



GLASS

Methodology for surveillance of national antimicrobial consumption

Global Antimicrobial Resistance and
Use Surveillance System (GLASS)

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ISBN 978-92-4-001263-9 (electronic version)

ISBN 978-92-4-001264-6 (print version)

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Suggested citation. GLASS methodology for surveillance of national antimicrobial consumption. Geneva: World Health Organization; 2020. Licence: CC BY-NC-SA 3.0 IGO.

Cataloguing-in-Publication (CIP) data. CIP data are available at <http://apps.who.int/iris>.

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Design and layout by 400 Communications Limited.

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Abbreviations

AMC	antimicrobial consumption
AMR	antimicrobial resistance
ATC	Anatomical Therapeutic Chemical classification system
CC	collaborating centre
DDD	Defined Daily Dose
DID	Defined Daily Doses/1000 inhabitants/day
EphMRA	European Pharmaceutical Market Research Association
FAO	Food and Agriculture Organization
GAP-AMR	Global Action Plan on antimicrobial resistance

GLASS	Global Antimicrobial Resistance and Use Surveillance System
INN	international nonproprietary name
NGO	nongovernmental organization
NFP	national focal point
OIE	World Organisation for Animal Health
OTC	over-the-counter
PBIRG	Pharmaceutical Business Intelligence and Research Group
PDD	prescribed daily dose
PIY	packages/1000 inhabitants/year
UN	United Nations
WHO	World Health Organization



1. Introduction

At the Sixty-eighth World Health Assembly held in May 2015, Member States adopted the Global Action Plan on antimicrobial resistance (GAP-AMR). The World Health Assembly urged Member States to implement the action plan, recognizing that this may need to be adapted to specific contexts and national priorities.

The GAP-AMR has five objectives:

1. Improve awareness and understanding of antimicrobial resistance.
2. Strengthen surveillance and research.
3. Reduce the incidence of infection.
4. Optimize the use of antimicrobial medicines.
5. Ensure sustainable investment in countering antimicrobial resistance.

In Objective 2, surveillance and monitoring are acknowledged as critical components of the response to AMR. In 2015, the World Health Organization (WHO) launched the Global Antimicrobial Resistance and Use Surveillance System (GLASS) to:

- improve understanding of the spread and drivers of AMR, including the use of antimicrobial medicines;
- standardize surveillance based on officially recognized data across countries; and
- inform effective control strategies to tackle AMR.

Specifically related to GAP-AMR Objective 4, Member States are requested to provide “stewardship programmes that monitor and promote optimization of antimicrobial use at national and local levels in accordance with international standards in order to ensure the correct choice of medicine at the right dose

- monitor the outcomes of interventions aimed at changing the use of antimicrobials;
- assess the quality of prescribing against practice guidelines;
- raise awareness in health professionals, consumers and policy-makers about the contribution of inappropriate use of antimicrobials in human health to the emergence and spread of antimicrobial resistance.

In 2016, in response to the lack of data on antimicrobial consumption (AMC) in many Member States, especially in low- and middle-income countries, WHO initiated the surveillance of AMC for the collection, analysis and reporting of data on AMC in human health. This included two main components: development of standardized surveillance tools, and support to countries in establishing corresponding national surveillance systems. After developing the methodological tools, WHO rolled out its first cycle of data collection to gather consumption data for the 2014–2016 period in an initial set of countries enrolled in the programme. This first phase included supporting implementation of national surveillance systems in certain low- and middle-income countries. As a result of this pilot phase of data collection, WHO published its first global report and presented data on antimicrobial consumption from 65 countries and areas around the world.¹

In 2020, following the pilot phase, the surveillance of AMC became mainstream within GLASS, allowing Member States to report their national AMC data to WHO in a systematic manner. This reporting provides a unique opportunity to access data on both AMC and AMR in a central repository, facilitating the coordinated

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