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10,000 Good Catches: Increasing Safety Event Reporting In A Pediatric Health Care System

Kristen M. Crandall, MSN, RN, CPN; Ahmed Almuhanna, MHA*; Rebecca Cady, Esq., BSN, CPHRM, DFASHRM*; Lisbeth Fahey, MSN, RN*; Tara Taylor Floyd, MPH, BSN, RN, NE-BC*; Debbie Freiburg, MS, RN, NE BC*; Mary Anne Hilliard, Esq., BSN, CPHRM*; Sonal Kalburgi, DO, MSHS*†; Nafis I. Khan, BS*; DiAnthia Patrick, MsPharm*; Padmaja Pavuluri, DO, MPH*†; Kelvin Potter, MBA*; Lisa Scafidi, BA, BSN, RN*; Laura Sigman, MD, JD*†; Rahul K. Shah, MD, MBA*†*

Background: In 2014, Children's National Health System's executive leadership team challenged the organization to double the number of voluntary safety event reports submitted over a 3-year period; the intent was to increase reliability and promote our safety culture by hardwiring employee event reporting. **Methods:** Following a Donabedian quality improvement framework of structure, process, and outcomes, a multidisciplinary team was formed and areas for improvement were identified. The multidisciplinary team focused on 3 major areas: the perceived ease of reporting (ie, how difficult is it to report an event?); the perceived safety of reporting (ie, will I get in trouble for reporting?); and the perceived impact of reporting (ie, does my report make a difference?) technology, making it safe to report, and how reporting makes a difference. The team developed a key driver diagram and implemented interventions designed to impact the key drivers and to increase reporting. **Results:** Children's National increased the number of safety event reports from 4,668 in fiscal year 2014 to 10,971 safety event reports in fiscal year 2017. Median event report submission time was decreased by nearly 30%, anonymous reporting decreased by 69%, the number of submitting departments increased by 94%, and the number of reports submitted as "other" decreased from a baseline of 6% to 2%. **Conclusions:** Children's National Health System's focus on increasing safety event reporting resulted in increased organizational engagement and attention. This initiative served as a tangible step to improve organizational reliability and the culture of safety and is readily generalizable to other hospitals.
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INTRODUCTION

To achieve high reliability in today's fast paced and demanding health care environment, it is imperative of imbue a culture of safety where improvement opportunities are recognized and embraced. Medical errors are cited as being 1 of the leading causes of morbidity and mortality in the United States, and health care organizations must strive to rapidly identify and respond to errors to decrease harm to patients.[1–3]

Improving safety event reporting is a tangible step on the reliability journey that applies to all health care organizations and to other high-risk environments.[1,4–6] Reporting brings awareness to potential problems and risks and facilitates proactive problem resolution, which contributes to safer care overall.[6,7] Preventing future harm due to avoidable events is a primary goal of safety event reporting.[8] Without knowledge of existing problems gleaned through reporting, long-time systems issues are likely to persist and lead to adverse safety events.

However, there are multiple barriers to reporting; for example, staff hesitancy to report events due to lack of knowledge, the potential cumbersome and/or time-consuming process of reporting, fear of retaliation, or lack of awareness of the positive effect of reporting.[9–12] In addition to staff reluctance and engagement, it is challenging to make reporting efficient, safe, and productive, to effectively process (triage, analyze, act) reports, and to demonstrate effective follow-up action and loop closure with reporters.[13]

Over the past decade, Children's National, a free-standing quaternary care pediatric health care system, has made

*From the *Children's National Health System, Washington, D.C.; and †The George Washington University School of Medicine and Health Sciences, Washington, D.C.*

**Corresponding author. Address: Kristen M. Crandall, MSN, RN, CPN, 111 Michigan Ave NW, Washington, DC 20010PH: 610) 800–6139 Email: kristenmcrandall@gmail.com*

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an active effort to increase patient safety via transparency, staff education and just in time learning opportunities, leadership engagement including rounding and daily safety check-in calls, participation in safety conferences, and encouraging safety event reporting. However, despite a modest increase in safety event reporting in past years, the organization's leadership recognized that opportunities for better detection and organizational learning via safety event reports still existed, and to that end issued a bold challenge.

In 2014, under the direction of the Board of Directors and Executive Leadership, Children's National Health System crafted an ambitious corporate goal to double the number of safety event reports in the organization. The Board and Executive Leadership were prescient to realize that this would be a multi-year effort requiring the coordination of many stakeholders. The specific aim was to increase voluntary employee safety event reporting. A 3-year corporate goal was established to double the number of voluntary safety event reports submitted from a baseline of 4,668 (FY 2014) to 9,336 (FY 2017); the initiative was referred to as "10,000 Good Catches" to avoid the pejorative connation of an "incident" report and to espouse the ideal of capturing near misses and latent safety defects with the global aim of improving the culture of safety. This is a description of the quality improvement (QI) initiative demonstrating the success of multi-stakeholder engagement with executive engagement to result in achieving this corporate goal.

METHODS

To approach this corporate goal, we utilized the Donabedian QI framework of structure, process, and outcomes.[14] The outcome measure was explicit: the number of safety event reports filed in our event reporting system; however, it was the structure and processes that were put in place that ultimately proved necessary for goal attainment. This project was undertaken as a QI initiative at Children's National, and it does not constitute human subjects research; as such it was not under the oversight of the institutional review board.

The Safety in Numbers Committee (SiNC) was chartered by hospital leadership in 2014 and co-chaired by the Vice-President, Chief Quality and Safety Officer and the Vice-President, Chief Risk Officer. Membership consisted of an inter-professional team (including physicians, nurses, pharmacy, patient safety, risk management, and information technology) representing front-line clinical staff and organizational leaders (ie, Director of Patient Safety, Director of Risk Management), who met monthly. Under guidance of the SiNC co-chairs, members organized into 3 goal-specific, working subcommittees: (1) Technology: make reporting user-friendly, fast, and easy; (2) Safe to Report: create a nonpunitive environment in which staff feel secure reporting safety events; and (3) Makes a Difference: develop a culture and system to provide feedback and advance meaningful improvements stemming from safety event reporting. Over the next 3 years, improvement initiatives were implemented, outcomes were tracked, and SiNC responded to data and results in an iterative fashion of continuous QI.

SiNC developed a key driver diagram to address technology, accessibility, and cultural barriers to reporting (Fig. 1). The subcommittees routinely solicited feedback from front-line users and met with the larger group monthly to propose interventions, review quantitative data, and prioritize next steps. The initial key driver diagram was revised over time to highlight active efforts. In brief, each of the subgroup efforts targeted the following:

- Technology: This subcommittee's goal was to decrease time to submission by decreasing the number of required fields, streamlining and standardizing "pick list" choices for submitters, improving operating system infrastructure and reporting platforms (ie, web, app, voice), and reorganizing the submission home screen tiles based on content usage.
- Safe to Report: This subcommittee's goal was to improve staff members' perception and comfort with reporting and moving away from a punitive environment surrounding reporting to one that is focused on opportunities for improvement. Key interventions included educating staff on the purpose of reporting and how to write fact-based event reports. The subcommittee partnered with human resources to develop "just culture" training for managers and worked with clinical units to identify safety champions and promote local initiatives to increase safety event reporting.
- Makes a Difference: This subcommittee's goal was to make event reporting valued by local and senior leadership. Key interventions included partnering with clinical units and local safety champions, hard-wiring the format for managerial follow-up in the electronic reporting platform RL Solutions (Toronto, Canada) and tracking it hospital-wide, recognizing staff for filing reports, and identifying event reports tracked external to the electronic reporting platform.

Our internal communications were targeted toward educating employees on how to report, what to report, and why they should report. These communications were frequent, especially throughout the last year of the 3-year goal period. Our team continuously updated information to our organization's internal communications team, who included it in house-wide messaging such as our intranet site, organizational newsletters, and on both printed and electronic communication boards. On a monthly basis, dashboards were generated that captured multiple departments' monthly numbers, the organization's progress toward its goal, and included the ability for each department to input their weekly data and print the dashboard to display in their department.

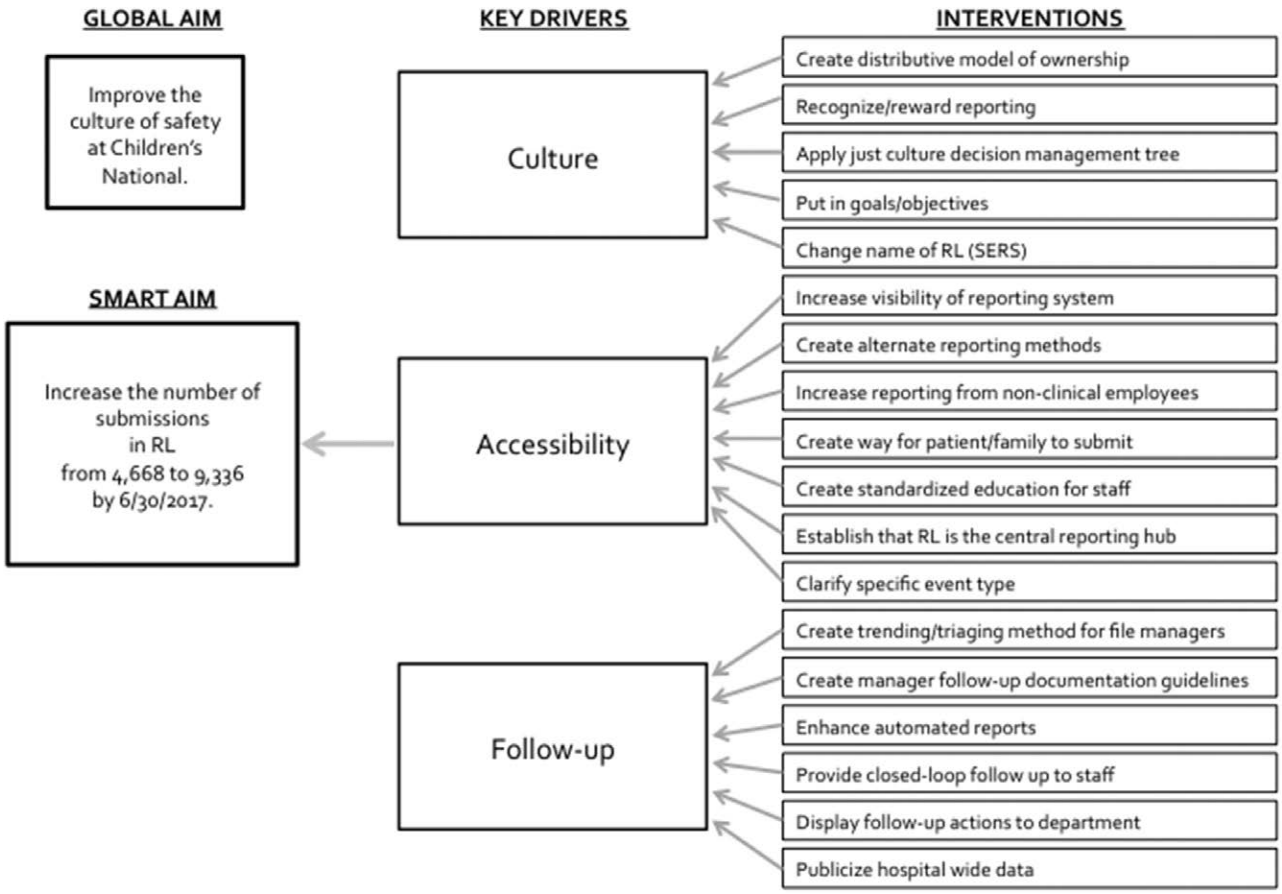

Fig. 1. Key driver diagram.

The primary outcome measure was the number of safety event reports submitted via the electronic reporting platform. Process measures included event report submission time, number of departments submitting events, and percentage of safety event reports submitted anonymously. Balancing measures included percentage of events submitted as "other."

RESULTS

Outcome Measure

SiNC's efforts more than doubled the number of voluntary safety event reports filed over the 3-year time period from 4,668 in fiscal year 2014 to 10,971 in fiscal year 2017, with annual stepwise improvements (Fig. 2). The average number of safety event reports submitted increased by 167% (85 reports/week to 227 reports/week; Fig. 3).

Process Measures

The median duration for file submission decreased by nearly 30% (11:42 minutes to 8:03 minutes). The total number of submitting departments increased by 94% (86 departments to 167 departments), and specifically with an increase in nonclinical departments, (ie, security, environmental services, and concierge services). Finally, SiNC's efforts resulted in a 69% decrease in anonymously filed reports (52% to 16%).

Balancing Measure

Efforts to educate and improve safety event reporting resulted in a decrease events filed as "other" from 6% to 2%.

DISCUSSION

Under the direction of the Board and Executive Leadership, Children's National embarked upon a 3-year journey to double the number of voluntary safety event reports filed by employees. Following Donabedian principles, structure and process improvements drove the outcome of increased safety event reporting. Addressing and improving challenges with the technology that facilitates reporting was foundational to this work.[11,15] In order for employees to engage in safety event reporting, it must be efficient, user friendly, and easy. The time it takes to complete a report has been identified as a barrier to reporting.[5,9] By focusing on the user's experience of the reporting platform, we were able to decrease the median submission time, which helped employees further engage in event reporting.

Ensuring that our structure supported and ensured a safe environment for employees when a report was filed was vital to the success of this project. Foundational to reporting and speaking up, employees must perceive

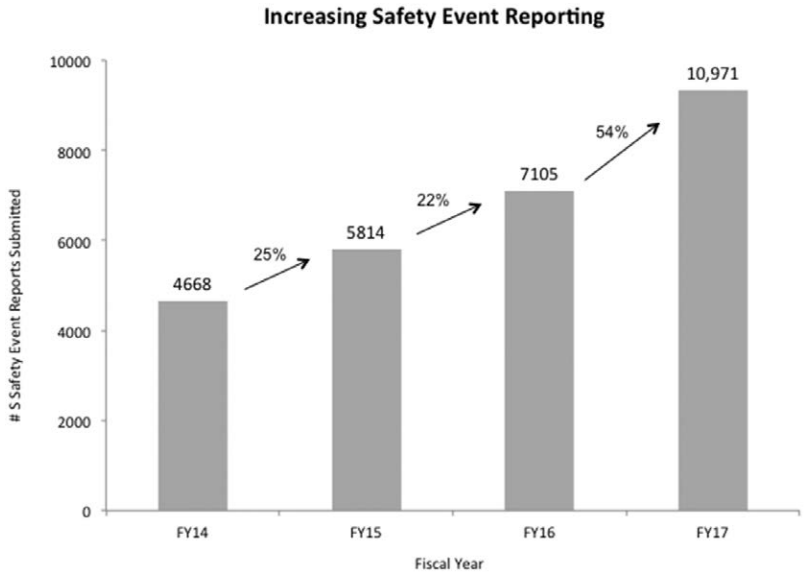

Fig. 2. Bar chart with each fiscal year and # event reports submitted.

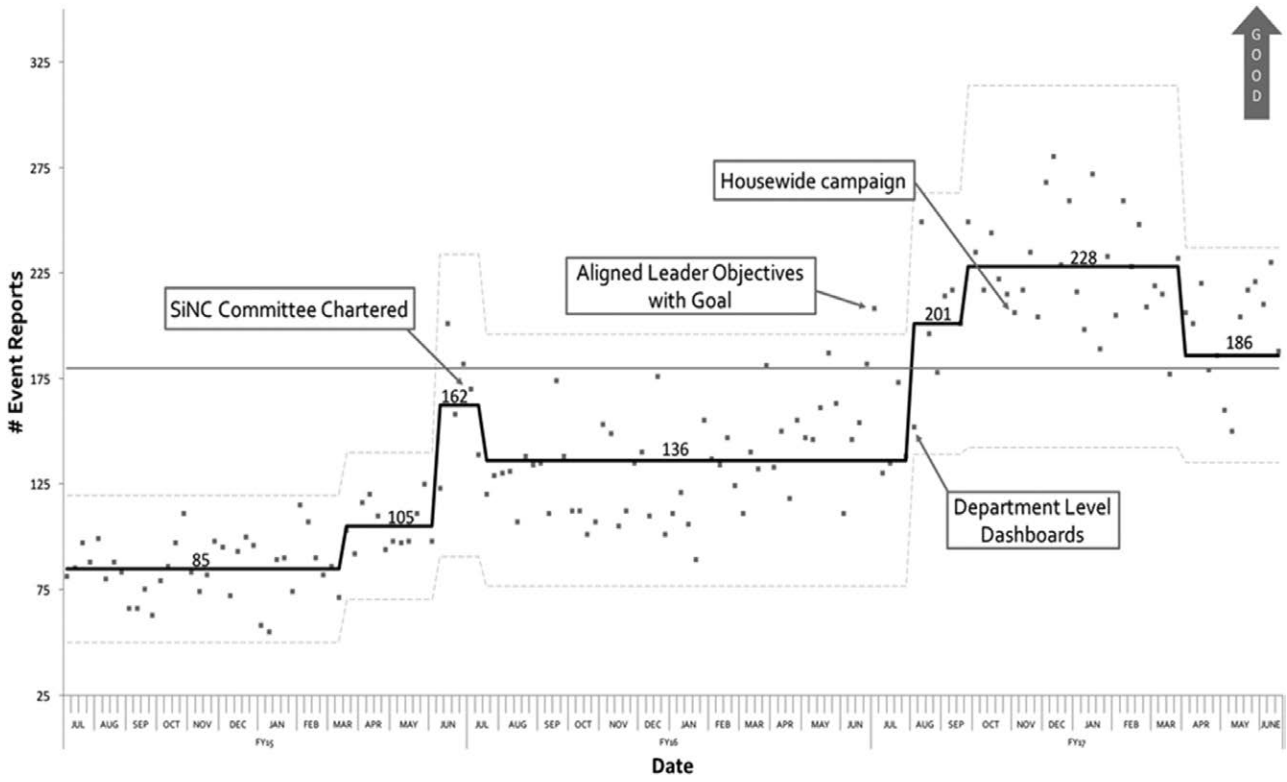

Fig. 3. Three-year control chart.

that there will not be retaliation or other negative consequences to their efforts.[9,11] Educating leaders and frontline staff via an electronic learning platform and in real-time education sessions, and integrating the "just culture" algorithm into organizational processes, policies, and procedures facilitated the establishment of trust, which further drove reporting. To maintain a culture of reporting, organizations must consistently evaluate events with an established approach that holds individuals accountable for their action, and the system accountable for system flaws or problems in an equitable, consistent manner. Integration of this approach into the processes, policies, and procedures that the organization follows facilitates this consistency.

Health care providers continuously face competing priorities in providing safe patient care.[7,11] It was

therefore imperative to demonstrate that reporting is valuable, makes a difference, and is an important tenet to establishing and maintaining a reporting culture. Employees must feel that reporting is efficacious.[9] Safety event reporting's positive impact on patient safety culture is contingent upon effective analysis of events, feedback to reporters, and sufficient infrastructure for reporting.[7,16] Organizations that are open to learning about events and use them to implement tangible improvements can reach higher performance levels.[8] Analyzing safety event reports facilitates understanding of how and why events occur and informs improvements/changes to patient care.[17]

As reporting was encouraged and event report submissions increased, the team developed touch points where the employees filing the event reports could learn what was being done with their individual event report. Historically, there was not effective closure for the employee who filed the report to receive information on what happened after it was submitted. Individual review, analysis, and response to safety event reports require extensive resources as a result of the quantity of reports and the free-text descriptions.[18] Analysis capabilities within the electronic reporting system are limited in making the data actionable.[19] Electronic solutions such as follow-up reports/grids that could be broadly shared was 1 method that was utilized, with several departments printing and posting these reports/grids on their local performance boards for all team members to see. In addition, departments found success in this area by reviewing select safety event reports with the local team and discussing the follow-up actions and resolution of such events.

At an organizational-level, most safety and quality meetings begin with a safety story selected from actual events submitted to the safety event reporting system. This strategy helps staff understand and recognize that reports were being reviewed and acted upon, even if the follow-up to each and every report was not disseminated broadly. In addition to the focus on spreading reports, trending data are shared monthly at the patient safety committee meeting that highlight any changes or trends in both reporting rates and types of events. We continue to focus on additional strategies to share and spread report follow-up and systems improvements.

Finally, alignment with executive leadership was critical in achieving this ambitious goal. With the organizational goal to double the number of voluntary safety event reports filed over a 3-year period, there was cascading alignment downward in the organization with department and leader's short-term (1 year) goals supporting the ongoing commitment and enthusiasm around increasing reporting. Individual departments set targets to increase their departmental reports, and many leaders throughout the organization selected goals to increase reporting specific to their respective areas. Recognizing the teams that achieved these goals through a multitude of methods was helpful in ongoing success.

CONCLUSIONS

Focusing on structure, process, and outcomes allowed Children's National to effectively increase voluntary safety event reporting. By improving the technology, making it safe to report, and ensuring that reporting made a difference, safety event reports more than doubled over a 3-year period with incremental improvement in reporting each year. Future steps with this initiative will focus on how to sustain improvement, more efficiently leverage reporting data,[18] and apply the data to prevent future safety events.[19]

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