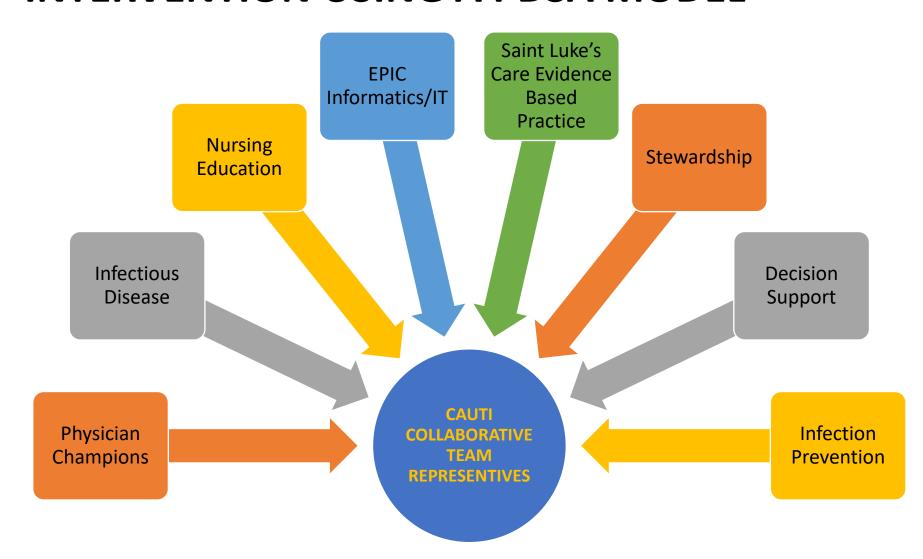
An Allied Strategy to Manage Complexity and CAUTI Reduction

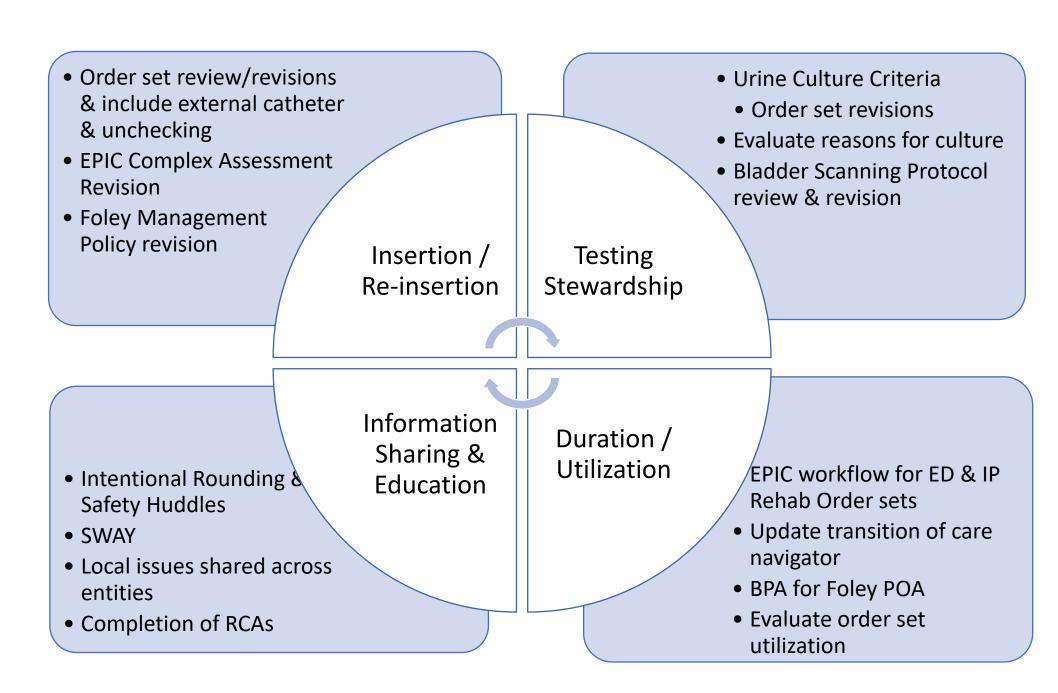
Sarah Boyd, MD, Infectious Disease Physician Saint Luke's North Hospital and System Medical Director of Antimicrobial and Diagnostic Stewardship Program; **Ginny Boos, PhD, RN, CPHQ,** Director of Infection Prevention, Saint Luke's Health System

LEARNING OBJECTIVES

- Discuss strategies to consider when implementing a project to standardize an approach across a health care system.
- Identify key participants to include in a collaborative approach to hospital-acquired infection prevention.

INTERVENTION USING A PDSA MODEL

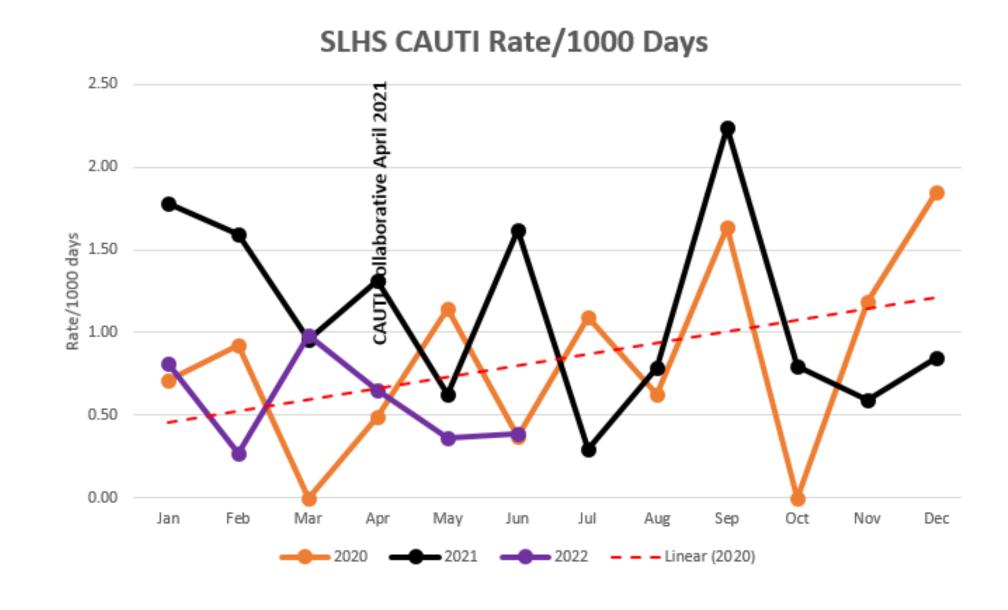


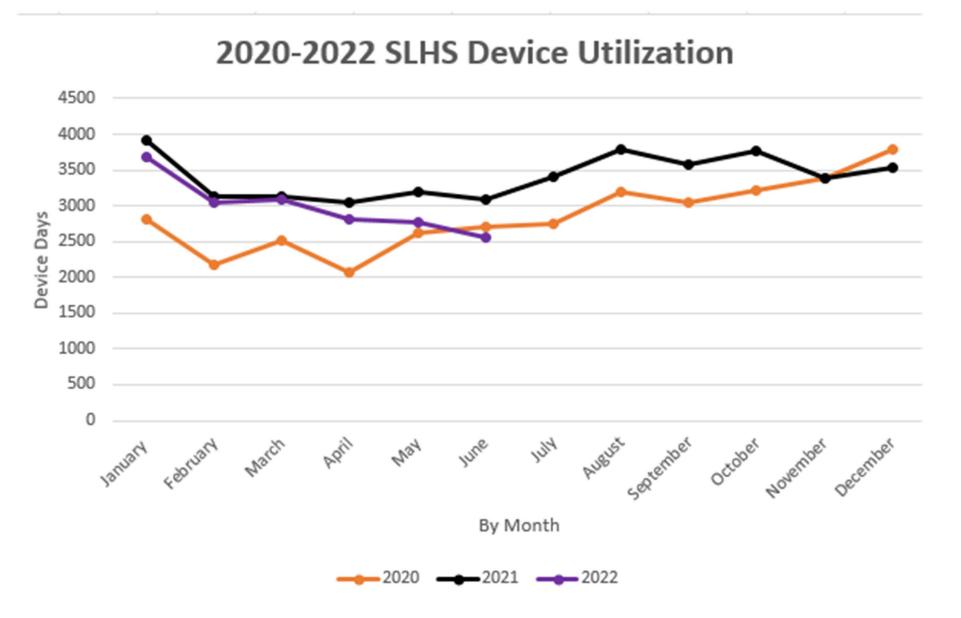


BACKGROUND

Catheter-associated urinary tract infections (CAUTI) make up a substantial portion of health care-associated infections. CAUTI involve many points of risk, from the decision to place a catheter, to insertion and maintenance, to the timing of removal. Despite standard prevention measures, our urinary catheter rate of infections was worsening. As a result, the goal of the CAUTI Collaborative team was to reduce CAUTI rates.

RESULTS





DISCUSSION & CONCLUSIONS

The systems approach strategy led to a decreased health system baseline rate of:

- 1.85 in December 2020 to 0.85 in December 2021 and 0.39 in June 2022.
- Improvements were observed despite COVID pandemic surges experienced in 3rd and 4th quarter 2020, 3rd quarter 2021, and a sustained surge from Delta and Omicron variants in 4th quarter 2021 into 1st quarter 2022.

The COVID-19 pandemic influenced the project outcomes and affirmed the need for a multi-pronged and collaborative approach to effectively reduce CAUTI rates.

References

Centers for Disease Control and Prevention (2015) Guideline for Prevention of Catheter-Associated Urinary Tract Infections.

Advani, S.D., et al (2019). Knowledge and practices of physicians and nurses related to urine cultures in catheterized patients: An assessment of adherence to IDSA guidelines. *Open Forum Infectious Diseases 6(8)* 1-8.

Carayon, P., et al (2006). Work system design for patient safety: the SEIPS model. *Qual Saf Health Care*, 15(Suppl 1) 50-58.

Garcia, R. & Spitzer ED (2017) Promoting appropriate urine culture management to improve health care outcomes and the accuracy of catheter-associated urinary tract infections. *AJIC* 45(10) 1143-1153.

Gupta, S.S., et al (2017). Successful strategy to decrease indwelling catheter utilization rates in an academic medical intensive care unit. *AJIC* 45(12) 1349-1355.

Mullin, K.M., et al (2017). A multifaceted approach to reduction of catheter-associated urinary tract infections in the intensive care unit with an emphasis on "stewardship of culturing". *Infection Control & Hospital Epidemiology.* 38(2) 186-188.



An Allied Strategy to Manage Complexity and CAUTI Reduction

Sarah Boyd, MD, Infectious Disease Physician Saint Luke's North Hospital and System Medical Director of Antimicrobial and Diagnostic Stewardship Program;

Ginny Boos, PhD, RN, CPHQ, Director of Infection Prevention, Saint Luke's Health System

ENTITY LEVEL IMPROVEMENT

A health system rate was used to target improvement although each hospital reports CAUTI data independently to NHSN. Baseline rate results varied at each of our 4-metro hospitals from December 2020 compared to June 2021:

- from a 1.08 CAUTI rate to 0.51, and 0.50 in January 2022 to 0.00 in June 2022 at our academic center (SLH),
- 1.03 CAUTI rate to 1.21, 1.10 in January 2022 and to 0.00 in June 2022 at our complex care center (SLE),
- 4.35 CAUTI rate to 0.00 and 0.00 in January 2022 that has been maintained through June 2022 for one community hospital (SLN)
- 4.28 CAUTI rate to 2.49 and 2.44 in January 2022 to 3.82 in June 2022 in the other (SLS)

All four critical access hospitals have sustained rates of 0.00 for greater than two years but benefited in participating for shared knowledge.

Entity Results & Catheter Device Utilization

