



# GLOBAL ANTIMICROBIAL RESISTANCE SURVEILLANCE SYSTEM

## WHAT IS GLASS?

The Global Antimicrobial Resistance Surveillance System (GLASS) is a platform for global data sharing on antimicrobial resistance worldwide. It has been launched by WHO as part of the implementation of the Global Action Plan on Antimicrobial Resistance (AMR). The data generated will help to inform national, regional and global decision-making, strategies and advocacy.

The system aims to foster national AMR surveillance systems and to enable the collection, integrated analysis and sharing of standardized and validated data on antimicrobial resistance, captured by participating countries around the world.

Epidemiological and microbiological information will be combined to enhance understanding of the extent and impact of AMR on populations, to monitor trends, to detect emerging resistance and to measure the effectiveness of interventions to control AMR.

## HOW CAN COUNTRIES PARTICIPATE IN GLASS?

Countries can participate in GLASS by establishing **national AMR surveillance systems**, in a stepwise manner, that can gather data on resistance and communicate that data to GLASS.



### Surveillance Site:

collects basic demographic, clinical, epidemiological and microbiological information from patients

\* usually a hospital, clinic or out-patient community health facility with access to relevant epidemiological and laboratory support



### National Reference Laboratory:

promotes good laboratory practices and supports laboratories in the national surveillance system

\* usually at least one national laboratory as designated by the government



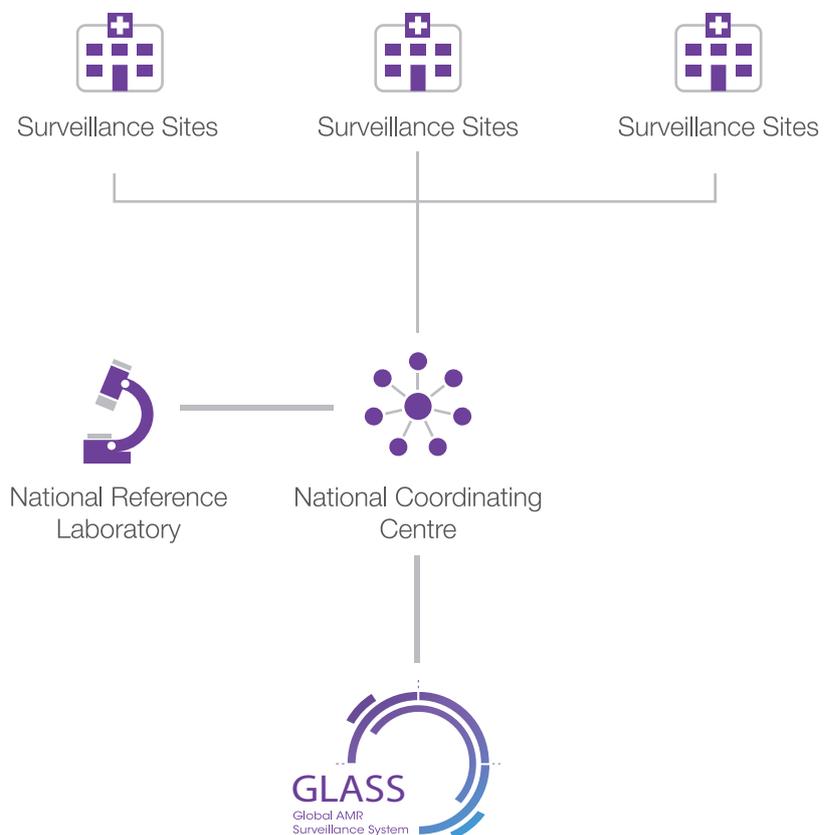
### National Coordinating Centre:

establishes and oversees the national surveillance programme, gathers national AMR data and communicates with GLASS via a national focal point

\* usually a public health institute

There are **3 core components** of a national AMR surveillance system:

- a national coordinating centre, at least one national reference laboratory and one or more surveillance sites. The data gathered at the surveillance sites flows through the national coordinating centre to GLASS.



## HOW DO COUNTRIES ENROL IN GLASS?



**All countries** are encouraged to enrol in GLASS. National governments are invited to contact the GLASS Secretariat, via the WHO website, for **more information on enrolment**.



A country's participation can be **gradual**, in a stepwise manner, increasing the number of surveillance sites and building the capacities of the **core components** over time.



A **manual** that explains how GLASS functions, how countries can participate and what data are to be collected, is available on the WHO web site.

[www.who.int/drugresistance/surveillance](http://www.who.int/drugresistance/surveillance)

## WHAT DATA WILL BE COLLECTED?

GLASS will initially focus on bacterial pathogens in **humans**. The system will gather data on resistance in **8 priority bacteria**, detected in **4 types of specimens** taken from patients. Resistance in these bacteria is considered the greatest threat globally. GLASS will also collect information on **countries' progress** in establishing national AMR surveillance systems.

GLASS will then be progressively expanded to include other types of AMR-related surveillance, such as the **food chain**, the **environment** and **antimicrobial use** and will build links with other global surveillance systems.

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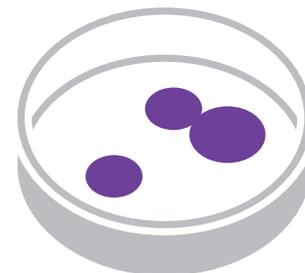
### bacteria

- *Escherichia coli*
- *Klebsiella pneumoniae*
- *Acinetobacter* spp.
- *Staphylococcus aureus*
- *Streptococcus pneumoniae*
- *Salmonella* spp.
- *Shigella* spp.
- *Neisseria gonorrhoeae*

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### specimen types

- blood
- urine
- stool
- genital swabs



## WHAT ARE THE BENEFITS FOR COUNTRIES?

- ✓ **Capacity building** for national AMR surveillance
- ✓ An implementation package including **surveillance software**
- ✓ Access to a **web-based platform** for data sharing, data management and reporting
- ✓ Assistance with **monitoring** and **evaluation**
- ✓ Support from a **global network** of WHO Collaborating Centres
- ✓ Regular **reports** on global AMR situation and trends



World Health  
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More information on GLASS and country enrolment please visit  
<http://www.who.int/drugresistance/surveillance>