

## Background

- Central Line-Associated Blood Stream Infections (CLABSI) are defined as the laboratory confirmed blood stream infections after 48 hours of the line placement and excluding other sources of infection.
- CLABSI can lead to prolonged hospital stay, increased risk of mortality and financial burden on the health care system.
- In our study, we aimed at evaluating the incidence of CLABSI after involving the IV team in both critically ill and non-critically ill patients.

## Methods

- A retrospective chart review was performed from July 2011 to August 2019 at a 971 bedded community hospital.
- IV team has been involved in the central line care since 2013 and started changing the scheduled central line dressings.
- The interventions that were introduced since then include usage of Curoc, wearing masks and gloves for any contact with central lines, flushing the central lines using pulsatile method, and not drawing the routine labs.

- Allpoints program was introduced in July 2018 which is a retraining program to the nurses emphasizing on central line dressing changes using a sterile technique, pulsatile flushing method and medication administration.
- CLABSI rate was calculated per 1,000 central line days yearly and quarterly and was compared before and after the involvement of IV team.

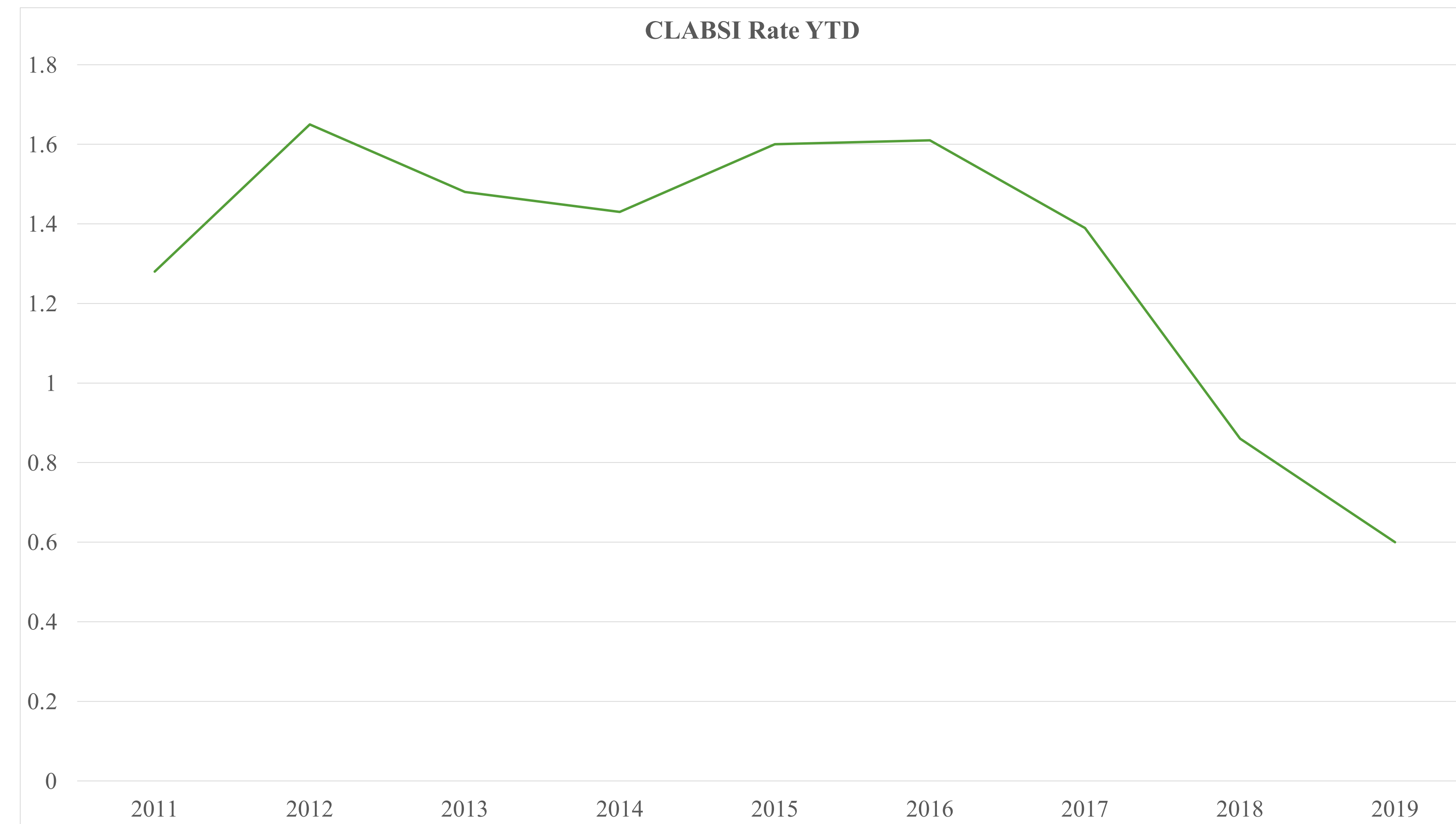


Fig 1: CLABSI rate yearly June 2011-August 2019

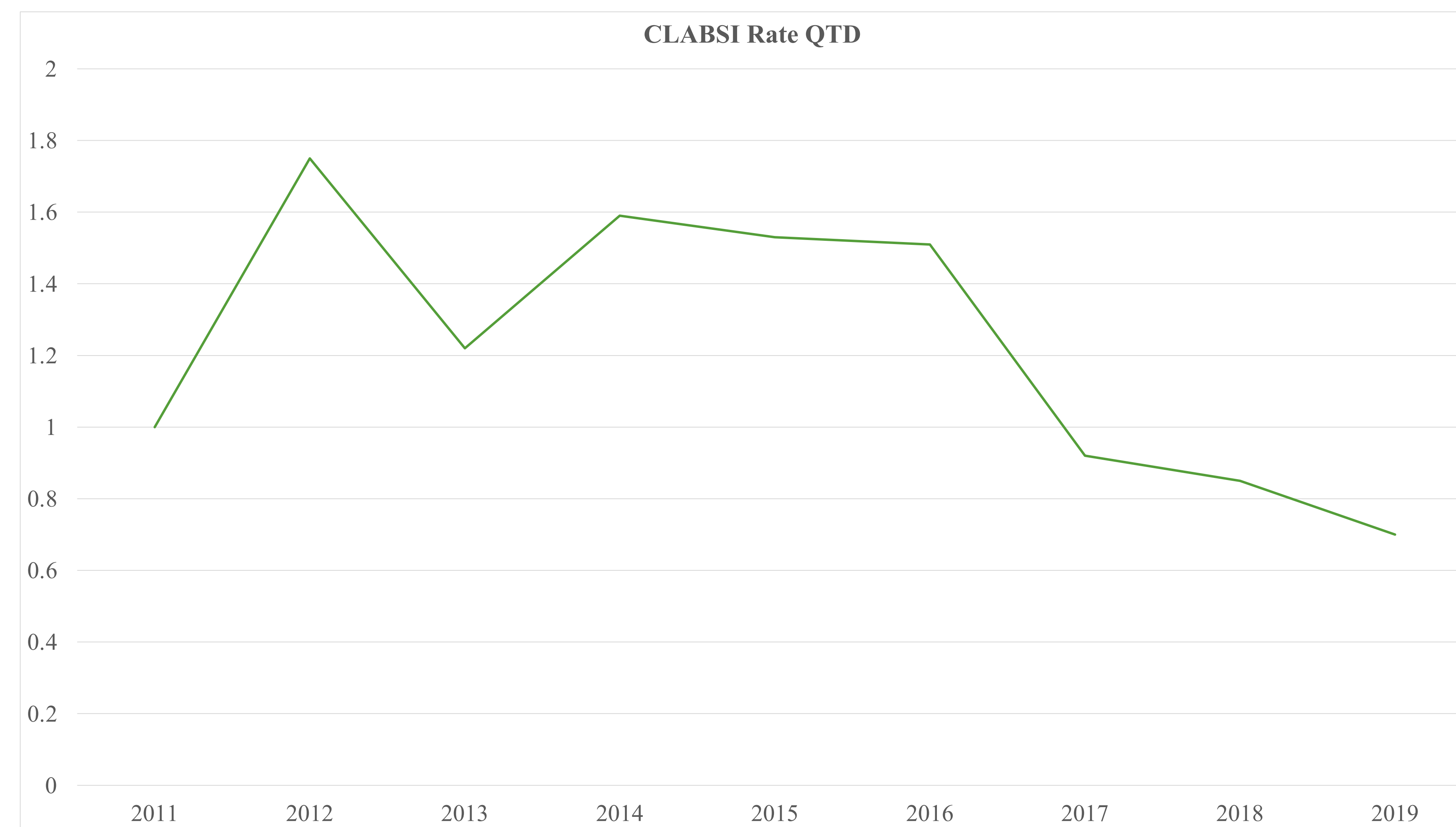


Fig 2: CLABSI rate quarterly June 2011-August 2019

## Results

- Total number of events from July 2011 to August 2019 were 275. Average central line days were 22,350.
- Most common organisms that were isolated are Staphylococcus aureus (13.45%) followed by Staphylococcus Epidermidis (9.8%), Candida Albicans (8.7%), E. Coli (8.72%) and Klebsiella Pneumonia (6.9%).
- The average CLABSI rates quarterly and yearly were 1.00 and 1.32 respectively, per 1000 central line days.
- Average CLABSI rates before and after the involvement of IV team were 1.32 and 1.18 respectively.
- CLABSI rate has decreased significantly after the involvement of the IV team in 2013.
- The largest impact on the CLABSI infection rate was between July 2018 to August 2019 which can be attributed to the Allpoints program.
- CLABSI rate in 2018 and 2019 were 0.86 and 0.6 respectively.

## Conclusion

Our analysis showed that involving the IV team in the central line care and implementing the preventive strategies like usage of curoc, pulsatile flush technique, wearing mask and gloves for any contact with central line helped in reducing CLABSI.