AAAA

Healthcare-Associated Infection (HAI): Catheter-Associated Urinary Tract Infection (CAUTI)

Data Feedback Report

Q1 2015 - Q3 2015

Report Date: November 2015

Please contact Rick Welsh via email at rwelsh@hsag.com
or by phone at 813-865-3195 for additional information

Figure 1: Facility-Level CAUTI Standardized Infection Ratio (SIR)[1]

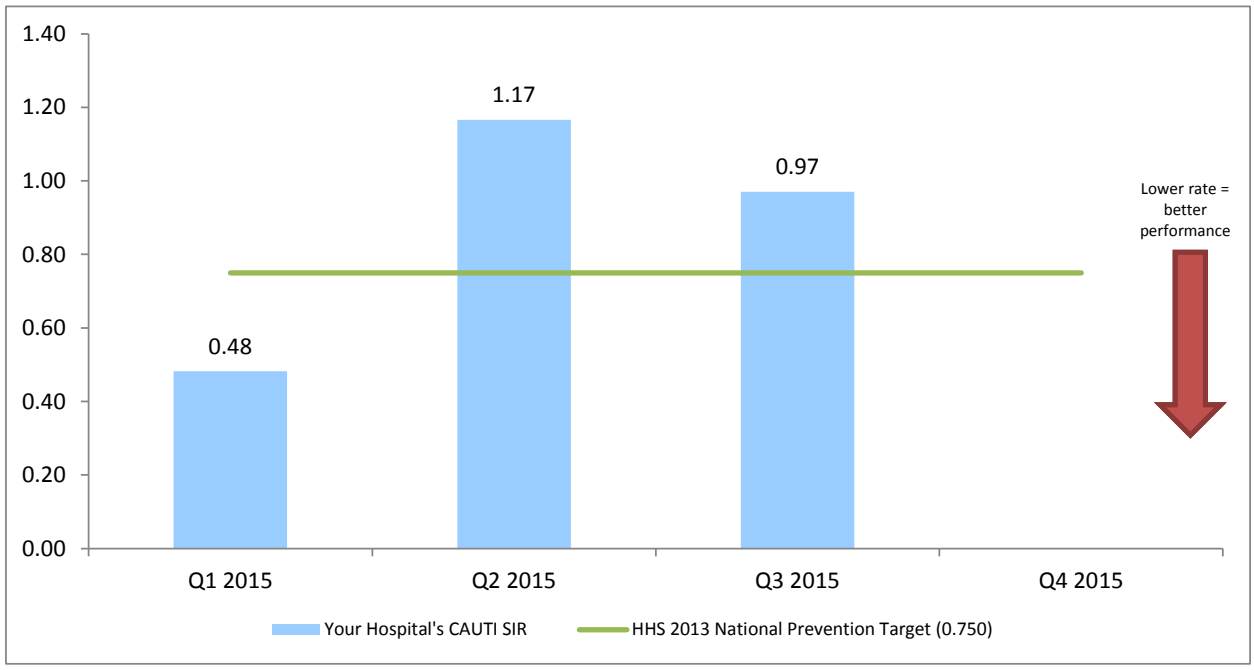
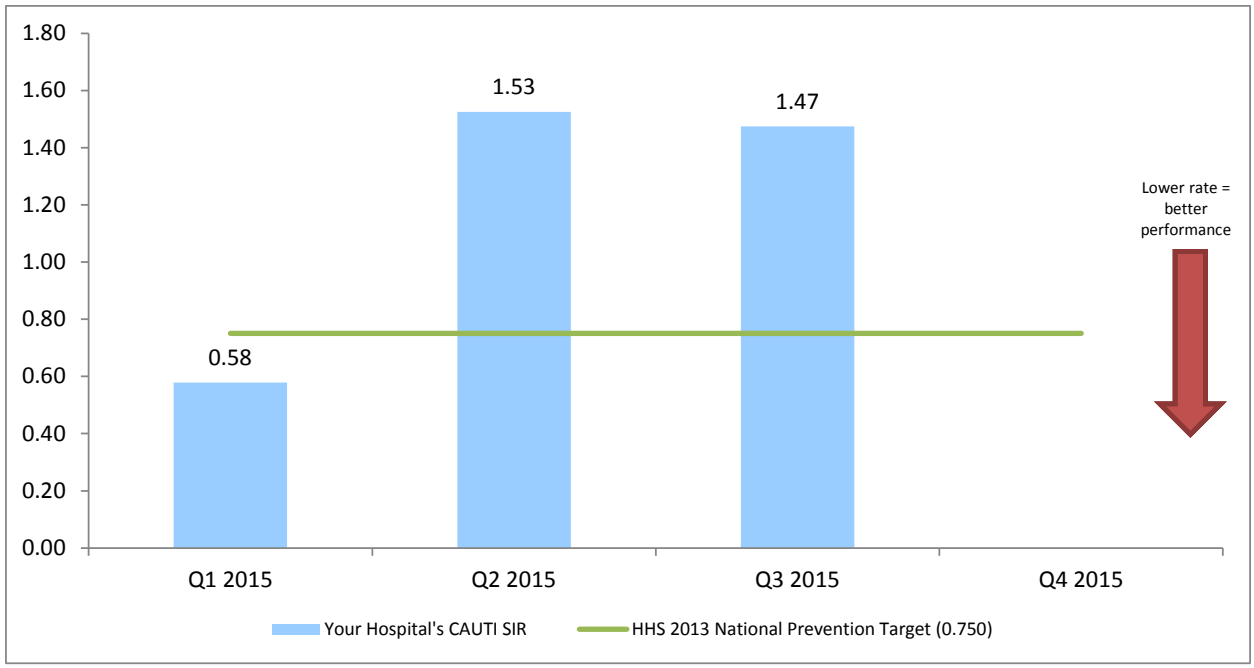


Figure 2: Critical Care Units CAUTI SIR[1]



[1] If a quarter had an expected value less than 1.0, an SIR cannot be calculated. This is indicated by not applicable (NA) in the graph.

How the SIR is calculated:[2]

How to interpret the SIR:

- An SIR **greater than 1.0** indicates that a hospital had **more infections than predicted**
- An SIR **less than 1.0** indicates that a hospital had **less infections than predicted**

Hospitals with an SIR greater than 1.0 should closely examine their efforts to reduce CAUTI.

About the Data

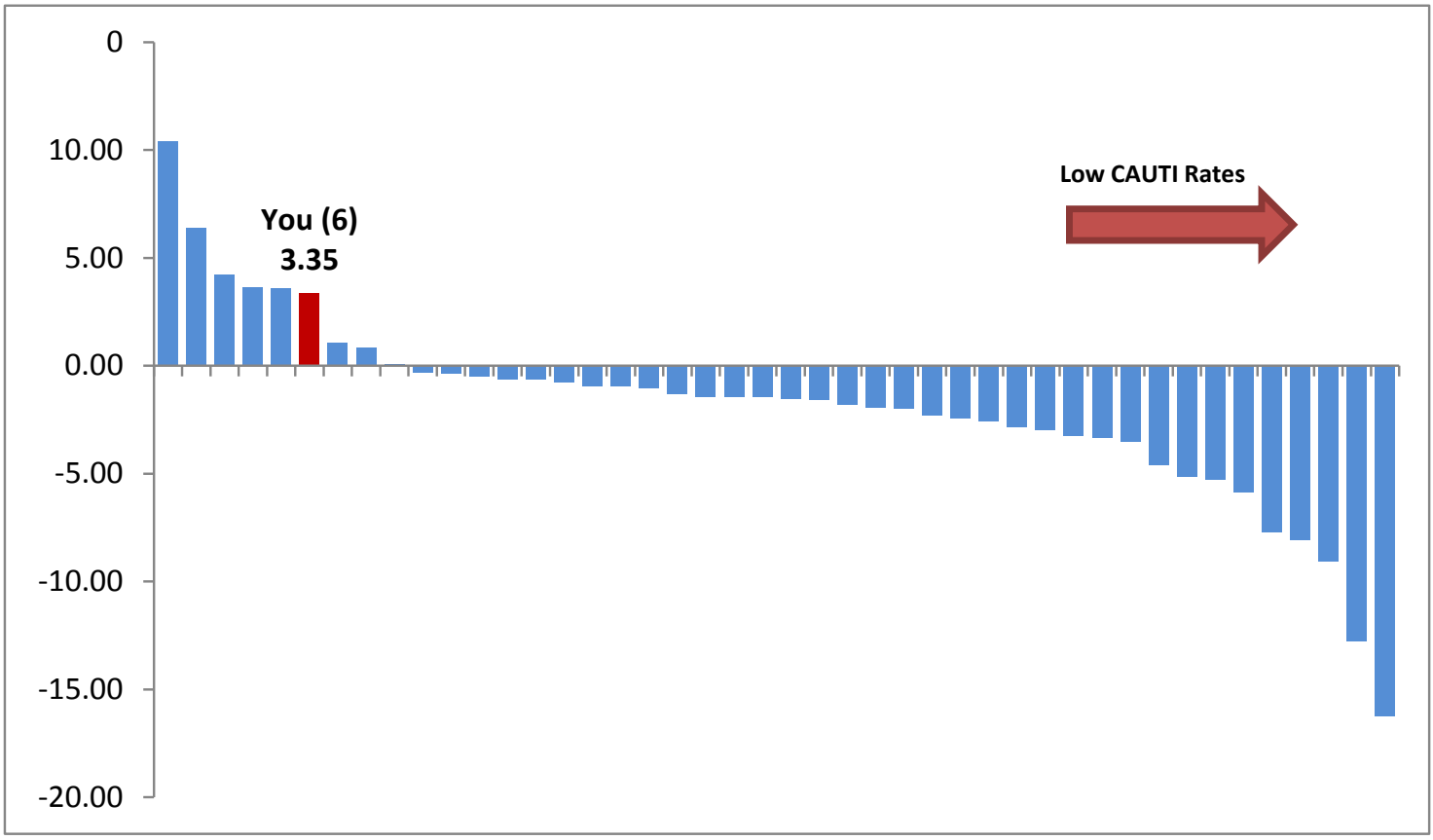
- ***Your Hospital's Catheter-Associated Urinary Tract Infection SIR***: Data for this report was pulled November 24, 2015 from the National Healthcare Safety Network (NHSN).
- ***Health and Human Services (HHS) 2013 National Prevention Target:*** HHS has identified the reduction of HAIs as an Agency Priority Goal and is committed to reducing the national rate of HAIs. HHS set a target SIR of 0.750 for 2013. When available, HHS will use 2015 baseline data to propose new 2020 targets.[3]

Table 1: Hospital-Level CAUTI Data

Quarter	Observed Infections	Expected Infections	Catheter Days	CAUTI SIR
Q1 2015 (Jan - Mar 2015)	6	12.45	5,204	0.48
Q2 2015 (Apr - Jun 2015)	13	11.15	4,686	1.17
Q3 2015 (Jul - Sep 2015)	9	9.27	3,894	0.97
Overall	**28**	**32.87**	**13,784**	**0.85**

[2] The expected, or predicted, number of infections is calculated using the Centers for Disease Control and Prevention's (CDC's) National Healthcare Safety Network (NHSN) pooled national data. Risk factors included in the CDC's model to predict the number of infections include location type, location bed size, utilization, and medical school affiliation.
[3] Available at: http://www.health.gov/hai/prevent_hai.asp#hai_measures.

Figure 3: Rank Ordered Hospital-level CAUTI Cumulative Attributable Difference (CAD) Compared to Hospitals in the HAI Project – Q1 2015 - Q3 2015



How the CAD is calculated:[4]

$$Hospital\text{-}Level\ CAD = (Observed\ Infections\ ICU - Expected\ Infections\ ICU * SIR\ threshold) + (Observed\ Infections\ Ward - Expected\ Infections\ Ward * SIR\ threshold)$$

$$Unit\text{-}Level\ CAD = (Observed\ Infections - Expected\ Infections * SIR\ threshold)$$

How to interpret and use the CAD:

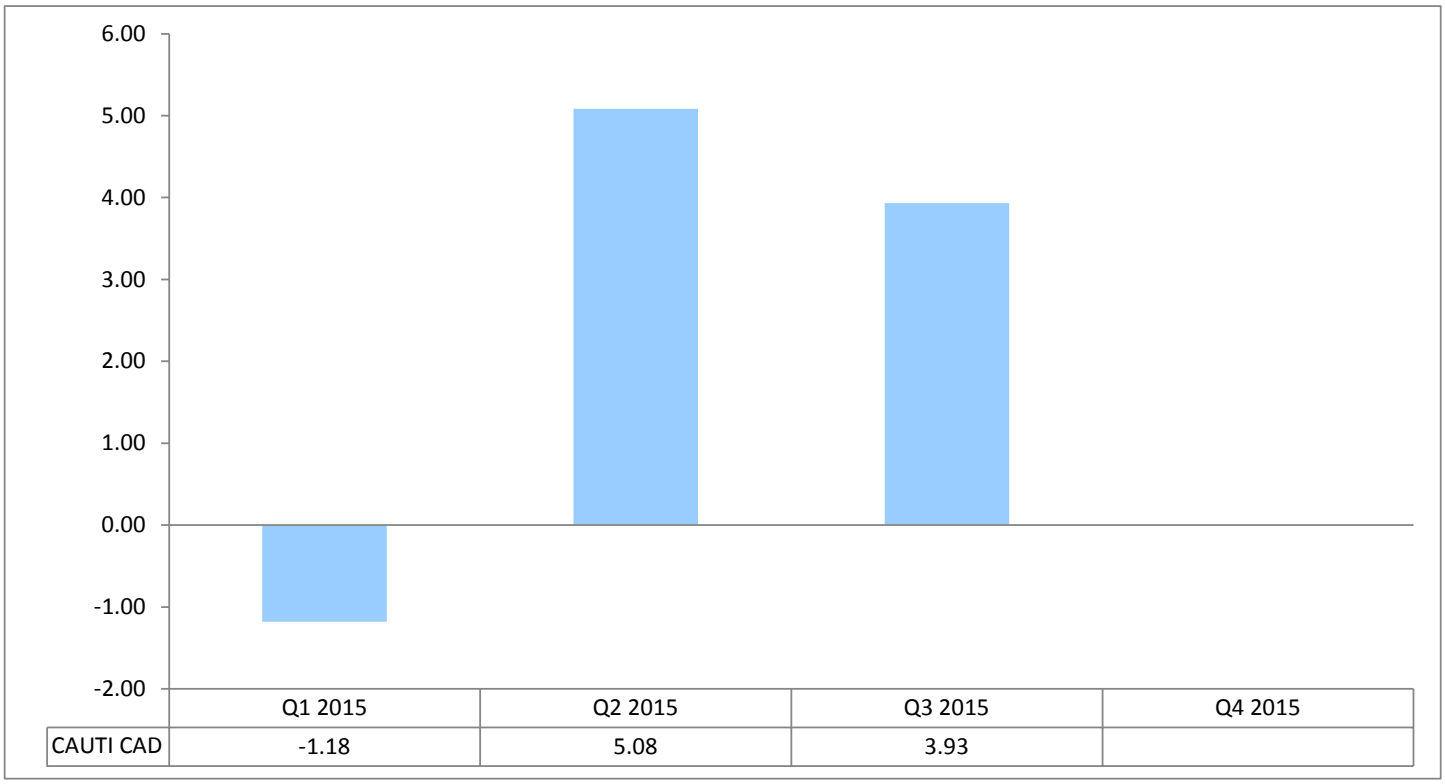
The CAD is the number of infections that need to be prevented in order to reach a targeted SIR threshold.

- A **positive** CAD indicates the number of infections above the targeted SIR threshold. This indicates areas for improvement.
- A **negative** CAD indicates the number of infections below the targeted SIR threshold.

The CAD can be used to identify and rank units with an excess number of infections.

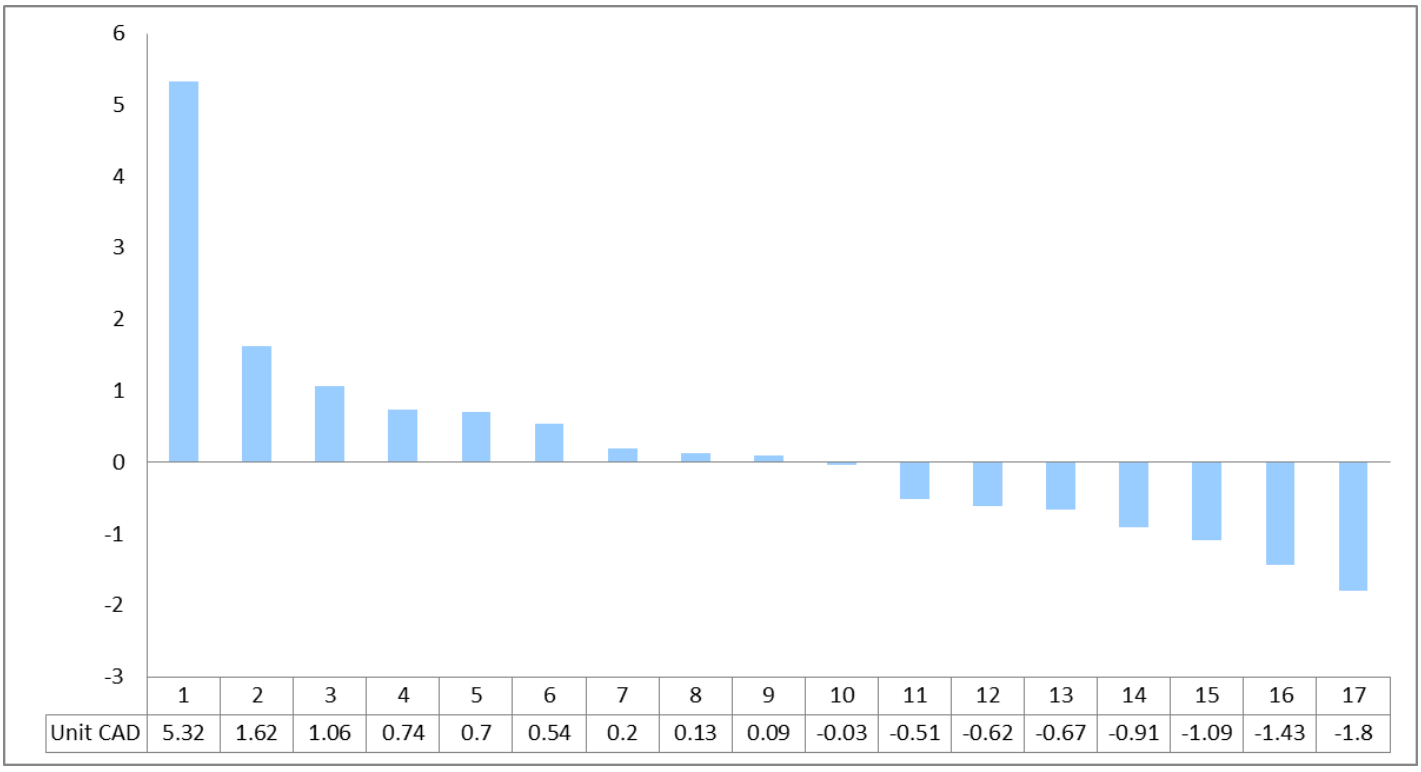
[4] The SIR threshold used for CAUTI was 0.750.

Figure 4: Critical Care Unit CAUTI CAD



	Q1 2015	Q2 2015	Q3 2015	Q4 2015
CAUTI CAD	-1.18	5.08	3.93	

Figure 5: Rank Ordered Unit-Level CAUTI CAD – Q1 2015 - Q3 2015



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Unit CAD	5.32	1.62	1.06	0.74	0.7	0.54	0.2	0.13	0.09	-0.03	-0.51	-0.62	-0.67	-0.91	-1.09	-1.43	-1.8

Table 2: Ranked Ordered Unit-Level CAUTI CAD Data – Q1 2015 - Q3 2015

Facility CAD	Unit	Location Type	Expected Infections	Observed Infections	SIR[6]	Central Line Days	Patient Days	Device Utilization Ratio[7]		CAD	Number of Pathogens (CNS,YS,SA,ES,KS,EC)[8,9]
								Facility	Pooled Mean[10]		
3.35	1	CC:NS	6.23	10	1.60	1,417	1,994	71.00	0.65	5.32	11 (4, 0, 0, 2, 1, 4)
	2	CC:T	3.17	4	1.26	933	1,941	48.00	0.75	1.62	5 (1, 0, 0, 1, 0, 1)
	3	CC:MS	2.59	3	1.16	2,159	3,521	61.00	0.63	1.06	4 (1, 0, 0, 0, 1, 2)
	4	CC:MS	0.34	1	NA	263	630	42.00	0.54	0.74	1 (0, 0, 0, 1, 0, 0)
	5	WARD:MS	0.40	1	NA	249	2,035	12.00	0.17	0.70	1 (0, 0, 1, 0, 0, 0)
	6	CC:T	1.94	2	1.03	571	931	61.00	0.75	0.54	3 (0, 0, 1, 0, 0, 0)
	7	STEP	1.07	1	0.93	564	3,395	17.00	0.24	0.20	1 (1, 0, 0, 0, 0, 0)
	8	WARD:MS	1.16	1	0.87	722	5,426	13.00	0.17	0.13	1 (1, 0, 0, 0, 0, 0)
	9	STEP	1.21	1	0.82	639	4,249	15.00	0.24	0.09	1 (0, 0, 1, 0, 0, 0)
	10	CC:CT	1.37	1	0.73	808	1,483	54.00	0.65	-0.03	1 (0, 0, 1, 0, 0, 0)
	11	WARD:N	2.02	1	0.50	651	4,346	15.00	0.17	-0.51	1 (0, 0, 0, 1, 0, 0)
	12	WARD:REHAB	2.16	1	0.46	568	3,290	17.00	0.08	-0.62	1 (0, 0, 0, 1, 0, 0)
	13	STEP	0.89	0	NA	471	2,165	22	0.24	-0.67	NA
	14	WARD:S	1.21	0	0.00	674	5,855	12	0.22	-0.91	NA
	15	WARD:S	1.45	0	0.00	807	6,581	12	0.22	-1.09	NA
	16	CC:T	3.23	1	0.31	951	1,408	68	0.75	-1.43	1 (0, 0, 0, 0, 1, 0)
	17	WARD:S	2.41	0	0.00	1,337	3,994	33	0.22	-1.80	NA

[5] If a unit had an expected value less than 1, an SIR cannot be calculated. This is indicated by not applicable (NA) in the table.

[6] The Device Utilization Ratio (DUR) is the total number of Catheter days/total patient days for the unit.

[7] (EC,YS,PA,KS,PM,ES) = No. of E. Coli, Yeast (both candida and non-candida species), P. aeruginosa, K. pneumoniae/K. oxytoca, Proteus Mirabilis, Enterococcus species

[8] If a unit had 0 observed infections for the time period, no pathogens can be identified. This is indicated by not applicable (NA) in the table.

[9] Device utilization pooled means for NICUs are broken out by birth weight, so they are not reported here.