

Antimicrobial Resistance (AMR) Surveillance on Culture Specimens in Public Hospitals and Clinics - Hospital Authority AMR Data (2024)

December 2025



Contents Outline

- Results
 - Overview on patients with blood, urine, stool, CSF and lower respiratory cultures
 - Overview on WHO priority organisms isolates from blood, urine, stool, CSF and lower respiratory cultures
 - Antimicrobial susceptibility test result
- Summary

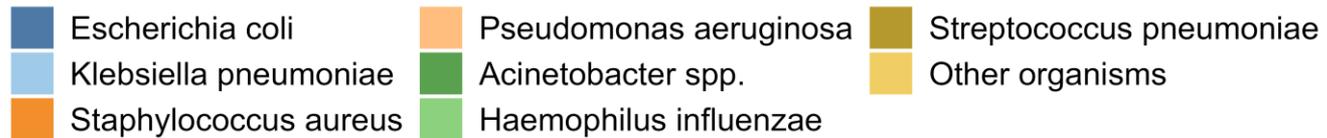
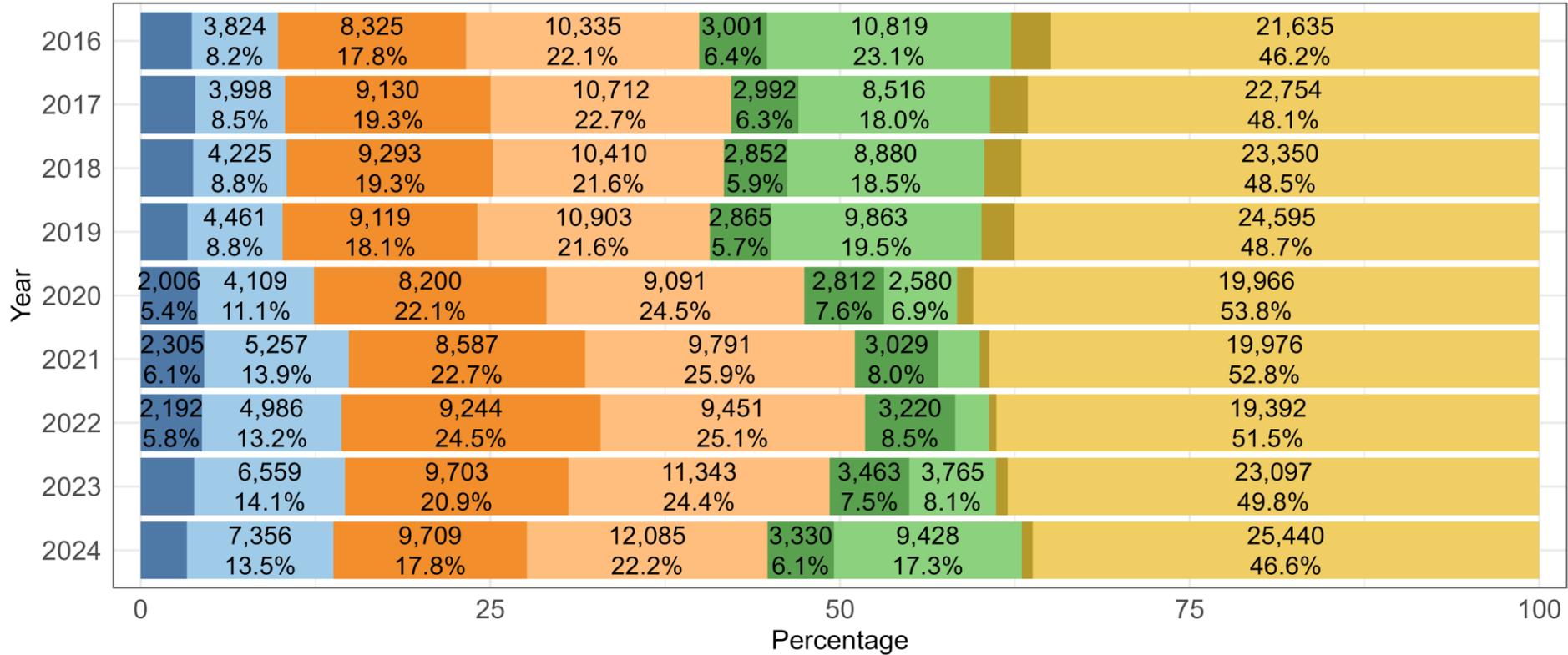


Results - Lower Respiratory Culture

Overview on WHO priority organisms isolated from lower respiratory specimen

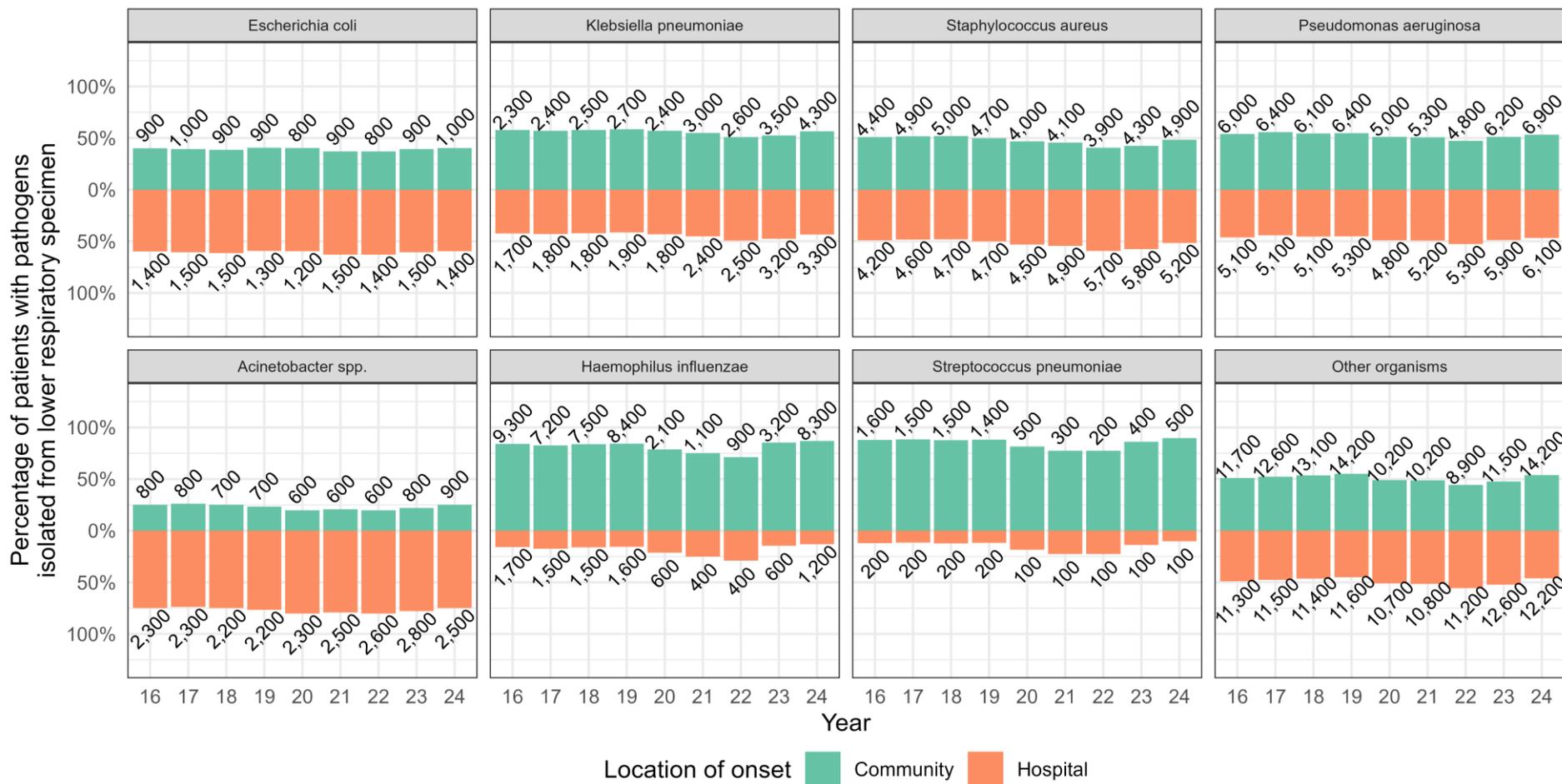


Distribution of organisms by year (w/ sputum)



- The two most common WHO priority organisms cultured from lower respiratory specimens between 2016 and 2024 were *P. aeruginosa* and *S. aureus*, accounting for about 40% of cases each year.
- The proportion of *H. influenzae* isolated decreased from 23% in 2016 to 8% in 2023, and rebounded to 17% in 2024.
- In contrast, the proportion of *K. pneumoniae* isolated increased from 8% in 2016 to 14% in 2024.

Distribution of organisms by location of onset (w/ sputum)



- H. influenzae, S. pneumoniae were predominantly community-onset from 2016 to 2024.
- More than half of E. coli and Acinetobacter spp. isolated were hospital-onset.



Results - Lower Respiratory Culture

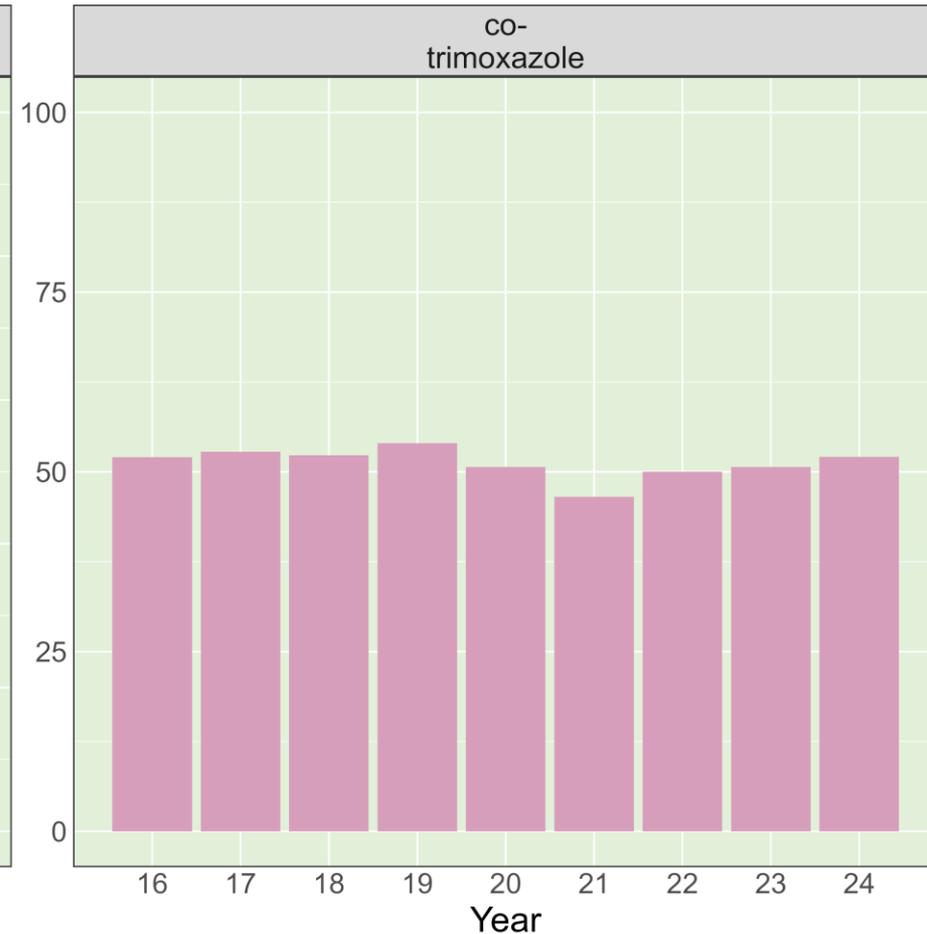
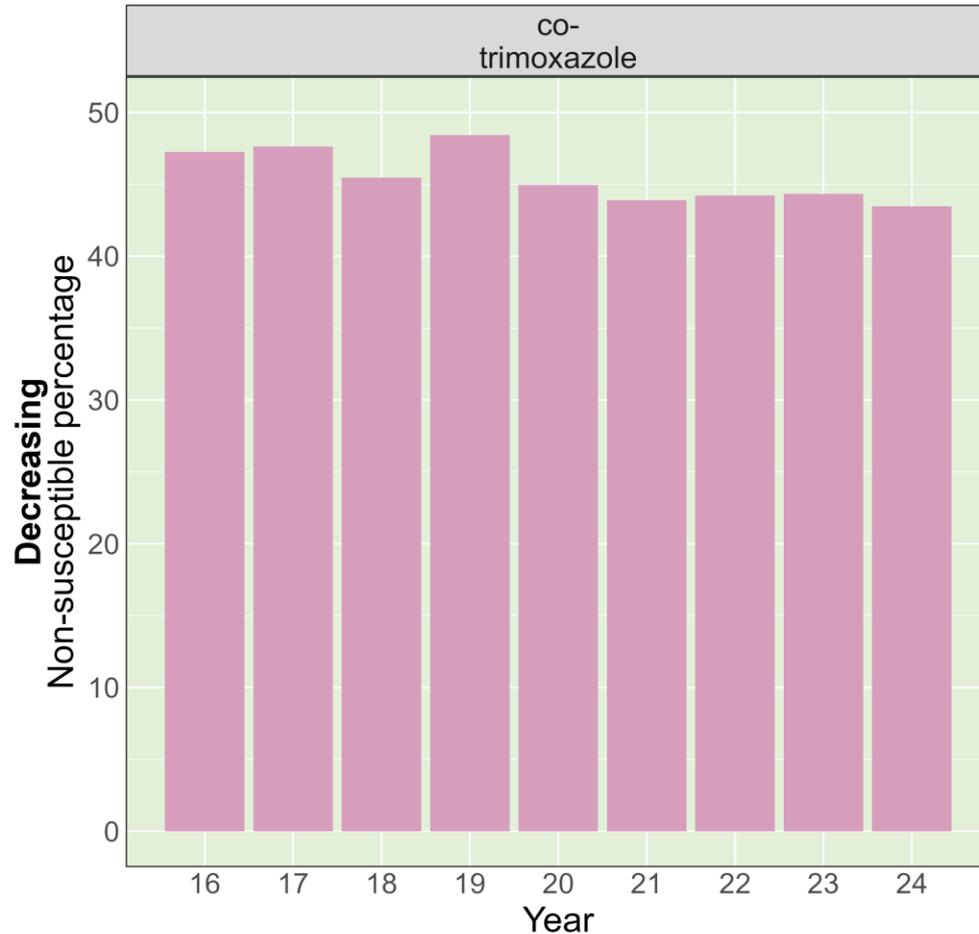
AST results for WHO priority organisms isolated from lower respiratory specimen (w/ sputum)



AST results with significant trend for E. coli (16 to 24) (w/ sputum)

Community-onset

Hospital-onset



▲ <70% of isolates tested • <10 isolates tested (NS% not reported) ○ No isolates tested

- Co-trimoxazole (both community and hospital-onset) shows a significant decreasing trend in non-susceptible percentage from 2016-2024.

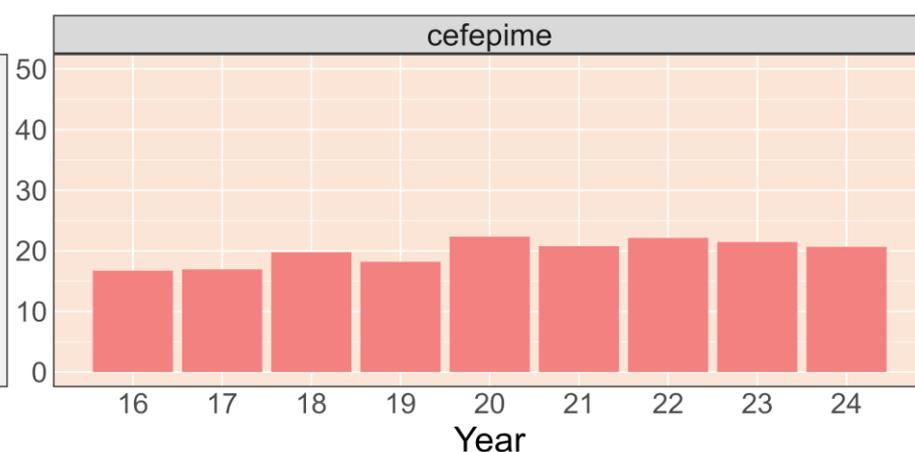
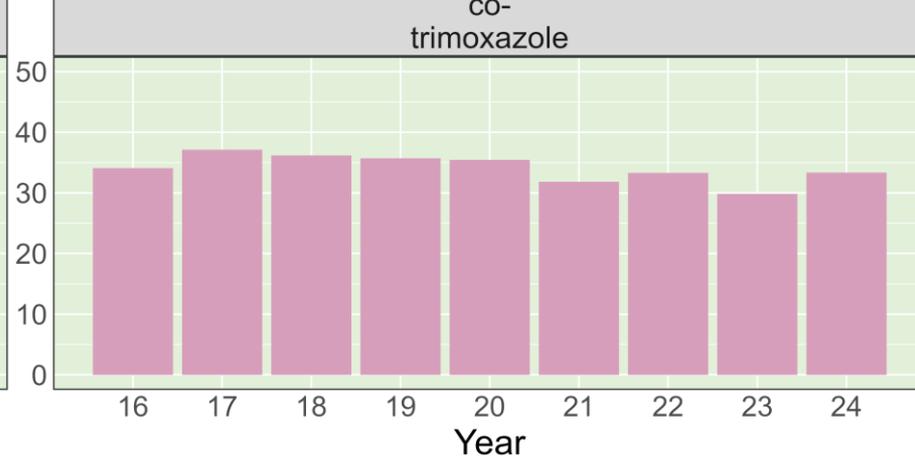
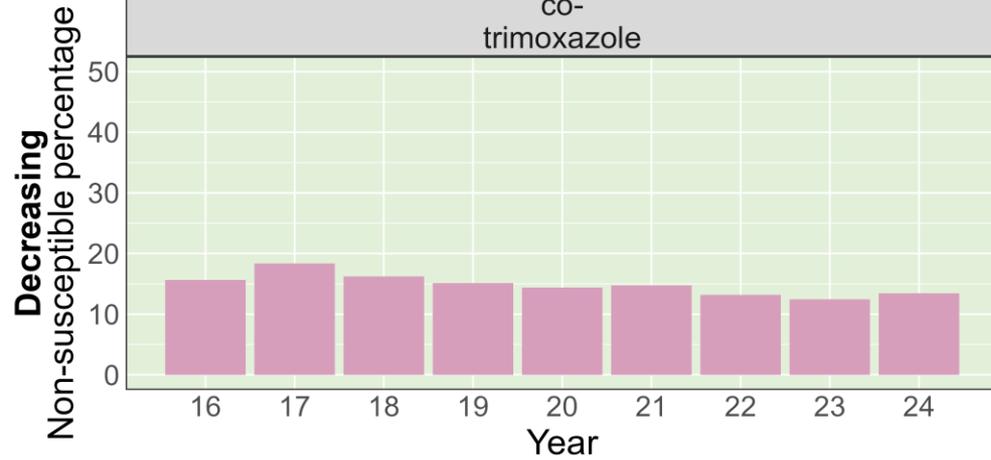
AST results with significant trend for *K. pneumoniae* (16 to 24) (w/ sputum)

Community-onset

Hospital-onset

co-trimoxazole

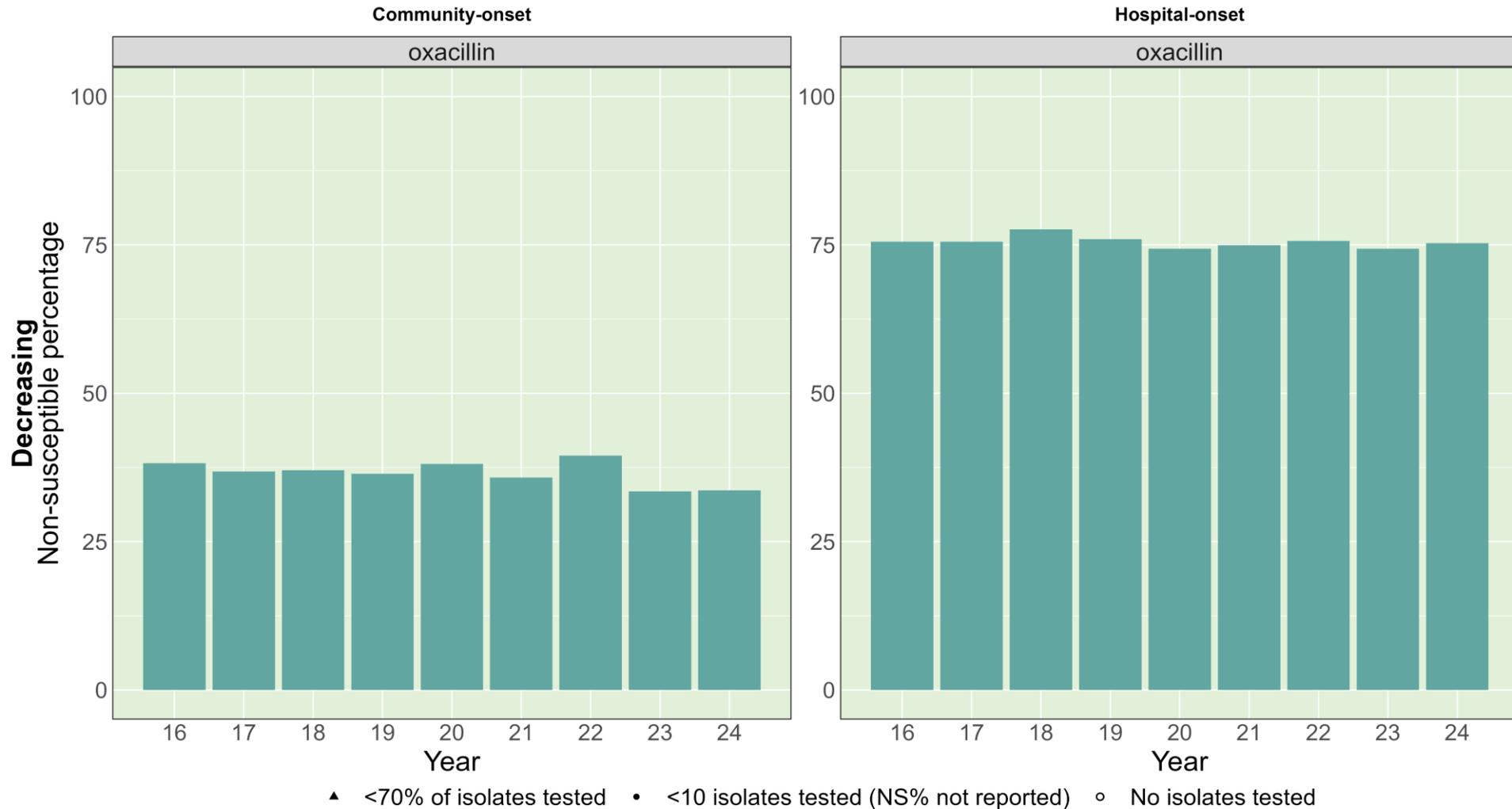
co-trimoxazole



▲ <70% of isolates tested • <10 isolates tested (NS% not reported) ○ No isolates tested

- Co-trimoxazole (both community and hospital-onset) shows a significant decreasing trend in non-susceptible percentage from 2016-2024.
- Hospital-onset cefepime shows a significant increasing trend in non-susceptible percentage from 2016-2024.

AST results with significant trend for *S. aureus* (16 to 24) (w/ sputum)

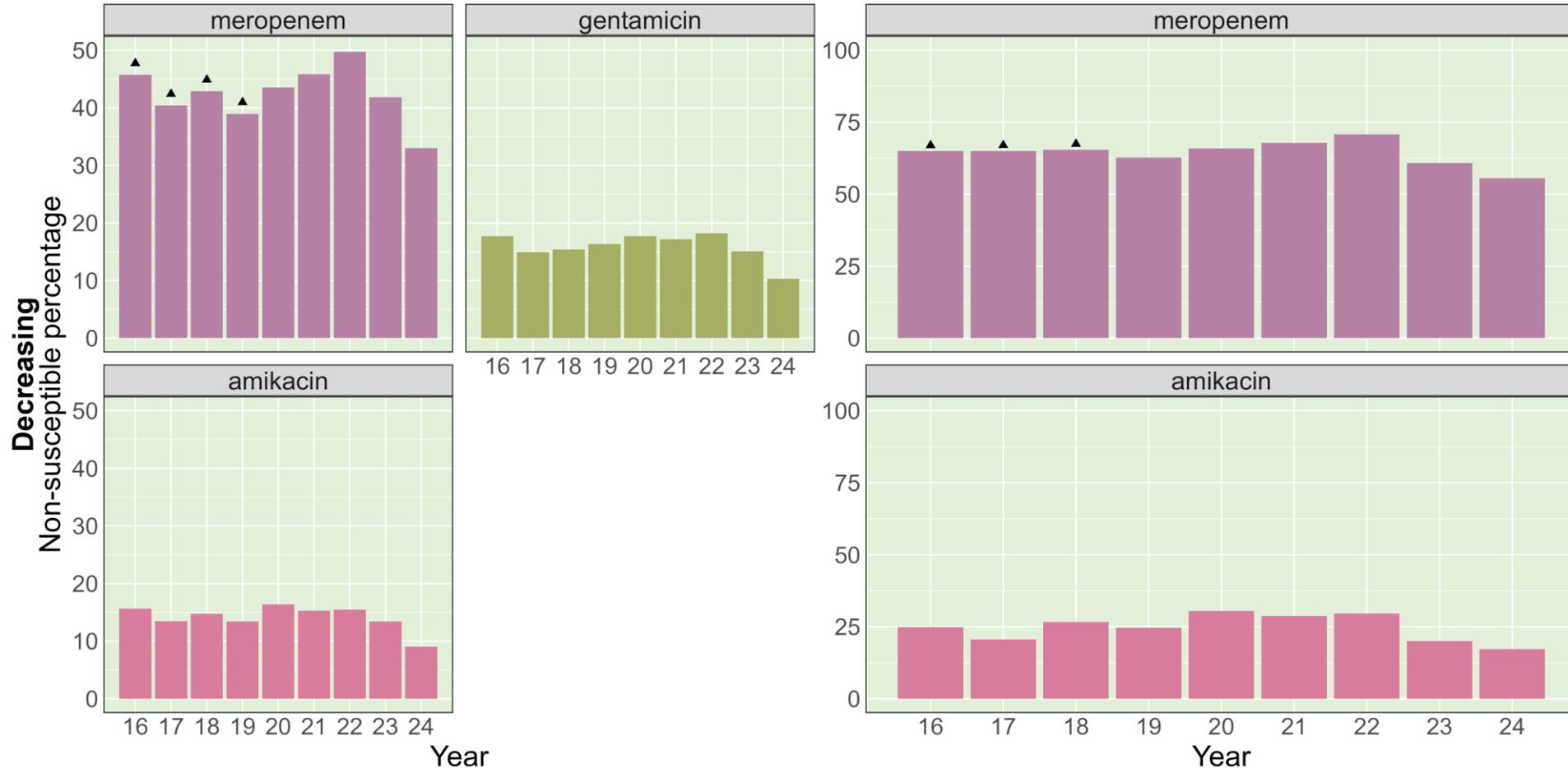


- For *Staphylococcus aureus*, oxacillin (both community and hospital-onset) shows a significant decreasing trend in non-susceptible percentage from 2016-2024.

AST results with significant trend for Acinetobacter spp. (16 to 24) (w/ sputum)

Community-onset

Hospital-onset



▲ <70% of isolates tested • <10 isolates tested (NS% not reported) ○ No isolates tested

- Amikacin and meropenem (both community- and hospital-onset), and community-onset gentamicin show a significant decreasing trend in non-susceptible percentage from 2016-2024.

AST results with significant trend for *P. aeruginosa* (16 to 24) (w/ sputum)

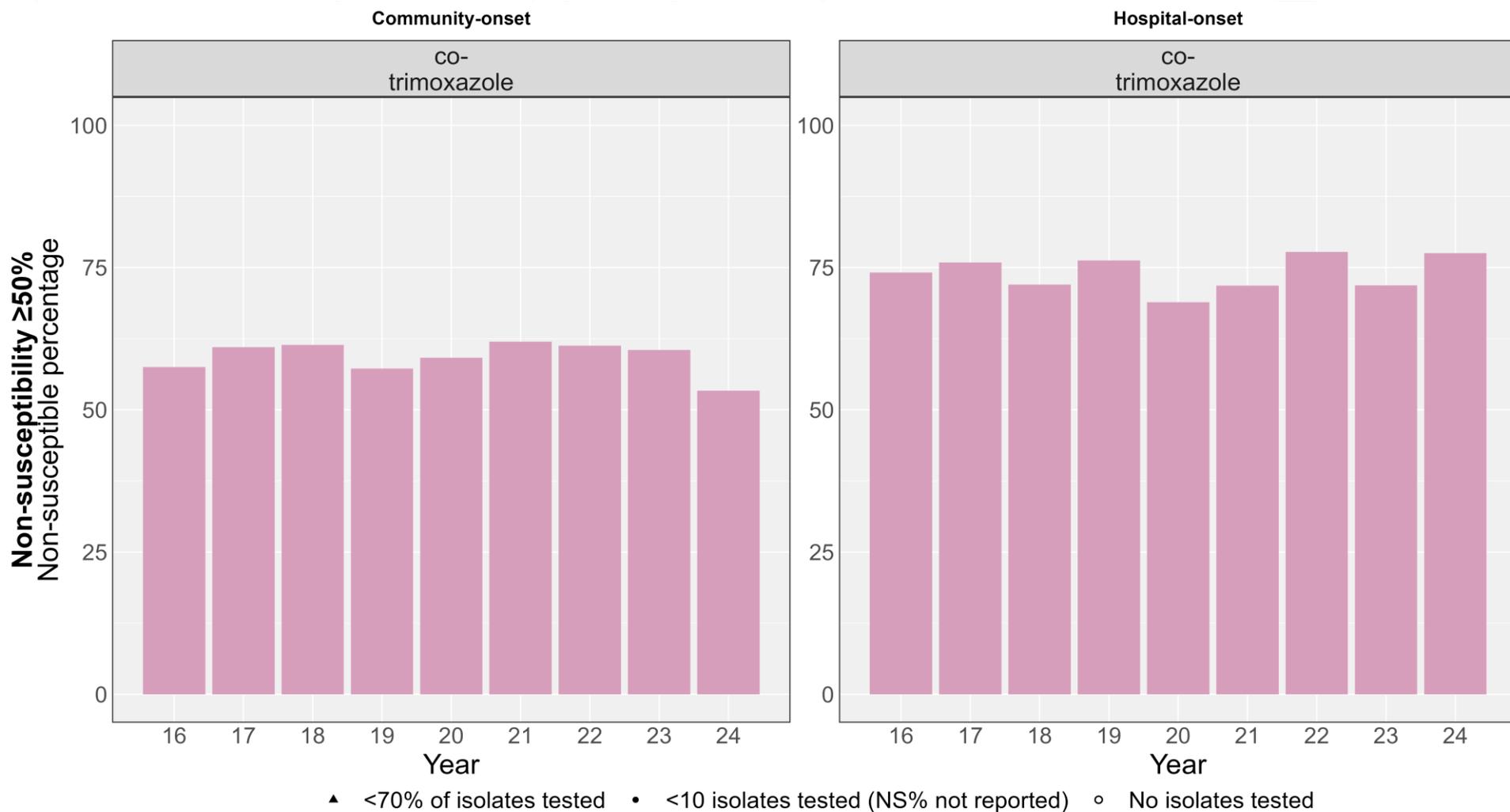
Community-onset

Hospital-onset



- Ceftazidime and gentamicin (community- and hospital-onset) and hospital-onset piperacillin/tazobactam show a significant increasing trend in non-susceptible percentage from 2016-2024.

AST results with no trend observed for S. pneumoniae (16 to 24) (w/ sputum)

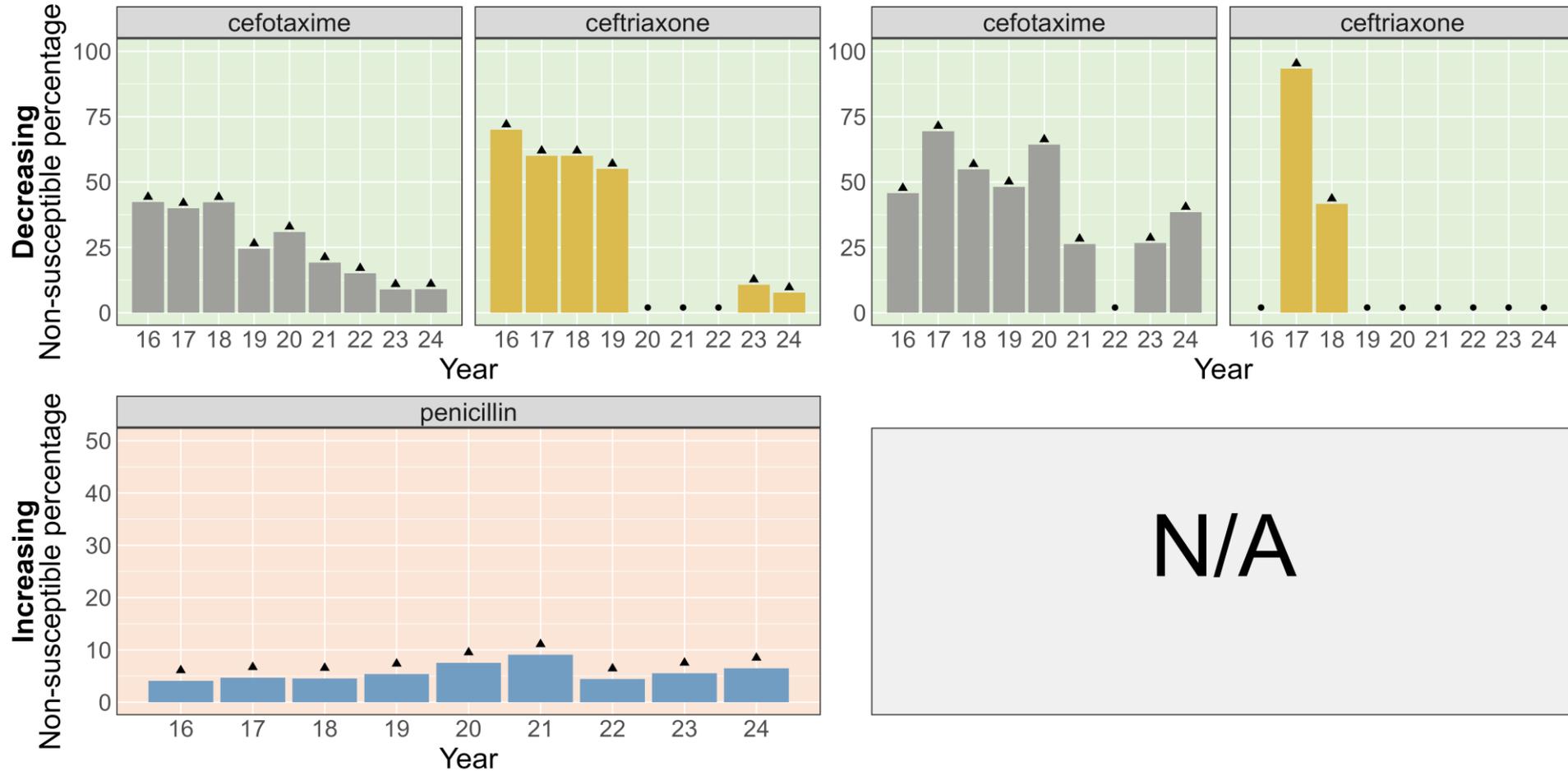


- Co-trimoxazole (both community and hospital-onset) shows no significant trend in non-susceptibility from 2016-2024.
- Among hospital-onset infections, co-trimoxazole shows higher non-susceptibility rates compared to community-onset infections.

AST results with significant trend for *S. pneumoniae* (16 to 24) (<70% isolates tested) (w/ sputum)

Community-onset

Hospital-onset



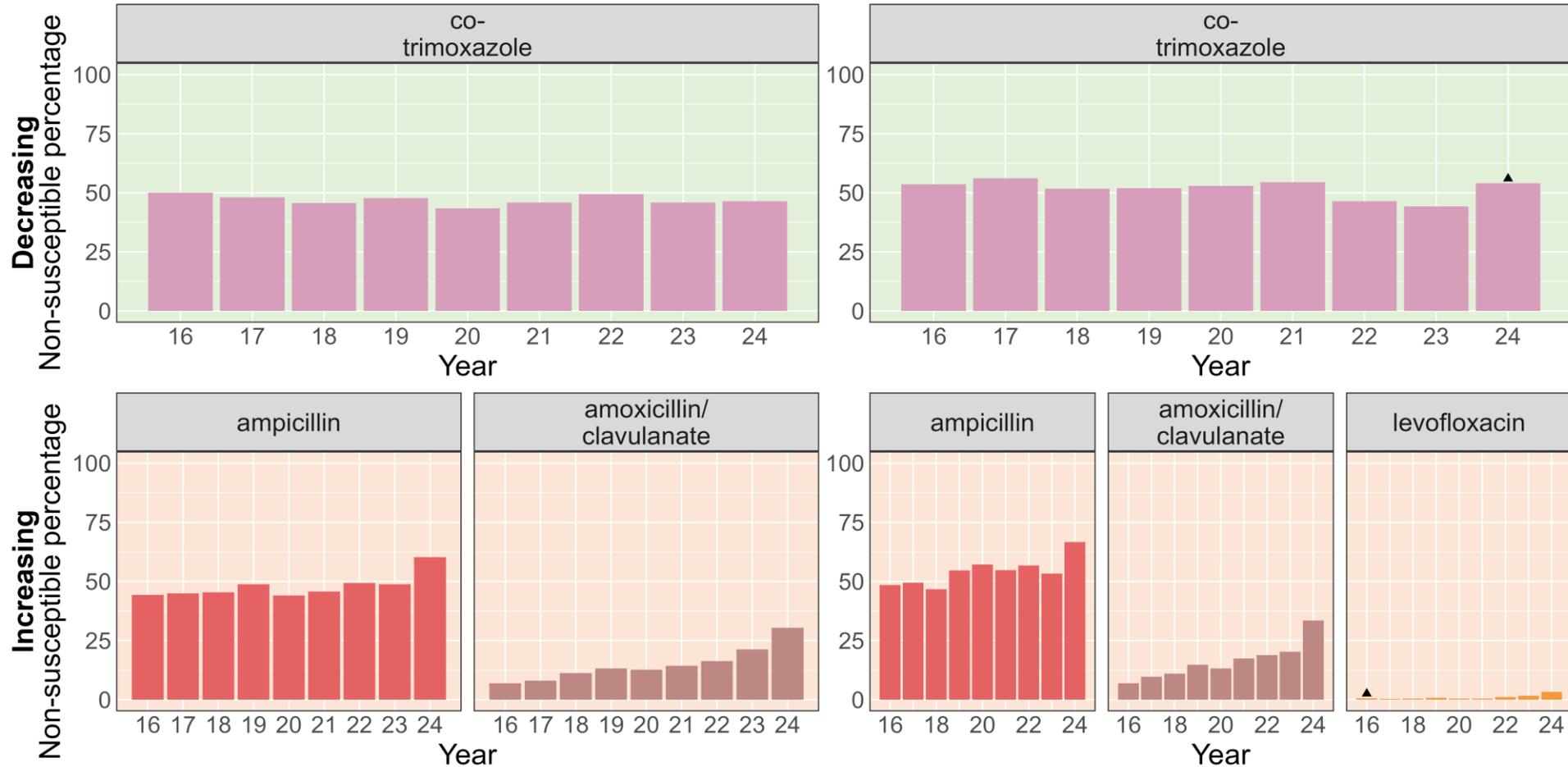
▲ <70% of isolates tested • <10 isolates tested (NS% not reported) ◦ No isolates tested

- Cefotaxime and ceftriaxone (both community and hospital-onset) show a significant decreasing trend in non-susceptible percentage.
- Community-onset penicillin shows a significant increasing trend in non-susceptible percentage from 2016-2024.

AST results with significant trend for H. influenzae (16 to 24) (w/ sputum)

Community-onset

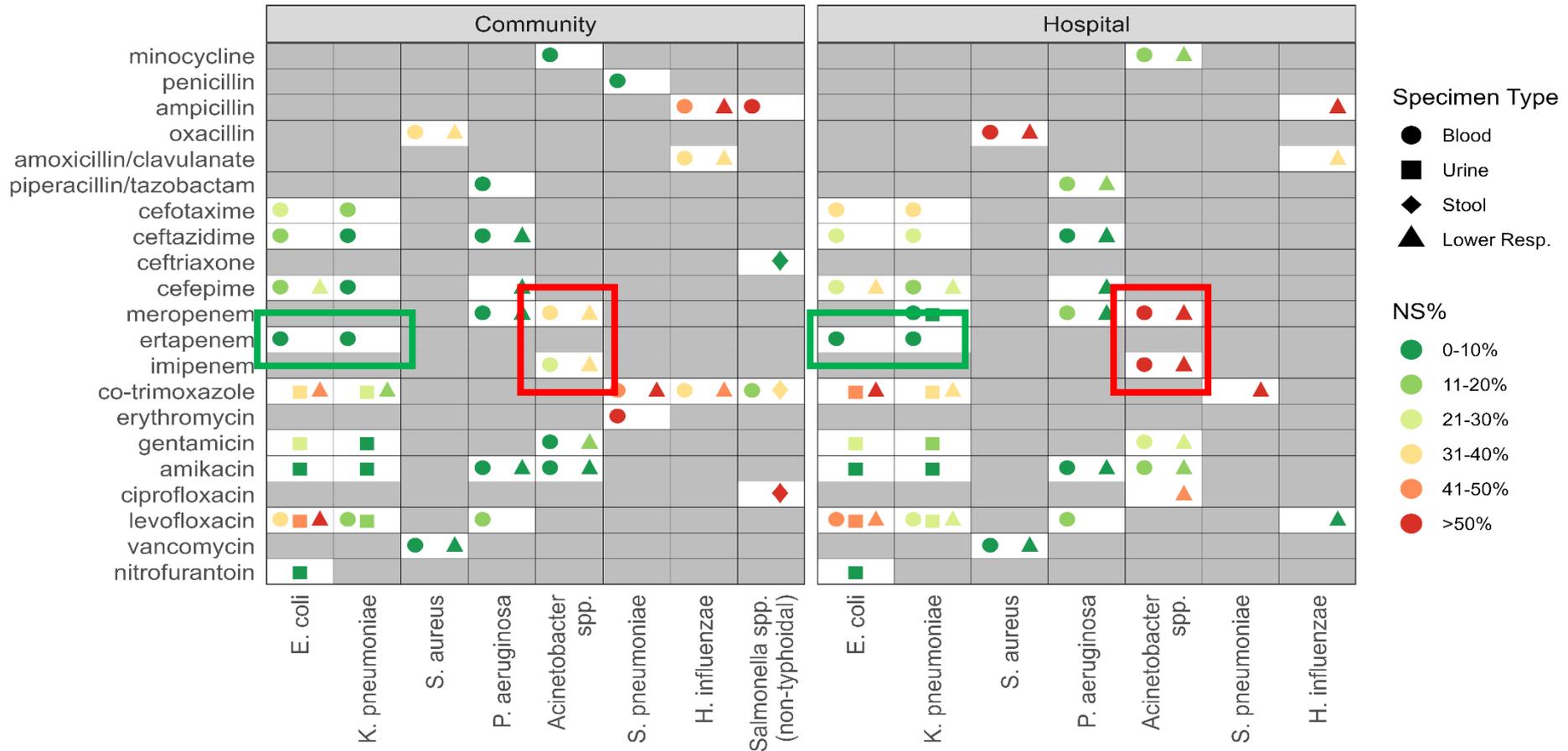
Hospital-onset



▲ <70% of isolates tested • <10 isolates tested (NS% not reported) ○ No isolates tested

- Co-trimoxazole (both community and hospital-onset) shows a significant decreasing trend in non-susceptible percentage from 2016-2024.
- Amoxicillin/clavulanate and ampicillin (both community- and hospital-onset), hospital-onset levofloxacin show a significant increasing trend in non-susceptible percentage from 2016-2024.

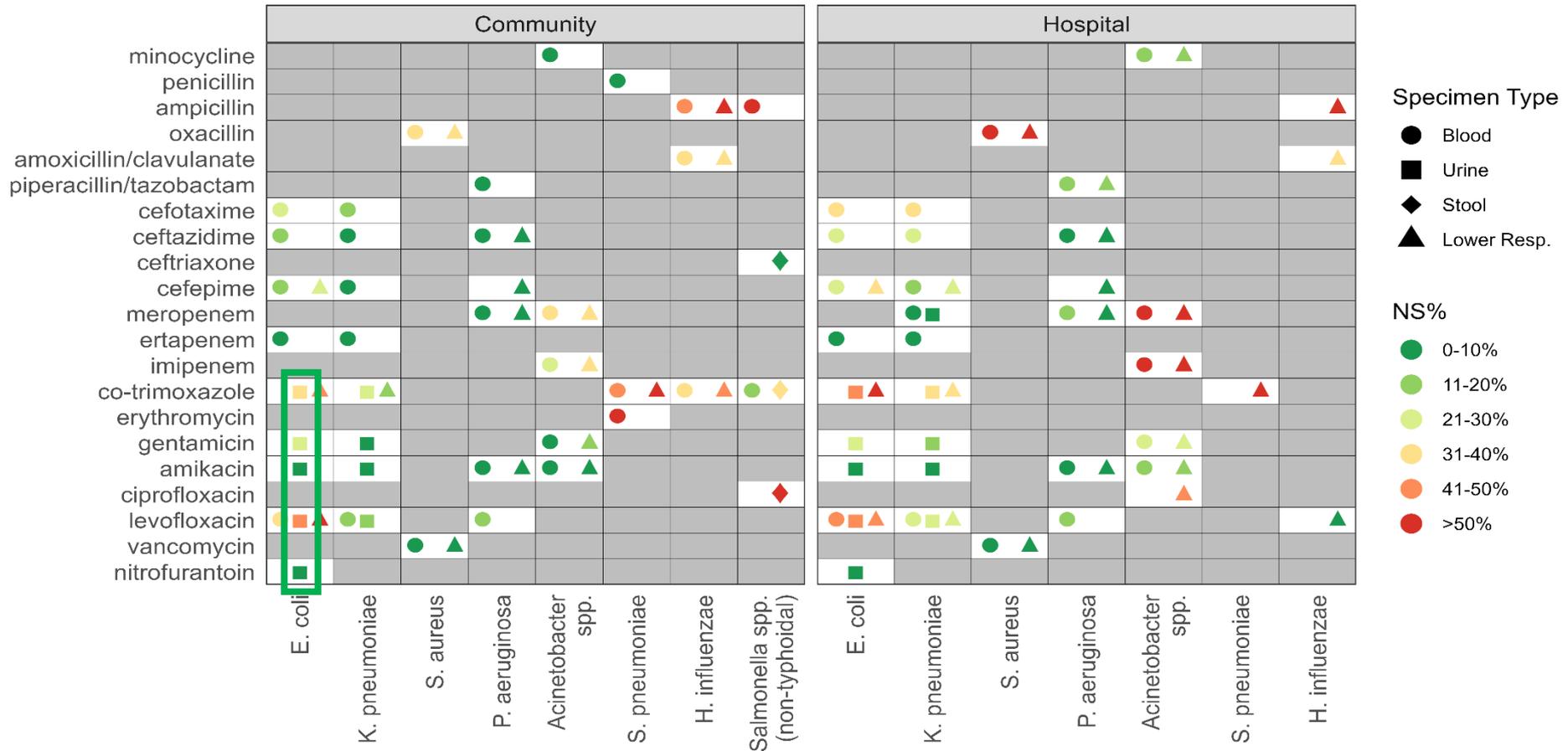
Summary



Note: Only drug-bug combinations with more than 10 isolates and at least 70% of isolates tested for susceptibility in 2024 are shown.

- Enterobacterales (E. coli, K. pneumoniae) remain sensitive to carbapenems (ertapenem/meropenem; 0-10% NS), Acinetobacter spp. exhibit high carbapenem resistance (>50% NS to imipenem/meropenem in hospital blood/respiratory isolates).

Summary



Note: Only drug-bug combinations with more than 10 isolates and at least 70% of isolates tested for susceptibility in 2024 are shown.

- Urinary E. coli: High Levofloxacin NS (41-50% Community & Hospital) and Co-trimoxazole NS (31-40% Comm, 41-50% Hosp) contrast with preserved Nitrofurantoin/Amikacin susceptibility (0-10% NS).