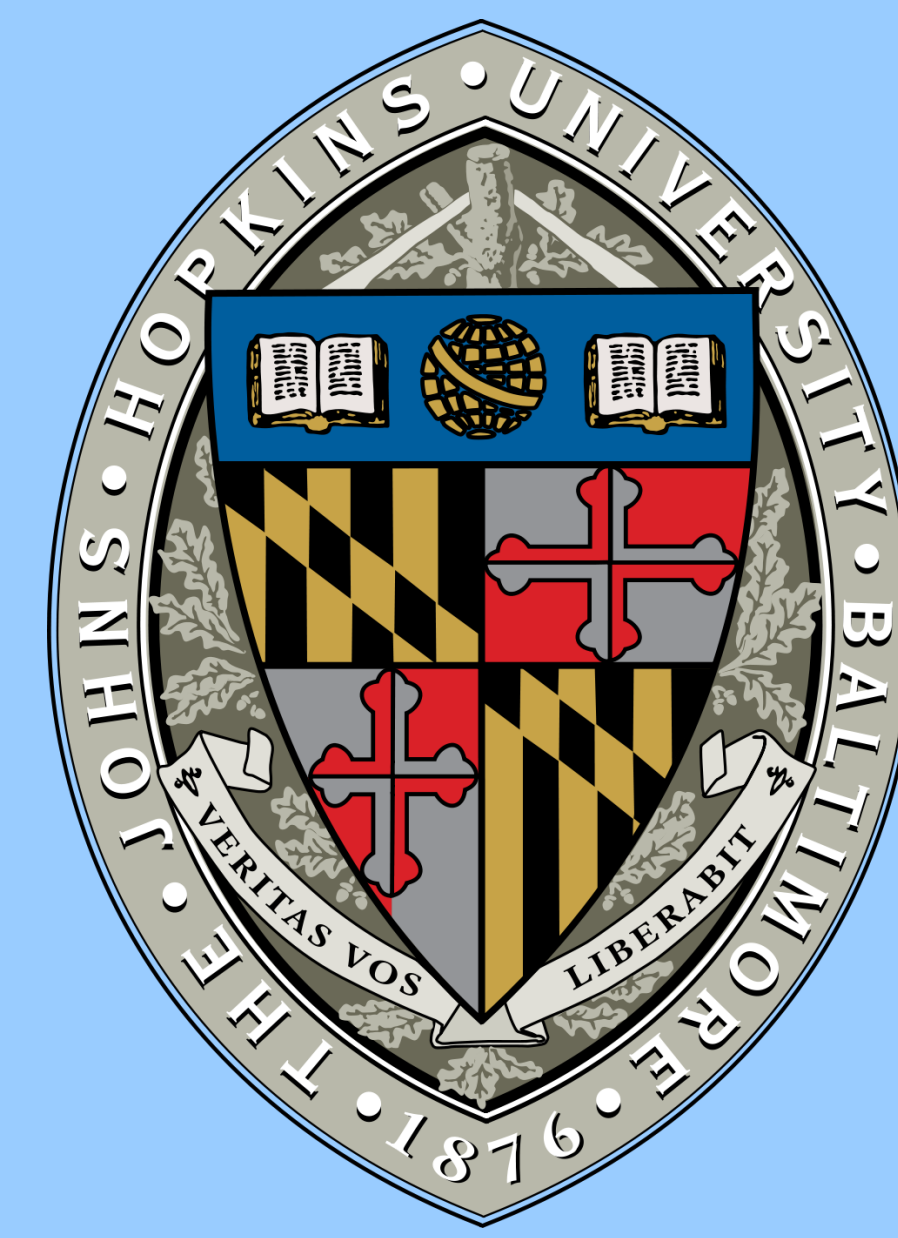# Boarding Time in the Psychiatric Emergency Department

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1 Background

Overcrowding is a frequent and pervasive problem for emergency departments (EDs) in the United States and around the world (Asplin, B., et al., 2008). Similar to most hospitals, this issue is present at the Johns Hopkins Hospital Adult ED. An area where it is particularly noticeable is in the Psychiatric ED, a small unit within Hopkins's adult emergency department.

The Johns Hopkins Hospital Psychiatric ED is an enclosed, 8 bed unit that is located beside the main Adult ED. It is a unique environment that is tailored to meet the needs of individuals experiencing psychiatric crises. The patient population is seen by physicians from the Adult ED as well as a physician from the department of Psychiatry. Both sets of physicians then work together with the nurses on the unit to develop a plan for each patient. Due to the complexity of the patients and the interdisciplinary nature of the team, this process often takes a considerable amount of time, predisposing the unit to overcrowding, which is particularly unsafe as it can cause psychiatric symptoms to escalate (Zeller, S., Calma, N., & Stone, A., 2014).

Frequently the Psychiatric ED is at full capacity, so often patients who are triaged into the Psych unit have to wait in rooms within the Adult ED for beds to become available. This, unfortunately, results in patients with psychiatric needs spending time in an environment that is not suited for their particular needs, and concurrently takes up valuable space that is intended for patients with medical needs. Decreasing overcrowding in the Psychiatric ED would help with this problem.

Boarding, when a patient remains in the emergency department after she has been admitted to a facility but has not been transferred to an inpatient unit, is the primary cause of overcrowding (Asplin, B., et al., 2008). And thus, prolonged boarding times are unsafe as they can cause psychiatric symptoms to intensify (Zeller, S., Calma, N., & Stone, A., 2014). Therefore, to combat overcrowding, it is necessary to measure boarding within the admitted patients' experience in the Psychiatric ED.

2 Methods

- Worked with the Psychiatric ED Clinical Operations Committee (COC)* regarding the admission process to one psychiatric inpatient unit within John Hopkins Hospital (JHH).
- Developed a tool to capture observation data at specific time points in the patients' stay in the Psychiatric ED.
- Observed the patient stay in the Psych ED of 22 patients and gathered further time data from Electronic Medical Records. (Of 22 patients observed, 12 were ultimately admitted to inpatient psychiatric units. Analyzed data is based on the times that these 12 patients experienced.)
- Analyzed observation data to distinguish the value-added time from the non-value added time. Value added time is defined as time that is directly valuable to the patient. While non-value added time may be important, when attempting to decrease overcrowding, opportunities for improvements are targeted within the non-value added times. (Value-Added Flow Chart, 2014)
- Compared the observed time data to the COC's predicted time data. This was done to determine if their predictions of value-added versus non-value added time were accurate. In particular, the amount of time patients spent boarding was examined, and was compared to the expected amount of boarding time.

Although the definitions of boarding time are debatable, "boarding time" for this project was considered the time after the final physician has examined the patient to the time when he or she left the Psych ED unit.

3 Results

- Observed boarding times were comparable to the COC team's expectations.
- It was predicted by the Psychiatric ED Clinical Operations Committee that patients being admitted spend 17 hours in the psychiatric ED. It was observed it to be an average of 19 total hours.
- Of this total time, 7.5 hours was predicted to be boarding time (44% of total time). It was observed to be an average of 8 hours of boarding time (42% of total time).
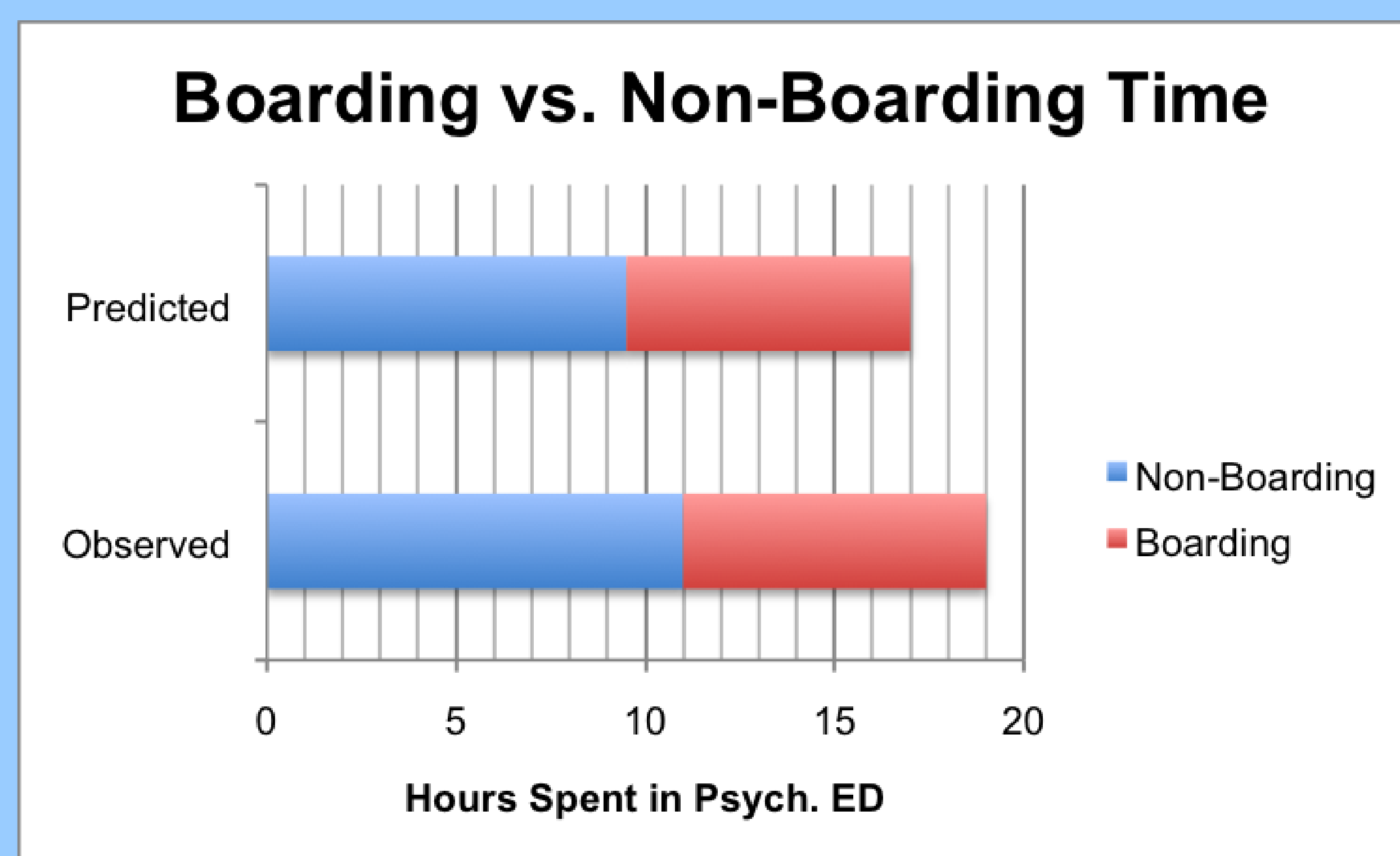
Boarding vs. Non-Boarding Time

Figure 1: This graph shows the difference between the expected average times and the observed average times. It was predicted that patients spend 44% of this time boarding, and it was observed to be an average of 42% of the total time. N=12

4 Conclusions

- The Observed boarding times approximated the predicted boarding times and were consistent with national averages. The average boarding times for psychiatric patients in the U.S. are between 6.8 and 34 hours (Zeller, S., Calma, N., & Stone, A., 2014). Nationwide, prolonged times are due to a number of factors including complex requirements for pre-authorization of insurance, lack of resources to conduct psychiatric evaluations, and lack of impatient psychiatric beds, among others issues (Zeller, S., Calma, N., & Stone, A., 2014).

- It was determined that patients at the JHH Psych ED spend an average of 42% of their total time in the psychiatric unit waiting to be moved to an inpatient bed, and based on some recommendations, patients shouldn't be spending any time boarding (Emergency Care Psychiatric Clinical Framework, 2010). Therefore, this is issue in need of further investigation in order to determine and decrease the factors causing boarding.

5 Future Directions

- Continue working with Psychiatric ED Clinical Operations Committee to determine the array of factors contributing to boarding time, and also to develop new methods of capturing the full picture of value-added from non-value added time.

- Work with commonly-used inpatient units to determine opportunities to better utilize inpatient capacity (Alakeson, V., N. Nalini, M. Ludwig, 2010).

- Investigate the relationship between patients and community mental health care services, and determine where continuity of care for individuals may prevent frequent crises that result in use of the Psychiatric ED services (Alakeson, V, et al, 2010).

6 Lessons Learned

As I enter my nursing career, there are a number of lessons I will take with me from this project. These are a few of them:

- Models, such as a value-added flow charts, are valuable tools when attempting to capture a concept

- The importance of a construct is only as useful as it's definition.

- Specific quality improvement projects are often more effective and relevant after examining scholarly literature.

7 References

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*Thanks to the Psychiatric ED Clinical Operations Committee for dedicating time to help me with this project