

Australian Passive AMR Surveillance (APAS)

Trends in multidrug-resistant organisms in Australia

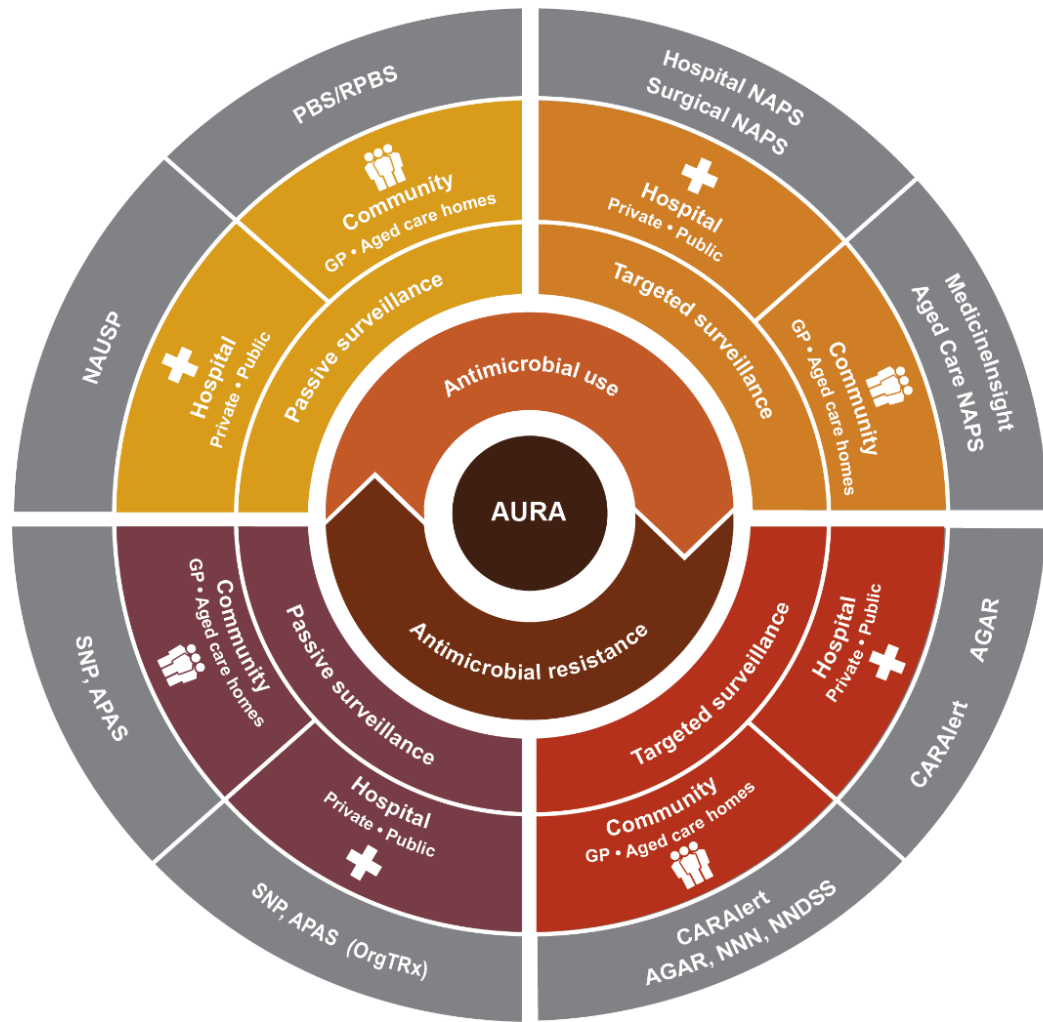
Brigid Carey, Manager, AURA

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Disclosure of Interest Statement

I have no disclosures or conflicts.

Antimicrobial Use and Resistance in Australia (AURA)



Australian Passive AMR Surveillance (APAS)

- Uses OrgTRx information technology infrastructure
- Extracts routine susceptibility testing results
- Contains de-identified patient-level AMR data

APAS holds over 122 million susceptibility results

APAS

- Participants have access to local AMR data:
 - Longitudinal datasets for specified organism–antimicrobial combinations
 - Cumulative antibiograms showing resistance rates for specified organisms, specimen types and time periods
 - Tabulations showing resistance profiles of isolated strains for selected time periods
 - Reporting for individual units and at state/territory-wide level
 - Geospatial mapping

State/Territory	Pathology service	Representativeness
NSW	NSW Health Pathology	Public laboratory services
Victoria	Alfred Health	Public health service catchment
	Monash Health	Public health service catchment
Queensland	Mater Pathology Brisbane	Public and private patients
	Pathology Queensland	Public hospitals and health services
SA	SA Pathology	Public health catchments
WA	PathWest Laboratory Medicine	Public hospitals
Tasmania	Launceston General Hospital	Combined data capture most public patient data
	Royal Hobart Hospital	
ACT	ACT Pathology	Public and private health services

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July 2024

Australian Passive AMR Surveillance

An update of resistance trends in
multidrug-resistant organisms – 2006 to 2023

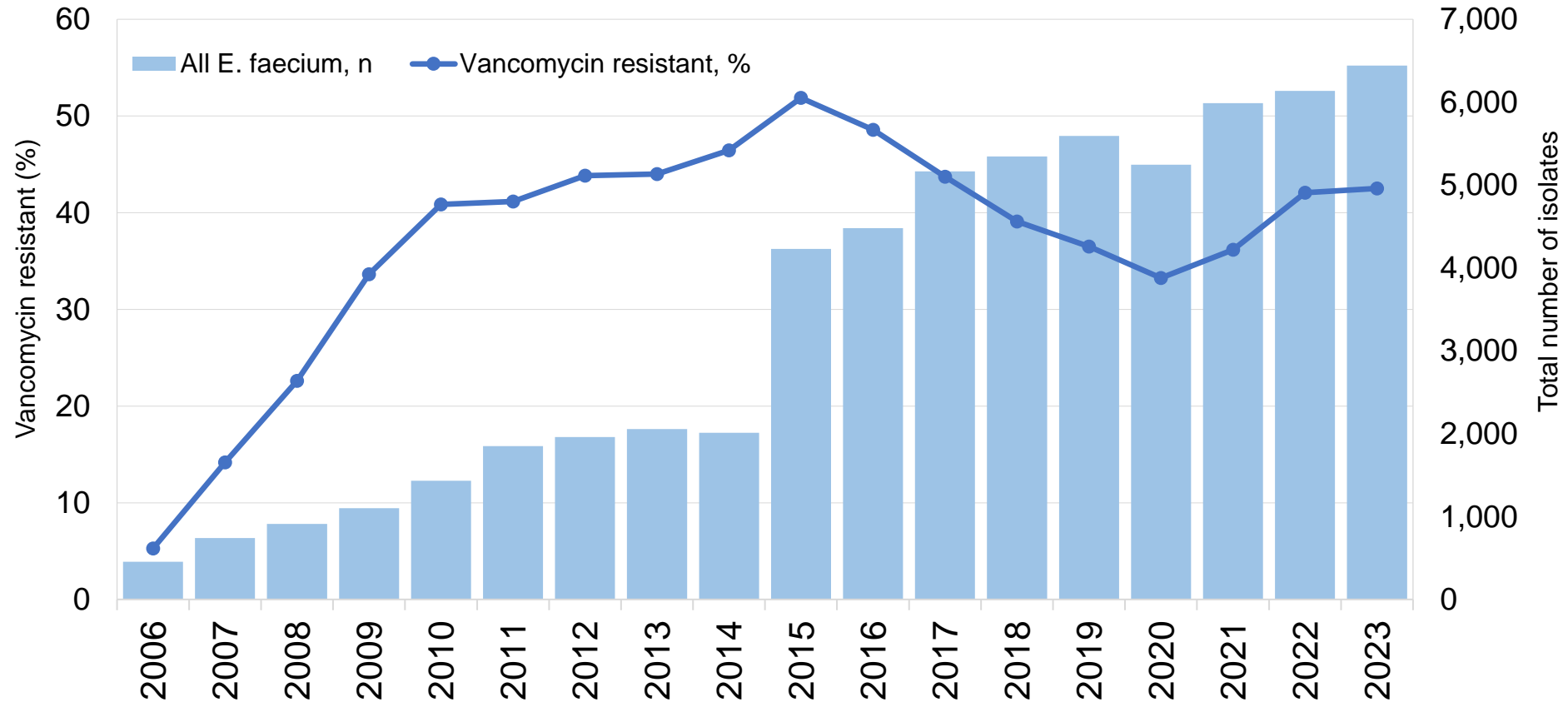


Trends in multidrug-resistant organisms (MROs) in Australia:

- Vancomycin-resistant *Enterococcus faecium* (VRE)
- Fluoroquinolone-resistant *Escherichia coli*
- Methicillin-resistant *Staphylococcus aureus* (MRSA)



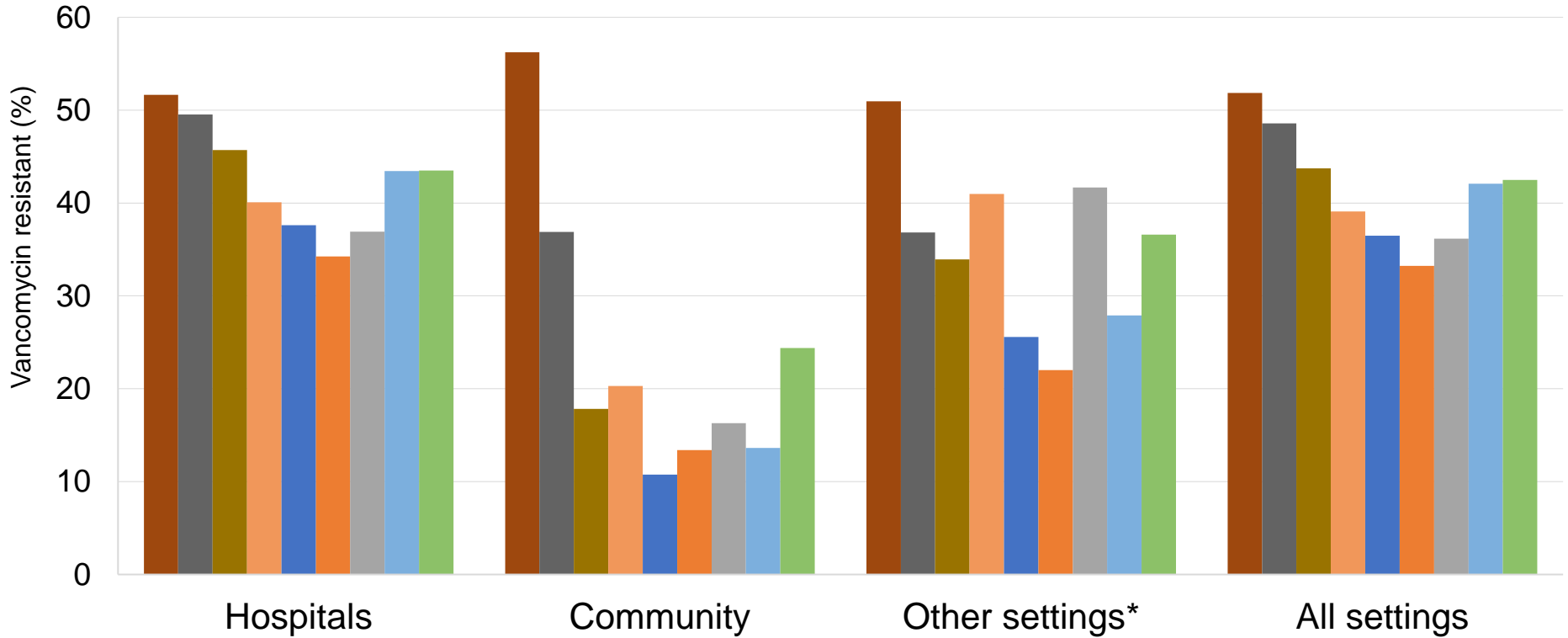
E. faecium with vancomycin resistance



E. faecium with vancomycin resistance

By setting, 2015–2023

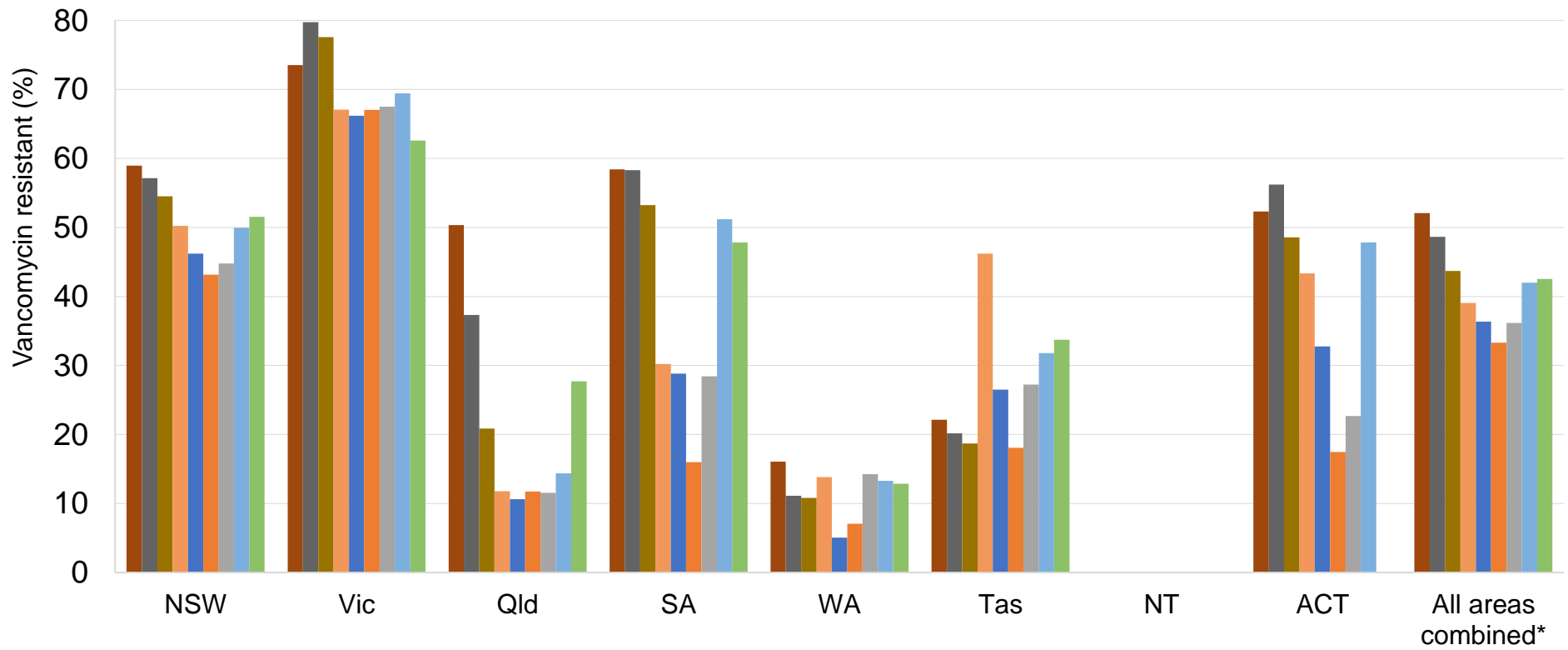
- 2015, %
- 2016, %
- 2017, %
- 2018, %
- 2019, %
- 2020, %
- 2021, %
- 2022, %
- 2023, %



E. faecium with vancomycin resistance

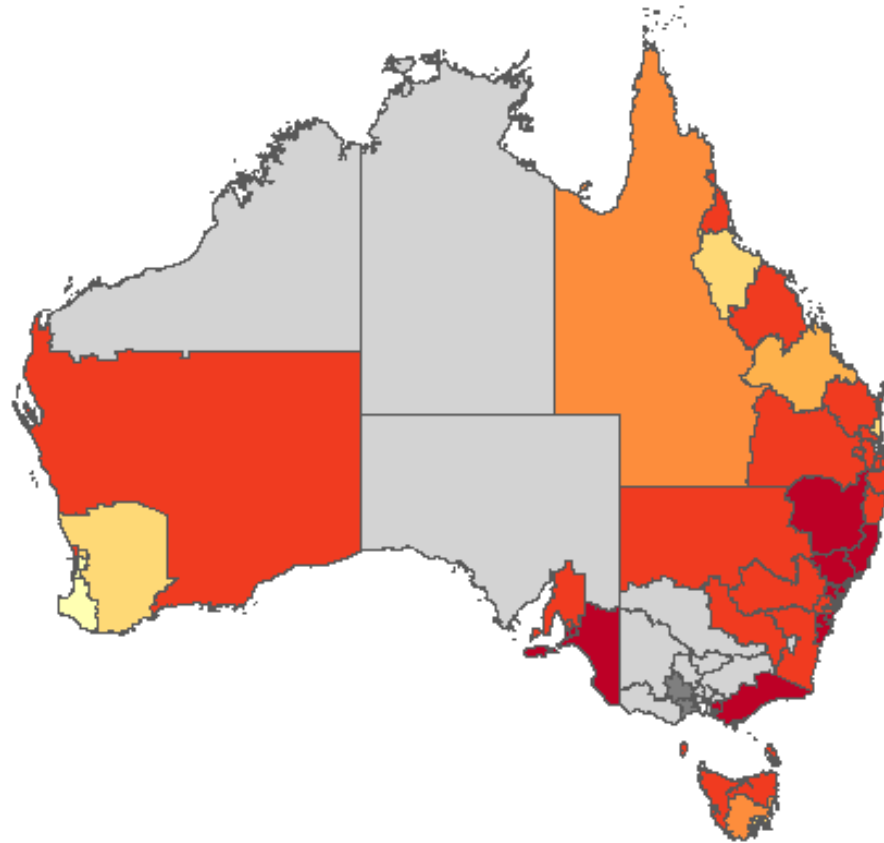
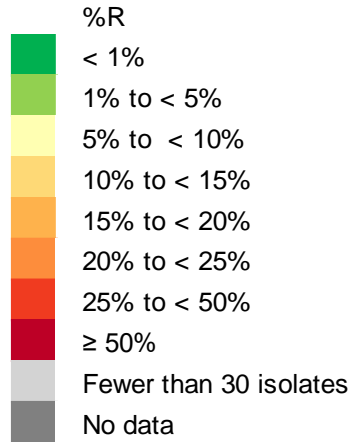
By state and territory, 2015–2023

- 2015, %
- 2016, %
- 2017, %
- 2018, %
- 2019, %
- 2020, %
- 2021, %
- 2022, %
- 2023, %

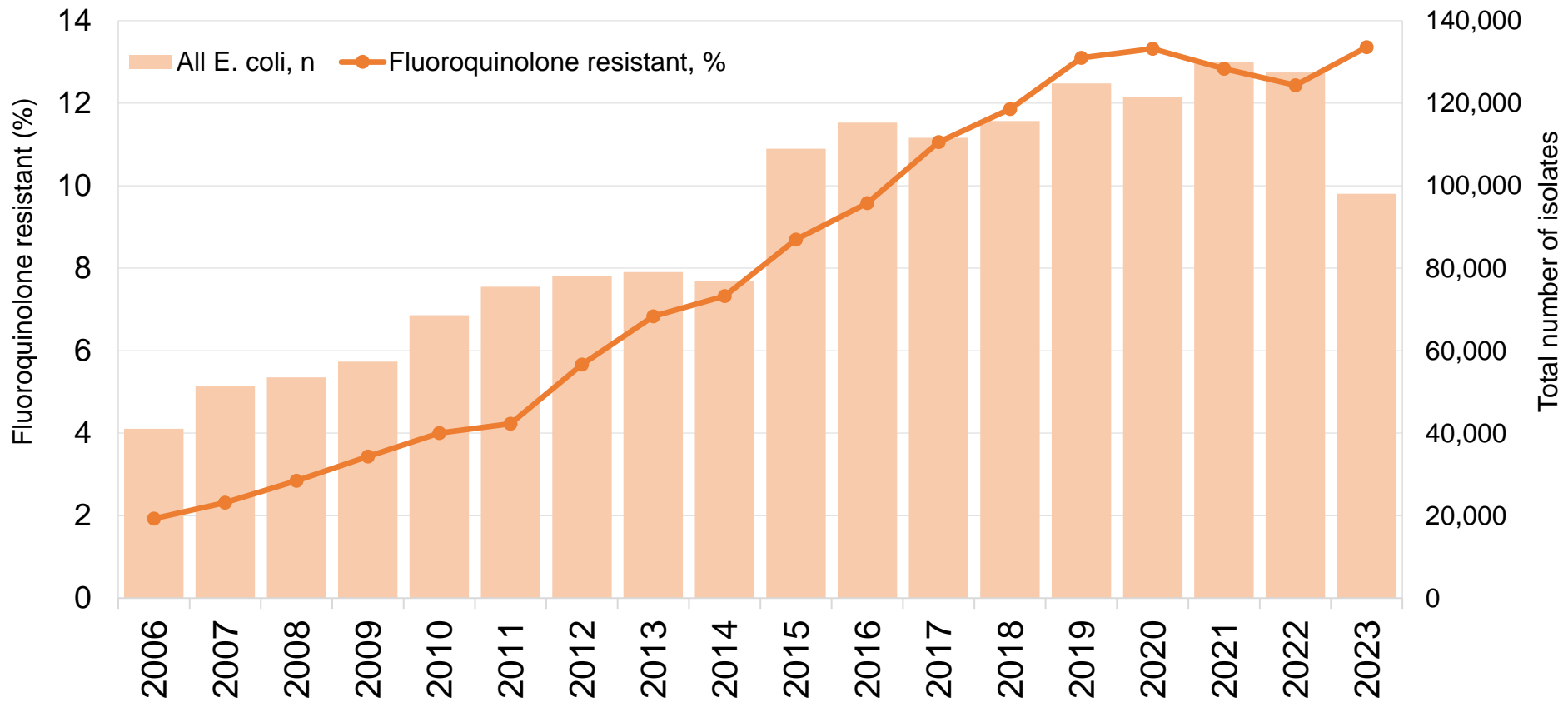


E. faecium with vancomycin resistance

Mapped to SA4, 2023

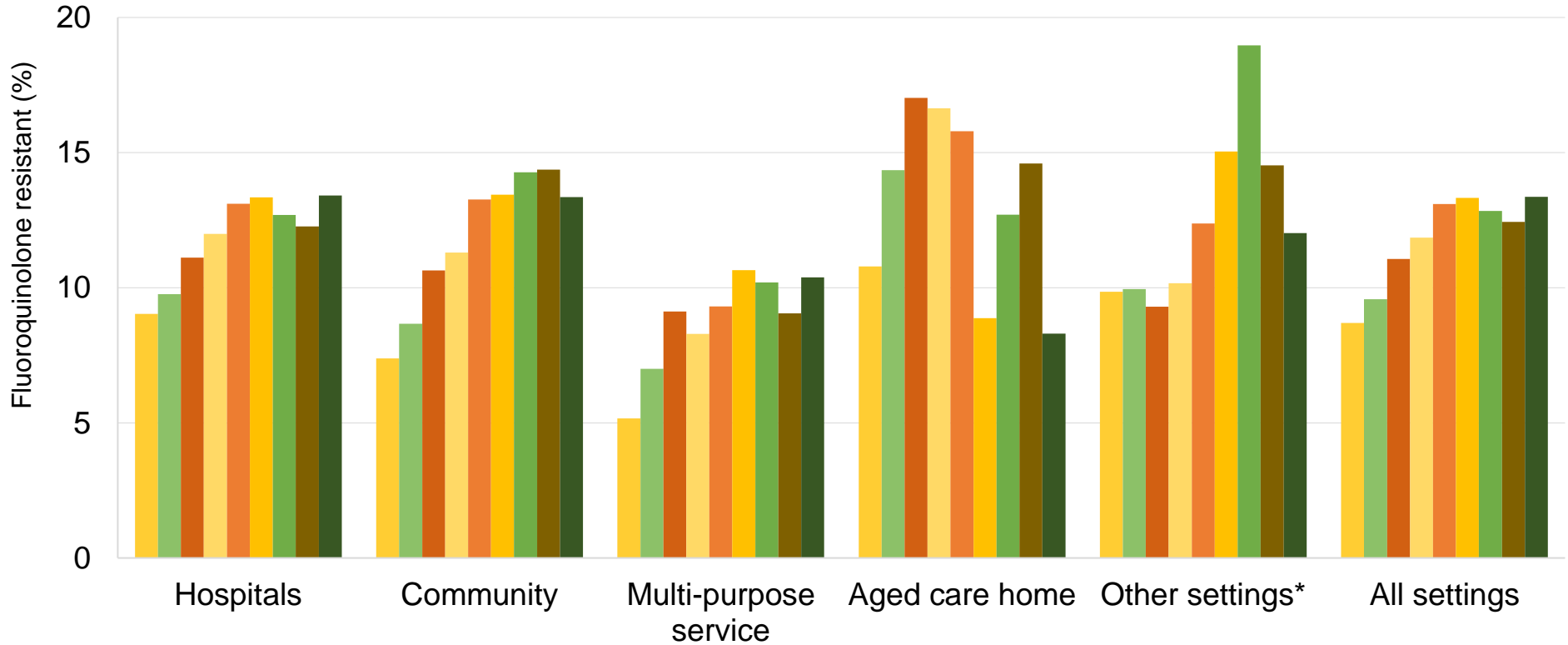


E. coli with fluoroquinolone resistance



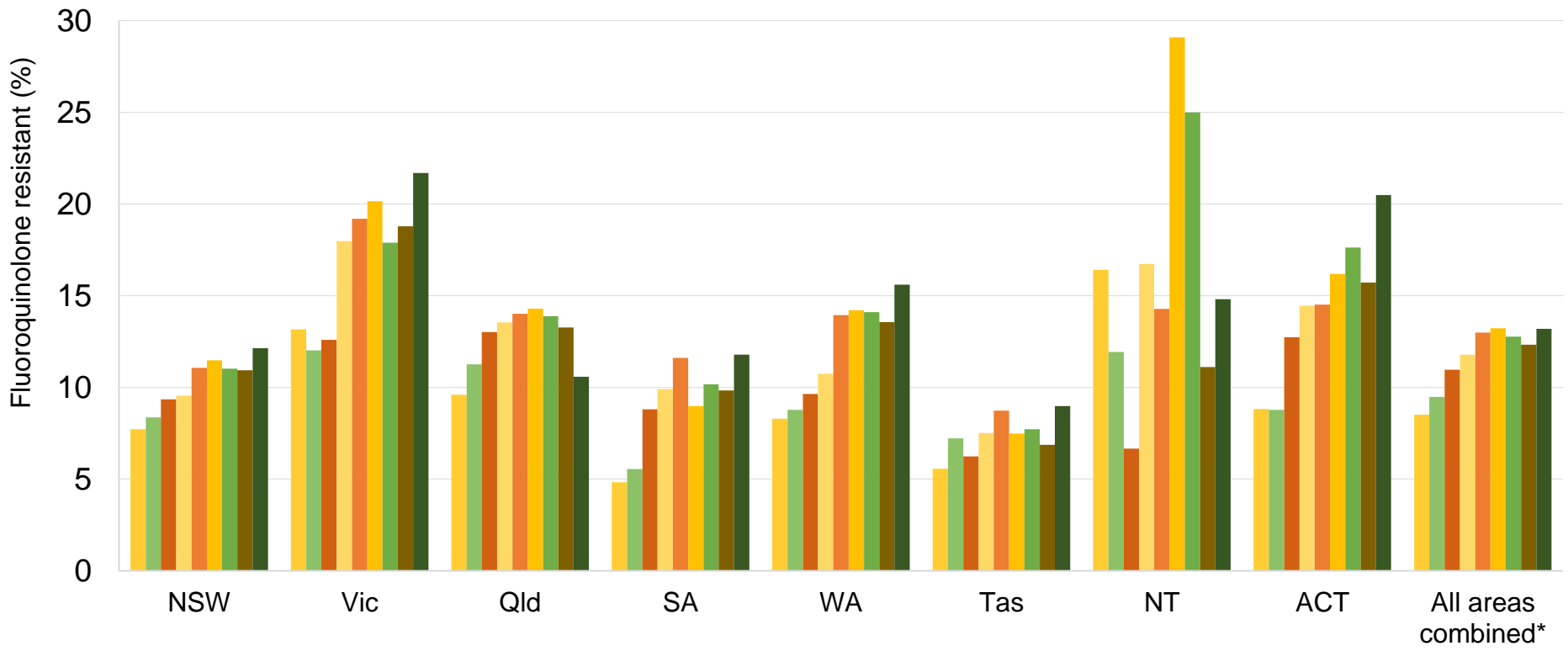
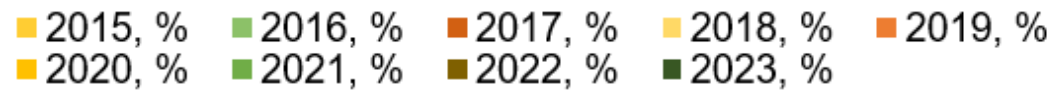
E. coli with fluoroquinolone resistance

By setting, 2015–2023



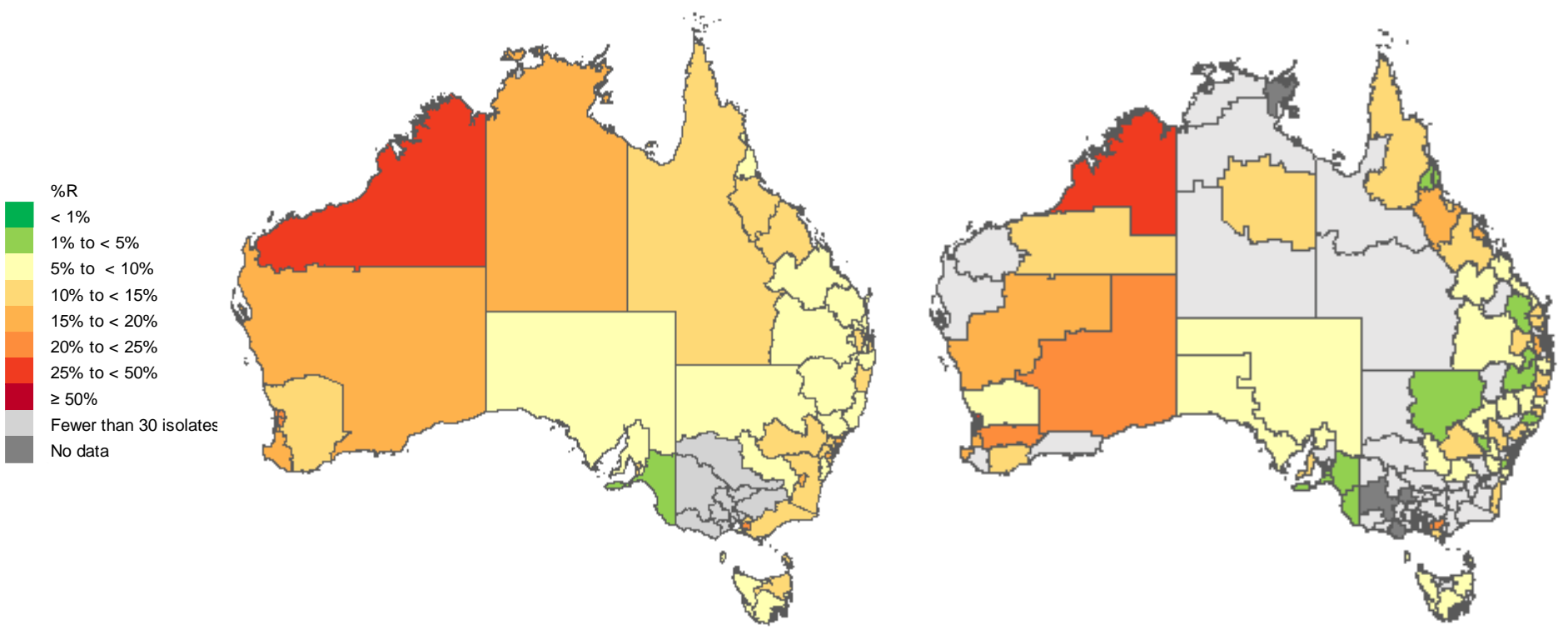
E. coli with fluoroquinolone resistance

By state and territory, 2015–2023

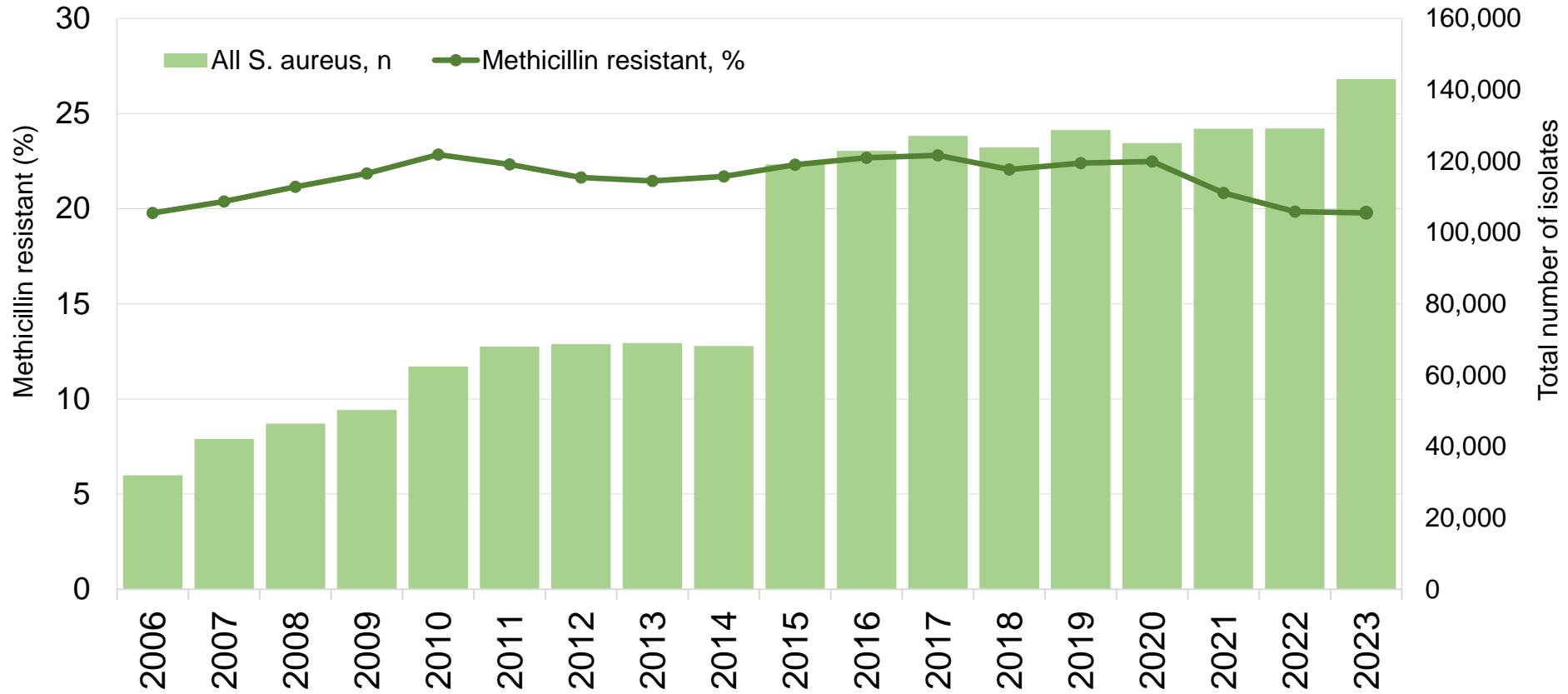


E. coli with fluoroquinolone resistance

Mapped to SA4 and SA3, 2023



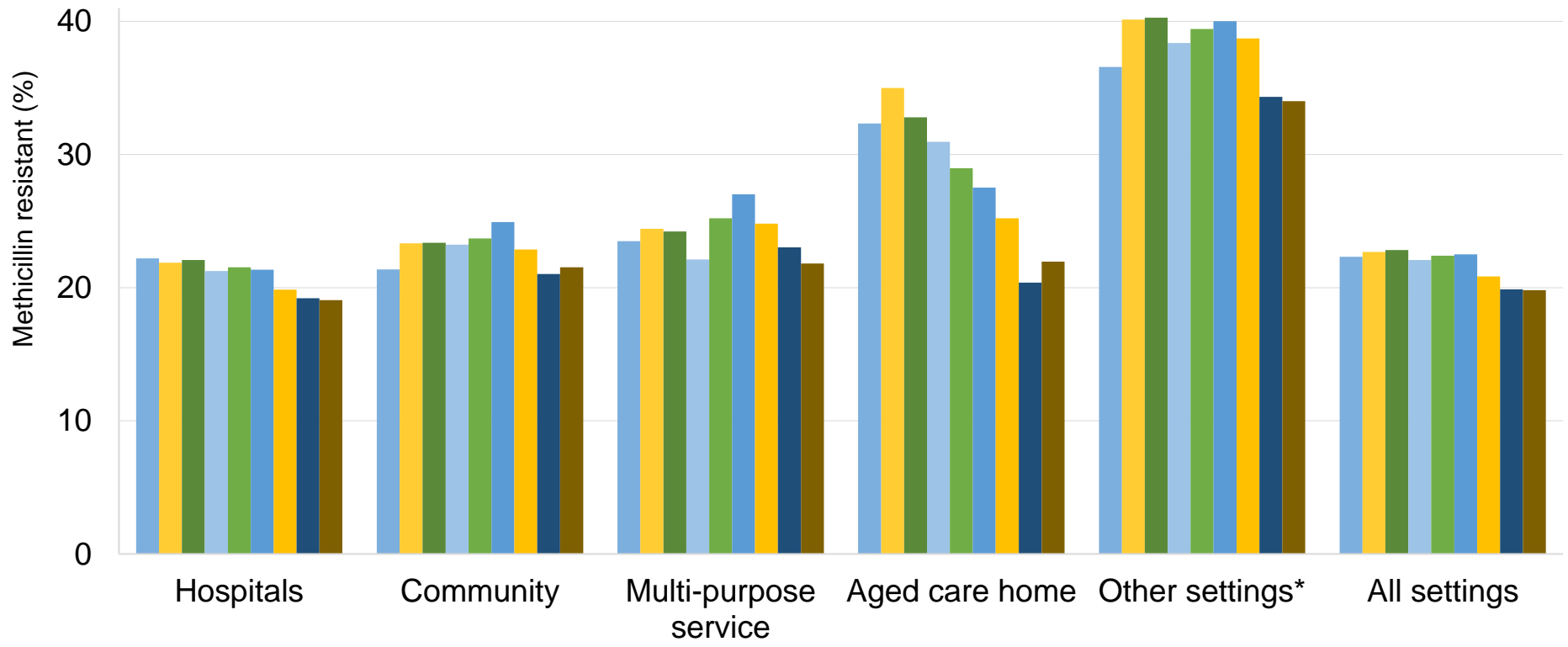
S. aureus with methicillin resistance



S. aureus with methicillin resistance

By setting, 2015–2023

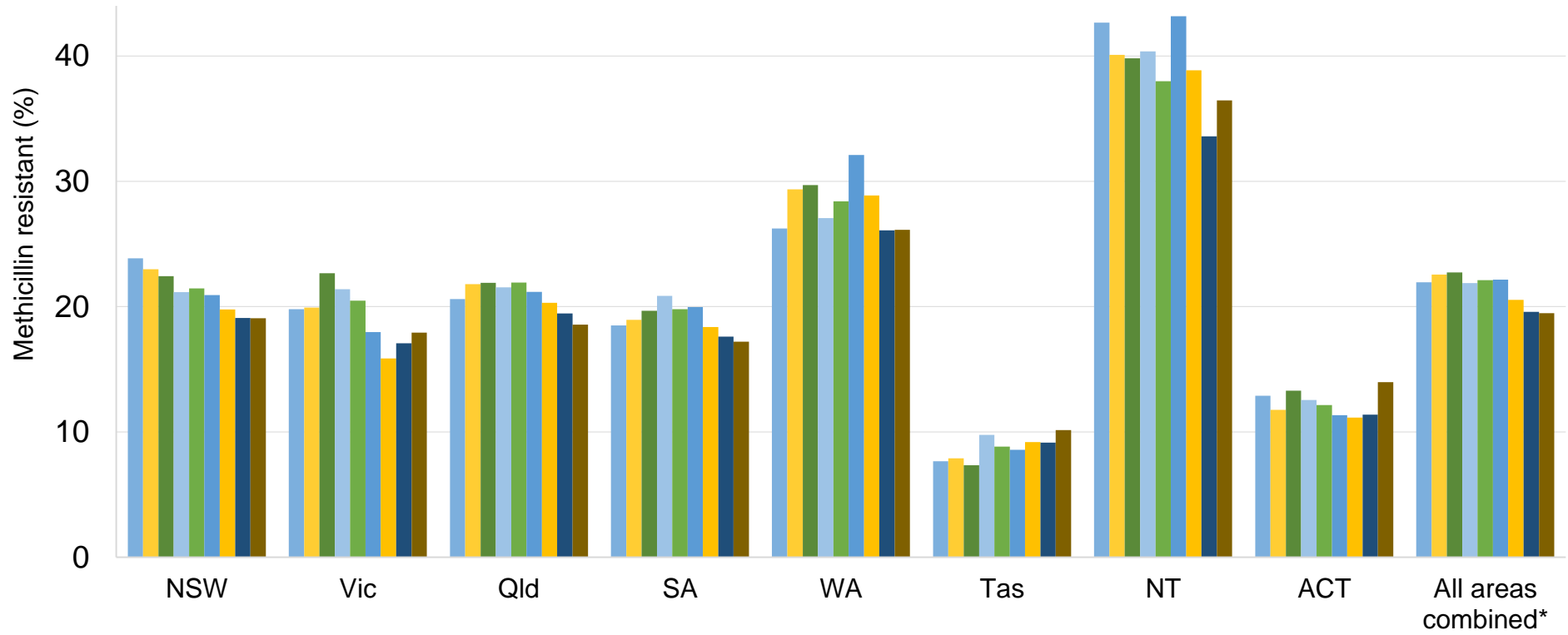
2015, % 2016, % 2017, % 2018, % 2019, %
2020, % 2021, % 2022, % 2023, %



S. aureus with methicillin resistance

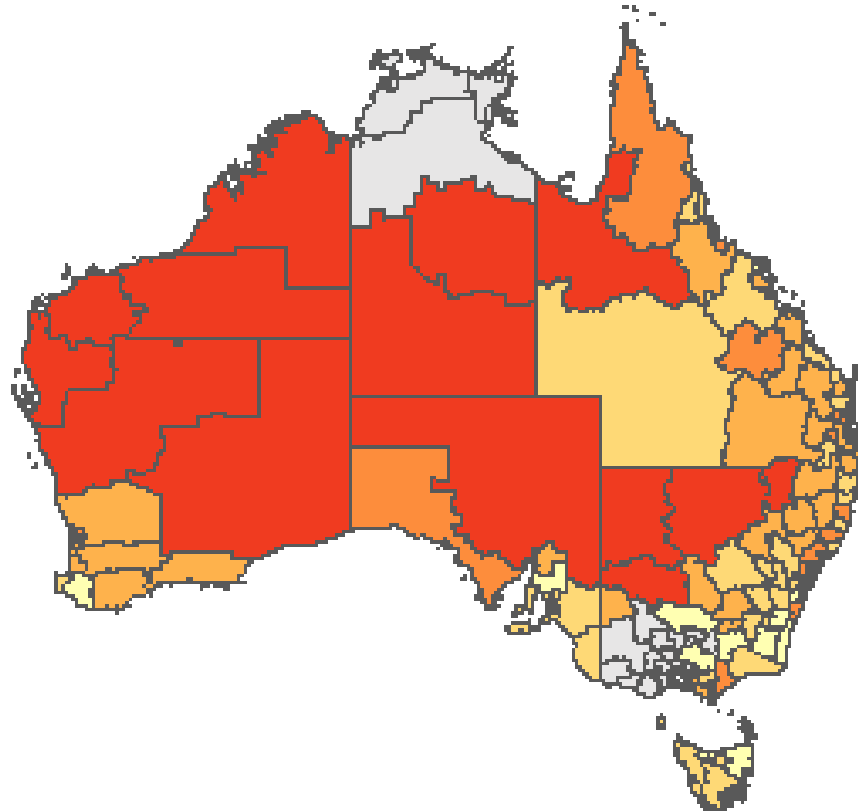
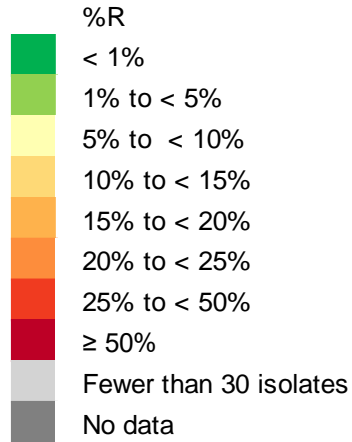
By state and territory, 2015–2023

2015, % 2016, % 2017, % 2018, % 2019, %
2020, % 2021, % 2022, % 2023, %



S. aureus with methicillin resistance

Mapped to SA3, 2023



Conclusions and actions

- AICGs and Aged Care IPC Guide
- Enhancing national AMR surveillance
- Transition to the independent Australian CDC
- Opportunities for national HAI surveillance
- Available and accessible data – essential for IPC



safetyandquality.gov.au/AURA

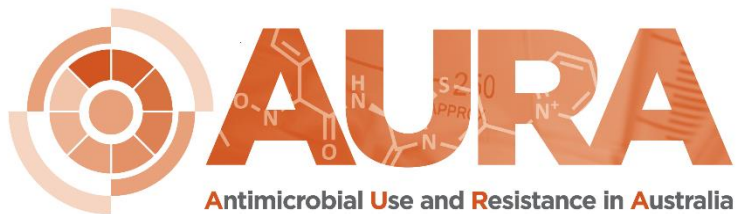
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