

Central Line-Associated Bloodstream Infections (CLABSI) Reduction Efforts During the COVID-19 Pandemic

Caroline Gill Rifold, RN, BSN

Manager, Infection Prevention

CHA Hollywood Presbyterian Medical

Center – Los Angeles, CA



We are committed to **being** the difference.

Agenda and Objectives

Agenda:

- Overview of Quality Turnaround Taskforce
- CLABSI Reduction Activities
- COVID-19 Challenges
- Overcoming COVID-19 barriers
- Data

Objectives:

- After attending the webinar, the attendee will be able to develop a comprehensive central line bundle rounding tool to help prevent the incidence of CLABSI.
- After attending the webinar, the attendee will be able to illustrate ways to keep the focus on CLABSI prevention when there are competing priorities.
- After attending the webinar, the attendee will be able to outline the quality turnaround framework that was used to identify, plan, and correct quality concerns within a healthcare facility.
- After attending the webinar, the attendee will be able to evaluate the work of a team using the plus/delta debrief model.

CHA HPMC Facility Overview

We are a 434 bed community hospital located in Los Angeles California. HPMC is part of CHA Health Systems, an international healthcare and bio-technology company.

Our facility features 3 adult Intensive Care Units, an acute rehab facility, an 89 bed subacute long term care facility, and outpatient orthopedic and eye centers.

HPMC has approximately 1,700 staff members and professional relationships with more than 500 local physicians.



Quality Turnaround Taskforce

This facility wide taskforce consisting of senior leadership, physicians, ancillary and clinical managers and frontline staff was launched in June of 2020 to improve the quality of care at our facility.

10 teams were created to address quality improvement needs and implement evidence based strategies surrounding Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS), Healthcare-Associated Infections (HAIs), and other quality concerns such as pressure injuries and readmissions.

These teams met 1-2 times a week and presented to the overall quality turnaround taskforce weekly on their improvement initiatives.

Zero CLABSI Club

One of the quality turnaround teams was focused on CLABSI reduction. This team consisted of infection prevention staff, the intensive care unit (ICU) nursing director, clinical educators, laboratory leadership, and frontline staff from the ICU, Oncology, and Medical Surgical units.

The team reviewed all of the CLABSI events that had occurred in the previous 18 months to determine root causes. These root causes consisted of:

- No standardized competencies completed for clinical staff on central line dressing changes or management
- Hemodialysis staff collecting blood cultures from Hemodialysis lines
- Inappropriate use of peripherally inserted central catheter (PICC) lines
- Poor physician charting on central line necessity
- Inconsistent practices for patient bathing

Zero CLABSI Club

After we identified the root causes, we set a lofty goal of having zero CLABSI events for the remainder of 2020 and zero for 2021.

We then began researching evidence-based practices and prioritizing our improvement initiatives. We started with low hanging fruit first while we began to plan strategies for more complex issues.



CLABSI Reduction Initiatives – Blood Culture Collection

After an analysis showed that 2 CLABSIs in the past 18 months had blood cultures collected by dialysis staff during dialysis, we immediately amended our policy to prohibit this practice.

Education was done with our contracted dialysis companies, our physicians, and our frontline staff to let them know that blood cultures collected by dialysis staff would not be accepted.

CLABSI Reduction Initiatives – Midline Policy

Our Interventional Radiology Manager put together a Midline policy that encouraged the use of Midlines over PICC lines for certain patients based on indication.

This initiative was really managed by our PICC line RNs and was supported by our lead intensivist MD.

Metric		Jul	Aug	Sep	Oct	Nov	Dec	Total (YTD)
	Number of placement	49	59	39	45	68	44	304
	- PICC	22	34	17	30	38	32	173
		45%	58%	44%	67%	56%	73%	57%
	- Midlines	27	25	22	15	30	12	131
		55%	42%	56%	33%	44%	27%	43%

CLABSI Reduction Initiatives – New Products

There was inconsistent bathing practices house wide and so a decision was made to move to Chlorhexidine gluconate (CHG) bathing for all patients with central lines (assuming it was not contraindicated).

We also started using alcohol impregnated hub caps on central line tubing.



CLABSI Reduction Initiatives – Bundle Rounding

After we had implemented new products and policies, we updated our CLABSI prevention bundle and began auditing on every unit daily.

We did real time feedback if a bundle element was missing.

Overtime we began having the Charge RNs and nursing managers complete the bundle audits so that the units could own their CLABSI reduction efforts.

INDICATORS	
Central Line	
1	Criteria for central line is per policy
2	Necessity is addressed every 24 hours
3	Line is labeled and dated per policy.
4	Cleaning of site, dressing change per policy (Biopatch in place, securement device present)
5	CHG caps on line
6	Care Plan is updated
7	Staff can speak to "scrub the hub"
8	CHG bathing completed daily

CLABSI Reduction Initiatives – Competency

As we have such a variety in length of service of our RNs, we noted that not every RN had gone through the same central line competency assessment.

We began with educating the RNs through poster boards, hands on demos, and videos.

We then launched a team to go onto the units and assess competency hands on with patients or with mannequins. If a staff failed competency, we reeducated them and then reassessed.

CLABSI Reduction Initiatives – MD Necessity Charting

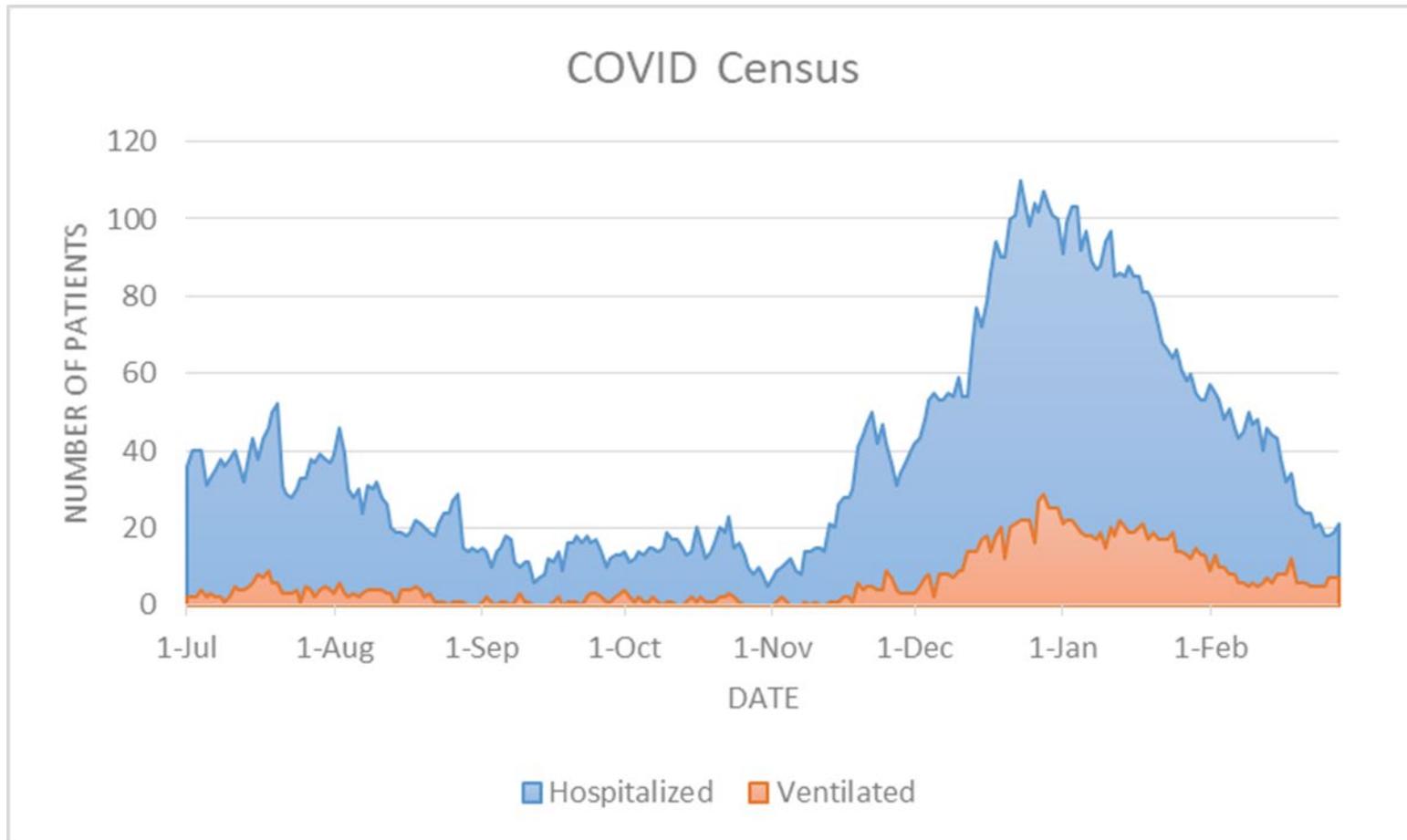
Our MDs were very inconsistent with daily central line necessity charting.

We worked with medical staff leadership to update the physician progress note charting that required MDs to chart on invasive devices and their necessity.

We also updated the nursing assessment to capture daily necessity conversations.

Lastly, we audited length of time of central lines and automatically reached out to nursing staff and physicians of patients with lines in over 7 days to discuss the plan of care.

Then Came the COVID-19 Surge



COVID-19 Challenges

Like many hospitals, we experienced challenges when it came to HAI reduction due to the COVID-19 pandemic.

Some of these challenges included:

- Sicker patients = more central lines
- Staffing shortages
- Increase in contract staffing
- Competing priorities
- Limited supplies

COVID-19 Challenges – Staying the Course

While our CLABSI reduction team was not meeting as regularly due to competing priorities managing the pandemic, we divided tasks amongst the team and used a shared action log to update the team weekly on our efforts.

The divided tasks included:

- Attending ICU rounds to discuss central line necessity
- Following up on bundle compliance observations
- Reviewing supply inventory to create contingency plans if a critical supply should run low
- Managing central line competency assessments for newly hired staff and newly on boarded travel RNs

COVID-19 Challenges – Learnings

When COVID-19 hospitalizations began to stabilize, our team did a debrief to discuss our HAI reduction efforts during the pandemic.



- Checking in with staff regularly
- Giving praise and recognition to staff
- Having strong staff engagement prior to the COVID-19 surge
- Planning for worse case scenario
- COMMUNICATION!
- Staff were hyper aware of infection prevention protocols due to COVID-19
- Increased environmental cleaning
- Care Extenders



- Data reporting fell behind
- Inability to round on all units
- Less follow-up with physicians
- No face-to-face meetings
- Less accountability
- Lower senior leadership team involvement

COVID-19 Challenges – How we avoided CLABSIs

There was not any one thing that our team did to prevent CLABSIs throughout COVID-19 but rather a handful of small initiatives.

The team had just spent 5 months working on CLABSI reduction projects when the surge hit, and we made it our goal to find ways to keep the momentum going.

Doing mini CLABSI rounds, handing out candy with education, continuous feedback on central line utilization rates and bundle compliance with the units, and having strong staff engagement in CLABSI reduction prior to the surge all helped contribute to our decrease in CLABSIs.

The Data

Measures Data by Hospital

CLABSI SIR - All Reported - Summary Table

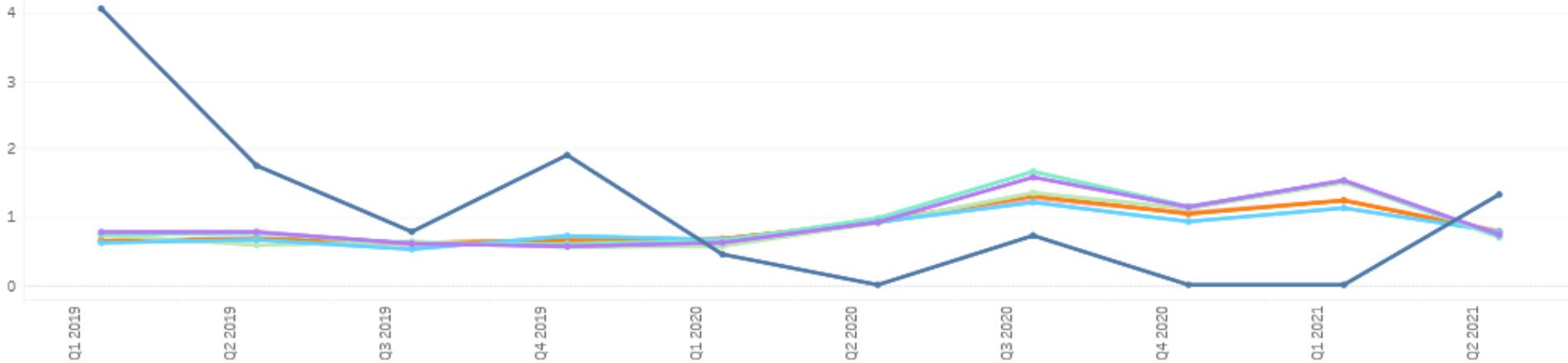
Affiliation:
 Hospital Name:
 Measure Category:
 Measure:

Hospital Name	Bed Size	CAH	HRRP* Peer Group	Baseline Rate Time Period: 01/01/2019 - 12/31/2019	Evaluation Rate Time Period: 07/01/2020 - 06/30/2021	Number Needed to Avert	Goal Rate
050063 - HOLLYWOOD PRESBYTERIAN MEDICAL CENTER	300+ beds	No	HRRP 5	2.20	0.48	0	2.00

The Data

Comparisons Over Time

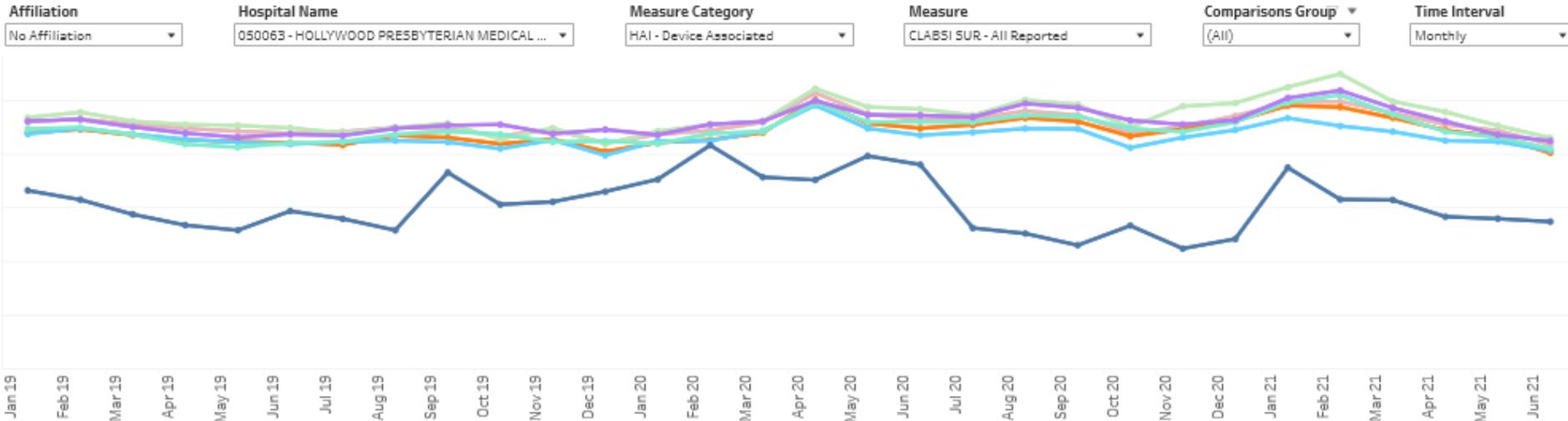
Affiliation:
 Hospital Name:
 Measure Category:
 Measure:
 Comparisons Group:
 Time Interval:



Comparisons Group	Comparisons	Baseline Rate (01/01/2019 - 12/31/2019)	Current Rate (07/01/2020 - 06/30/2021)	Goal Rate
Facility	050063 - HOLLYWOOD PRESBYTERIAN MEDICAL CENTER	2.20	0.48	2.00
HQIC	HQIC	0.65	1.12	0.59
State	CA	0.68	1.30	0.62
Bed Size	300+ beds	0.63	1.03	0.58
HRRP	HRRP 5	0.68	1.31	0.62
Teaching Status	No	0.63	1.21	0.58
Urbanicity	Urban Facilities	0.64	1.11	0.59

The Data

Comparisons Over Time



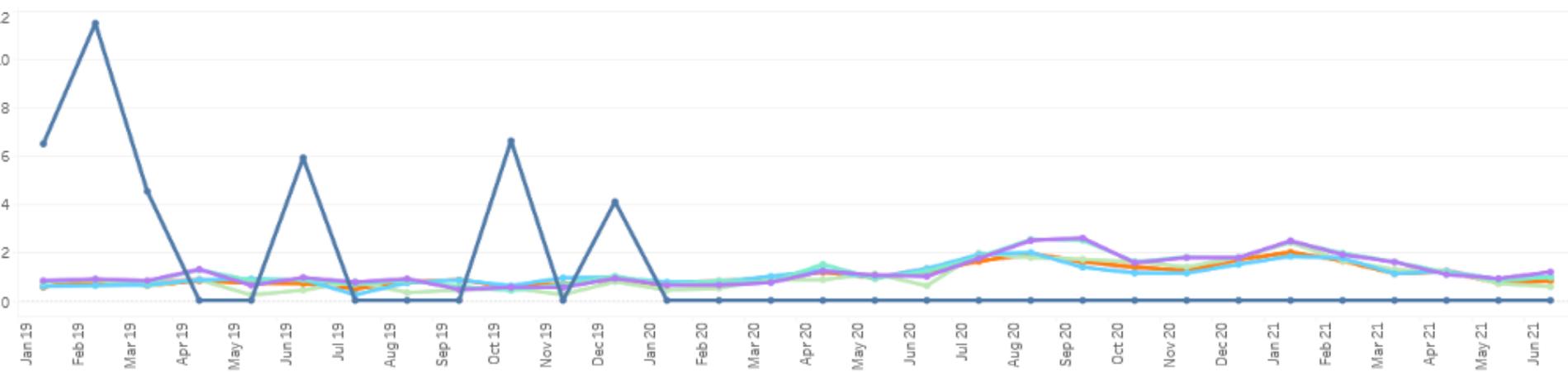
Facility
HQIC
State
Bed Size
HRRP
Teaching Status
Urbanicity

Comparisons Group	Comparisons	Baseline Rate (01/01/2019 - 12/31/2019)	Current Rate (07/01/2020 - 06/30/2021)	Goal Rate
Facility	050063 - HOLLYWOOD PRESBYTERIAN MEDICAL CENTER	0.60	0.55	0.55
HQIC	HQIC	0.85	0.91	0.77
State	CA	0.89	0.95	0.81
Bed Size	300+ beds	0.85	0.87	0.77
HRRP	HRRP 5	0.86	0.92	0.78
Teaching Status	No	0.90	0.97	0.82
Urbanicity	Urban Facilities	0.89	0.94	0.81

The Data

Comparisons Over Time

Affiliation:
 Hospital Name:
 Measure Category:
 Measure:
 Comparisons Group:
 Time Interval:



Facility
HQIC
State
Bed Size
HRRP
Teaching Status
Urbanicity

Comparisons Group	Comparisons	Baseline Rate (01/01/2019 - 12/31/2019)	Current Rate (07/01/2020 - 06/30/2021)	Goal Rate
Facility	050063 - HOLLYWOOD PRESBYTERIAN MEDICAL CENTER	3.66	0.00	3.33
HQIC	HQIC	0.69	1.48	0.63
State	CA	0.80	1.84	0.73
Bed Size	300+ beds	0.73	1.44	0.66
HRRP	HRRP 5	0.79	1.84	0.72
Teaching Status	No	0.58	1.61	0.52
Urbanicity	Urban Facilities	0.74	1.50	0.67

The Data

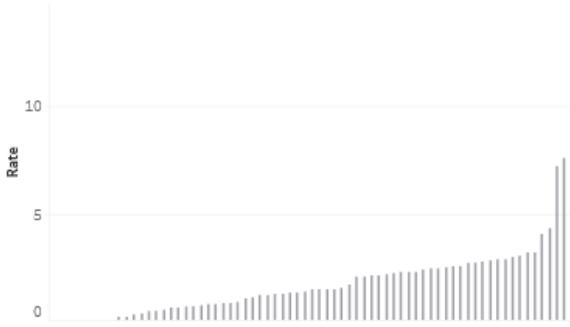
Comparisons

Affiliation:
 Hospital Name:
 Measure Category:
 Measure:

The time period for this dashboard is 07/01/2020 - 06/30/2021
 Note: If your hospital's rank is 1 with a current rate of 0, a bar will not be shown on the graph. Hospitals with null rates are not ranked. Lower Rank is Better.

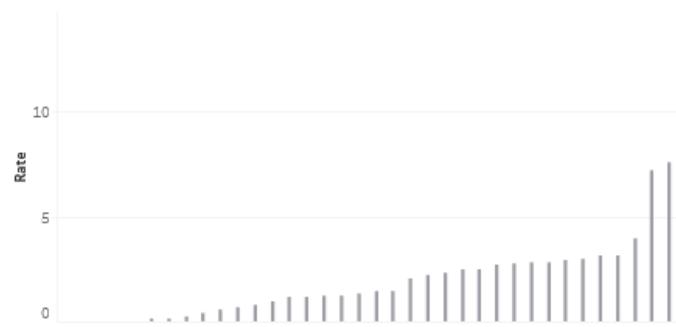
Rank Compared to Hospitals in HQIC

Your hospital's rank is 1 out of 71 ranked hospitals.



Rank Compared to Hospitals in CA

Your hospital's rank is 1 out of 37 ranked hospitals.



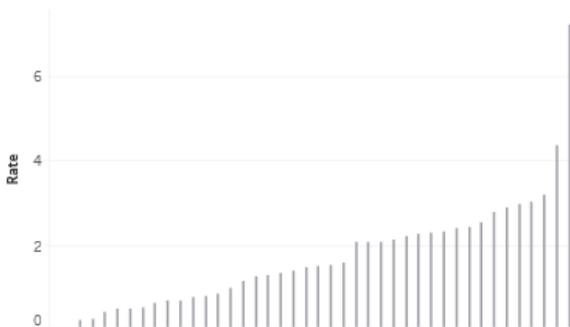
Rank Compared to Hospitals in HRRP 5

Your hospital's rank is 1 out of 39 ranked hospitals.



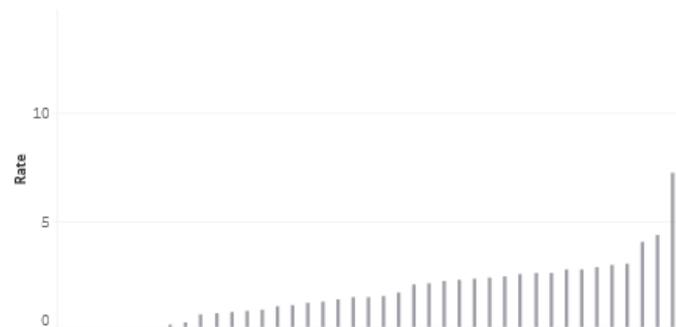
Rank Compared to Other Hospitals with 300+ beds

Your hospital's rank is 1 out of 42 ranked hospitals.



Rank Compared to Hospitals in Other Non-Teaching Hospitals

Your hospital's rank is 1 out of 42 ranked hospitals.



Comparison Graph Not Applicable To Your Facility

Key Takeaways

- Take advantage of times when the workload is low
- Utilize every possible staff member and resource
- Plan for the worse
- Reengage staff frequently after initiating a process change
- Celebrate wins
- Communicate!
- Use evidence to create strong cases for leadership support

Thank You

