

# Impact of medication reconciliation and discharge medication counseling services on patient satisfaction scores relating to communication about medications

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## Background

Nearly one fifth of patients experience an adverse event following hospital discharge and 60 percent of adverse events are preventable and related to medication errors.<sup>1,2</sup> Pharmacist involvement in hospital discharge improves patient outcomes by resolving medication discrepancies, preventing ADRs, and improving patient understanding of medications.<sup>3-6</sup>

## Purpose

When a pharmacist performs medication reconciliation, there is an opportunity to educate patients about their medications while simultaneously reconciling the medication list. The objective of this study is to determine the impact of pharmacist-led medication reconciliation on patient satisfaction scores pertaining to communication about medications when a pharmacist participates in patient education while reconciling the medication list. Additionally, to determine a pharmacist's ability to identify and reconcile medication discrepancies.

## Methods

### Design:

- Prospective observational study assessing impact of pharmacist-led medication reconciliation and discharge medication education on patient satisfaction scores pertaining to communication about medications.

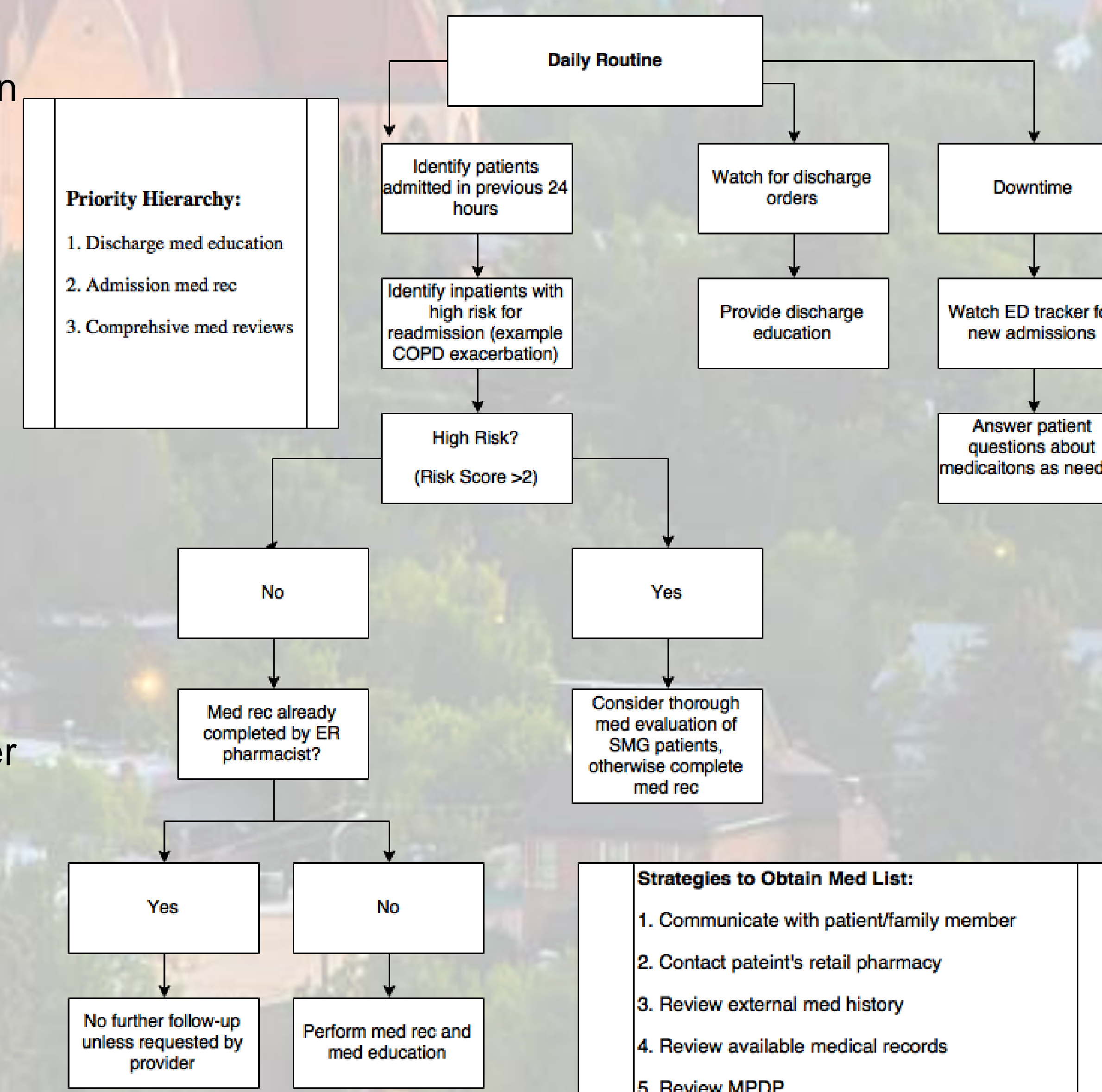
### Inclusion and Exclusion Criteria:

- Inclusion Criteria:**
  - Adult patients admitted to the medical floor at SPH and discharged to home between August 2016 and December 2016.
- Exclusion Criteria:**
  - Pediatric patients
  - Pregnant females
  - Patients discharged to prison, long term care facilities, or group homes
  - Patients diagnosed with dementia and no documented care giver
  - Patients discharged to hospice care

### Outcomes:

- Primary:** Impact of medication education on patient satisfaction scores pertaining to communication about medications.
- Secondary:** Number of discrepancies caught per patient, number and type of interventions made per patient, and time required for services provided.

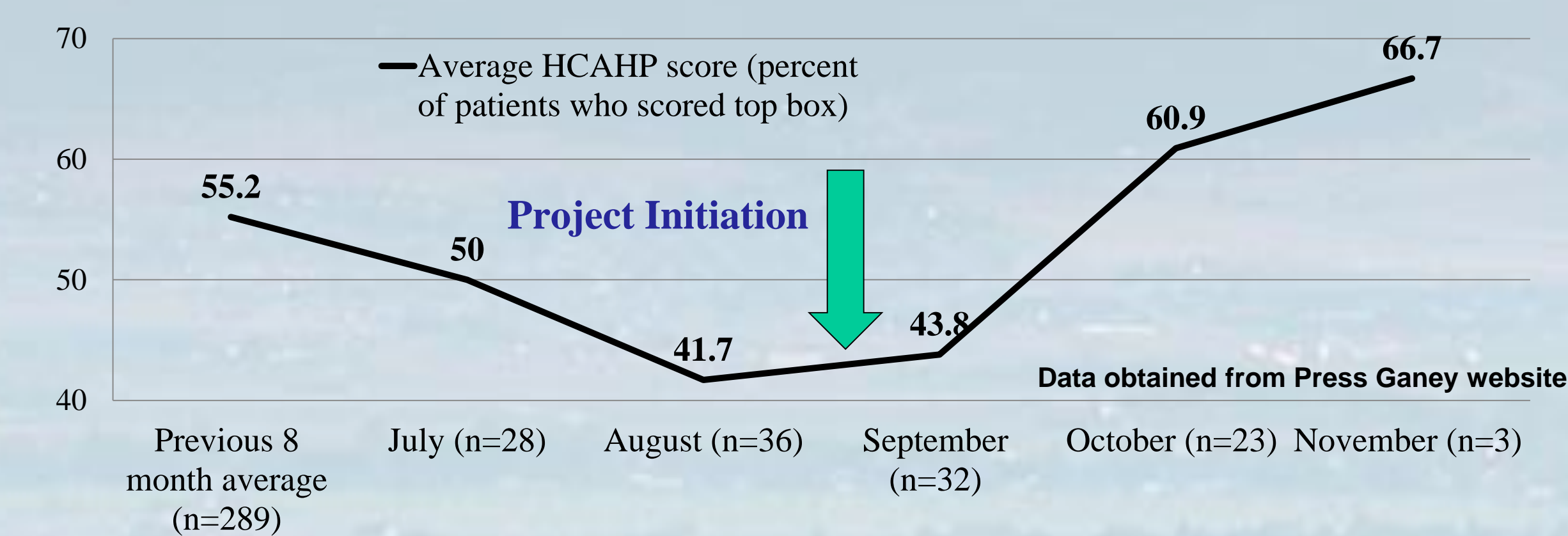
### Workflow:



## Preliminary Results

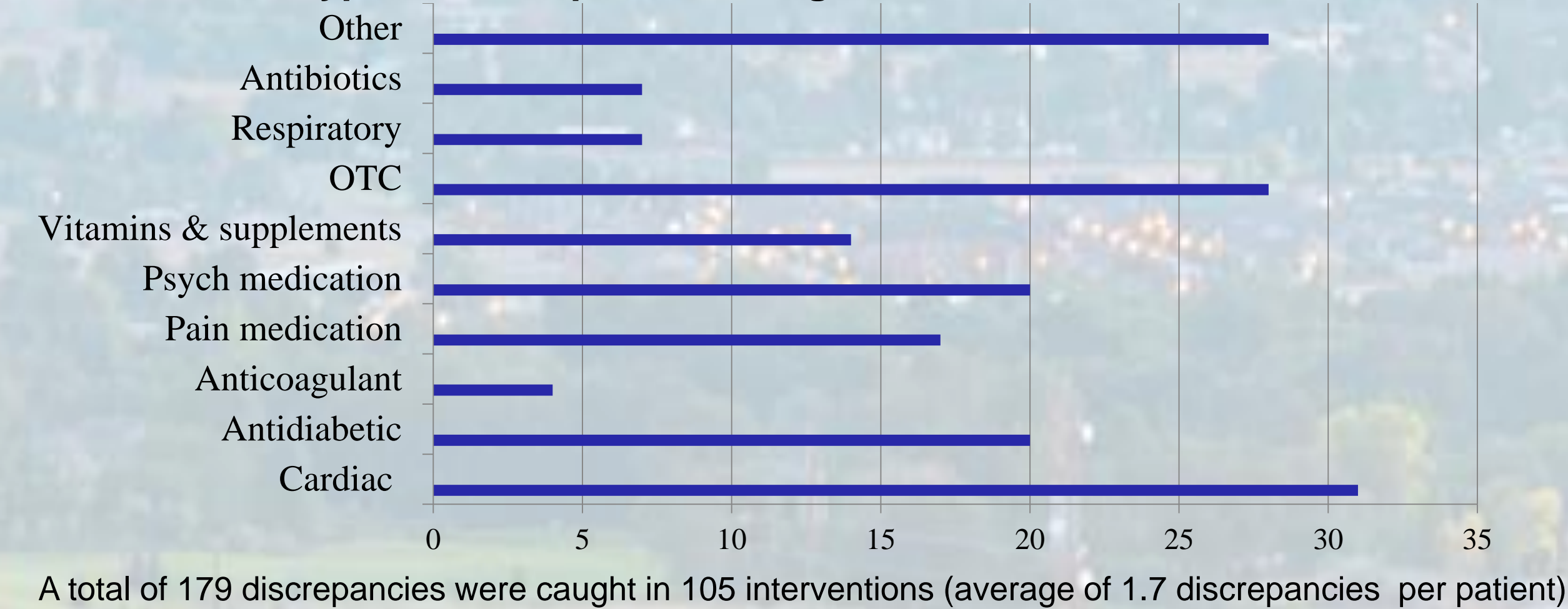
### Primary Outcome

#### HCAHPS: Understood Purpose of Taking Medications



### Secondary Outcome

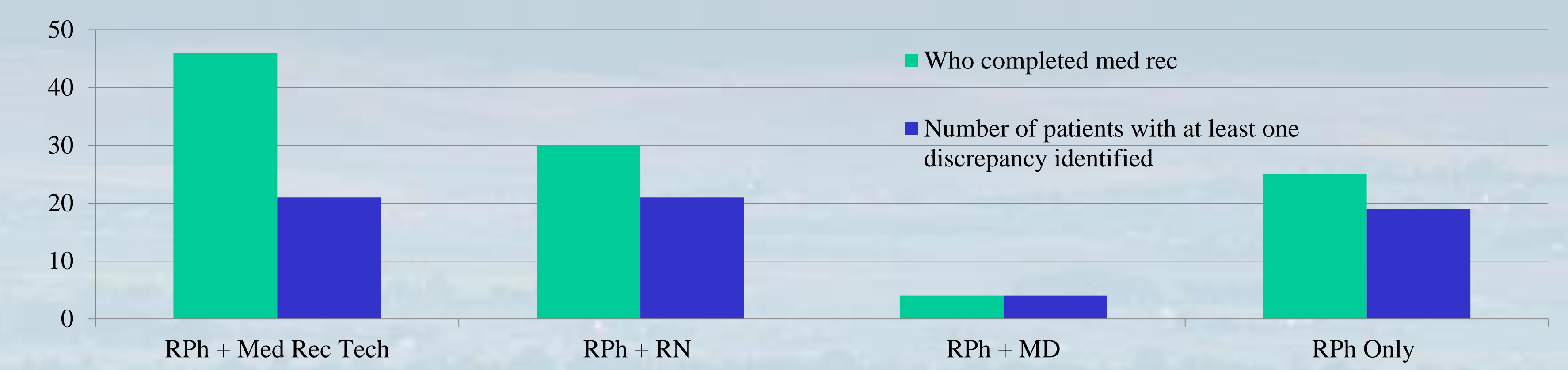
#### Number and Type of Discrepancies Caught on Admission



A total of 179 discrepancies were caught in 105 interventions (average of 1.7 discrepancies per patient).

### Secondary Outcome

#### Who Completed Medication Reconciliation Prior to Pharmacist Intervention and Discrepancies Caught During Intervention



### Secondary Outcome

#### Type of Pharmacist Interventions Made at Discharge

- A total of 20 discrepancies were caught in 88 interventions (average of 0.23 discrepancies/patient).
  - Example of discrepancy caught by pharmacist during discharge medication reconciliation: dabigatran ordered as once daily instead of twice daily for new onset atrial fibrillation.
- Of the 88 medication reconciliation interventions completed, 86 received discharge medication counseling (2 patients declined).

### Secondary Outcome

#### Average Time Requirement per Pharmacist Intervention

- The average time dedicated to admission medication reconciliation and education was 26.6 minutes per patient with a range of 5-100 minutes per patient.
- The average time dedicated to discharge medication reconciliation and education was 27.5 minutes per patient with a range of 5-75 minutes per patient.

## Evaluation

Thus far, pharmacist involvement in medication reconciliation on admission and discharge appears to correlate with improvement in patient satisfaction scores pertaining to communication about medications. Prior to initiation of the pharmacist medication reconciliation and education service, patient satisfaction scores relating to communication about medications were on a consistent downward trend. Since initiation of the service, the downward trend has been reversed.

Pharmacists consistently catch medication discrepancies during medication reconciliation that were missed by other health care professionals.

## Discussion

### Future Plans:

- Survey providers and nurses to assess other healthcare team members' satisfaction with the medication reconciliation service and identify possible areas of improvement.
- Expand pharmacist medication reconciliation service to include coverage over the weekend.
- Track percentage of patients admitted and discharged from SPH medical floor who have contact with a pharmacist on admission and/or discharge.
- Expand medication education service to include targeted disease-state education.

## Disclosures

Authors of this presentation have no disclosures concerning possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation.

## References

- Foster AJ, Clark HD, Menard A, et al. Adverse events among medical patients after discharge from hospital. CMAJ. 2004;170:345-349.
- Forster AJ, Murff HJ, Peterson JF, Gandhi TK, Bates DW. The incidence and severity of adverse events affecting patients after discharge from the hospital. Ann Intern Med 2003;138:161-167.
- Schnipper JL, Kewin JL, Cotugno MC, et al. Role of pharmacist counseling in preventing adverse drug events after hospitalization. Arch Intern Med 2006;166:565-571.
- Krip Sunil, Rourmie CL, Dalal AK, et al. Effect of a pharmacist on clinically important medication errors after hospital discharge. Anals Intern Med 2012;157(1):1-12.
- Walker PC, Bernstein SJ, Tucker JN, et al. Impact of pharmacist-facilitated hospital discharge program. Arch Intern Med 2009;23: 2003-2010.
- Sarangam P, London MS, Snowden SS, et al. Impact of pharmacist discharge medication therapy counseling and disease state education: pharmacist assisting at routine medical discharge. American J Med Quality 2013;28(4):292-300.