Medicare Readmission Reduction and Hospital Acquired Condition Programs Overview



Insights for Healthcare®



Tennessee Hospital Association April 5, 2023

Susan McDonough, MBA, MPA, Vice President

Lauren Alvarenga, MPH, CPH, Senior Principal Healthcare Data and Policy Analyst

Today's Objectives

Overview of Medicare Readmission Reduction and Hospital Acquired
 Condition Programs

Review Methodologies

Review Tennessee's performance in the two programs

Review RRP and HAC Analyses



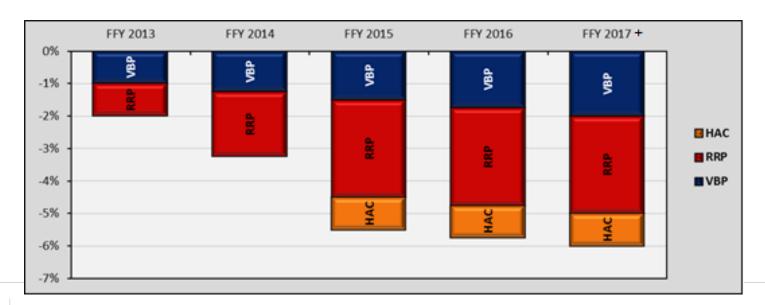
Medicare Quality Based Payment Reform (QBPR) Programs

- Mandated by the ACA of 2010
 - VBP Program (redistributive w/ winners and losers)
 - Readmissions Reduction Program (remain whole or lose)
 - HAC Reduction Program (remain whole or lose)
- National pay-for-performance programs
- Most acute care hospitals must participate; CAHs excluded
- Program rules, measures, and methodologies adopted well in advance (through 2027)



Medicare Quality Programs

- Payment adjustments based on <u>facility-specific</u> performance compared to <u>national</u> standards
- Performance metrics are determined using historical data
- Program components change every year





FFY 2024 Quality Program Measure Populations

- Value-Based Purchasing (VBP)
 - All patients
 - Safety, Person and Community Engagement
 - Medicare FFS patients only
 - Clinical Outcomes, Efficiency and Cost Reduction
- Readmissions Reduction Program (RRP)
 - Medicare FFS patients only
- Hospital Acquired Conditions (HAC)
 - All patients
 - CAUTI, CLABSI, C-diff., MRSA, SSI Colon, SSI Abdominal Hysterectomy
 - Medicare FFS patients only
 - PSI-90





Medicare Readmission Reduction Program (RRP)

National Quintile Assignments **Excess Readmission**Ratios by Condition

Excess Readmission Revenue by Condition

Total Excess
Readmission Revenue
(all conditions)

RRP Adjustment Factor

Program Impact

- Program became effective FFY 2013 (October 1, 2012)
- Penalizes hospitals for exceeding expected readmission rates
 - Expected rates based on national performance levels
- Program expands over time with addition of new conditions
- Penalty capped at 3% for 2015 and thereafter
 - 1% in FFY 2013;
 - 2% in FFY 2014;
 - 3% in FFY 2015+
- Measures are established in advance through the IPPS rule



RRP Program Timeframes

J F M A M J	18 J A S O N D	2019 J F M A M J J A S O N D	J F M A M J	20	J A S O N D	J F M A M J	22	O N D J F M A M J	J A S O N	2024 D J F M A M J J A S	O N D	2025 J F M A M J J A S	O N D
	Perfor	2023 Program mance Period (All itions except PN)	Excluded#	FFY 2023 Program (All Conditions except PN)				FFY 2023 Progra Payment Adjustment					
		FFY 2024 Program	Excluded [#]	FFY 2024 Performance Peri	Program od (All Con	ditions)			FF	Y 2024 Program Payment Adjustment			
				Perfor		Program od (All Cond	ditions	s)				2025 Program Payment Adjustment	

[#]These performance periods are impacted by the extraordinary circumstances exception granted by CMS in response to the PHE so no claims data reflecting services provided January 1, 2020 - June 30, 2020 will be used in calculations for RRP.

RRP Methodology

Excess readmission ratios are calculated for multiple condition areas

Measure	FFY 2013 Program	FFY 2014 Program	FFY 2015 Program	FFY 2016 Program	FFY 2017+ Program
AMI	X	Х	Х	Х	Х
HF	X	X	X	X	×
PN	X	X	X	X	X*
COPD			Х	X	×
THA/TKA			Х	X	×
CABG					Х

^{*}expanded to include aspiration PN and sepsis with a secondary diagnosis of PN

- Improvement is not recognized
- Certain planned readmissions are not counted
- No offsets between categories
- PN was not included in FFY 2023 due to COVID-19
- Socio-Demographic Status (SDS) adjustment based on percent of fullbenefit dual eligible patients



RRP Methodology – FFY 2024 SDS Adjustment

Groups based on ratio of full-benefit dual eligible relative to total Medicare patients:

Full-benefit Dual Status

Medicare Patients

- An individual is counted as a full-benefit dual patient if the patient was identified as such for the month he/she was discharged from the hospital
 - identified using the State Medicare Modernization Act (MMA) file of dual eligibility
- Data period for identifying patients is the same 3-year period as the performance period
 - i.e. July 1, 2019 June 30, 2022 for FFY 2024
- Total number of Medicare patients is all Medicare FFS and Medicare Advantage stays using MedPAR files
- Hospitals are grouped into national quintiles based on full-benefit dual eligible ratio and compared to hospitals within their quintile



RRP Methodology

Step 1: Place hospital into quintile

```
\frac{\text{\# Full-benefit Dual Status Patients}}{\text{\# Medicare Patients}} = \text{Full-benefit Dual Eligible Ratio}
\frac{14,322}{29,453} = \text{Full-benefit Dual Eligible Ratio}
48.6\% = \text{Full-benefit Dual Eligible Ratio}
```

Ratio of 48.6% puts this hospital in quintile 3

- Quintile placement on a national level
- Placement will change from year to year based on data period used and ratios of other hospitals
- Quintile 5 is highest, meaning the higher full-benefit dual eligible ratios
- Quintile 1 is lowest, meaning the lowest full-benefit dual eligible ratios
- Hospitals in higher quintiles will have <u>less</u> stringent benchmarks
- Hospitals in lower quintiles will have <u>more</u> stringent benchmarks



RRP Methodology (con't)

• Step 2: Calculate excess readmission ratios for each condition

(subject to minimum case counts requirements)

```
\frac{\text{Predicted AMI Readmission Rate}}{\text{Expected AMI Readmission Rate}} = \mathbf{AMI Excess Ratio}
\frac{20.300 \%}{19.459 \%} = \mathbf{AMI Excess Ratio}
\mathbf{1.0432} = \mathbf{AMI Excess Ratio}
```

- Predicted readmissions = number of unplanned readmissions predicted for a hospital based on hospital's performance
- Expected readmission = expected U.S. readmission rate for each hospital's patient mix
- Ratio less than quintile median excess ratio
 - Lower than expected readmission rate
 - Better quality
- Ratio greater than quintile median excess ratio
 - Higher than expected readmission rate
 - Lower quality
 - Penalty applies



RRP Methodology (con't)

Step 3: Calculate total excess payments for each condition

```
Total Payment for AMI Procedures \times (Median Quintile Excess Ratio – AMI Excess Ratio) = AMI Excess Dollars

Historically, excess ratio was compared to $6,000,000 \times (1.0233 – 1.0432) = AMI Excess Dollars $119,400 = AMI Excess Dollars a "1"
```

Step 4: Calculate total excess payments for all conditions

```
AMI Excess Payments + HF Excess Payments + PN Excess Payments + COPD Excess Payments + THA TKA Excess Payments + CABG Excess Payments = Total Excess Dollars \$119,400 + \$0 + \$0 + \$0 + \$0 + \$0 + \$0 = \text{Total Excess Dollars} \$119,400 = \text{Total Excess Dollars}
```

- Excess Ratios are multiplied by revenue in each condition area to find excess readmission revenue by condition
 - Sum of all conditions excess revenue = total excess readmission dollars
 - Revenue = exposure
 - More conditions = More exposure



RRP Methodology (con't)

• Step 5: Calculate Readmissions Adjustment factor (capped at .97, or 3%, for FFY 2015+)

$$\begin{bmatrix} 1 - BN \ Adjuster \times \frac{Total \ Excess \ Dollars}{3 \ yr \ Total \ Medicare \ IPPS \ Operating \ Revenue} \end{bmatrix} = Readmissions \ Adj. \ Factor$$

$$\begin{bmatrix} 1 - 0.99 \ X \frac{\$119,400}{\$50,000,000} \end{bmatrix} = Readmissions \ Adjustment \ Factor$$

$$0.9976 = Readmissions \ Adjustment \ Factor$$

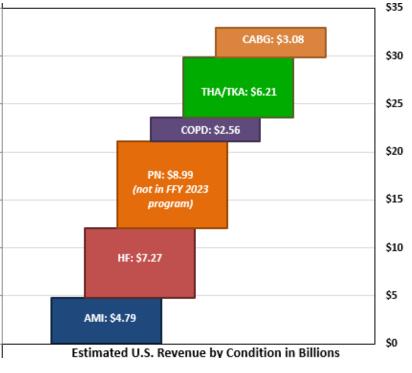
$$(applied \ on \ a \ per-claim \ basis)$$

$$-0.24\% \ Cut$$

- Total excess readmission revenue is used to calculate adjustment factors.
- The excess revenue is not your impact.
- Payments are adjusted on a per-claim basis to all Medicare FFS cases (not just RRP cases)
- Although the SDS adjustment is budget neutral nationally, there will be winners and losers within each quintile.



RRP Trends



Continually evolving

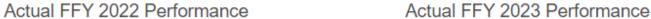
•As measures are added, exposure increases and hospitals are more likely to receive penalties

Adjustment Factor	Percent Cut	2020	2021	2022	2023
No Payment Penalty	0%	17.5%	17.4%	18.0%	25.0%
0.9951 to 0.9999	-0.01% to -0.5%	42.5%	42.9%	44.5%	52.9%
0.9901 to 0.9950	-0.5% to -0.999%	18.9%	19.9%	19.7%	14.2%
0.9851 to 0.9900	-1.0% to -1.499%	10.6%	9.7%	9.4%	4.7%
0.9801 to 0.9850	-1.5% to -1.999%	4.8%	5.0%	4.0%	1.4%
0.9751 to 0.9800	-2.0% to -2.499%	2.7%	2.8%	2.2%	0.7%
0.9701 to 0.9750	-2.5% to -2.999%	1.2%	1.1%	0.9%	0.3%
0.97	-3.0%	1.8%	1.2%	1.3%	0.8%

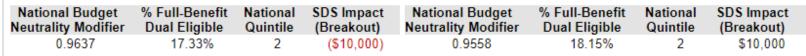


RRP Performance Scorecard





		Est. Revenue Subject to Adj.		Max Penalty (3.0%)		_		Est. Revenue Subject to Adj.	_	Max Penalty (3.0%)
0.9700	-3.00%	\$28,432,300	(\$853,000)	(\$853,000)	0.9852	Û	-1.48%	\$29,612,500	(\$438,300)	(\$888,400)

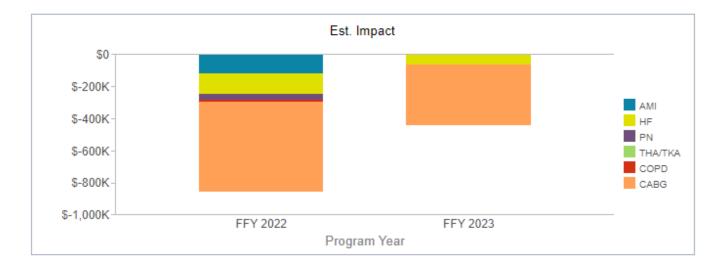




Condition Chart:

Condition Revenue

Est. Impact

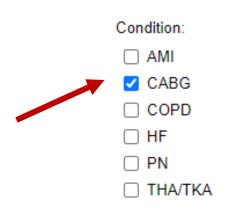


Actual FFY 2022 Performance

Actual FFY 2023 Performance

Condition	Condition Revenue	Est. Impact	Percent Impact	Condition	Condition Revenue	Est. Impact	Percent Impact
AMI	\$3,703,900	(\$118,100)	13.84%	AMI	\$2,937,000	\$0	0.00%
HF	\$3,355,500	(\$127,800)	14.99%	HF	\$2,311,500	(\$62,300)	14.21%
PN	\$4,168,600	(\$36,800)	4.31%	THA/TKA	\$153,100	\$0	0.00%
THA/TKA	\$177,000	\$0	0.00%	COPD	\$911,500	\$0	0.00%
COPD	\$1,130,500	(\$12,200)	1.43%	CABG	\$3,159,700	(\$376,000)	85.79%
CABG	\$4,185,700	(\$558,100)	65.43%				

RRP Performance Scorecard (con't)



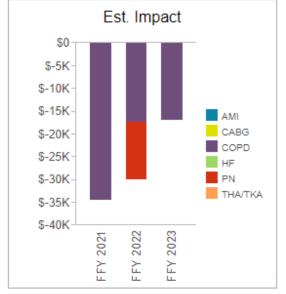
©2023 DataGen® Inc.

	Actual Performance: CABG	
FFY Program	2022	2023
Eligible Discharges	142	114
DRG Ratio [A]	0.0466	0.0371
Excess Ratio [B]	1.4277	1.3519
Quintile Median [C]	0.9845	0.9931
Excess % [D = C - B]	0.4432	0.3587
Excess Amt. [E = A x D]	0.0206	0.0133
Total Excess Amt. [F = Sum(E)]	0.0316	0.0155
Excess % of Total [G = E/F]	65.43%	85.79%
Total Est. Impact [H]	(\$853,000)	(\$438,300)
Est. Impact by Condition [G x H]	(\$558,100)	(\$376,000)

An adjustment factor in blue indicates there would have been higher penalty if not capped at 3.0%

Readmissions Reduction Program: Hospital

Case Study

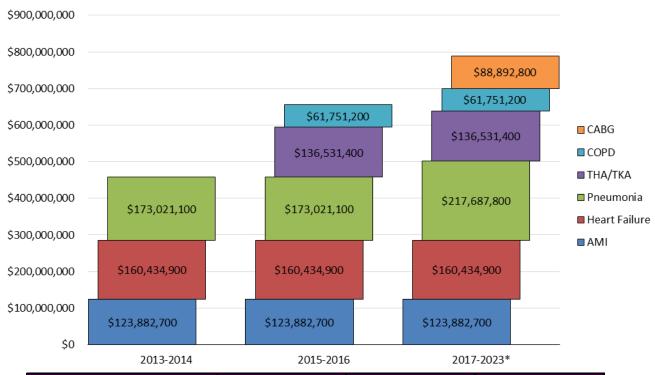


	2021		2022			2023		
	Excess Ratio	Median Excess Ratio	Excess Ratio	0	Median Excess Ratio	Excess Ratio		Median Excess Ratio
AMI	0.9184	0.9918	0.9880	A	0.9955	0.9870	7	0.9954
HF	0.9275	0.9899	0.8892	▼	0.9927	0.9070		0.9927
PN	0.9418	0.9872	0.9977	A	0.9865	-		-
THA/TKA	0.8165	0.9941	0.8651	A	0.9944	0.9022	A	0.9923
COPD	1.0647	0.9942	1.0372	▼	0.9941	1.0470	\	0.9949
CABG	0.9256	0.9942	0.9834		0.9845	0.9881		0.9931

Quintile Assignment	2	2		2	
Final RRP Adjustment Factor	0.9988	0.9989		0.9994	
Estimated Annual Impact	(\$34,500)	(\$30,000)	A	(\$17,000)	A

- Hospital had several excess ratios below 1 in 2022
- Hospital still has a negative of (\$30,000) in 2022 in part due to being in quintile 2 for the SDS adjustment and having more stringent benchmarks (less than 1)
- Hospitals in higher quintiles will typically be compared to less stringent benchmarks and hospitals in lower quintiles will generally be compared to more stringent benchmarks.

TN's RRP Revenue by Condition



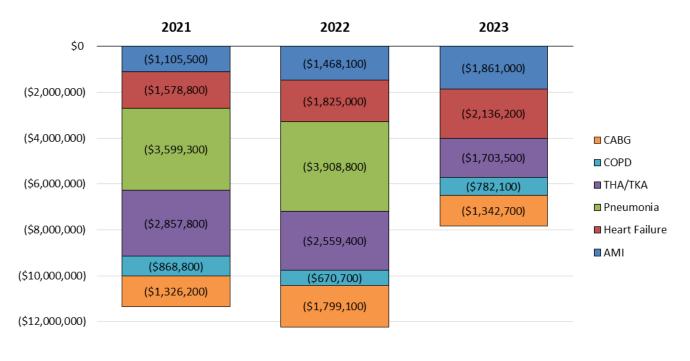
Condition/Procedure	2013-2014	2015-2016	2017-2023*
AMI	\$123,882,700	\$123,882,700	\$123,882,700
Heart Failure	\$160,434,900	\$160,434,900	\$160,434,900
Pneumonia	\$173,021,100	\$173,021,100	\$217,687,800
THA/TKA	N/A	\$136,531,400	\$136,531,400
COPD	N/A	\$61,751,200	\$61,751,200
CABG	N/A	N/A	\$88,892,800
Total Program Exposure	\$457,338,700	\$655,621,300	\$789,180,800
Increase in Exposure		43.4%	20.4%



www.datagen.info

stributed without prior written permission.

TN's RRP Impact by Condition



(\$14,000,000)

Condition/Procedure	2021	2022	2023
AMI	(\$1,105,500)	(\$1,468,100)	(\$1,861,000)
Heart Failure	(\$1,578,800)	(\$1,825,000)	(\$2,136,200)
Pneumonia	(\$3,599,300)	(\$3,908,800)	N/A
THA/TKA	(\$2,857,800)	(\$2,559,400)	(\$1,703,500)
COPD	(\$868,800)	(\$670,700)	(\$782,100)
CABG	(\$1,326,200)	(\$1,799,100)	(\$1,342,700)
Total Impact	(\$11,336,400)	(\$12,231,100)	(\$7,825,500)

Eligible providers and their characteristics are based on the FFY 2023 IPPS Final Rule Correction Notice.



TN's Readmission Rate Trends

		State Rates						
		2Q 2019	2Q 2020	2Q 2021	2Q 2022*			
		July 1, 2015 -	July 1, 2016 -	July 1, 2017 - Dec	July 1, 2018 - Dec			
		June 30, 2018	June 30, 2019	1, 2019	1,2020			
	READM_30_AMI: Acute Myocardial Infarction (AMI) 30-Day Readmission Rate	15.6%	16.0%	16.0%	15.3% ▼			
Si	READM_30_HF: Heart Failure (HF) 30- Day Readmission Rate	21.9%	22.0%	22.0%	21.4% ▼			
Readmission Rates	READM_30_PN: Pneumonia (PN) 30-Day Readmission Rate	17.2%	17.2%	17.3%	N/A			
	READM_30_HIP_KNEE: Elective Total Hip/Knee Surgery (THA/TKA) 30-Day Readmission Rate	4.0%	4.0% ▼	4.0% ▼	4.0%			
	READM_30_COPD: Chronic Obstructive Pulmonary Disease (COPD) 30-Day Readmission Rate	19.6%	19.6%	19.7%	20.1%			
	READM_30_CABG: Coronary Artery Bypass Graft (CABG) 30-Day Readmission Rate	12.5%	12.3% ▼	12.4%	11.4% ▼			



TN's Readmission Rank Trends

		State Kank					
		2Q 2019	2Q 2020	2Q 2021	2Q 2022*		
		July 1, 2015 -	July 1, 2016 -	July 1, 2017 - Dec	July 1, 2018 -		
		June 30. 2018	June 30, 2019	1, 2019	Dec 1. 2020		
	READM_30_AMI: Acute Myocardial Infarction (AMI) 30-Day Readmission Rate	30 of 51	30 of 51	42 of 51 🛕	47 of 51 🔺		
S	READM_30_HF: Heart Failure (HF) 30- Day Readmission Rate	39 of 51	34 of 51 ▼	34 of 51	33 of 51 ▼		
ion Rank	READM_30_PN: Pneumonia (PN) 30-Day Readmission Rate	45 of 51	46 of 51 🛕	47 of 51 🛕	N/A		
Readmission Ranks	READM_30_HIP_KNEE: Elective Total Hip/Knee Surgery (THA/TKA) 30-Day Readmission Rate	43 of 51	42 of 51 ▼	35 of 51 ▼	23 of 51 ▼		
~	READM_30_COPD: Chronic Obstructive Pulmonary Disease (COPD) 30-Day Readmission Rate	32 of 51	26 of 51 ▼	26 of 51	37 of 51 🛕		
	READM_30_CABG: Coronary Artery Bypass Graft (CABG) 30-Day Readmission Rate	24 of 51	22 of 51 ▼	26 of 51 🛕	15 of 51 ▼		

State Rank

Medicare Hospital Acquired Condition (HAC) Reduction Program

Measure Scores

Total HAC Score

Top Quartile/1.0% Penalty
Determination

Annual Program Impact

- Program started FFY 2015 (October 1, 2014)
- Penalizes hospitals with the highest HAC rates
 - Rates are per 1,000 patients
 - Compared to all other eligible hospitals nationally
- 1% Penalty applied to all hospitals in the worst performing quartile
 - 25% of hospitals will receive a penalty
 - Applied to Total Medicare FFS Inpatient Dollars
- Parameters set in IPPS rulemaking at least one year in advance
- Penalty is in addition to existing HAC DRG demotion policy



HAC Program Timeframes

2019	2020	2021	2	2022	2023		2024		2025	
J F M A M J J A S O N D J F M	A M J J A S O N D	J F M A M J J A	S O N D J F M A M	J J A S O N D J F	M A M J J A S C	D N D J	F M A M J J A S	O N D	J F M A M J J A S	O N D
	Excluded [#]	FFY 2024: PSI-90 Performance Period			FFY	FY 2024 Program				
		Excluded [#]	FFY 2024: HAI Measures Performance Period			Payment Adjustment				
			FFY 2025: PSI-90 Performance Period					F	FY 2025 Program	
			FFY 2025: HAI Measures Performance Period				Pay	yment Adjustment		

[#]These performance periods are impacted by CMS' adoption in the FFY 2022 IPPS Final Rule to suppress data from July 1, 2020 - December 31, 2020 due to the COVID-19 PHE for the HAC program. CMS also suppressed CY 2021 data for the HAI measures in the FFY 2023 IPPS Final Rule.

HAC Reduction Program Methodology

- HAC measures:
 - PSI-90 Composite Measure, CAUTI and CLABSI, SSI (colon surgery and abdominal surgery), C-Diff and MRSA
- Separate performance scores are calculated for each HAC measure
 - Z-score
 - Based on national mean and standard deviation for all eligible hospitals
 - Improvement is not recognized
- Average of all eligible measures are calculated to determine a total HAC score (prior to FFY 2020, averages were calculated for two domains, then the domains were weighted together for a total HAC score)
- Total HAC Score determines worst performing quartile of hospitals to receive 1% payment penalty

# of HAI Measures	Weight applied to:			
with Scores	PSI 90	Each HAI		
0	100%	N/A		
1	50%	50%		
2	33.3%	33.3%		
3	25%	25%		
4	20%	20%		
5	16.7%	16.7%		
Any number	N/A	100% (equally divided)		

PSI-90 Composite

- The PSI-90 composite measure is calculated by combining performance on 10 individual Patient Safety Indicator (PSI) measures.
- Hospitals are scored in HAC on the overall PSI-90 composite measure with each component PSI having a different weight towards the overall composite.
- Currently, HAC uses version 11.0 of the AHRQ Quality Indicators software to calculate PSI-90 composite.

PSI-90: Patient Safety and Adverse Events Composite ¹	Weight
PSI 13: Postop Sepsis	24.9%
PSI 12: Periop PE or DVT	19.3%
PSI 3: Pressure Ulcer	16.9%
PSI 11: Postop Respiratory Failure	15.6%
PSI 10: Postop Acute Kidney Injury Requiring Dialysis	8.6%
PSI 9: Periop Hemorrhage or Hematoma Rate	4.6%
PSI 6: latrogenic Pneumothorax	3.9%
PSI 15: Unrecognized Abdominopelvic Accidental Puncture/Laceration	3.8%
PSI 8: In-Hospital Fall with Hip Fracture	1.4%
PSI 14: Postop Wound Dehiscence	0.9%

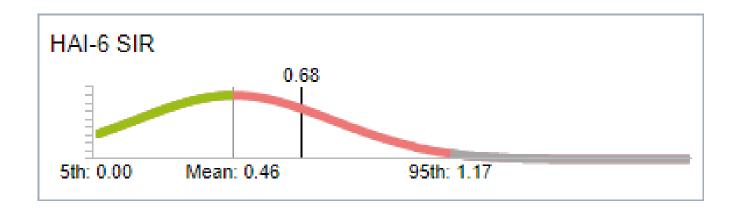
HAC Reduction Program: Z-score Methodology

- HAC program evaluates hospitals based on a Z-score
 - Measure ratios are winsorized to remove effects of outliers (top and bottom 5%)
 - Represents a hospital's distance from the national average for a measure, in terms of units
 of standard deviation
 - A POSTIVE z-score is above the average, and reflects POOR performance
 - A NEGATIVE z-score is below the average, and reflects GOOD performance
 - Lower scores are better
 - Z-scores are averaged together to determine Total HAC Score

$$Z-score = \frac{Hospital's\ Measure\ Performance\ -\ Mean\ Performance\ for\ All\ Hospitals}{Standard\ Deviation\ for\ All\ Hospitals}$$



HAC Reduction Program Measure Detail



HAI-6: Clostridium difficile (C.diff.)



HAC Reduction Program Performance Scorecard



Estimated FFY 2024 Performance

Total HAC	75th	Payment Penalty?	Est. Annual
Score	Cutoff		Impact
0.4600	0.3379	Yes	(\$1,412,800)

Estimated FFY 2024 Performance

Lower is Better

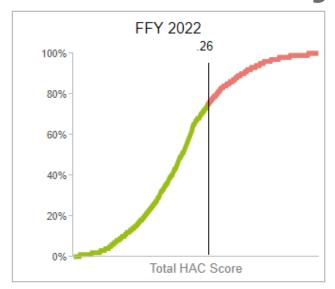
Measure	Base Score AHRQ Claims	Measure Z-Score
PSI-90-Safety	0.8100	-1.2604

CDC Chart Abstracted				
HAI-1	1.0770	0.0425		
HAI-2	0.5330	-0.4932		
SSI	2.0050	2.0812		
HAI-5	2.3600	1.7203		
HAI-6	0.6800	0.6698		



Slide 28

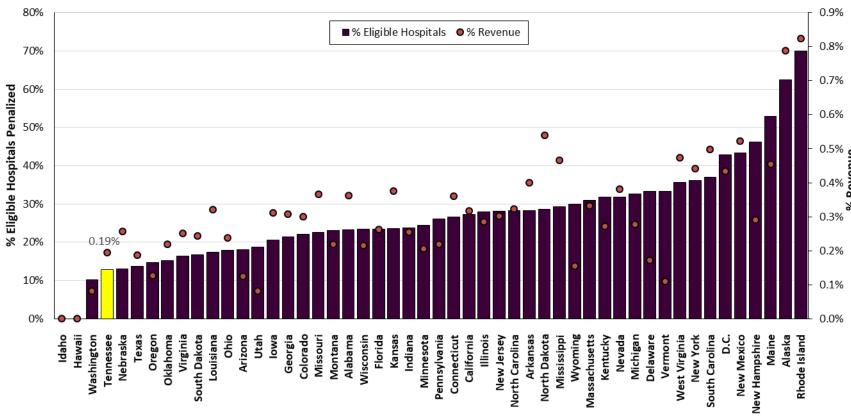
Hospital Acquired Condition: Hospital Case Study



	2020	2021	2022
PSI-90 Score	-0.0183	-0.1267 V	1.4252 ▼
HAI-1 CLABSI Score	0.3678	-0.1342	′ -1.291 ▼
HAI-2 CAUTI Score	0.8354	0.2816	1.0445 ▼
SSI Colon/Abd. Score	-1.5000	0.0929	· -0.398 V
HAI-5 MRSA Score	N/A	N/A -	N/A 🔺
HAI-6 C.Diff Score	1.9710	1.5775	0.5193 ▼
Total HAC Score	0.3312	0.3382	0.2599
75th Percentile Total HAC Score	0.3306	0.3383	0.2998
Receives 1.0% Reduction?	Yes	No	No

- Hospital does worse (Total HAC score increases) from 2020 to 2021.
- Hospital goes from penalty in 2020 to no penalty in 2021 (even with better performance in 2020 compared to 2021) because a hospital must keep up with other providers in the US in order to avoid getting a penalty.
- Even if all hospitals improve, 1.0% penalty is always applied to worst performing quartile.

TN's HAC Reduction Program Performance

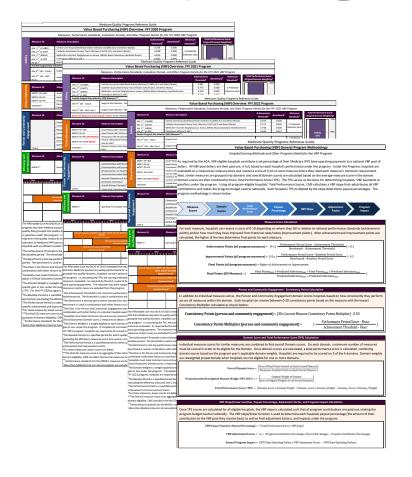


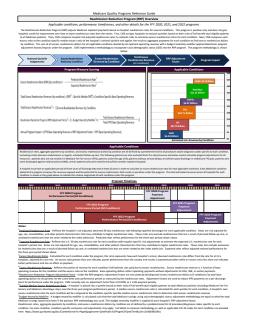
HAC Reduction Program Performance					
FFY 2020 FFY 2021 FFY 2022					
Statewide Impact	(\$5,791,400)	(\$11,643,400)	(\$5,585,100)		
Number of Penalty Hospitals	21	22	11		
Percent of Hospitals Receiving Penalty	24.4%	25.6%	12.8%		
Percent of Total Revenue Affected	0.21%	0.42%	0.19%		

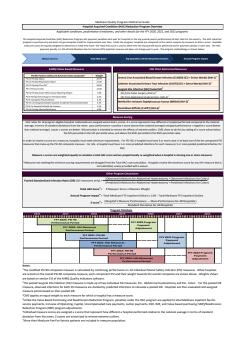
Eligible providers and their characteristics are based on the FFY 2023 IPPS Final Rule Correction Notice.



Quality Program Reference Guide



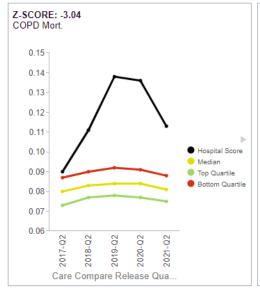


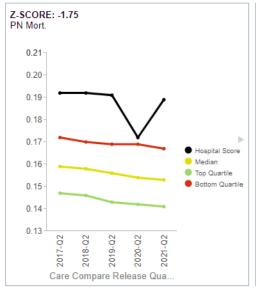


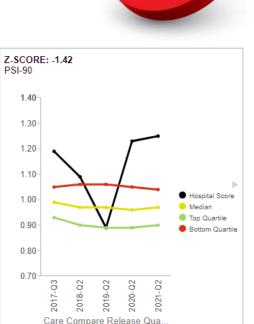
Quality Program Measure Trends

Chasing a moving target

- Measures/Domains
- National Improvement Trends
- Performance Standards
- Z-scores









Hospital-Specific One-Pager Report



- 3-year trend for each hospital
- FFYs 2021-2023
- Actual performance on all 3 programs: VBP, RRP, HAC

Other Quality Data Sources

Care Compare

Quality Net

Other



Key Reminders for Hospitals

- Payments are at stake
- Historical data will continue to drive these programs
- Program targets move with national performance, so hospitals must keep pace with the pack
- Complexity of program measures
- Overlap with other quality based payment reform programs
 - <u>VBP & HAC:</u> CAUTI, CLABSI, Surgical Site Infection (SSI), MRSA and C-Diff Measures
 - <u>VBP & RRP:</u> THA/TKA, AMI, HF, PN, CABG, and COPD
- HACs will have a worst performing 25%



Thank you.



Contact us

www.datagen.info

1.844.DATAGEN