

COVID-19 and Increased CLABSI in Acute Care Settings

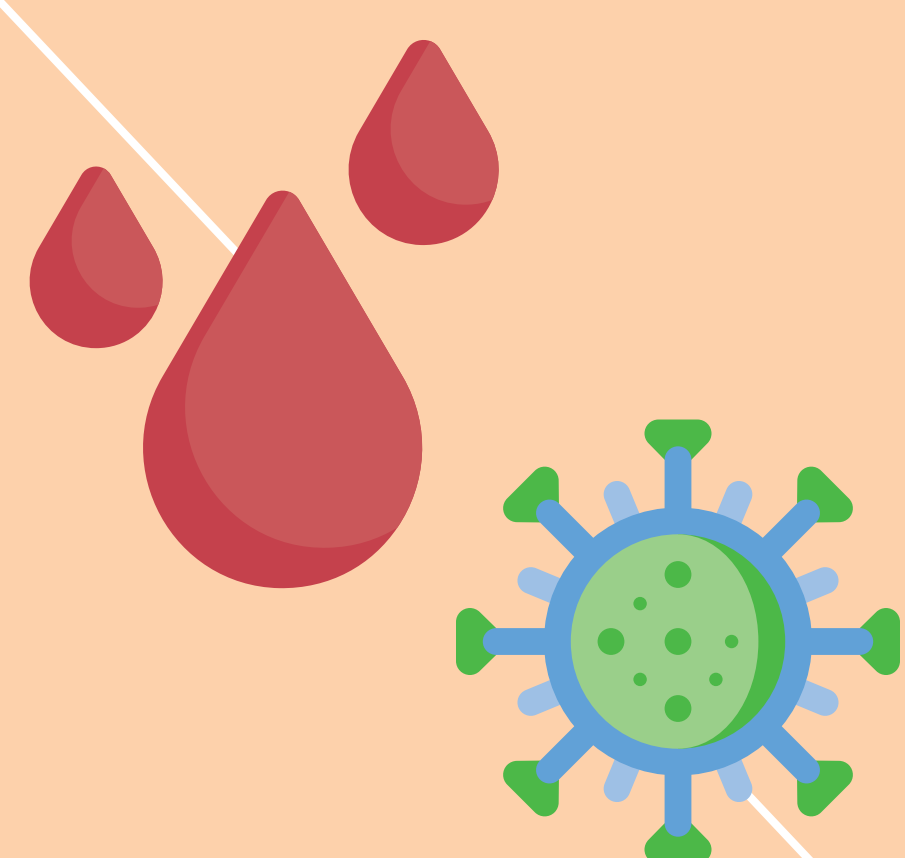


Problem Statement

The COVID-19 pandemic increased the incidence of CLABSI in acute care settings. Emergency response to the pandemic resulted in a shift to crisis care that disrupted supply availability, standard work, utilization, management, and discontinuation of central lines.

Baseline SIR

(1/1/2019–12/31/2019) Baseline CLABSI standardized infection ratio (SIR) was 0.64.



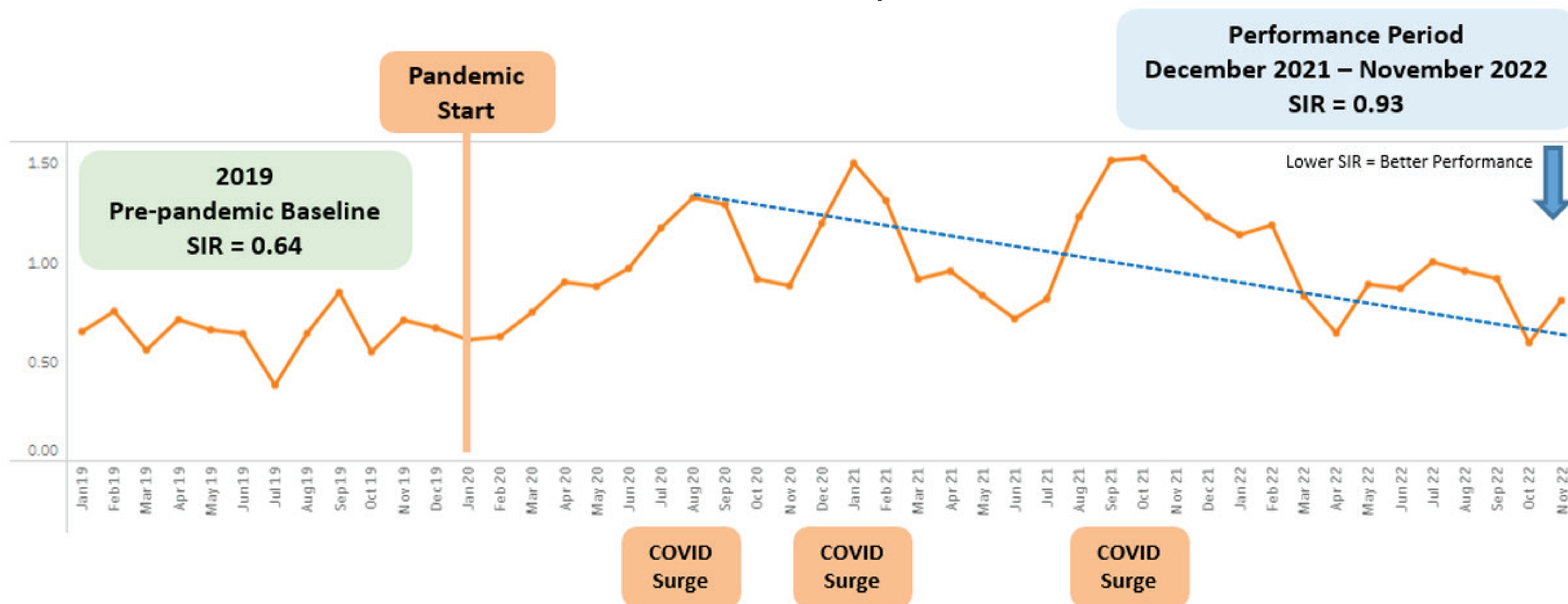
Root Causes

- Increased patient acuity
- Increased length of stay
- Increased device utilization
- Staffing shortages and burnout
- Traveling healthcare workers
- Bundle compliance
- Resource availability
- What must be done versus what should be done (drift)

Outcomes

During the most current 12 months of data available (12/1/2021–11/30/2022) the HSAG HQIC CLABSI SIR is **0.93**, demonstrating better performance.

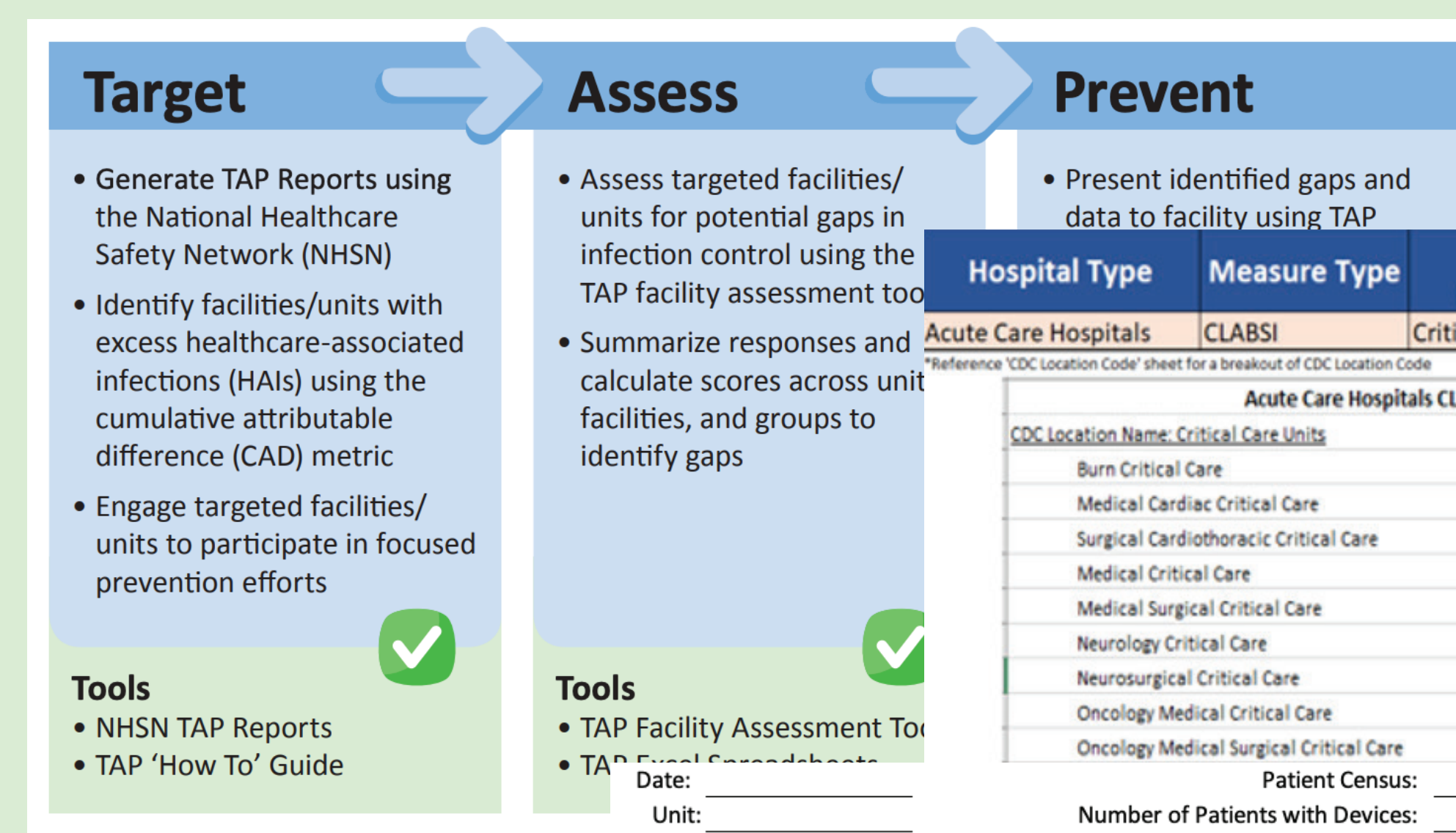
CLABSI SIR—All Reported



Interventions

- HSAG infection preventionist 1:1 consultation
- HSAG SUR Calculator
 - Determines predicted device days using a logistic regression model
- TAP Report
 - Identifies units with the greatest burden of infection
- HSAG Central Line Quality and Audit Tool for direct observation and chart review
- Assess staff competencies
- Proper hand hygiene
- Standard work
 - Daily line rounds focusing on line duration
 - Bundle guideline
 - Daily CHG baths, unless contraindicated
 - Maintenance care
- Empower staff to stop non-emergent insertion if proper procedures are not being followed

TAP Resource



CLABSI Audit Tool

Complete for each Central Line in use:

COMMENTS	Central Line 1	Central Line 2
Direct Observation		
1. Are hand hygiene stations and supplies readily available?		
2. Is the central line secured via an occlusive dressing and has the dressing been changed per facility policy?		
3. Are antibacterial caps in place per facility policy?		
4. Is the IV tubing dated/timed/initialed per facility policy?		
5. Is the IV solution dated/timed/initialed per facility policy?		
6. Is the tubing capped if not in use?		
7. Has the patient been educated regarding appropriate central line care and what to do if he/she notices a concern?		
Total Positive Per Patient	0	0
Total % Adherence Per Patient	0.0%	0.0%
Chart Review		
8. Is there documentation indicating which department inserted the central line?		

SUR Calculator

Hospital Type	Measure Type	Unit Type (CDC Location Code)*	Facility Size	Teaching Status	Observed Device Days	Observed Patient Days	Predicted Device Days	SIR
Acute Care Hospitals	CLABSI	Critical Care Units	> 268 beds	Major	327	568	309.886	1.055

Developed by HSAG using a logistic regression model mimicking the CDC's NHSN methodology.

CLABSI = Central Line-Associated Bloodstream Infection
CHG = chlorhexidine gluconate