

Parental recognition of the deteriorating child in the Emergency Department.

Safer Care Victoria lead a co-designed Quality Improvement deteriorating patient pilot project. This project involved six Emergency Departments who developed, tried, and tested change ideas to improve the clinical response to parental early recognition of their deteriorating child within the Emergency Departments.

Background

Early recognition of severe illness and early initiation of treatment improves outcomes for many illnesses. Sepsis is one such illness, where early recognition and effective antibiotic administration is the single strongest predictor of outcome¹. Early recognition can be challenging, due to the non-specific nature of early symptoms of sepsis. Many symptoms of sepsis overlap with those seen in self-limited viral infections, and the lack of parental awareness of sepsis or the symptoms that might warrant seeking medical attention.

Parental involvement in the early recognition of childhood sepsis is important. Parents know their children best, and children rely on their parents to seek medical attention when they are concerned about serious infections. Parental recognition of deterioration in their own child is likely to be highly accurate, but there is very little evidence to date to support this claim². Yet coroners reports and sentinel events repeatedly report failure to take heed of parental concerns as a major contributing factor to delayed sepsis recognition and treatment.

All hospitals are required to have pathways for patients and their carers to escalate concerns regarding deterioration. These pathways usually involve several tiers, with initial communication of concerns to the bedside nurse. If continued concerns remain, escalation at a local level to the nurse or doctor in charge are usually the second tier. Should parent/carer concerns remain after tier 2 escalation, a hospital-wide escalation is usually the third tier of escalation (MET call or similar). It is unclear whether these tiers of escalation are obvious or accessible to parents of children in the ED. In addition, some areas of the ED do not have a bedside nurse (e.g., the waiting room), or access to third tier escalation and therefore require adjustment to suit the location of implementation.

The Safer Care Victoria Parental Recognition of the Deteriorating Child Quality Improvement Pilot project involved parents in the early recognition deterioration by using existing escalation pathways to reduce the number of sentinel events related to parent's inability to escalate their concerns in the ED.

AGGREGATE RESULTS AT A GLANCE

This project was conducted at six Emergency Departments in Victoria: The Royal Children's Hospital, Monash Children's Hospital, Werribee Mercy, Northern Health, Barwon Health, and Ballarat Base Hospital.

Duration

May 2021 to May 2022

Project measures

One outcome measure, three process measures.

Results

Outcome measure: There were zero paediatric sentinel events in the six pilot site's emergency departments between December 2021-April 2022 with themes of parents'/careers' difficulty to escalate their concerns about their deteriorating child.

Other outcomes;

Development of tools for recognition, escalation, and response to the deteriorating child.

AIM

Improve the early recognition of deteriorating children in the emergency department.

IMPROVEMENT APPROACH

The project used the Institute of Healthcare Improvement (IHI) methodology. An expert advisory group was established prior to the project's development and these members, provided some guidance in the direction of the project. The six pilot sites, together with Safer Care Victoria Consumers, co-designed the project and it's change ideas.

CHANGE IDEAS

As part of the pilot, the following change ideas were tested and piloted:

- To improve parental/carer recognition of deterioration by providing parents/carers with information on clinical signs of deterioration and/or sepsis signs.
- To co-design a stepped consumer escalation pathway for the ED Wait room and/or ED Bays.
- To standardise the clinical response to parental escalation.
- To embed parental concern into routine bedside observations by asking parents/carers "Are you worried your child is getting sicker?"
- Clinician education about the consumer escalation process and responding to parental concern.

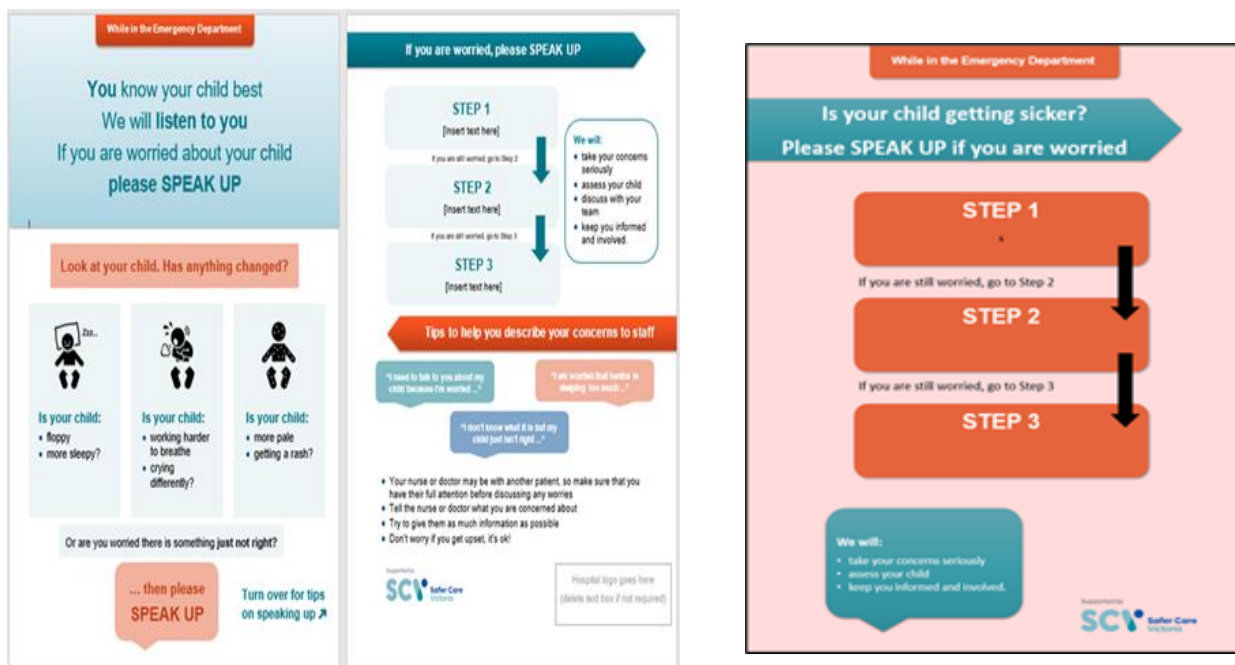


Figure 1 - Project Templates co-designed for optional use for pilot sites to adapt to their own health service.

DATA COLLECTION

The data methodology was designed not to place further demand on the already stretched emergency department staff. This project therefore involved parents/carers who were visiting one of the pilot sites emergency departments. Parent/carers had opportunity to complete an anonymous four-question survey. The survey questions were co designed and piloted by consumers.

A separate one question survey was also designed for the emergency department clinicians.

Posters were developed by SCV and distributed to the healthservices. The posters promoted the survey to staff and parent/carers, with a unique QR code for each healthservice.

All survey results directly integrated with the project's platform, Team Assurance.

A total of 378 staff members and 300 parents completed the surveys.



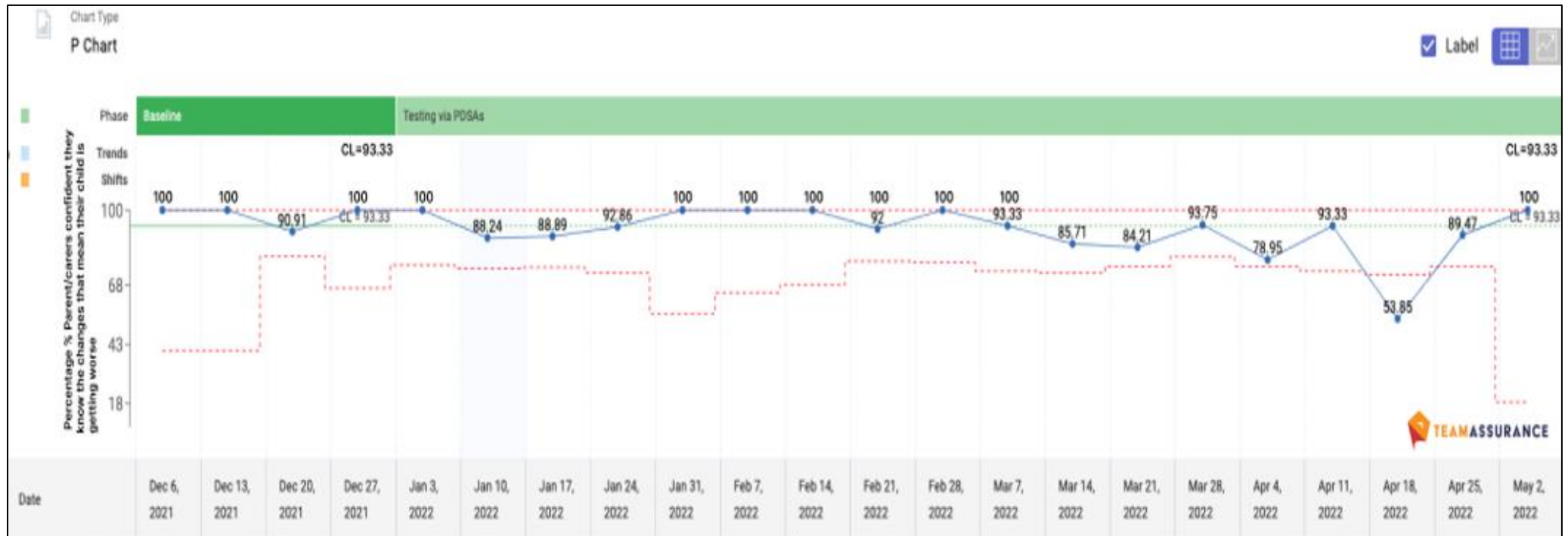
Figure 2 – Posters promoting the consumer and staff surveys via QR Codes.

OUTCOME MEASURE

There were zero paediatric sentinel events in the six pilot site's emergency departments between December 2021- April 2022 with themes of parents'/careers' difficulty to escalate their concerns about their deteriorating child.

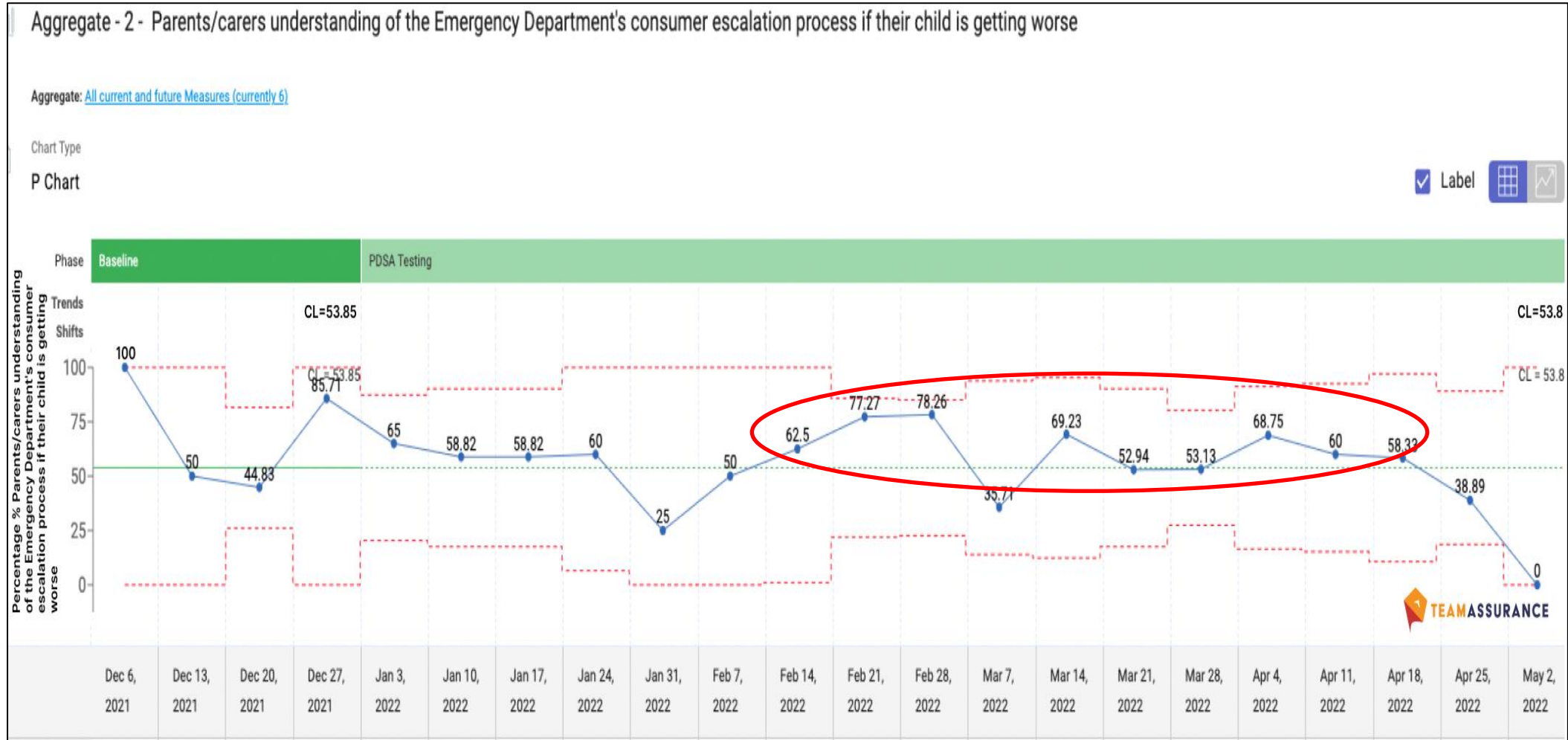
PROCESS MEASURES

Figure 3 - Percentage of parents who stated they are confident to know when their child has deteriorated.



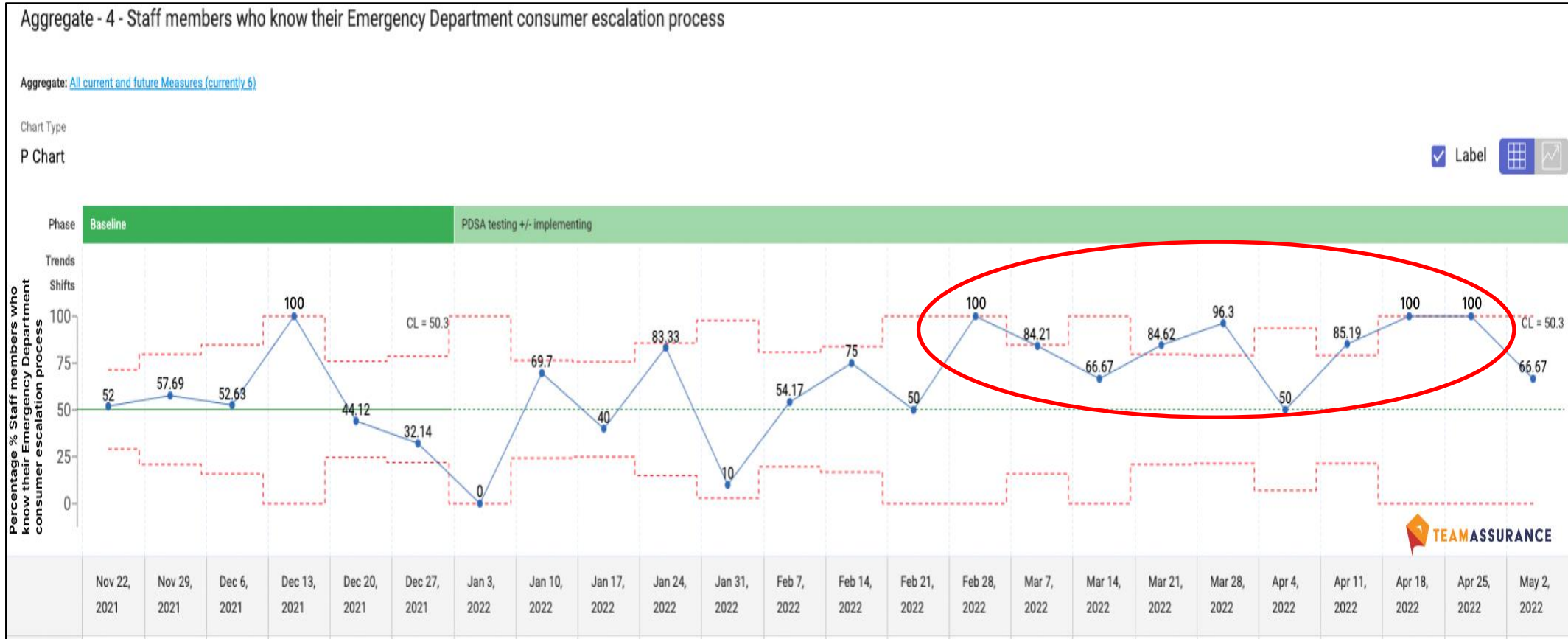
A very high percentage of parents/carers stated they were confident in recognising deterioration in their child (even prior to any of the pilot sites tested any change ideas).

Figure 4 - Percentage of parents who know the consumer escalation process.



From February 2022 to April 2022, pilot sites began to test and implement change ideas. During this time, a higher percentage of parents/carers stated they knew the consumer escalation process compared with the baseline data, December 2021.

Figure 5 Percentage of staff members who know their consumer escalation process.



From February 2022 to April 2022, there was a sustained improvement with a higher percentage of staff stating they know their ED consumer escalation process, compared with the baseline data (December 2021).

CONCLUSION

This project continued throughout the COVID-19 pandemic and declaration of state-wide Code Brown. Despite this, the six pilot sites remained engaged and passionate about the project.

Whilst the project's data collection numbers were small, the project's monthly meetings provided opportunity for clinicians to share their learnings, along with the consumers voices being listened to and heard. During these sessions, we also learnt, that there was no 'one size fits all' approach. Each pilot site faced unique challenges, from geographical barriers to language barriers to staffing barriers that needed to be addressed via the development of their own change ideas. All sites benefited from the inclusion of consumers in their project teams, who were key to the development and testing of change ideas.

At the conclusion of this project, pilot site representatives were keen to continue to collaborate and to partner with their consumers, to help improve the early recognition of the deterioration child in their emergency department.

THANK YOU

Safer Care Victoria would like to thank consumers and clinicians who participated in this project. We appreciate your hard work and hope to continue to collaborate with this important work.

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2. Long E, Solan T, Stephens DJ, et al. Febrile children in the Emergency Department: Frequency and predictors of poor outcome. Acta Paediatr 2020 doi: 10.1111/apa.15602 [published Online First: 2020/09/30]

