

The value of international pharmacovigilance databases to help contain antibiotic resistance from a 'One Health' perspective

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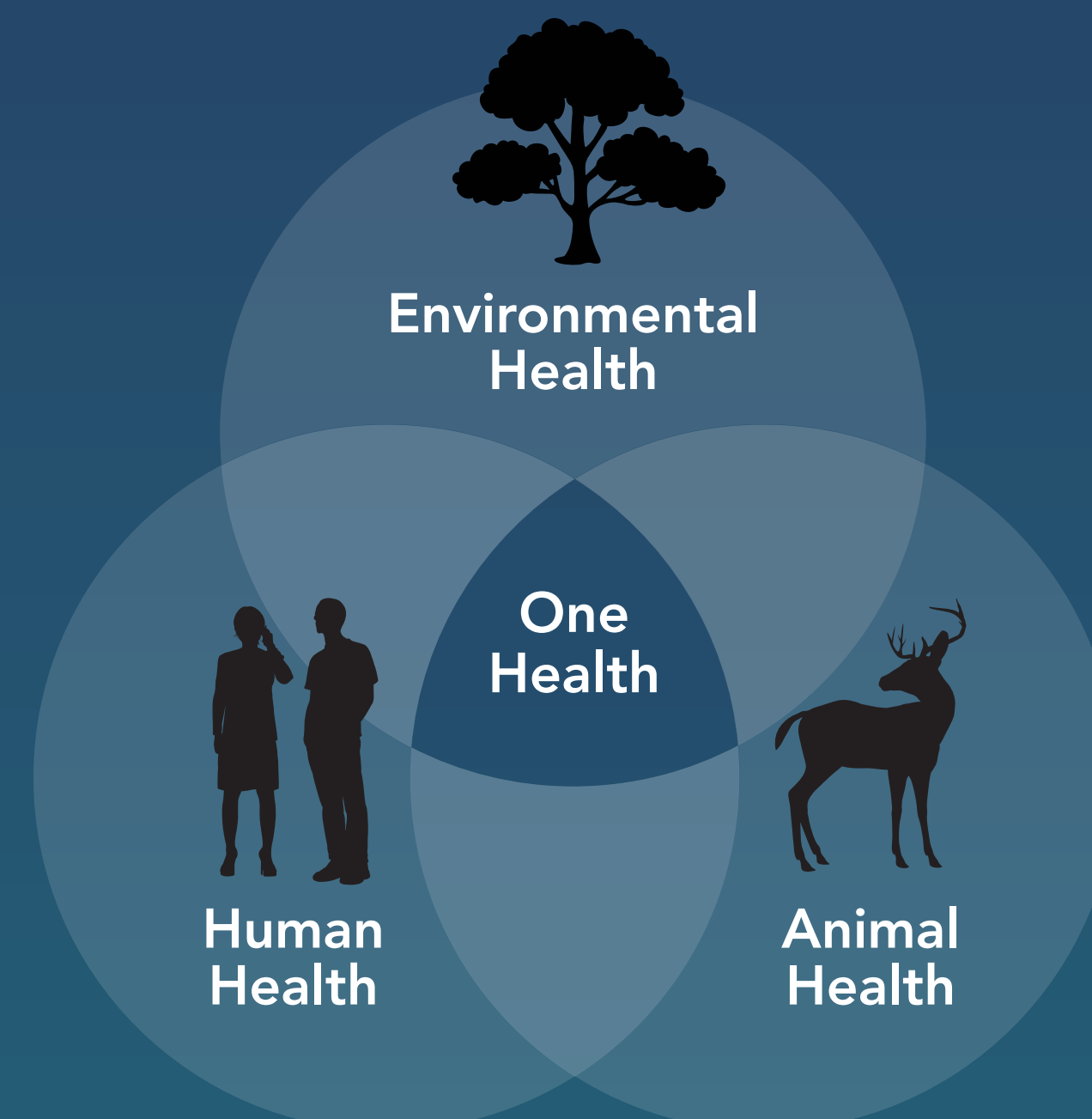
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Background

An interdisciplinary One Health effort is required to contain antibiotic resistance (ABR). Surveillance is a key tool in containing ABR¹, and there has been considerable progress, but gaps remain². International pharmacovigilance databases may be a useful tool in ABR surveillance³.

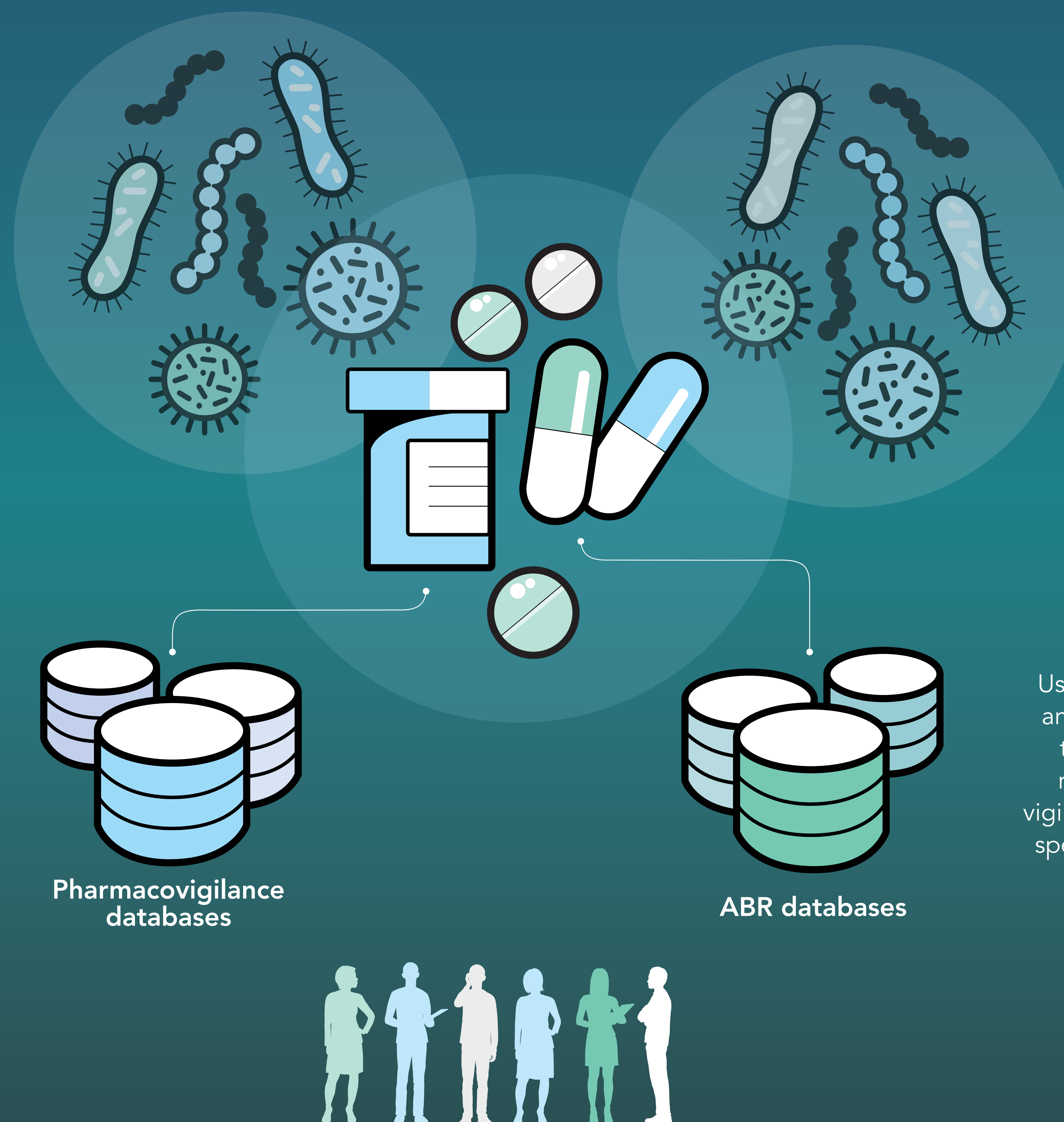


Aim

This project aims to explore the current use and possible areas of improvement of pharmacovigilance systems as a source of surveillance of ABR from a One Health perspective.

Methods

The project comprises of three substudies, all of which will focus on the One Health aspect of ABR through describing human, animal, and environmental health.



Study 1

This study will describe how ABR is reported in international pharmacovigilance databases (VigiBase and EudraVigilance Veterinary). While no suitable international ecopharmacovigilance database has been identified so far, relevant terms have been highlighted to discover reports related to environmental exposure.



Pharmacovigilance databases

Study 2

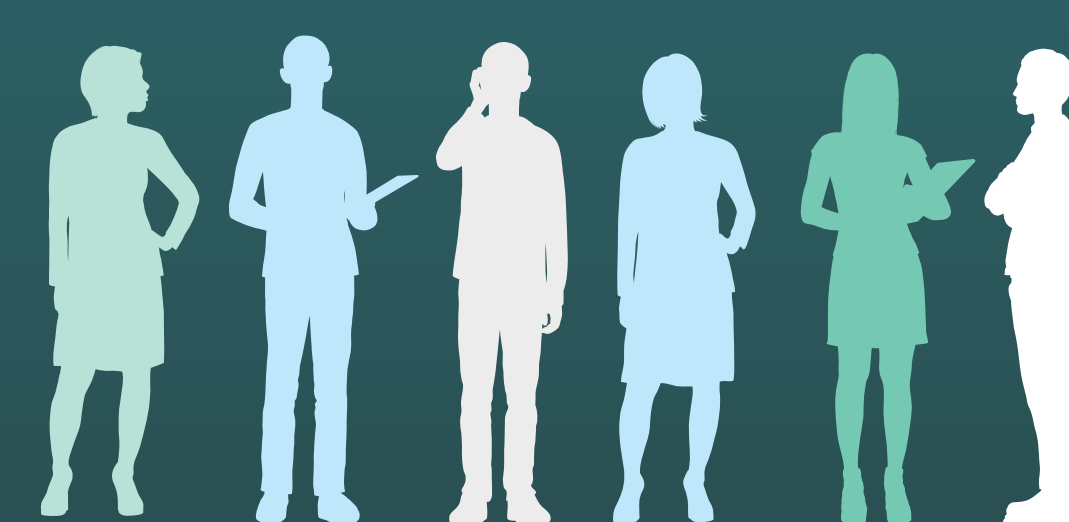
Using similar methodology and databases to Study 1, this study will compare reporting in pharmacovigilance databases to that of specialised ABR databases.



ABR databases

Study 3

A mixed-methods follow-up cross-sectional survey based on focus group discussions with pharmacovigilance experts to identify attitudes to the reporting of ABR in pharmacovigilance and explore possibilities to improve reporting.



Conclusion

This project has the potential to increase knowledge of how international pharmacovigilance systems can be beneficial to ABR surveillance. There is potential for the project to highlight areas for improvement by expanding or improving current pharmacovigilance practices. It can also highlight valuable information within pre-existing databases and increase understanding of how current systems can be used to benefit those working within global ABR.

References

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- ² Murray CJ, Ikuta KS, Sharara F, et al. Global burden of bacterial antimicrobial resistance in 2019: a systematic analysis. *The Lancet* 2022; 399: 629–655.
- ³ Habarugira JMV, Figueras A. Pharmacovigilance network as an additional tool for the surveillance of antimicrobial resistance. *Pharmacoepidemiology*