

OPTIMIZING THE REPORT OF ANTIMICROBIAL RESISTANCE IN MEXICAN HOSPITALS: AN UNFINISHED BUSINESS



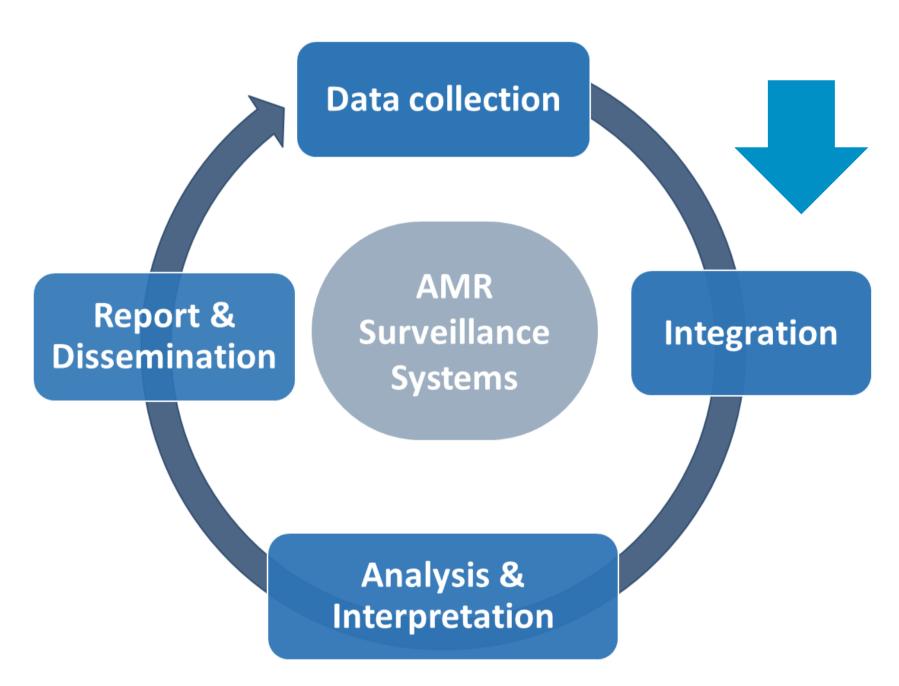
Jennifer Hegewisch-Taylor, MSc1*; Anahí Dreser, PhD1*; María Alejandra Cortés-Ortíz, MSc2; Julián Romero-Mónico, MPH2;

1: Health Systems Research Center (CISS), National Institute of Public Health, Cuernavaca, México, 2: Independent Researcher, Mexico.

*E-mail: jennifer.hegewisch@insp.mx

BACKGROUND

- Antimicrobial resistance (AMR) data collected within antimicrobial stewardship programs (ASP) in hospitals are useful to inform & optimize antimicrobial use.
- However in a country with fragmented AMR surveillance systems, data is collected, integrated, analyzed or disseminated under the different standards, which hinders its effective use [1].
- This study aimed to identify the entities receiving AMR surveillance data (reports) from hospital ASP in Mexico in order to understand the gaps in the present AMR surveillance organization.



AMR surveillance systems' framework.

METHODS

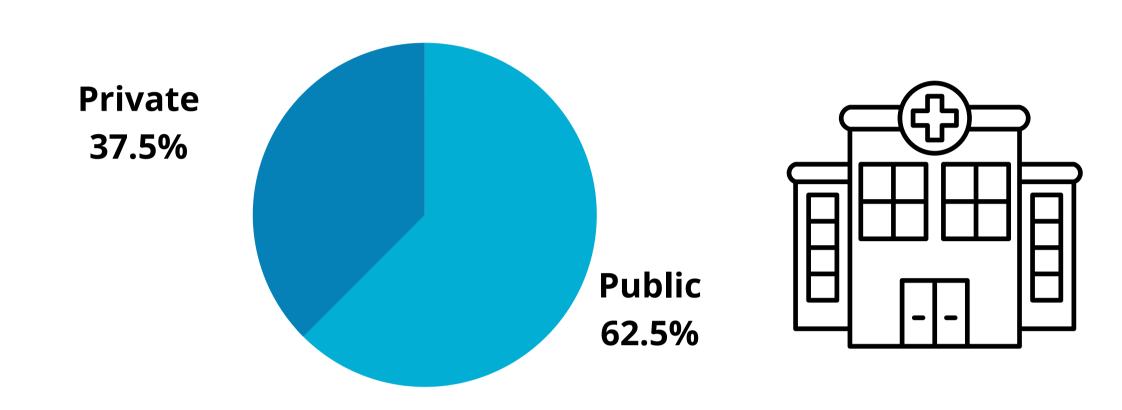
Design: An online REDCAP survey was applied between Sept-Oct 2021 to a purposive sample of 40 public and private hospitals performing regular ASP activities in Mexico.

Survey format & content: A subset of questions on antimicrobial susceptibility monitoring and surveillance reporting practices were answered by ASP professionals.

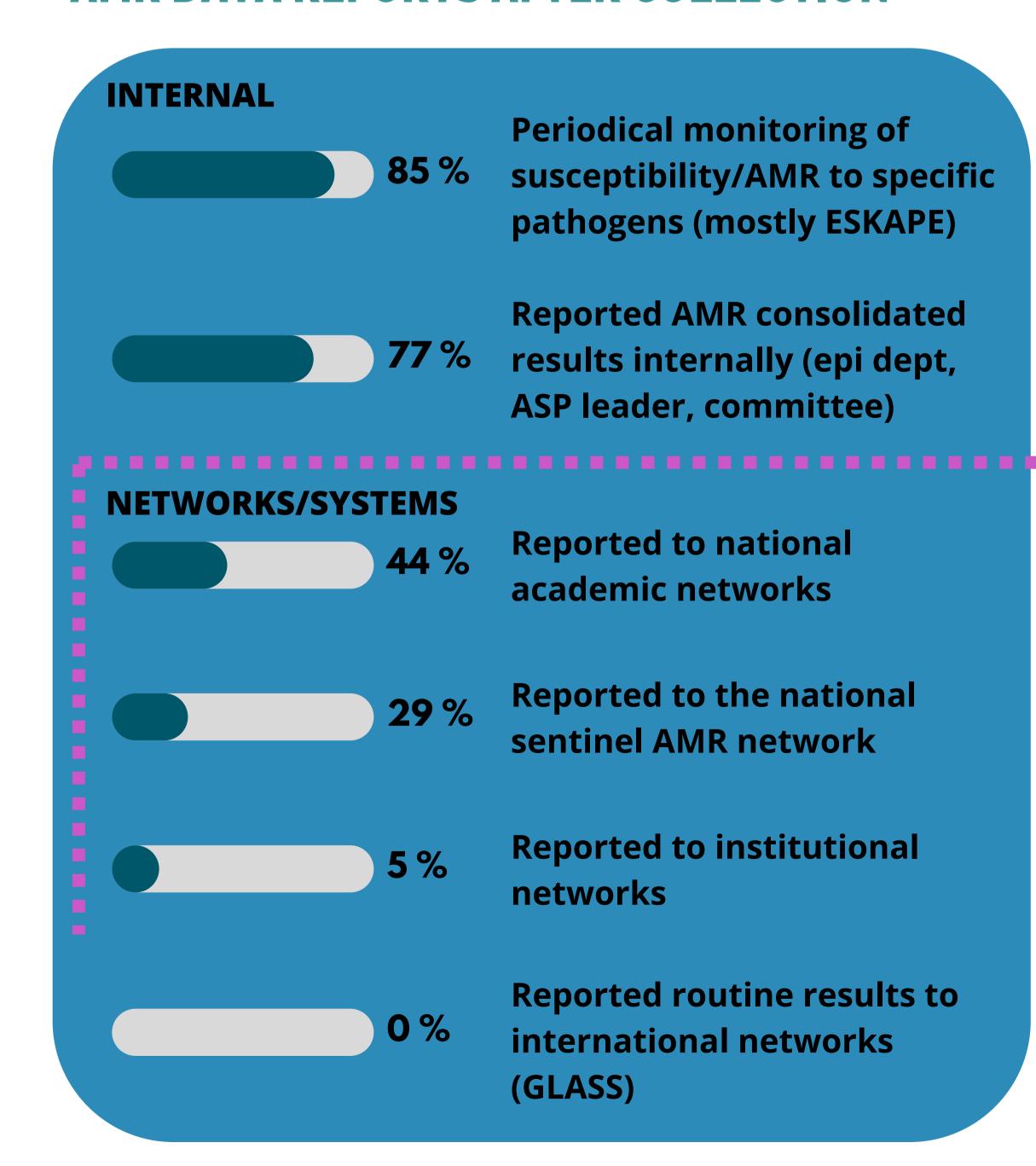
RESULTS

HOSPITAL UNITS PARTICIPANTS

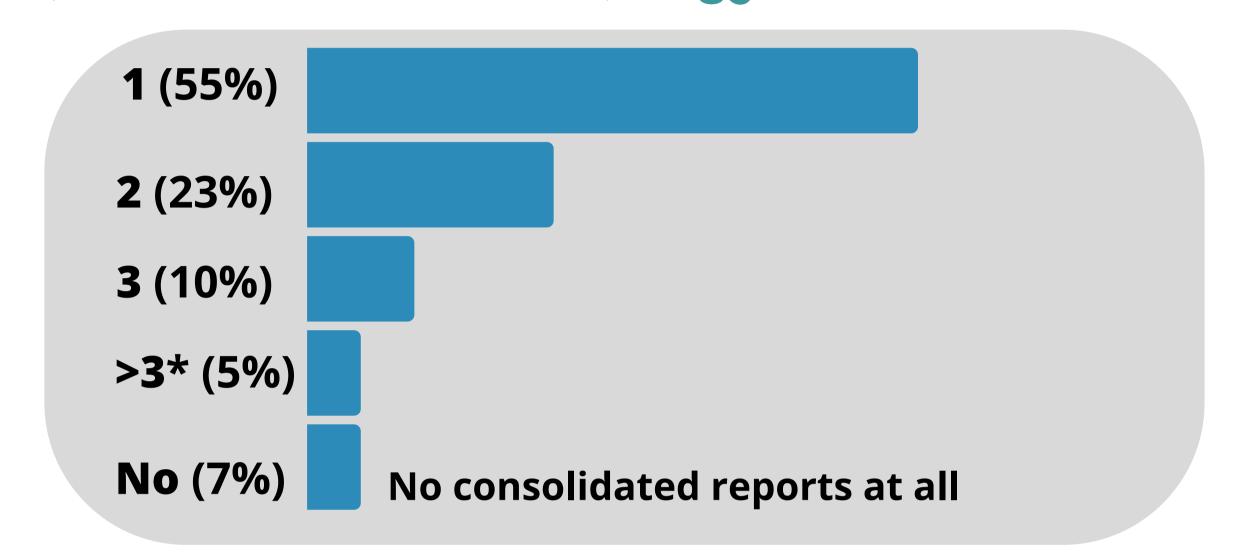
 A total of 39 hospitals in 13 states in Mexico answered the subset of the survey.



AMR DATA REPORTS AFTER COLLECTION

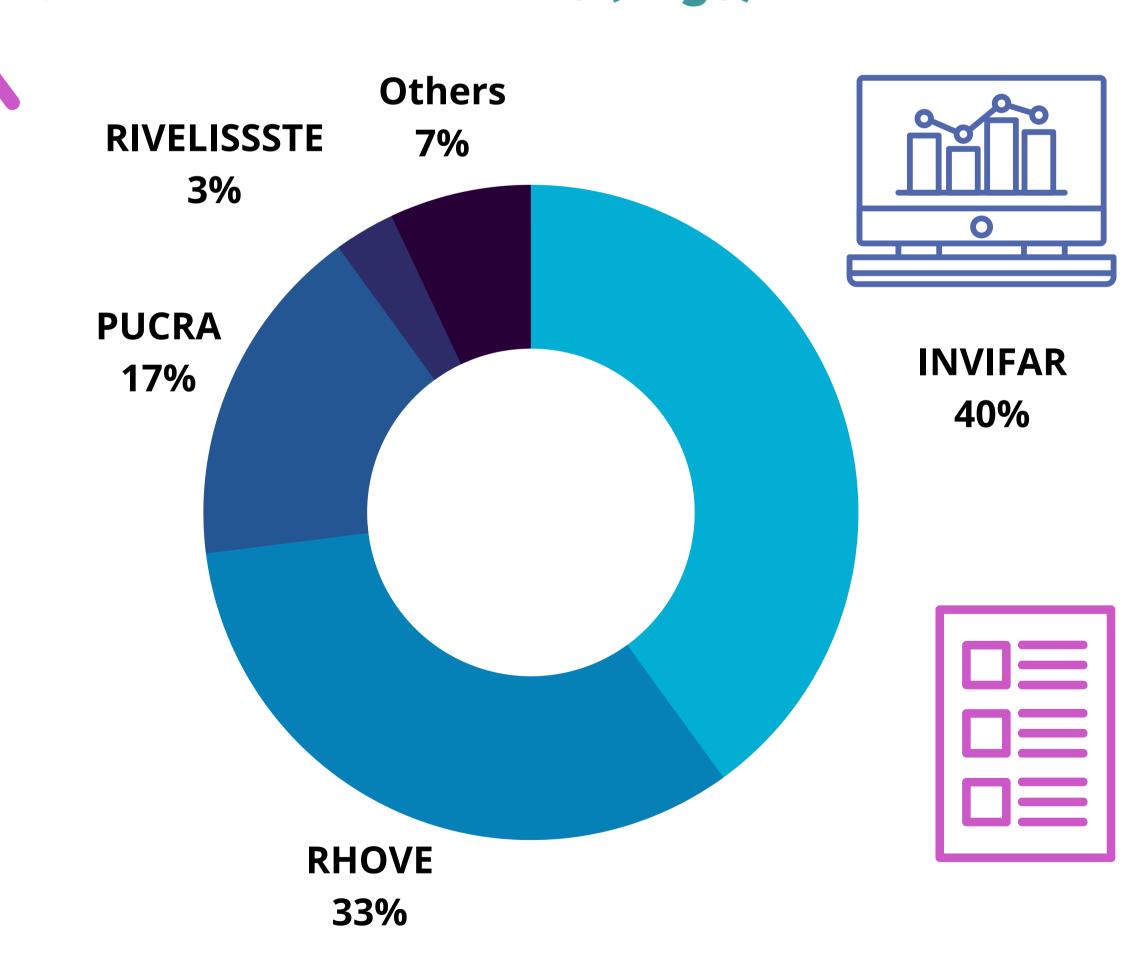


NUMBER OF UNIQUE REPORTS OF AMR SPECIFIC DATA TO DIFFERENT ENTITIES (SYSTEMS/NETWORKS) N=39



*Reporting to >3 entities was observed only in public hospitals

DISAGGREGATION OF REPORTS TO ADDITIONAL NON-INTERNAL ENTITIES (N=30)



ACADEMIC NETWORKS:

PUCRA = Plan Universitario de Control de la Resistencia Antimicrobiana **INVIFAR**= Red temática de investigación y vigilancia de la farmaco-resistencia *NATIONAL SENTINEL NETWORK:*

RHOVE= Red Hospitalaria de Vigilancia Epidemiológica INSTITUTIONAL NETWORKS:

RIVELISSSTE= Red Institucional de Vigilancia Epidemiológica por Laboratorio del ISSSTE

DISCUSSION

- Mexico has published its own national AMR policy [2], however there are remaining implementation gaps and unsettled surveillance commitments.
 - Duplicity of reporting processes to additional entities was observed, which implies an operational and financial burden (public hospitals are the most affected).
 - Furthermore, each AMR data recipient entity analyzes data and disseminates information in a different way.
 - Current hospital AMR information in the country is limited
 & heterogeneous.
- Optimizing & strengthening AMR surveillance & report in hospitals will require the simplification & standardization of processes into an articulated/integrated national system.
 - Available academic, institutional & sentinel data regarding AMR in ESKAPE pathogens could be integrated in the future (including sources not included/identified in the sample).
 - Digital data collection with interoperability, semantic consistency and interconnectivity between networks/systems must be explored [3].
 - An organized AMR surveillance system is crucial to allow all hospitals to monitor local, national and even internationally-compiled information.

REFERENCES

- 1. Iskandar K, Molinier L, Hallit S, et al. (2021). *Surveillance of antimicrobial resistance in low- and middle-income countries: a scattered picture.* Antimicrob Resist Infect Control, 10(1):63.
- 2. Consejo General de Salubridad. (2018). *Acuerdo por el que se declara la obligatoriedad de la Estrategia Nacional de Acción contra la Resistencia a los Antimicrobianos* [Internet]. Retrieved from: https://www.dof.gob.mx/nota_detalle.php? codigo=5525043&fecha=05/06/2018
- 3.George J, Häsler B, Mremi I, et al. (2020). A systematic review on integration mechanisms in human and animal health surveillance systems with a view to addressing global health security threats. One Health Outlook, 2:11.

