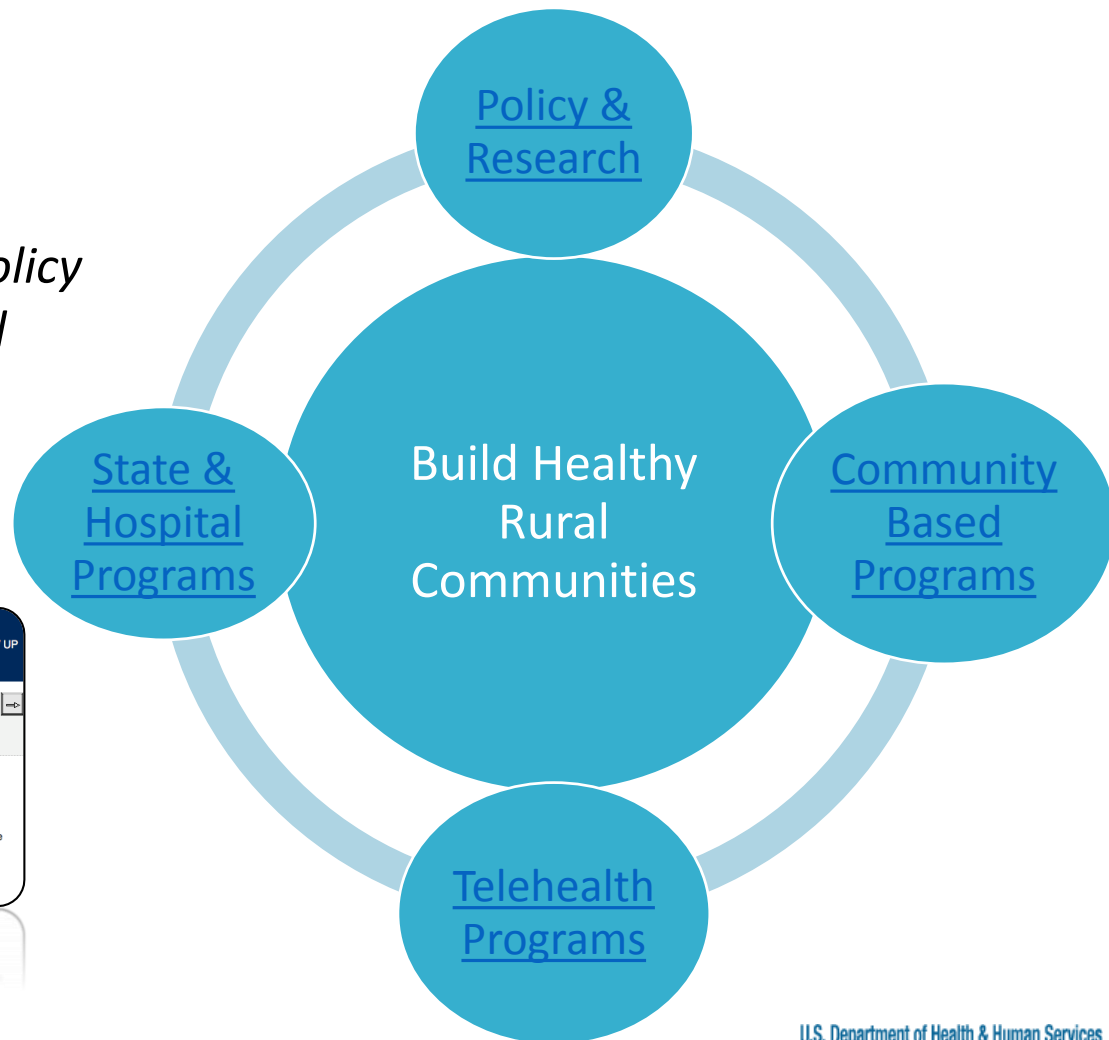


# The Federal Office of Rural Health Policy

## **Mission**

*FORHP collaborates with rural communities and partners to support programs and shape policy that will improve health in rural America.*



## Community-Based Division

- Rural Health Outreach Program
- Rural Health Network Development Planning Program
- Rural Health Opioid Program
- Small Health Care Provider Quality Improvement Program

## Office for the Advancement of Telehealth

- The Telehealth Network Grant Program
- [The Telehealth Resource Center Program](#)
- The Telehealth Licensure and Portability Program

## Hospital-State Division

- State Offices of Rural Health Program
- Medicare Rural Hospital Flexibility Grant Program
- Small Hospital Improvement Program Grant

## Policy and Research Division

- Rural Health Research Center Program
- Rural Training Track Technical Assistance Center
- Rural Assistance Center
- Rural Policy Analysis
- Rapid Response Data Analysis
- Rural Health Value



# Medicare Beneficiary Quality Improvement Project (MBQIP)

- A quality improvement activity within the [Medicare Rural Hospital Flexibility Grant Program](#) (Flex)
- Reporting common, rural-relevant CMS measures across **patient safety/inpatient, patient engagement, care transitions, and outpatient care**
- Measuring outcomes and demonstrating improvements
- Sharing best practices



# New MBQIP Core Measure – Antibiotic Stewardship

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Starting in 2018, Critical Access Hospitals (CAHs) participating in MBQIP will be required to fully implement a Hospital Antibiotic Stewardship Program (AMS) following the CDC's 7 Core Elements by August 31, 2022.

FORHP encourages CAHs to collaborate with their state Flex Coordinators, state HAI and AR prevention programs, and other partners such as the Quality Improvement Networks – Quality Improvement Organizations (QIN-QIOs) and Hospital Improvement Innovation Networks (HIINs) to share resources and implement an Antibiotic Stewardship program in their facilities.

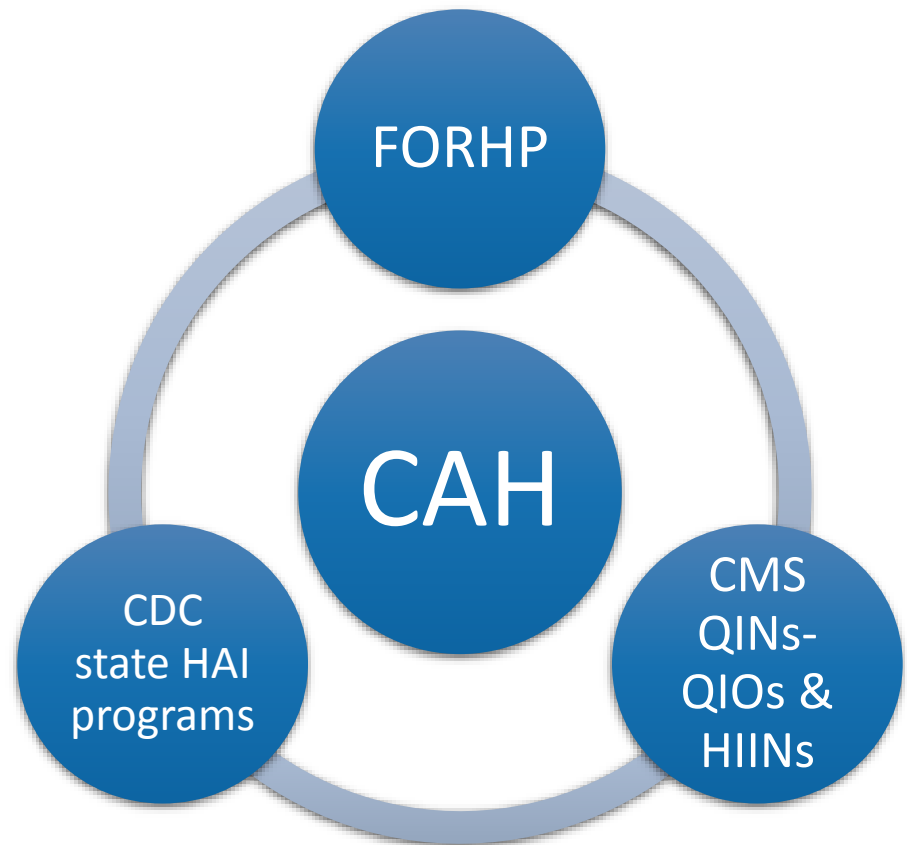


# MBQIP Measures

	<b>Patient Safety/Inpatient</b>	<b>Patient Engagement</b>	<b>Care Transitions</b>	<b>Outpatient</b>
<b>Core/Required Improvement Initiatives</b>	<p>OP-27: Influenza Vaccination Coverage Among Healthcare Personnel (HCP) (<i>Facilities report a single rate for inpatient and outpatient settings</i>)</p> <p>IMM-2: Influenza Immunization for inpatients</p>	<p>Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS)</p> <p><i>The HCAHPS survey contains 21 patient perspectives on care and patient rating items that encompass nine key topics:</i></p> <ul style="list-style-type: none"> <li>• Communication with Doctors</li> <li>• Communication with Nurses</li> <li>• Responsiveness of Hospital Staff</li> <li>• Pain Management</li> <li>• Communication about Medicines</li> <li>• Discharge Information</li> <li>• Cleanliness of the Hospital Environment</li> <li>• Quietness of the Hospital Environment</li> <li>• Transition of Care</li> </ul> <p><i>The survey also includes four screener questions and seven demographic items. The survey is 32 questions in length.</i></p>	<p>Emergency Department Transfer Communication (EDTC)</p> <p><i>7 sub-measures; 27 data elements; 1 composite</i></p> <ul style="list-style-type: none"> <li>• EDTC-1: Administrative Communication (2 data elements)</li> <li>• EDTC-2: Patient Information (6 data elements)</li> <li>• EDTC-3: Vital Signs (6 data elements)</li> <li>• EDTC-4: Medication Information (3 data elements)</li> <li>• EDTC-5: Physician or Practitioner Generated Information (2 data elements)</li> <li>• EDTC-6: Nurse Generated Information (6 data elements)</li> <li>• EDTC-7: Procedures and Tests (2 data elements)</li> <li>• All-EDTC: Composite of All 27 data elements</li> </ul>	<p>Chest Pain/AMI:</p> <ul style="list-style-type: none"> <li>• OP-1: Median Time to Fibrinolysis</li> <li>• OP-2: Fibrinolytic Therapy Received within 30 minutes</li> <li>• OP-3: Median Time to Transfer to another Facility for Acute Coronary Intervention</li> <li>• OP-4: Aspirin at Arrival</li> <li>• OP-5: Median Time to ECG</li> </ul> <p>ED Throughput</p> <ul style="list-style-type: none"> <li>• OP-18: Median Time from ED Arrival to ED Departure for <i>Discharged</i> ED Patients</li> <li>• OP-20: Door to Diagnostic Evaluation by a Qualified Medical Professional</li> <li>• OP-22: Patient Left Without Being Seen</li> </ul> <p>Pain Management</p> <p>OP-21: Median Time to Pain Management for Long Bone Fracture</p>
	<p><b>Antibiotic Stewardship:</b> Measured via Center for Disease Control National Healthcare Safety Network (CDC NHSN) Annual Facility Survey</p> <p>Inpatient ED Measures:</p> <ul style="list-style-type: none"> <li>• ED-1: Median Time from ED Arrival to ED Departure for <i>Admitted</i> ED Patients</li> <li>• ED-2: Admit Decision Time to ED Departure Time for <i>Admitted</i> Patients</li> </ul>			

# New MBQIP Core Measure – Antibiotic Stewardship

- ☐ Enroll in CDC National Healthcare Safety Network (NHSN)
- ☐ Submit [CDC NHSN Annual Facility survey](#) yearly – starting in 2018 for calendar year 2017
- ☐ Review [CDC 7 Core Elements](#)
- ☐ [Contact](#) your state HAI Coordinator for technical assistance



# Resources for CAHs

MBQIP TA Questions to:  
[tasc@ruralcenter.org](mailto:tasc@ruralcenter.org)

- Information about MBQIP: <https://www.ruralcenter.org/tasc/mbqip>
- 2015 National and State HAI Data Report:  
<https://www.cdc.gov/hai/surveillance/data-reports/2015-HAI-data-report.html>
- Evidence-Based Programs and Strategies for Reducing Healthcare-Associated Infections (HAI) in CAHs:  
<http://www.flexmonitoring.org/publications/pb40/>
- Reporting of Healthcare-Associated Infections (HAI) by CAHs:  
<http://www.flexmonitoring.org/publications/pb39/>
- Implementation of Antibiotic Stewardship Core Elements at Small and Critical Access Hospitals  
<https://www.cdc.gov/getsmart/healthcare/implementation/core-elements-small-critical.html>
- National Quality Forum Rural Health Committee Report on Performance Measurement for Rural Low-Volume Providers:  
[www.qualityforum.org/Rural\\_Health.aspx](http://www.qualityforum.org/Rural_Health.aspx)



# Contact Information

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**Phone: 301 – 945 -0782**

**Web: [hrsa.gov/ruralhealth/](http://hrsa.gov/ruralhealth/)**

**Twitter: [twitter.com/HRSAgov](https://twitter.com/HRSAgov)**

**Facebook: [facebook.com/HHS.HRSA](https://facebook.com/HHS.HRSA)**







# Annual Survey and Location Mapping for Critical Access Hospitals

**Scott Decker MPH, CHES**

**Methods and Analytics Team**

**Division of Healthcare Quality Improvement**

2/7/2018

# Patient Safety Annual Survey

# Objectives

- Review data from recent CAH Annual Survey Data
- Identify important dates, details, and updates to the 2017 annual survey
- Understand how to run analysis of survey level data and modify those reports, including the core elements of antibiotic stewardship line list
- Highlight the impact of survey level data on the facility generated standardized infection ratio
- Review best practices for location mapping in NHSN
- Review common location mapping scenario's specific to CAH's

# Patient Safety Hospital Annual Survey

- Annual survey released in NHSN that gathers facility level data from previous calendar year
- This mandatory survey is completed by all enrolled facilities in NHSN to provide updated information on hospital characteristics and practices
- Survey broken up into different sections: facility characteristics, lab practices, infection control practices, antibiotic stewardship practices, and water management and monitoring program\*
- Blank versions of the 2017 survey and instructions are available to help complete the survey

\*New

## New Questions Added

- New section of questions dedicated to water management within healthcare facilities will be added to all Patient Safety surveys
- 3 questions added to assist CDC with collecting information on Legionnaires Disease (LD)
  - Outbreaks of LD are often associated with large water systems, such as hospitals
- Survey instructions provide some assistance towards answering these new questions
  - Similar to other sections in the annual survey, consultation with appropriate healthcare personnel may be necessary to complete responses

# Water Management and Monitoring Questions

**Facility Water Management and Monitoring Program**

36. Have you ever conducted a facility risk assessment to identify where *Legionella* and other opportunistic waterborne pathogens (e.g. *Pseudomonas*, *Acinetobacter*, *Burkholderia*, *Stenotrophomonas*, nontuberculous mycobacteria, and fungi) could grow and spread in the facility water system (e.g., piping infrastructure)? ☒ Yes ☐ No

If Yes, when was the most recent assessment conducted? (Check one) \*

☐ ≤ 1 year ago ☐ > 1 and ≤ 3 years ago

37. Does your facility have a water management program to prevent the growth and transmission of *Legionella* and other opportunistic waterborne pathogens? ☒ Yes ☐ No

If Yes, who is represented on the team? (Check all that apply) \*

☐ Hospital Administrator ☐ Hospital Epidemiologist / Infection Preventionist ☐ Consultant ☐ Facilities Manager/Engineer

☐ Maintenance Staff ☐ Infectious Disease Clinician ☐ Risk/Quality Management Staff ☐ Compliance Officer

☐ Equipment/Chemical Supplier ☐ Other (specify):

38. Do you regularly monitor the following parameters in your building's water system? (Check all that apply)

Disinfectant (such as residual chlorine) ☐ Yes ☐ No

Temperature ☐ Yes ☐ No

Heterotrophic plate counts ☐ Yes ☐ No

Specific tests for *Legionella* ☐ Yes ☐ No

Follow-up questions will not appear if "No" is selected for questions 36 and 37

- Users who complete the annual survey please identify facility personnel that can help assist with these questions

## CAH at-a-Glance

Ownership	2015	2016
# of CAH's	915	966
Government	111 (12.13%)	111 (11.49%)
Non-profit	720 (78.69%)	773 (80.02%)
For Profit	83 (9.07%)	81 (8.39%)
Physician Owned	1 (0.11%)	0

\*Data from completed surveys in NHSN as of January 1, 2018

## CAH at-a-Glance

Facility Characteristics*	2015	2016
Avg. Number of beds	26.08	22.2
Avg. Number of ICU Beds	5.56	1.15
Avg. Number of Patient Days	2793.23	2723.32
Average Number of Admissions	732.94	736.30
Average Length of Stay	3.81**	3.69

\*Data from completed surveys in NHSN as of January 1, 2018

\* Hospice Beds and patient days are included in these calculations



## CAH at-a-Glance

Medical School Affiliation*	2015	2016
Yes	62 (6.77%)	125 (12.85%)
No	853 (93.23%%	841 (87.10%)
(Type) Undergraduate	20 (32.26%)	56 (44.80%)
(Type) Graduate	33 (53.23%)	48 (38.80)
(Type) Major	9 (14.52%)	21 (16.80%)

\*Data from completed surveys in NHSN as of January 1, 2018

# Medical School Affiliation

The three different levels of medical school affiliation are:

- **Major Teaching** – Facility trains medical students, nursing students, and post-graduate residents. Note that there is no minimum number of students that must be present in your facility to meet this designation, and it is not necessary for your facility to be attached/affiliated with a medical school.
- **Graduate Teaching-** Facility trains post-graduate residents/fellows
- **Undergraduate Teaching-** Facility trains current (undergraduate) medical students and/or nursing students

❖ Select the highest level that your facility meets on the annual survey

# Annual Surveys and Risk Adjustment for CAH

- Some factors for the SIR risk adjustment calculations come from the annual survey
- Changes in your data from one survey year to the next may impact your facilities SIR for certain HAI measures
- To identify which factors impact CAH across all HAI's, please visit the newly published Guide to SIR

## Annual Surveys and Risk Adjustment for CAH (cont.)

- Every year a new survey is entered into NHSN to reflect data from the prior calendar year
- SIRS will use the most recent annual survey on file for the current SIRs
  - Right now, facilities are either using 2016 or the 2017 survey
  - Those values will be used to calculate 2016 and 2017 SIRs
- Under the new baseline, SIRS will be risk adjusted using the corresponding annual survey from that year
- If the annual survey from that year hasn't been completed, SIRs will be risk adjusted using the most recent available survey

## Risk Adjustment Example: CAUTI

- Medical school affiliation is a risk factor for CAUTI surveillance within CAH
- Facility's that select "Undergraduate" as their status have found to have a higher risk for CAUTI infection compared to facilities who have Major/Graduate/ Non-teaching status

**Table 2. CAUTI in Critical Access Hospitals (CAHs)**

<u>Parameter</u>	<u>Parameter Estimate</u>	<u>Standard Error</u>	<u>P-value</u>
<i>Intercept</i>	-7.3337	0.0970	<0.0001
Medical school affiliation*:Undergraduate	1.3191	0.4744	0.0054
Medical school affiliation*:Major/Graduate/Non-teaching	REFERENT	-	-

Different levels of risk associated with medical school affiliation

# Risk Adjustment Example: CAUTI (cont.)

## National Healthcare Safety Network

### Line Listing for All Summary Data

As of: February 5, 2018 at 1:15 PM

Date Range: PSSUMMARY summaryYM 2016M01 to 2017M03

orgid	CCN	summaryYM	summarytype	location	locationtype	loccdc	locLabel	eventtype	numpatdays	numddays	noEvents
10376	N/A	2016M01	ICU	INMEDCC	CC	IN:ACUTE:CC:M	IN:ACUTE:CC:M	CAU	400	250	N
10376	N/A	2016M02	ICU	INMEDCC	CC	IN:ACUTE:CC:M	IN:ACUTE:CC:M	CAU	375	255	N
10376	N/A	2016M03	ICU	INMEDCC	CC	IN:ACUTE:CC:M	IN:ACUTE:CC:M	CAU	350	256	N
10376	N/A	2017M01	ICU	INMEDCC	CC	IN:ACUTE:CC:M	IN:ACUTE:CC:M	CAU	400	250	N
10376	N/A	2017M02	ICU	INMEDCC	CC	IN:ACUTE:CC:M	IN:ACUTE:CC:M	CAU	375	255	N
10376	N/A	2017M03	ICU	INMEDCC	CC	IN:ACUTE:CC:M	IN:ACUTE:CC:M	CAU	350	256	N

Summary Data for Q1 2016 and Q1 2017

CAUTI Events for Q1 2016 (n=3), and Q1 2017 (n=3)

## National Healthcare Safety Network

### Line Listing for All Catheter-Associated UTI Events

As of: February 5, 2018 at 1:16 PM

Date Range: CAU\_EVENTS eventDate 01/01/2016 to 03/31/2017

orgID	patID	dob	gender	admitDate	eventID	eventDate	eventType	spcEvent	location
10376	DS3456	05/29/1962	M	01/06/2016	58529	01/27/2016	UTI	ABUTI	INMEDCC
10376	DS3456	05/29/1962	M	01/06/2017	61053	01/27/2017	UTI	ABUTI	INMEDCC
10376	P1299	03/04/1925	M	01/19/2016	58531	02/19/2016	UTI	ABUTI	INMEDCC
10376	P1299	03/04/1925	M	01/19/2017	61055	02/19/2017	UTI	ABUTI	INMEDCC
10376	RP1234	05/21/1965	M	03/03/2016	58533	03/19/2016	UTI	ABUTI	INMEDCC
10376	RP1234	05/21/1965	M	03/03/2017	61057	03/19/2017	UTI	ABUTI	INMEDCC

# Risk Adjustment Example: CAUTI (cont.)

National Healthcare Safety Network										
SIR for CAUTI Data for Critical Access Hospital IQR (2015 Baseline) - By OrgID/Location										
As of: February 5, 2018 at 1:25 PM										
Date Range: BS2_CAU_RATE_SCAH_CMS summaryYQ 2016Q1 to 2017Q1										
if (((utiPlan = "Y") AND (locationType IN ("CC", "CC_ONC" ))) OR ((utiPlan = "Y") AND (locCDC IN ("IN:ACUTE:WARD:M", "IN:ACUTE:WARD:"))										
orgid=10376 medType=U										
orgid	ccn	location	summaryYQ	months	infcount	numPred	numcathdays	SIR	SIR_pval	SIR95CI
10376	N/A	INMEDCC	2016Q1	3	3	1.859	761	1.614	0.4036	0.410, 4.392

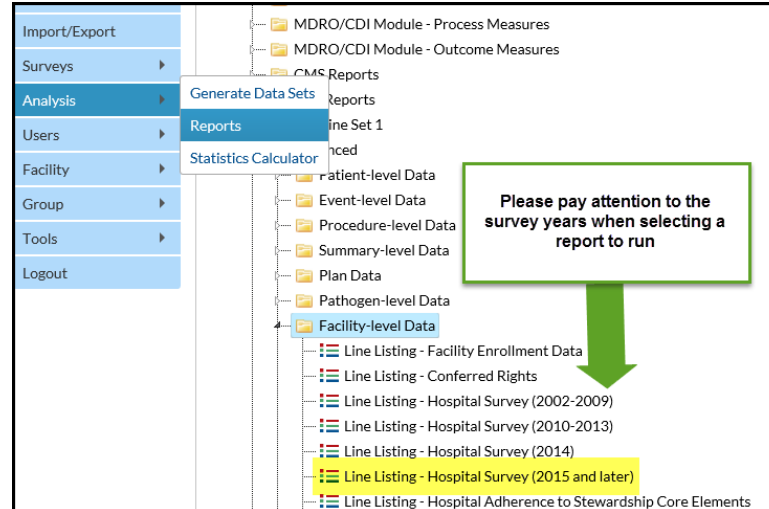
SIR report using the 2016 Annual Survey

SIR report using the 2017 Annual Survey

National Healthcare Safety Network								
SIR for CAUTI Data for Critical Access Hospital IQR (2015 Baseline) - By OrgID								
As of: February 5, 2018 at 1:25 PM								
Date Range: BS2_CAU_RATE_SCAH_CMS summaryYQ 2016Q1 to 2017Q1								
if (((utiPlan = "Y") AND (locationType IN ("CC", "CC_ONC" ))) OR ((utiPlan = "Y") AND (locCDC IN ("IN:ACUTE:WARD:M", "IN:ACUTE:WARD:"))								
orgID=10376 medType=' '								
orgID	ccn	summaryYQ	infCount	numPred	numcathdays	SIR	SIR_pval	sir95ci
10376	N/A	2017Q1	3	0.497	761	.	.	.

# Analyzing the Annual Survey

- Analysis of the annual survey in NHSN datasets are a good tool for routine data quality checks
- Survey responses found on these reports can be easily compared to across multiple survey years
- The report can accessed within NHSN Reports > Advanced Folder > Facility Level Data





## Analyzing the Annual Survey (cont.)

- Select “Modify” if you’d like to edit the survey line list
- Select “Modify” to select specific survey questions/variables to be displayed
- Please view the resource guide “How to Modify a Line List” for more instruction on how to save and export your reports

Modify "Line Listing - Hospital Survey (2015 and later)"

☐ Show descriptive variable names ([Print List](#)) Analysis Data Set: HospSurveyV5 Type: Line Listing Data Set Generated On: 02/05/2018 13:18:00

Title/Format Time Period Filters **Display Variables** Sort Variables Display Options

Variables that will be included in the output

Display Variables:

Available Variables:

- mrsaScreenOthSfy
- mrsaScreenPat
- noAutoTestingCAND
- numEpiFTE
- numOtherBeds
- OID
- paComment
- paPrimary
- paPrimaryDesc
- paSecondary
- paSecondaryDesc
- recMDROStatusEst
- recMDROStatusEstDesc
- saComment
- saPrimary

Highlight any desired variables and move them to the right box "Selected Variables" to be included in the output

Selected Variables:

- orgID
- surveyYear
- name
- facOwnerDesc
- medAff
- medTypeDesc
- numBeds
- numICUBeds
- numAdmits
- numPatDays
- numICP
- totHrSurv
- totHrOth

Up Down Undo

Run Save... Export... Close

## Analyzing the Annual Survey (cont.)

- Output will be ordered by survey year and will include all completed surveys
- Information found on the report can help explain potential data quality issues found in other analysis (e.g. Medical School Affiliation Change)

### National Healthcare Safety Network

#### Line Listing - Hospital Survey (2015 and later)

As of: February 5, 2018 at 1:49 PM

Date Range: All HOSP SURVEYV5

orgID	surveyYear	name	facOwnerDesc	medAff	medTypeDesc	numBeds	numICUBeds	numAdmits	numPatDays	numICP	totHrSurv	totHrOth
10376	2015	Inter-Community Mem Hospital	GOV - Government	Y	M - Major	120	20	2000	30000	1.00	20	20
10376	2016	Inter-Community Mem Hospital	NP - Not for profit, including church	Y	U - Undergraduate	25	5	700	2700	1.00	10	10
10376	2017	Inter-Community Mem Hospital	NP - Not for profit, including church	N		25	20	700	2700	1.00	10	40

- Surveys can always be edited and saved in NHSN if a correction needs to be made

## Core Elements Line List Output Option

- Line list that maps responses Antibiotic Stewardship Practices section of the annual survey to the CDC's 7 Core Elements of Antibiotic Stewardship (questions 23-33)
- Option is found in the Advanced Folder > Facility Level Data and be simply run without any or much modifications
- The core elements that a facility has met will be summed in the “coreElementsMet” column

National Healthcare Safety Network									
Line Listing - Hospital Adherence to Seven Core Elements of Hospital Antibiotic Stewardship Program									
As of: February 5, 2018 at 3:34 PM									
Date Range: All ABX STEWARD SHIP									
orgID	surveyYear	Leadership_CE	Accountability_CE	DrugExpertise_CE	Action_CE	Tracking_CE	Reporting_CE	Education_CE	coreElementsMet
10376	2015	N	Y	N	Y	Y	Y	Y	5
10376	2016	N	N	N	Y	Y	Y	N	3
10376	2017	Y	Y	Y	Y	Y	Y	Y	7

# Core Elements Question Mapping

- Please view the resource guide on How to Run the Core Elements Line list to identify which survey questions and variables map to each specific element

## HOW TO RUN THE CORE ELEMENTS LINE LIST WITHIN NHSN

**Table of Core Elements Mapping to Hospital Annual Survey**

Core Element	Questions from PS Annual Survey-Hospital	Variable name(s)
Leadership	Q23: Does your facility have a written statement of support from leadership that supports efforts to improve antibiotic use (antibiotic stewardship)?	facSupp
	Q26: Does your facility provide any salary support for dedicated time for antibiotic stewardship leadership activities?	abxStewardSalary
Accountability	Q24: Is there a leader responsible for stewardship activities at your facility? If Yes, what is the position of this leader?	abxSteward
Drug Expertise	Q25: Is there at least one pharmacist responsible for improving	abxPharm



# Location Mapping

# Importance of NHSN Location Mapping

- NHSN locations are created and updated in order to identify similar populations across different facility types
- Similar populations are believed to have similar risks for healthcare-associated infections (HAIs)
  - Similar medical devices
  - Similar invasive procedures
  - Similar host factors affecting susceptibility
- Several HAI surveillance modules utilize location type as a risk factor:
  - MBI-LCBI
  - Device associated- CLABSI, CAUTI, VAE
  - CDI and MRSA

Information from this presentation can be found in chapter 15 of the NHSN Protocol found here:

[https://www.cdc.gov/nhsn/pdfs/pscmanual/15locationsdescriptions\\_current.pdf](https://www.cdc.gov/nhsn/pdfs/pscmanual/15locationsdescriptions_current.pdf)

-  Document provides definitions for each CDC location used for surveillance for all facility types
-  Includes the decision tree to assist in determining the correct CDC location descriptions to map to your facility

## NHSN 80% Rule

- Each patient care area in a facility that is monitored in NHSN is “mapped” to one or more CDC locations
- The specific CDC location code is determined by the type of patients cared for in that area, over the last full year, according to this rule
- If  $\geq 80\%$  of patients are of a certain type, then that area is designated as that type of location



# Step 1: Define Acuity Level

- Is this patient care area comprised of at least 80% of patients that are of the same acuity level?\*
  - Examples of acuity levels:
    - Critical Care Units (CC)
    - Inpatient Specialty Care Areas (SCA)
    - Inpatient Wards
    - Step Down Units
  - If YES, **proceed to Step 2** and map to a location type of that acuity level using the NHSN 80% Rule for that specific type
- \* Based on patient mix over last full year

## Step 1. Define Acuity Level

If NO:

- Can this patient care area be split into 2 or more locations in NHSN for the purposes of surveillance, also referred to as “virtual locations”?

If YES: **Proceed to Step 2** and create locations in NHSN for each of the acuity levels, using the NHSN 80% Rule

If NO: Map to a CDC Mixed Acuity location

# Best Practices for determining a patient acuity level

- Review the patient mix for any unit for the last full calendar year
  - Acuity billing data is the most reliable method, but admission diagnosis is also an acceptable choice
- If one year of data is not available, a shorter period of time is acceptable
  - NHSN guidance has been at least 3 month
- Consult with clinical leadership
  - Not the best option, but may be the only possible method if opening a new facility/unit.
- Continue to monitor patient breakdowns on a routine basis

## Step 2: Define the Type of Service

Is this patient care area a general medical, surgical, or medical/surgical unit?  
Or is it comprised of patients from a specific service type (e.g., burn, cardiac)?

- **If GENERAL: Are more than 60% of patients either medical or surgical?**

If YES: Create a location in NHSN that is mapped to the majority type (medical or surgical)

If NO: Create a location in NHSN that is mapped to a combined medical/surgical CDC location

The mix of patients should then be a 50/50 to 60/40 mix of medical and surgical patients

## Step 2 for Specific Service Type Location

- **If SPECIFIC: Does this unit meet the NHSN 80% Rule for locations?**

If YES: Create a location in NHSN that is mapped to that location type

If NO: Can this single unit be split into 2 or more units in NHSN for the purposes of surveillance, also referred to as “virtual locations”?

## Step 2 for General Medical/Surgical Locations

**Can this single unit be split into 2 or more units in NHSN for the purposes of surveillance, also referred to as “virtual locations”?**

If YES: Create locations in NHSN for each of these specific service virtual locations

If NO: Is the mix of patients in this unit approximately a 50/50 to 60/40 mix of combined medical and surgical?

## Step 2 for Units that Cannot be Split

Is the mix of patients in this unit approximately a 50/50 to 60/40 mix of combined medical and surgical?

If YES: Create a location in NHSN that is mapped to a combined medical/surgical unit

If NO: Create a location in NHSN that is mapped to the location of the majority type (greater than 60%), either medical or surgical

# Virtual Locations

- Created in NHSN when a facility is unable to meet the 80% rule for location designation in a single physical unit, but would like to report their NHSN surveillance data for each of the major specific patient types in that unit





# Virtual Locations

- While it is recommended that virtual locations be used when a location can be geographically split, this is not a required to map two virtual locations
- To use virtual locations, unit staff will need to be able to identify the specific beds that are used for all patients types found in that area
  - This is done in order to assign them to the correctly mapped CDC description code(s)
  - This is easier when there is some kind of physical delineation in a unit that separates two or more differing patient populations

## Mixed Acuity Units (MAU's)

- Collection of patients of differing acuity levels (critical care, wards, step-down, etc.)
- Not able to separate out which type of patients are housed in this unit when this location is used
  - MAU are **not** included in any ICU/Ward-specific reporting requirements
- Contact your Quality Improvement Organization or HAI coordinator to learn how the use of this location may impact compliance for certain reporting requirements
- Benchmarking for MAU are now available in NHSN after the rebaseline

# CAH Mapping Scenario

- A critical access hospital has one unit comprising of 42% adult critical care (Beds 1-10) and 58% adult ward (Beds 11-25) as determined by a year's worth of admission diagnoses.

## Option 1:

Map as a CDC mixed acuity location

## Option 2

Split the unit into two virtual units; 1 Adult Critical Care Unit and 1 Adult Ward

## Observation Units/Overflow

- The 24 hour observation unit location in NHSN (OUT:ACUTE:WARD) is considered an outpatient unit
  - Appropriate to map if at least 80% of patients are in this location for < 24 hours and 50% of the patient population does not get transferred to an inpatient location within the hospital
- It's not appropriate to use this location as an inpatient overflow location.
  - A Mixed Acuity Unit may be more appropriate for this scenario.

# How to Map Inpatient Rehabilitation/Psychiatric Facility (IRF/IPF) Units

Scenario 1: Your IRF/IPF is within the four (4) walls of an Acute Care Hospital (ACH) or Critical Access Hospital (CAH)

Does this unit have a separate CCN (i.e. has a R,T,M, or S in place of the third digit of the facility CCN) ?

**Yes**

Map as  
IN:ACUTE:WARD:REHAB  
IN:ACUTE:WARD:BHV  
IN:ACUTE:WARD:BHV\_ADOL

Designate your location  
as a CMS IRF/IPF  
Location

**No**

Map as  
IN:ACUTE:WARD:REHAB  
IN:ACUTE:WARD:BHV  
IN:ACUTE:WARD:BHV\_ADOL

No further action  
required

# Designate to CMS IRF/IPF Unit

1. Go to the facility manager to add a location
2. Enter the “Your Code” and “Your Label” values to help identify the unit
3. Using the dropdown for CDC Location Description select the appropriate location for your IRF/IPF Unit
4. If you wish to designate this as a CMS IRF/IPF unit, select “Yes” on the dropdown
5. Enter the unique CCN and the effective date for this unit that will include a R,T,M, or S in place of the third digit.
6. Click “Add” to make this unit active in your facility

The screenshot shows a web form for designating a CMS IRF/IPF unit. It includes the following fields and elements:

- Your Code \***: Text input with value "REHAB\_1" (Callout 2).
- Your Label \***: Text input with value "CMS IRF UNIT\_WITHIN".
- CDC Location Description \***: Dropdown menu with value "Rehabilitation Ward - Within ACH" (Callout 3).
- Is this location a CMS IRF unit within a hospital? \***: Dropdown menu with value "Y - Yes" (Callout 4).
- If Yes, specify the IRF CCN (will have an R or T in the 3rd position) \***: Text input with value "56R908".
- Effective Date of IRF CCN**: Displayed as "07/14/2015 2015Q3" with a link "Edit IRF CCN" (Callout 5).
- Status \***: Dropdown menu with value "Active".
- Bed Size \***: Text input with value "10". A note states: "A bed size greater than zero is required for most inpatient locations."
- Buttons**: "Find", "Add" (Callout 6), "Export Location List", and "Clear".

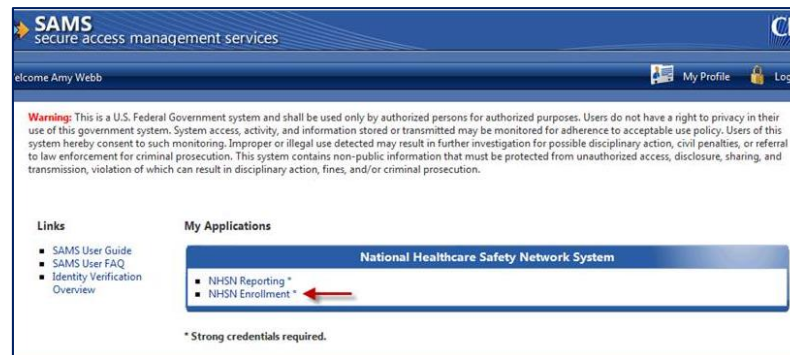
## Other reminders for mapping CMS IRF/IPF Units

- The unique CCN must match the CCN for the Acute Care Hospital or Critical Access Hospital with only the third digit replaced by an R,T,M, or S
  - All IRF's with the final four digits between 3025-3099 should be enrolled into NHSN as a separate rehabilitation facility
  - All IPF's with the final four digits between 4000-4999 should be enrolled into NHSN as a separate psychiatric facility
- LabID events reporting from these units will be excluded from the acute care data sent to CMS for the Hospital Inpatient Quality Reporting Program

# How to Map Inpatient Rehabilitation/Psychiatric Facility (IRF/IPF) Units

Scenario 2: Your IRF/IPF is not physically located within your Acute Care Hospital (ACH) or Critical Access Hospital (CAH)

- IRF's and IPF's that are psychically separate from their main facility will need to enroll a separate facility for these two location types
- Users will need to go to their SAMS activities to see if they have the enrollment option (contact the helpdesk at [nhsn@cdc.gov](mailto:nhsn@cdc.gov) if option is not available)





# How to Map Inpatient Rehabilitation/Psychiatric Facility (IRF/IPF) Units

- Upon enrollment if the IRF unit is the only location that is in this facility, then select facility type as HOSP-REHAB; if there are other non-IRF units then select HOSP-GEN
  - For IPF units select HOSP-PYSCH; if there are other non-IRF units then select HOSP-GEN
- When enrolling, use the CMS IRF/IPF CCN for the entire facility
- Once the new facility is enrolled, proceed to the locations manager to add the new IRF/IPF unit ( you will not need to indicate that this location is a CMS unit within a hospital)

Your Code *	<input type="text" value="REHAB_1"/>
Your Label *	<input type="text" value="CMS IRF UNIT_WITHIN"/>
CDC Location Description *	<input type="text" value="Rehabilitation Ward - Within ACH"/>
Is this location a CMS IRF unit within a hospital? *	<input type="text" value="N - No"/>
Status *	<input type="text" value="Active"/>
Bed Size *	<input type="text" value="10"/> A bed size greater than zero is required for most inpatient locations.
<div><input type="button" value="Find"/> <input type="button" value="Add"/> <input type="button" value="Export Location List"/> <input type="button" value="Clear"/></div>	

## Final check

- ✓ Review data from recent CAH Annual Survey Data
- ✓ Identify important dates, details, and updates to the 2017 annual survey
- ✓ Understand how to run analysis of survey level data and modify those reports, including the core elements of antibiotic stewardship line list
- ✓ Highlight the impact of survey level data on the facility generated standardized infection ratio
- ✓ Review best practices for location mapping in NHSN
- ✓ Review common location mapping scenario's specific to CAH's

## Resources

- Blank Copy of the Patient Safety Annual Survey for Hospitals: [https://www.cdc.gov/nhsn/forms/57.103\\_pshospsurv\\_blank.pdf](https://www.cdc.gov/nhsn/forms/57.103_pshospsurv_blank.pdf)
- How to modify a report: <https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/howtomodifyreport.pdf>
- How to modify a line list: <https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/linelists.pdf>
- How to run a Core Elements Line List: <https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/core-elements-linelist.pdf>
- Patient Safety Survey FAQ's: <https://www.cdc.gov/nhsn/faqs/faq-annual-survey.html>
- Guide to the SIR: <https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/nhsn-sir-guide.pdf>

Kindly submit your 2017 Annual Survey no later than March 1, 2018! The earlier the better!

**Questions**  
For specific location and survey questions, please send them to  
[nnsn@cdc.gov](mailto:nnsn@cdc.gov)

For more information, contact CDC  
1-800-CDC-INFO (232-4636)  
TTY: 1-888-232-6348 [www.cdc.gov](http://www.cdc.gov)

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.

