

# Antimicrobial Usage (AMU) Surveillance in Public Hospitals and Clinics - Hospital Authority Antimicrobial Dispensing Data (2024)

December 2025



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- (Background, Data Scope, Definitions, Measurements, and Statistical Method remained unchanged compared to 2021, and can be accessed at <https://www.chp.gov.hk/files/pdf/hospitalauthorityamudata2021.pdf>)

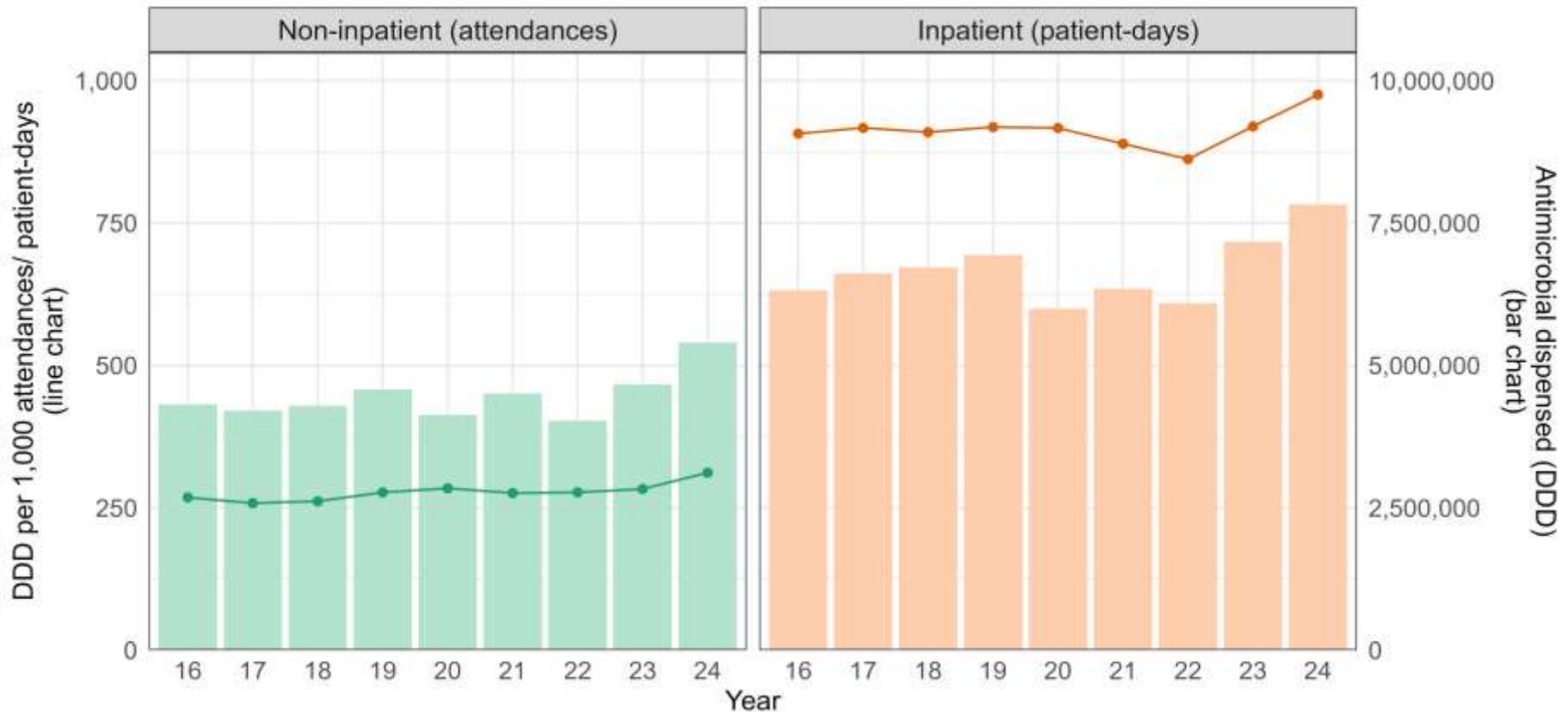


# Results

Total antimicrobials dispensed in public hospitals and clinics  
by service type



# Total Antimicrobials Dispensed in Public Hospitals and Clinics by Service Type



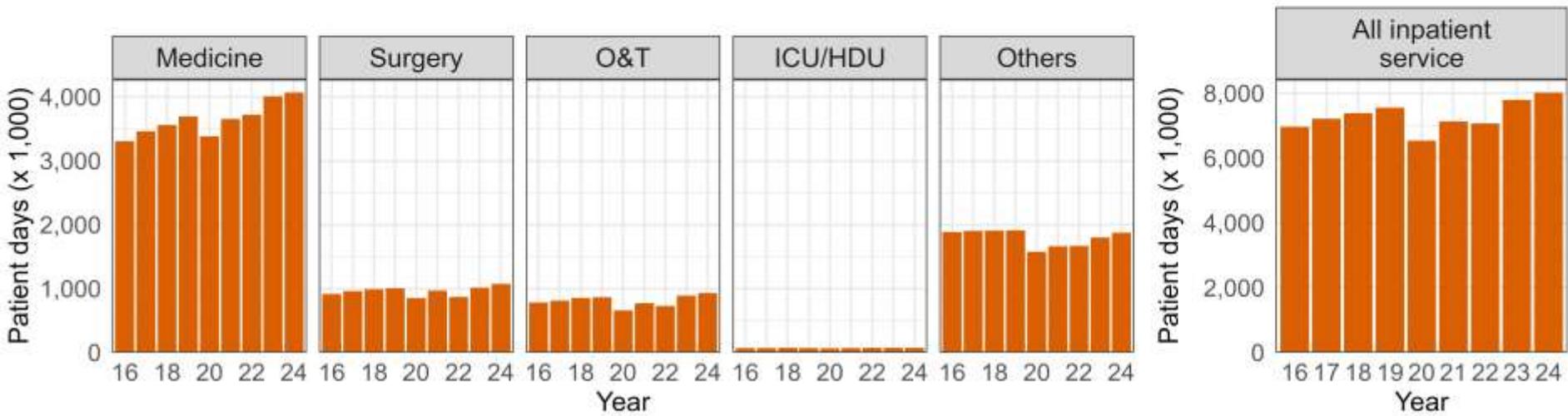
- For inpatient services, total antimicrobial dispensing volume increased from 2022 to 2024.
- For non-inpatient services, total antimicrobial dispensed increased gently from 2022 and 2024.

# HA service volume by service type and specialty

## Non-inpatient service

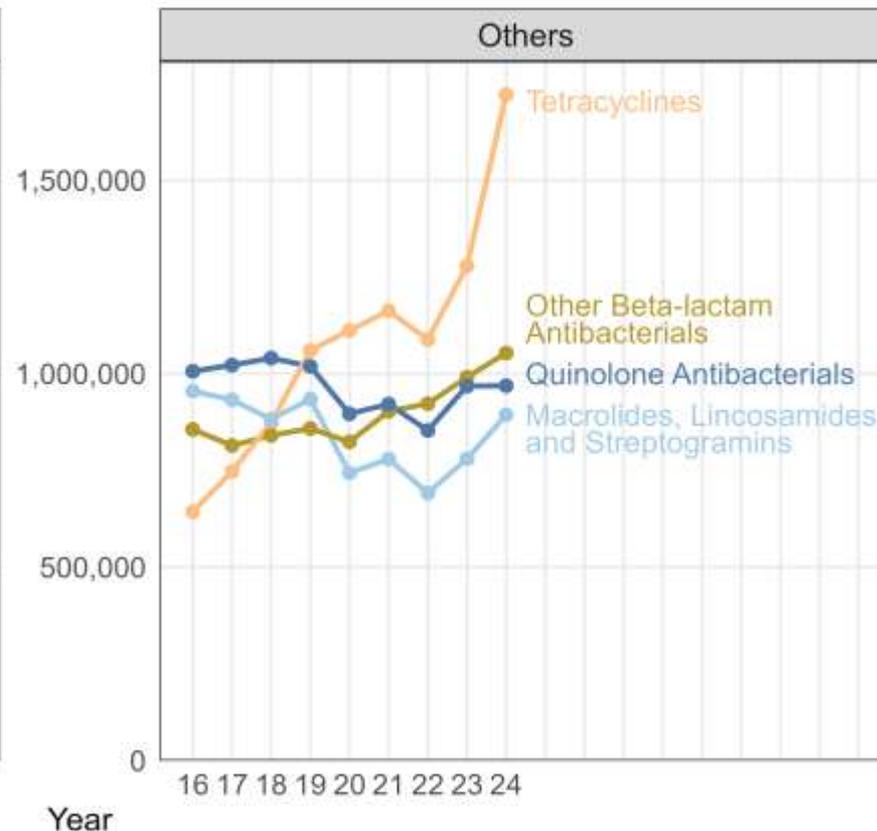
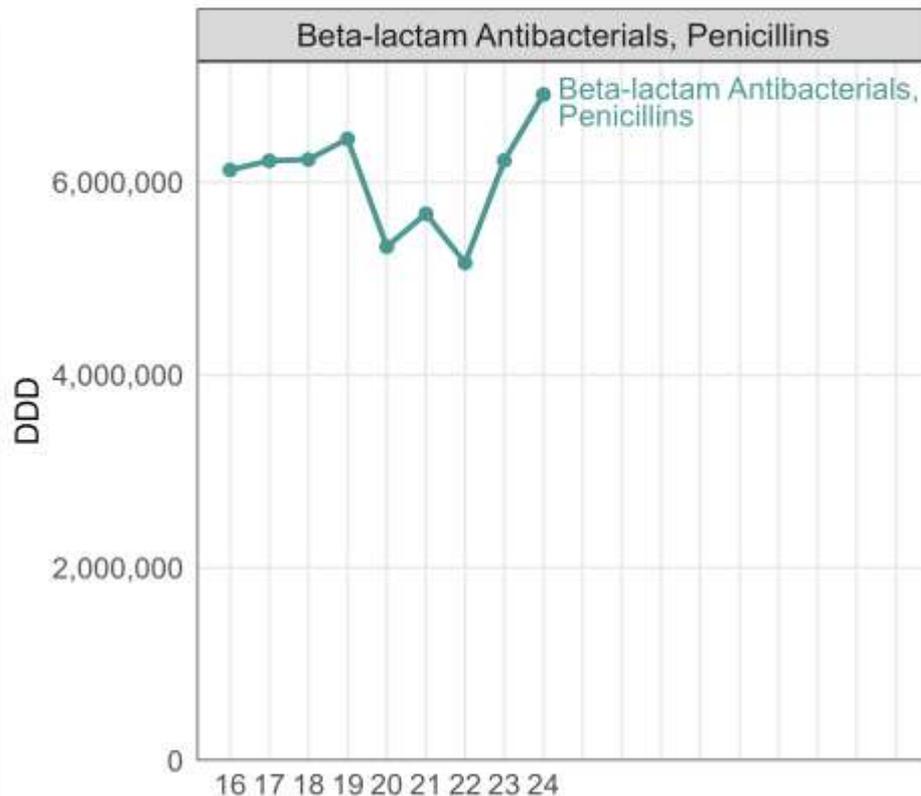


## Inpatient service



- In 2024, both non-inpatient attendances and inpatient patient days reached their highest levels since 2016.

# Five Most Dispensed Antimicrobial Groups in Public Hospitals and Clinics in 2024



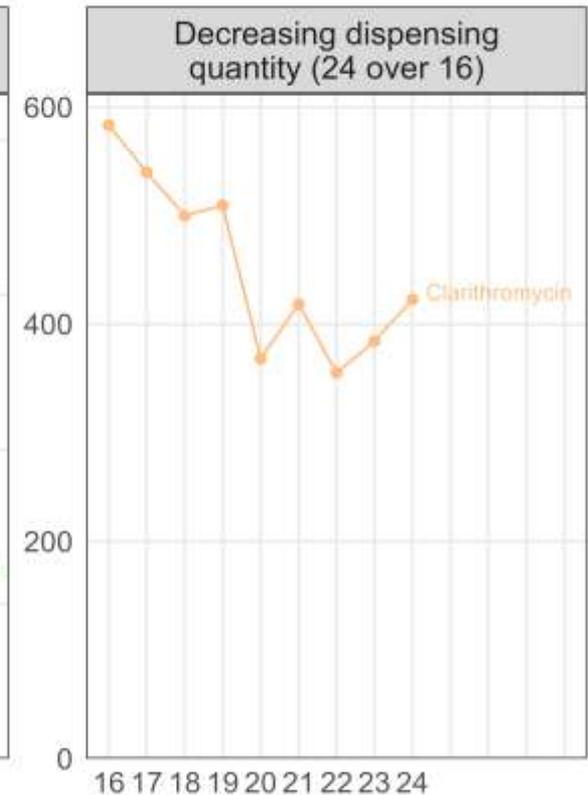
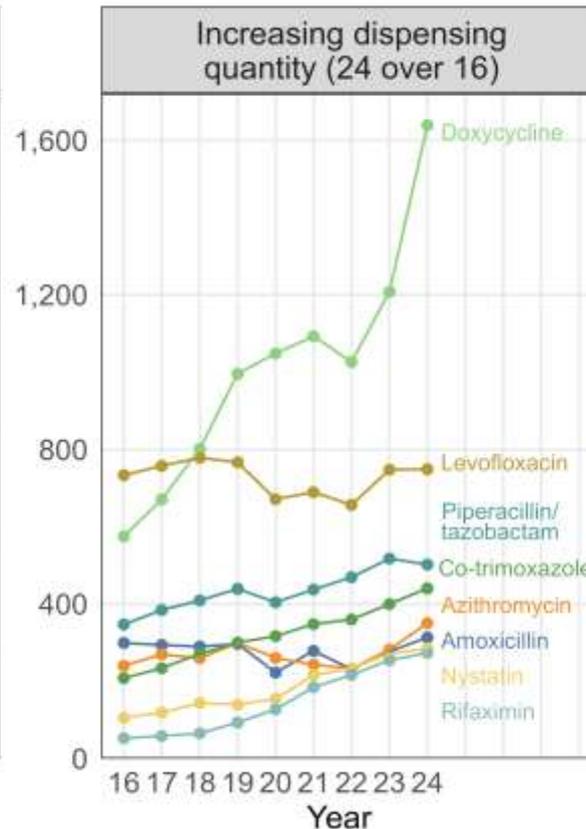
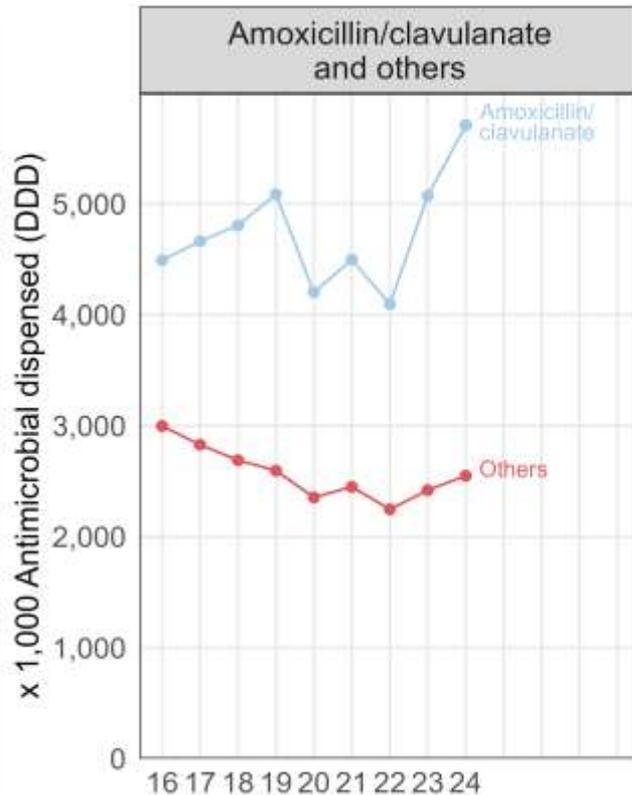
- In 2024, Beta-lactam antimicrobials, penicillins continued to be the most dispensed antimicrobials.
- Compared to 2023, all five of the most dispensed antimicrobial groups experienced a increase in dispensing volume.



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# Ten Most Dispensed Antimicrobials in Public Hospitals and Clinics in 2024



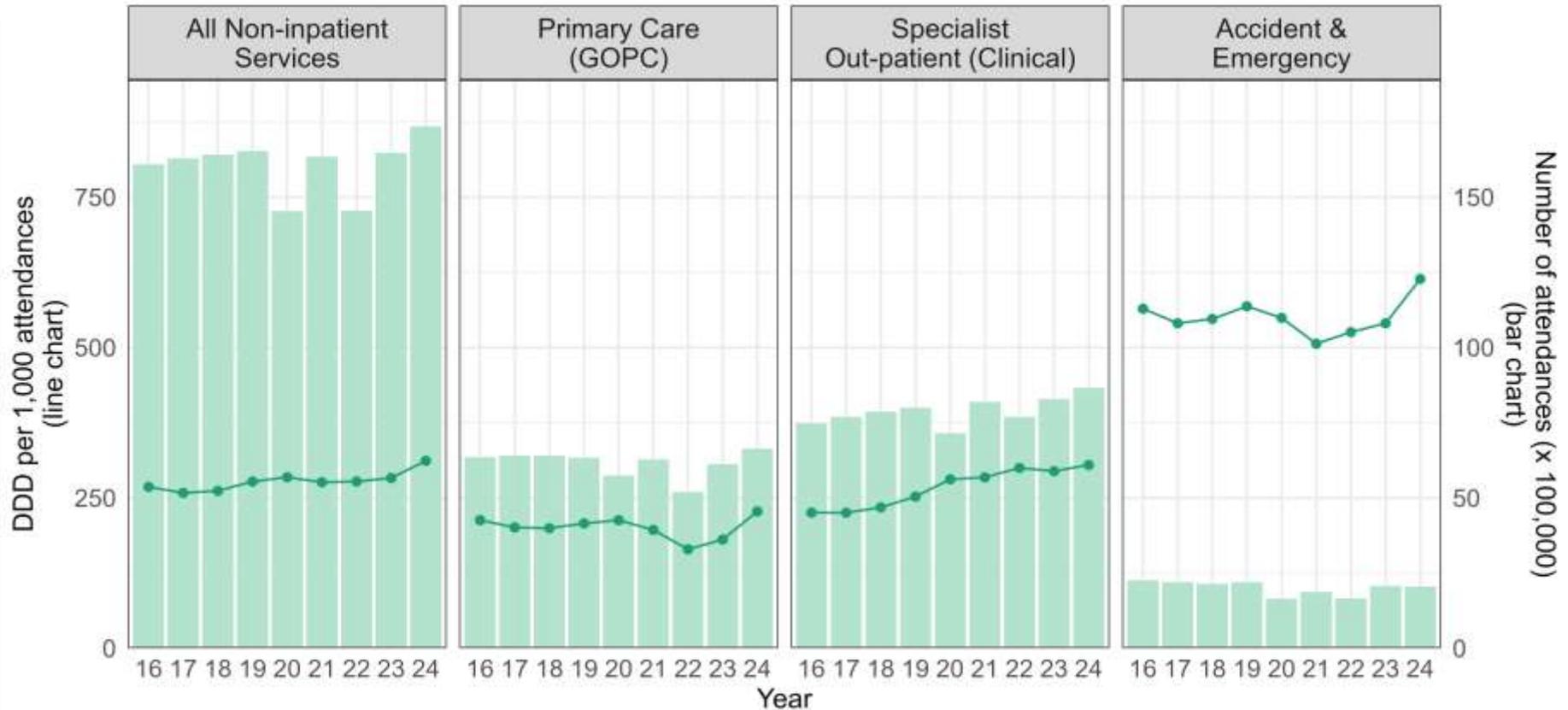
- In 2024, amoxicillin/clavulanate (Augmentin) maintained as the most dispensed antimicrobial.
- Furthermore, compared to 2023, all of the ten most dispensed antimicrobials except piperacillin/ tazobactam experienced an increase in dispensing volume.
- Dispensing volume of doxycycline continued to increase since 2022.

# Results

Antimicrobials dispensed in HA non-inpatient service by service

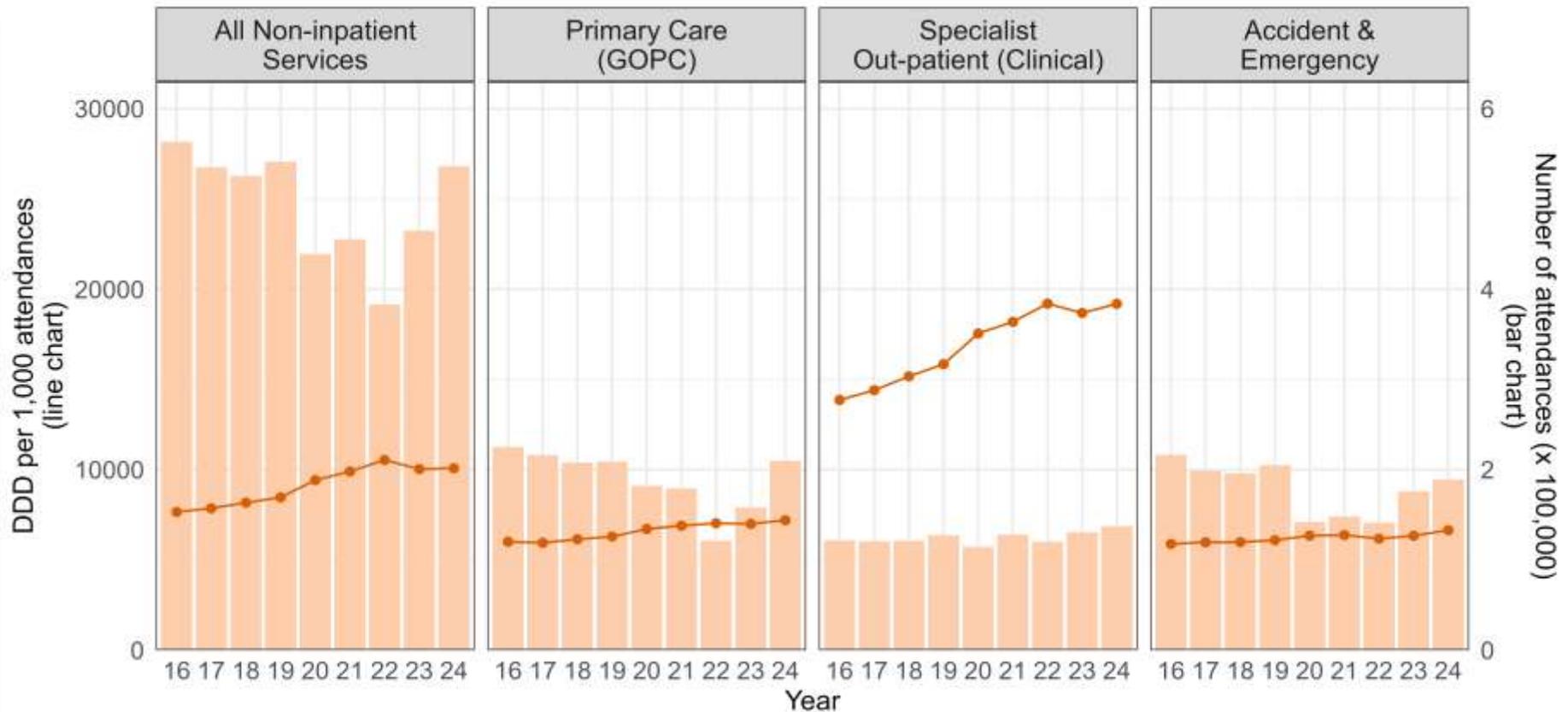


# Total Antimicrobials Dispensed in HA Non-inpatient Service by Service



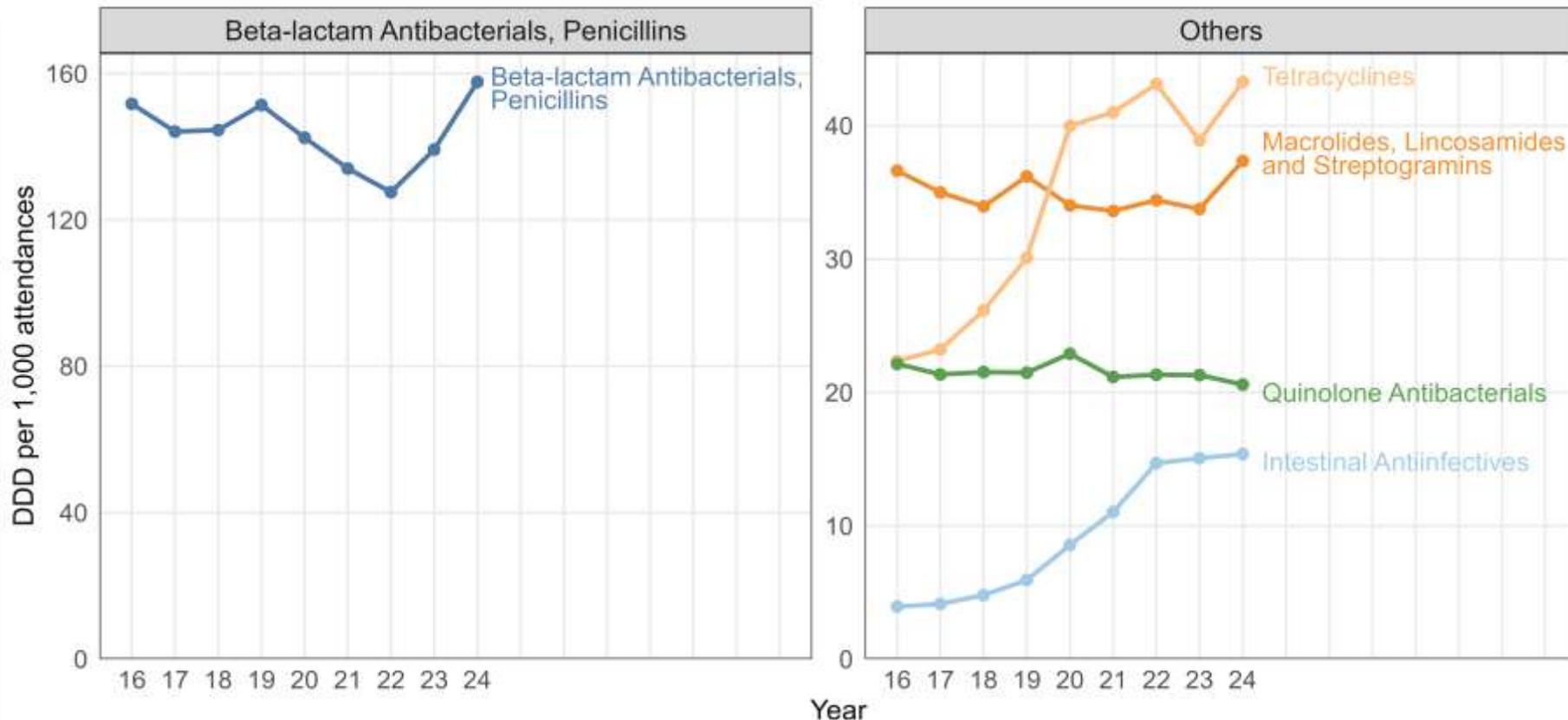
- In 2024, Primary Care (GOPC) attendances increased from 6.1 million in 2023 to 6.6 million (8.5% increase), with the amount of dispensed antimicrobials (in DDD per 1,000 attendances) raised from 180.7 to 227.5 (26% increase).
- For Specialist out-patient (Clinical) services, attendances increased from 8.3 million in 2023 to 8.7 million (4.4%). However, the amount of dispensed antimicrobials (in DDD per 1,000 attendances) increased from 294.4 in 2023 to 304.6 in 2024 (3% increase).

# Pattern of HA non-inpatient service attendances having dispensed antimicrobials



- Focused on attendances where antimicrobials were dispensed, the number of Primary Care (GOPC) attendances increased from 158,000 in 2023 to 210,000 in 2024 (33% increase). However, the amount of dispensed antimicrobials (in DDD per 1,000 attendances) saw a slight increase from 7,000 in 2023 to 7,200 (3% increase).
- In Specialist out-patient (Clinical) services, attendances remained steady since 2016, with a count of 137,000 in 2024. Yet, the amount of dispensed antimicrobials (in DDD per 1,000 attendances) increased from 18,700 in 2023 to 19,200 in 2024.

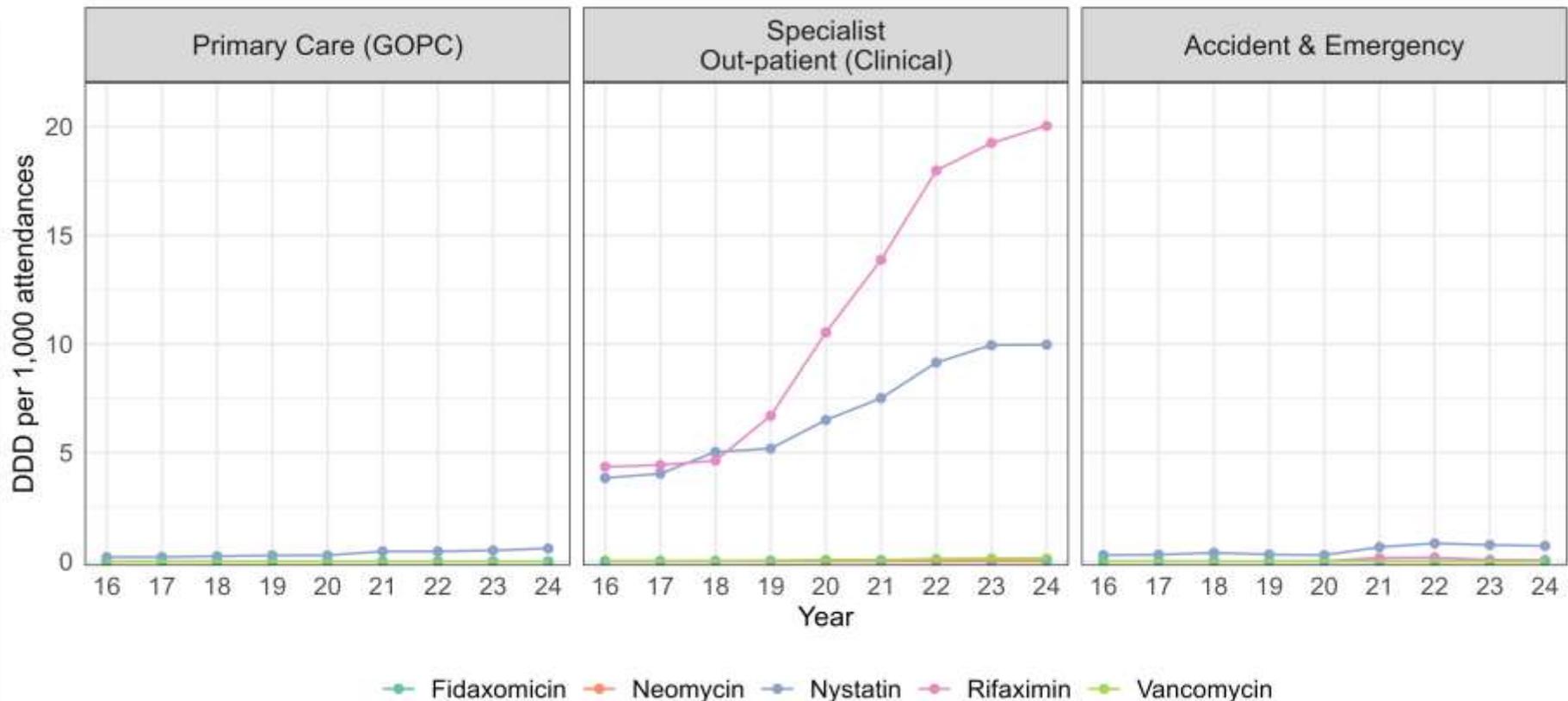
# Five Most Dispensed Antimicrobial Groups in Non-inpatient Service in 2024



- Except quinolone antibacterials, other four most dispensed antimicrobial groups showed an increase in dispensing volume when compared with 2023 data.

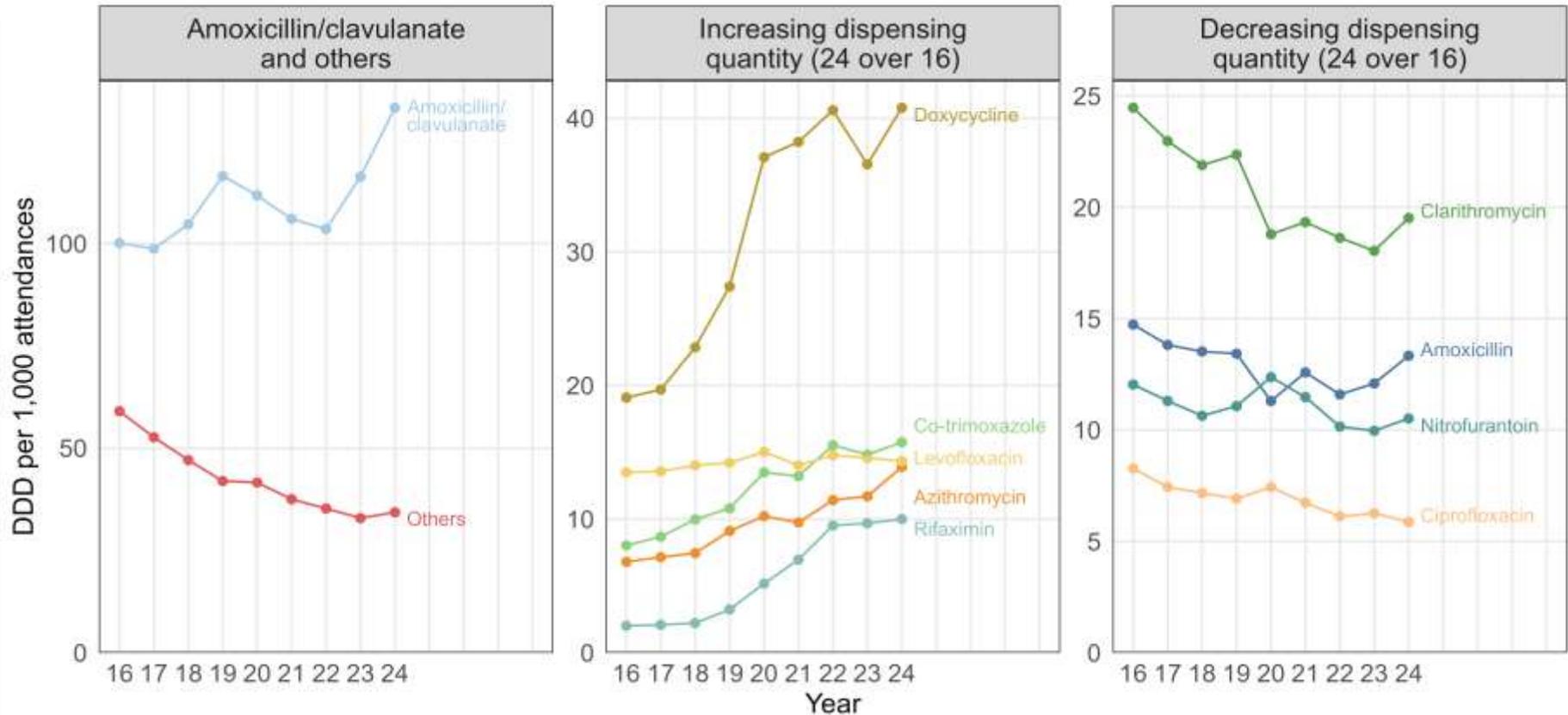


# Intestinal antiinfectives dispensing volume in Non-inpatient Service



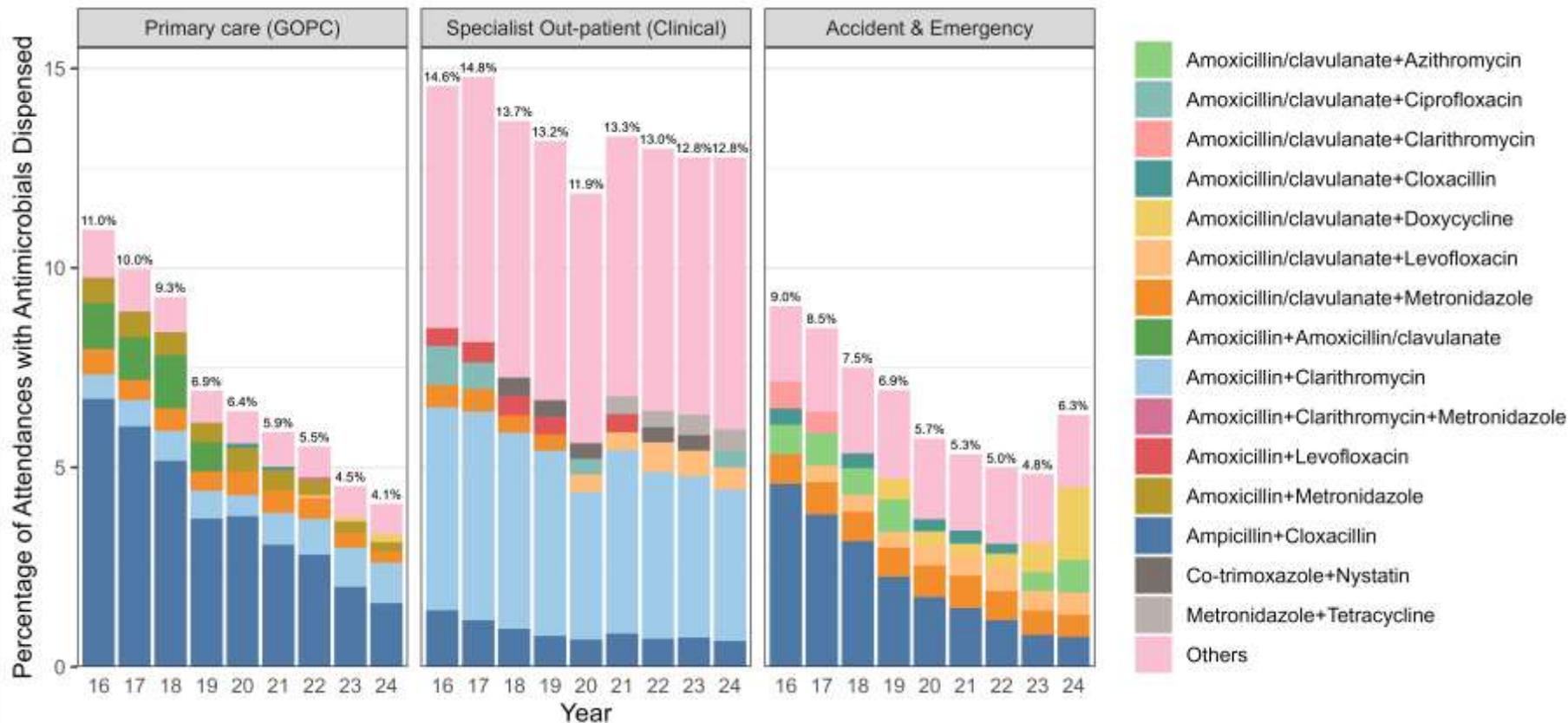
- Among the five intestinal antiinfectives dispensed in non-inpatient services, rifaximin and nystatin were most commonly dispensed in Specialist out-patient (Clinical) services.

# Ten Most Dispensed Antimicrobials in Non-inpatient Service in 2024



- In 2024, amoxicillin/clavulanate (Augmentin) remained as the most dispensed antimicrobial in non-inpatient services, with an increase in dispensing volume since 2022.
- Eight of the ten most dispensed antimicrobials in non-inpatient services showed increase in dispensing volume from 2023 to 2024: amoxicillin/clavulanate, doxycycline, azithromycin, clarithromycin, amoxicillin, co-trimoxazole, nitrofurantoin, and rifaximin.
- On the other hand, two of the ten most dispensed antimicrobials showed decrease in dispensing volume: levofloxacin, ciprofloxacin.

# Trends in Prescribing of Top 5 Antimicrobial Combinations in Non-inpatient Service (16-24)



- A decline in antimicrobial combination dispensing was observed in Primary Care (GOPC), dropping from 11.0% of total Primary Care (GOPC) attendance with antimicrobials dispensed in 2016 to 4.1% in 2024. This was largely driven by reduced use of ampicillin + cloxacillin.
- For Specialist Out-patient (Clinical), a relatively stable and high combination dispensing rates was observed (from 14.6% in 2016 to 12.8% in 2024), with amoxicillin + clarithromycin was the most commonly used combination.
- For A&E, the combination dispensing rate reduced from 9.0% in 2016 to 4.8% in 2023, but rose to 6.3% in 2024, coincident with observed increased dispensing of amoxicillin/clavulanate + doxycycline.



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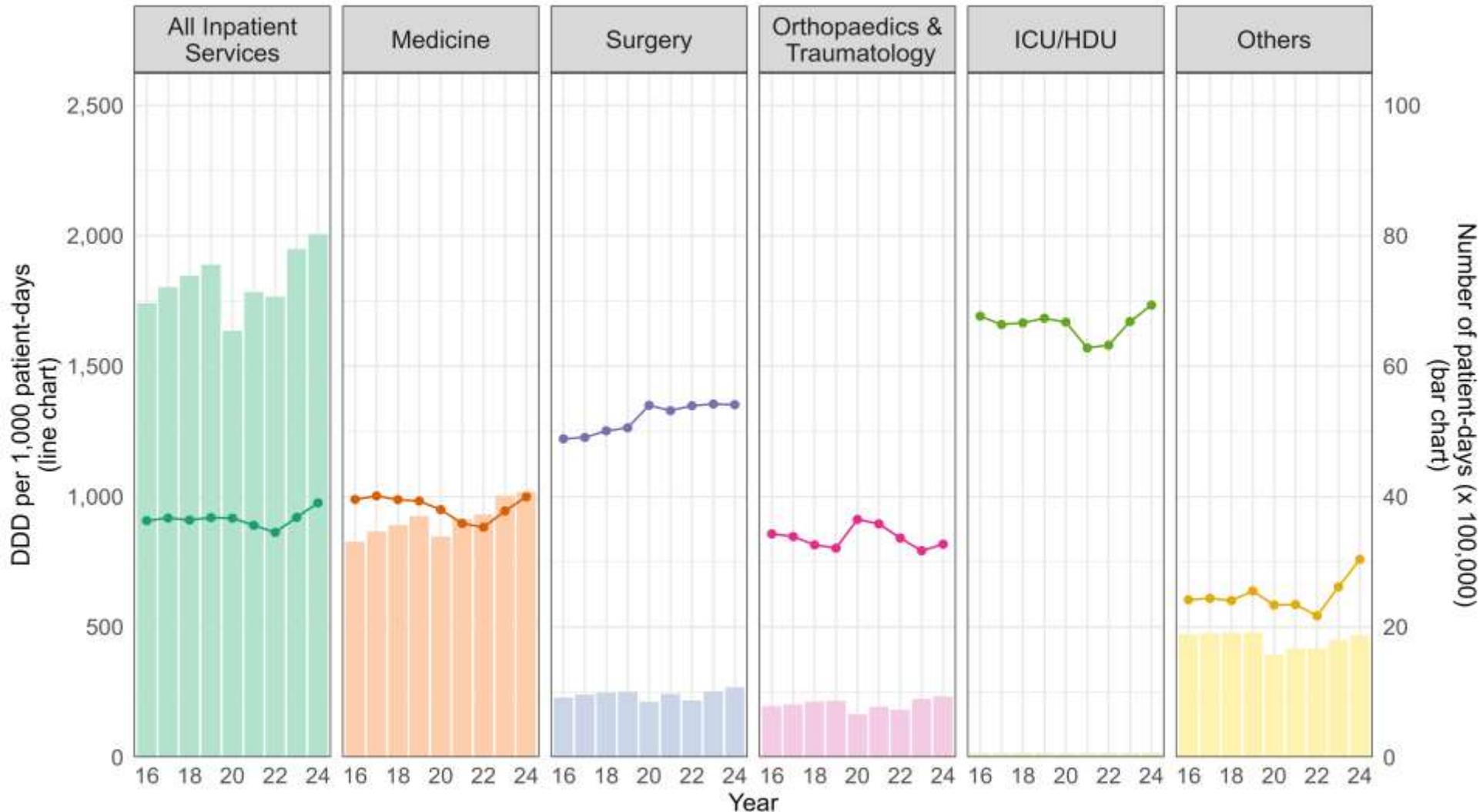
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# Results

Antimicrobials dispensed in HA inpatient service by specialty

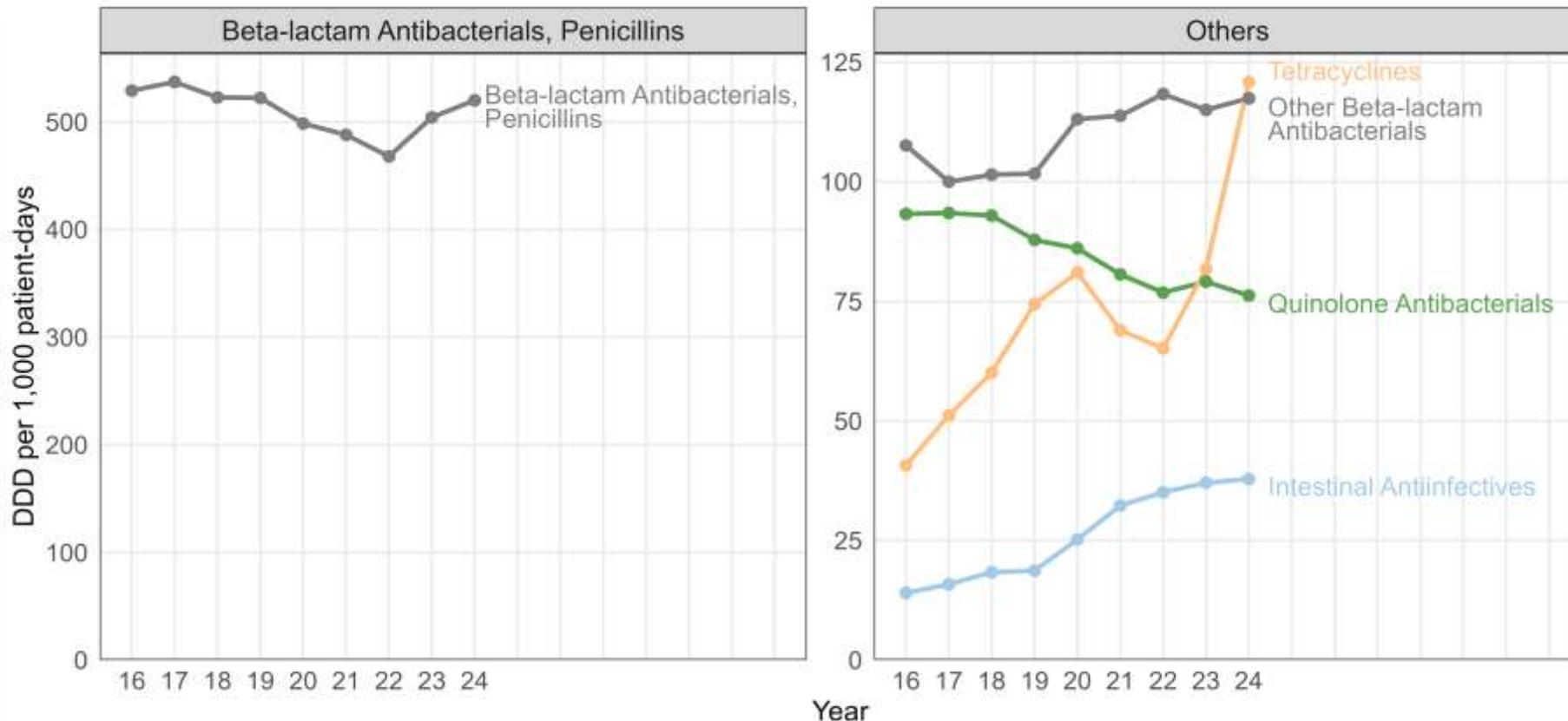


# Antimicrobials Dispensed in HA Inpatient Service per 1,000 Patient-days by Specialty



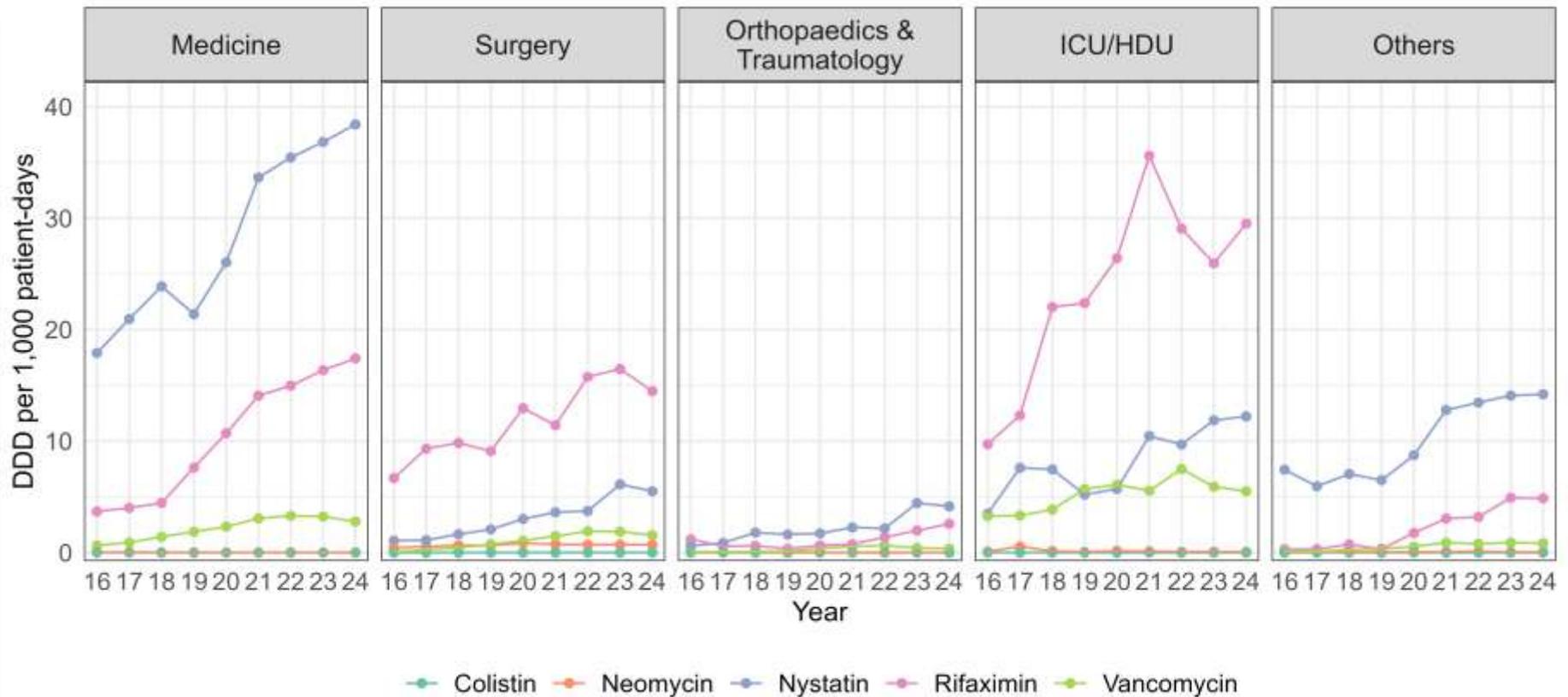
- From 2022 to 2024, the DDD per 1,000 patient-days increased across all inpatient services, with notable rises in Medicine, ICU/HDU, and Other specialties.
- Meanwhile, a gradual increase in DDD per 1,000 patient-days was observed in Surgery from 2016 to 2024.

# Five Most Dispensed Antimicrobial Groups in Inpatient Service in 2024



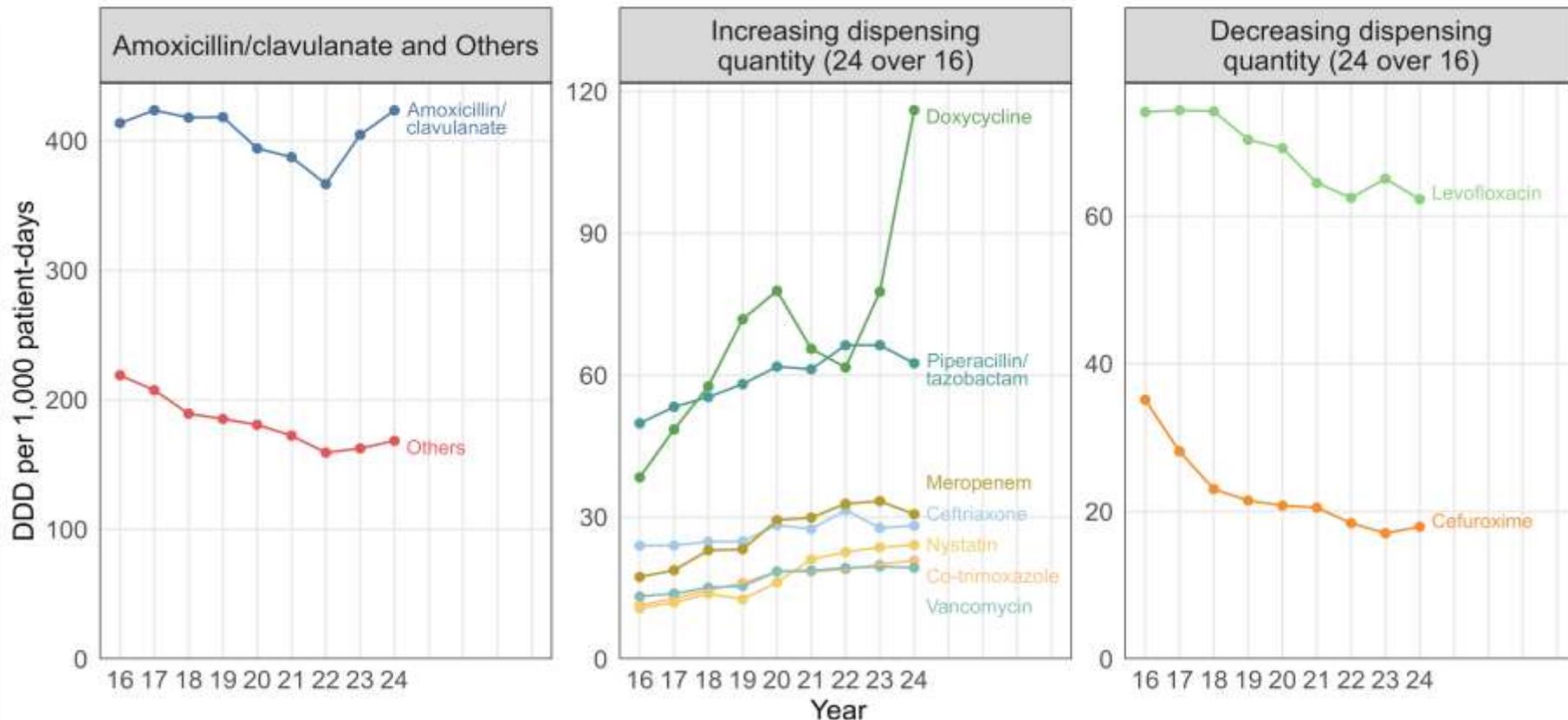
- In 2024, beta-lactam antibiotics (penicillins) continued to be the most dispensed antimicrobials in inpatient services.
- However, quinolone antibiotics have experienced a decrease in dispensing volume, while beta-lactam antibiotics (penicillins) and tetracyclines have seen an increase since 2022.
- The dispensing volume of other beta-lactam antibiotics, a group that encompasses cephalosporins, monobactams, and carbapenems, has continued to increase since 2020.

# Intestinal antiinfectives dispensing volume in Inpatient Service



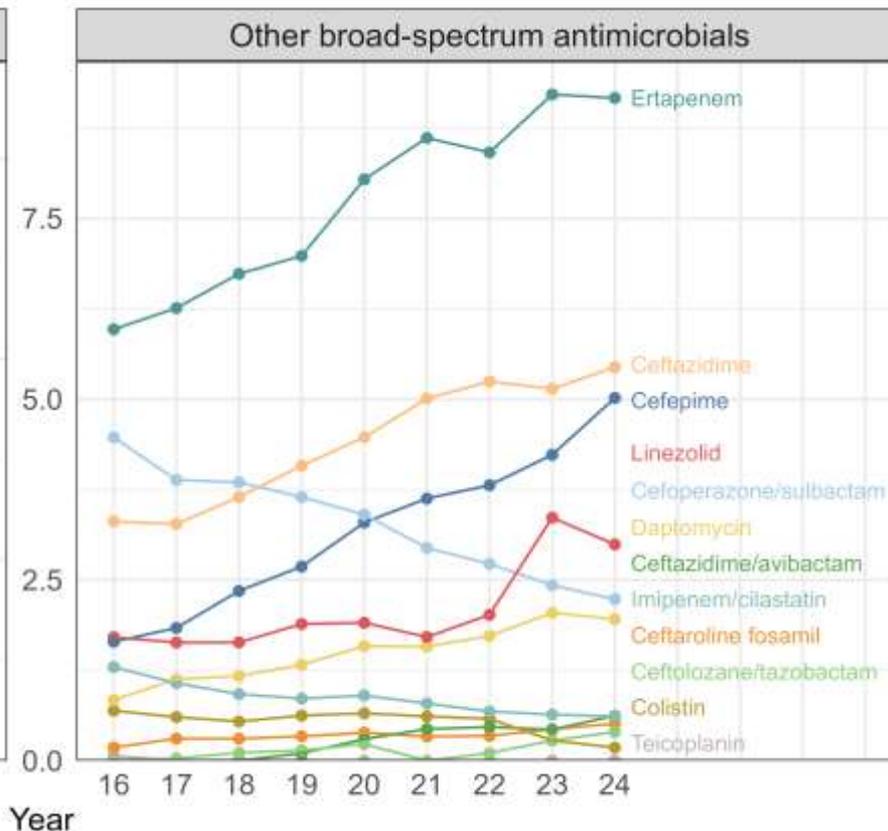
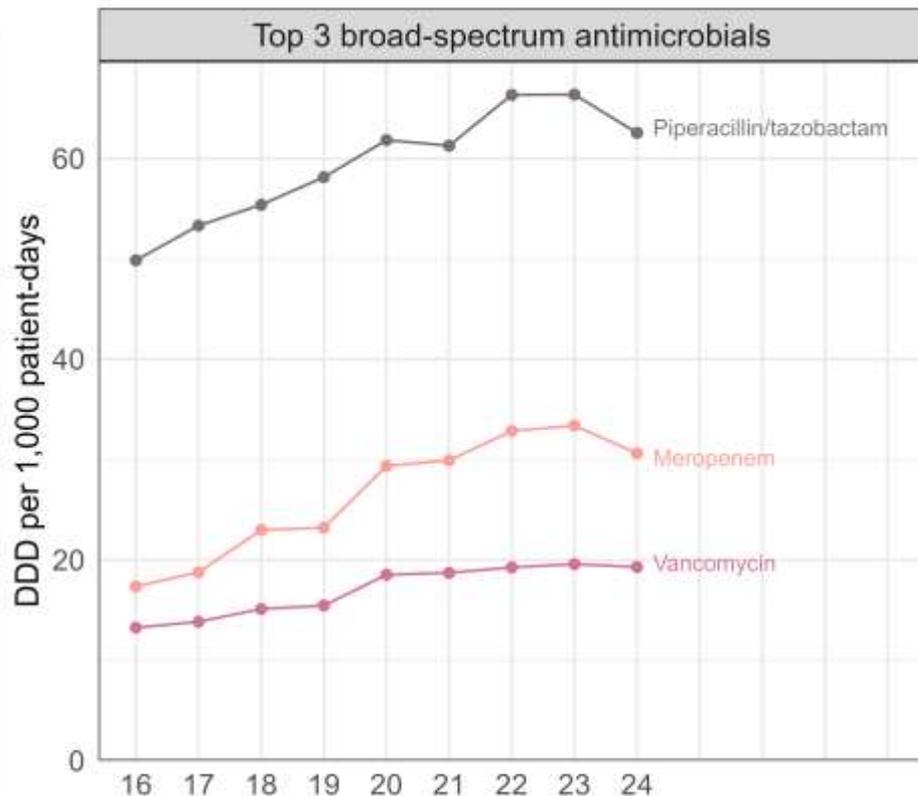
- Among the five intestinal antiinfectives dispensed in non-inpatient services, rifaximin and nystatin were the most commonly dispensed in all inpatient services.

# Ten Most Dispensed Antimicrobials in Inpatient Service in 2024



- In 2024, amoxicillin/clavulanate (Augmentin) maintained as the most dispensed antimicrobial in inpatient services.
- Among the ten most dispensed antimicrobials in inpatient services, three are considered broad-spectrum antimicrobials: piperacillin/tazobactam, meropenem, and vancomycin. All three of these antimicrobials experienced a decrease in dispensing volume compared to 2023 figures.
- A significant increase in doxycycline dispensing volume was observed in 2024, rising to about 120 DDD per 1000 patient days from 80 in 2023.

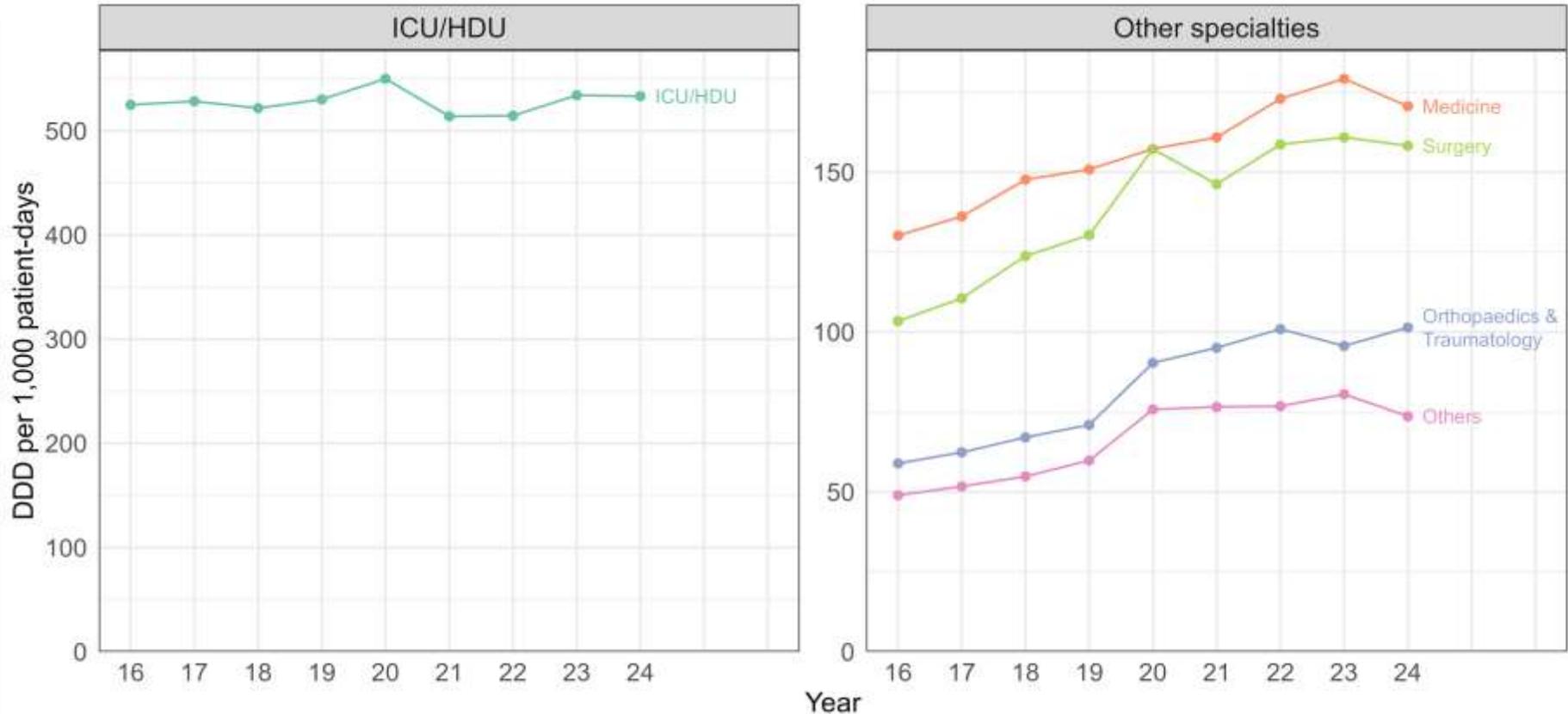
# Broad-spectrum Antimicrobials in Inpatient Service



- In 2024, the three most dispensed broad-spectrum antimicrobials continued to be piperacillin/tazobactam, meropenem, and vancomycin.
- However, the dispensing volume of these three broad-spectrum antimicrobials showed a decrease in 2024 compared to 2023.
- In contrast, dispensing volume of ertapenem and cefepime continued the upward trends from 2016 to 2024.



# Broad-spectrum Antimicrobials in Inpatient Service by Specialty



- In 2024, ICU/HDU continued to be the specialty with the highest dispensing of broad-spectrum antimicrobials, with its volume remaining relatively stable compared to the preceding years.
- A notable shift occurred in Medicine, Surgery, and Other specialties, which saw a decrease in antimicrobial dispensing in 2024, diverging from their previously observed increasing trends.
- Conversely, Orthopaedics & Traumatology continued its upward trajectory, reaching its highest recorded dispensing volume in 2024.



# Summary and Recommendation



## Summary on AMU surveillance

- Overall antimicrobial dispensing increased from 2022-2024 for inpatients and 2023-2024 for non-inpatients. (slide 4)
- Penicillins and Augmentin were still the most dispensed, with most top antimicrobials; and doxycycline had notable increase in 2024. (slide 6,7)
- Antimicrobial dispensing in inpatient services grew across all specialties from 2022-2024, with gradual increase observed in surgery from 2016-2024. (slide 16)
- While broad-spectrum antimicrobials like piperacillin/tazobactam, meropenem, and vancomycin saw reduced inpatient use in 2024, cefepime use continued to rise. (slide 20)



## Recommendation

- Keep tracking antimicrobial use in HA facilities, exploring the underlying reasons for the sustained increase in dispensing volumes across both inpatient and non-inpatient services to inform stewardship efforts.
- Monitor trends in broad-spectrum antimicrobials, especially the rise in ertapenem and cefepime, to ensure appropriate prescribing and reduce resistance risks.





**THE END**

Thank you

