



## INTRODUCTION

The leading causes of preventable surgical and procedural complications include inadequate anesthesia and surgical skills, operating on the wrong patient, poor communication, performing the wrong procedures, and the use of nonsterile surgical equipment<sup>1,2</sup>.

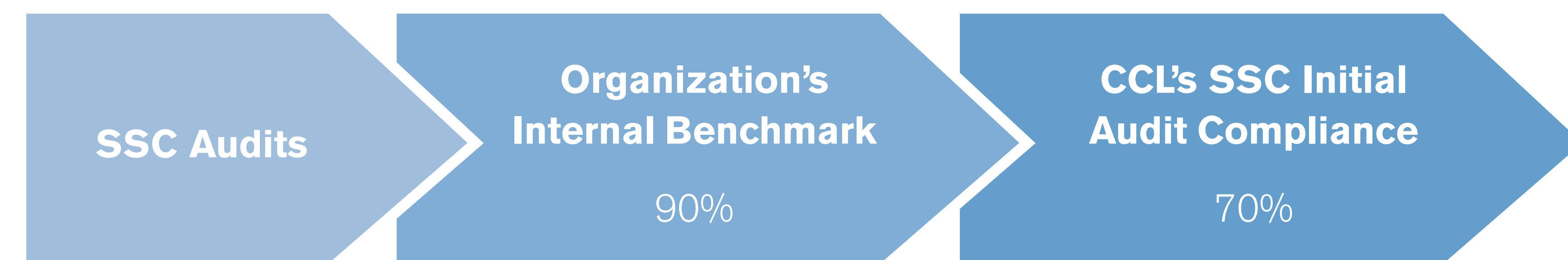
Surgical Safety Checklists (SSC) are necessary to ensure surgical patient safety and improve patient morbidity and mortality. Initially, SSCs were only used in the intraoperative phase of care; however, the World Health Organization advocates for its implementation to be adapted into preoperative practice, because surgical care starts in the preoperative and/or preprocedural areas<sup>1,3-4</sup>.

Just-in-time coaching is an effective educational tool because it provides immediate, personalized support tailored to learners' specific needs, enhancing comprehension and retention in real-time.

## PROBLEM IDENTIFICATION

In the Cardiac Catheterization Lab (CCL) the SSC process starts in the preoperative area. Organizational wrong-site, wrong procedure, wrong-patient error findings led to increased attention on the CCL's preoperative utilization of the SSC. Audits of the CCL's SSC compliance noted a 70% compliance rate, which did not meet the organization's 90% internal benchmark. This finding led to an opportunity for improvement.

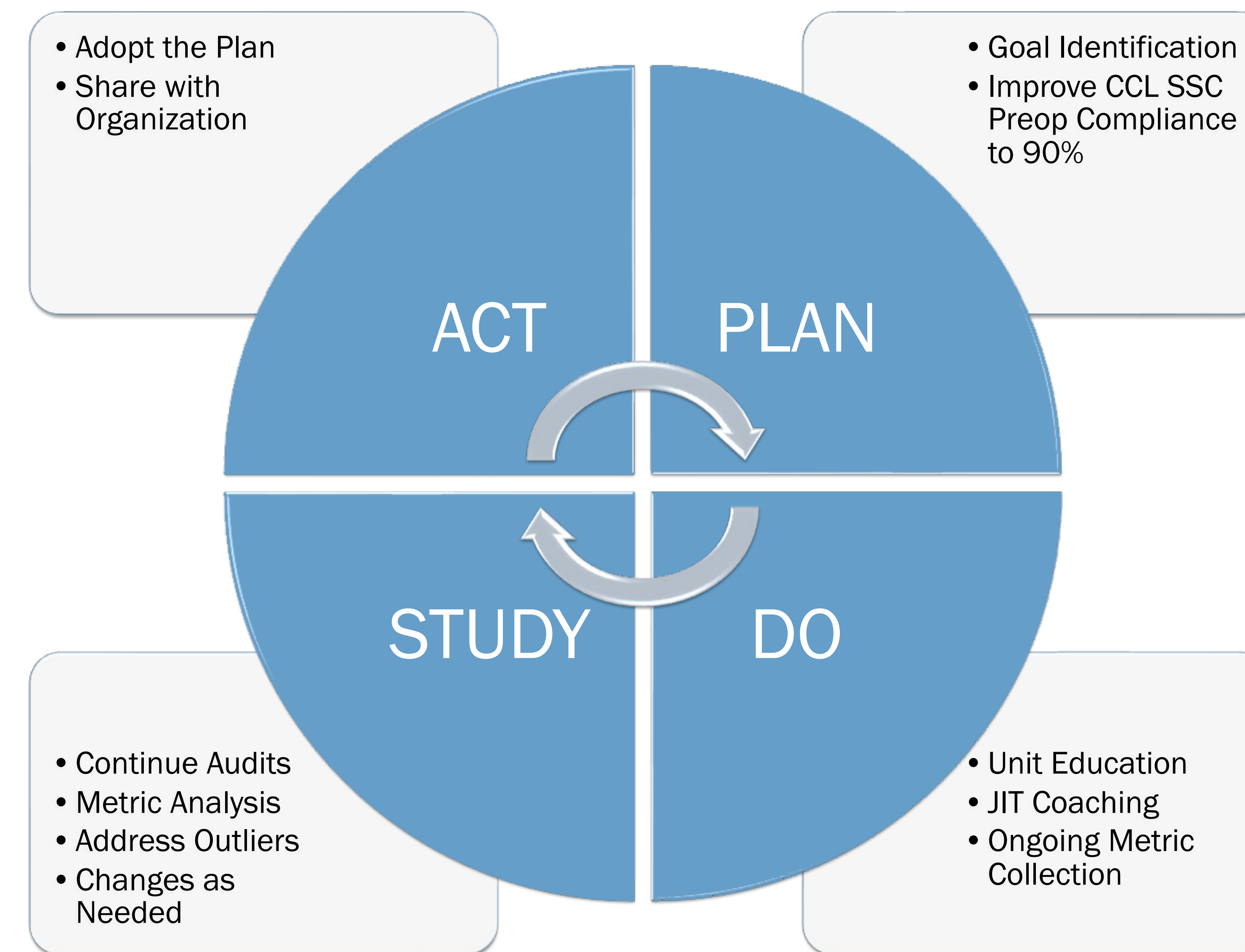
Further investigation found that CCL staff and physicians were not aware of the mandatory completion of this checklist.



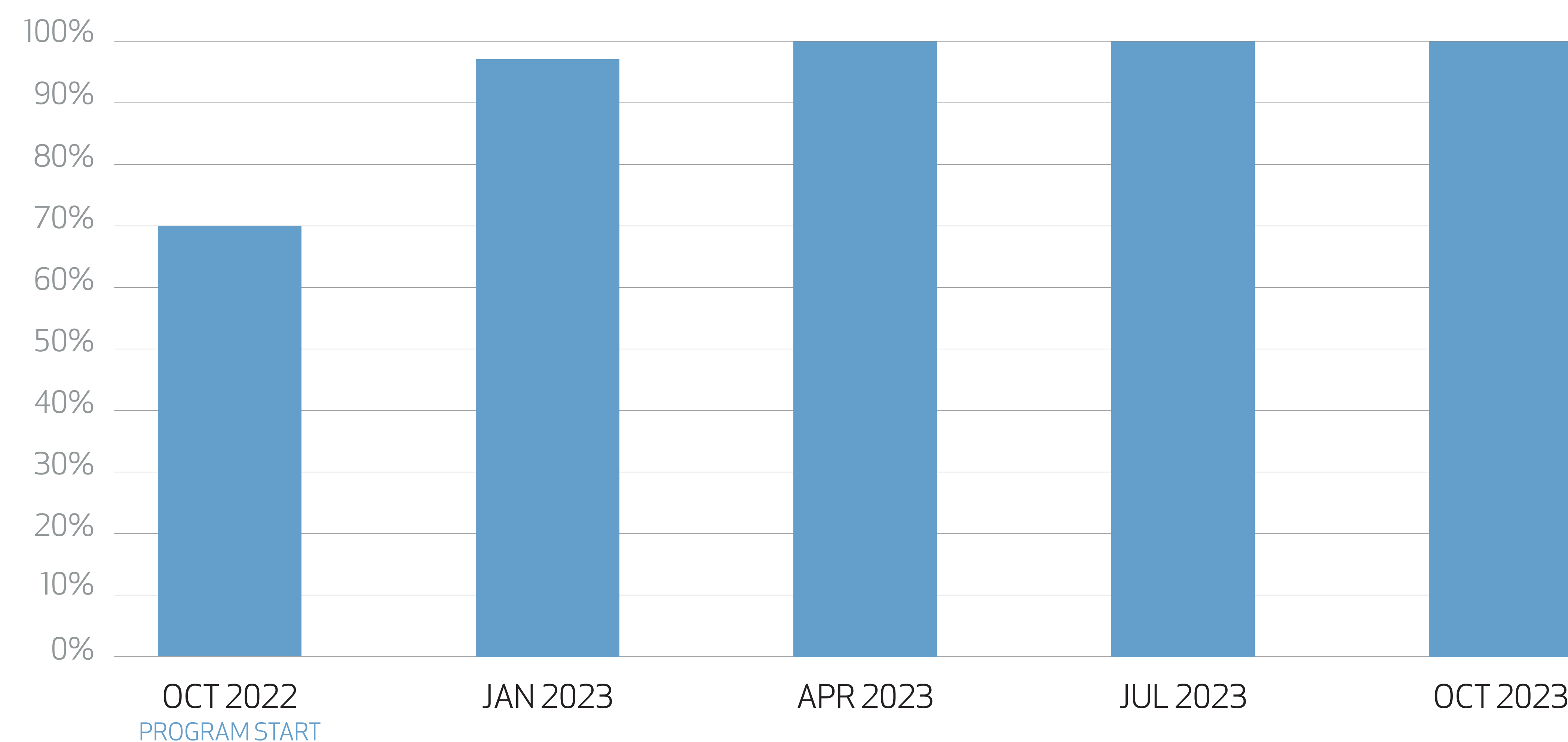
## QI QUESTION

For CCL staff and physicians, will education and just-in-time (JIT) coaching, compared to not receiving education and JIT coaching improve preoperative SSC compliance in the CCL to 90% in six months?

## METHODOLOGY



## RESULTS: PREOP SSC COMPLIANCE



## DISCUSSION

The identification of a problem should lead to an improvement<sup>5</sup>. SSCs are a cornerstone of perioperative safety and start in the preoperative phase of care. Education programming and JIT coaching are successful in addressing barriers and reinforcing education and performance related to SSC compliance in real time.

JIT methods offer one-on-one conversations with staff in a safe environment. The utilization of unit-based leaders to embrace ownership of the project and facilitate staff buy-in was paramount in the program's success. To date, the program has been ongoing for over 12 months and has maintained internal benchmark goals. In alignment with the literature, physicians and staff in the CCL have expressed improved collaboration, communication, and teamwork<sup>6</sup>.

## IMPLICATIONS FOR PERIANESTHESIA NURSING & THE FUTURE

SSCs improve patient safety for surgical/ procedural area patients and should be started in preoperative areas. Change processes related to fostering a culture of safety improve multidisciplinary collaboration; further, successful change teams must include bedside staff to facilitate buy-in and cultivate sustainability. The use of JIT education and coaching may prove successful in all perianesthesia environments and should be studied as an instrument for quality improvement.

## ACKNOWLEDGEMENTS

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## REFERENCES

1. Munthali, J., Pittalis, C., Bijlmakers, L., Kachimba, J., Cheelo, M., Brugha, R., & Gajewski, J. (2022). Barriers and enablers to utilization of the WHO surgical safety checklist at the university teaching hospital in Lusaka, Zambia: A qualitative study. BMC Health Services Research, 22(1), 894–902. <https://doi.org/10.1186/s12913-022-08257-y>
2. Gul, F., Nazir, M., Abbas, K., Khan, A. A., Malick, D. S., Khan, H., Kazmi, S. N., & Naseem, A. O. (2022). Surgical safety checklist compliance: The clinical audit. Annals of Medicine and Surgery, 81(104397), 1–4. <https://doi.org/10.1016/j.amsu.2022.104397>
3. Agency for Healthcare Research and Quality. (2018). Creating a culture of safety in the ambulatory surgery environment: Implementation guide (AHRQ safety program for ambulatory surgery) [Report]. AHRQ.<https://www.ahrq.gov/sites/default/files/wysiwyg/professionals/quality-patient-safety/hais/tools/ambulatory-surgery/sections/implementation/implementation-guide/implementation.pdf#:~:text=AHRO%2C%20as%20part%20of%20the%20U.S.%20Department%20of,titled%20the%20AHRQ%20Safety%20Program%20for%20Ambulatory%20Surgery>
4. Barimani, B., Ahangar, P., Nandra, R., & Porter, K. (2020). The WHO Surgical Safety Checklist: A review of outcomes and implementation strategies. Perioperative Care and Operating Room Management, 21, 1–6. <https://doi.org/10.1016/j.pcorn.2020.100117>
5. Roussel, L., Thomas, P. L., & Harris, J. L. (2020). Management and leadership for nurse administrators (8th ed.). Jones & Barlett Learning, LLC.
6. Naseem, A., Nizamuddin, S., & Ghias, K. J. (2022). The outcomes of a mobile just-in-time-learning intervention for teaching bioethics in Pakistan. BMC Medical Education, 22(1). <https://doi.org/10.1186/s12909-022-03698-9>