# Benchmarking

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## Benchmarking

Benchmarking is a method of comparing one's performance metrics to industry best practices in other similar organizations (Ettorchi-Tardy et al., 2012). The benchmarking process involves identifying, understanding, and adapting outstanding practices from organizations worldwide to help one's organization improve performance. However, benchmarking is not restricted to comparisons outside the organization. Internal benchmarking can compare different departments within the same organization to identify areas for continued process improvement and incorporate best practices across an entire organization.

Within the healthcare sector, benchmarking serves a variety of purposes. Benchmarking can analyze patient satisfaction, infection rates, surgical outcomes, and patient wait times, among other potential metrics. A literature review conducted by Willmington et al. (2022) indicates that benchmarking has had marked success in quality improvement and patient outcomes, especially in facilities that were initially poor performers. Benchmarks are essential in healthcare accreditation as they provide a structured approach to measuring and comparing a healthcare organization's performance against established standards and best practices (Jafar Sadegh Tabrizi & Farid Gharibi, 2019).

## Analysis

The following analysis will compare four benchmark categories among three hospitals local to the Hampton Roads area. The first hospital, Chesapeake General Hospital (CGH), was selected because it is where I have completed most of my clinical hours. The remaining two hospitals, Sentara Leigh Hospital (SLH) and Sentara Princess Anne Hospital (SPAH), were chosen due to their proximity to CGH. These three hospitals will be benchmarked against each other in conjunction with national and Virginia averages when that data is available. For

consistency, the statistics for each hospital will be attained by using the hospital comparison tool provided by Medicare, which allows direct comparison between the three hospitals. A graphical representation of the analysis can be found in the appendix.

**Pneumonia Death Rates**

Patients included in pneumonia death rates are those aged 65 years or older who were enrolled in Medicare and died within 30 days of hospital admission with pneumonia cited as the cause (U.S. Centers for Medicare and Medicaid Services, 2024b). Lower percentage rates indicated better performance. The national average for pneumonia death rates within this patient population was 18.2% (U.S. Centers for Medicare and Medicaid Services, 2024a). CGH reported a death rate from pneumonia of 17%, SLH reported 18.9%, and SPAH reported 17%. Numerically, all three hospitals are similar, and the differences are not statistically significant, resulting in all three locations being within the national rate. Virginia rates were not available for this category.

**Emergency Department Time Before Leaving**

The next comparison category is the median time patients spend in the emergency department (ED) before finishing their visit. Within this category, shorter times are better. The median time spent in the ED at CGH is 169 minutes, while hospitals with similar volumes in Virginia have a mean time of 175 minutes and 211 minutes nationally (U.S. Centers for Medicare and Medicaid Services, 2024a). CGH is classified as a high-volume hospital with 40,000 to 59,999 patients annually. SLH and SPAH are very high-volume hospitals, serving over 60,000 patients annually. The mean ED time for SLH is 173 minutes, while SPAH is 164 minutes. The mean time for very high-volume hospitals in Virginia is 175 minutes, and 193 minutes nationally. All three locations have similar times when compared to each other, and each is close to the

Virginia mean. All three hospitals have better times when compared to the national mean. Although SPAH has a lower mean than CGH, CGH performs noticeably better when accounting for volume using the national mean as the comparison point.

**Appropriate Sepsis Care**

This category will examine the percentage of patients who received appropriate care for severe sepsis. In this category, higher percentages indicate better performance. At CGH, 44% of patients receive appropriate care for severe sepsis, with SLH at 41% and SPAH performing the worst, with only 37% of patients receiving appropriate care (U.S. Centers for Medicare and Medicaid Services, 2024a). The results for this category show the importance of benchmarking oneself against more than just other facilities within the same area. CGH initially appears to perform well, as indicated by its higher scores than SLH or SPAH. However, upon further analysis, all three hospitals lag behind state and national benchmarks.

**Patient Satisfaction**

Patient satisfaction surveys have multiple questions for patients to answer. This analysis will focus on the percentage of patients who stated they would recommend the hospital to others. Out of all the patient survey questions with available data, this category has the widest spread in scores among the three hospitals analyzed. CGH has the lowest percentage, with only 60% of patients stating they would recommend the hospital (U.S. Centers for Medicare and Medicaid Services, 2024a). At the same time, SLH and SPAH are similar, with 77% and 80% of patients stating that they would recommend those hospitals to others. The national average for this question is 69%, while the Virginia average is 68%. Both SLH and SPAH are performing noticeably better than expected regarding patient satisfaction. On the other hand, CGH is

performing poorly when compared locally, statewide, and nationally. Patient satisfaction is a clear area where CGH can improve its performance to align with expectations.

## Performance Improvement Plan

CGH is performing behind state and national benchmarks for appropriate sepsis care. As such, this performance improvement plan will focus on improving sepsis care. The Centers for Disease Control and Prevention (2024) provides sepsis program guidelines and recommends that all hospitals have a standardized process for sepsis care. According to Sonis et al. (2020), timely identification of sepsis symptoms and early administration of antibiotics are the primary drivers behind improving sepsis outcomes. Nurses spend more time with patients and see them more often than physicians, placing them in a position to identify sepsis early and initiate care. Moore et al. (2019) used a detect, act, reassess, titrate (DART) based protocol and checklist to improve sepsis outcomes. The DART protocol consisted of a checklist of appropriate nursing interventions based on specific guidelines. A key checklist component was implementing a code sepsis loudspeaker notification to allow for rapid input of physician orders for antibiotics. After two months of implementation, timely sepsis care more than doubled. A limitation of this study is that it was only implemented within the emergency department and was not hospital-wide. However, based on the outstanding results seen, it is worth exploring implementation in a hospital-wide setting.

## Summary

The comprehensive benchmarking analysis conducted within this paper shows a detailed comparison of key performance indicators across between Chesapeake General Hospital and two other hospitals in the Hampton Roads area with a special focus on pneumonia mortality rates, emergency department throughput times, appropriate sepsis care, and patient satisfaction. These

critical healthcare metrics were examined against national and state benchmarks, illuminating areas of strength and identifying areas for improvement. This analysis identified sepsis care as an area for CGH to improve and created a performance improvement plan. The core of this plan is to implement a nurse-driven DART protocol for streamlining sepsis treatment and decreasing the time to antibiotic administration. This paper underlines the pivotal role of benchmarking in improving healthcare institutions and demonstrates how data-driven analysis can lead to actionable improvements in patient care quality and operational efficiency.

## References

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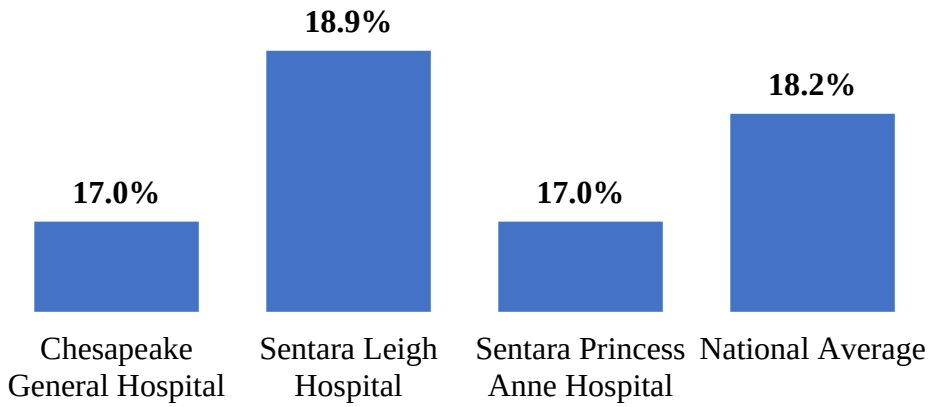
# Appendix

**Figure 1**

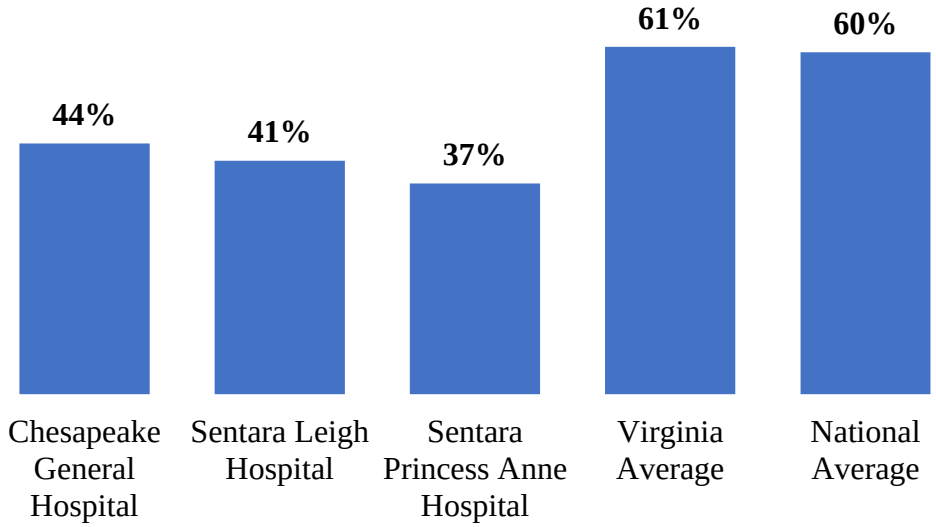
*Death Rate for Pneumonia Patients*




*Note.* A lower percentage indicates better performance.

**Figure 3**

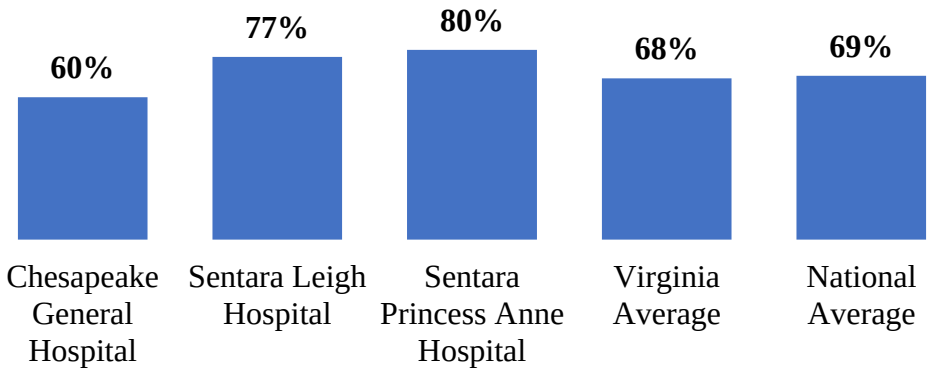
*Percentage of Patients Who Received Appropriate Care for Severe Sepsis and/or Septic Shock*




*Note.* A higher percentage indicates better performance.

**Figure 4**

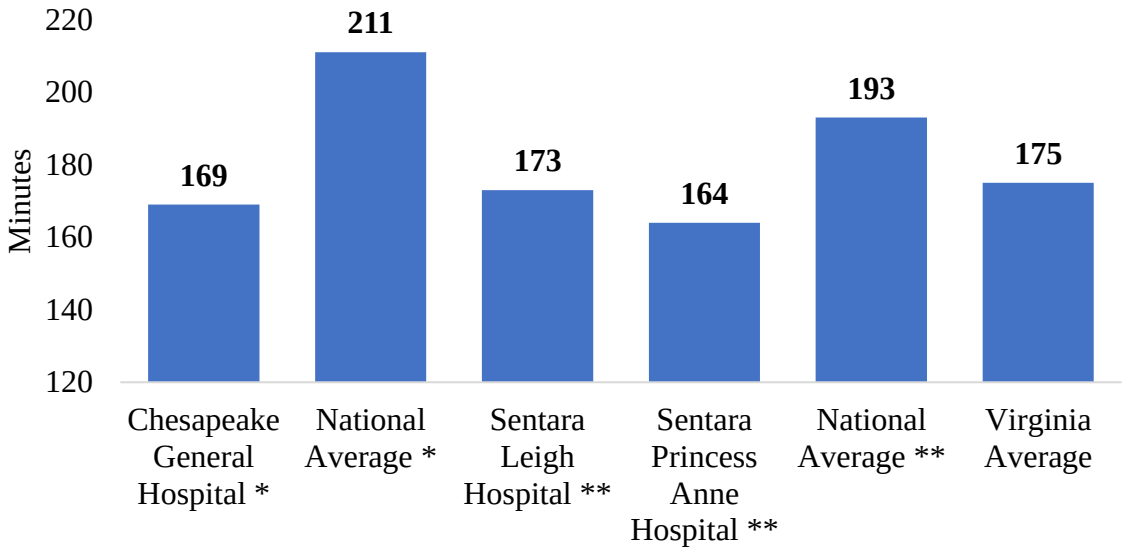
*Patients Who Reported YES, They Would Definitely Recommend the Hospital*




*Note.* A higher percentage indicates better performance.

**Figure 2**

*Average (Median) Time Patients Spent in the Emergency Department Before Leaving From the Visit*




*Note.* A lower number indicates better performance.

* High-volume hospital

** Very high-volume hospital