

Correspondence



## Reply: Response to Significance of the Regular Publication of Statistics on National Health Indicators in Academic Journals and the Prospects of Korea National Antimicrobial Use Analysis System (KONAS)

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► See the letter “Response to Significance of the Regular Publication of Statistics on National Health Indicators in Academic Journals and The Prospects of Korea National Antimicrobial Use Analysis System (KONAS)” in volume 55 on page 510.

### Open Access

Dear. Editor:

We are grateful to Dr. Sudip Bhattacharya for his interest in this study and for facilitating a discussion on the influence of 'national reports on antibiotic use' in the domain of policymaking.

The analysis of antimicrobial usage patterns serves as a foundational step in executing an effective antimicrobial stewardship program (ASP) [1-3]. The World Health Organization (WHO) posits that such an analysis aids in: (1) pinpointing and raising alarms regarding concerns

related to antimicrobial use, thereby setting intervention targets, (2) monitoring the results of these interventions, (3) understanding the correlation between antimicrobial exposure and the emergence of antimicrobial resistance, and (4) heightening awareness among healthcare professionals, consumers, and policymakers about the adverse effects of inapt antimicrobial use on human health [4]. In light of this, both Korea and the United States have incorporated the analysis and reporting of antimicrobial use patterns as core elements of their ASP [5-7]. Complementing this, the Korean government has endorsed the 'establishment and development of an antimicrobial

**Received:** Nov 1, 2023

**Accepted:** Dec 3, 2023

**Published online:** Dec 11, 2023

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**Table 1.** The data source of national antimicrobial use report by countries

Countries	Data source
Korea	• National health insurance data collected by Health Insurance Review and Assessment Service
United States	• Antimicrobial prescription data for each hospitals collected by National Healthcare Safety Network
Australia	• Antimicrobial dispensing and distribution data for each hospitals collected by National Antimicrobial Utilization Surveillance Program
The United Kingdom	• Primary care - Claim data from General Physician Payments system • Secondary care - Antimicrobial prescription data collected by IQVIA (Durham, NC, USA)
Canada	• Healthcare sector - Antimicrobial prescription data collected by IQVIA and The Public Health Agency of Canada's Canadian Nosocomial Infection Surveillance Program • Community sector - Antimicrobial prescription data collected by IQVIA and Antimicrobial dispensing and distribution data for sentinel pharmacies
Japan	• Drug prescription data for each hospitals collected by Japan surveillance for infection prevention and healthcare epidemiology

use monitoring system' within its 'second national action plan for antimicrobial resistance, 2021 - 2025' [8].

In Korea, there's a strong collaboration between academic societies and governmental agencies in shaping ASP-related policies. The Korea Disease Control and Prevention Agency organized 'National Antimicrobial Resistance Committee' and conducts regular meetings with experts from academic societies to formulate ASP policies. Additionally, there are annual antimicrobial resistance forums co-organized by both academic society and government entities. These forums gather experts from the private sector, academia, and government to deliberate on related policies. Besides these, there are other symposiums, both regular and occasional, steered by the government or academic groups. The 'annual report on antimicrobial use in Korean hospitals' issued by Korea National Antimicrobial Use Analysis System (KONAS) will serve as foundational data for these discussions [9].


The primary data source for the 'annual report on antimicrobial use in Korean hospitals' is the national health insurance data from the Health Insurance Review and Assessment Service (HIRA). While this data covers the vast majority of Korean hospitals, there are notable caveats. First, the dataset might not accurately reflect the total volume of antibiotics prescribed by medical institutions since prescriptions not covered by the national health insurance are omitted from the HIRA data. Secondly, medications prescribed upon discharge are inaccurately recorded as inpatient drugs, leading to potential overestimation of some antibiotics. Lastly, discrepancies in the timing of insurance claims can trigger variations in the monthly antibiotic prescription patterns [9].


To address the limitations inherent in these data sources, various countries are exploring diverse datasets for


analyzing national antimicrobial use, as detailed in **Table 1** [10]. Similarly, in Korea, a long-term strategy should encompass the analysis of real prescription data from individual institutions, providing a more comprehensive view and mitigating the constraints of the HIRA dataset.


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#### Funding

This work was supported by the Research Program funded by the Korea Disease Control and Prevention Agency (2022-ER2210-01).

#### Conflict of Interest

No conflict of interest.

#### Author Contributions

Conceptualization: BK, YCK, HSK, SYP. Formal analysis: BK, YCK, HSK, SYP. Funding acquisition: JYC. Investigation: BK, YCK, HSK, SYP, JYC. Methodology: BK, YCK, HSK, SYP. Project administration: JYC. Resources: JYC. Software: BK, YCK. Supervision: JYC. Validation: BK, YCK, HSK, SYP, JYC. Visualization: BK, YCK. Writing - original draft: BK. Writing - review & editing: BK, YCK, HSK, SYP, JYC.

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