



1. Use of surveillance data for policy making

Data needs to inform actions at different levels



Considerations for optimizing use of surveillance data

- What data are needed to inform interventions at different levels?
- The quality of the data and their potential limitations
- Which stakeholders should be involved and how best to communicate these data?

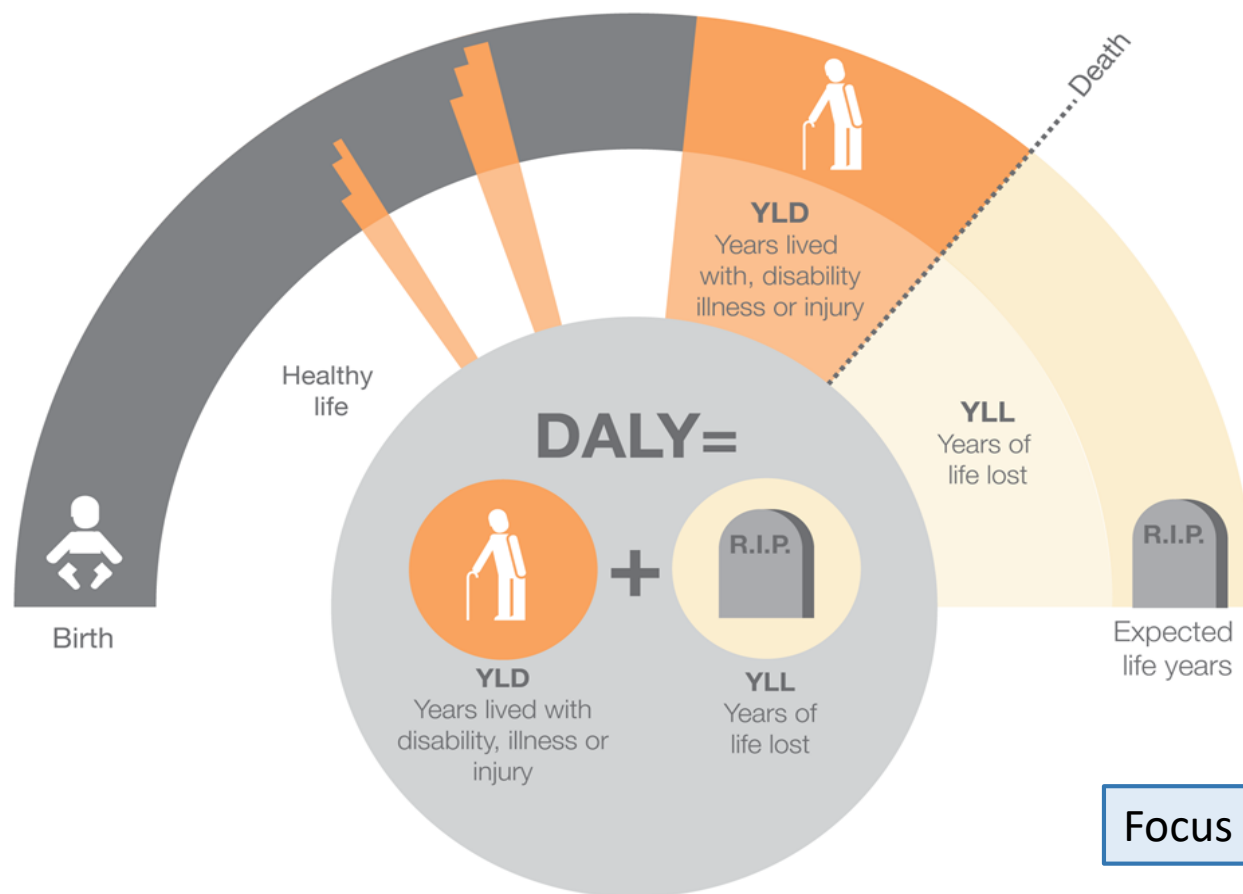
Points for consideration

- Policy makers should define the priority interventions to inform data needs.
- Policy makers should be aware of the data limitations.
- GLASS current approach is based on data obtained from routinely collected samples. In places where the access to lab tests is very limited or not systematically done as per clinical indications, the results obtained only through clinical samples tend to be biased.
- Targeted surveys are needed to overcome potential biases and more accurately inform actions.



2. Assessing AMR burden of disease

Disability-adjusted life-years (DALY)



Variables needed for the model:

- Prevalence/incidence
- Attributable mortality
- Health states definition and duration

Focus on bloodstream infections due to AMR (SDG indicators)

Sustainable Development Goal AMR Indicator



Goal 3: Ensure healthy lives and promote well-being for all at all ages

TARGET 3.d: Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks

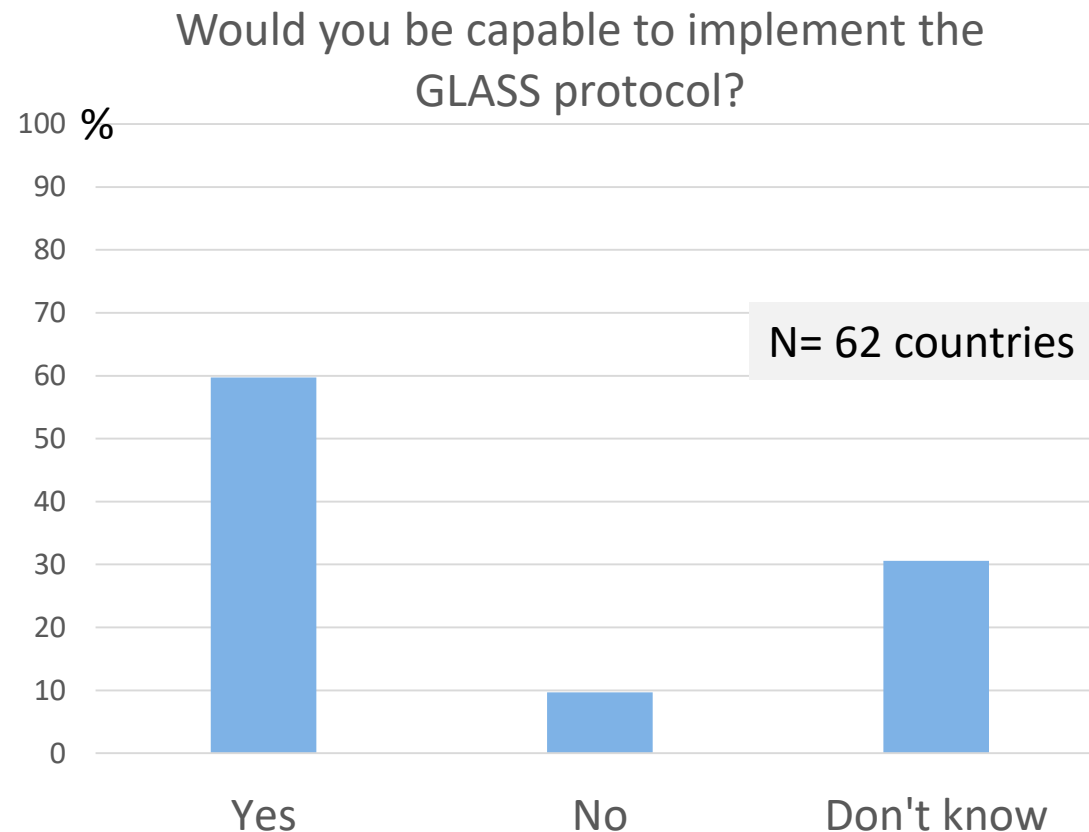
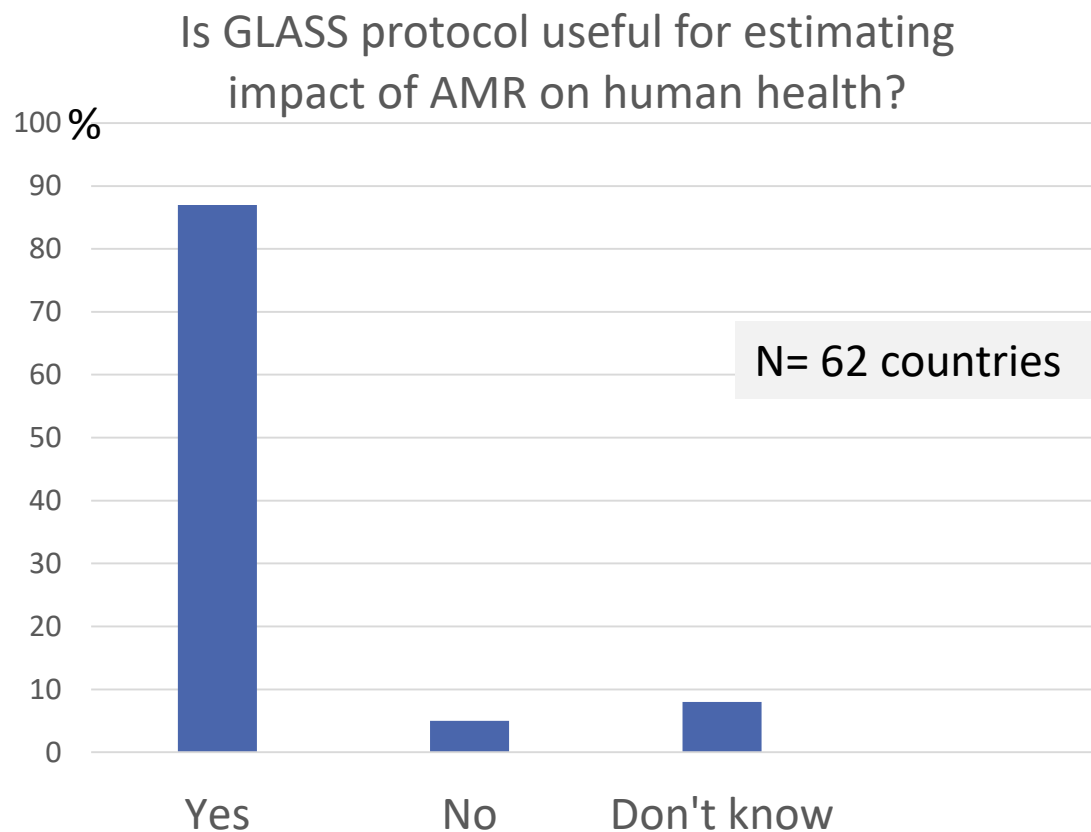
Proportion of bloodstream infections among patients due to

- methicillin-resistant *Staphylococcus aureus* (**MRSA**)
- *Escherichia coli* resistant to 3rd generation cephalosporin

GLASS methodology: master template protocol

- Prospective cohort study to estimate AMR BSI attributable mortality
- **Attributable mortality** determines how many extra patients died because they acquired an AMR BSI.
- Comparison of case-fatality rates between patients groups (cohorts):
 1. patients with AMR BSI
 2. similar patients with BSIs by the same pathogen, but not AMR
 3. uninfected patients (optional)

Feedback from countries



Considerations

- Accurate data on AMR burden are important for governments to reliably prioritize public health spending.
- Global estimates of AMR burden are needed to inform and advance international efforts to tackle AMR.
- The prospective assessment of attributable mortality due to AMR requires the implementation of surveys specifically designed for this purpose and implies additional efforts as compared to routine surveillance.
- Concerted efforts for comparable measure



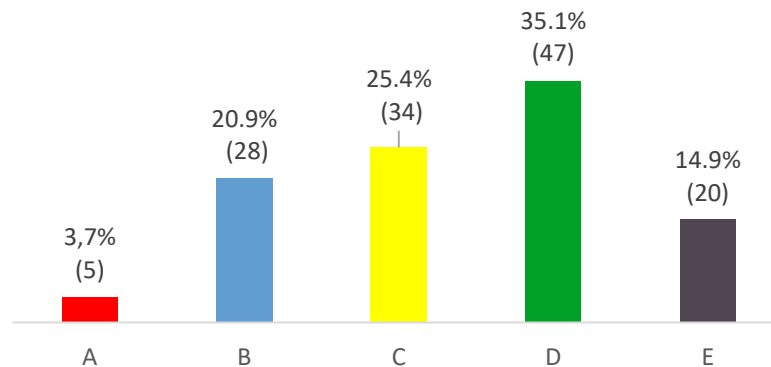
3. Monitoring national AMR/AMU surveillance systems






Current GLASS monitoring of the status of national surveillance system implementation

- Overall coordination
- Surveillance system structure
- Quality control

Global Database of results of the Tripartite antimicrobial resistance country self-assessment survey (TrACSS)

Country responses on national AMR surveillance activities
in human health, TrACSS 2019- 2020 responses

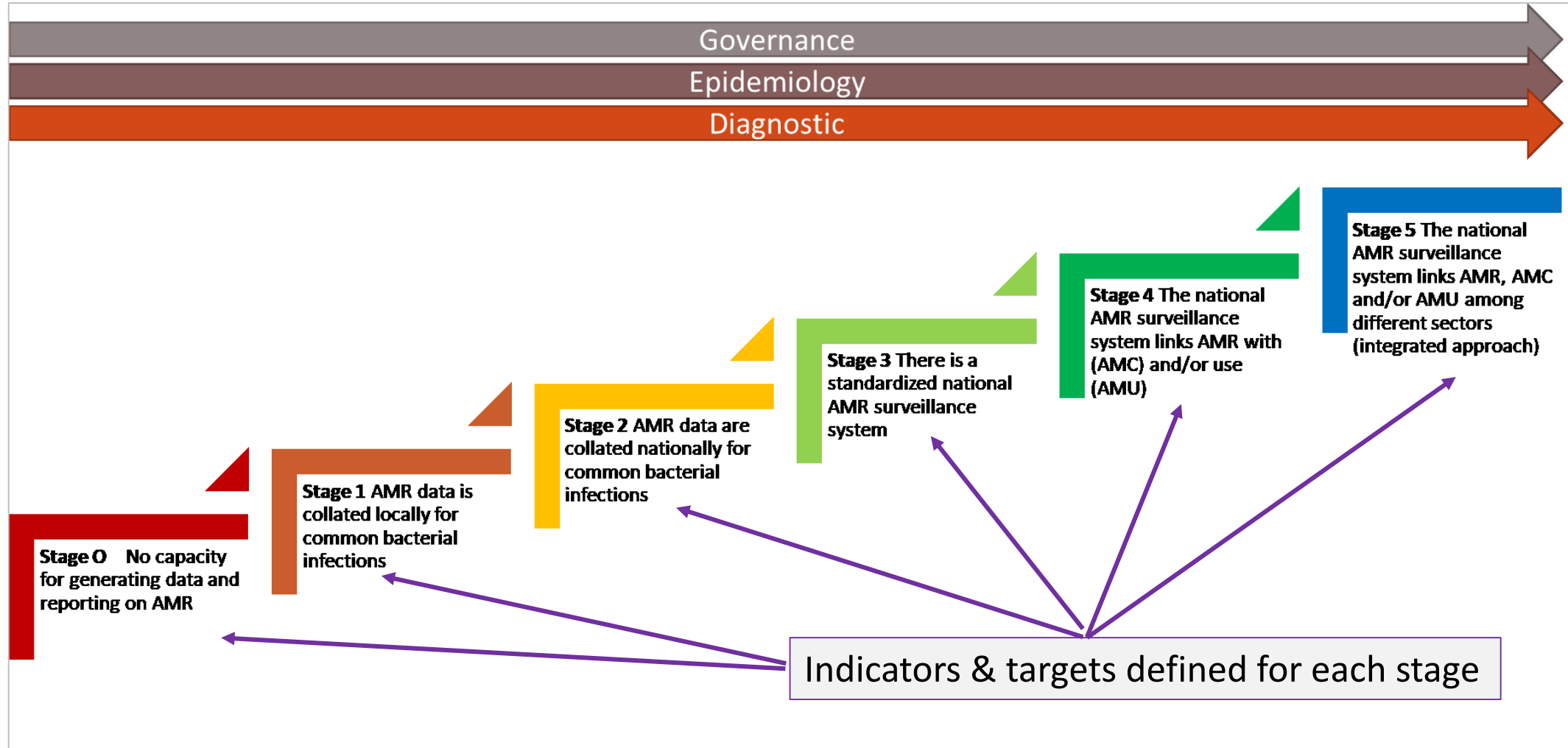


-  A - No capacity for generating data (antibiotic susceptibility testing and accompanying clinical and epidemiological data) and reporting on antibiotic resistance.
-  B - AMR data is collated locally for common bacteria, but data collection may not use a standardized approach and lacks national coordination and/or quality management.
-  C - National AMR surveillance activities for common bacterial infections follow national standards, and a national reference laboratory that participates in external quality assurance.
-  D - There is a functioning national AMR surveillance system covering common bacterial infections in hospitalized and community patients, with external quality assurance, and a national coordinating centre producing reports on AMR.
-  E - The national AMR surveillance system integrates surveillance of AMR across sectors, and generates regular reports covering at least one common indicator.



Source: Tripartite Annual Country Self-Assessment Survey (TrACSS) 2019-20

Progressive AMR Surveillance Pathway



Considerations

- Aligning a Progressive AMR Surveillance Pathway with the Tripartite monitoring framework.
- The definition of indicators and targets is expected to help countries better orient a stepwise approach for the development of national surveillance systems.
- We may need a combination of structure, process and outcome indicators to monitor the AMR/AMU surveillance systems and evaluate impact of interventions.