Standardized Antimicrobial Administration Ratio (SAAR)

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Outline

- SAAR overview
- 2017 baseline SAAR models
- SAAR reports in NHSN
- The SAAR and antimicrobial stewardship
- Next Steps
SAAR Overview
Overview

What is the SAAR?

- The SAAR, or Standardized Antimicrobial Administration Ratio, is a standardized metric of antimicrobial use (AU) available to facilities reporting data to NHSN’s AU Option from specified patient care locations
- Observed-to-Predicted Ratio (similar to the SIR)
- First developed in 2015 using data reported to the AU Option in 2014
- Provides the quantitative foundation for the NHSN antimicrobial use clinical quality measure endorsed by the National Quality Forum (NQF)
Overview

- As an Observed-to-Predicted Ratio, the SAAR allows facilities to compare their AU to the AU of a standard referent population (i.e., NHSN baseline)
  - **Observed AU**: antimicrobial days of therapy reported by a hospital for a specified group of antimicrobial agents used in a specified patient care location or group of locations
  - **Predicted AU**: antimicrobial days of therapy predicted for a hospital for a specified group of antimicrobial agents used in a specified patient care location or group of locations on the basis of negative binomial regression modeling applied to nationally aggregated AU data
Overview

Why was the SAAR developed?

– Enable antimicrobial stewardship programs and other users to measure and track antimicrobial use

– Facilities can monitor antimicrobial days of therapy (DOT) and rates of use, which are measurements of AU that do not take differences in risk between populations into account and should not be used for comparisons of AU over time or across reporting entities

– The SAAR was developed to enable risk-adjusted comparisons of AU over time and across entities
Overview

- Interpreting SAAR values
  - As a ratio, SAAR values are always greater than or equal to 0
  - A SAAR value <1 may indicate underuse of antimicrobials
  - A SAAR value=1 indicates observed AU is equivalent to predicted AU
  - A SAAR value >1 may indicate overuse of antimicrobials

- Note: A SAAR alone is not a definitive measure of the appropriateness or judiciousness of antimicrobial use, and any SAAR may warrant further investigation. For example, a SAAR above 1.0 that does not achieve statistical significance may be associated with meaningful excess of antimicrobial use and further investigation may be needed. Also, a SAAR that is statistically different from 1.0 does not mean that further investigation will be productive.
National Quality Forum Endorsement

- The SAAR was originally endorsed by the National Quality Forum in 2015
- New SAAR models are included in the NHSN AU quality measure maintenance proposal recently submitted to the National Quality Forum

- Public health/disease surveillance
- Quality improvement (internal to the specific organization)
- Quality improvement (external benchmarking involving multiple organizations)
- Public reporting
- Payment program
- Regulatory and accreditation programs
- Professional certification or recognition program
Background

- **What does “2017 baseline” mean?**
  - SAAR predictive models were developed using data submitted to the AU Option in calendar year 2017, and 2017 nationally aggregated AU data serve as the baseline to which antimicrobial use can be compared

- **Why were new SAAR models developed?**
  - Original SAAR models were developed using AU data reported by hospitals to the AU Option in calendar year 2014, when the number of participating hospitals was still relatively small
  - New models were needed to assess how hospital- and location-level factors were associated with AU among 2017’s larger group of hospitals
  - Chance to include new patient care locations and antimicrobial categories
SAAR development process

- Determined eligible SAAR patient care locations
- Finalized SAAR antimicrobial agent categories
  - Even if SAAR category names remained the same, antimicrobials included in each group may differ between 2014 and 2017 baselines
- Identified factors to consider as risk-adjustments in SAAR models
  - **Reminder: no patient level data available**
SAAR development process

- Validated data
  - Validated 2017 AU data reported from eligible patient care locations
  - Validated 2017 NHSN annual hospital survey data
  - Validation conducted through internal analyses, outreach to facilities, and facilities voluntarily completing AU Option validation protocols
2017 baseline referent populations

- Locations reporting ≥9 months of valid AU data were included in SAAR predictive models; these locations make up our adult and pediatric referent populations

- SAAR locations were reported from a diverse group of hospitals
  - Facility types represented: children’s, critical access, general acute care, military, oncology, surgical, Veterans Affairs, women’s, women’s and children’s
  - Teaching statuses represented: none, undergraduate, graduate, major
  - Hospital sizes represented: hospitals ranged in size from 8 beds to 1,287 beds
  - States represented: hospitals from 49 U.S. states and territories are represented in adult referent population and hospitals from 29 states are represented in pediatric referent population
2017 baseline referent populations

- **Adult referent population**: 2156 patient care locations from 449 facilities
- **Pediatric referent population**: 170 patient care locations from 106 facilities

<table>
<thead>
<tr>
<th>Location type</th>
<th>Adult locations</th>
<th>Pediatric locations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical intensive care unit</td>
<td>131</td>
<td>4</td>
</tr>
<tr>
<td>Medical-surgical intensive care unit</td>
<td>318</td>
<td>46</td>
</tr>
<tr>
<td>Surgical intensive care unit</td>
<td>73</td>
<td>.</td>
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<tr>
<td>Medical ward</td>
<td>472</td>
<td>21</td>
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<tr>
<td>Medical-surgical ward</td>
<td>554</td>
<td>94</td>
</tr>
<tr>
<td>Surgical ward</td>
<td>247</td>
<td>5</td>
</tr>
<tr>
<td>General hematology-oncology ward</td>
<td>68</td>
<td>.</td>
</tr>
<tr>
<td>Step-down unit</td>
<td>293</td>
<td>.</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2156</strong></td>
<td><strong>170</strong></td>
</tr>
</tbody>
</table>
How do 2014 and 2017 baseline SAARs differ?

<table>
<thead>
<tr>
<th>Factor</th>
<th>2014 baseline</th>
<th>2017 baseline</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Adult &amp; pediatric locations</td>
<td>• Modeled together</td>
<td>• Modeled separately</td>
</tr>
</tbody>
</table>
| 2. Location-level factors considered for risk adjustment | • ICU vs. non-ICU location  
• Location type  
• Pediatric vs. adult location  
• Bed size | • ICU vs. non-ICU location  
• Location type |
| 3. Facility-level factors considered for risk adjustment | • Total # of hospital beds  
• Total # of ICU beds  
• Hospital teaching status | • Total # of hospital beds  
• Total # of ICU beds  
• Hospital teaching status  
• Facility type  
• % ICU beds among all beds  
• Ave. hospital length of stay |
<table>
<thead>
<tr>
<th>Factor</th>
<th>2014 baseline</th>
<th>2017 baseline</th>
</tr>
</thead>
</table>
| 4. Referent population: total number of **facilities** | • 77 facilities | • Adult models: 449 facilities  
• Pediatric models: 106 facilities |
| 5. Referent population: total number of **locations** | • 350 adult and 33 pediatric | • Adult models: 2156 locations  
• Pediatric models: 170 locations |
| 6. Referent population: location types included | • Adult medical ICUs, wards  
• Adult med-surg ICUs, wards  
• Adult surgical ICUs, wards  
• Pediatric medical ICUs, wards  
• Pediatric med-surg ICUs, wards  
• Pediatric surgical ICUs, wards | • Adult medical ICUs, wards  
• Adult med-surg ICUs, wards  
• Adult surgical ICUs, wards  
• Pediatric medical ICUs, wards  
• Pediatric med-surg ICUs, wards  
• Pediatric surgical wards (no ICUs)  
• Adult step-down units  
• Adult hematology-oncology wards |
<table>
<thead>
<tr>
<th>Factor</th>
<th>2014 baseline</th>
<th>2017 baseline</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. SAAR antimicrobial agent categories</td>
<td>• Broad spectrum agents predominantly used for hospital-onset/multi-drug resistant infections</td>
<td>• Broad spectrum agents predominantly used for hospital-onset infections</td>
</tr>
<tr>
<td></td>
<td>• Broad spectrum agents predominantly used for community-acquired infections</td>
<td>• Broad spectrum agents predominantly used for community-acquired infections</td>
</tr>
<tr>
<td></td>
<td>• Anti-MRSA agents</td>
<td>• Antibacterial agents predominantly used for resistant Gram-positive infections (e.g., MRSA)</td>
</tr>
<tr>
<td></td>
<td>• Agents used predominantly for surgical site infection prophylaxis</td>
<td>• * Removed</td>
</tr>
<tr>
<td></td>
<td>• All antibacterial agents *</td>
<td>• All antibacterial agents*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Narrow spectrum beta-lactam agents</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Antifungal agents predominantly used for invasive candidiasis</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Azithromycin (peds only)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Antibacterial agents posing the highest risk for CDI*</td>
</tr>
</tbody>
</table>

*Not mutually exclusive
**2017 baseline SAAR predictive models**

- Modeled each SAAR antimicrobial category separately, both for adult and pediatric patient care locations
  - 7 adult SAAR models
  - 8 pediatric SAAR models
- Used negative binomial regression to assess which location- and facility-level factors were statistically significantly associated with rates of antimicrobial use for each SAAR agent category
- Factors found to be predictive of AU were included in final models as risk-adjustments
2017 baseline SAAR predictive models

- Final risk-adjusted SAAR models are used to predict days of therapy (DOT) for a specified location or group of locations for a specified time period.

- All predictions take into account the number of days present for a given time period.

- More information about eligible SAAR patient care locations, SAAR antimicrobial groupings and SAAR types available in SAAR reports can be found in the AUR Module Protocol.
  - [https://www.cdc.gov/nhsn/PDFs/pscManual/11pscAURcurrent.pdf](https://www.cdc.gov/nhsn/PDFs/pscManual/11pscAURcurrent.pdf)
### 2017 baseline Adult SAAR model risk-adjustment summary

<table>
<thead>
<tr>
<th>Factor</th>
<th>BSHO</th>
<th>BSCA</th>
<th>GramPos</th>
<th>NSBL</th>
<th>Fungal</th>
<th>CDI</th>
<th>All</th>
</tr>
</thead>
<tbody>
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<td>✓</td>
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<tr>
<td>Facility type</td>
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</tr>
<tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total number of hospital beds</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Total number of hospital ICU beds</td>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
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</tr>
<tr>
<td>Percentage of hospitals beds that are ICU beds</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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</tr>
<tr>
<td>Average hospital length of stay</td>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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### 2017 baseline Pediatric SAAR model risk-adjustment summary

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<th>Factor</th>
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<th>GramPos</th>
<th>NSBL</th>
<th>Azithro</th>
<th>Fungal</th>
<th>CDI</th>
<th>All</th>
</tr>
</thead>
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<tr>
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<tr>
<td>Facility type</td>
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<tr>
<td>Location type with facility type</td>
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<td></td>
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</tr>
<tr>
<td>Total number of hospital beds</td>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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</tr>
<tr>
<td>Total number of hospital ICU beds</td>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Percentage of hospitals beds that are ICU beds</td>
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<td>✓</td>
<td>✓</td>
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</tr>
<tr>
<td>Average hospital length of stay</td>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
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</tbody>
</table>
For what years can SAARs be calculated?

- **2014** baseline SAARs are available to AU Option users in the NHSN application for AU data reported 2014-2018
- **2017** baseline SAARs are available to AU Option users in the NHSN application for AU data reported 2017 onward
Can I compare 2014 SAARs to 2017 SAARs?

- No, 2014 baseline SAAR values cannot be directly compared with 2017 baseline SAAR values
  - Different baseline populations
  - Different risk adjustments
  - Different antimicrobials included in SAAR agent categories
SAAR Reports in NHSN
Where can I find SAAR reports?

- **Antimicrobial Use and Resistance Module**
  - Antimicrobial Use Data
  - Antimicrobial Use Data - 2014 Baseline SAARs
  - Antimicrobial Resistance Data

- **MDRO/CDI Module**
  - LABID Event Reporting
  - Infection Surveillance
  - Process Measures
  - Outcome Measures

2017 baseline SAARs & all other AU report types

2014 baseline SAAR reports only
Two 2017 baseline SAAR reports are available:

- SAAR Report - All SAARs (2017 Baseline)
  - Locations grouped together by type (all SAAR wards in one row)
- SAAR Report - All SAARs by Location (2017 Baseline)
  - A separate SAAR for each individual SAAR location
2017 baseline SAAR reports

- 2017 baseline SAAR reports are available for AU data reported January 2017 onward from SAAR locations

- Same layout as the 2014 baseline SAAR reports
  - Default to monthly SAARs
  - Each SAAR will be a new table in the report

- Remember to read the report footnotes!
  - SAAR only calculated if number of predicted antimicrobial days $\geq 1$
  - SAAR not calculated if antimicrobial days of therapy $>$ days present
  - SAARs limited to SAAR location types only
The SAAR and Antimicrobial Stewardship
How can the SAAR help with stewardship efforts?

- The SAAR can help hospitals determine where to focus antimicrobial stewardship efforts.
- The SAAR can be used to assess the impact of specific interventions targeted at improving AU.
- Facilities can use the SAAR to compare AU in a specific location or group of locations across two points in time.
Assessing where to focus ASP efforts

- Hospital A notices higher than normal rates of azithromycin the past few months
- The ASP team suspects overuse may be occurring in one of their pediatric units but want to be sure before dedicating the additional ASP resources needed to intervene
- In order to investigate where potential overuse of azithromycin is occurring, the team runs the All SAARs by Location report in NHSN
Assessing where to focus ASP efforts

- The ASP team assesses SAAR values for their 4 pediatric locations and sees their PEDSURG unit is using azithromycin at >10x the predicted rate.
- The team decides to further investigate azithromycin use in this ped surgical ward to determine if use is appropriate and if there are opportunities for improvement.

*Data for example only*
Comparing SAAR values across two points in time

- Hospital A has been working to decrease use of broad spectrum antibacterial agents for hospital-onset infections in their adult medical ICU.
- To assess the impact of their efforts, they want to compare SAAR values for this antimicrobial category across two points in time:

1. | orgID | summaryYQ | antimicrobialDays | numAUDaysPredicted | SAAR |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>13860</td>
<td>2014Q2</td>
<td>714</td>
<td>431.792</td>
<td>1.654</td>
</tr>
<tr>
<td>13860</td>
<td>2014Q3</td>
<td>926</td>
<td>697.668</td>
<td>1.327</td>
</tr>
</tbody>
</table>

Is this a statistically significant decrease?

Yes, it is!

However, SAARs typically have large denominators and large statistical power to find differences statistically significant. Statistical significance is important but does not automatically mean the findings are clinically significant or meaningful.

*Data for example only*
AU Option Case Examples

- [https://www.cdc.gov/nhsn/au-case-examples/index.html](https://www.cdc.gov/nhsn/au-case-examples/index.html)

Targeting a Reduction in Fluoroquinolone Use within a Community Hospital

Key Take Away Points

- A community hospital was able to identify an area of high drug use using NHSN Antimicrobial Use (AU) Option Standardized Antimicrobial Administration Ratio (SAAR) data.

- Once the area of high use and hospital locations were identified, appropriate empiric treatment guidelines promoting use of more narrow-spectrum agents where appropriate were developed and implemented.

- Ongoing tracking of SAAR data allowed the facility to assess the intervention and also monitor for unintended consequences (i.e. squeezing the balloon).
Using the SAAR for stewardship

**Strategies to Assess Antibiotic Use to Drive Improvements in Hospitals**

Next Steps
Next steps for the SAAR

- Currently developing SAARs for neonatal units, which are anticipated to be available to AU Option users December 2019 or early 2020

- In the process of writing a manuscript to summarize 2017 baseline SAARs models, including how methods and results are similar to and different from 2014 baseline SAAR models

- Continue assessing new locations for which SAARs can be calculated
  - Potential next step: SAAR for Emergency Departments
For more information on the SAAR

- SAAR publication, 2018, Clinical Infectious Diseases

- Training materials
Questions?

NHSN@cdc.gov

Thank you!

For more information, contact CDC
1-800-CDC-INFO (232-4636)

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.
Additional Slides
<table>
<thead>
<tr>
<th>Antibacterial agents</th>
<th>Adult med, med-surg, surg ICUs and wards, step-down, hematology-oncology</th>
<th>Adult_All-Antibacterial_2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broad spectrum antibacterial agents predominantly used for hospital-onset infections</td>
<td>Adult med, med-surg, surg ICUs</td>
<td>Adult_BSHO_ICU_2017</td>
</tr>
<tr>
<td></td>
<td>Adult med, med-surg, surg wards</td>
<td>Adult_BSHO_Ward_2017</td>
</tr>
<tr>
<td></td>
<td>Adult step-down units</td>
<td>Adult_BSHO_Step_2017</td>
</tr>
<tr>
<td></td>
<td>Adult hematology-oncology wards</td>
<td>Adult_BSHO_ONC_2017</td>
</tr>
<tr>
<td>Broad spectrum antibacterial agents predominantly used for community-acquired infections</td>
<td>Adult med, med-surg, surg ICUs</td>
<td>Adult_BSCA_ICU_2017</td>
</tr>
<tr>
<td></td>
<td>Adult med, med-surg, surg wards</td>
<td>Adult_BSCA_Ward_2017</td>
</tr>
<tr>
<td></td>
<td>Adult step-down units</td>
<td>Adult_BSCA_Step_2017</td>
</tr>
<tr>
<td></td>
<td>Adult hematology-oncology wards</td>
<td>Adult_BSCA_ONC_2017</td>
</tr>
<tr>
<td>Antibacterial agents predominantly used for resistant gram-positive infections (e.g., MRSA)</td>
<td>Adult med, med-surg, surg ICUs</td>
<td>Adult_GramPos_ICU_2017</td>
</tr>
<tr>
<td></td>
<td>Adult med, med-surg, surg wards</td>
<td>Adult_GramPos_Ward_2017</td>
</tr>
<tr>
<td></td>
<td>Adult step-down units</td>
<td>Adult_GramPos_Step_2017</td>
</tr>
<tr>
<td></td>
<td>Adult hematology-oncology wards</td>
<td>Adult_GramPos_ONC_2017</td>
</tr>
<tr>
<td>Narrow spectrum beta-lactam agents</td>
<td>Adult med, med-surg, surg ICUs</td>
<td>Adult_NSBL_ICU_2017</td>
</tr>
<tr>
<td></td>
<td>Adult med, med-surg, surg wards</td>
<td>Adult_NSBL_Ward_2017</td>
</tr>
<tr>
<td></td>
<td>Adult step-down units</td>
<td>Adult_NSBL_Step_2017</td>
</tr>
<tr>
<td></td>
<td>Adult hematology-oncology wards</td>
<td>Adult_NSBL_ONC_2017</td>
</tr>
<tr>
<td>Antibacterial agents posing the highest risk for CDI</td>
<td>Adult med, med-surg, surg ICUs</td>
<td>Adult_CDI_ICU_2017</td>
</tr>
<tr>
<td></td>
<td>Adult med, med-surg, surg wards</td>
<td>Adult_CDI_Ward_2017</td>
</tr>
<tr>
<td></td>
<td>Adult step-down units</td>
<td>Adult_CDI_Step_2017</td>
</tr>
<tr>
<td></td>
<td>Adult hematology-oncology wards</td>
<td>Adult_CDI_ONC_2017</td>
</tr>
<tr>
<td>Antifungal agents predominantly used for invasive candidiasis</td>
<td>Adult med, med-surg, surg ICUs</td>
<td>Adult_Antifungal_ICU_2017</td>
</tr>
<tr>
<td></td>
<td>Adult med, med-surg, surg wards</td>
<td>Adult_Antifungal_Ward_2017</td>
</tr>
<tr>
<td></td>
<td>Adult step-down units</td>
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</tr>
<tr>
<td></td>
<td>Adult hematology-oncology wards</td>
<td>Adult_Antifungal_ONC_2017</td>
</tr>
</tbody>
</table>
15 pediatric SAAR types available (2017 baseline)

- All antibacterial agents
  - Pediatric med, med-surg ICUs and med, med-surg, surg wards
  - Ped_All-Antibacterial_2017

- Broad spectrum antibacterial agents predominantly used for hospital-onset infections
  - Pediatric med, med-surg ICUs
  - Pediatric med, med-surg, surg wards
  - Ped_BSHO_ICU_2017
  - Ped_BSHO_Ward_2017

- Broad spectrum antibacterial agents used predominantly for community-acquired infections
  - Pediatric med, med-surg ICUs
  - Pediatric med, med-surg, surg wards
  - Ped_BSCA_ICU_2017
  - Ped_BSCA_Ward_2017

- Antibacterial agents predominantly used for resistant gram-positive infections (e.g., MRSA)
  - Pediatric med, med-surg ICUs
  - Pediatric med, med-surg, surg wards
  - Ped_GramPos_ICU_2017
  - Ped_GramPos_Ward_2017

- Narrow spectrum beta-lactam agents
  - Pediatric med, med-surg ICUs
  - Pediatric med, med-surg, surg wards
  - Ped_NSBL_ICU_2017
  - Ped_NSBL_Ward_2017

- Azithromycin
  - Pediatric med, med-surg ICUs
  - Pediatric med, med-surg, surg wards
  - Ped_Azith_ICU_2017
  - Ped_Azith_Ward_2017

- Antibacterial agents posing the highest risk for CDI
  - Pediatric med, med-surg ICUs
  - Pediatric med, med-surg, surg wards
  - Ped_CDI_ICU_2017
  - Ped_CDI_Ward_2017

- Antifungal agents predominantly used for invasive candidiasis
  - Pediatric med, med-surg ICUs
  - Pediatric med, med-surg, surg wards
  - Ped_Antifungal_ICU_2017
  - Ped_Antifungal_Ward_2017
New rate report

- Antibacterial agents used to treat extensively antibiotic resistant infections were removed from the broad spectrum hospital-onset SAAR agent category
  - Ceftazidime/avibactam
  - Ceftolozane/tazobactam
  - Colistimethate
  - Polymyxin B
  - Tigecycline

- Rates of use for these agents are extremely low in SAAR patient care locations
  - Adult SAAR locations: pooled mean rate = 1.21 DOT/1,000 days present
  - Pediatric SAAR locations: pooled mean rate = 0.65 DOT/1,000 days present
New rate report

- Because use is so low, and there is little variation in use (majority of locations report 0 DOT), SAARs for this group of agents would not be particularly useful to most antibiotic stewardship programs (ASPs).

- With that said, because of their ability to treat extensively antibiotic resistant infections, these antimicrobials are often protected and of interest to ASPs.

- Therefore, it was decided that rate reports would be included in AU output analysis options to provide facilities with their pooled rates for adult SAAR locations and pediatric SAAR locations, along with the pooled rate distributions using data from the 2017 baseline SAAR referent populations.
New rate report

- Example pediatric pooled rate report (data in white were made up for explanatory purposes, but data in yellow reflect true values)

Pooled rate - across the 5 antibacterial agents and eligible pediatric SAAR locations

<table>
<thead>
<tr>
<th>summary YM</th>
<th>SAARRate Type_2017</th>
<th>antimicrobialDays</th>
<th>num Days Present</th>
<th>RateDays Present</th>
<th>RateDays Present95 CI</th>
<th>pooled_mean_AUraten</th>
<th>SAARR_pval</th>
<th>p25th</th>
<th>p50th</th>
<th>p75th</th>
<th>p90th</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018M07</td>
<td>Ped_EARB_2017</td>
<td>110</td>
<td>2219</td>
<td>49.57</td>
<td>40.936, 59.511</td>
<td>0.65</td>
<td>0.0000</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.29</td>
</tr>
</tbody>
</table>

P-value to indicate whether your hospital’s pooled rate is significantly different from the pooled rate of the referent population

National pooled pediatric mean rate (from 2017 baseline pediatric SAAR referent population) displayed as DOT per 1,000 days present

Pooled rate distribution from 2017 baseline pediatric SAAR referent population