

1. Critical Care Unit (CCU) Beds

Describe the occupancy rate for the CCU beds including what Steward views as the optimal occupancy rate (and why) and how often it was exceeded. Specifically, we want to understand how it is there are 28 beds and the average census is 25, they had to decline so many patients. Provide additional information on the 103 transfers that were not accepted. Were the patients at other Steward hospitals? Where, in general did they go? Were they transferred to other systems?

As indicated, there are 28 licensed CCU beds at SEMC. Due to the medical complexity of patients in house, SEMC keeps one CCU bed available as a code bed open at all times. For this reason, SEMC's available CCU capacity is 27 beds. An average census of 25 with 27 available CCU bed means SEMC has an average occupancy rate of over 92%. Steward and SEMC view an optimal occupancy rate to be 70%-75% based on studies, with variation due to surgical complexity, emergency room volume, and surge capacity.

SEMC's patient population is largely surgical. The CCU occupancy rate is higher Monday-Friday, when surgical volume is highest. Over the last two quarters, the average CCU occupancy rate Monday-Friday has exceeded 25 patients, while the weekend CCU occupancy rate is closer to 23.5 patients.

Transfers to SEMC that are not accepted are tracked along with the reason. 50% of the transfers that were not accepted to the SEMC CCU were not accepted due to bed availability. Most of the transfers that were declined occurred during the week as census is higher. In addition, transfers out of the CCU occur later in the day after the medical/surgical floors discharge patients and beds open up. As a result, SEMC frequently must decline transfer for patients requiring admission or transfer during the weekday mornings.

Approximately 84.4% of the patients transferred to SEMC are transferred from another Steward Hospital. Those patients not accepted were transferred to another hospital with capabilities to match the patient's clinical needs. Such hospitals most often include BMC, Tufts or other Boston teaching hospitals, which are not part of the Steward ACO and are part of other health care systems.

2. Medical/Surgical (M/S) Beds

Provide additional information on M/S occupancy rates including how often the optimal occupancy rate was exceeded, and factors impacting occupancy rates such as the number of blocked beds. Specifically, the occupancy rate, post project, will still be low – in fact lower than currently. We need more specifics to understand the impact of blocked beds – how often are they blocked, how many are blocked, for how long, etc.

As stated in response to #1, SEMC has a largely surgical patient population. Due to this, there is a large variability in medical/surgical patient census throughout the day and week. Medical/surgical census is lowest is on the weekends and midnight (when the daily census is taken). During the period July 1, 2018 through September 30, 2018, the SEMC average occupancy rate was 71% during the week and 62.4% on the weekends. For capacity analysis, SEMC internally uses the average plus one standard deviation and during this same timeframe, SEMC was at 78% during the week and 63% on the weekends.

SEMC's current medical/surgical bed configurations impact occupancy rates. 69% of the medical/surgical beds at SEMC are arranged in a multiple bed configuration, significantly impacting the flexibility of patient placement. Beds in multiple bed rooms must be blocked for precautions and gender reasons. The DOD published *Space Planning Criteria*^[1] in 2016 citing an occupancy rate of 85% should be used in planning for medical/surgical units. The exact occupancy rate at SEMC is difficult to measure given the nature of multiple bed rooms, which significantly impact the flexibility of patient

placement due to gender and precaution needs.

SEMC's medical/surgical capacity also has been effected by staffing issues. During the course of the year, SEMC experienced staffing shortages that resulted in patient caps due to nurse staffing. Over the course of 2018, SEMC hired 158 nurses and 98 certified nursing assistants for the medical/surgical floors. In addition, SEMC added 16.2 new medical/surgical RN positions and 10 CNAs to accommodate additional volume. Medical/surgical patient volume will continue to increase with this increases in staffing.

3. Confirm whether there will be remaining shell space following this project

Once this project is complete, there will be no remaining shell space within the scope of this DoN.

^[1] https://www.wbdg.org/FFC/DOD/MHSSC/spaceplanning_healthfac_120_2016.pdf