



National Healthcare Safety Network Antibiotic Use and Resistance Workgroup

March 1st 2024

CDPH Antimicrobial Stewardship Team



Agenda

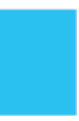
Welcome & Introductions

How to Leverage NHSN AUR Data

Data Sharing AU/AR

Antimicrobial Stewardship Infection Control Assessment and Response Tool (ICAR)

Q&A / Open Discussion



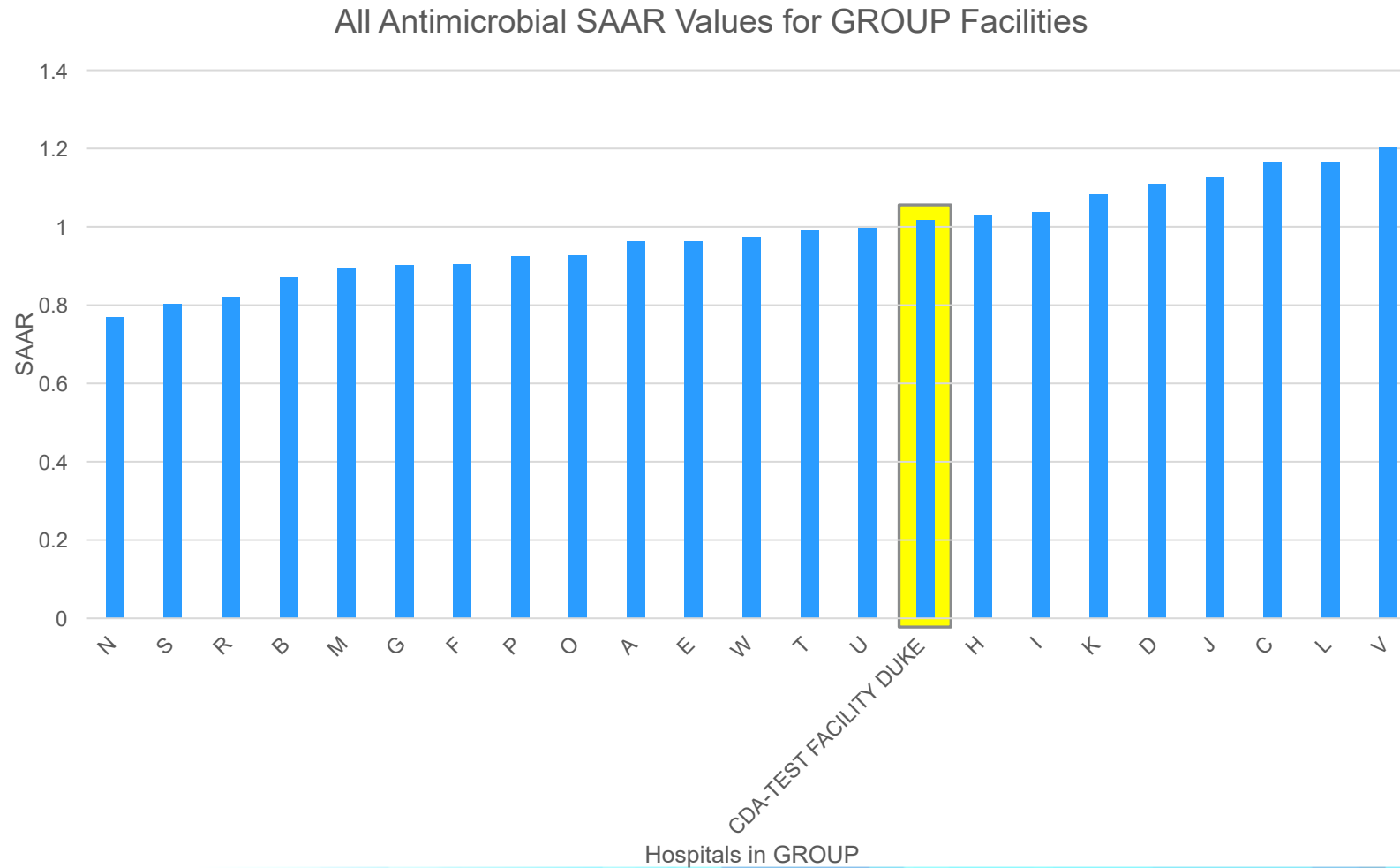
How to Leverage NHSN AUR Data

HOW CAN I LEVERAGE THE NHSN ANTIBIOTIC USE DATA TO HELP WITH MY LOCAL STEWARDSHIP EFFORTS?

LIBBY DODDS ASHLEY, PHARM.D, MHS

HI, IT'S US- WE'RE THE PROBLEM

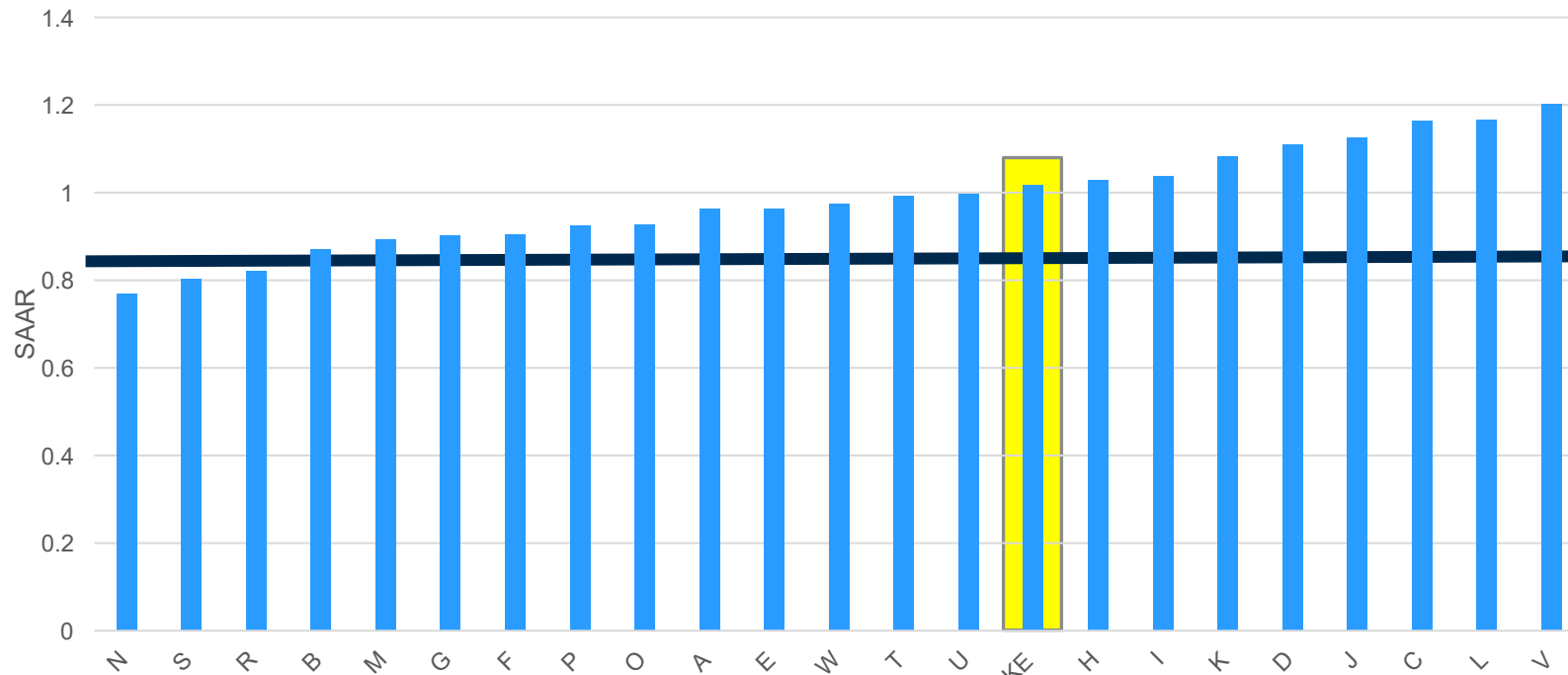
Do we really use more?



Data created in Excel™ using export of NHSN Group Level TAS Report (Adult SAAR Types- Group and Facility)

Do we really use more?

All Antimicrobial SAAR Values for GROUP Facilities



This is the 50th Percentile for All Antibacterial Agents in Adult Locations in Adult Locations

CDA-TEST FACILITY DUKE

Hospitals in GROUP

Where did that come from?

In addition to the Annual Antibiotic Use Report...

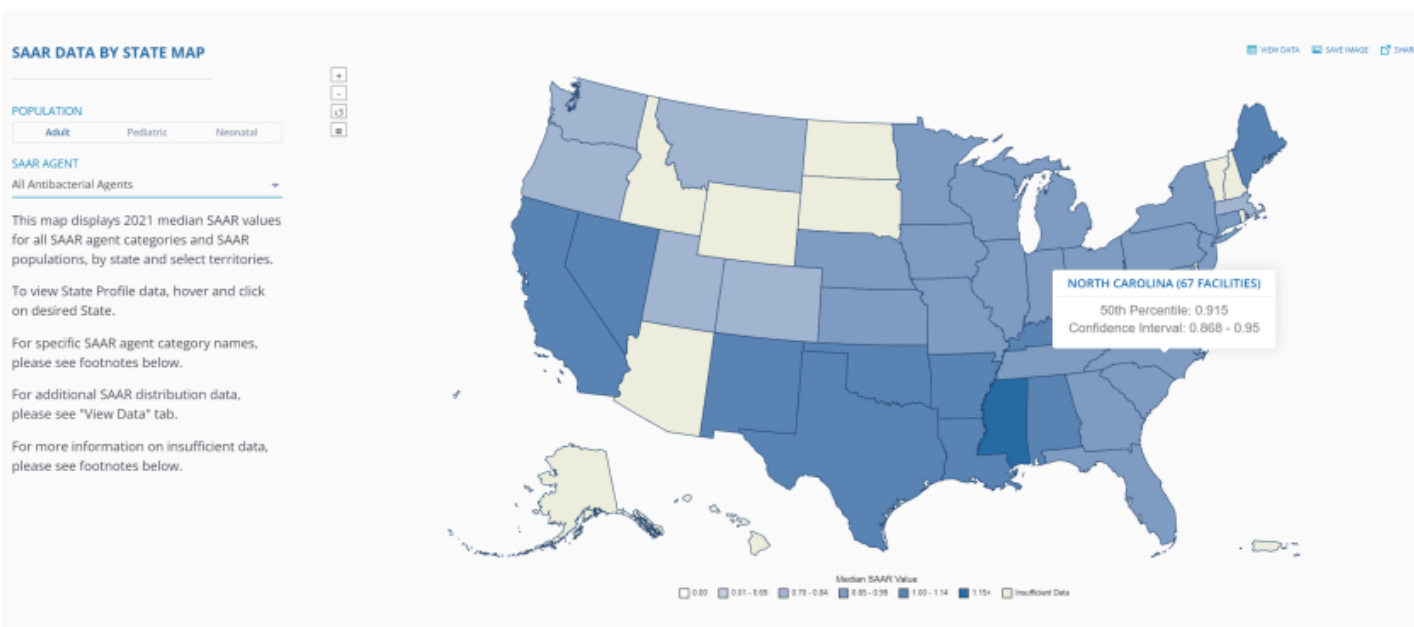


Healthcare-Associated Infections (HAIs)

CDC > Healthcare-associated Infections (HAI) > HAI Data > Data Portal

Home Healthcare-associated Infections (HAI)

Antibiotic Resistance & Patient Safety Portal



https://www.cdc.gov/hai/data/portal/AR-Patient-Safety-Portal.html#anchor_1572284811



Slight Detour: A Word About Benchmarks/Risk Adjustment

SAAR BASELINE POPULATION

Calendar year 2017

Adult/Pediatric modeled separately

N units:

- 2156 Adult units (added 2 new unit types)
- 170 Pediatric units

Included hospitals in 49 states

- 449 hospitals in adult models
- 109 hospitals in peds models

This allows time trends with the SAAR

ANNUAL TRENDS

Annual Antimicrobial Use Option Report

- Provides distribution by SAAR category
- AND-use data for individual drugs 😊

Antibiotic Resistance & Patient Safety Portal

- Aggregate annual data
- Can drill down to state to make comparisons more local

This allows you see if you are “keeping up” as use trends change with time

Additional Resources in the Annual AU Option Report

Pooled Mean SAARS

Figure 2. Select 2019, 2020, and 2021 pooled mean SAARs, by antimicrobial agent category and quarter for **A) adult ICUs and wards** and **B) pediatric ICUs and wards**.

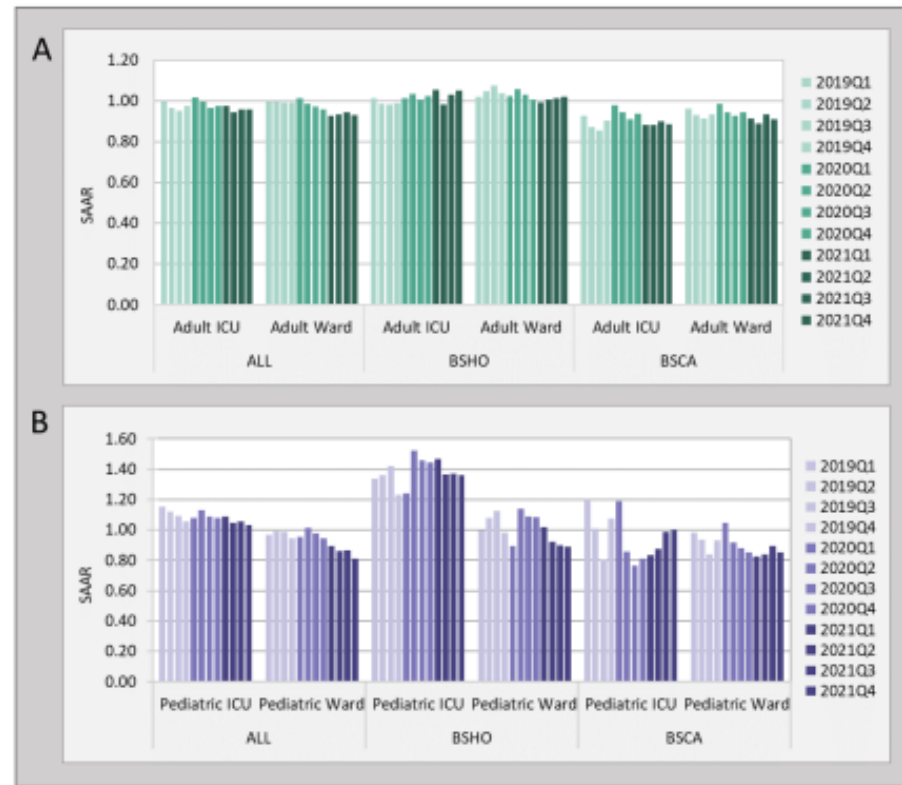


Table 3. Pooled mean SAAR values by adult location type and SAAR antimicrobial agent category.

Adult SAAR Location Type	Adult SAAR Antimicrobial Agent Categories						
	All Antibacterial	BSHO	BSCA	GramPos	NSBL	CDI	Antifungal
Medical ICUs	0.975	1.022	0.902	0.992	0.948	1.231	1.000
Medical-Surgical ICUs	0.944	1.025	0.867	0.867	0.868	1.040	0.986
Surgical ICUs	0.990	1.050	1.000	0.925	0.759	1.248	1.124
Medical Wards	0.910	0.920	0.901	0.822	0.975	0.948	0.799
Medical-Surgical Wards	0.938	1.036	0.897	0.840	0.978	0.958	0.858
Surgical Wards	0.957	1.096	1.010	0.941	0.778	1.068	0.996
Step Down Units	0.919	0.938	0.896	0.845	0.917	0.975	0.846
General Hematology-Oncology Wards	0.938	0.934	0.957	0.842	0.980	1.020	0.781

Additional Resources in the Annual AU Option Report

Drill Down Tables

Percentile distribution of location-specific SAARs																				
Adult SAAR location type	No. of locations with ≥1 predicted antimicrobial day ²																			
		5th	10th	15th	20th	25th	30th	35th	40th	45th	50th	55th	60th	65th	70th	75th	80th	85th	90th	95th
Medical ICUs	507	0.597	0.683	0.724	0.761	0.802	0.835	0.864	0.897	0.934	0.963	0.985	1.013	1.047	1.072	1.102	1.141	1.190	1.236	1.363
Medical-surgical ICUs	1,190	0.613	0.698	0.748	0.781	0.814	0.845	0.872	0.897	0.925	0.952	0.982	1.006	1.031	1.062	1.095	1.127	1.170	1.213	1.321
Surgical ICUs	229	0.633	0.705	0.746	0.790	0.816	0.839	0.873	0.894	0.918	0.945	0.961	0.991	1.023	1.059	1.088	1.153	1.209	1.273	1.417
Medical wards	1,748	0.476	0.606	0.669	0.711	0.755	0.792	0.826	0.855	0.885	0.912	0.938	0.968	0.998	1.026	1.067	1.107	1.158	1.234	1.348
Medical-surgical wards	2,482	0.465	0.633	0.704	0.754	0.799	0.839	0.870	0.898	0.927	0.957	0.986	1.014	1.048	1.084	1.116	1.152	1.210	1.274	1.376
Surgical wards	805	0.591	0.703	0.762	0.802	0.838	0.861	0.894	0.915	0.941	0.966	0.995	1.018	1.045	1.077	1.112	1.150	1.197	1.244	1.313
Step down units	1,026	0.493	0.577	0.648	0.695	0.746	0.792	0.838	0.868	0.901	0.937	0.969	1.005	1.044	1.076	1.118	1.159	1.226	1.295	1.419
General hematology-oncology wards	285	0.664	0.737	0.777	0.835	0.855	0.881	0.909	0.925	0.949	0.976	1.003	1.032	1.081	1.121	1.153	1.226	1.297	1.357	1.516

Table 2a2. Adult all antibacterial agents SAAR usage by antimicrobial agent (top 10 most commonly used agents) and SAAR location type

Adult SAAR location type (n) ¹	Antimicrobial ²	Pooled antimicrobial days	Percentage of antimicrobial days
Medical ICUs (n=465)	Vancomycin	386,209	18.2
	Piperacillin/Tazobactam	333,532	15.7
	Cefepime	291,716	13.7
	Ceftriaxone	243,080	11.4
	Meropenem	169,634	8.0
	Metronidazole	112,249	5.3
	Azithromycin	110,496	5.2
	Cefazolin	61,911	2.9
	Doxycycline	60,059	2.8
	Linezolid	48,813	2.3

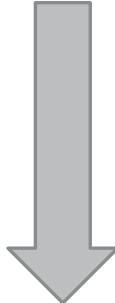
2021 Data

[2021 Antimicrobial Use Option Data Report – November 2022](#)  [PDF – 2 MB]

[2021 Antimicrobial Use Option Report Data Tables – November 2022](#)  [XLS – 436 KB]

Can I easily get my percentile? Yes!

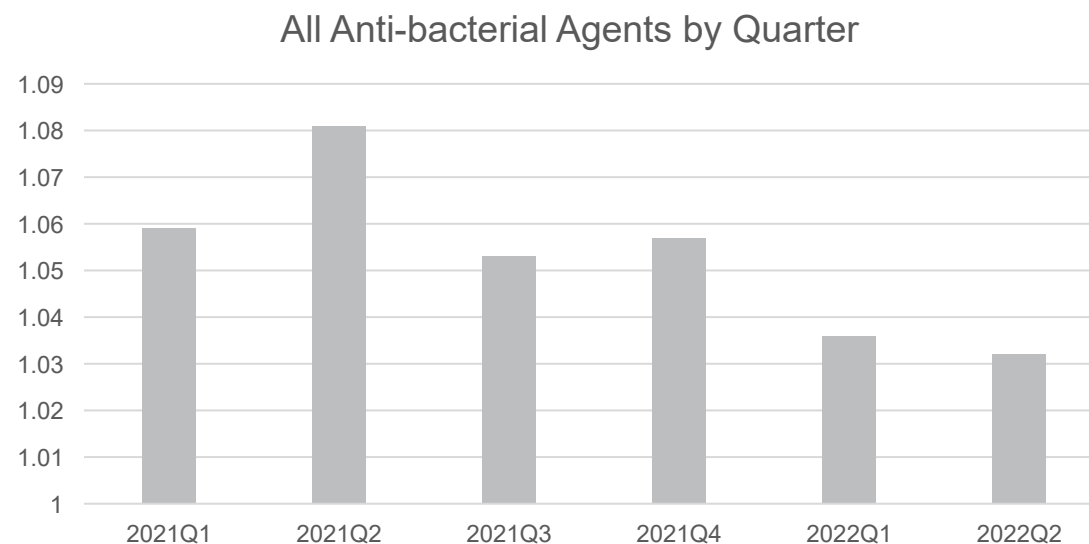
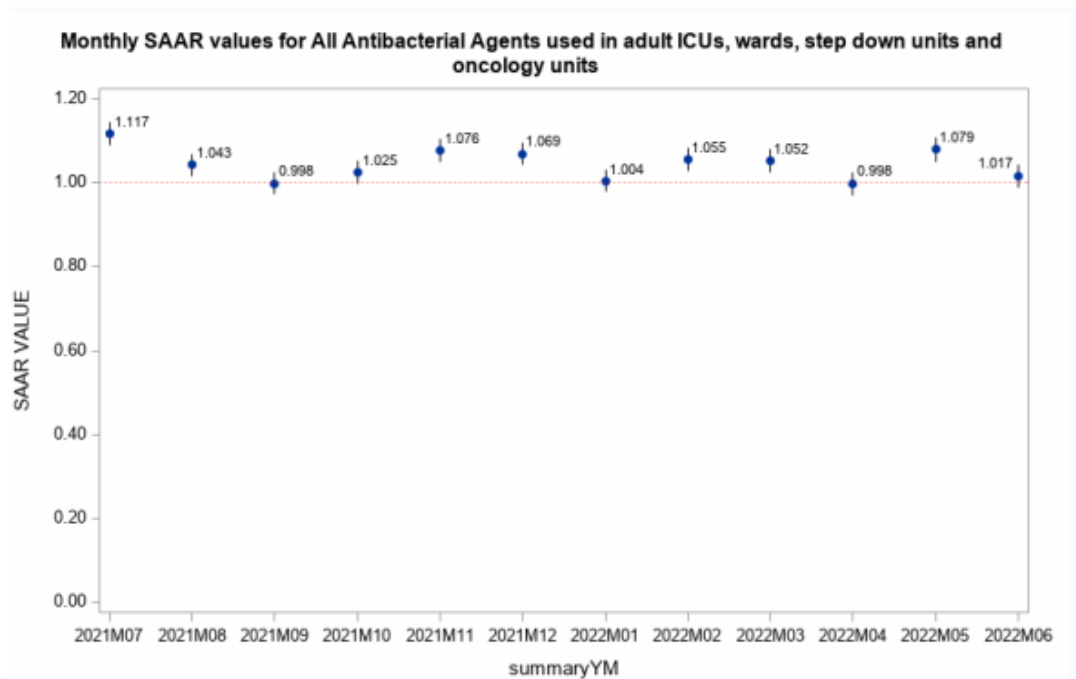
Your data!!!!



orgID	SAARType_2017	location	summaryYQ	locCDC	antimicrobialDays	numAUDaysPredicted	numDaysPresent	SAAR	SAAR_pval	SAAR95CI	SAAR_pctl
45032	Adult_All-Antibacterial_2017	MED	2021Q1	IN:ACUTE:WARD:M	2214	2519.021	4272	0.879	0.0000	0.843, 0.916	36
45032	Adult_All-Antibacterial_2017	MED	2021Q2	IN:ACUTE:WARD:M	2870	2806.777	4760	1.023	0.2369	0.986, 1.060	62
45032	Adult_All-Antibacterial_2017	MED	2021Q3	IN:ACUTE:WARD:M	2421	2812.082	4769	0.861	0.0000	0.827, 0.896	33
45032	Adult_All-Antibacterial_2017	MED	2021Q4	IN:ACUTE:WARD:M	2579	2691.793	4565	0.958	0.0295	0.922, 0.996	50
45032	Adult_All-Antibacterial_2017	MED	2022Q1	IN:ACUTE:WARD:M	2814	2754.885	4672	1.021	0.2644	0.984, 1.060	61
45032	Adult_All-Antibacterial_2017	MED	2022Q2	IN:ACUTE:WARD:M	2269	2608.651	4424	0.870	0.0000	0.835, 0.906	35

SAAR Report-All Adults and Ped SAARs by Location (2017 Baseline)- modified to by quarter

Wait- Did you Mention Time Trends?



SAAR Plot-All Adult and Pediatric SAARs
(2017 baseline)

SO, WE'RE THE PROBLEM WHERE DO I START?

Drilling Down to Specific Agents

Facility Name	SAARTypeCat	AU-CAD Rank	Facility AU-CAD (Rounded)	Three highest use drugs within SAAR Type (Percentage)	Antimicrobial Days	Predicted Antimicrobial Days	Days Present	Location SAAR	95% Confidence Interval
CDA TEST FACILITY - DUKE	ALL	1	1989	CEFTRX(17); VANC(14); PIPERWT(13);	55053	53063.896	85609	1.037	1.029, 1.046
	BSCA	2	1514	CEFTRX(69); LEVO(14); CIPRO(7);	13330	11816.070	85609	1.128	1.109, 1.147
	BSHO	3	843	PIPERWT(51); CEFEP(32); MERO(15);	14437	13594.403	85609	1.062	1.045, 1.079
	CDI	4	96	CEFTRX(52); CEFEP(26); LEVO(11);	17844	17747.672	85609	1.005	0.991, 1.020
	GRAMPOS	5	-299	VANC(85); LNZ(8); DAPTO(5);	8224	8523.404	85609	0.965	0.944, 0.986
	ANTIFGL	6	-367	FLUCO(78); MICA(17); ANID(6);	1574	1941.421	85609	0.811	0.771, 0.852
	NSBL	7	-437	CEFAZ(59); AMOXWC(14); AMPIWS(12);	7133	7569.913	85609	0.942	0.921, 0.964

SAARTypeCat	AU-CAD Rank	Facility AU-CAD (Rounded)	Three highest use drugs within SAAR Type (Percentage)
ALL	1	1989	CEFTRX(17); VANC(14); PIPERWT(13);
BSCA	2	1514	CEFTRX(69); LEVO(14); CIPRO(7);
BSHO	3	843	PIPERWT(51); CEFEP(32); MERO(15);
CDI	4	96	CEFTRX(52); CEFEP(26); LEVO(11);
GRAMPOS	5	-299	VANC(85); LNZ(8); DAPTO(5);
ANTIFGL	6	-367	FLUCO(78); MICA(17); ANID(6);
NSBL	7	-437	CEFAZ(59); AMOXWC(14); AMPIWS(12);

TAS Report-Adult SAAR Types- Facility

Drilling Down to Specific Agents

FACILITY			LOCATION GROUP				
Facility Org ID	Facility Name	Facility AU-CAD (Rounded)	LocationGroup	SAARTypeCat	Location Group Rank	Location Group AU-CAD (Rounded)	Three highest use drugs within SAAR Type (Percentage)
45032	CDA TEST FACILITY - DUKE	1989	WARDS	ALL	1	1985	CEFTRX(17); VANC(14); PIPERWT(13);
			ONCOLOGY	ALL	2	127	CEFTRX(19); PIPERWT(13); VANC(12);
			STEPDOWN	ALL	3	35	CEFTRX(19); CEFEP(13); VANC(13);
			ICUS	ALL	4	-158	PIPERWT(19); VANC(17); CEFTRX(13);

TAS Report-Adult SAAR Types- Location Groups (Separated)

Prioritizing- By Unit

FACILITY			LOCATION GROUP									
Facility Org ID	Facility Name	Facility AU-CAD (Rounded)	LocationGroup	SAARTypeCat	Location Group Rank	Location Group AU-CAD (Rounded)	Three highest use drugs within SAAR Type (Percentage)	Antimicrobial Days	Predicted Antimicrobial Days	Days Present	Location SAAR	95% Confidence Interval
45032	CDA TEST FACILITY - DUKE	1350	ICUS	BSCA	1	157	CEFTRX(70); LEVO(20); ERTA(5);	1287	1130.155	7911	1.139	1.078, 1.202
				BSHO	2	134	PIPERWT(51); MERO(26); CEFEP(22);	2588	2453.596	7911	1.055	1.015, 1.096
				ANTIFGL	3	72	FLUCO(46); MICA(40); ANID(13);	373	301.362	7911	1.238	1.117, 1.368
				CDI	4	-153	CEFTRX(49); CEFEP(30); LEVO(14);	1843	1996.219	7911	0.923	0.882, 0.966
				GRAMPOS	5	-209	VANC(88); LNZ(9); CEFTAR(2);	1263	1472.489	7911	0.858	0.811, 0.906
				NSBL	6	-247	CEFAZ(58); AMPIWS(30); NAF(4);	437	684.103	7911	0.639	0.581, 0.701
			STEPDOWN	CDI	1	126	CEFTRX(52); CEFEP(36); LEVO(4);	2754	2627.581	13021	1.048	1.010, 1.088
				BSHO	2	30	CEFEP(47); PIPERWT(36); MERO(12);	2111	2081.448	13021	1.014	0.972, 1.058
				BSCA	3	25	CEFTRX(82); LEVO(7); CEFDIN(5);	1733	1707.727	13021	1.015	0.968, 1.063
				ANTIFGL	4	-27	FLUCO(79); MICA(21); ANID(0);	211	237.654	13021	0.888	0.774, 1.014
				NSBL	5	-101	CEFAZ(34); AMOXWC(21); AMPIWS(15);	807	908.430	13021	0.888	0.829, 0.951
				GRAMPOS	6	-176	VANC(90); LNZ(5); DAPTO(4);	1035	1210.900	13021	0.855	0.804, 0.908
			WARDS	BSCA	1	1121	CEFTRX(66); LEVO(15); CIPRO(8);	8549	7428.174	54520	1.151	1.127, 1.175
				BSHO	2	737	PIPERWT(56); CEFEP(30); MERO(11);	7891	7154.396	54520	1.103	1.079, 1.128
				CDI	3	288	CEFTRX(52); CEFEP(22); LEVO(12);	10849	10560.911	54520	1.027	1.008, 1.047
				GRAMPOS	4	278	VANC(84); DAPTO(7); LNZ(7);	5173	4895.455	54520	1.057	1.028, 1.086
				NSBL	5	-69	CEFAZ(64); AMOXWC(13); AMPIWS(10);	5376	5444.862	54520	0.987	0.961, 1.014
				ANTIFGL	6	-87	FLUCO(88); MICA(8); ANID(4);	758	844.986	54520	0.897	0.835, 0.963

TAS Report-Adult SAAR Types- Location Groups (Separated)

Prioritizing- Overall

FACILITY			LOCATION GROUP				
Facility Org ID	Facility Name	Facility AU-CAD (Rounded)	LocationGroup	SAARTypeCat	Location Group Rank	Location Group AU-CAD (Rounded)	Three highest use drugs within SAAR Type (Percentage)
45032	CDA TEST FACILITY - DUKE	1350	WARDS	BSCA	1	1121	CEFTRX(66); LEVO(15); CIPRO(8);
			WARDS	BSHO	2	737	PIPERWT(56); CEFEP(30); MERO(11);
			WARDS	CDI	3	288	CEFTRX(52); CEFEP(22); LEVO(12);
			WARDS	GRAMPOS	4	278	VANC(84); DAPTO(7); LNZ(7);
			ONCOLOGY	BSCA	5	211	CEFTRX(70); LEVO(14); CIPRO(8);

TAS Report-Adult SAAR Types- Location Groups (Combined)

ARE YOU SETTING POSSIBLE GOALS?

New NHSN Tools!!

▸ TAP Strategy Dashboard

▸ TAS Dashboard

▾ Action Items

Population:

All Antibacterials

BSHO

BSCA

GramPos

NSBL

CDI

Antifungal

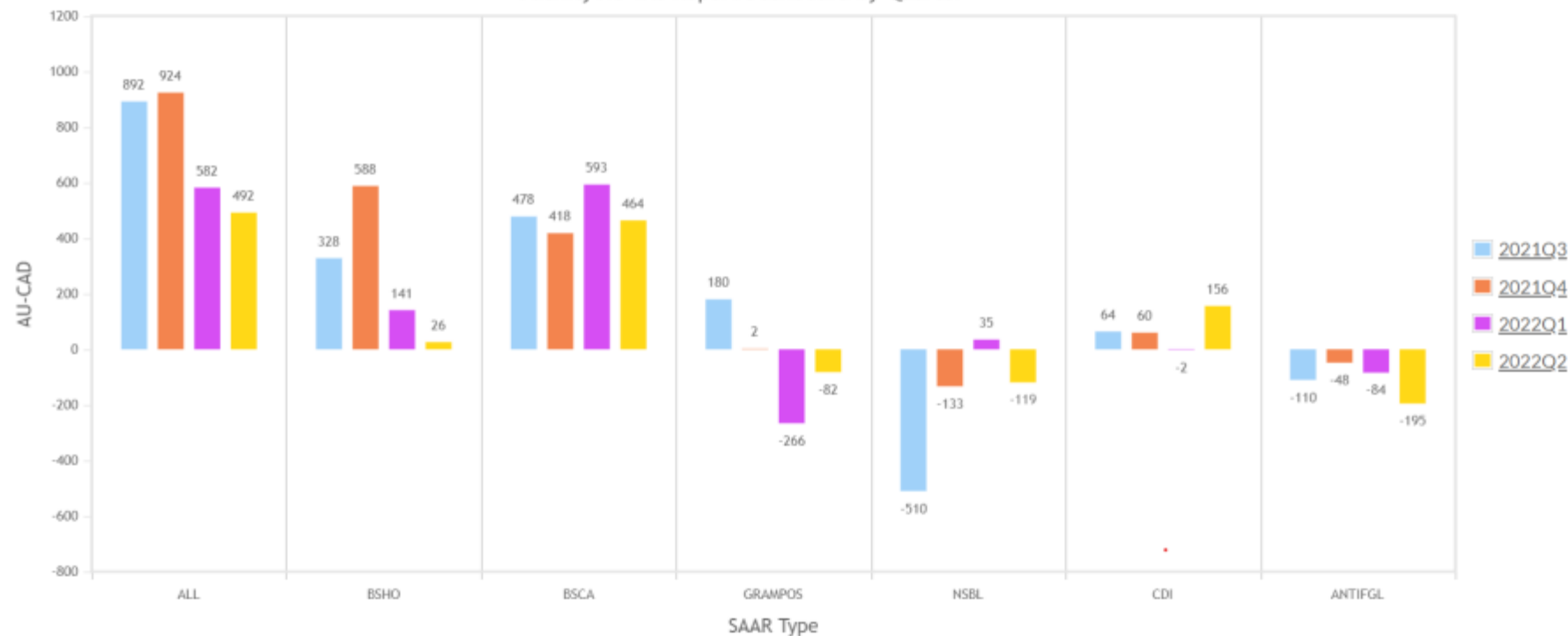
[Export PDF](#)

[Generate New](#) Last Generated: September 13, 2022 3:16 PM

[Refresh](#) [Reset](#) [Save](#)

AU-CAD

Facility AU TAS Report Dashboard by Quarter



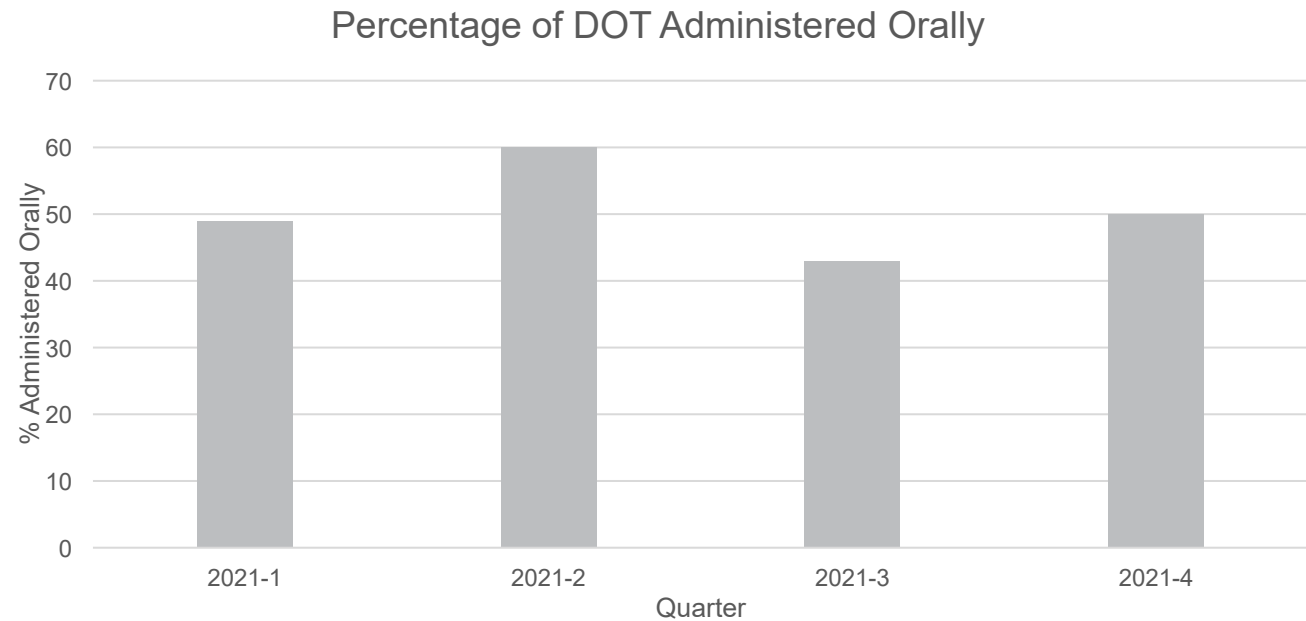
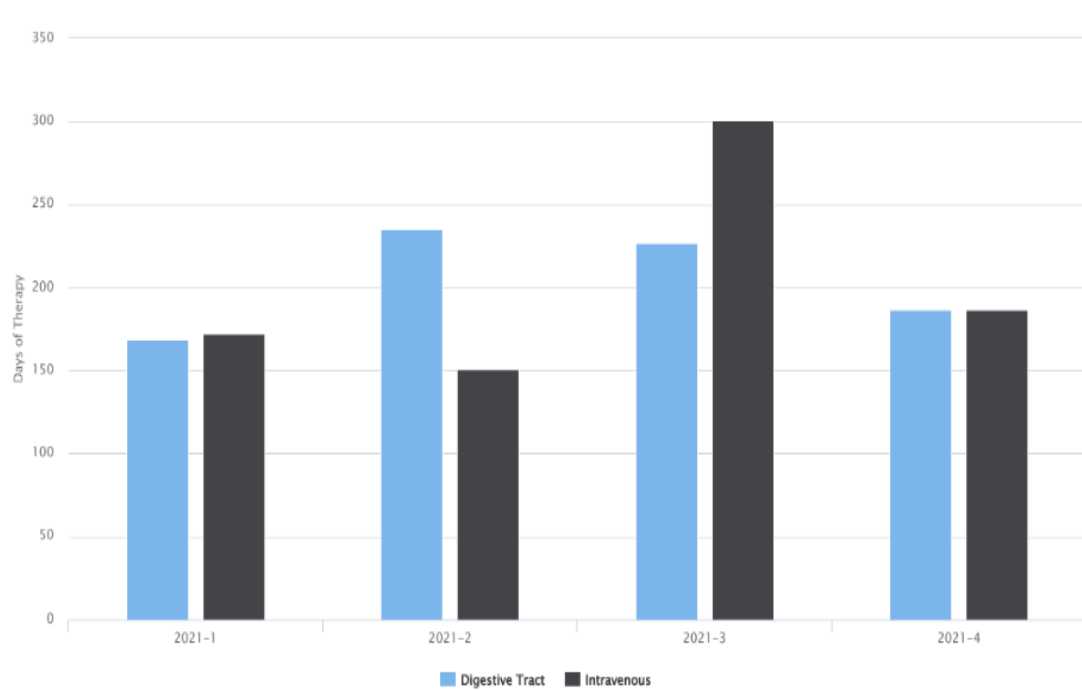
Facility AU-CAD				
SAAR Type	2021Q3	2021Q4	2022Q1	2022Q2
ALL	892	924	582	492
BSHO	328	588	141	26
BSCA	478	418	593	464
GRAMPOS	180	2	-266	-82
NSBL	-510	-133	35	-119
CDI	64	60	-2	156
ANTIFGL	-110	-48	-84	-195



CAN I TARGET SPECIFIC INTERVENTIONS?

Example: IV to PO

Quarterly Data for IV vs. PO Doxycycline



Line Listing- All Submitted AU Data for FACWIDEIN- converted to graph using Pivot Chart in Excel

Leveraging National Healthcare Safety Network Antibiotic Use Option to Inform, Implement and Assess Antibiotic Stewardship Activities

CLINICAL SCENARIOS

Category 1: Using AU Data to Identify and Inform Stewardship Opportunities for High Antimicrobial Use

- + 1. Individual SAAR category
- + 2. Targeted antimicrobial within a SAAR category
- + 3. SAAR category on a targeted unit type
- + 4. Specific antimicrobial in a select population

METRIC GUIDES


- **Manipulations of NHSN Extracts**
 - [Specific Antimicrobial use bar chart](#)
 - [Antimicrobial use by route of delivery](#)
 - [Antimicrobial specific DOT/1000 days present](#)
- **Combining NHSN Data with Additional Data from Local S**
 - [Antimicrobial-specific Average Length of Therapy](#)
 - NHSN Infection Rate Extracted to Combine with Antibiotic Data
- **Metrics Using Local Data Sources**
 - [Antimicrobial use by Indication](#)
 - [Durations based on date of event](#)
 - [Percent of Patient Admissions receiving a Specific Antimicrobial](#)
 - [Targeted admissions denominator](#) (diagnosis code or antibiotic use)
 - [Provider Specific Prescribing \(DOT\)](#)
 - [Provider Specific Prescribing- Stratified by Route or Indication](#)
 - [Laboratory Test Utilization Rate](#)
 - Culture Rates



Work Funded by Centers for Disease Control & Prevention SHEPherd

Percent of Patient Admissions receiving a Specific Antimicrobial

The screenshot displays the CDC SAMS (Secure Access Management Services) portal. At the top left is the CDC logo with the text 'Centers for Disease Control and Prevention' and 'CDC 24/7: Saving Lives. Protecting People™'. A search bar is located at the top right. Below the CDC logo is the SAMS logo and the text 'secure access management services'. A navigation menu on the left includes 'My Profile', 'Manage Mobile Soft Token & Grid Card', 'Logout', and 'Links' (SAMS User Guide, SAMS User FAQ, Identity Verification Overview). The main content area is titled 'My Applications' and lists 'National Healthcare Safety Network System' with a link to 'NHSN Reporting *' and 'SAMS' with a link to 'CDCPartners - SharePoint Online'. A note below the links states '*Strong credentials required.' The footer contains social media icons, a navigation menu (About CDC, Jobs, Funding, Policies, Privacy, FOIA, No Fear Act, OIG), and contact information for the SAMS Help Desk (Monday-Friday, 8:00AM to 6:00PM EST, Excluding U.S. Federal Holidays, 877-681-2901, Select Option #5, samshelp@cdc.gov) and the U.S. Department of Health & Human Services (HHS/Open, USA.gov, Vulnerability Disclosure Policy). A video player interface is visible at the bottom, showing a play button, a progress bar at 08:25, and a full screen icon.

Click the full screen icon  to view the video on the full screen, press the Esc key to return to previous video window.

Reference article: [Percent of Patient Admissions receiving a Specific Antimicrobial PDF](#)

The ABCs of Using NHSN Data in Your Stewardship Program

- A** Access: Get access to NHSN if you do not have it already!!!
 - There are pre-built actionable reports that you can use immediately
 - Your submitted data is there and is very easy to manipulate in basic programs like Excel™

- B** Be Realistic: These data are not going to change antibiotic use data themselves- it is how YOU USE THE TOOLS that will create change
 - DO NOT underestimate the power of comparison

- C** Collaborate: All around you are people who are assessing similar data with similar questions- work together! (not sure how to start?- say hi to your neighbor)

Questions?

Libby.dodds@duke.edu



NHSN Data Sharing AU/AR



NHSN Data Sharing

- CDC and your state, local, or territorial health department have entered into a data use agreement (DUA). The health department will gain access to data reported to CDC's National Healthcare Safety Network (NHSN) from healthcare facilities in the jurisdiction. The new provisions are designed to allow data access solely for the purposes of surveillance and prevention. The overarching goal of the new access provisions is to enhance the value of data reported to NHSN for public health purposes.



Data Sharing FAQ's

- How is the data going to be used by the health department?
 - The data will be used for healthcare-associated infection (HAI) surveillance and prevention purposes and not legal and regulatory action
- Who in CDPH will have access to the data?
- Access to the data is intended for the city HAI program for prevention activities. You may contact Estrella Cervantes, PharmD the Antimicrobial Stewardship Pharmacist, at Estrella.Cervantes@cityofchicago.org or Hira Adil, MD the CDPH HAI program manager, at Hira.Adil@cityofchicago.org with questions or concerns.
- What data will be included in the data use agreement?
 - Each data use agreement is modeled using a template developed by CDC and customized by CDC and CDPH to reflect local data needs, protections, and policies. If your state has a data use agreement, CDC will make the agreement publicly available on CDC's website. It is important to note that past data (i.e., data that was entered into NHSN prior to the opt-out period) will not be shared; only future data will be shared with the health department.



Data Sharing FAQ's

- Will facility-identifiable data be made publicly available?
 - No. Making facility-identifiable data publicly available would be a violation of the data use agreement and CDC will terminate the data use agreement immediately with CDPH.
- How does CDPH entering into a data use agreement benefit my hospital?
 - Many state health departments have an effective and collaborative relationship with facilities in their state, including the prioritizing of prevention programs and opportunities for undertaking complementary HAI prevention projects. The data use agreement may foster additional collaborations between facilities and CDPH in this manner.

Enter Your Monthly Reporting Plan



NHSN Home

- Alerts
- Dashboard
- Reporting Plan
- Patient
- Event
- Procedure
- Summary Data
- Import/Export
- Surveys
- Analysis
- Users
- Facility
- Group
- Logout

Add Monthly Reporting Plan

marked with *

California General Hospital (ID 15633)

Year *:

No NHSN Patient Safety Modules Followed

Device-Associated Module

Locations
<input type="text" value="2 WEST - M/S ICU"/>

Procedure-Associated Module

Procedures
<input type="text" value="APPY - Appendix surgery"/>

Antimicrobial Use and Resistance Module

Locations	Antimicrobial Use	Antimicrobial Resistance
<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>

Multi-Drug Resistant Organism Module

Locations
<input type="text"/>

- Your monthly reporting plan tells NHSN in what modules you will enter data each month
- Plan must include CDPH reporting requirements
- May add plans ahead of time for each month for the entire year



Setting Up A Monthly Reporting Plan

How do I include the AU Option in my monthly reporting plan?

- You need to add the AU Option to your monthly reporting plan for every month you plan to submit AU data. You cannot enter AU data “off-plan”.
 1. From the NHSN Homepage, select Reporting Plan from the left-hand menu.
 2. Click Add to add a new monthly reporting plan or click Edit to edit an existing plan.
 3. Select the month and year for AU data submission.
 4. If editing an existing plan, first scroll down to the bottom of the page and click Edit. Scroll to the Antimicrobial Use and Resistance Module section of the plan, enter all the locations for which you’ll submit AU data that month, and check the AU box (see screenshot below for reference). To include facility-wide inpatient (FacWideIN) in the monthly reporting plan for the AU Option, you **MUST** have at least one individual non-FacWideIN location (for example, medical ward, emergency department) added to the plan.
 5. Click the Save button at the bottom of the screen.



Steps to create Antimicrobial Use and Resistance Module Reporting Plan

1. Select the location that you wish to monitor.
2. Check the box(s) for Antimicrobial Use and Antimicrobial Resistance

Antimicrobial Use and Resistance Module			
	Locations	Antimicrobial Use	Antimicrobial Resistance
	FACWIDEIN - Facility-wide Inpatient (FacWIDEIn) <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	SGPED - PED MED_SURG - AU <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	PMICU - PED MICU_AU <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	SURGWARD - SURGICAL WARD - AU <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	EMERG - EMERGENCY DEPT <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>



CDC NHSN AUR Training Videos

- **Antimicrobial Use (AU) Option: Beginner Analysis**
 - <https://youtu.be/lb3J6wA4W6g?si=fheYoeVeolJMAe60>
- **Antimicrobial Use (AU) Option: Advanced Analysis**
 - <https://youtu.be/yp97BZkVT-0?si=oSBfwX9GVrIHilym>
- **Antimicrobial Resistance (AR) Option: Reporting and Analysis**
 - <https://youtu.be/vRSWZaZbOvU?si=7cHWwjPsiXJ4Fv8T>
- **Antimicrobial Resistance (AR) Option: Facility-Wide Antibiogram Report**
 - <https://youtu.be/J9vJEUo3Tvk?si=l6pjxCmRRquDTzzZ>
- **Understanding the Standardized Antimicrobial Administration Ratio (SAAR)**
 - https://youtu.be/z-Z6B0YWpTo?si=X33gq-B_XEhVEc1Y
- **Interpreting the Standardized Antimicrobial Administration Ratio (SAAR)**
 - https://youtu.be/uaHXTF_Z07M?si=HyBg-E0RUrzx98y1
- **NHSN AU Option TAS Webinar**
 - <https://youtu.be/z3G26xirJzs?si=gKGwIV9QEmX1A52B>



Antimicrobial Stewardship Infection Control Assessment and Response (ICAR)

Jazmine Wright
Antimicrobial Stewardship Support





What is the assessment?



This AS ICAR is intended to aid an ICAR facilitator in the review of a healthcare facility's antimicrobial stewardship policies and activities.



This review should be conducted with antimicrobial stewardship lead(s) if possible.



The ICAR helps to identify your facility's capacity to detect, report and address healthcare acquired infections and/or outbreaks



Categories



Leadership Commitment, Accountability and Stewardship Expertise to Improve Antibiotic Use



Actions and Activities to Improve Antibiotic Use



Tracking and Reporting Antibiotic Use and Outcomes



Education of Healthcare Professionals, Patients, and their Families





Infection Control Assessment and Response (ICAR) Tool for General Infection Prevention and Control (IPC) Across Settings

Module 10. Antibiotic Stewardship Facilitator Guide

Antibiotic Stewardship: This form is intended to aid an ICAR facilitator in the review of a healthcare facility's antibiotic stewardship policies and activities. This interview should be conducted with antibiotic stewardship lead(s) if possible.

Leadership Commitment, Accountability and Stewardship Expertise to Improve Antibiotic Use

1. Which of the following **individuals** are responsible for the management and outcomes of antibiotic stewardship activities at your healthcare facility: (Select all that apply)
- Physician
 - Co-lead
 - Lead
 - Designated physician support
 - Pharmacist
 - Co-lead
 - Lead
 - Designated pharmacist support
 - Other (e.g., RN, PA, NP, IP, other), specify: _____
 - Co-lead
 - Lead
 - Designated support
 - Unknown
 - None, the healthcare facility does not have individuals responsible for antibiotic stewardship activities management and outcomes
 - Not Assessed

Identifying an antibiotic stewardship lead or co-lead who is/are accountable for program management and outcomes is critical for the successful implementation of antibiotic stewardship policies and activities. Most hospitals have found a physician and pharmacist co-leadership model to be effective.

If a non-physician is identified as a lead for stewardship activities, it is important to designate a physician (or medical director) who can serve as a point of contact and support for the non-physician lead. Regular "stewardship rounds" for the co-leaders, or the non-physician lead and the supporting physician can strengthen program leadership.

The core elements of antibiotic stewardship for hospital, outpatient, nursing home, and small and critical access hospitals can be found here: [Core Elements of Antibiotic Stewardship](#).

For strategies to improve antibiotic prescribing in outpatient dialysis settings refer to: [Improving Antibiotic Use in Outpatient Hemodialysis Facilities](#)

2. Which of the following describes the **individual** responsible for the management and outcomes of antibiotic stewardship activities? (Select all that apply, repeat for **each** individual)
- Has dedicated time to manage the program and conduct daily stewardship interventions
 - Specify percent time in the job description or in an average week dedicated to stewardship activities at the facility:
 - 0-25%
 - 26%-50%
 - 51-75%
 - 76-99%
 - 100%
 - Has antibiotic stewardship responsibilities specified in the employment contract, job description or performance review
 - Is on-site at the healthcare facility
 - Full-time
 - Part-time
 - Provides remote stewardship expertise (tele-stewardship)
 - Completed infectious diseases training (residency or fellowship)
 - Completed antibiotic stewardship training (certificate program, conference, online training)
 - Unknown
 - None, the healthcare facility does not have individuals responsible for antibiotic stewardship activities management and outcomes
 - Not Assessed

A priority example of leadership commitment includes giving stewardship program lead(s) time and resources to manage the program and conduct daily stewardship interventions. That includes having stewardship as part of the job description to ensure that lead(s) have dedicated time to spend on developing and maintaining stewardship activities.

Core Elements of Antibiotic Stewardship

For healthcare facilities without pharmacy staff on-site, placing stewardship requirements into the contractual responsibilities of pharmacy services can help support stewardship implementation. This can include a requirement for supporting antibiotic use tracking and formal stewardship training. Healthcare facilities with limited stewardship expertise can consider funding remote consultation or tele-stewardship. Even when remote expertise is used, it is important to have a stewardship lead on staff at the facility. Healthcare facilities can also seek additional expertise by joining multi-facility stewardship collaboratives or engaging with public health organizations.

Training in infectious diseases and/or antibiotic stewardship benefits stewardship program lead(s). An example of an online stewardship training can be found here: [CDC Training on Antibiotic Stewardship](#).

Notes

3. Healthcare facility leadership has demonstrated **commitment** to antibiotic stewardship efforts by: (Select all that apply)
- Having an antibiotic stewardship **policy** that requires an antibiotic stewardship program or requires the implementation of antibiotic stewardship activities
 - Allocating **resources** to support education and training for stewardship team and healthcare professionals
 - Ensuring **support** for stewardship activities from key departments and groups such as information technology or microbiology
 - Having a senior executive who serves as a point of contact or "**champion**" and ensures availability of resources and key support to implement stewardship activities
 - Having regularly scheduled meetings with facility leadership and/or the hospital board to **report** and discuss stewardship activities, resources, and outcomes
 - Communicating** to healthcare facility staff about antibiotic use, resistance, and stewardship activities via email, newsletters, events, or other avenues
 - Unknown
 - None, the healthcare facility does not demonstrate commitment to antibiotic stewardship efforts
 - Not Assessed
 - Other (specify): _____

Dedicating necessary human, financial and information technology resources is critical for the success of stewardship activities.

Core Elements of Antibiotic Stewardship

Regularly scheduled meetings can be done quarterly, biyearly or yearly depending on the facility size and activities planned.

Refer to leadership commitment and accountability sections in:

[Antibiotic Stewardship Implementation Resources for Hospitals](#);

[Antibiotic Stewardship Implementation Resources for Outpatient Facilities](#); and

[Antibiotic Stewardship Implementation Resources for Nursing Homes](#).



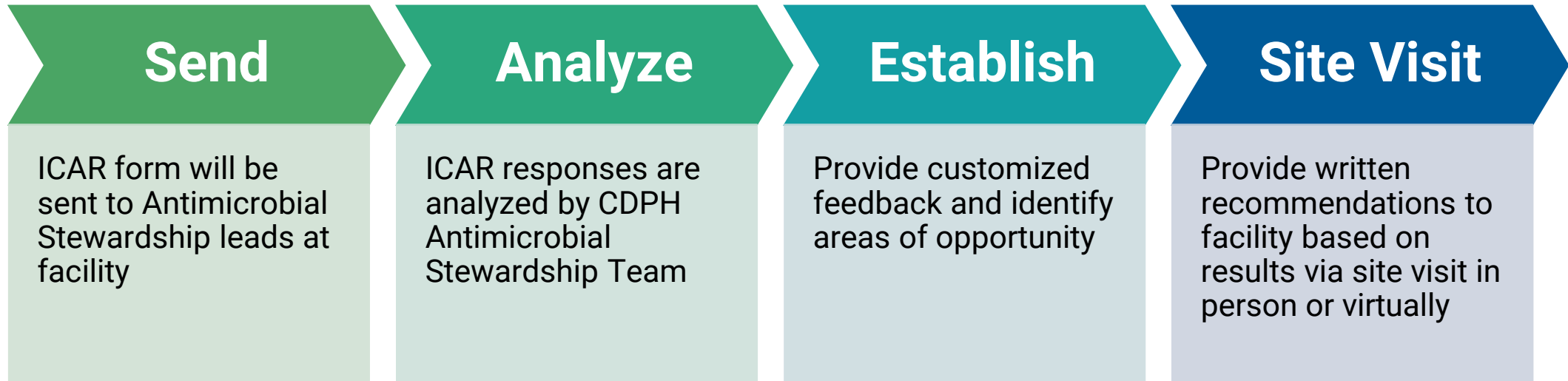
How will your facility benefit from this assessment?

- Allows for a fresh perspective on your existing AS program
- Prepare facility for regulatory surveys
- The ICAR helps with Infection Control Risk Assessment priorities and planning activities
- Provides a summary report of opportunities and strengths for each facility's antimicrobial stewardship program, as well as resources and education if needed.





AS ICAR Process



Q & A



MIDWEST ANTIMICROBIAL STEWARDSHIP COLLABORATIVE

Call For Abstracts

Mark your calendars! Based on the positive feedback from the 2023 MASC Virtual Research Symposium, we plan to host our second event **May 23rd, 2024, from 1200-1600.**

Summary: The Midwest Antimicrobial Stewardship Collaborative (MASC) would like to highlight 2023-24 research efforts from regional pharmacy and medical residents, fellows (and students). Nursing submissions are also encouraged. Due to time limitations, the first 12 relevant abstracts will be accepted. This is a great opportunity for trainees to share their work in a supportive forum with clinicians experienced in antimicrobial and diagnostic stewardship. Submissions on novel stewardship topics are ideal, though not required.

Presentation Overview: Presenters will provide an overview of their research via PowerPoint slides (preferably around 10 slides) over a maximum of 10 minutes, with an additional 5 minutes for questions. Research in progress is acceptable, provided outcomes data will be available by the presentation date. Slides should be submitted 1 week ahead of the presentation date.

IMPORTANT: Presenting data at the MASC Research Symposium has NO bearing on other submissions (e.g. IDWeek, etc). This is meant to be an open forum for information sharing.

Submission Request Requirements:

- Presenter name, title, institution, and email
- Co-presenter names, title(s), institution
- Research Title
- Abstract (attach as Word/PDF document)
 - Include the following sections: background, methods, results, conclusion
 - Max 500 words
- Email submission and/or questions to: MidwestASC@gmail.com

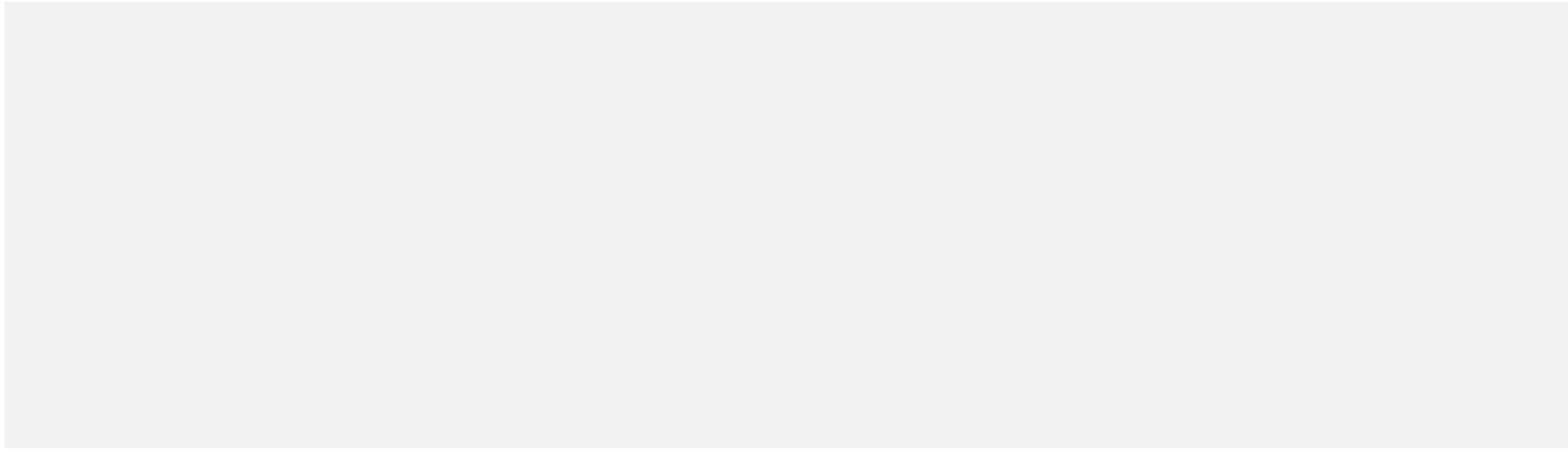
Submission deadline: Monday, April 22nd, 2024

★ FEEDBACK SURVEY

- <https://forms.office.com/g/NygiwkgBXc>

NHSN Workgroup Feedback Survey





Chicago.gov/Health



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