

# Topped-Out Analysis of Clinical Measures Proposed for the PY 2020 ESRD QIP

June 14, 2016

The distributions of the PY 2020 clinical measures were assessed in order to determine if any measures were “topped out”. In order for a measure to be considered topped out, two conditions had to be met. First, a measure was considered topped out if the 75<sup>th</sup> percentile, or 25<sup>th</sup> for measures where lower percentiles indicate better performance, was *statistically indistinguishable* from the 90<sup>th</sup> (or 10<sup>th</sup>) percentile **and** second, the truncated coefficient of variation (TCV) was *less than or equal to 10%, or 0.10*. We note that the percentiles were considered statistically indistinguishable if the 75<sup>th</sup>/25<sup>th</sup> percentile was within two standard errors of the 90<sup>th</sup>/10<sup>th</sup> percentile. Additionally, for each measure the TCV was calculated by first removing the lower and upper 5<sup>th</sup> percentiles, then dividing the standard deviation by the mean of this truncated distribution ( $SD_{\text{truncated}}/\text{Mean}_{\text{truncated}}$ ). The TCV was then converted to a decimal by dividing the TCV by 100.

Measures evaluated included the combined Kt/V measure, Fistula, Catheter, Hypercalcemia, NHSN Standardized Infection Ratio (SRI), Standardized Readmission Ratio (SRR), Standardized Transfusion Ratio (STrR), Standardized Hospitalization Ratio (SHR), and the six individual CAHPS clinical measures. Medicare claims data from 2015 were used in Fistula and Catheter calculations. CROWNWeb data from 2015 was used for Hypercalcemia, the combination of 2015 CROWNWeb data and 2015 Medicare claims data were used for Kt/V measure, and the SRR, STrR, and SHR measures were based on both combination of 2014 CROWNWeb data and 2014 Medicare claims data. The NHSN SIR measure was calculated using the CY 2015 NHSN data from the CDC, and the six components of the ICH-CAHPS measure were calculated using the CY 2015 ICH-CAHPS data from the AHRQ.

Table 1 presents the percentiles, standard error, and TCV for each measure. In this analysis, all facilities with the minimum eligible patient requirement per measure were included. Results indicate none of the PY 2020 clinical measures met both of the “topped out” conditions.

**Table 1. PY 2020 Clinical Measure including facilities with minimum eligible patient requirement per measure**

Measure	N	75th/25th percentile	90th/10th percentile	Std Error	Statistically Indistinguishable	Truncated Mean	Truncated SD	TCV	TCV ≤ 0.10
<b>Kt/V delivered dose above minimum</b>	6210	96.0	98.0	0.093	<b>No</b>	92.5	4.20	0.05	<b>Yes</b>
<b>Fistula Use</b>	5906	73.2	79.6	0.148	<b>No</b>	65.7	8.88	0.14	<b>No</b>
<b>Catheter Use</b>	5921	5.43	2.89	0.093	<b>No</b>	90.1 <sup>a</sup>	5.16	<0.01	<b>Yes</b>
<b>Serum Calcium&gt;10.2</b>	6257	0.91	0.32	0.049	<b>No</b>	97.8 <sup>a</sup>	1.48	<0.01	<b>Yes</b>
<b>ICH CAHPS: Nephrologists Communication and Caring</b>	3349	71.8	77.1	0.159	<b>No</b>	65.7	7.11	0.11	<b>No</b>
<b>ICH CAHPS: Quality of Dialysis Center Care and Operations</b>	3349	66.2	71.2	0.134	<b>No</b>	60.9	6.20	0.10	<b>No</b>
<b>ICH CAHPS: Providing Information to Patients</b>	3349	82.4	85.6	0.101	<b>No</b>	78.4	4.61	0.06	<b>Yes</b>
<b>ICH CAHPS: Percent, Rating of Nephrologist</b>	3349	69.9	76.6	0.204	<b>No</b>	62.0	9.29	0.15	<b>No</b>
<b>ICH CAHPS: Percent, Rating of Dialysis Facility Staff</b>	3349	70.9	77.4	0.215	<b>No</b>	62.0	9.92	0.16	<b>No</b>
<b>ICH CAHPS: Percent, Rating of Dialysis Center</b>	3349	73.8	80.6	0.221	<b>No</b>	64.8	10.18	0.16	<b>No</b>
<b>NHSN- SIR</b>	5781	0.41	0.00	0.011	<b>No</b>	0.963	0.57	<0.01	<b>Yes</b>
<b>SRR</b>	5739	0.82	0.64	0.004	<b>No</b>	0.995	0.21	<0.01	<b>Yes</b>
<b>STrR</b>	5650	0.64	0.43	0.008	<b>No</b>	0.965	0.37	<0.01	<b>Yes</b>
<b>SHR</b>	6086	0.79	0.63	0.004	<b>No</b>	0.983	0.23	<0.01	<b>Yes</b>

<sup>a</sup>Truncated mean for percentage is reversed (100% - truncated mean) for measures where lower score = better performance.