

A biannual scorecard to evaluate CUSP teams

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1 Background

The comprehensive unit-based safety program (CUSP) was introduced at Johns Hopkins Hospital the early 2000s¹. The primary goal of CUSP is to provide an interdisciplinary, team-based framework for promoting patient safety and quality improvement initiatives, targeted at the work unit level¹. Today, the program is a mainstay of the patient safety infrastructure throughout a growing network of hospitals and clinics². Ongoing research, such as the Keystone ICU project, aims to explore and validate the organization- and unit-level effects of CUSP on safety culture and patient safety outcomes³, and considerable evidence exists that the CUSP approach can have positive impacts in both these areas¹⁻⁵.

In order to maximize the positive impacts of CUSP across an organization or health care system, there is a need for an efficient method by which organizational leadership may: 1) identify CUSP teams which are excelling or faltering, and 2) monitor team characteristics on an ongoing basis. The CUSP scorecard was developed with the goal of creating a reliable, objective tool for the ongoing evaluation of individual CUSP teams⁶. In keeping with the CUSP emphasis on sustainability and ongoing evaluation, the scorecard is structured to provide leadership with a snapshot of CUSP teams on a biannual basis, including important indicators of team member engagement, team activity, and unit safety climate⁶.

2 Methods

Scorecards were piloted with a limited number of teams in 2011, and have been administered biannually since 2014 to CUSP teams across Johns Hopkins Hospital (JHH), Sibley Memorial Hospital (SMH), Johns Hopkins Bayview Medical Center (JHBMC), Howard County General Hospital (HCGH), and Johns Hopkins Community Physicians (JHCP). Data collection periods are the first and second quarters (Jan 1 - June 30; scorecards due in August), and third and fourth quarters (July 1 - Dec 31; scorecards due in March) of each calendar year. Currently, the scorecard is distributed to CUSP facilitators in the form of a spreadsheet document, and data is reported by CUSP facilitators and champions⁶.

The scorecard comprises ten distinct metrics (Table 1), which correspond with existing steps the CUSP approach¹. For example, the involvement of both a senior executive and a provider champion on each team is an integral part of the CUSP process; so, the scorecard measures attendance of these team members at CUSP team monthly meetings. Results for each metric can then be compared against a set of measurement targets (Table 1).

Measurement	Goal	Green	Yellow	Red
1. Percentage of CUSP meetings canceled within past 6 months.	0%	< 10%	≥ 10% and ≤ 30%	> 30%
2. Percentage of CUSP meetings attended by senior executive (or designee).	100%	≥ 90%	< 90% and ≥ 70%	< 70%
3. Percentage of CUSP meetings attended by provider champion (or designee).	100%	≥ 90%	< 90% and ≥ 70%	< 70%
4. Percentage of staff that have completed Science of Safety training, as of end of data period.	≥ 90%	≥ 90%	< 90% and ≥ 80%	< 80%
5. Unit champion has attended CUSP Workshop (1) and Armstrong Institute Patient Safety Certificate Program (2).	2	= 2	= 1	< 1
6. Number of hours per week of protected CUSP time for unit champion.	≥ 4	≥ 4	< 4 and ≥ 1	< 1
7. Number of defects learned from within past 6 months.	≥ 4	≥ 4	= 3	< 3
8. Number of unit-data specific improvement plans within past 6 months.	≥ 2	≥ 2	= 1	< 1
9. Average percentage positive score for Safety Climate domain from most recent SAQ.	≥ 80%	≥ 80%	< 80% and ≥ 60%	< 60%
10. Unit response rate for most recent SAQ.	≥ 80%	≥ 80%	< 80% and ≥ 60%	< 60%

Table 1: CUSP team scorecard components, and measurement goals.

3 Results

CUSP teams were considered eligible for submitting a scorecard if they had been operating for the entirety of the data collection period. For the third and fourth quarters (July 1 - Dec 31) of calendar year 2015, there were a total of 147 CUSP teams eligible for completing scorecards. Of the eligible teams, 98 teams submitted completed scorecards.

Analysis of data collected for 2014-2015 is ongoing⁶.

4 Discussion

The CUSP team scorecard provides a reliable, objective method for measuring and tracking indicators of CUSP engagement, team activity, and unit safety climate⁶. These biannual evaluations provide valuable information to CUSP leadership, including team champions, facilitators, and coordinators, as well as to hospital leadership. By identifying teams falling below measurement targets, CUSP facilitators and coordinators may be better able to direct time and resources to teams with the greatest need for further guidance⁶. The framework of CUSP allows tailoring to individualized work units¹, and so a standardized tool for evaluation allows leadership to view metrics which are common to all CUSP teams. On a larger scale, scorecard summaries over time may provide administrators with a more generalized view of the status of CUSP across their hospital or clinic system⁶.

There are some limitations to the CUSP scorecard. Scorecard submission has, thus far, been voluntary on the part of unit champions and CUSP facilitators, and it is possible that teams failing to submit scorecards are those which are in greatest need of additional support⁶. Additionally, methods for tracking information (such as meeting attendance and numbers of projects) varies between individual CUSP teams. This point may be remedied somewhat by a standardized monthly "check-in" tool, which has recently been piloted and made available to all CUSP teams.

5 Future Directions

Since the implementation of CUSP, evidence has supported the program's ability to positively influence safety culture and patient safety outcomes, such as central line-associated blood stream infection (CLABSI) rates¹⁻⁵. However, there remains a need for more detailed examination of the specific CUSP team characteristics which may possibly drive these outcomes at the individual unit level³. Inclusion of SAQ Safety Climate domain data on the CUSP scorecard allows future opportunity to explore correlations between team engagement/activity metrics and overall unit safety climate, especially as these metrics may change over time⁶. Statistical analysis to explore these trends and correlations is ongoing, and will continue with each set of scorecards collected.

In the future, scorecard data may also prove useful in identifying teams which could benefit from collaboration with other CUSP teams. The CUSP Learning Network is a collaborative network of institutions utilizing CUSP, which aims to promote the sharing of methodologies, experiences, and best practices². By highlighting areas needing improvement, such as meeting attendance or staff Science of Safety training, the scorecard may help to provide a basis for establishing connections with teams that have previously been successful in these areas.

Lastly, a web-based platform for collection of future scorecard results will be utilized. The web-based scorecard will allow for increased precision of the data collected, as well as more convenient entry of information by CUSP leadership, and it is our hope that this will further increase response rates⁶.

6 References

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