What is a TAP Report?

Acute Care Hospitals

Indiana Department of Health

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What is a TAP Report?

Targeted Assessment for Prevention (TAP) reports give information on healthcare-associated infections as well as other information needed to assess infection prevention goals in a facility.

If you have questions on this topic, please read this entire document before contacting IDOH with any remaining questions.

Statewide Catheter-Associated Urinary Tract Infections

A General		B Number of Infections		C Improvement Measures				D Financial Impact		
Location	Catheter Days	Observed	Predicted	SIR	P-value	95% CI	Must Prevent to Reach Goal	Estimated Cost	Minimum	Maximum
Statewide	128800	104	136	0.767	0.006	0.630, 0.926	3	$93,184	$62,712	$123,656
CC	55041	52	66.2	0.785	0.073	0.592, 1.022	3	$46,592	$31,356	$61,828
OTHER	3842	3	3.86	0.777	0.721	0.198, 2.116	1	$2,688	$1,809	$3,567
SCA	800	3	1.07	2.811	0.117	0.715, 7.650	3	$2,688	$1,809	$3,567
STEP	11664	11	14.0	0.786	0.435	0.413, 1.365	1	$9,856	$6,633	$13,079
WARD	54920	34	46.8	0.727	0.054	0.512, 1.005	-1	$30,464	$20,502	$40,426
WARD_ONC	2533	1	3.66	0.273	0.145	0.014, 1.347	-1	$896	$603	$1,189

Facility-Level Catheter-Associated Urinary Tract Infections

General		Number of Infections		Improvement Measures					Financial Impact		
Location	Catheter Days	Observed	Predicted	SIR	P-value	95% CI	Must Prevent to Reach Goal	Top 5 Contributor to State SIR?	Estimated Cost	Minimum	Maximum
All	4404	4	6.44	0.622	0.347	0.198, 1.499	0	NO	$3,584	$2,412	$4,756
CC	1374	0	2.47	0.000	0.085	E , 1.213	-1	NO	$0	$0	$0
STEP	1110	3	1.62	1.852	0.304	0.471, 5.039	2	YES	$2,688	$1,809	$3,567
WARD	1698	1	1.98	0.506	0.551	0.025, 2.496	0	NO	$896	$603	$1,189
WARD_ONC	222	0	0.37				0	NO	$0	$0	$0

What's in Each Section?

The tables above are an example of what is found in a TAP report. Breaking them down into their components makes them easier to understand:

A. General—This column gives the location the data in the row corresponds to. It also lists the number of observed infections within the specified timeframe.

B. Number of Infections—The number of days number of infections that occurred within the specified timeframe as well as the number of predicted days.

C. Improvement Measures—

SIR: Standardized Infection Ratio (SIR) is the observed number of infections predicted number of infections

P-value: A statistical measure that indicates whether the number of observed device days is statistically significantly different from the number of predicted device days

95% Confidence Interval: A statistical range of values in which we have a high degree of confidence that the true SIR lies.

D. Financial Impact—This section is explained on the next page.

Interpreting the Financial Impact

These numbers are calculated by multiplying the number of observed infections with the designated numbers below:

Source: Zimlichman E, Henderson D, Tamir O, et al. Health Care-Associated Infections: A Meta-analysis of Costs and Financial Impact on the US Health Care System. JAMA Intern Med. 2013;173(22):2039-2046.

CLABSI: $45,814 average per infection, with a range of $30,919 - $65,245

CAUTI: $896 average per infection, with a range of $603 - $1,189

SSI: $20,785 average per infection, with a range of $18,902 - $22,667

CDI: $11,285 average per infection, with a range of $9,118 - $13,574

Source: Filice G, Nyman J, Lexau, C, et al. Excess Costs and Utilization Associated with Methicillin Resistance for Patients with Staphylococcus aureus Infection. Infection Control and Hospital Epidemiology. 2010;31(4):365-373.

MRSA: $34,657 average per infection, with a range of $11,517 - $98,287

Interpreting the Improvement Measures

Interpreting the SIR:

If the SIR is less than 1.0, there were fewer infections observed than predicted. For example, if a facility has a CLABSI SIR=0.8, they identified 20% fewer CLABSIs than predicted.

If the SIR is equal to 1.0, the same number of infections were observed as predicted.

If the SIR is greater than 1.0, there were more infections observed than predicted. For example, if a facility has a CLABSI SIR=1.5, they identified 50% more CLABSIs than predicted.

If your SIR value is blank: Typically SIRs are not calculated when the number of predicted infections is less than 1. This rule was instituted to avoid the calculation and interpretation of statistically imprecise SIRs, which typically have extreme values.

HHS SIR Goal: In 2016, the U.S. Health and Human Services (HHS) set target goals for the reduction of HAIs. More information about these goals can be found here.

CAUTI: SIR=0.75
Green: when SIR is lower than the HHS SIR goal of 0.75

Yellow: when SIR is between the HHS SIR goal of 0.75 and the baseline of 1.0

Red: when SIR is higher than the national baseline of 1.0

CLABSI: SIR=0.50
Green: when SIR is lower than the HHS SIR goal of 0.50

Yellow: when SIR is between the HHS SIR goal of 0.50 and the baseline of 1.0

Red: when SIR is higher than the national baseline of 1.0

SSI: SIR=0.70
Green: when SIR is lower than the HHS SIR goal of 0.70

Yellow: when SIR is between the HHS SIR goal of 0.70 and the baseline of 1.0

Red: when SIR is higher than the national baseline of 1.0

Hospital-onset CDI: SIR=0.70
Green: when SIR is lower than the HHS SIR goal of 0.70

Yellow: when SIR is between the HHS SIR goal of 0.70 and the baseline of 1.0

Red: when SIR is higher than the national baseline of 1.0

Hospital-onset MRSA: SIR=0.50
Green: when SIR is lower than the HHS SIR goal of 0.50

Yellow: when SIR is between the HHS SIR goal of 0.50 and the baseline of 1.0

Red: when SIR is higher than the national baseline of 1.0

Interpreting the Improvement Measures, Continued

P-value:

If the p-value ≤ 0.05, we can conclude that the number of observed infections is statistically significantly different from the number of predicted infections.

If the p-value > 0.05, we can conclude that the number of observed infections is not statistically significantly different from the number of predicted infections.

95% Confidence Interval:

For a ratio (i.e., SIR), if the confidence interval does not include the value of 1, then the SIR is significantly different from 1 (i.e., the number of observed infections is significantly different from the number of predicted infections).

For a ratio, if the confidence interval includes the value of 1, then the SIR is not significantly different from 1 (i.e., the number of observed infections is not significantly different from the number of predicted infections).

Must Prevent to Reach Goal:

Also known as the **CAD** (cumulative attributable difference) – the number of infections that would need to be prevented in order to reach the HHS SIR goal. This number is always rounded up. For example, if the facility CAD was equal to 2.5, the facility would want to prevent 3 infections because we cannot prevent half of an infection.

CAD=Observed number of infections – (Predicted number of infections X SIR goal)

Top 5 Contributor to State SIR: "YES" will appear in this column if the number of infections needed to prevent to reach the HHS goal is in the top 5 facilities contributing to the overall Indiana SIR.

Still have questions?

Please email hbeeman@isdh.in.gov for additional assistance.

Indiana Department of Health