

Improving Handoff from OR to CVICU Following Cardiac Surgery; the Power of Lean

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Problem Statement/Background:

Lack of standardization existed in the handoff process between the anesthesiologist and the CVICU nurse in the immediate post op phase following cardiac surgery. The verbal and physical handoff was inefficient and represented potential patient safety risk.

Goal

- Patient handoff from OR to CVICU will be safe and efficient as evidence by:
- Detailed verbal handoff will be exchanged between anesthesiologist and CVICU nurse assuming responsibility for recovery of the patient
- Lines, tubes and monitoring devices will be organized in a fashion that supports immediate initiation of treatment protocols
- No interruption in monitoring or treatment will occur

Methods

Team including; cardiac surgeon, cardiac anesthesiologist, OR nurse, CVICU nurse utilized Lean process improvement methodology to examine the problem, determine the root cause and identify solutions.

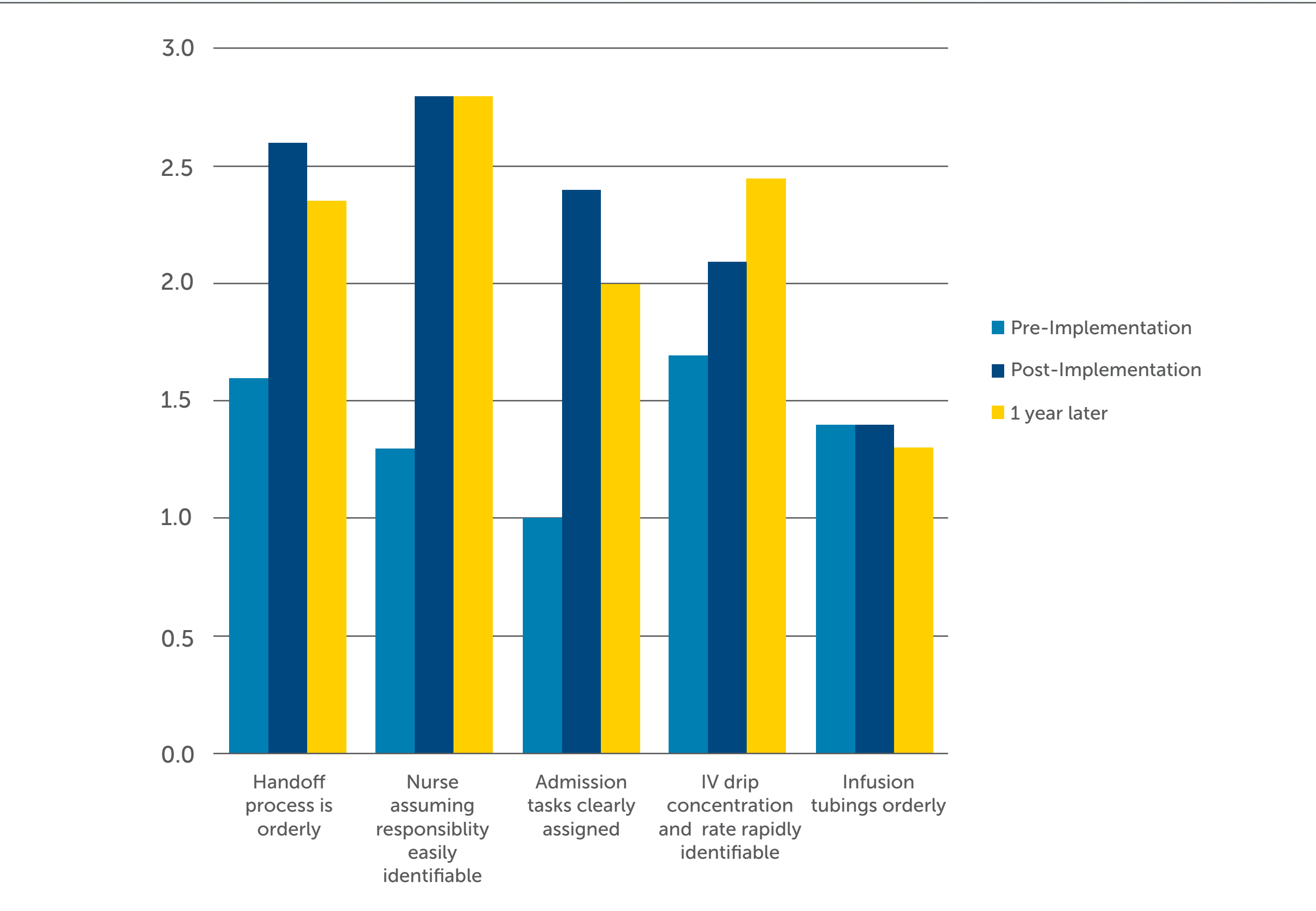
Data Collection

- Waste walks
- Stakeholder Survey
- Five Why's Exercise
- Priority Matrix Diagram
- Staff survey: before change, 3 months after change, 1 year later

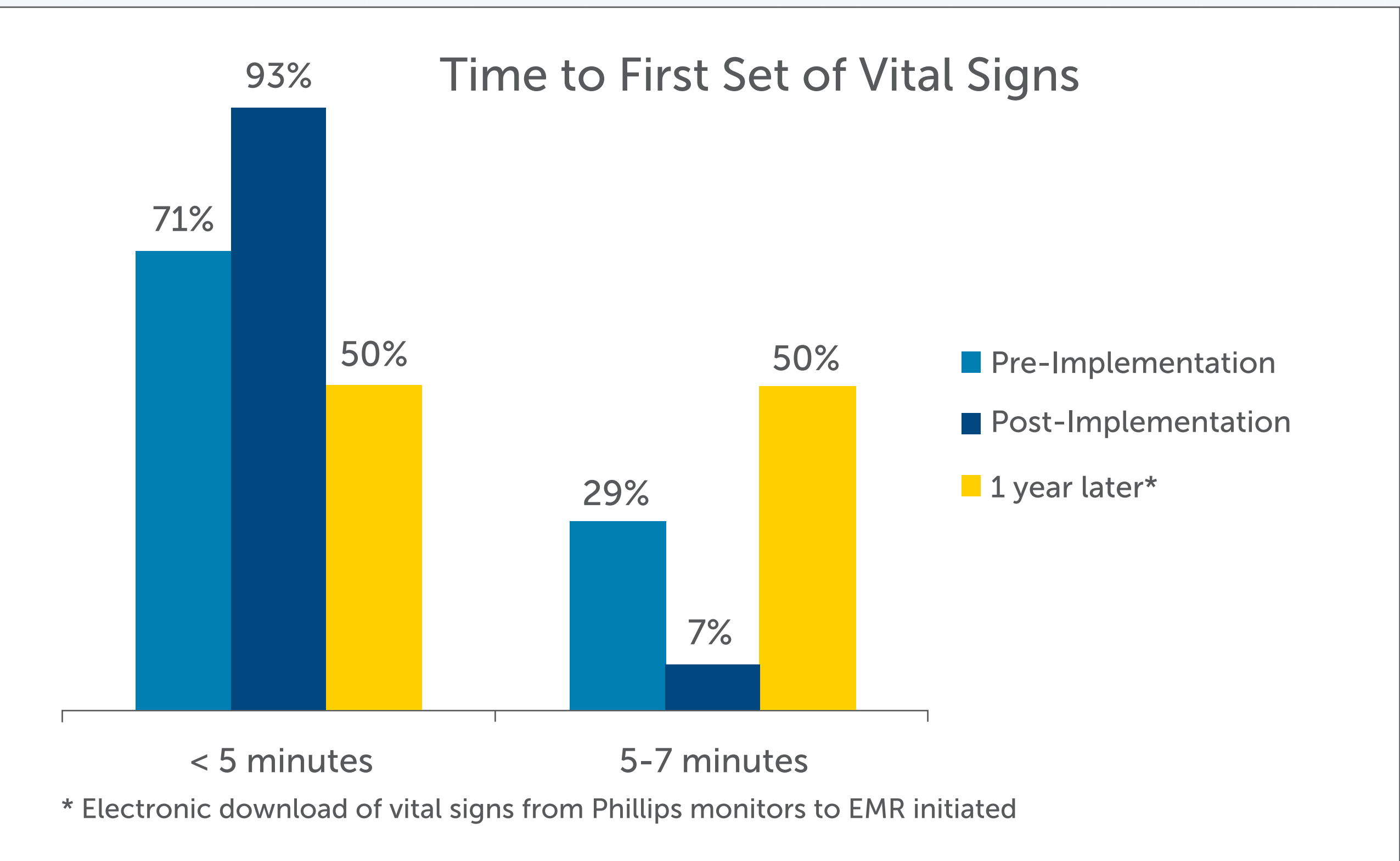
Strategies

- CVICU RN attends last 30 minutes of OR case to receive report from anesthesiologist and assist in transition and transport of the patient to CVICU- Implemented
- CVICU admission team roles streamlined and standardized- Implemented
- Anesthesiologists to standardize labeling and concentration of drips- Implemented

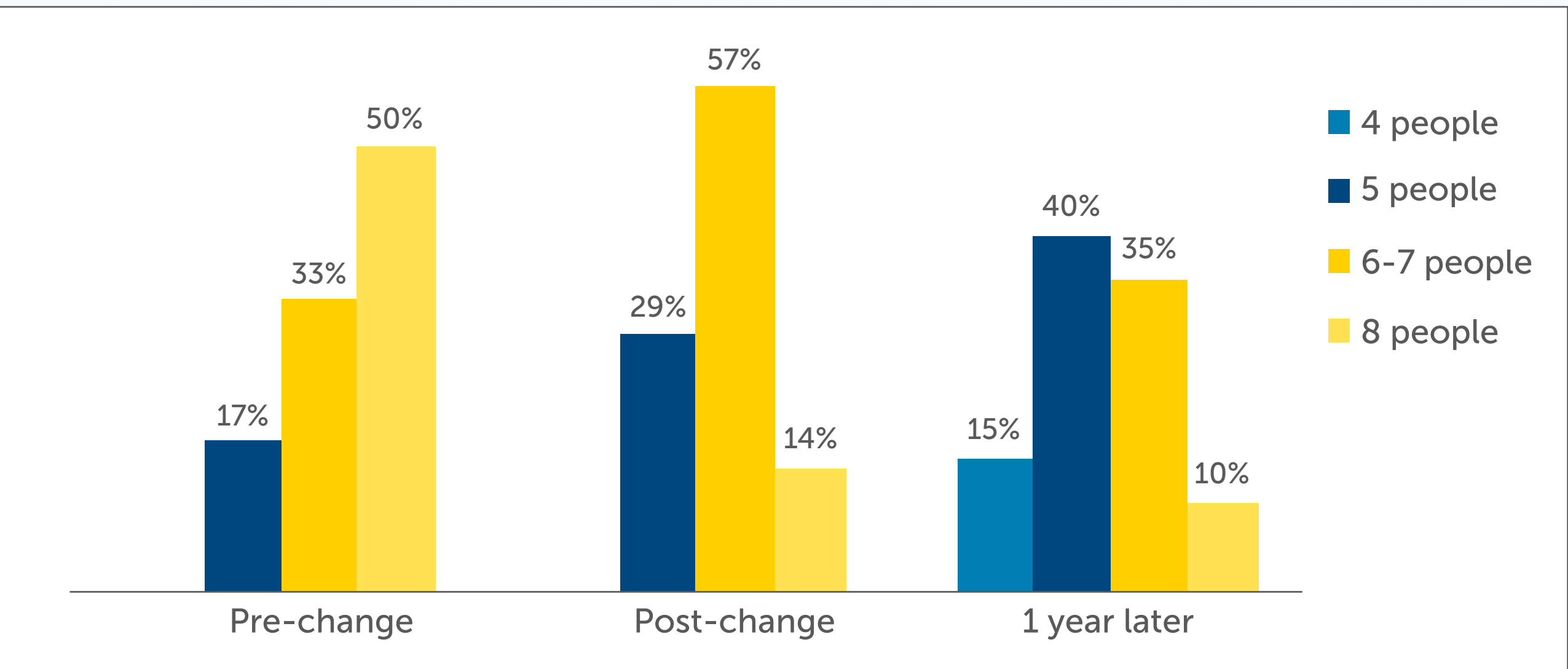
Stakeholder Survey – Quality of Handoff



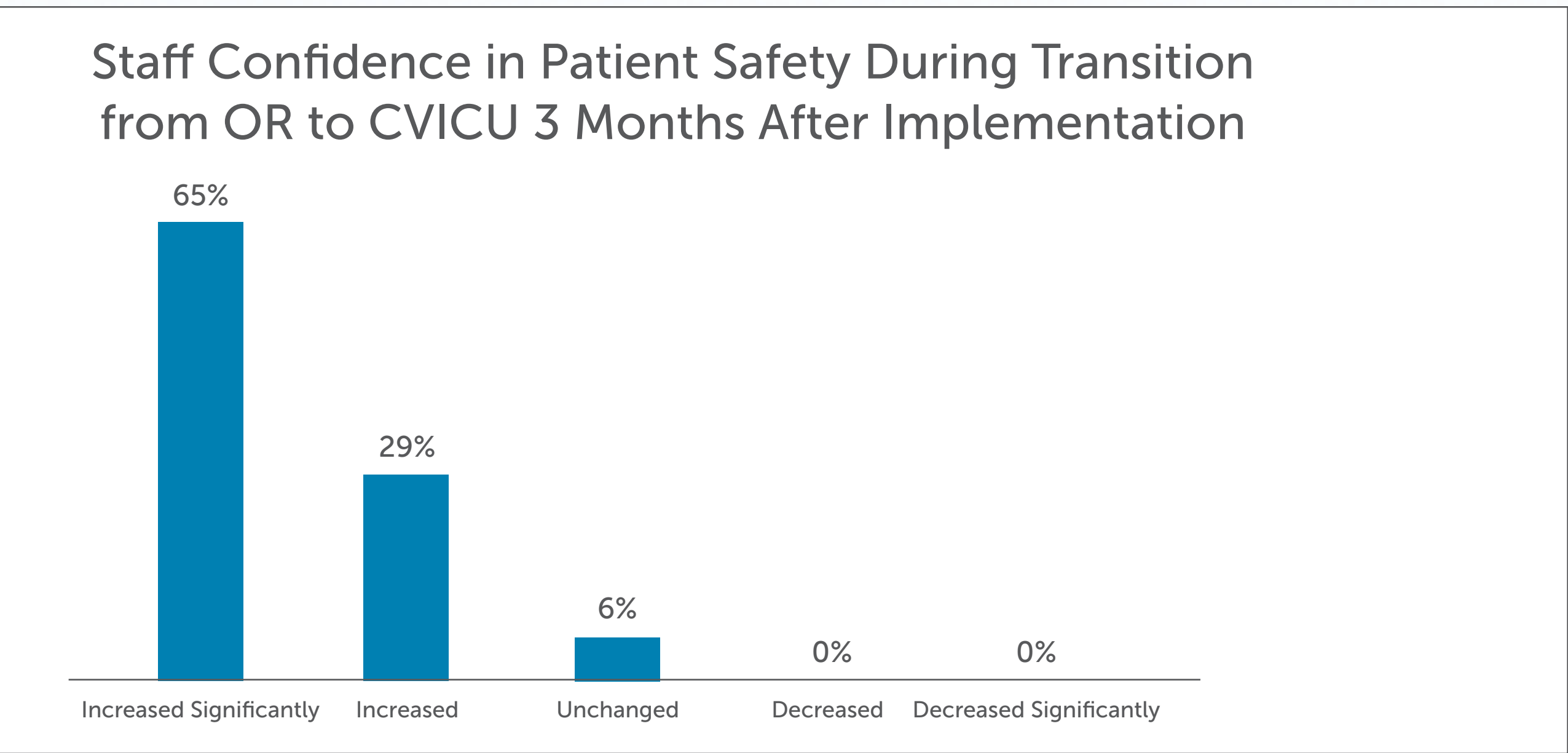
Stakeholder Survey: Time to First Set of Vital Signs



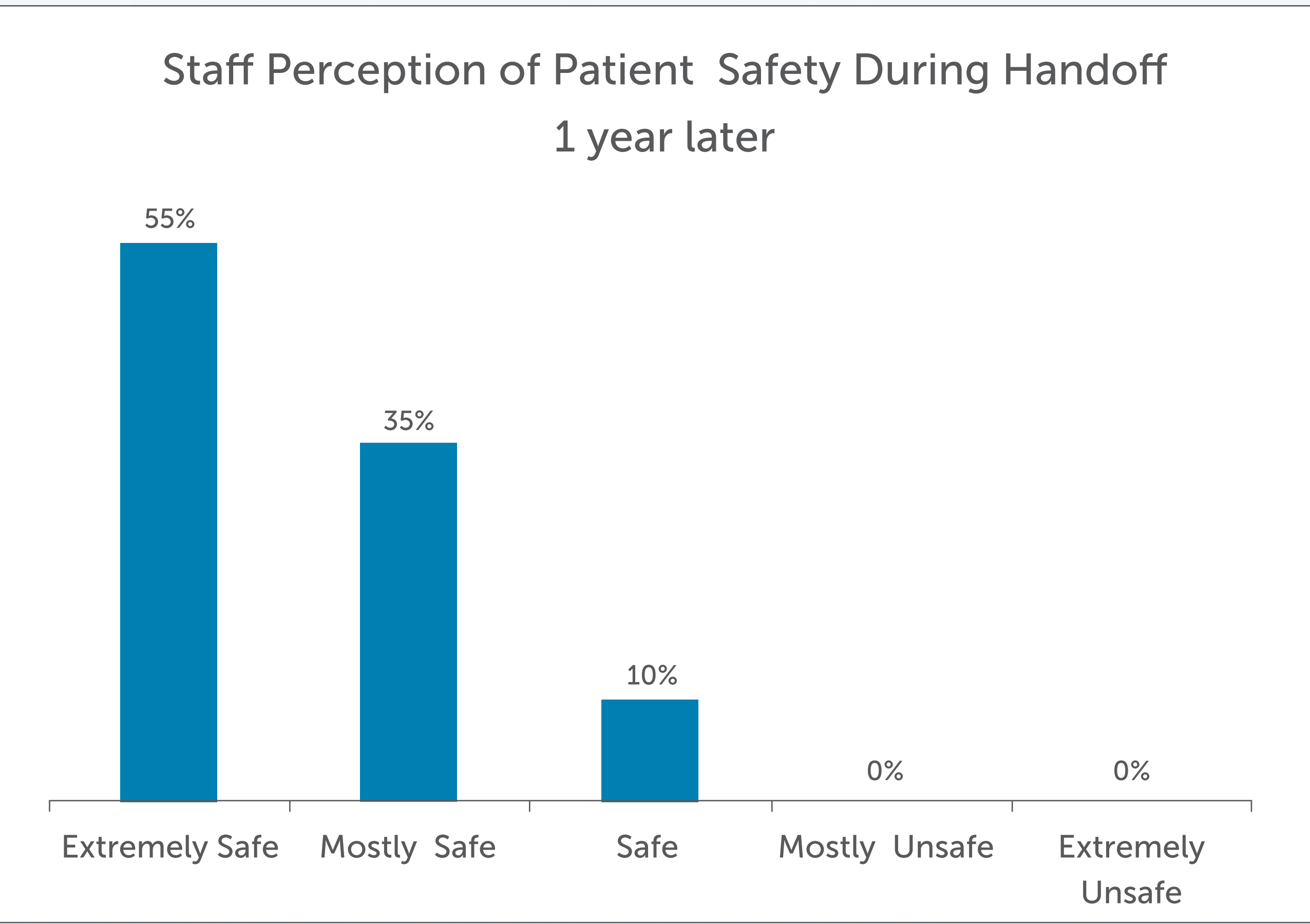
Stakeholder Survey: Number of Staff Present in CVICU Room for Admission/Handoff



Confidence in Patient Safety



Confidence in Patient Safety



Holding the Gain

Despite addition of new staff to the OR and ICU team and continuous updates in functionality of the Electronic Medical Record, improvements have been maintained.

Conclusion

Lean methodology was useful in the development of process improvements that improved efficacy and safety of handoff post cardiac surgery.

Methods

Team including; cardiac surgeon, cardiac anesthesiologist, OR nurse, CVICU nurse utilized Lean process improvement methodology to examine the problem, determine the root cause and identify solutions.

Team Comments

- “There has been a huge paradigm shift in the transfer of care. It is enjoyable and safe in a way that has the patient’s best interest in mind”
- “OR Nurses have more of a voice in the handoff to CVICU nurse. The anesthesiologist reports the patient’s vital information to the CVICU nurse, but now the OR nurse has the opportunity to share the not so vital but necessary nursing information about the patient”
- “I like the new process of the RN receiving report from the anesthesiologist in the OR. It allows us to have a better understanding of the patient’s condition and events that happened during the case. It was distracting and chaotic to get report from the MD at the CVICU bedside during the admission process”

