

Designing an Acceptable and Feasible Audit and Feedback System to Drive Handoff Redesign and Implementation

Background & Problem

Loss of information during care transfers, or “handoffs”, can disrupt care coordination and lead to adverse events, especially in high risk, error prone situations such as the post-operative transfer of care from the OR to the ICU. Clements University Hospital piloted the redesign and implementation of a structured handoff process to Enhance Communication for Handoffs from the OR to the ICU (ECHO-ICU). An implementation science-based approach is being taken to prepare for support widespread adoption of handoff redesign. This required the development of an acceptable and feasible audit and feedback system to support the efforts of an inter-professional, unit-base change team.

Aim

The aim of this project is to increase the feasibility of providing an acceptable report for Audit and Feedback by reducing the time required to generate it by 50% by December 2018.

Quality Tools

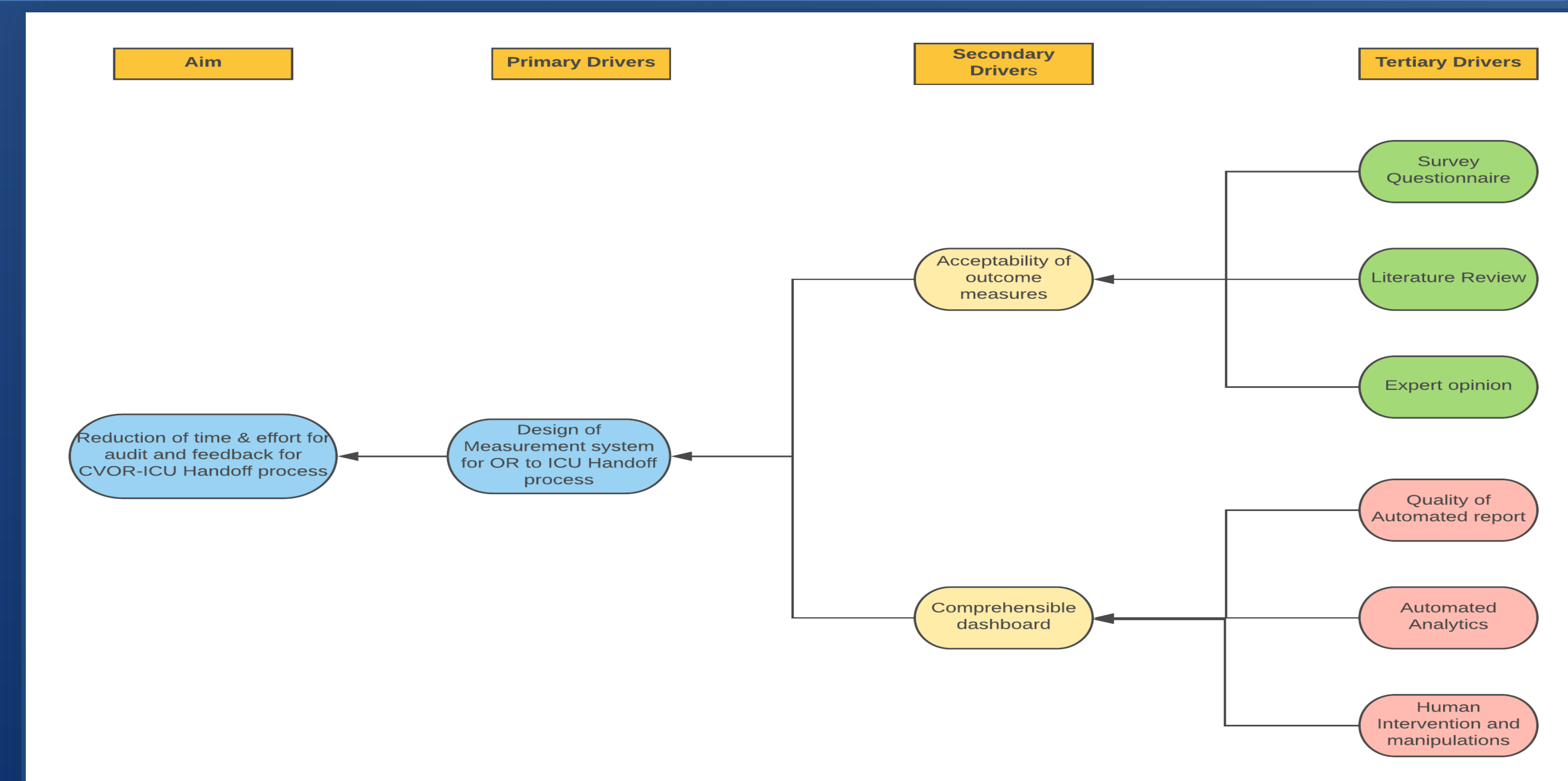
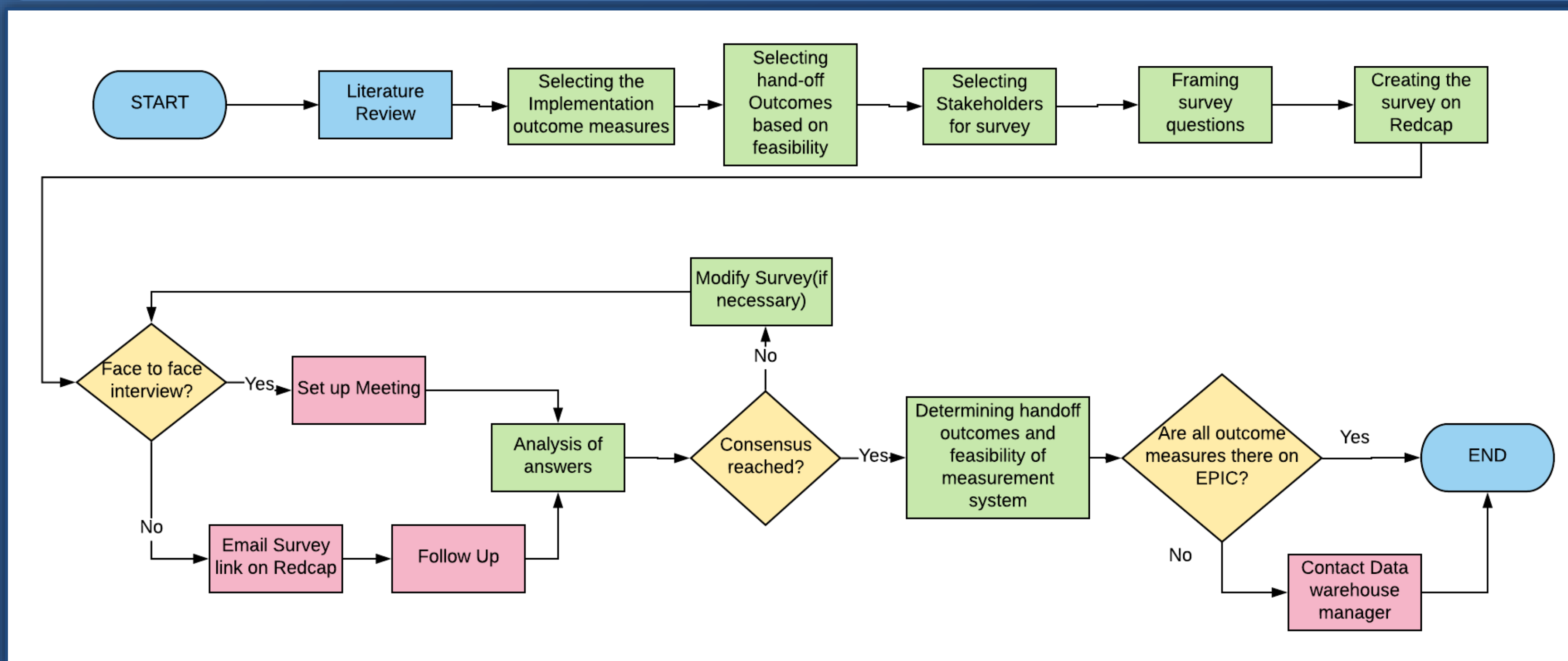


Figure 1. The flowchart represents the various steps that were followed, from the initial stage of literature review to obtaining the feasible handoff outcome measures. Flowchart was useful in communicating and documenting the sequences and flow of activities that were required for process.

Figure 2. The following Driver Diagram includes the key drivers for obtaining the feedback and Auditing the outcomes from the system.

Confidential

Adoption of an Outcome Measurement System for Handoffs

Participant ID 18 Page 18 of 44

Thank you for participating in the design of a measurement system for implementing a more structured handoff process at UT Southwestern. The questions below focus on measuring the appropriateness and feasibility of an audit and feedback system designed to support the adoption of a new handoff process.

Response was added on 07/25/2018 9:11am.

My role at UT Southwestern is: Medical Informaticist

Which of the following outcome measures do you think would provide the most influential feedback about a new handoff process? (Pick 4)

Unanticipated post-operative event (eg. delay in treatment)
 Duration of mechanical ventilation
 Major morbidity and mortality
 Length of stay (PACU, ICU, hospital)

Which of the following outcome measures would be the most challenging in creating an automated report? (Pick 4)

Duration of handoff report
 All team members present
 Begins within 2 minutes of arrival
 Receiving teams feels capable of anticipating patient's needs

How easy would it be to extract EPIC based data? Unsure

How easy is it to disseminate EPIC-based information? Easy

How motivated are you to enter simple performance data (e.g. all team members present) into EPIC (using pull-downs) following a handoff? Not very

How easy is it to create a new entry field (e.g. outcome measure) in EPIC? Very Easy

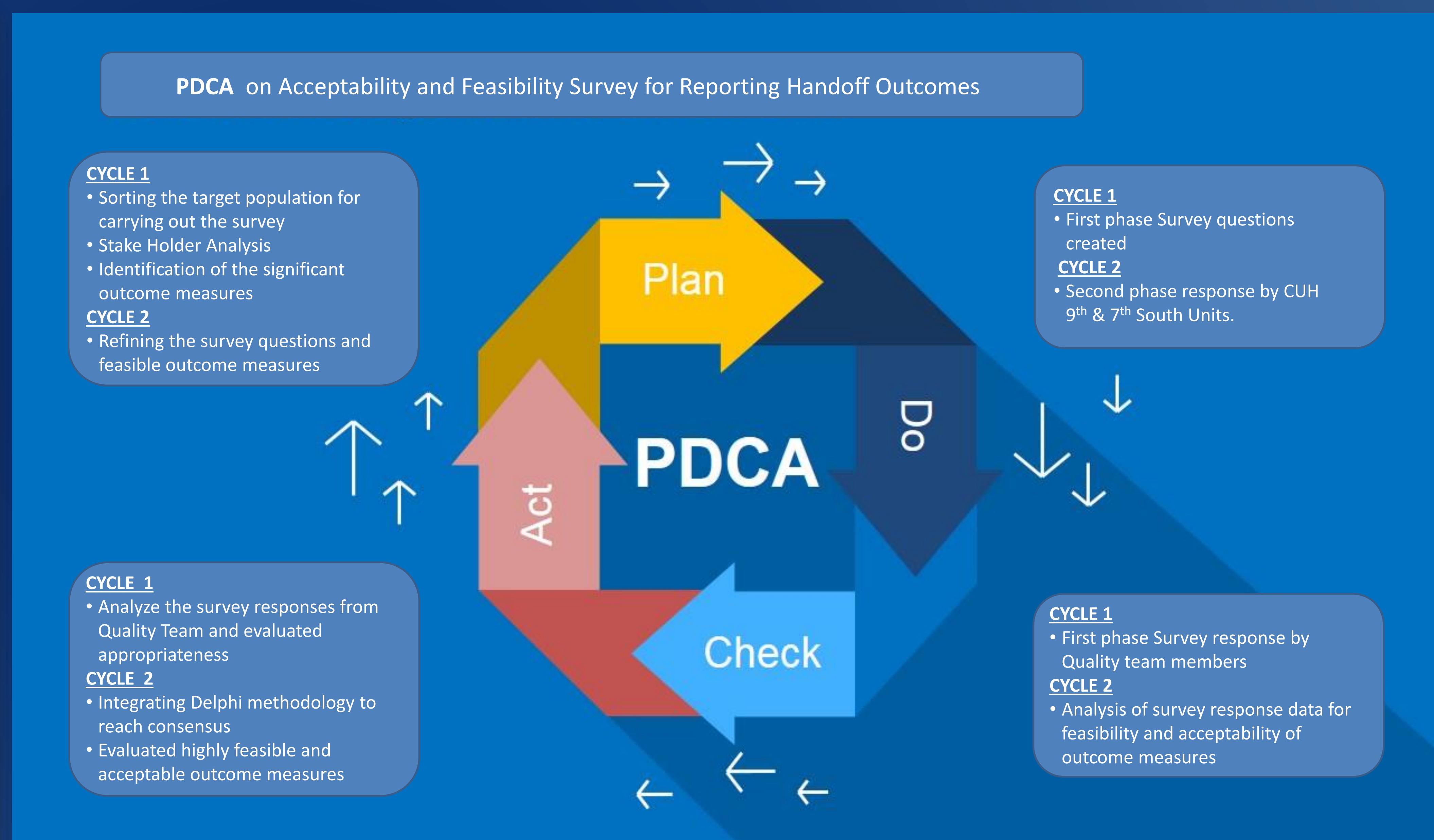
How effective is EPIC as an audit and feedback instrument? Somewhat effective

What other outcomes measure (not listed above) would you use to influence attitudes and behaviors related to a new handoff process? none

If you wanted to use this data to change behavior, how would you use it to engage other clinicians (face-to-face, group discussion, via email or YouTube video, etc.)? need to help them see individual impact, group data allows them to say it's other people's problems

What are the most convenient features in EPIC's automated (Clarity) reports? unsure

What would make data entry, retrieval and/or reporting of handoff measurement easier? discrete data entry colocated to data entry points already being accessed



Preliminary Results

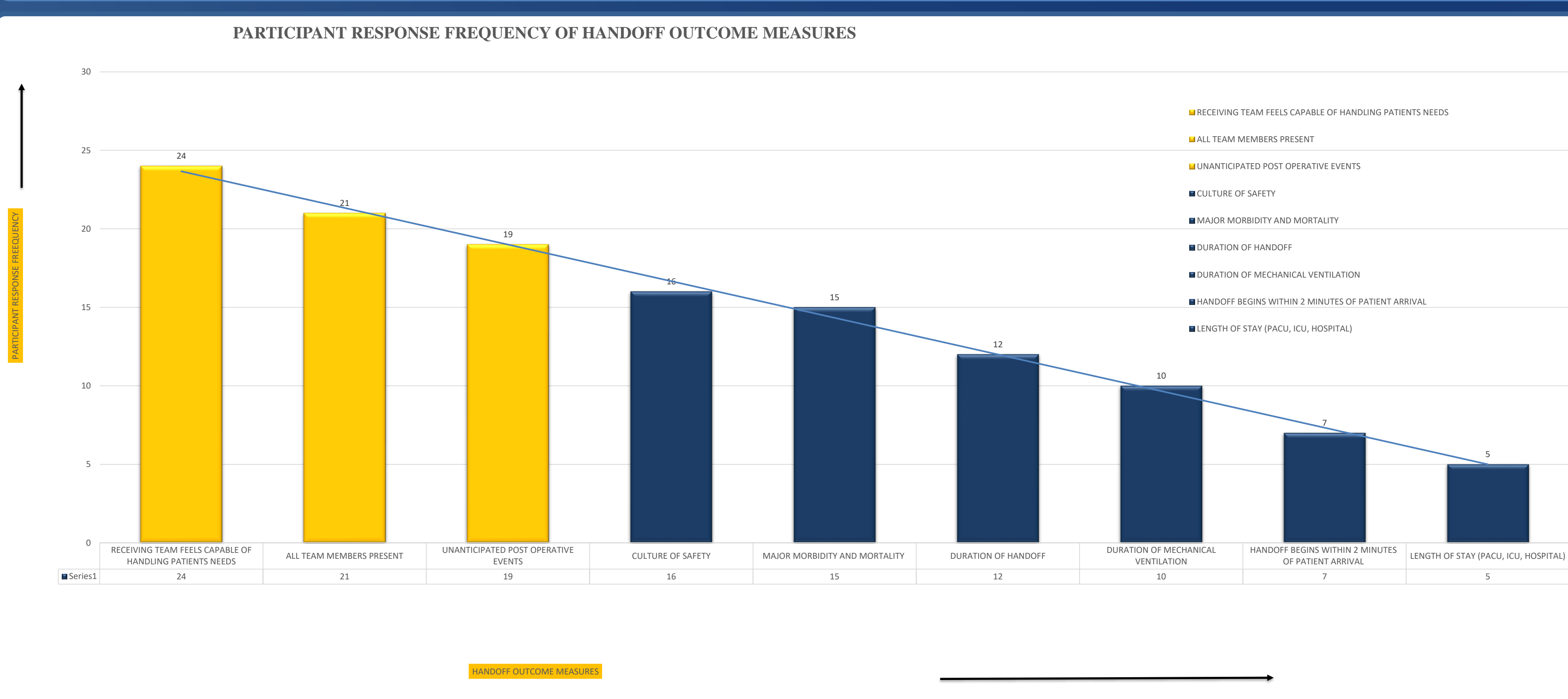
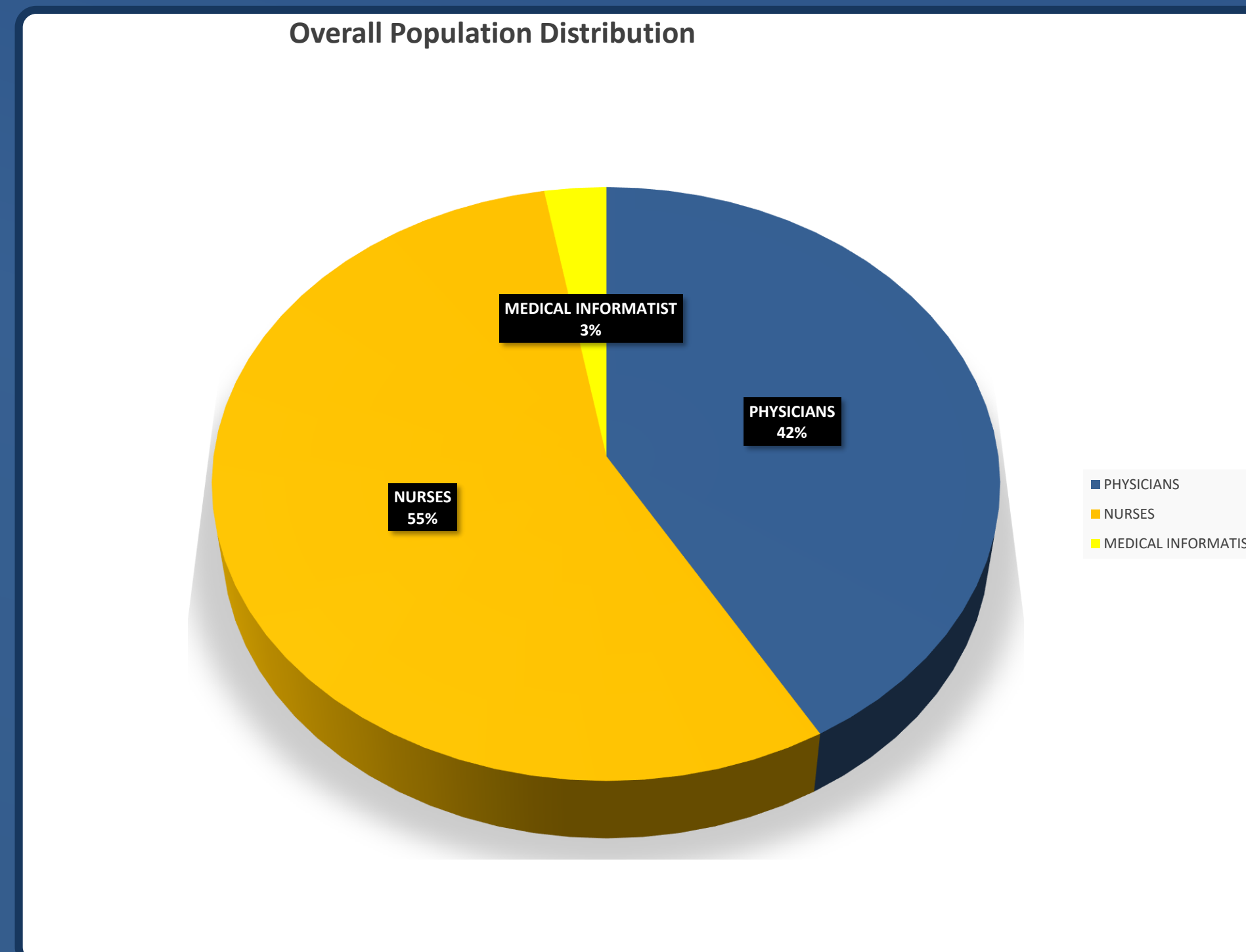
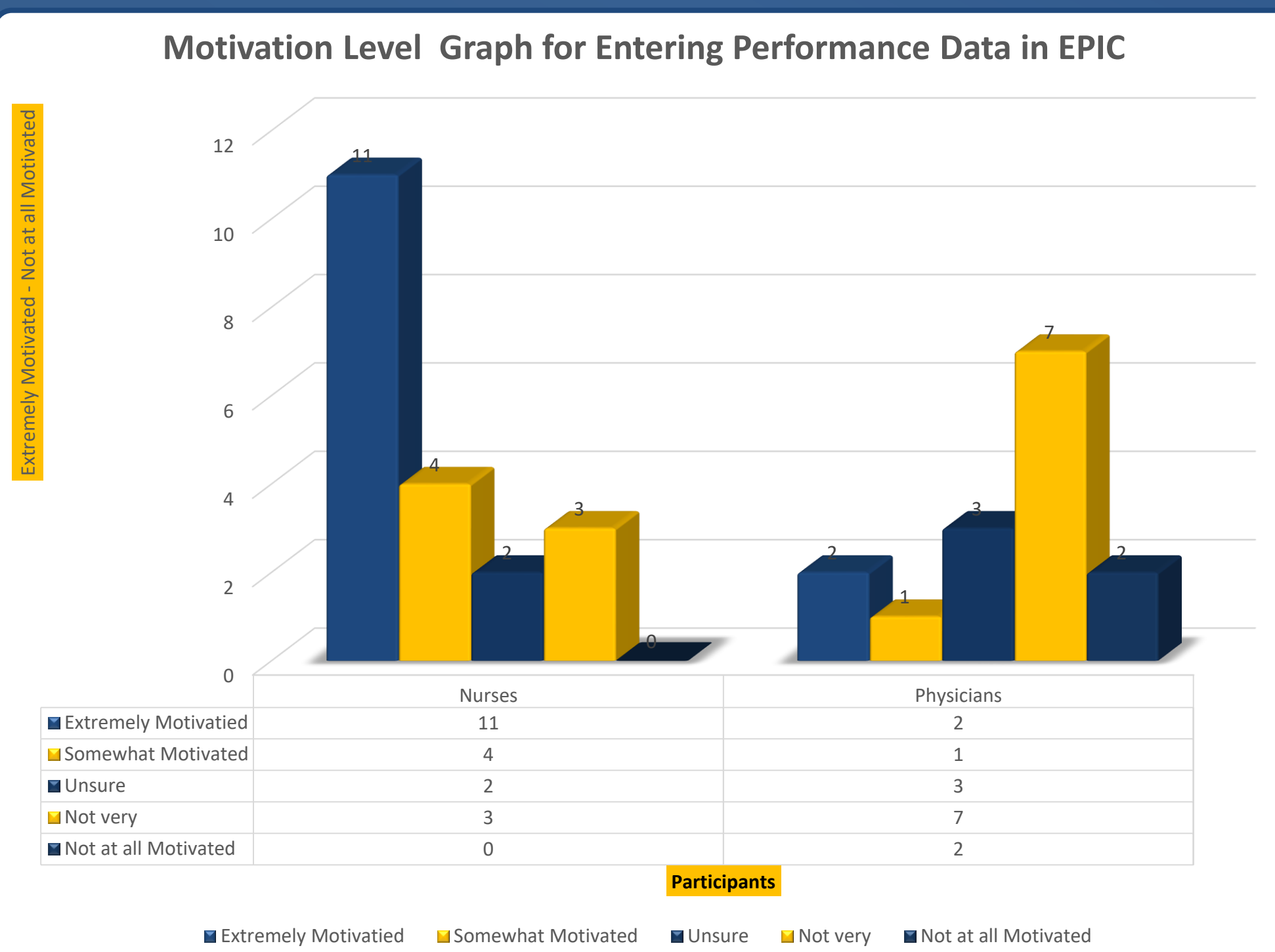
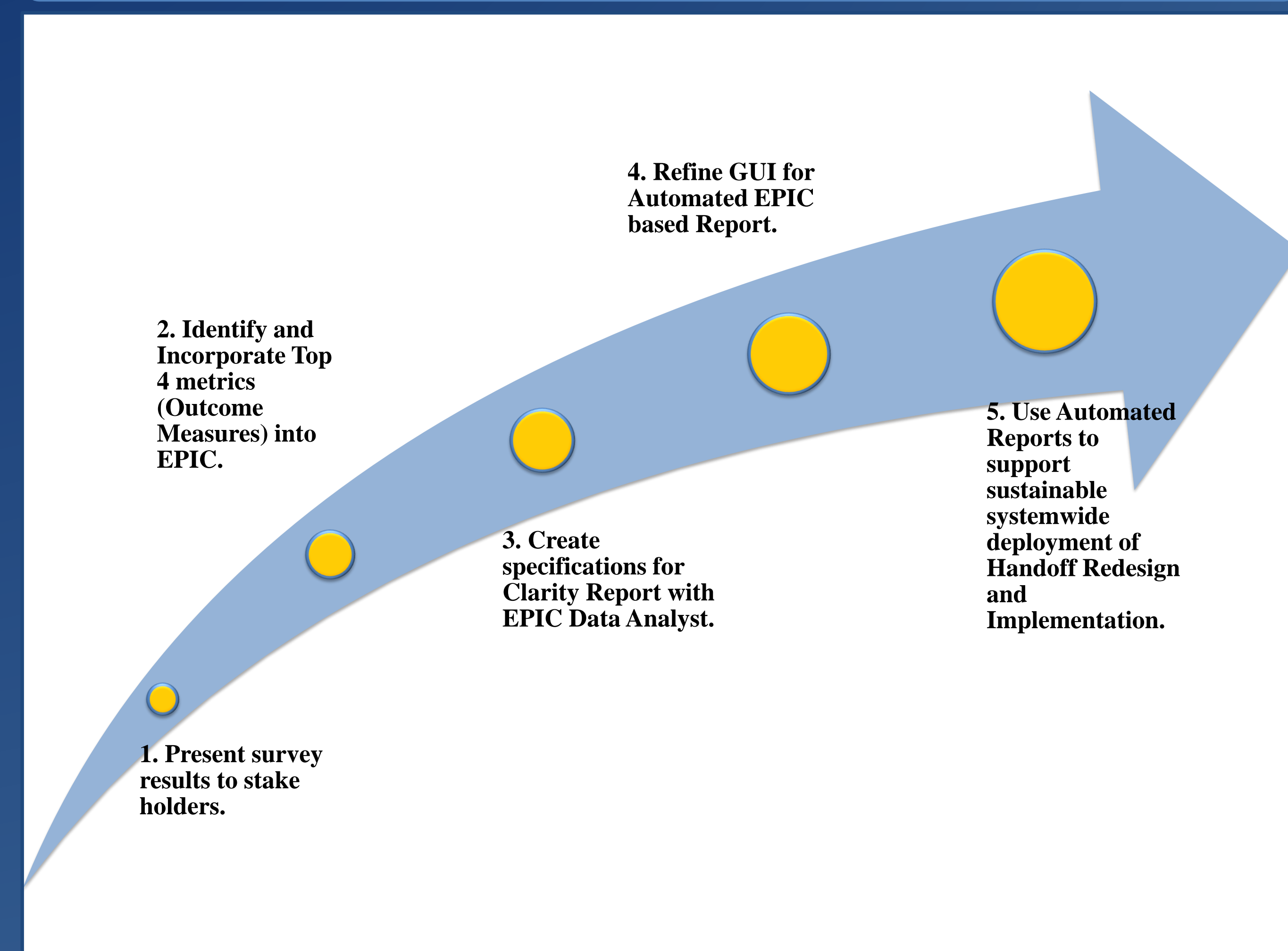


Figure 3. Evidence base and local expertise used to generate candidate outcome metrics.

Lessons Learned/Next Steps



References:

1. Saager L, Hesler BD, You J, et. al. Intraoperative transitions of anesthesia care and postoperative outcomes. *Anesthesiology* 2014;121(4):695-706.
2. Lewis C, Weiner B, Stanick C, Fischer S. Advancing implementation science through measure development and evaluation: a study protocol. *Implementation Science* 2015;10(102).
3. Proctor E, Silmere H, Raghavan R, et. al. Outcomes for implementation research: conceptual distinctions, measurement challenges, and research agenda. *Adm Policy Ment Health* 2011;38(2):65-76.
4. Weiner B, Lewis C, Stanick C, et. al. Psychometric assessment of three newly developed implementation outcome measures. *Implementation Science* 2017;12(108).

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