Nebraska Healthcare-Associated Infections and Antimicrobial Resistance (HAI/AR) Program Update - 2026

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Disclosure

- Merck & Co. Inc – Principal Investigator for an investigator-initiated research grant focused on training consultant pharmacist in antibiotic stewardship implementation in LTCF (2017-2024)

Objectives

Review trends in healthcare-associated infections and antimicrobial resistance (HAI/AR) in Nebraska

Identify opportunities for improvement in healthcare-associated infections and limiting spread of antimicrobial resistance

Discuss upcoming and ongoing projects focused on assisting healthcare facilities with their program improvements

Nebraska DHHS HAI/AR Program

State

Monitors HAI rates and AR data and keep facilities informed regarding progress and opportunities

Initial outbreak response/consultations

Assist facilities with data reporting and validations

Partners with stakeholders to drive changes focused on decreasing HAIs and AR

Academia

Partners with facilities to assess & advance their IC and AS programs on voluntary basis

Assist with IC assessment during outbreaks

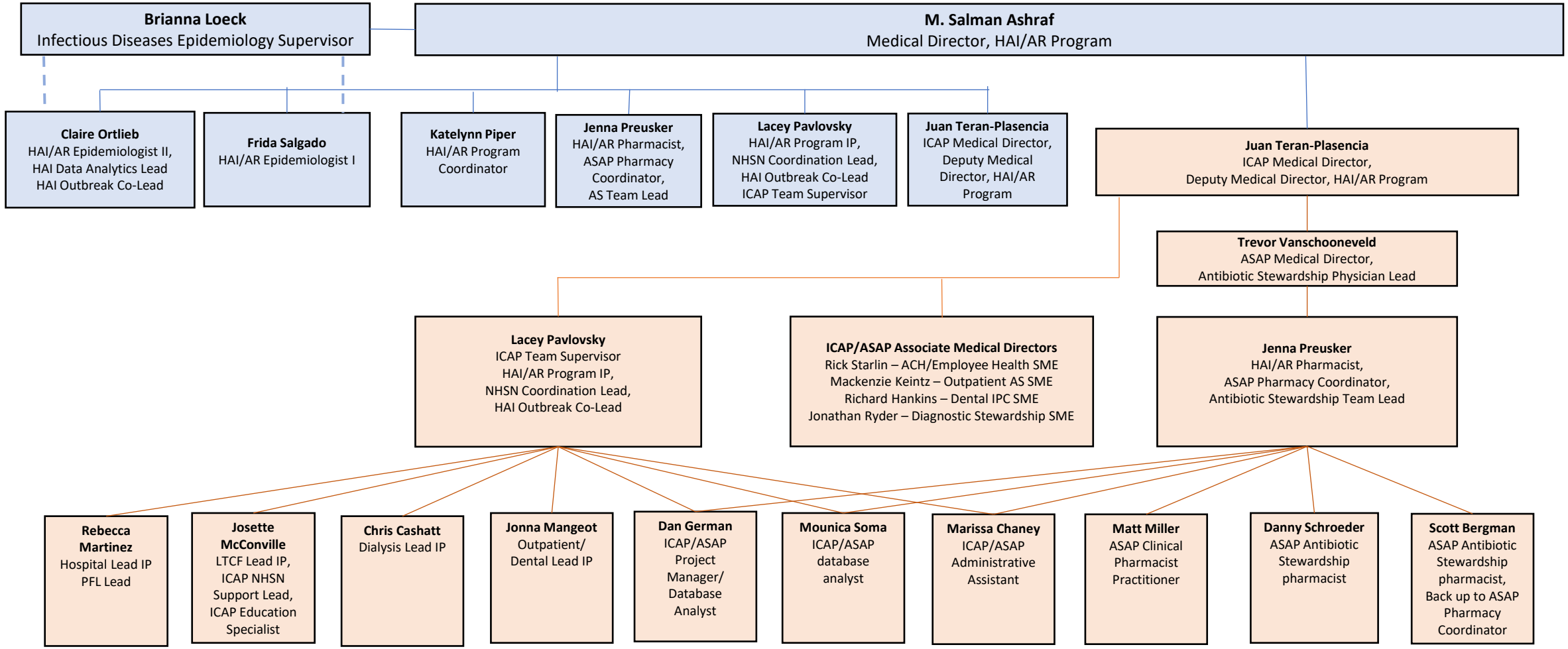
Connect all facilities in the state with IC and AS subject matter experts

Develop educational resources and guidance

PARTNERSHIP

- Nebraska Infection Control Assessment and Promotion Program (ICAP)
- Nebraska Antimicrobial Stewardship Assessment and Promotion Program (ASAP)

Nebraska DHHS HAI/AR Program



Notes:

1. This chart outlines the roles of HAI/AR program team members and represents day-to-day workflow. It does not reflect organizations' administrative reporting structure.
2. Administrative leaders for this collaboration are Sydney Stein, Robin Williams and Felicia Quintana-Zinn at NDHHS, David Warren at UNMC ID-Division and Angie Vasa at Nebraska Medicine
3. The chart only describes the primary responsibilities of the staff within HAI/AR program. Many staff members have secondary responsibilities of assisting other team members in their roles or may have additional responsibilities outside the HAI/AR program
4. Blue colored boxes identify staff with NDHHS credentials (either with or without additional responsibilities at ICAP or ASAP) and orange color boxes identify staff with primary responsibilities at ICAP, ASAP or both
5. HAI/AR Program IP and HAI/AR Pharmacist have primary responsibilities at both DHHS and ICAP/ASAP while Deputy HAI/AR Program assume primary responsibilities at DHHS too (in addition to ICAP/ASAP) in the absence of HAI/AR Program Medical Director
6. HAI/AR Program at DHHS is part of the Epidemiology Unit and reports to Epidemiologist Supervisor Brianna Loeck, who also has direct supervising responsibility for HAI AR epidemiologists and also support HAI/AR Program, as necessary, with daily responsibilities.
7. HAI/AR Program Coordinator position reports to Brian Coyle who is Program Manager II in the Epidemiology Unit
8. Both Brianna Loeck and Brian Coyle, reports to Robin Williams who is the Epidemiology Unit Administrator at DHHS

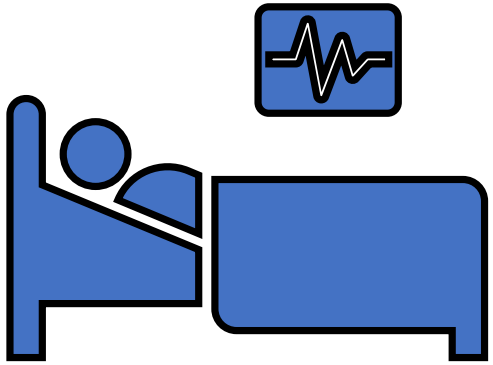
Updated 8/26/2026

HAI/AR Program Focus Areas

- Healthcare-Associated Infections
  - CAUTI – Cather Associated Urinary Tract Infection
  - CLABSI – Central Line Associated Bloodstream Infection
  - SSI – Surgical Site Infections
  - CDI – *C. difficile* infections
  - MRSA bloodstream infections
  - VAE – Ventilator Associated Events
- Multidrug Resistant Organisms
  - CPO – Carbapenemase Producing Organisms
  - *Candida auris*
  - Other highly resistant or novel pathogens (e.g. CRE, CRPA, CRAB, VISA/VRSA etc.)
- Outbreak prevention and containment
  - Cluster or transmission associated with any organism in a healthcare setting
- Infection Control Assessment and Response (ICAR)
- Antimicrobial Stewardship (AS) Program Assessment and Response
- Education and Training (Including Project Firstline)

Includes Surveillance, Reporting and Technical Assistance

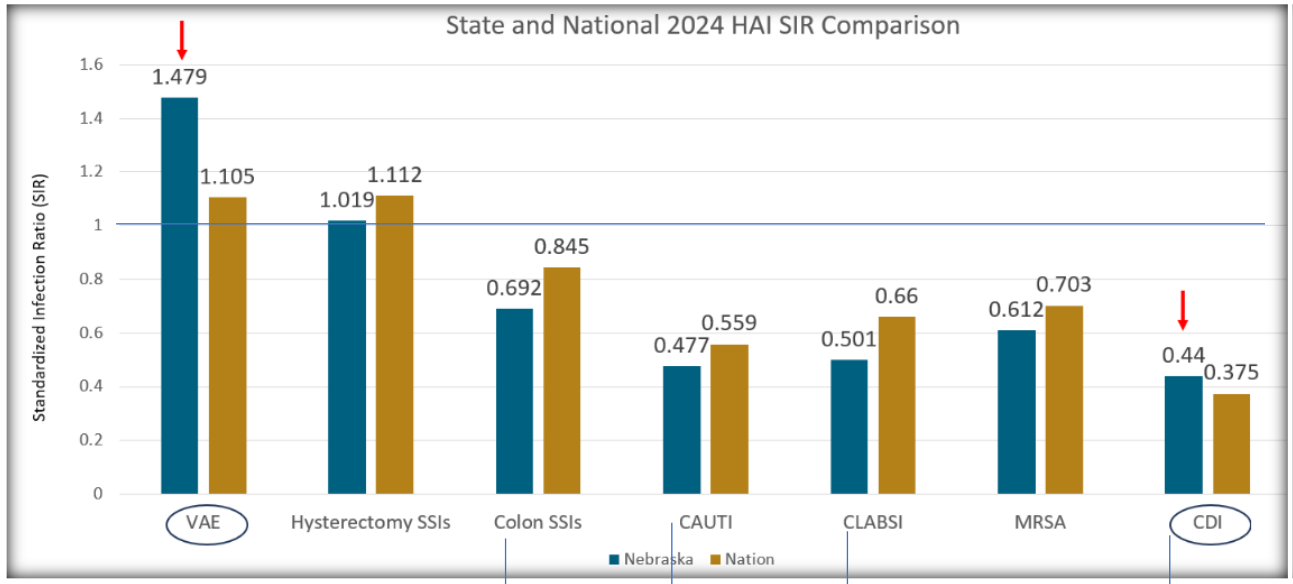
Includes Antibiotic Use Surveillance and Reporting



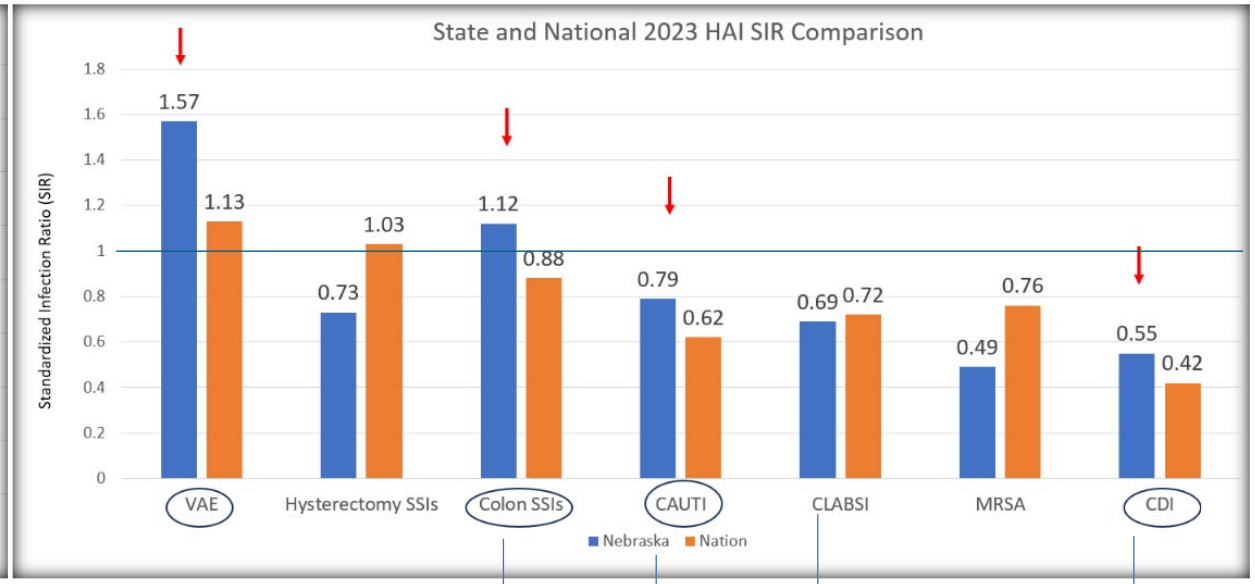
Healthcare-Associated Infections

2023-2024 HAI SIR: Nebraska Versus Nation

2024



2023



20% decrease

27% decrease

39% decrease

38% decrease

https://arpsp.cdc.gov/

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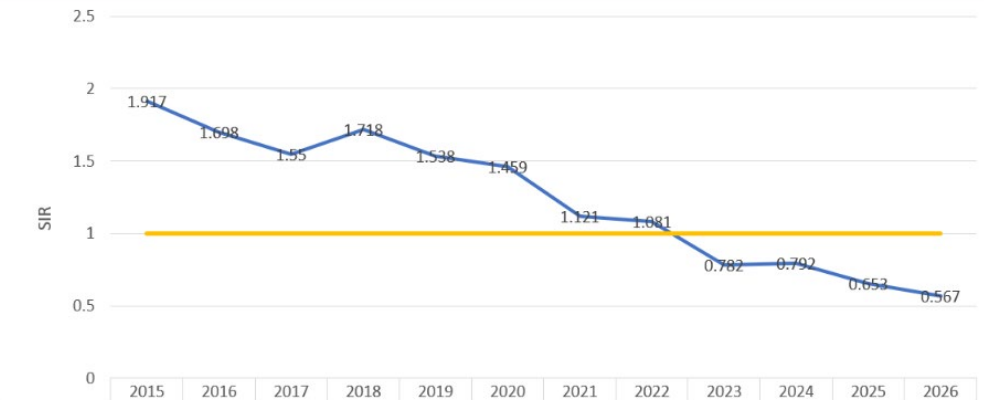
Healthcare-Associated Infections – Nebraska 2015-2026

Ventilator-Associated Event ACH (Total VAE) Nebraska 2015 to 2026



	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
SIR	1.917	1.698	1.55	1.718	1.538	1.459	1.121	1.081	0.782	0.792	0.653	0.567
Observed	210	209	231	264	219	343	241	181	145	131	104	53
Predicted	110	123	149	154	142	235	215	167	187	165	159	93
Goal	1	1	1	1	1	1	1	1	1	1	1	1

Includes Ventilator-Associated Conditions (VAC),Infection Related Ventilator Associated Complications (IVAC) and Possible Ventilator Associated Pneumonia (PVAP)

At least 2 days of stability followed by increased in PEEP or FiO2 will be needed for condition to be considered as VAE

Ventilator-Associated Event ACH (IVAC Plus) Nebraska 2015 to 2025

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
SIR	2.319	1.916	1.608	1.32	1.463	1.495	1.012	0.851	0.728	0.926	0.594
Observed	95	88	91	78	79	139	84	54	56	59	35
Predicted	41	46	57	59	54	93	83	63	71	64	59
Goal	1	1	1	1	1	1	1	1	1	1	1

Includes Infection Related Ventilator Associated Complications (IVAC) and Possible Ventilator Associated Pneumonia (PVAP)

In addition to minimum criteria mentioned for VAE, there needs to be a new antibiotic started along with change in WBC or Temperature

2015-2023 Data Source: NHSN – Include acute care hospitals conferring rights to DHHS.

2024-2026 Data Source- NHSN DUA Group

NHSN Data is from the 2015 Baseline

*VAE's are not required to be reported by CMS

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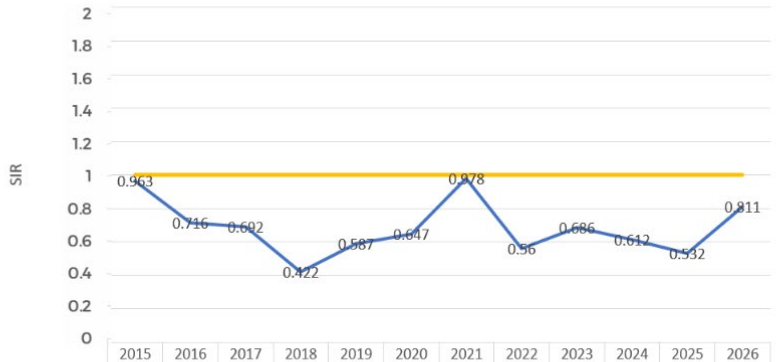
Healthcare-Associated Infections– Nebraska 2015-2026

CLABSI [ACH ALL LOCATIONS] – Nebraska 2015-2026

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
SIR	1.166	0.757	0.801	0.561	0.513	0.686	0.707	0.561	0.658	0.506	0.541	0.513
Observed	186	119	124	88	80	103	112	85	99	86	95	50
Predicted	159	157	155	157	156	150	158	152	106	170	176	97
Goal	1	1	1	1	1	1	1	1	1	1	1	1

MRSA Bacteremia [ACH] – Nebraska 2015 to 2026

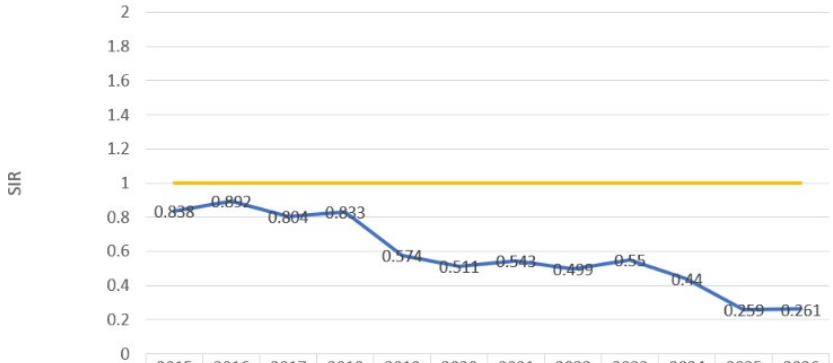


	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
SIR	0.963	0.716	0.692	0.422	0.587	0.647	0.978	0.56	0.686	0.612	0.532	0.811
Observed	44	35	36	23	32	34	53	33	38	33	34	25
Predicted	46	49	52	55	55	53	54	59	55	54	64	30
Goal	1	1	1	1	1	1	1	1	1	1	1	1

CAUTI [ACH ALL LOCATIONS] Nebraska 2015 to 2026

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
2015 Baseline SIR	0.961	0.865	0.858	0.866	0.693	0.731	0.892	0.898	0.734	0.487	0.493	0.468
2015 Baseline Observed	135	114	119	114	84	98	129	126	100	68	70	36
2015 Baseline Predicted	140	132	139	132	121	134	145	140	136	140	142	77
Target	1	1	1	1	1	1	1	1	1	1	1	1

CDI [ACH] – Nebraska 2015 to 2026



	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
SIR	0.838	0.892	0.804	0.833	0.574	0.511	0.543	0.499	0.55	0.44	0.259	0.261
Observed	394	477	477	436	273	216	242	224	253	204	122	53
Predicted	470	535	593	524	476	423	445	449	460	464	471	203
Goal	1	1	1	1	1	1	1	1	1	1	1	1

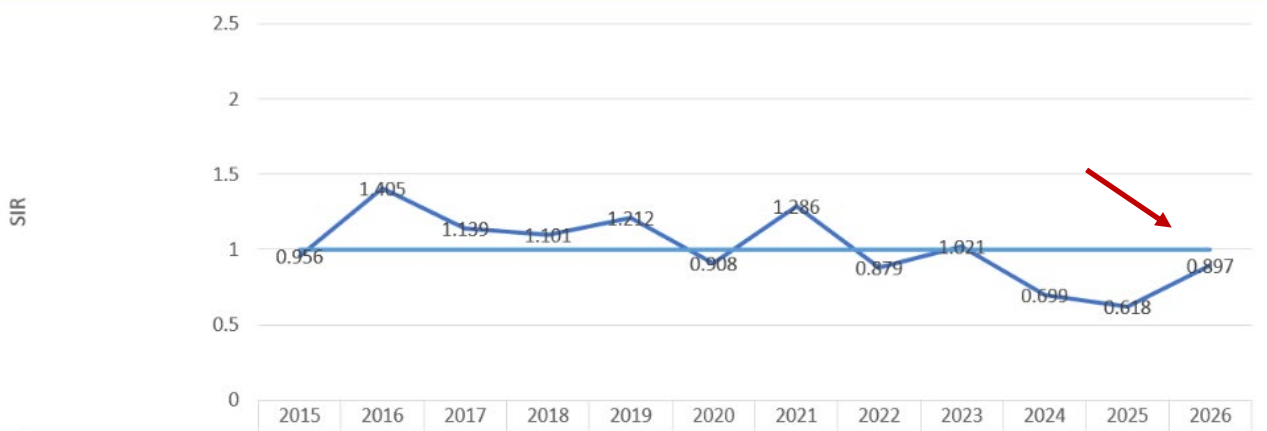
2015-2023 Data Source: NHSN – Include acute care hospitals conferring rights to DHHS
2024-2026 Data Source- NHSN DUA Group
NHSN Data is from the 2015 Baseline

Healthcare-Associated Infections – Nebraska 2015-2026

Surgical Site Infections [Abdominal Hysterectomy] ACH Nebraska 2015 to 2026

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
SIR	2.03	1.175	1.163	1.001	1.28	1.591	1.585	1.302	0.732	1.016	0.629	0.183
Observed Infections	26	15	13	12	18	16	19	15	9	13	7	*
Predicted Infections	13	13	11	12	14	10	12	12	12	13	11	5
Procedures Performed	1950	2089	2011	1931	2213	1645	1777	1747	1278	2014	1780	887
Goal	1	1	1	1	1	1	1	1	1	1	1	1

Surgical Site Infections [Colon] ACH Nebraska 2015 to 2026



	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
SIR	0.956	1.405	1.139	1.101	1.212	0.908	1.286	0.879	1.021	0.699	0.618	0.897
Observed Infections	42	73	55	58	61	42	71	46	55	41	36	26
Predicted Infections	44	52	48	53	50	46	55	52	54	59	58	29
Procedures Performed	1770	2050	1907	2063	1956	1773	2027	1992	2006	2240	2201	1068
Goal	1	1	1	1	1	1	1	1	1	1	1	1

2015-2023 Data Source: NHSN – Include acute care hospitals conferring rights to DHHS

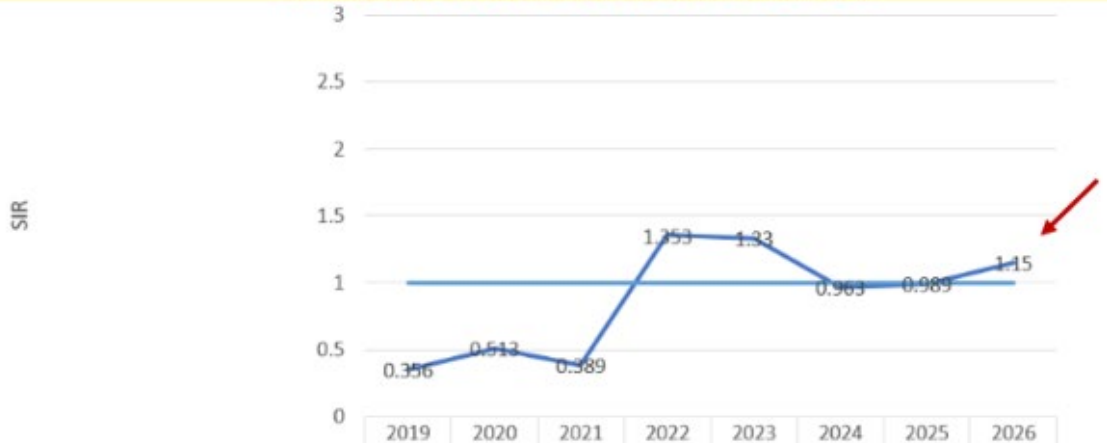
2024-2026 Data Source- NHSN DUA Group

* indicates count of 5 or less

NHSN Data is from the 2015 Baseline

Healthcare-Associated Infections – Nebraska 2019-2025

Surgical Site Infections [Hip Arthroplasty] ACH Nebraska 2019 to 2026



	2019	2020	2021	2022	2023	2024	2025	2026
SIR	0.356	0.513	0.389	1.353	1.33	0.963	0.989	1.15
Observed Infections	*	*	*	18	20	19	21	10
Predicted Infections	8	8	13	13	15	20	21	9
Number of facilities reporting	6	6	9	9	11	36	36	39
Goal	1	1	1	1	1	1	1	1

Surgical Site Infections [Knee Arthroplasty] ACH Nebraska 2019 to 2026

	2019	2020	2021	2022	2023	2024	2025	2026
SIR	0.684	0.754	2.06	1.312	1.117	2.028	1.312	1.127
Observed Infections	*	*	18	11	12	29	19	7
Predicted Infections	6	*	9	8	11	14	14	6
Number of facilities reporting	7	7	10	10	12	42	42	43
Goal	1	1	1	1	1	1	1	1

2019-2023 Data Source: CDC NHSN HAI Progress Reports. (includes ACH only).

2024-2026 Data Source- NHSN DUA Group (includes ACH and CAH)

* indicates count of 5 or less

NHSN Data is from the 2015 Baseline

*KPRO and HPRO SSIs are not required to be reported by CMS

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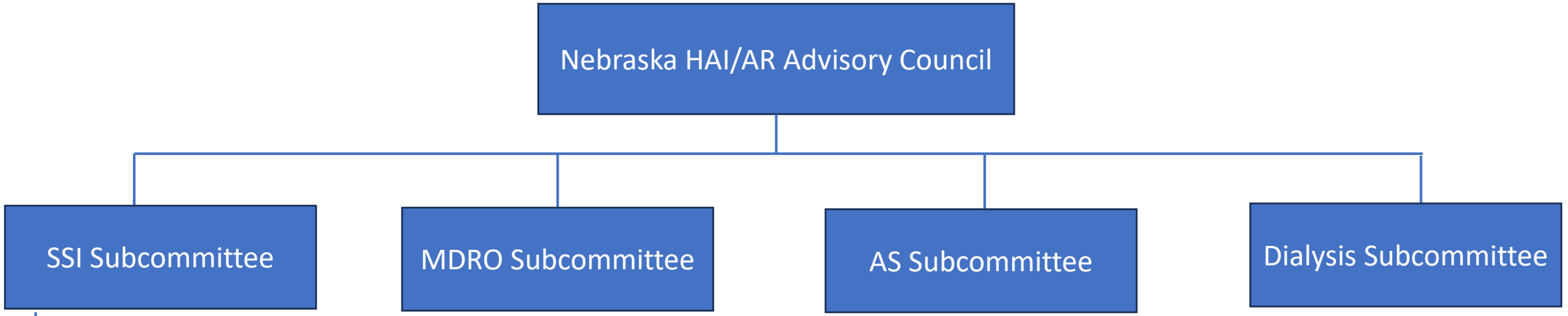
Nebraska SSI Response



Subcommittee formed in 2022.

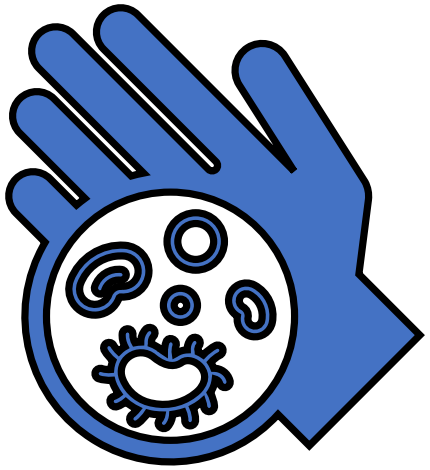
- Initial focus: Decreasing infections related to abdominal hysterectomy (HYST) and colon (COLO) surgeries.
- In 2023 a survey was sent to gain an understanding of general SSI prevention practices and HYST and COLO surgeries.
- Best practice guidelines were shared with healthcare partners and focused on-site SSI prevention assessments were conducted.

In 2025, subcommittee was re-formed with a focus on SSI prevention related to knee (KPRO) and hip (HPRO) replacement surgeries.

- Membership includes infection preventionists, surgeons, ID physicians, pharmacist, and state health department personnel.
- Developed a comprehensive survey to assess SSI prevention protocols and practices related to KPROs and HPROs.
- Survey to be sent out next week.
- Committee will analyze the survey, share results with hospitals, and develop educational resources for following best practices.

Nebraska ICAP will continue to be available and offer one-on-one assistance for hospitals, as needed.

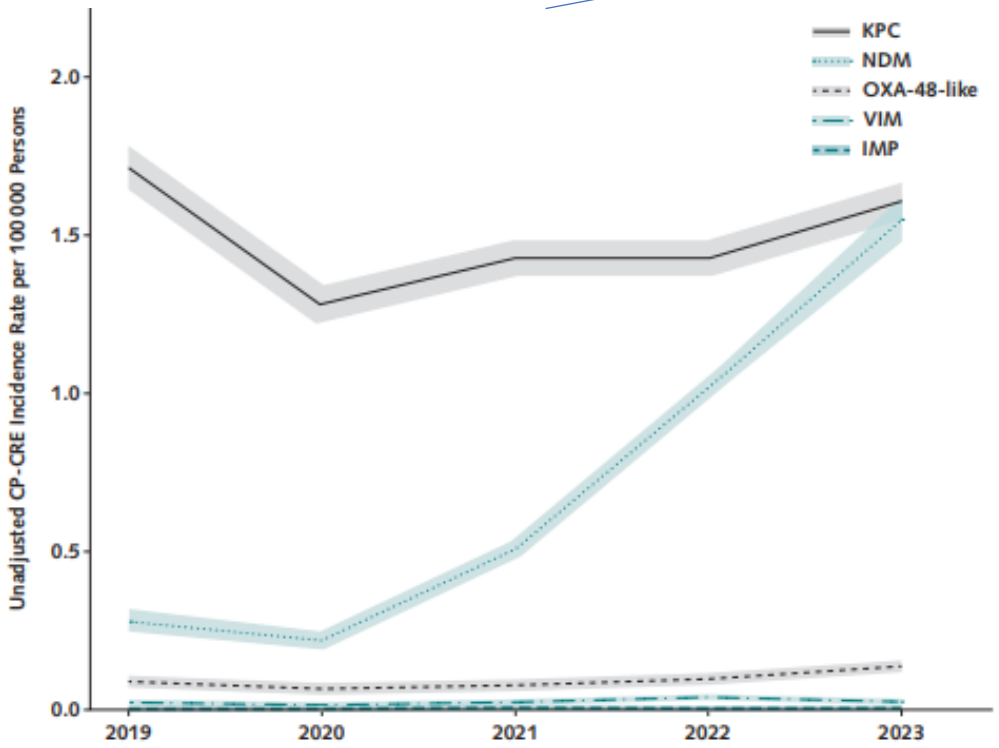
For additional information on the work done by SSI Subcommittee and Dialysis Subcommittee, see relevant posters from 2024 and 2026 respectively on Nebraska ICAP website: https://icap.nebraskamed.com/about-us/publications/

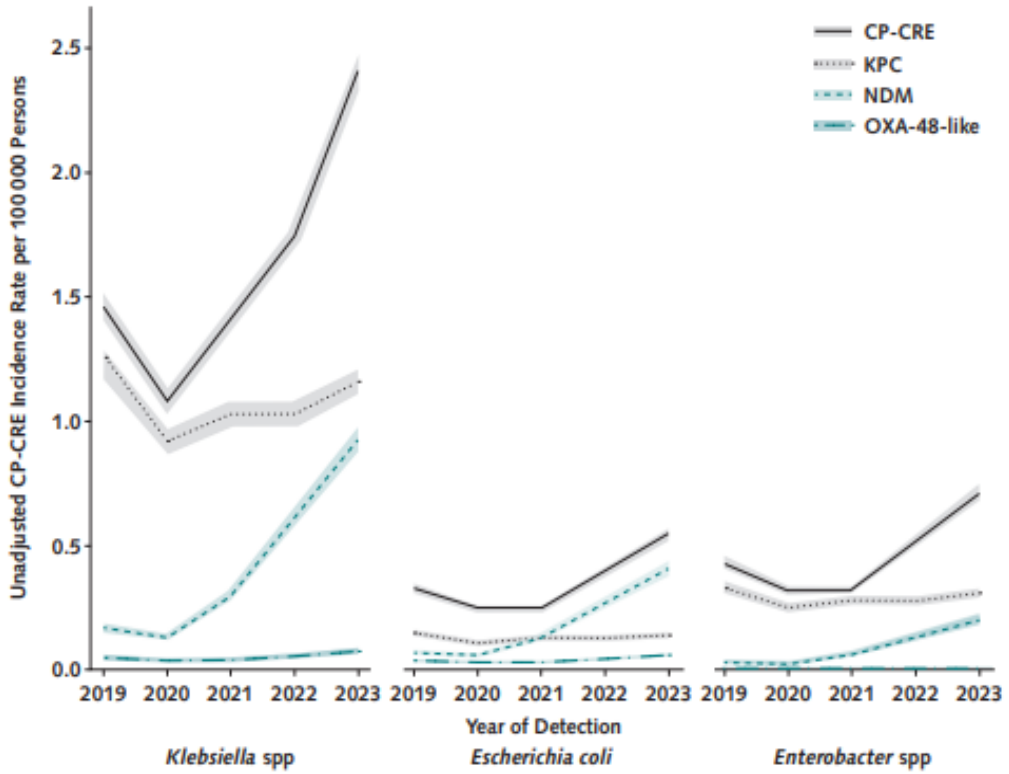


Multidrug-Resistant Organisms

Changes in Carbapenemase-Producing Carbapenem-Resistant Enterobacterales, 2019 to 2023

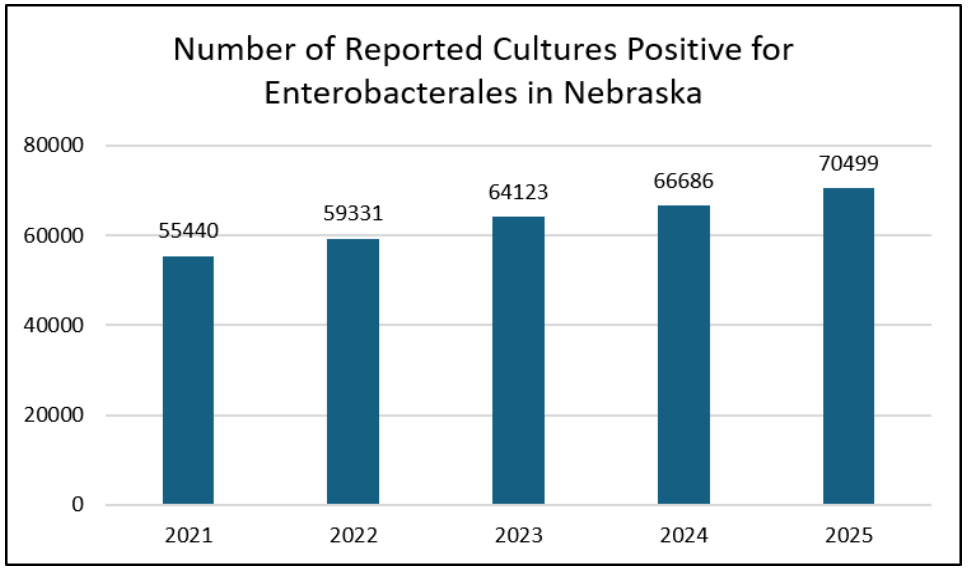
Figure. Unadjusted CP-CRE incidence rates per 100 000 persons across an open cohort of U.S. states with required CRE isolate submission, by carbapenemase gene (*top*) and by organism grouping and carbapenemase gene (*bottom*), 2019-2023.

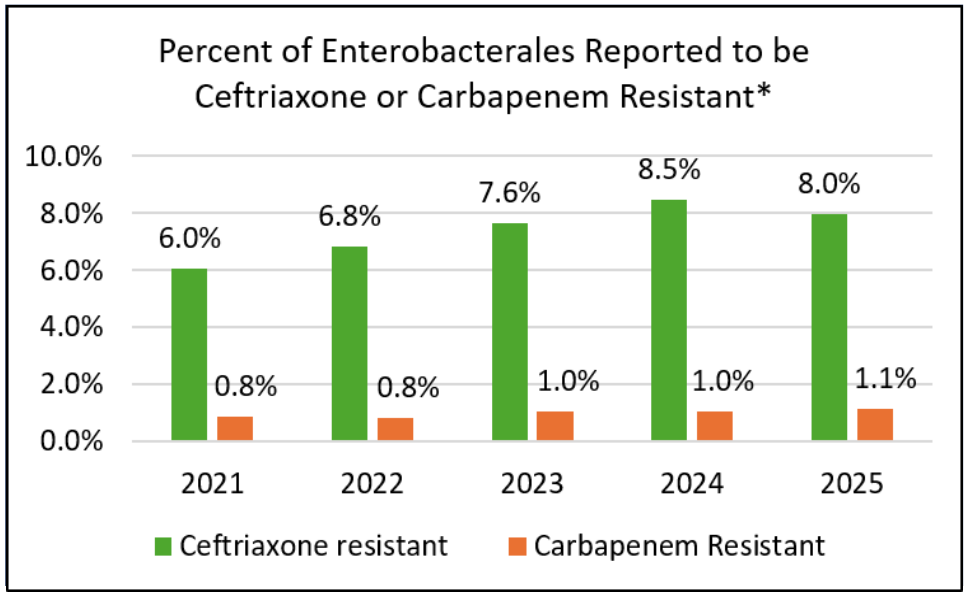


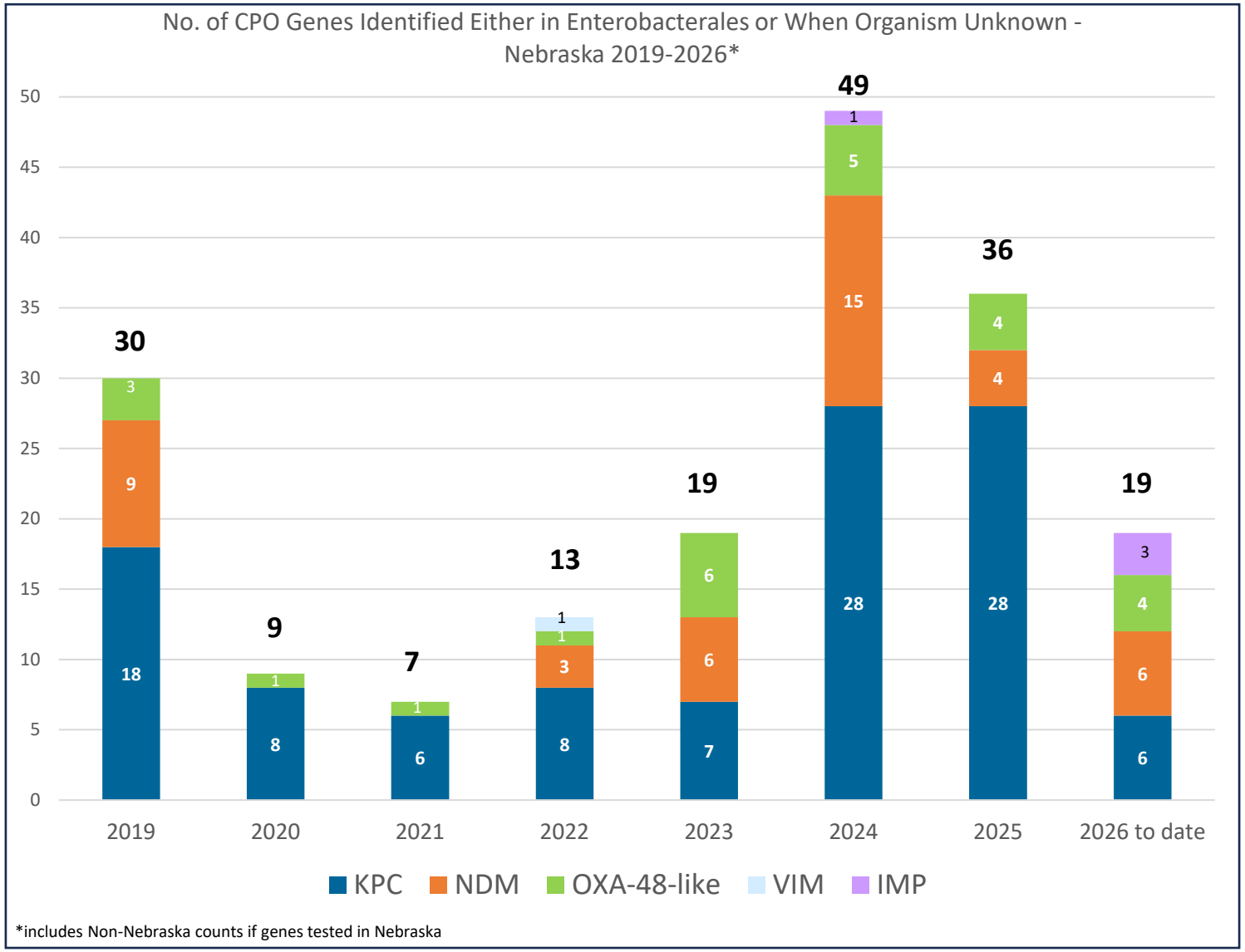


Rankin DA et al. Ann Intern Med. 2025 Sep 23;178(12):1818–1821.

Ceftriaxone and Carbapenem Resistance in Enterobacterales in Nebraska







*includes Non-Nebraska counts if genes tested in Nebraska

*Denominator includes isolates with unknown susceptibility results for both antibiotic group (<15% missing susceptibility over 5 years); Resistance rate after excluding those isolates will be slightly higher

Data Source: Electronic Lab Reports Submitted to NEDSS (Multiple isolates from same individual may be included)

Notes: Preliminary data (subject to change after further updates)

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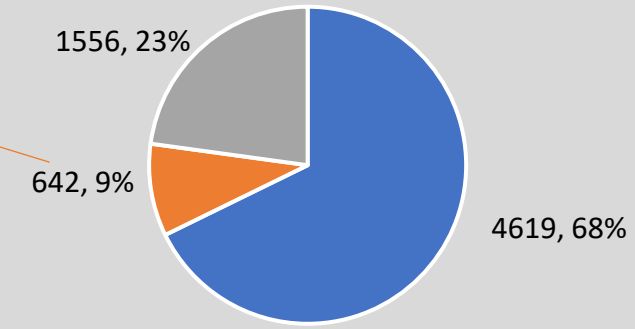
Carbapenem-Resistant *Pseudomonas aeruginosa* & *Acinetobacter baumanii* in Nebraska

Number of *Pseudomonas aeruginosa* isolates reported in Nebraska and their susceptibility pattern in 2025

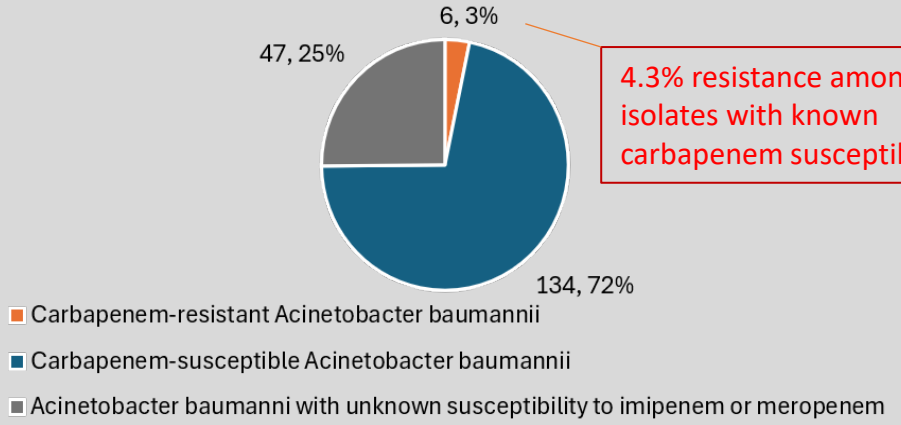
12% resistance among isolates with known carbapenem susceptibility. However, most (n=537, 84%) susceptible to either Cefepime or Ceftazidime



Data Source: Electronic Lab Reports Submitted to NEDSS (multiple isolates from same individuals may be included)
Note: Preliminary data (subject to change after further updates)

Number of *Acinetobacter baumannii* isolates reported in Nebraska and their susceptibility pattern from 2024-2025*

4.3% resistance among isolates with known carbapenem susceptibility



*Includes isolates that were reported as Acinetobacter baumannii. *Acinetobacter baumannii/haemolyticus, Acinetobacter calcoaceticus-Acinetobacter baumannii complex* and *Acinetobacter species*.

Data Source: Electronic Lab Reports Submitted to NEDSS (multiple isolates from same individuals may be included)
Note: Preliminary data (subject to change after further updates)

CPO Genes Identified in *P. aeruginosa**

Year	KPC	NDM
2022	1	0
2023	0	1
2024	0	1
2025 to date	0	0

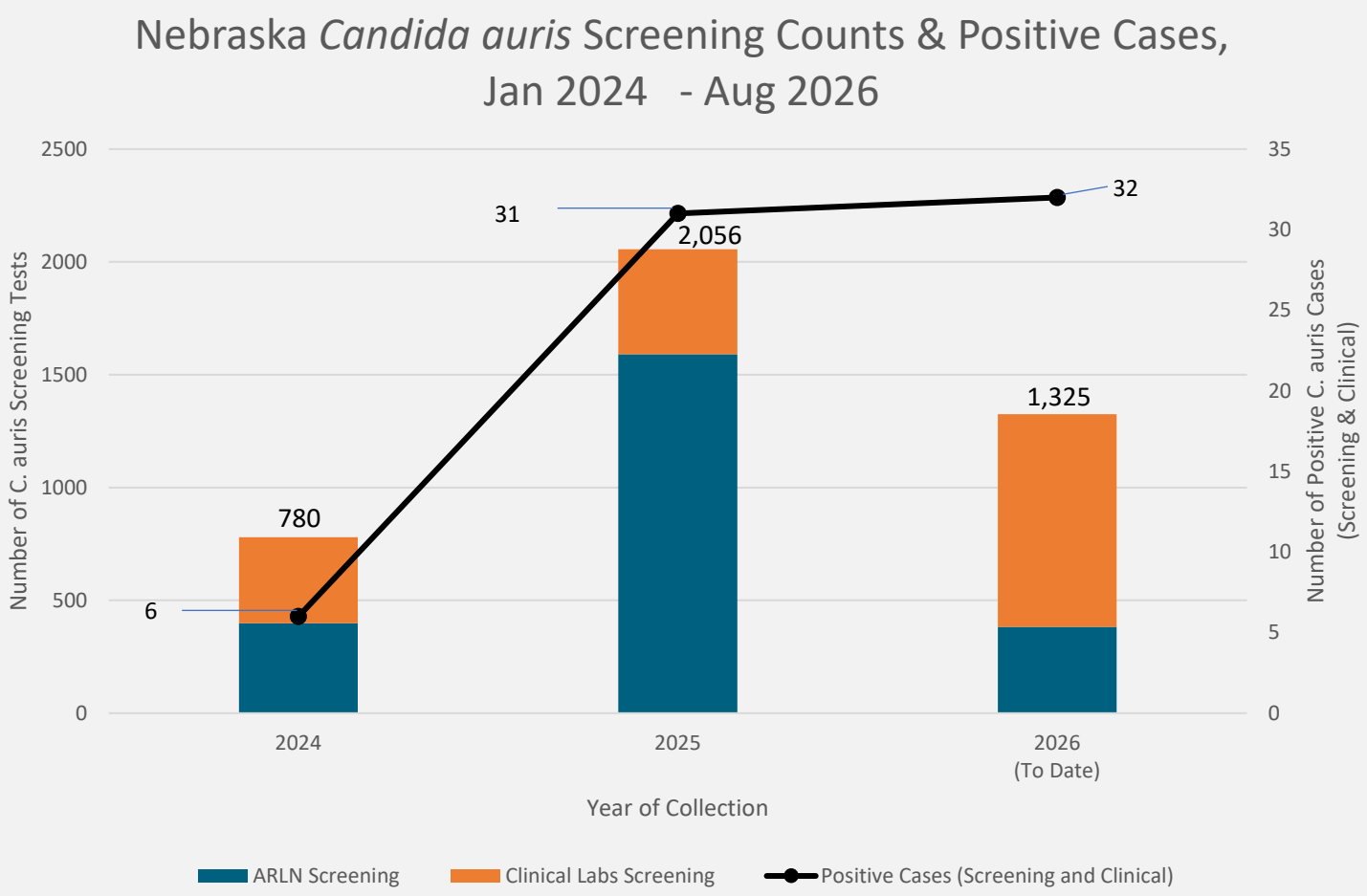
includes Non-Nebraska counts if genes tested in Nebraska

CPO Genes Identified in *Acinetobacter baumanii* *

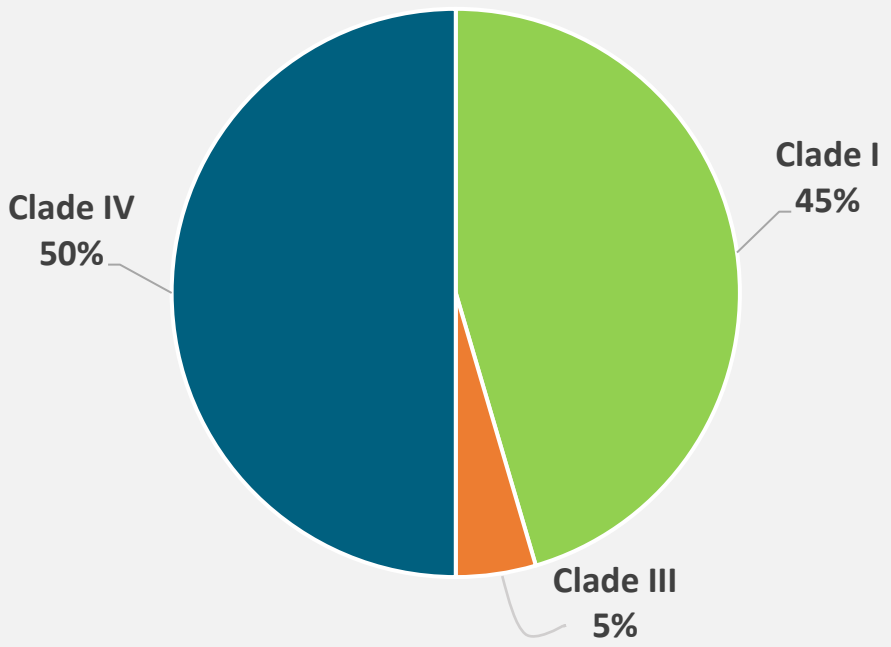
Year	OXA-23-like	OXA-24-like	OXA-48-like	Total
2023	0	1	0	1
2024	0	3	0	3
2025	4	0	0	4
2026 to date	6	0	1	7

includes Non-Nebraska counts if genes tested in Nebraska

Candida auris in Nebraska



Cases include all Nebraska residents with known *C. auris* positive isolates as well as non-Nebraska residents who were identified with *C. auris* in Nebraska.



Clade information is based only on results where *C. auris* was isolated via culture and underwent WGS

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C. *auris* Trend in the US

U.S. Centers for Disease Control and Prevention
MMWR
Morbidity and Mortality Weekly Report
Surveillance Summaries / Vol. 75 / No. 4
July 2, 2026

Surveillance for *Candida auris* — United States, 2022–2024

Results: During 2022–2024, a total of 13,507 clinical *C. auris* cases were reported to CDC, increasing from 2,882 in 2022 to 4,428 in 2023 and 6,197 in 2024, with smaller annual percentage increases over time (53.7% from 2022 to 2023 and 39.9% from 2023 to 2024). Most clinical cases occurred among adults aged ≥45 years (87.8%) and among males (61.0%). The most common specimen types among all clinical cases were urine (31.5%) and blood (30.2%); by year, the proportion of blood as the specimen type was 34.4% in 2022, 30.2% in 2023, and 25.6% in 2024. Most clinical cases were identified through specimens collected in acute care hospitals (76.6%) and long-term acute care hospitals (17.8%).

During the same period, a total of 27,853 screening cases were reported to CDC, increasing from 6,226 in 2022 to 9,195 in 2023 and 12,432 in 2024. Screening cases most frequently occurred among adults aged ≥45 years (90.0%) and males (57.9%). Among cases with known facility type, the proportion of specimens collected in acute care hospitals increased from 24.7% in 2022 to 50.7% in 2024, whereas the proportion of specimens collected in long-term acute care hospitals decreased from 56.1% to 35.7% during the same period.

Interpretation: The number of clinical and screening *C. auris* cases reported to CDC increased during 2022–2024, indicating ongoing transmission in U.S. health care settings. Although annual percentage increases in clinical cases declined over time, absolute case counts reported to CDC continued to rise. The increasing proportion of screening cases with specimens collected in acute care hospitals might reflect increased use of screening in acute care hospitals, including screening at admission.

Gold JAW et al. MMWR Surveill Summ. 2026 Jul 2;75(4):1-11.

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C. *auris* Monitoring in Wastewater

https://data.wastewaterscan.org/

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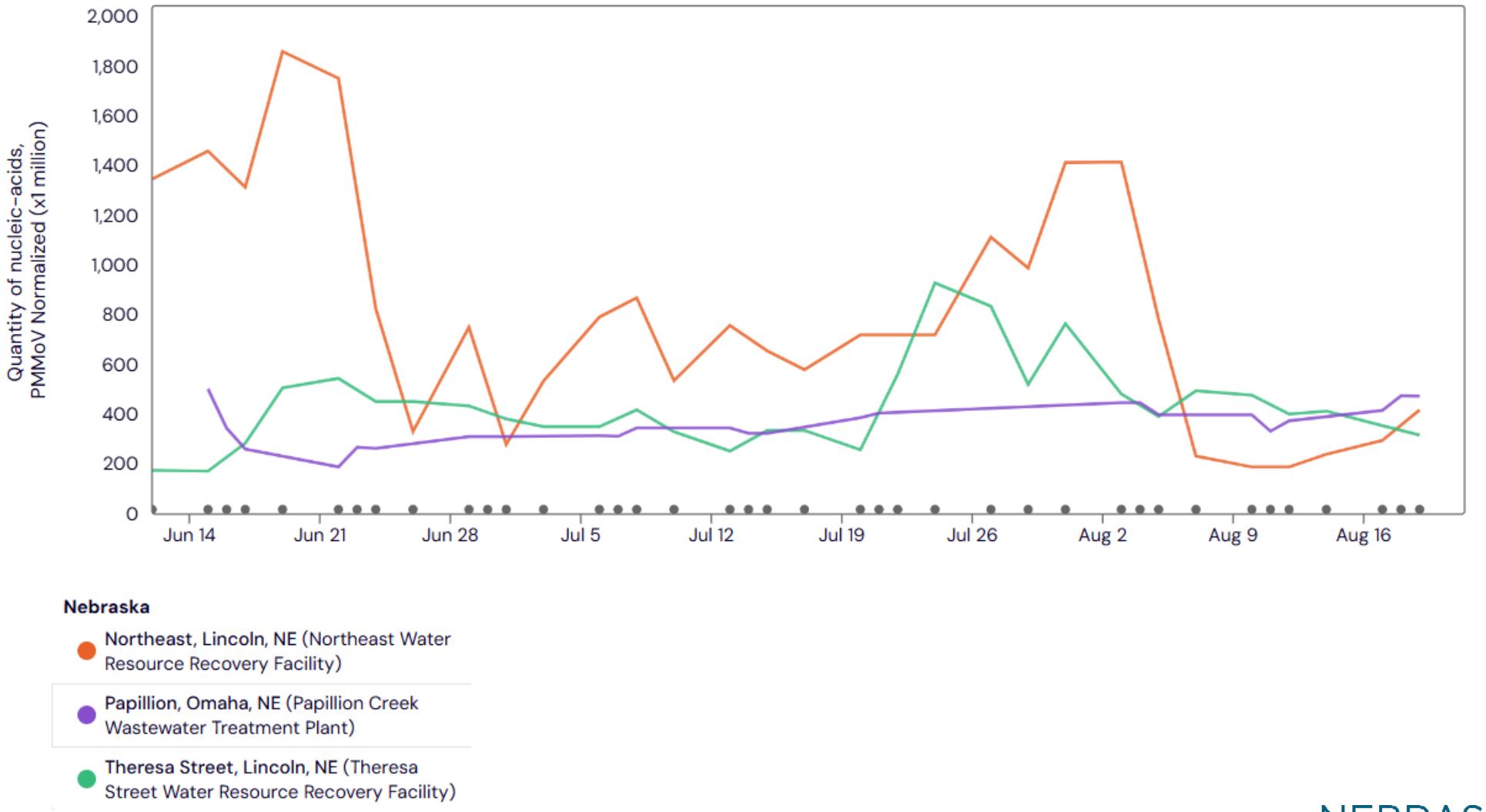
CPO Monitoring in Wastewater - blaNDM



https://data.wastewaterscan.org/

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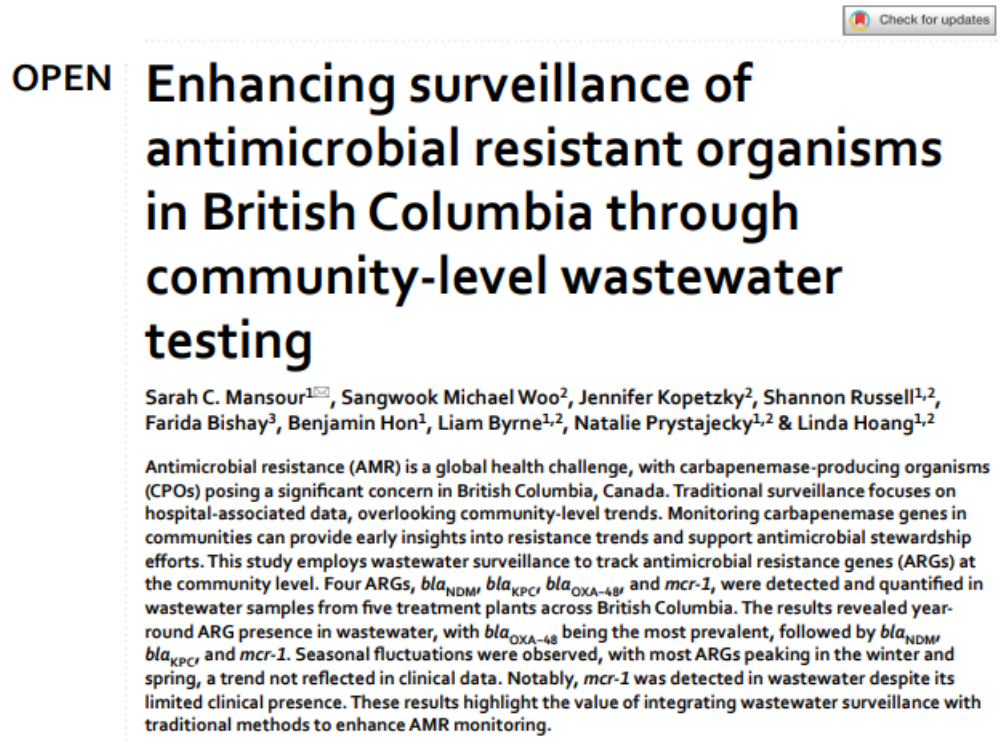
More Work is Needed to Establish Actionable Threshold for Carbapenemase Gene Detection in Wastewater

scientific reports



Check for updates

OPEN

Enhancing surveillance of antimicrobial resistant organisms in British Columbia through community-level wastewater testing

Sarah C. Mansour[1]✉, Sangwook Michael Woo[2], Jennifer Kopetzky[2], Shannon Russell[1,2], Farida Bishay[3], Benjamin Hon[1], Liam Byrne[1,2], Natalie Prystajecky[1,2] & Linda Hoang[1,2]

Antimicrobial resistance (AMR) is a global health challenge, with carbapenemase-producing organisms (CPOs) posing a significant concern in British Columbia, Canada. Traditional surveillance focuses on hospital-associated data, overlooking community-level trends. Monitoring carbapenemase genes in communities can provide early insights into resistance trends and support antimicrobial stewardship efforts. This study employs wastewater surveillance to track antimicrobial resistance genes (ARGs) at the community level. Four ARGs, bla_{NDM}, bla_{KPC}, bla_{OXA-48}, and *mcr-1*, were detected and quantified in wastewater samples from five treatment plants across British Columbia. The results revealed year-round ARG presence in wastewater, with bla_{OXA-48} being the most prevalent, followed by bla_{NDM}, bla_{KPC}, and *mcr-1*. Seasonal fluctuations were observed, with most ARGs peaking in the winter and spring, a trend not reflected in clinical data. Notably, *mcr-1* was detected in wastewater despite its limited clinical presence. These results highlight the value of integrating wastewater surveillance with traditional methods to enhance AMR monitoring.

"The results revealed year-round ARG presence in wastewater, with bla_{OXA-48} being the most prevalent, followed by bla_{NDM}, bla_{KPC}, and mcr-1. Seasonal fluctuations were observed, with most ARGs peaking in the winter and spring, a trend not reflected in clinical data."

"Interestingly, there was an uptick of AMR cases in October that was not reflected in the wastewater data. When further examining the relationship between total monthly clinical case counts and total monthly ARG wastewater load, no correlation was found (Kendall's tau value = 0.0923)"

Monsour SC et al. Sci Rep. 2025 Dec 20;16:2835

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Impact of MDRO Tracking/Alert System on MDRO Infection Rates

A multidrug-resistant organism tracking and alert system is associated with lower MRSA and CP-CRE infection rates at Veterans Affairs Medical Centers

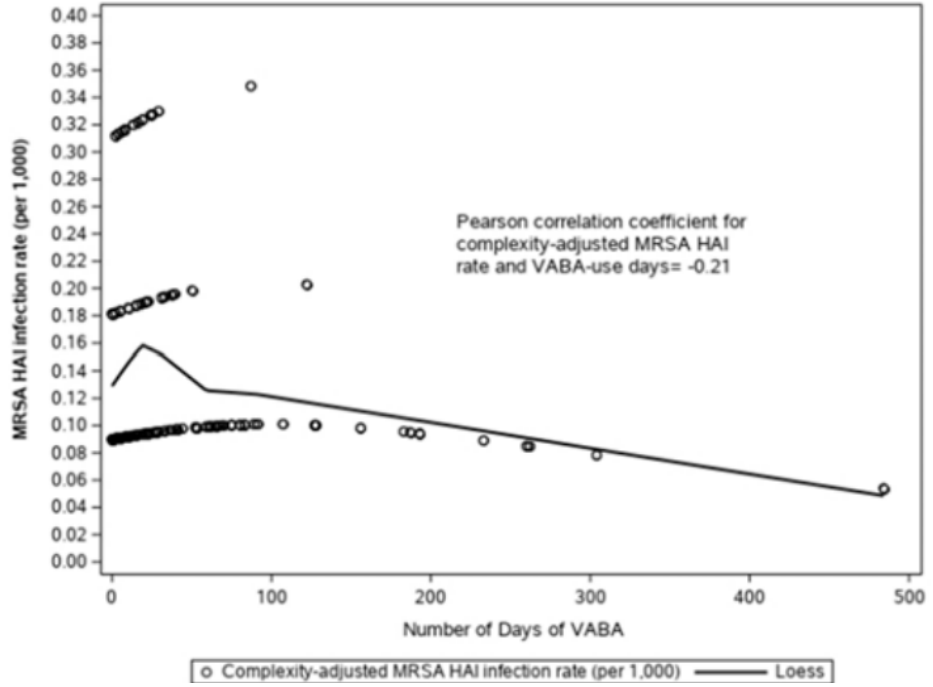
Amanda Vivo MPH[1], Cara Ray[1] PhD, Tarek El Ali MPH, MBA[2], Geneva M. Wilson PhD, MPH[1,3], Reside Jacob ScM[1], Makoto M. Jones MD, MS[4,5], Natalie R. Hicks MSN, RN[6], Christopher D. Pfeiffer MD, MHS[7,8] and Charlesnika T. Evans PhD, MPH[1,3]

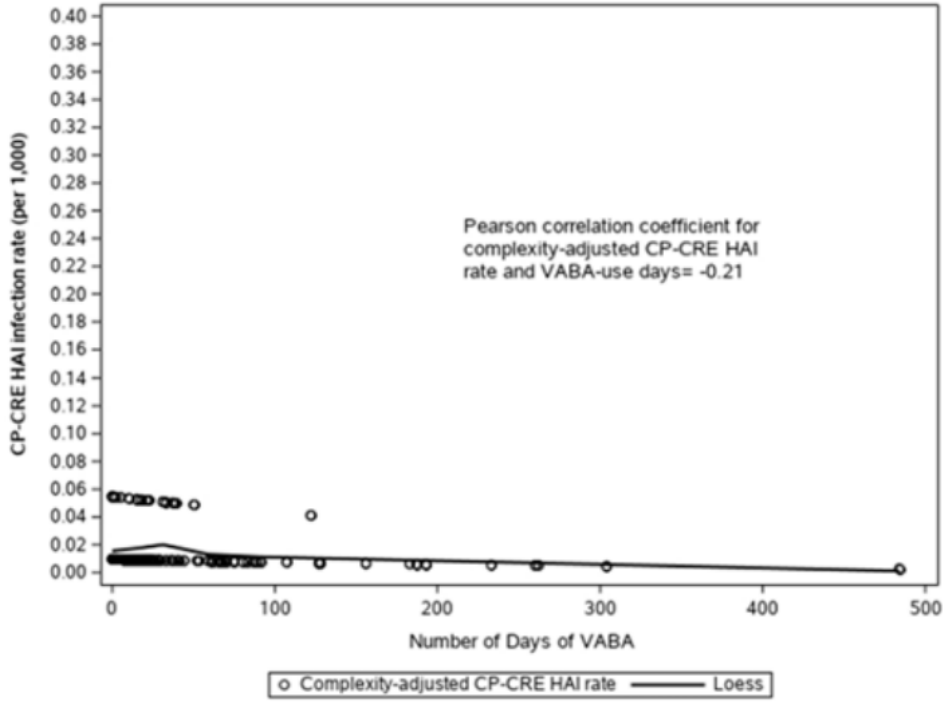
[1]VA Center of Innovation for Complex Chronic Healthcare, Hines VA Hospital, Hines, Illinois, USA, [2]Northwestern University Feinberg School of Medicine, USA, [3]Center for Health Services and Outcomes Research, Department of Preventive Medicine, Northwestern University, Chicago, USA, [4]VA Salt Lake City Health Care System, USA, [5]Division of Epidemiology, Department of Internal Medicine, University of Utah School of Medicine, Salt Lake City, USA, [6]National Infectious Diseases Service, Veterans Health Administration, US Department of Veterans Affairs, Washington, DC, USA, [7]Portland VA Health Care System, USA and [8]Oregon Health & Sciences University, USA

Abstract

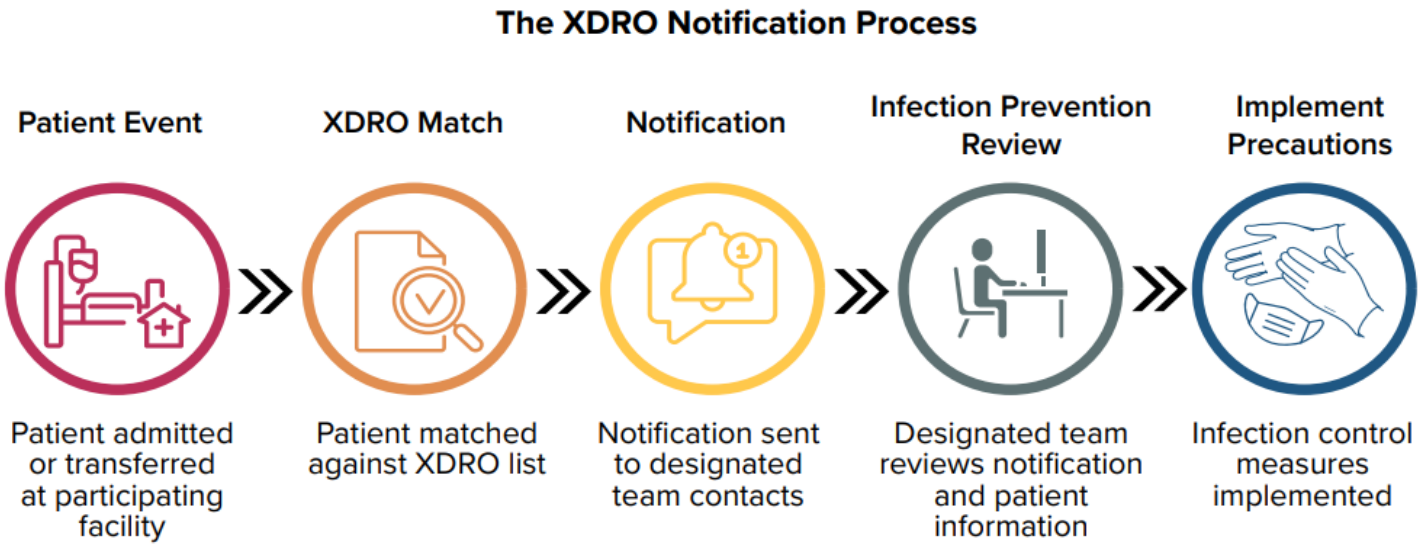
This study investigates Veterans Affairs Bug Alert (VABA) usage on methicillin-resistant *Staphylococcus aureus* (MRSA) and carbapenemase-producing carbapenem-resistant Enterobacterales (CP-CRE) infection rates in VA facilities. Significant association between increased VABA use and decreased MRSA and CP-CRE infection rates supports VABA as part of infection control strategies.

Vivo et al. Antimicrob Steward Healthc Epidemiol. 2026 Jul 14;6(1):e214





Admission Alert Automation for Extensively Drug-Resistant Organisms (XDRO) in Nebraska: CPO and C. Auris Notification Launch July 2026



The project is supported by Nebraska DHHS through partnership with CyncHealth.

After initial account creation users see a new tile on their landing page after signing into CyncHealth.

Facility IPC staff receive emails alerting them of an inpatient or ED admission event serving as a prompt to sign in for additional info

Program pilot launch date: 7/6/26

Official Go-Live Date: 7/30/26

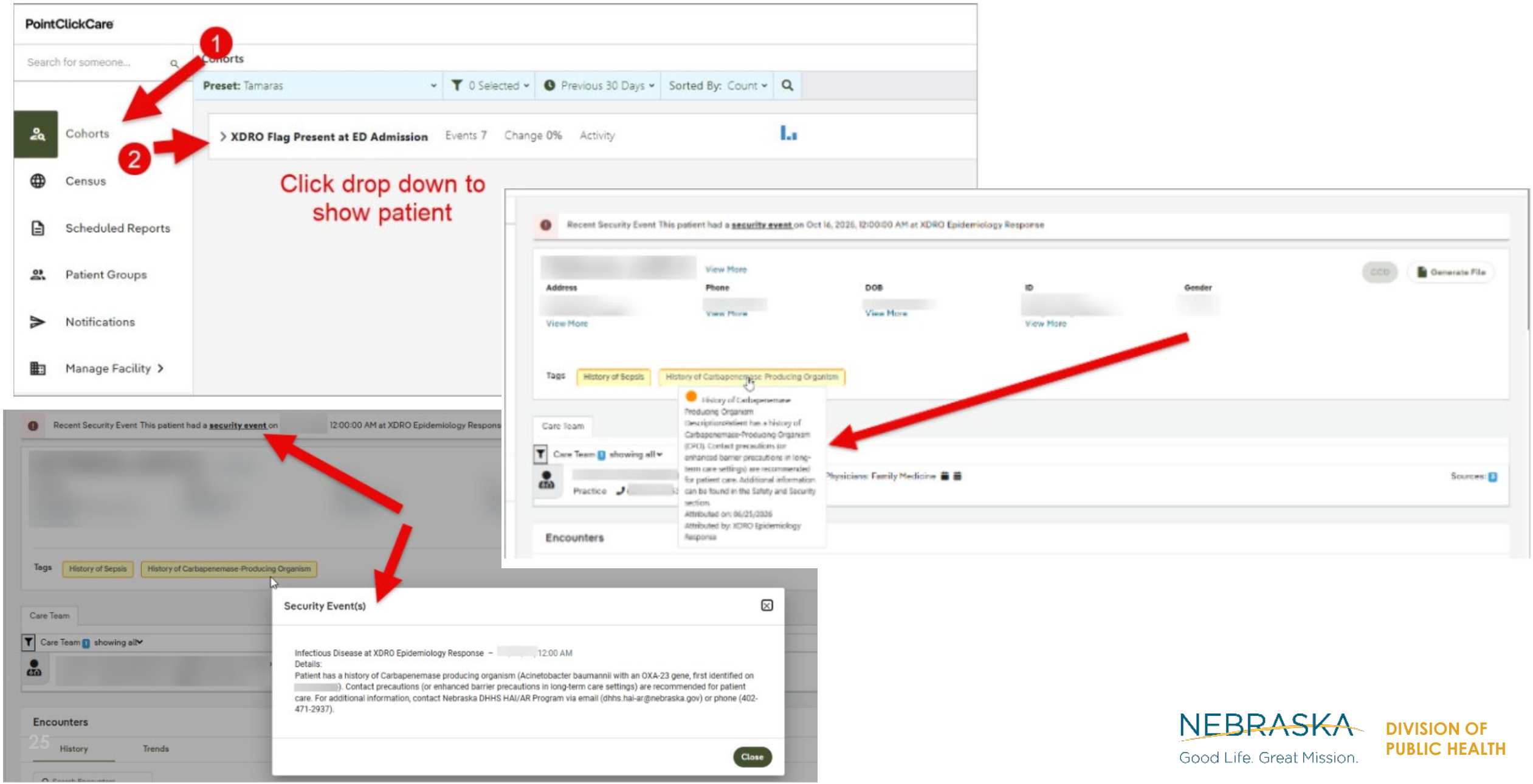
No. of facilities eligible to participate based on existing participation agreement with CyncHealth: 114

No. of facilities invited to join (pilot and phase 1): 85

No. of facilities fully onboarded (activated their accounts): 57 (as of 8/14/26)

No of facilities needing to engage with CH to either initiate or update their agreement at no cost to become eligible: 155

XDRO Notification Review



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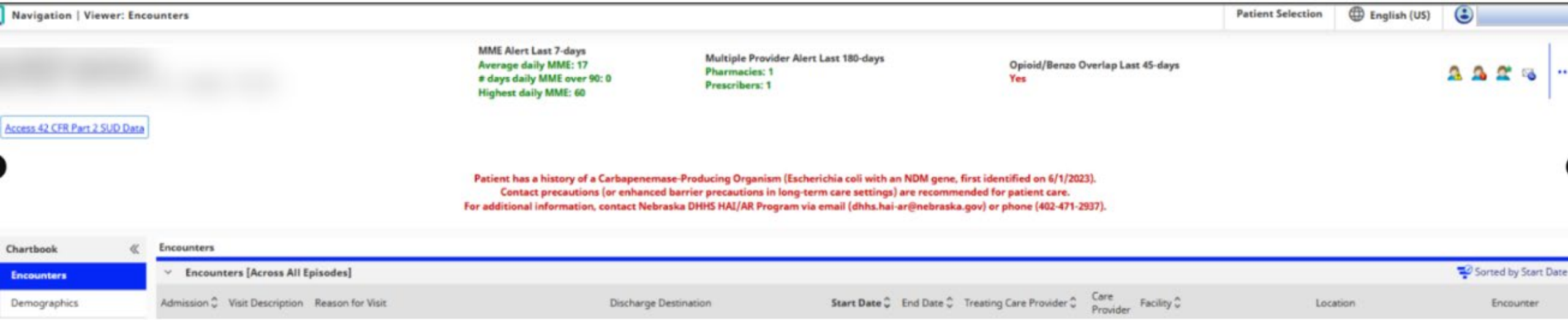
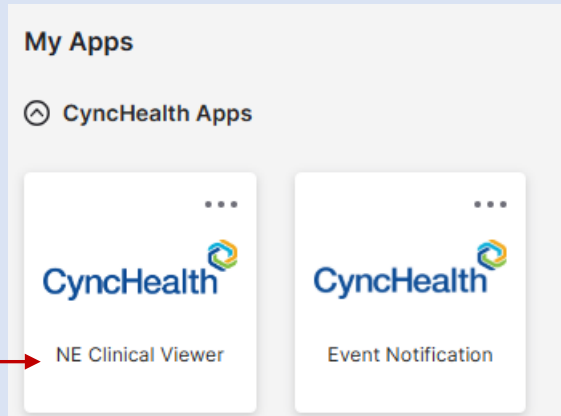
XDRO Alerts Also Available for Healthcare Providers Providing Care to the Colonized Patients



Healthcare providers with CyncHealth Clinical Viewer access can see the XDRO banner when reviewing patient chart in CyncHealth.



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Need to Strengthen IPC and AS Program Infrastructure of Small and Rural Healthcare Facilities

Some Examples of IPC and AS Program-Related Improvement Opportunities Identified in Nebraska:

▸ Antimicrob Steward Healthc Epidemiol. 2025 Sep 24;5(Suppl 2):s42–s43. doi: 10.1017/ash.2025.241

Analyzing Antibiotic Usage Rates Reported to NHSN by Nebraska Hospitals: Insights by Hospital Size and Rurality

Rabia Syed [1], Jenna Preusker [2], Juan Teran Plasencia [3], Trevor Van Schooneveld [4], Scott Bergman [5], Danny Schroeder [6], M Salman Ashraf [7]

"Compared to urban hospitals, rural hospitals reported 1.9 times the rate of ceftriaxone usage [95% CI: 1.4, 2.5], 2.3 times the rate of fluoroquinolone usage [95% CI: 1.6, 3.4], and 2.2 times the rate of azithromycin usage [95% CI: 1.6, 3.2]"

Oct. 21–24, 2026 • Washington, D.C. IDWeek Celebrating 15 Years

Title: Rurality-Associated Differences in Antimicrobial Stewardship Pharmacist Workforce, Leadership Support, and Practices Across Nebraska Hospitals

Authors: Jenna Preusker, Mounica Soma, M. Salman Ashraf, Lacey Pavlovsky, Danny Schroeder, Scott C. Bergman, Trevor C. Van Schooneveld, Jonathan H. Ryder, Juan Teran Plasencia

"Workforce differences were pronounced: rural hospitals had markedly fewer pharmacists with PGY2 ID residency/fellowship training ($p<0.001$). Completion of AS certificates were less common in rural settings ($p=0.012$). Reported leadership support was significantly lower as well. AS practices showed rural hospitals were less likely to have structured AS activities."

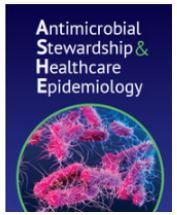
▸ Antimicrob Steward Healthc Epidemiol. 2025 Sep 24;5(Suppl 2):s131–s132. doi: 10.1017/ash.2025.385

Infection Prevention Program Infrastructure and Implementation of Best Practice Recommendations in Outpatient Healthcare Facilities

Kate Tyner [1], Jody Scebold [2], M Salman Ashraf [3], Dan German [4], Rebecca Martinez [5], Josette McConville [6], Mounica Soma [7], Juan Teran Plasencia [8]

"Domains with the lowest compliance (percentage of BPRs in place) included injection safety (48.8%), device reprocessing (49.7%), and personal protective equipment (51.8%). ……. Accredited facilities demonstrated greater compliance with BPRs related to device reprocessing."

Home > Journals > Antimicrobial Stewardship & Healthcare Epidemiology > Volume 4 Issue 1 > Resources needed by critical access hospitals to address...



Resources needed by critical access hospitals to address identified infection prevention and control program gaps

Published online by Cambridge University Press: **15 March 2024**

Mounica Soma, Jody Scebold, Angela Vasa, Teresa Ann Fitzgerald, Kate Tyner, Satya Kumar Lalam, Sue Beach and Muhammad Salman Ashraf Show author details

"The top three IPC gaps were absence of drug diversion program (77%), lack of audits and feedback for insertion and maintenance of central venous catheters (76%), and missing laboratory risk assessments to identify tests that can be offered safely for patients under investigation for HRP/SCD (76%). Standardized audit tools, educational resources, and staff training materials were cited as much-needed resources."

Rural Health Transformation Program (RHTP) Initiative 4.2b: Healthcare-Associated Infection (HAI) Prevention

Financial Support for:

CIC Certification for IPs

Online or in person training for AS pharmacists

Travel-related expense and staff time spent learning at Nebraska Infectious Diseases Conference

IT staff time spent in onboarding CHARM outpatient antibiotic use dashboard

No. of facilities with signed agreement: 41

No. of facilities with agreement under development: 27

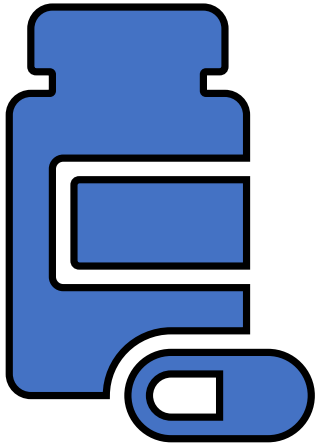
Projected No. of IPs receiving support for CIC certification: 50

Projected No. of AS pharmacists receiving support for AS training: 61

Projected No. of staff receiving support for attending Nebraska Infectious Diseases Conference: 109

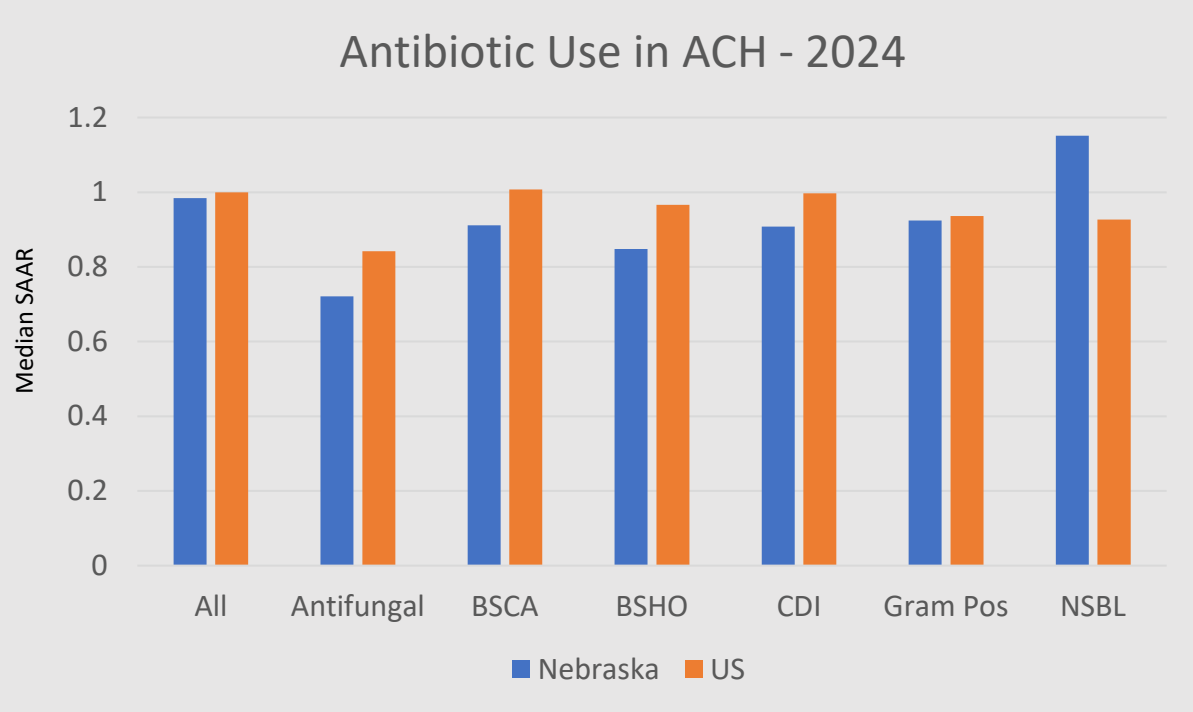
Projected No. of facilities receiving support for IT time spent in onboarding CHARM dashboard: 20

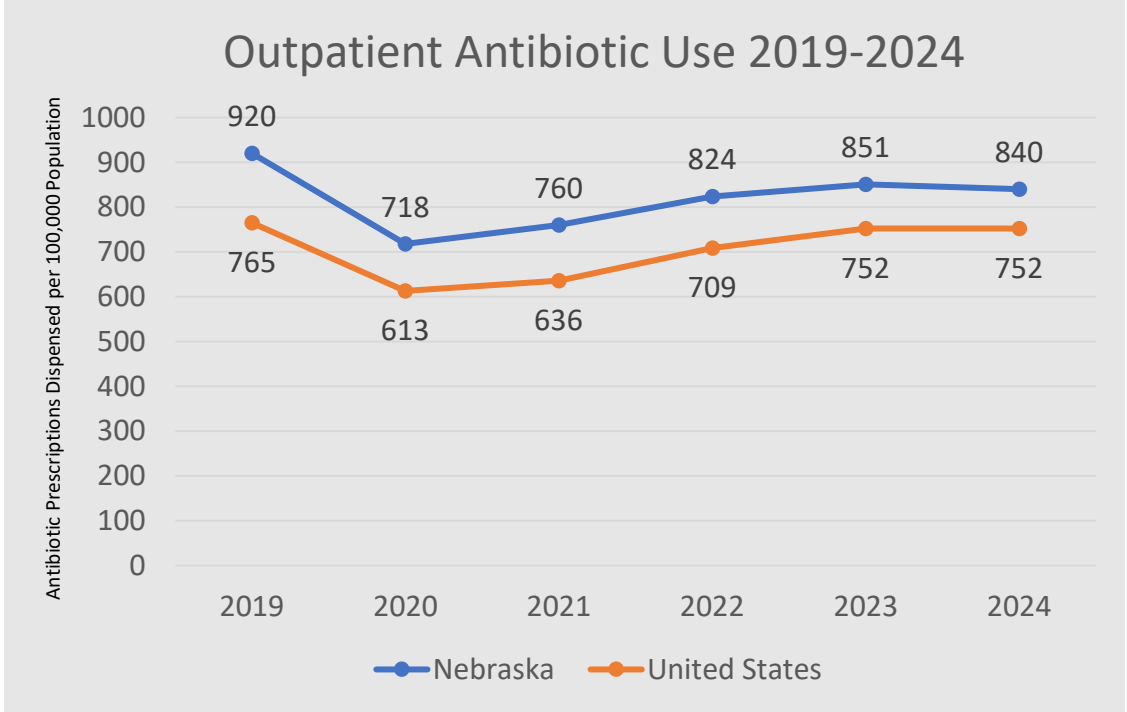
*Updated- 9:00am 8/24/2026



Antimicrobial Stewardship

Antibiotic Use in ACH and Outpatient Settings – Nebraska vs. Nation





https://arpsp.cdc.gov/

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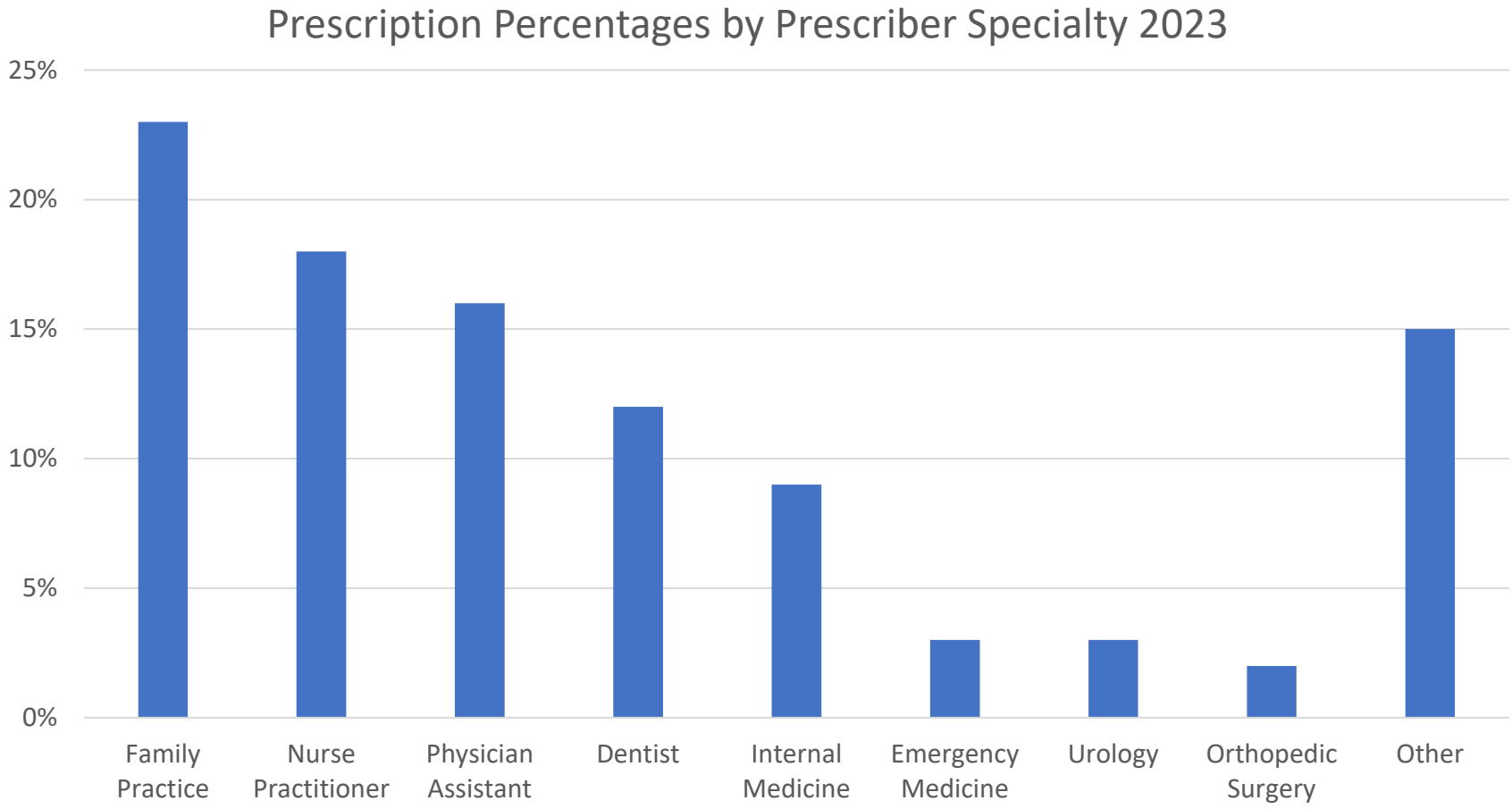
Outpatient Antibiotic Use by Prescriber Specialty– Medicare 2023



https://arpsp.cdc.gov/

Assisting Outpatient Clinics with AU Monitoring and Comparisons

Made Collaboration to Harmonize Antimicrobial Registry Measures (CHARM) free of charge for initial group of outpatient clinics

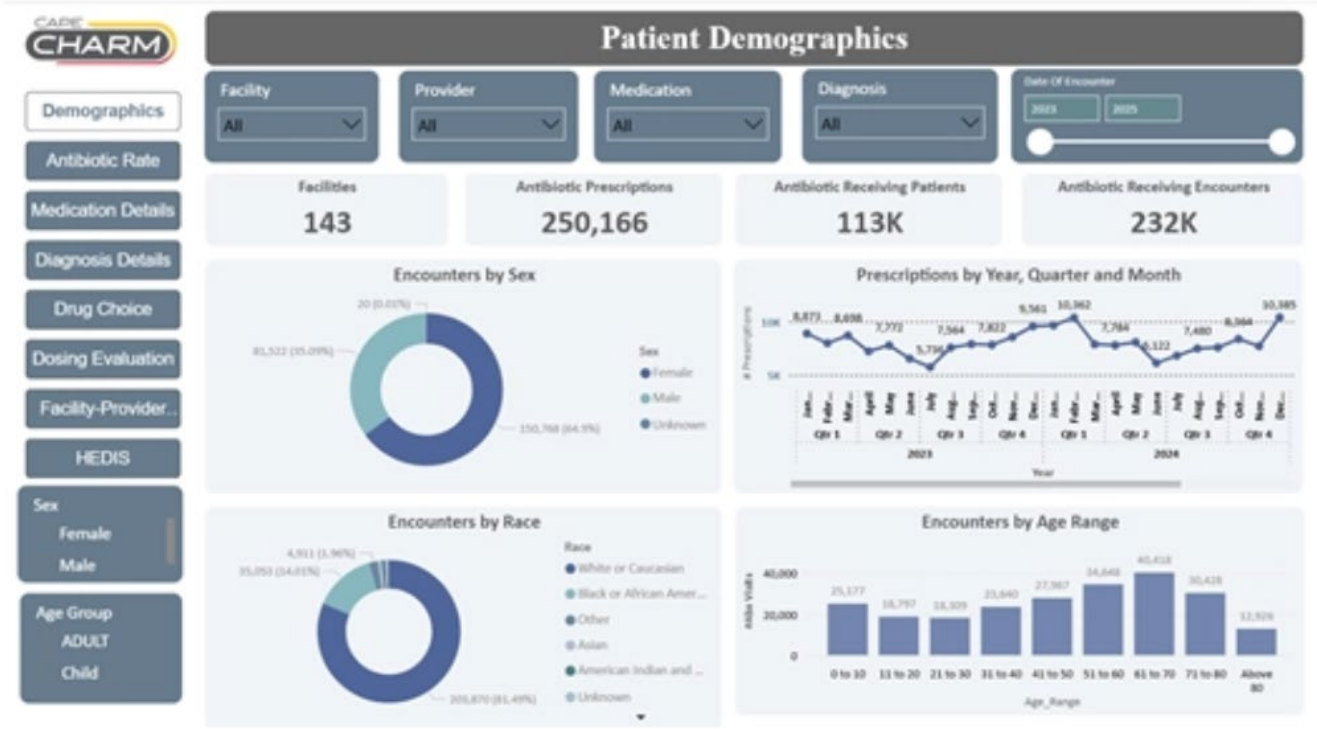
Made funding available for up to 20 organizations for cost reimbursement related to IT time spent in onboarding CHARM

27 organizations submitted applications

First 20 have been approved

5 DUAs are already signed

Clinics will be able to not only view their own dashboard but will have the ability to compare themselves with a state dashboard



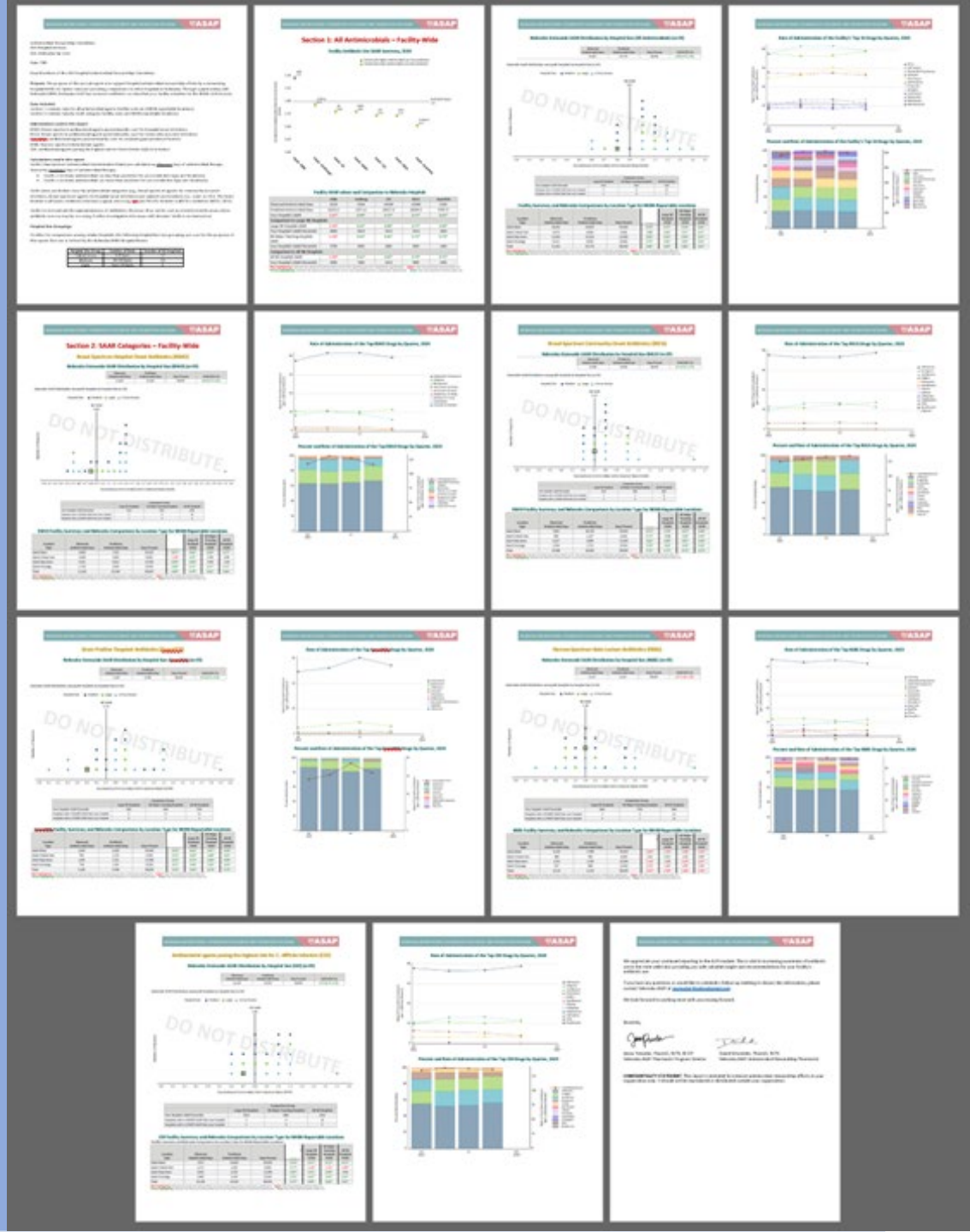
https://www.ferris.edu/cape/charm.htm

Participating clinics will also be able to request NE ASAP for one-on-one consultations related to strategies on improving their antibiotic use

Assisting Hospitals with AU Comparisons by Providing NHSN Antibiotic Use Reports

- State of Nebraska benchmarking data
  - Antibiotic categories
  - Specific antibiotic drugs
  - Hospital size
  - Location (ward, ICU, etc.)
- Facility-level data
  - Antibiotic usage rates by drug
  - Top 10 antibiotics used in each category
- Includes priority areas of focus for antibiotic stewardship efforts
- 55 hospital reports sent in September 2025
- Next reports planned for calendar year 2026, plan to send around March 2027

Note: Fictitious data for illustration purposes only



Assisting LTCF with AU Comparisons Through Nebraska Nursing Home AU Collaborative

Nebraska Antimicrobial Stewardship Assessment and Promotion Program (ASAP) Long-Term Care Facility Antibiotic Use Tracking Collaborative Commitment Letter

An opportunity is available for Nebraska long-term care facilities to collaborate with antimicrobial stewardship experts at the University of Nebraska Medical Center and Nebraska Medicine through the Nebraska ASAP program. Nebraska ASAP is non-regulatory and is funded by the Nebraska Department of Health and Human Services Healthcare Associated Infections and Antimicrobial Resistance (HAI/AR) Program through a CDC grant. The aim of the Nebraska ASAP Long-Term Care Facility Antibiotic Use Tracking Collaborative is to provide participating long-term care facilities with both facility-specific and benchmarked state of Nebraska antibiotic use information to guide their antibiotic stewardship initiatives.

_____(Facility Name) is opting to participate in the Nebraska ASAP Long-Term Care Facility Antibiotic Use Tracking Collaborative.

As part of this collaborative, the Facility agrees to:

- Submit aggregated monthly facility antibiotic use data to the secure, online database developed by Nebraska ASAP.
  - Minimum monthly data submission will include:
    - Days of Antibiotic Therapy
    - Number of antibiotic starts
    - Total resident days
  - Optional monthly data (if chosen by the facility and pharmacist) may include:
    - Short-stay resident numbers
    - Number of infections treated in the facility by indication
    - Appropriateness of antibiotic prescriptions based on consultant pharmacist review
    - Facility antibiotic use by agent

Note: Monthly data submission can be completed by any of the facility's staff members (e.g., infection preventionist, director of nursing, administrator etc.) or their consultant pharmacist.

☐ Check this box if facility agrees to allow their consultant pharmacist(s) to submit the data on facility's behalf

Started in 2025

Currently 42 (~20% of all NH) are enrolled in this collaborative

40 facilities actively reporting

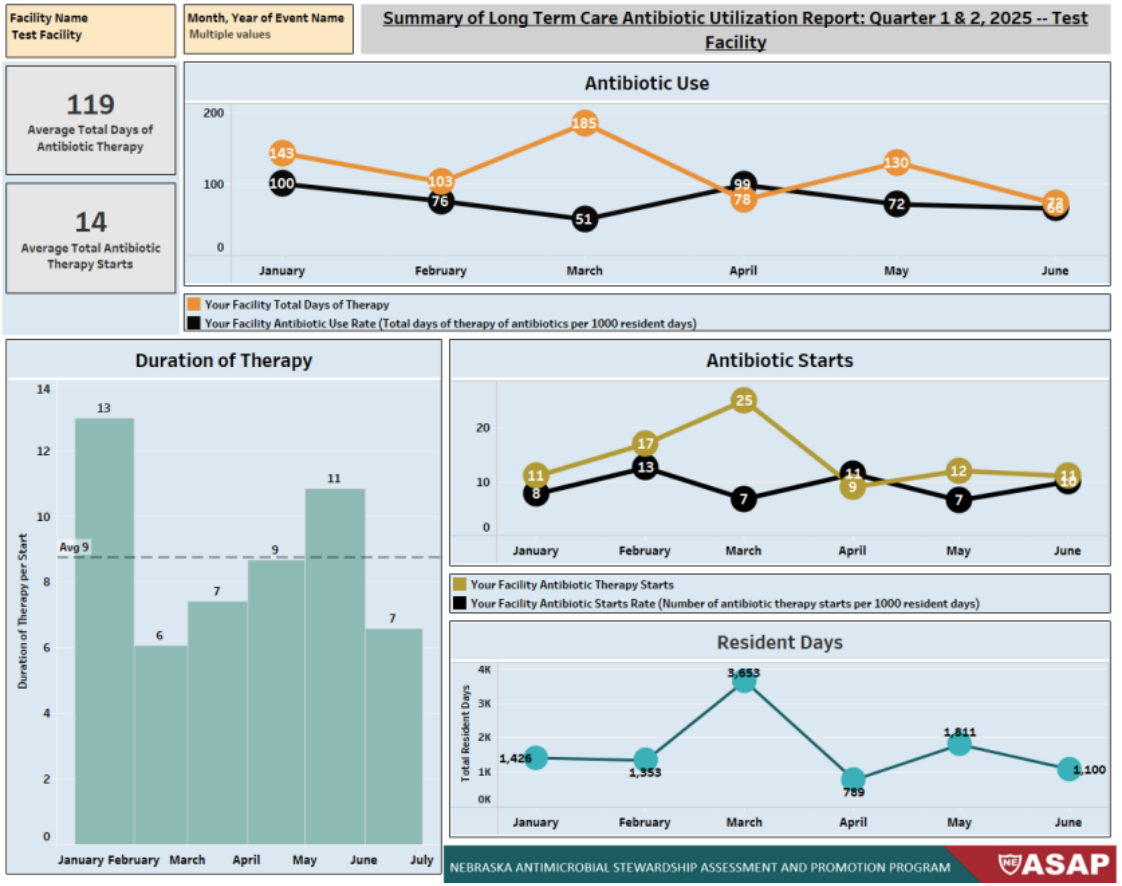
26 reporting at least some optional data; may include use of specific antibiotics

Commonly use data sources by facilities include EHR infection control module or Antibiotic use logs

Facilities receiving Quarterly Reports

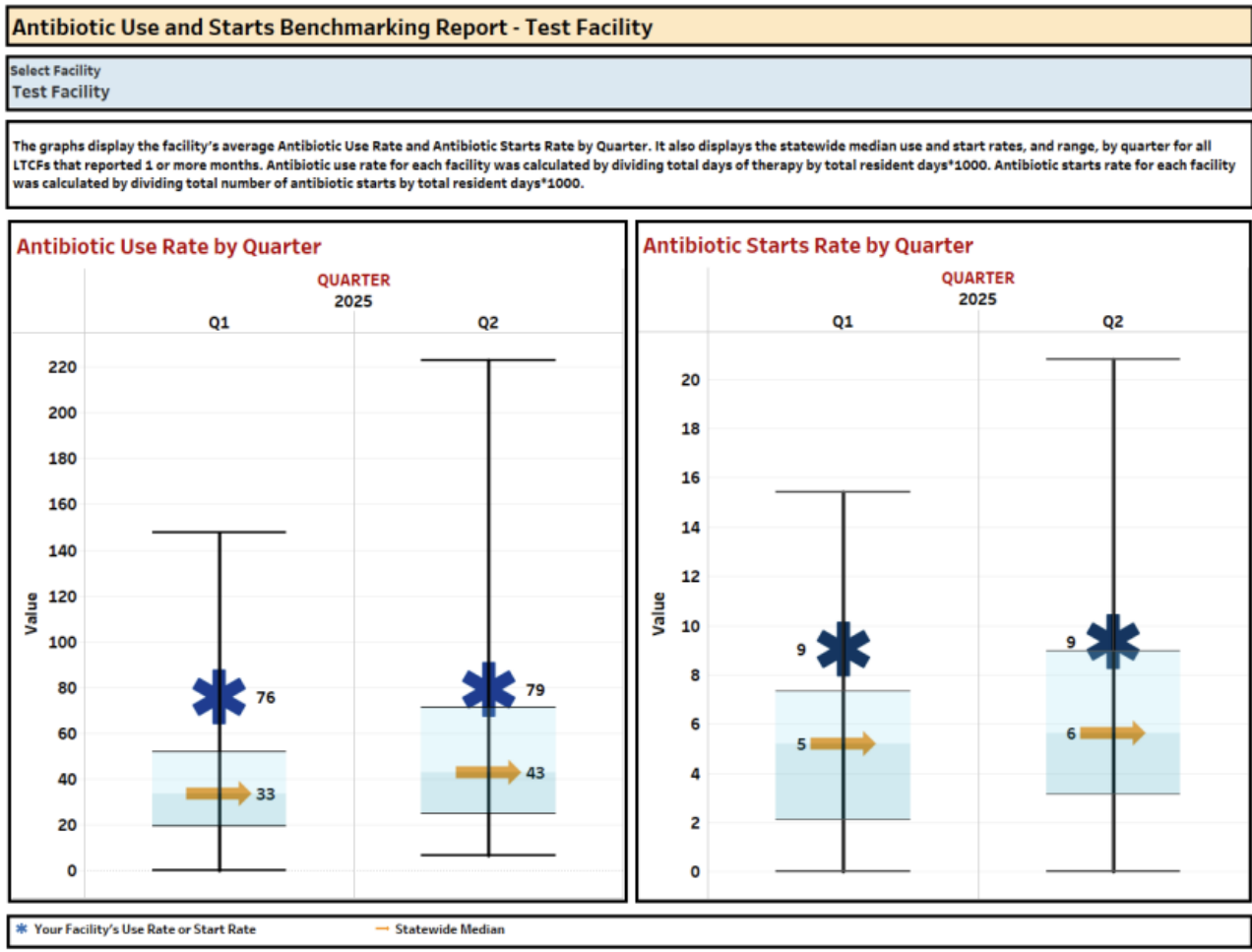
Facilities also have an option to ask for 1:1 feedback meeting

Sample Quarterly Report Received by Facilities Participating in Nebraska NH Antibiotic Use Collaborative



Facility Level Data – Page 1

Comparative Data – Page 2



Recently Published Studies On LTCF Antibiotic Use Assessment Through Partnership with LTC Pharmacy or EHR Vendors at National Level

Description of national antibiotic prescribing rates in U.S. long-term care facilities, 2013–2021

Katryna A. Gouin MPH[1], Stephen Creasy PharmD[2], Mary Beckerson MS[2], Martha Wdowicki PharmD[2], Lauri A. Hicks DO[1] and Sarah Kabbani MD, MSc[1]

[1]Division of Healthcare Quality Promotion, National Center for Emerging and Zoonotic Infectious Diseases, U.S. Centers for Disease Control and Prevention, Atlanta, GA, USA and [2]PharMerica, A BrightSpring Health Services Company, Louisville, KY, USA

Data Source:
- LTC Pharmacy: PharMerica, a BrightSpring Health Services Company
- Reported DOT: 91 per 1000 resident days in 2013 to 84 in 2021

Limitations/Challenges to Adaptation:
- Dataset not available widely for facilities to use
- Only facilities using a specific pharmacy will be represented

Description of antibiotic use variability among US nursing homes using electronic health record data

Sarah Kabbani MD, MSc[1], Stanley W. Wang MA, MS[2], Laura L. Ditz RN[2], Katryna A. Gouin MPH[1], Danielle Palms MPH[1], Theresa A. Rowe DO, MS[1,3], David Y. Hyun MD[4], Nancy W. Chi MHA[2], Nimalie D. Stone MD, MS[1] and Lauri A. Hicks DO[1]

[1]Centers for Disease Control and Prevention, Atlanta, Georgia, United States, [2]PointClickCare, Mississauga, Ontario, Canada, [3]Northwestern University Feinberg School of Medicine, Chicago, Illinois, United States and [4]The Pew Charitable Trusts, Washington, DC, United States

Data Source:
- EHR Vendor: PointClickCare
- Reported DOT: 88 per 1000 resident days (from 1,664 US nursing homes in 2016)

Limitations/Challenges to Adaptation:
- Dataset not widely available for facilities to benchmark
- Only facilities using a specific EHR vendor are represented

Antibiotic Use in Nebraska LTCF – Progress Made Over Last 8 Years

Nebraska 2025

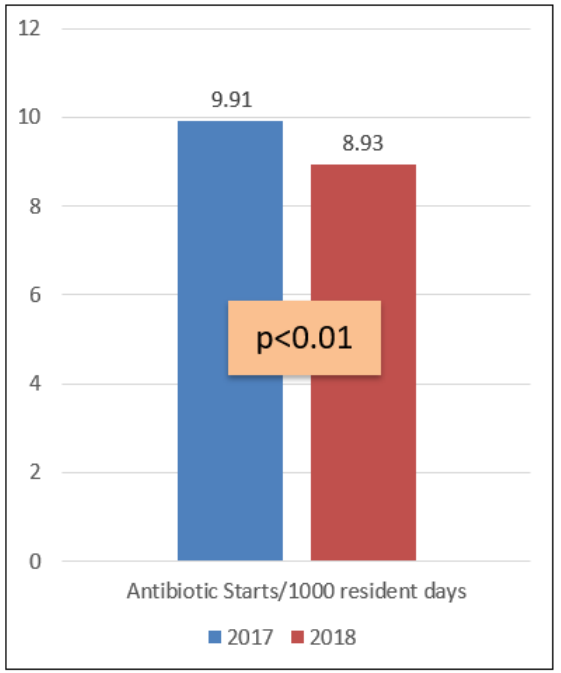
	2025 (Q1-Q4)	Quarter 1 2025	Quarter 2 2025	Quarter 3 2025	Quarter 4 2025
Max. number of facilities reporting for the quarter	38	36	37	38	38
Days of Therapy/1000 Resident Days: Median (Range)	37.8 (0-252.9)	32.8 (0-147.7)	41.8 (6.6-223)	34.6 (3.9-193.5)	40.9 (0-252.9)
Antibiotic Starts/1000 Resident Days: Median (Range)	5.2 (0-24.5)	5.2 (0-15.4)	5.4 (0-20.8)	4.7 (0.4-24.5)	5.2 (0-22.2)

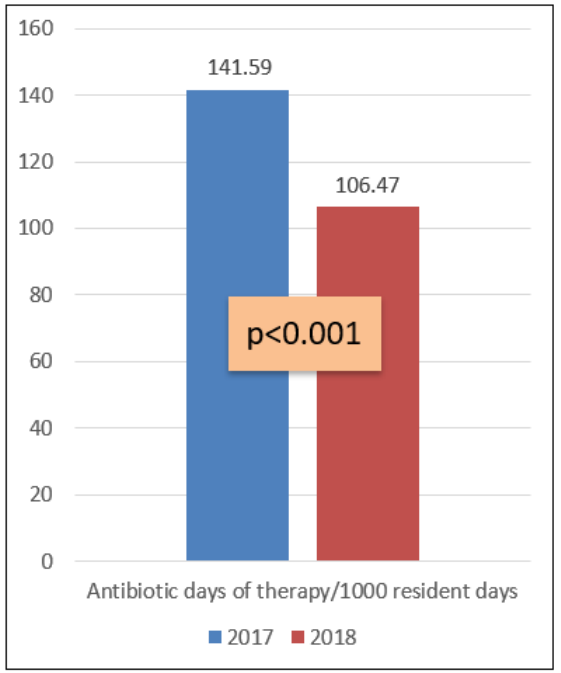
Overall Antibiotic Use Report for the Collaborative:
January to December 2025

Total Antibiotic Starts: 5,123
Total Antibiotic Days of Therapy: 42,585
Total Resident-Days (RD): 890,356

Antibiotic Starts/1000 RD: 5.75
Days of therapy/1000 RD: 47.83

Nebraska 2017 – 2018
27 Nursing Homes Pre-and Post- AS Intervention





Abstract: Ashraf MS et al. October 2020. Infection Control Hospital Epidemiology 41 (S1):s446-s448

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Nebraska ASAP Newsletter: *The Antimicrobial Advocate*

- Monthly newsletter that includes upcoming educational opportunities, recent literature, guideline updates, clinical scenarios, and more
- Includes information relevant to antibiotic stewards in hospitals, outpatient clinics, and long-term care facilities
- Currently sent monthly to over 300 subscribers in 28 states and 4 other countries

Click Here to Subscribe! https://asap.nebraskamed.com/contact/

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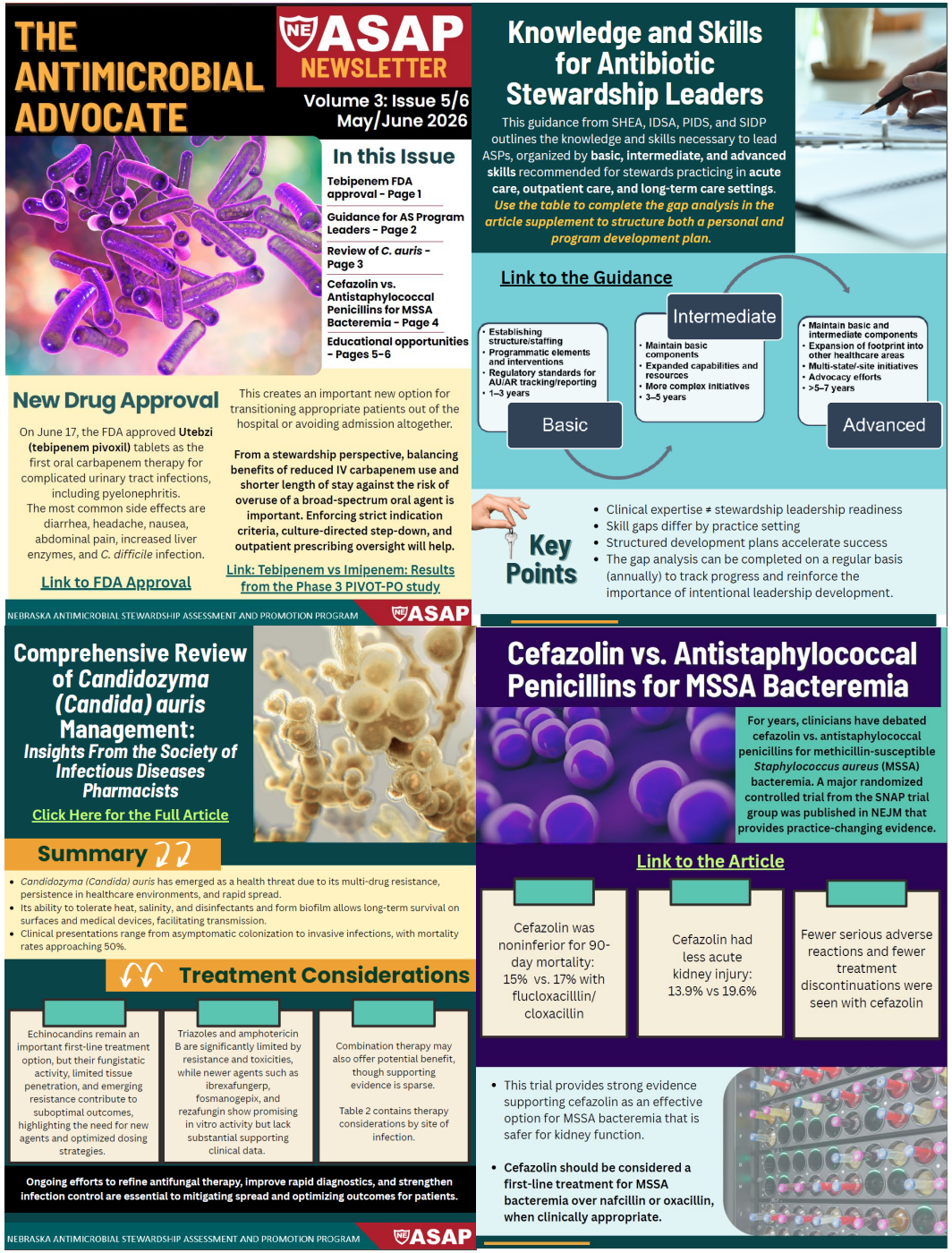

2025 State and Regional Nebraska Antibiogram Report

- Nebraska Statewide Antibiogram
- Local Health Department Antibiograms
- Antibiotic Susceptibility Heat Maps of Significant Drug-Bug Combinations
- Trends in Antibiotic Susceptibility in Nebraska, 2020 through 2025
- Supplemental Data

Link: 2025 Nebraska Antibiogram Annual Report

https://dhhs.ne.gov/Pages/Antibiotic-Resistance.aspx#docaccess-c7cbe1b2555ed045261c3e109eb7ecc8

In Summary ……

Nebraska hospitals continue to do better in preventing most targeted healthcare-associated infections, but opportunities for improvement exist in some areas

Nebraska has low prevalence for the CDC-targeted MDROs but CPO and *C. auris* cases have increased in recent years making a case to use admission and point prevalence screening as another containment tool

Healthcare facilities are utilizing various ongoing public health initiatives for tracking and improving antibiotic use in various healthcare settings

HAI/AR program will continue to collaborate with healthcare facilities, local health departments and other stakeholders to coordinate patient safety initiatives

QUESTIONS?

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