



Assessing the learning needs and barriers for implementation of antimicrobial stewardship in hospitals that have participated in the Global Point Prevalence Survey on Antimicrobial Consumption and Resistance (Global-PPS)

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INTRODUCTION

Point prevalence surveys (PPS) have proven to be instrumental in informing antimicrobial stewardship (AMS) activities, yet translating PPS findings into contextualised interventions can be challenging. We aim to evaluate the impact of the Global-PPS on local AMS programmes and assess health care professionals' educational needs and barriers for implementing AMS.

METHODS

An internet-based survey containing 24 questions was disseminated within the Global-PPS network, including contacts from participating and non-participating hospitals. Responses were collected from February up to May 2019 and were descriptively analysed.

RESULTS

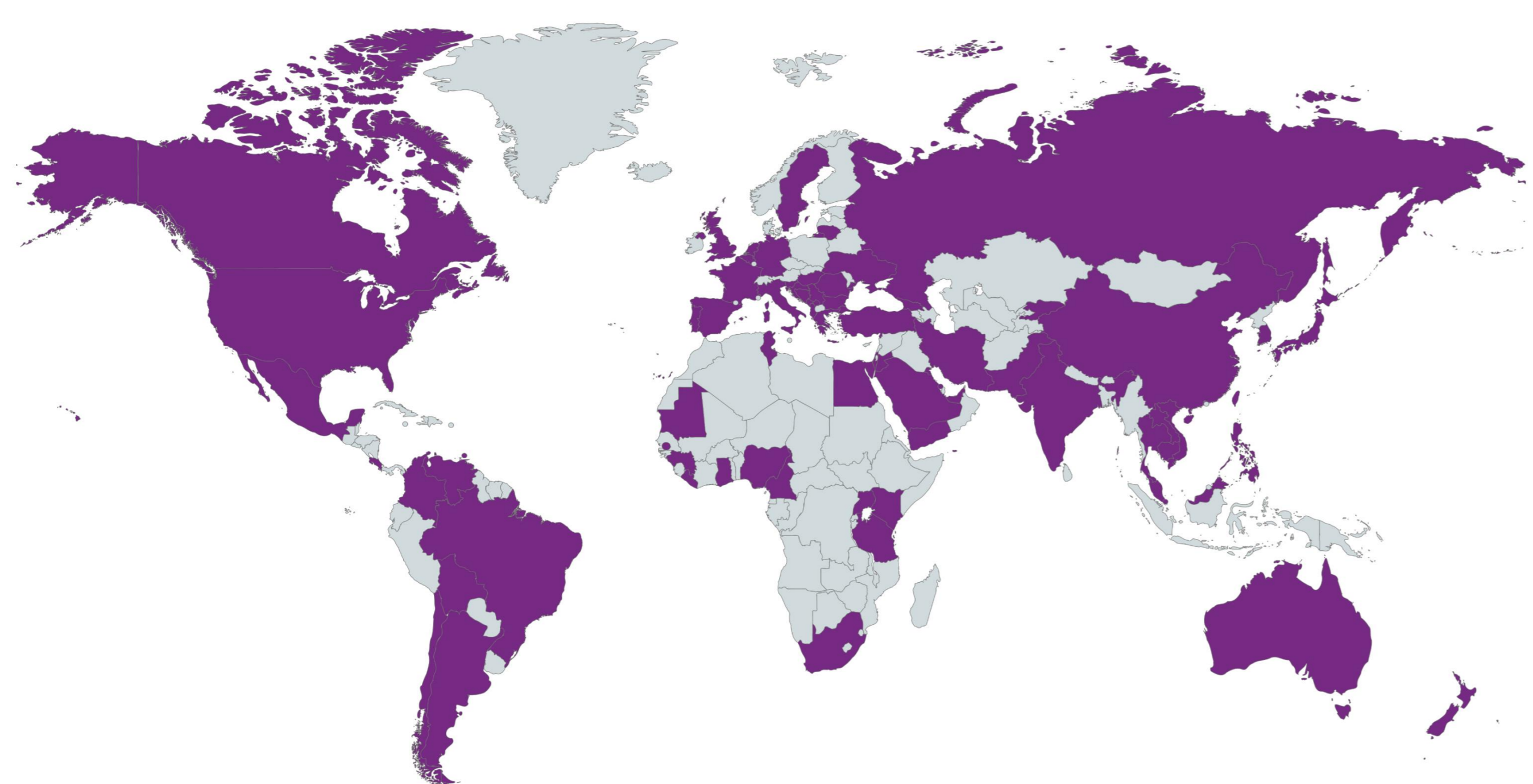
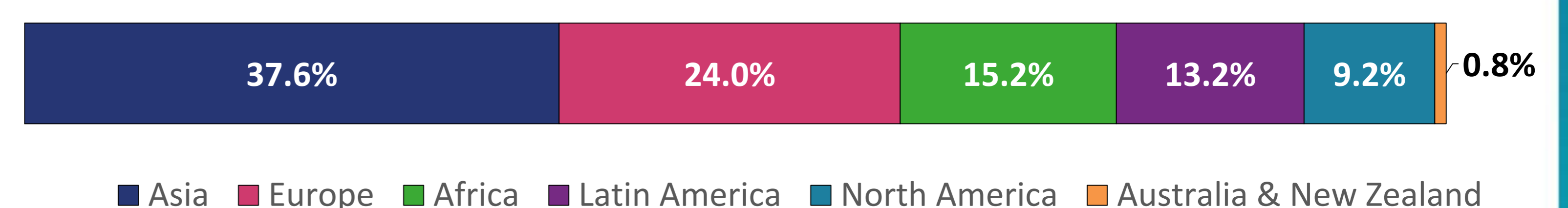


Figure 1: countries participating in the AMS survey

- 73 countries (Figure 1)
- 250 respondents
- Low-and middle-income countries (LMIC): 176 respondents (70.0%)
- High-income countries (HIC): 74 respondents (30.0%)
- Global-PPS participants: 79.2% (n=198)



Existing AMS activities

- Local prescribing guidelines:** 69.2% (HIC 89.2%; LMIC 60.8%)
- Antibiotic formulary:** 62.0% (HIC 74.3%; LMIC 56.8%)
- Active AMS committee:** 50.0% (HIC 70.3%; LMIC 41.5%)
- Training of healthcare workers:** 51.2% (HIC 66.2%; LMIC 44.9%)
- Specific AMS interventions:** 39.6% (HIC 64.9%; LMIC 29.0%)
(e.g. audit and feedback, formulary restriction)

Of the Global-PPS participants who reported AMS activities (n=187), 69% stated that one or more of those activities was initiated as a result of PPS findings.

Barriers for implementation of AMS

Low-and middle-income countries

- 13.1% Lack of cooperation from prescribers
- 12.5% Personnel does not have enough time to perform stewardship
- 12.5% Lack of qualified personnel

High-income countries

- 33.8% Personnel does not have enough time to perform stewardship
- 18.9% Lack of funding
- 10.8% Lack of cooperation from prescribers

Table 1 : top 3 barriers for AMS implementation by income classification (% of times selected as number one barrier out of 18 possibilities).

Prolonged surgical antibiotic prophylaxis was the most common (63.6%; n=126) target for improvement, identified from Global-PPS findings, followed by high prescribing rates of a certain class of antibiotics (e.g. carbapenems or other broad-spectrum antibiotics) compared to other antibiotic classes (61.1%), and **high antibiotic prescribing rates** in general (61.1%).

Respondents were asked to identify the most important barriers for implementation of AMS activities in their hospital, and rank them according to importance. Table 1 shows the challenges that were most commonly perceived as the number one barrier for implementation of AMS among survey respondents.

When asked to choose between a list of 12 possible educational topics related to AMS, optimization of therapeutic antimicrobial use and surgical prophylaxis were the most popular topics in both HIC and LMIC (Table 2).

AMS learning needs

Low-and middle-income countries

- 63.6% "How to optimize therapeutic antimicrobial use?"
- 55.7% "How to optimize surgical prophylaxis?"
- 44.3% "How to manage infections caused by difficult-to-treat MDRO's?"

High-income countries

- 58.1% "How to optimize therapeutic antimicrobial use?"
- 52.7% "How to optimize surgical prophylaxis?"
- 52.7% "How to translate your PPS results into stewardship interventions?"

Table 2 : top 3 AMS learning needs by income classification (% of respondents)

CONCLUSION

These results will inform the development of a dedicated e-learning course, targeting Global-PPS participants worldwide and focused at the translation of PPS-findings into locally tailored AMS interventions, thus contributing to a sustained response to AMR in hospitals worldwide.