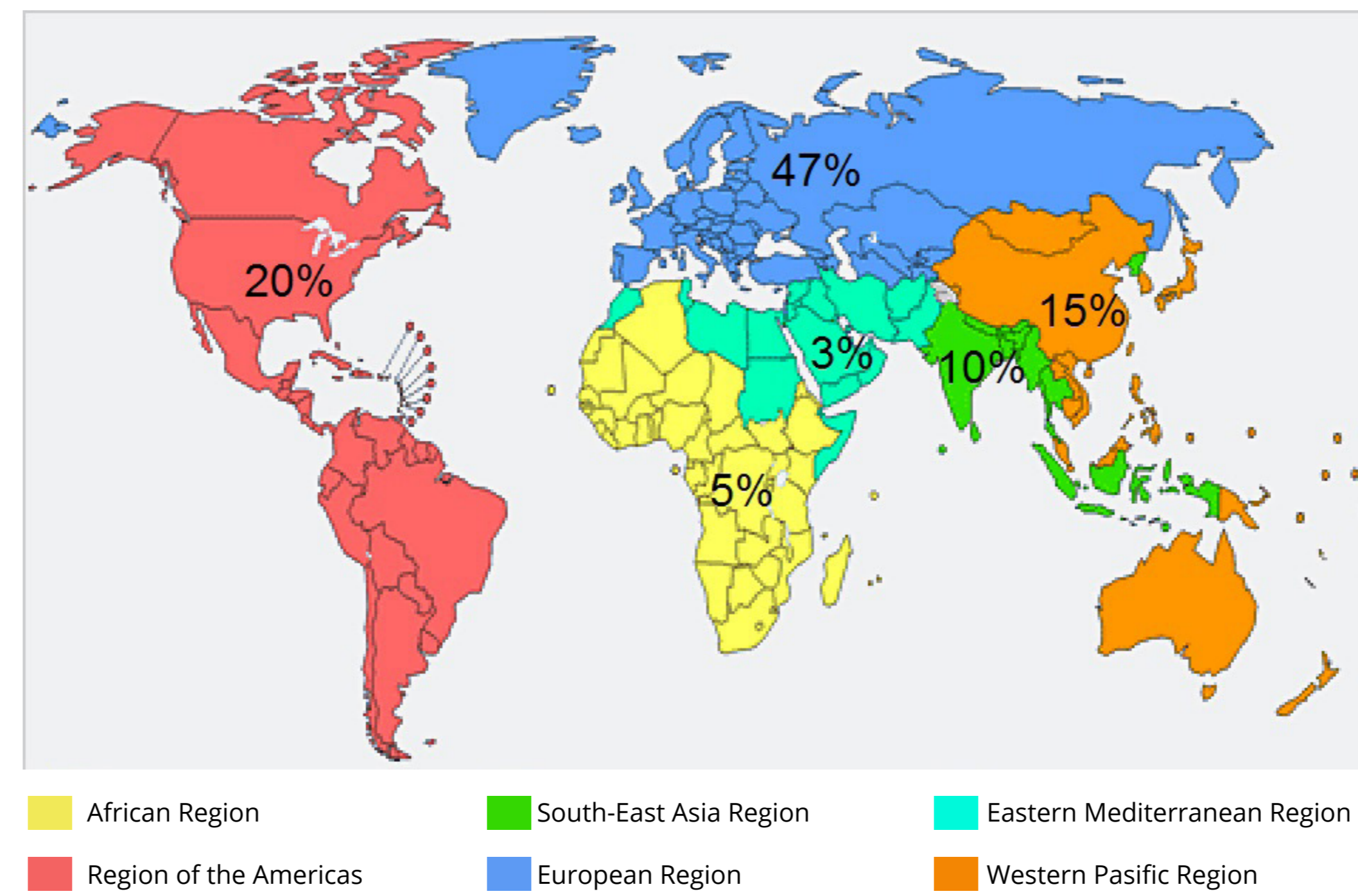
METHODS

An anonymous internet survey was sent to international experts on AMR through formal and informal networks in the autumn of 2015 and winter of 2016.

Timeline of the most important AMR publications by the WHO:



RESULTS



Respondents (n= 193):

Education: clinical medicine (55%), microbiology (42%), public health (40%)
Employment: health care (48%), academia (46%), public health (31%)
WHO link: consultation/project (32%), formal link (14%), no link (52%)
 More than one may apply

WHO role in AMR containment according to the 5C framework for assessment of collaboration needed for a successful policy:

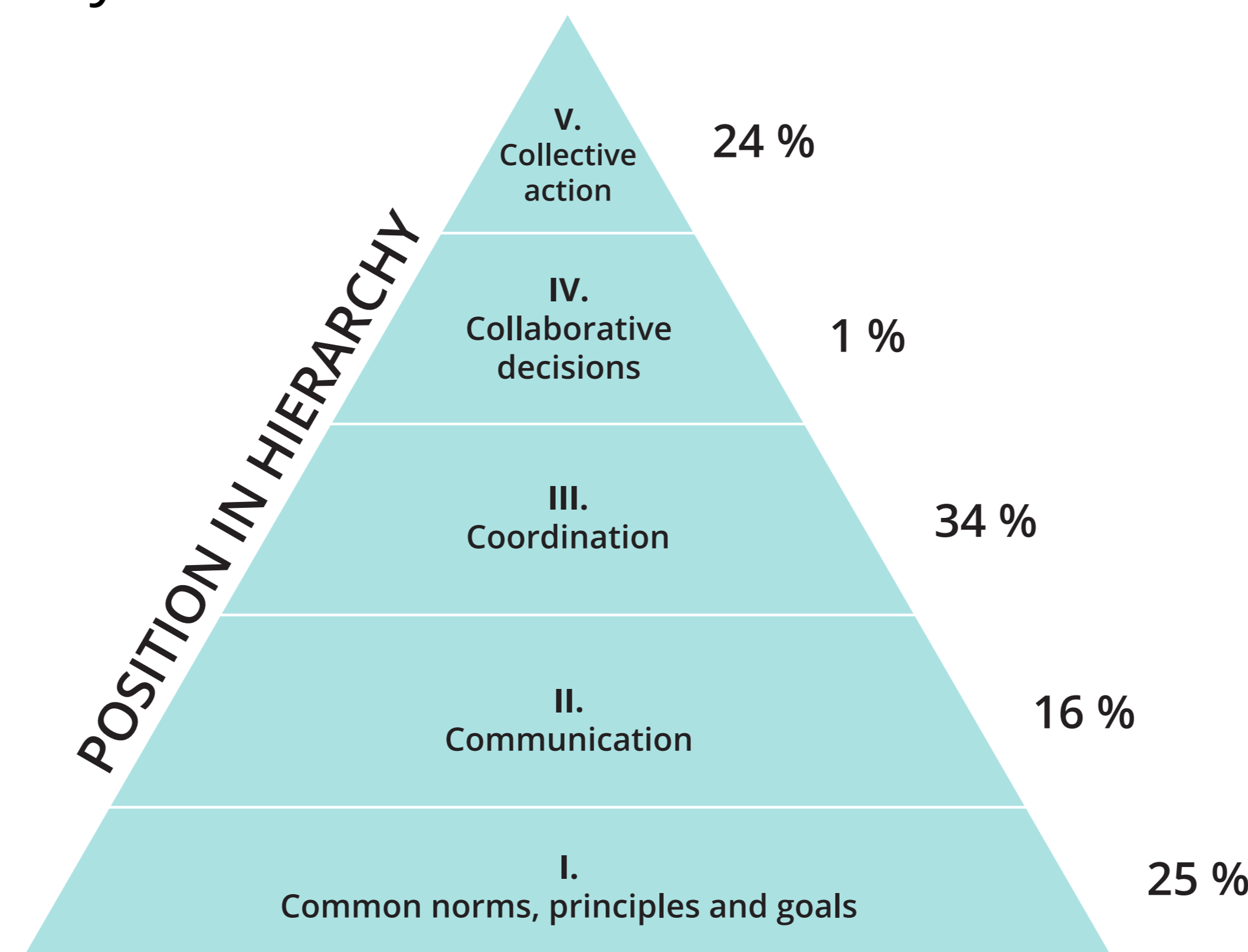
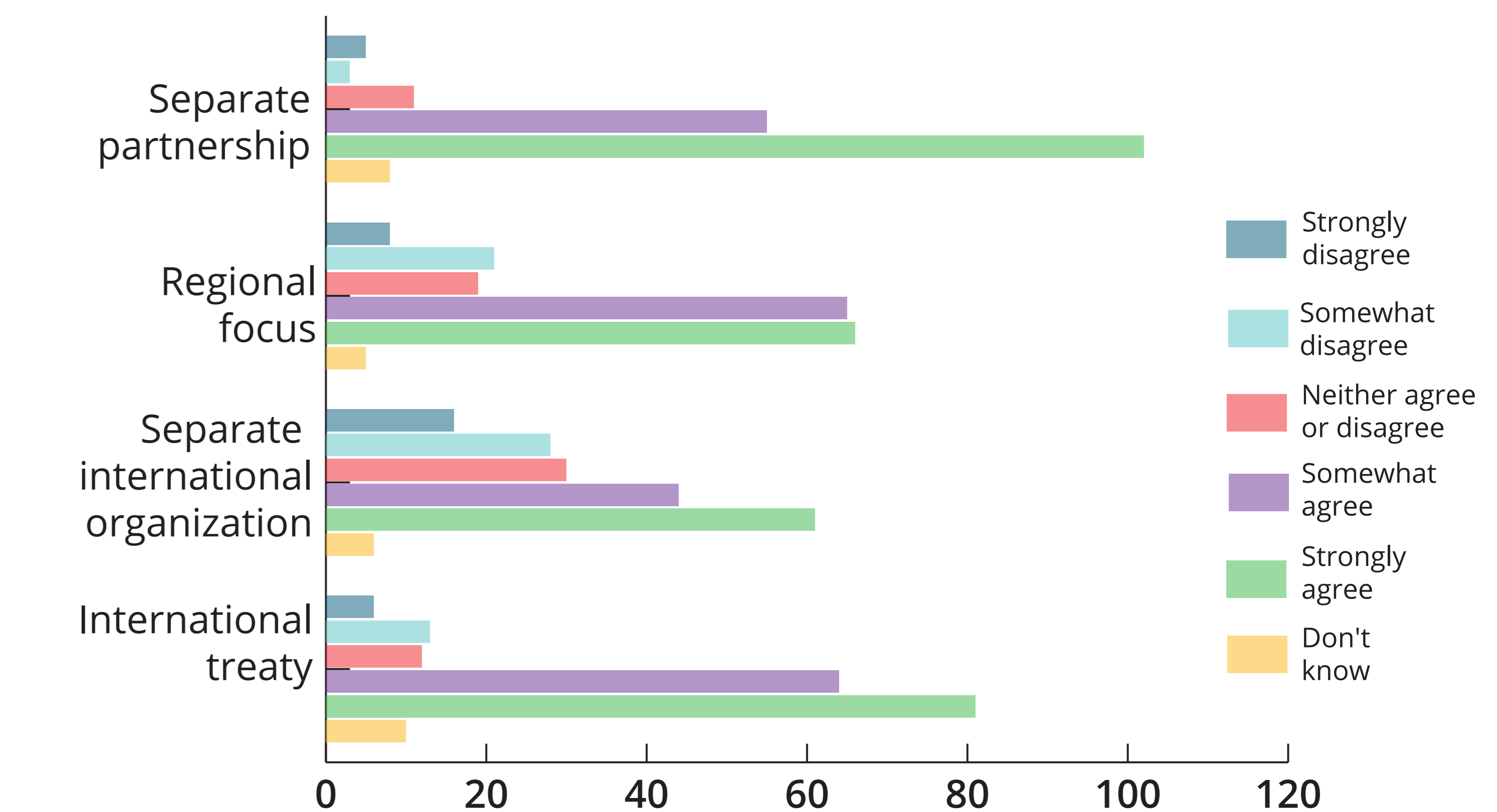


Figure: John Arne Røttingen, Norwegian Institute of Public Health

WHO performance and role:

| | Previous performance | Potential contributions | Should focus on |
|--------------------------------------------------------------------------------|----------------------|-------------------------|---------------------------------|
| Develop international standards | fair / good | high / very high | strongly agree |
| Provide country-level assistance | fair / good | some / high | strongly agree |
| Advocate to promote awareness and mobilize resources | fair / good | high / very high | strongly agree |
| Perform surveillance | fair / good | | strongly agree |
| Improve access to antimicrobials and diagnostics | poor / fair | some / high | somewhat agree / strongly agree |
| Support innovation, research and development of antimicrobials and diagnostics | poor / fair | high / very high | somewhat agree / strongly agree |

The future of AMR in global health:



CONCLUSIONS:

Our results indicate that:

- Previous WHO AMR control efforts are perceived as insufficient.
- WHO has an important role to play to combat AMR in the future both regarding the provision of norms and technical support.
- It is a challenge for WHO to have both a technical and a political/normative mandate at the same time.