

Background

- Many patients with sickle cell disease rely heavily, often in the event of vaso-occlusive pain crises, on treatment in the emergency department that can often lead to hospitalization.
- In the United States it is estimated that in one year approximately 21% of adult patients with sickle cell disease will experience at least three acute care encounters while 5% will have ten or more such encounters¹.
- The high frequency of these visits is indicative of inadequate management of the disease and can place substantial cost and quality of life burdens on patients.
- Our project aims to address the problem of acute care overutilization that occurs in the absence of coordinated and effective outpatient management of sickle cell disease.

Objectives

- Improve scheduling of post-discharge hematology appointments for patients with sickle cell disease
 - Schedule appointments for within 14-28 days of discharge from hospital for a SCD related visit
- Improve patient adherence to hematology follow-up appointments
- Establish standard discharge procedures for sickle cell disease with pain crisis in both the ED and inpatient services
- Provide a more coordinated, more outpatient-based system of care for patients with sickle cell disease
- Reduce the 30-day emergency department re-representation rate for patients with sickle cell disease that have been hospitalized for pain crisis
- Help patients to experience a greater quality of life in lieu of the many burdens associated with sickle cell disease

Methods

The IHI Model for Improvement was used as the framework for guiding this effort.

Population: All adult patients with sickle cell disease that present to Boston Medical Center for SCD related complaints

Data Sources: Inpatient discharge summaries, hematology clinic notes, outpatient appointment scheduling system

Variables of Interest: Duration to scheduled post-discharge follow-up appointment, follow-up visit adherence, 30-day emergency department re-representation rate

Additional qualitative observations were made from EMR chart review, provider and patient interviews, and medicine / hematology consult rounds.

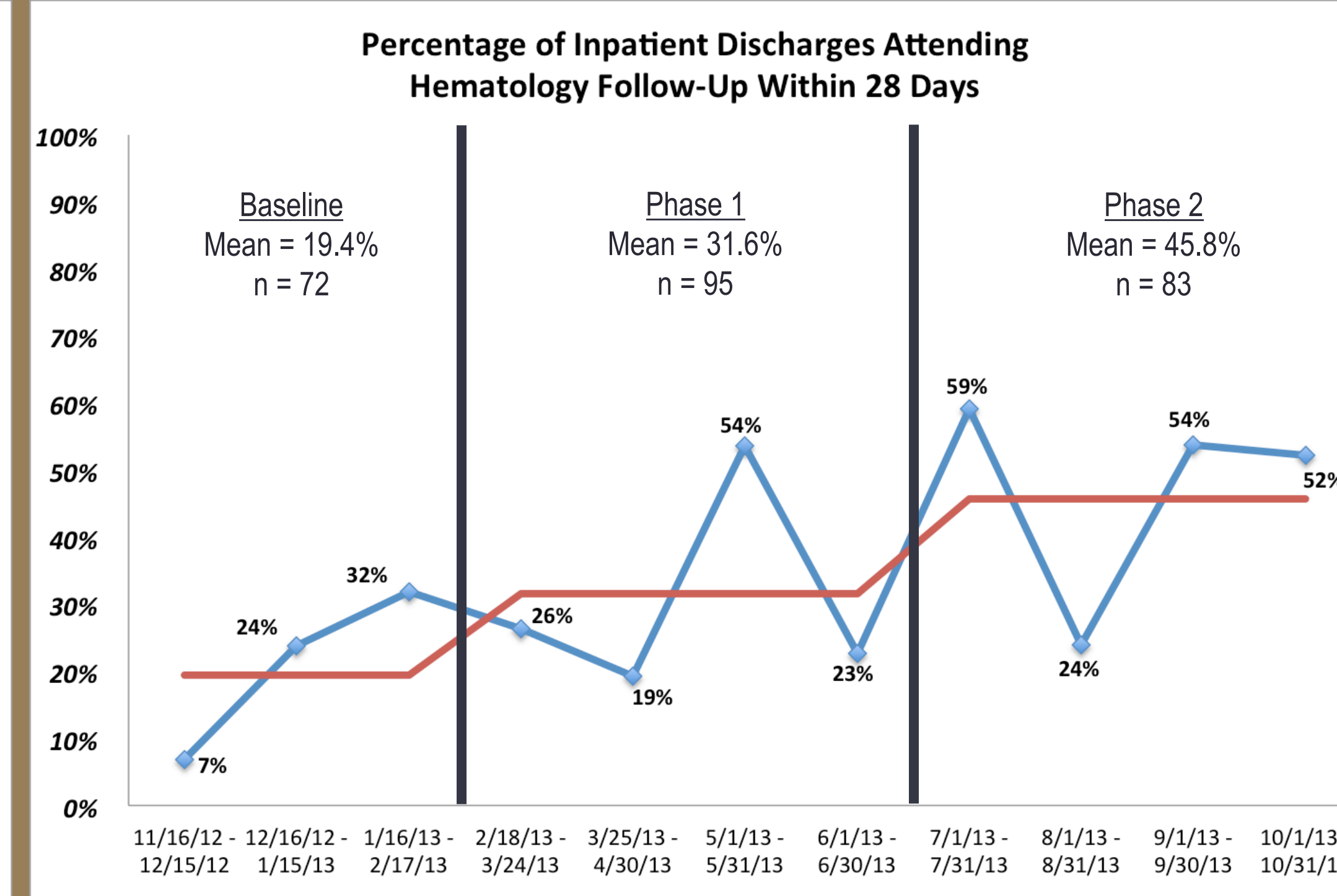
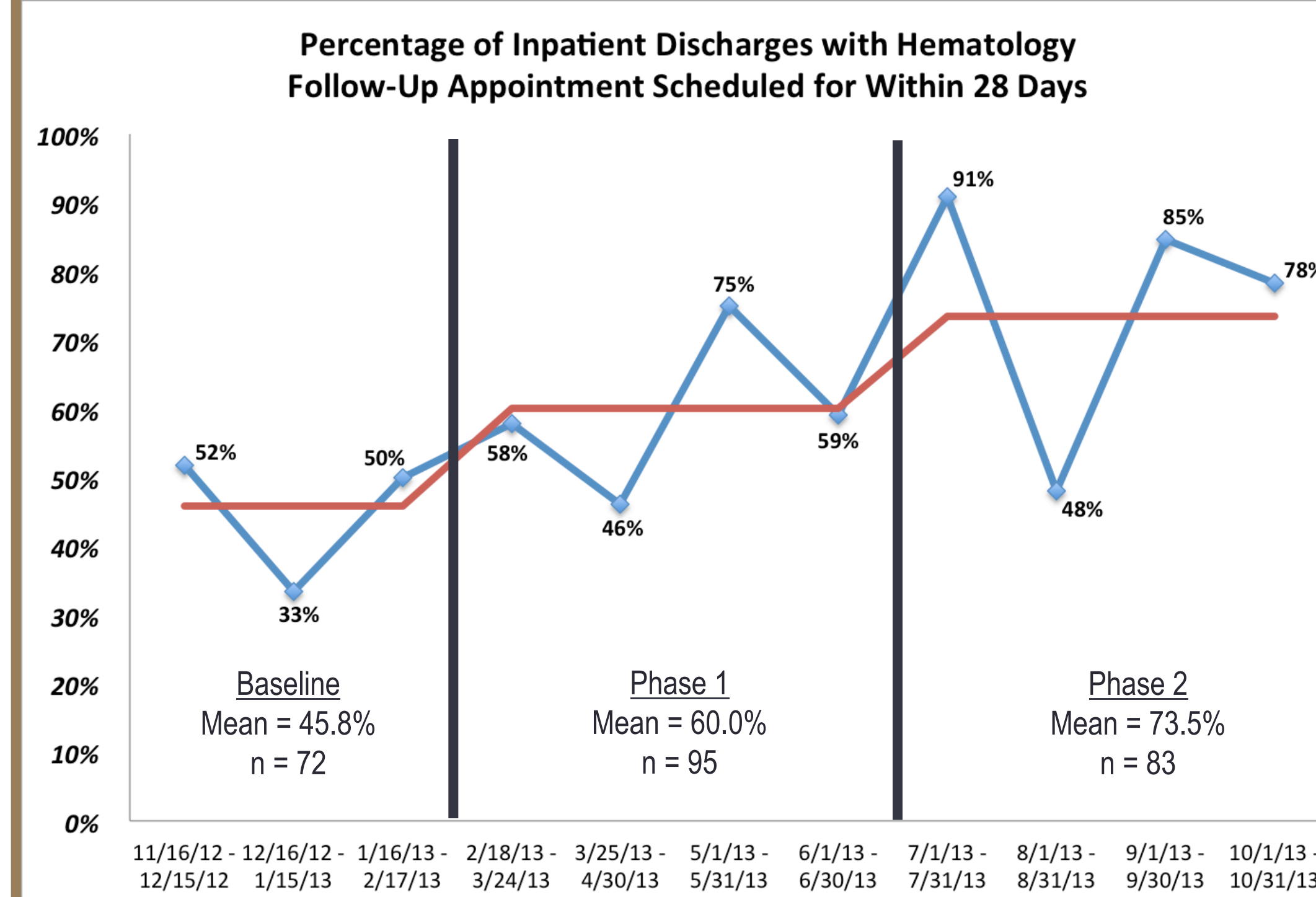
Problems Identified

- Limited availability of hematology appointments
 - Only two hematologists at Boston Medical Center regularly see patients with SCD in the outpatient clinic
- Considerable time constraints for both residents and interns, who are primarily responsible for scheduling appointments
- A cumbersome process for the scheduling of appointments
 - Providers were being placed on hold for extended periods of time and were asked to respond to multiple automated prompts before speaking with someone.
 - Ambiguity with regards to when it was appropriate to request a double booking
- No reliable means by which appointments may be booked on weekends
 - A significant problem based on the fact that Mondays serve as one of the two weekly clinic dates
- Many of the patients face a variety of socioeconomic challenges that affect their ability to adhere to follow-up appointments and treatment regimens.

Actions Taken

- Reserved appointment slots strictly for post-discharge follow-up
- One hematologist has begun to set aside three appointments in her clinic every Monday.
- The other has agreed to allow double booking of appointments in her clinic for all post-discharge patients without requiring her approval in each individual case.
- Direct contact with the hematology office staff
 - A determination of a direct set of pager numbers for contacting the hematology office staff was made and conveyed to the medicine interns and residents.
 - This removes a time-consuming facet of the cumbersome scheduling process.
- A standard set of instructions for follow-up scheduling
- Now included in individualized patient care plans for SCD patients that visit BMC with high frequency
- A set of the patients that present frequently with a significant number of SCD related complaints are now being admitted to the hospitalist service.

Analysis



Phase 1 Adjustments

Introduction of open Monday hematology appointments (11:30a – 12:00 p) for follow-up

Individualized care plans for high frequency visitors

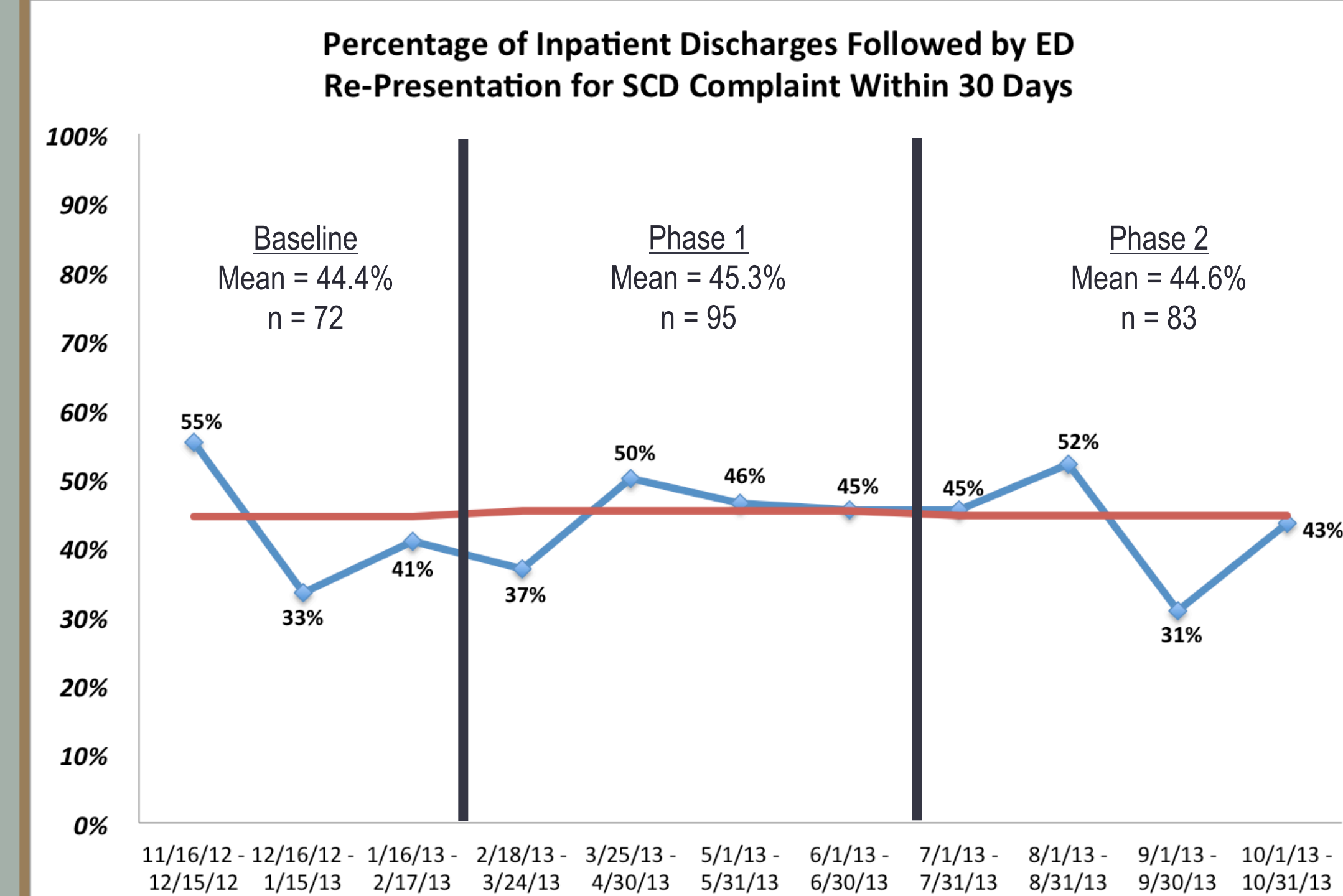
Phase 2 Adjustments

Standardized instructions for post-discharge follow-up scheduling, with direct pager numbers, were uploaded into individualized care plans

Approval of double booking Friday clinic slots for follow-up appointments in all cases of inpatient SCD visits

High frequency visitors for sickle cell disease related complaints begin to be preferentially admitted to the hospitalist service

*August 19 – September 9, 2013: The hematologist at BMC who follows the vast majority of patients with sickle cell disease was unable to see patients in clinic



Standardized Scheduling Instructions

Hematology Follow-Up Appointment Scheduling:

For sickle cell disease, early follow-up with hematology has been shown to prevent subsequent hospitalization and improve care quality.

All patients that are admitted with a SCD related complaint should have a hematology follow-up appointment scheduled for within 14 days of discharge.

To book an appointment call Tania (8-9590) or Iris (8-5758).

For Monday Clinic (Dr. McMahon):

Appointment slots between 11:30 AM and 12:00 AM are set aside for post discharge follow-up. State that you are seeking a POST DISCHARGE appointment within one of these slots.

For Friday Clinic (Dr. Ngo):

Dr. Ngo has given approval to overbook her patients for a follow-up appointment within 14 days of inpatient discharge. Clearly state that you are seeking a POST DISCHARGE appointment.

If you are having problems getting an appointment, please page Dr. McMahon (0400) or Dr. Ngo (8431).

Conclusions / Looking Forward

- Our interventions have been successful in improving the rate at which post-discharge follow-up appointments for patients with sickle cell disease are being appropriately scheduled and attended by patients.
- No significant change has been observed in the 30-day emergency department re-representation rate for patients with sickle cell disease related complaints.
- Further interventions are warranted to build upon the moderate strides we have made in improving the coordination of care for patients with sickle cell disease, with a goal of reducing both the 30-day ED re-representation and 30-day readmission rates. These include:
 - Real time data tracking and direction of attention towards individual cases of poor follow-up appointment scheduling
 - An added focus on improved patient adherence to follow-up appointments
 - Patient education efforts by which we may improve outpatient management of pain and other complications due to sickle cell disease

References

- Brousseau DC, Owens PL, Mosso AL, Panepinto JA, Steiner CA. Acute Care Utilization and Rehospitalizations for Sickle Cell Disease. *JAMA*. 2010;303(13): 1288-1294.
- Leschke, J., Panepinto, J. A., Nimmer, M., Hoffmann, R. G., Yan, K. and Brousseau, D. C. (2012), Outpatient follow-up and rehospitalizations for sickle cell disease patients. *Pediatr. Blood Cancer*, 58: 406–409.

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