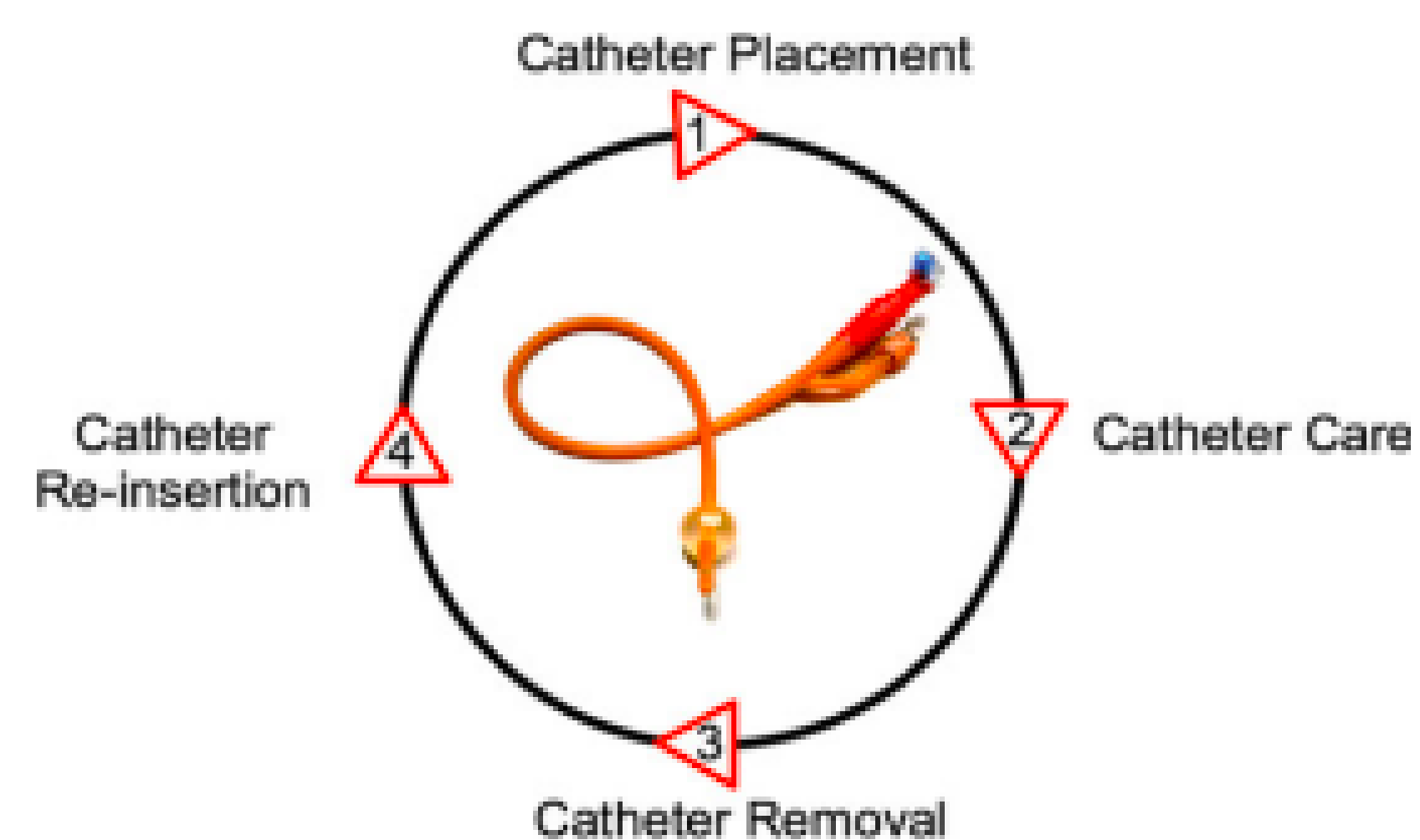


## WVUH CVICU; WVU Medicine Center for Quality Outcomes

### BACKGROUND:

Healthcare-associated catheter-associated urinary tract infections (CAUTI) are a source of morbidity and mortality for hospitalized patients. In 2023, WVUH experienced an 84.6% increase in CAUTI incidence compared to 2022. These infections occur at various times in the indwelling catheters "life cycle." Meddings and Saint (2011) proposed "the life cycle of the urinary catheter", referencing four stages at which foley insertion can be avoided or discontinued. Breaking this cycle is dependent on care providers' knowledge and diligence regarding CAUTI prevention. With CAUTI occurrences on the rise throughout WVUH, it was time to intervene.



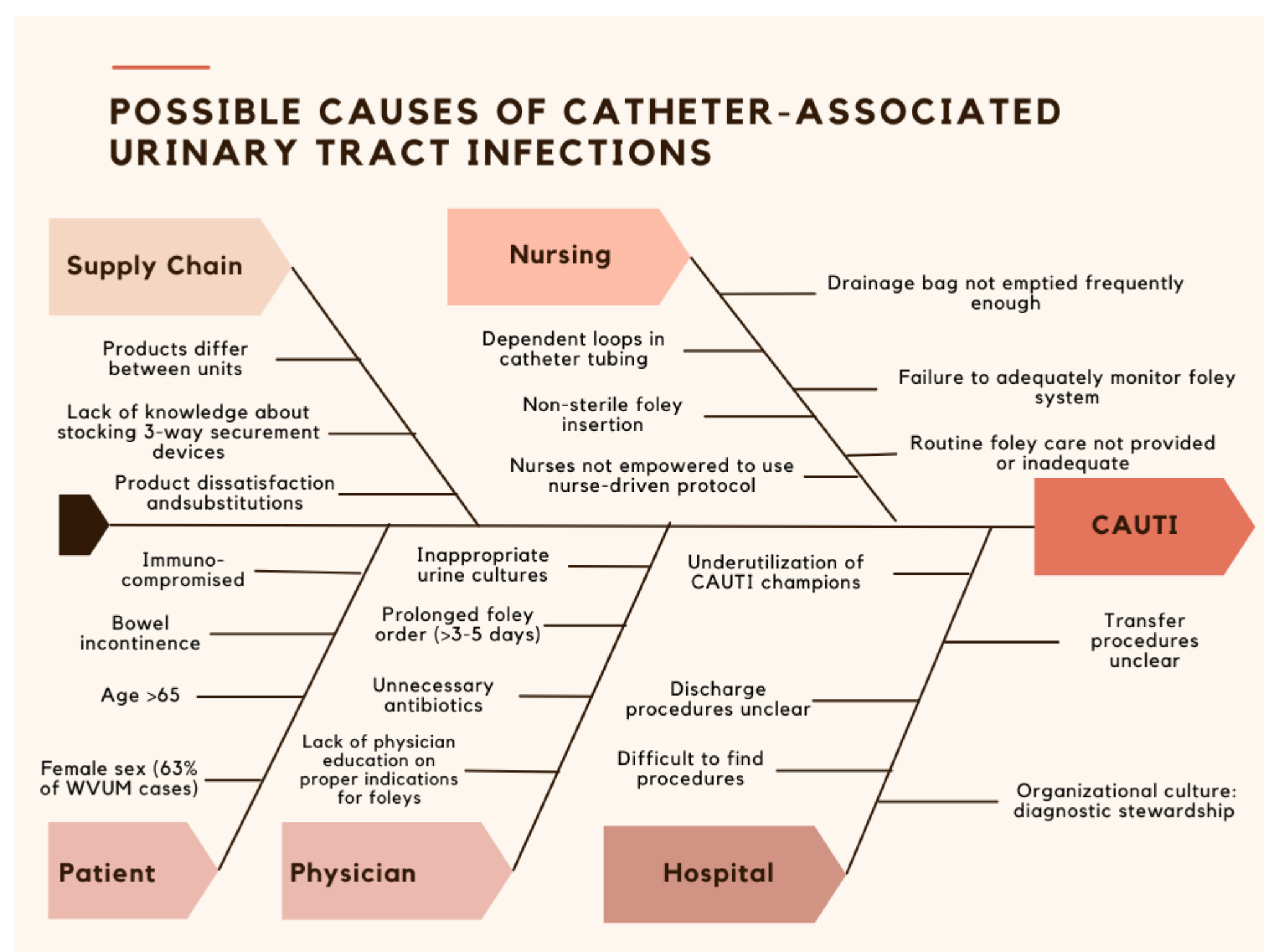
### SMARTER OBJECTIVE:

By December 31, 2024, our goal was to reduce CAUTI incidence in the CVICU by at least 10% through targeted interventions, staff education, and real-time bedside coaching.

To achieve this, we made a goal to appoint champions to conduct targeted rounding, identify opportunities for improvement, and provide immediate, hands-on education to staff. Our intention was to create a role that would foster a culture of accountability and continued learning, ensuring that best practices were consistently followed. This initiative focused on empowering unit-based CAUTI champions to enhance adherence to CAUTI prevention bundles, improve staff awareness, and promote best practices for indwelling urinary catheter maintenance. Through direct observation, feedback loops, and collaborative problem-solving, we sought to create a sustainable model for CAUTI prevention that could be expanded beyond the CVICU.

### IMPROVEMENT ACTION PLAN WITH ACTIONS TAKEN:

The CAUTI Prevention Team created a fishbone diagram which illustrated that underusage of champions, diagnostic stewardship, and lack of nurse education and empowerment were all factors that the team could improve upon in 2024.



Direct observation and targeted education are an effective method of improving indwelling urinary catheter maintenance practices. Effective indwelling urinary catheter maintenance following an established bundle can decrease the incidence of CAUTI. Our intention was to develop a team that would streamline the dissemination of education to the individual units. The CVICU identified members to join the CAUTI Prevention Team in 2024 as unit-based champions. These champions were educated on performing and entering CAUTI bundle observations into the electronic submission form.

### CAUTI BUNDLE OBSERVATIONS

Observation of Indwelling Urinary Catheter	YES	NO	N/A
Is the bag positioned below the bladder?			
Are the bag and tubing not touching the floor?			
Is the bag hung without dependent loops?			
If needed, is the bed sheet clamp being used to secure the tubing?			
Is the bag less than 2/3 full?			
Is the catheter properly secured?			
Is the closed system intact?			

IF ANSWERED "NO" TO ANY QUESTION, PROVIDE IMMEDIATE EDUCATION TO BEDSIDE STAFF

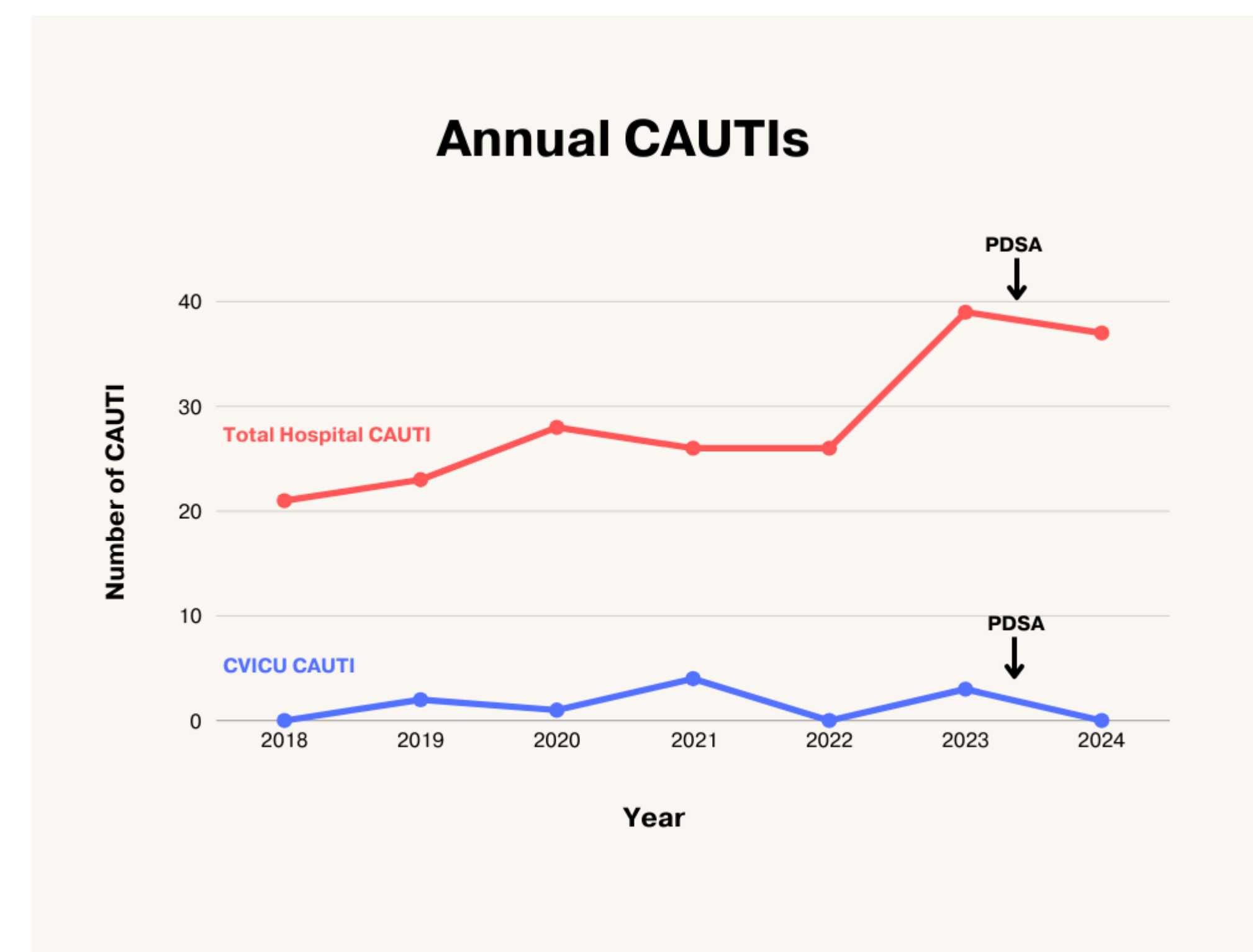
In the CVICU they completed targeted rounding and staff education for patients with indwelling urinary catheters. They identified 19 opportunities for improvement during rounding and provided immediate bedside education and mentoring on best practices for indwelling urinary catheter maintenance.

### RESULTS:

The CAUTI champions on CVICU increased the number of CAUTI bundle observations by 600% in 2024 compared to 2023. Immediate bedside education and intervention during CAUTI bundle rounding increased by 375% in 2024 compared to 2023.

ANNUAL CAUTI BUNDLE OBSERVATIONS		
YEAR	OBSERVATIONS	IMMEDIATE EDUCATION PROVIDED
2023	6	4
2024	42	19

Patients in CVICU experienced zero healthcare-associated CAUTI in 2024. WVUH experienced a 23% reduction in CAUTI in 2024.



### SCALE UP PLAN:

The CAUTI Prevention Team will work with the CVICU CAUTI champions to expand the CAUTI champion role beyond the CVICU.

The CAUTI Prevention Team is developing a CAUTI Champion computer-based learning (CBL) module.

#### CAUTI Champion Charter

- One champion per unit or division
- One year commitment
- 20 observations per unit per month
- Report findings to CUSP teams

### SUSTAINABILITY PLAN:

CAUTI Champions are required to meet a minimum criteria for eligibility.

#### CAUTI Champion eligibility criteria

- Nurse or clinical associate
- Employed in good standing
- Must complete CAUTI Champion CBL

#### CAUTI Champion meetings

- Scheduled monthly
- Must attend a minimum of six (6) meetings per year

### LESSONS LEARNED:

CVICU nurses were highly engaged in the CAUTI Prevention Team in 2024. Their commitment led to increased unit engagement and increased attention to CAUTI Prevention efforts on the unit.

Incorporating CAUTI champions in CVICU increased the number of CAUTI bundle observations in 2024 by 583% compared to 2023. These champions provided bedside education and interventions that contributed to zero healthcare associated CAUTI in 2024 in CVICU, exceeding the unit goal to decrease CAUTI by 10%. Creating CAUTI champions empowered nurses to provide targeted bedside education, interventions, and support to decrease the incidence of CAUTI in CVICU.