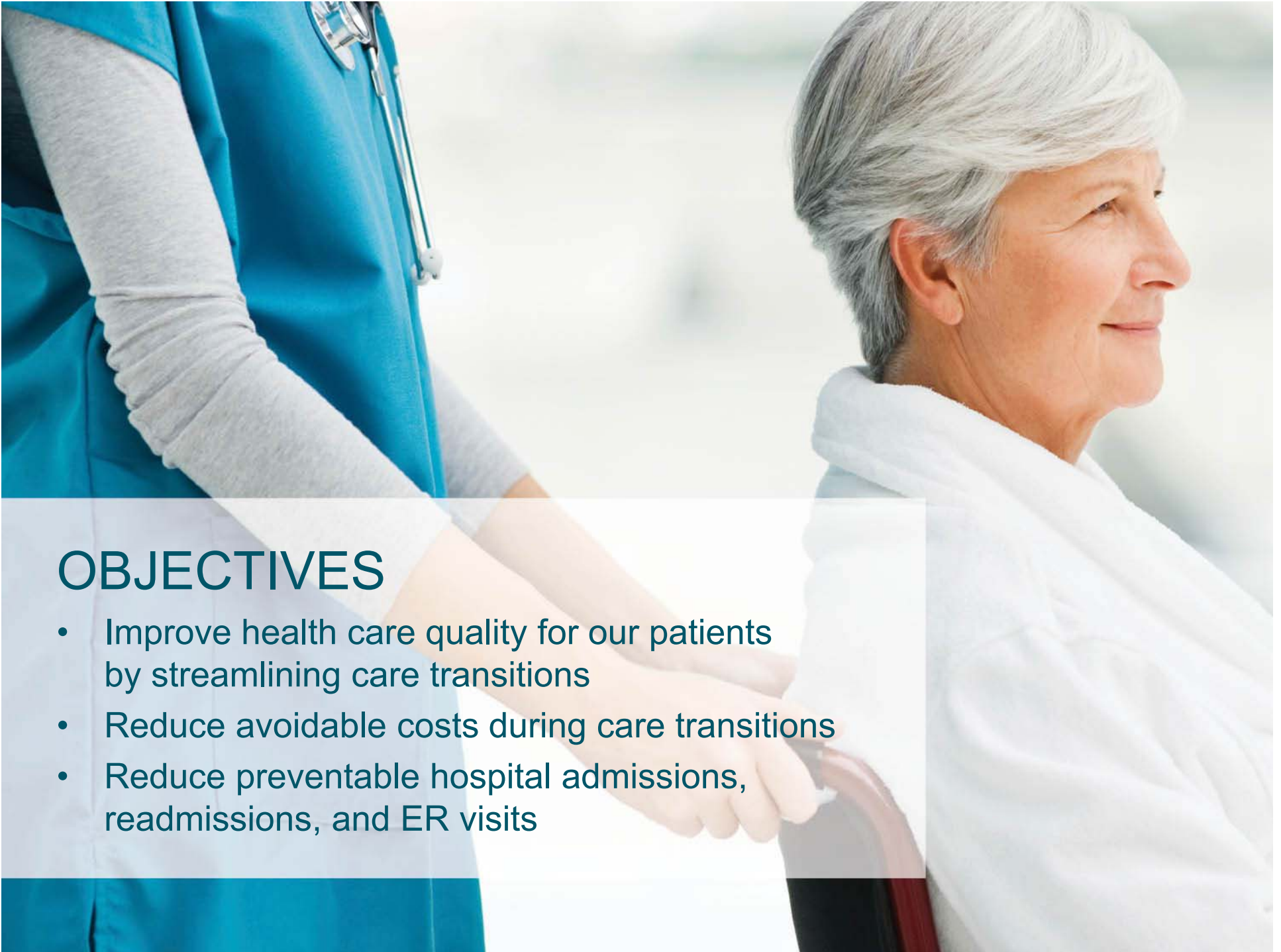


# Hospital Transition Management

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## OBJECTIVES

- Improve health care quality for our patients by streamlining care transitions
- Reduce avoidable costs during care transitions
- Reduce preventable hospital admissions, readmissions, and ER visits

A group of healthcare professionals, including nurses and doctors, are gathered around a computer workstation in a clinical setting. They are wearing white coats and appear to be engaged in a collaborative discussion. The scene is brightly lit, suggesting a modern hospital or clinic environment. The focus is on the interaction and teamwork among the staff.

# GOALS

- Improve the patient experience
- Ensure the best possible outcomes

# STRATEGIES

EPRO

1. Hospitalists provide medical-necessity assessments for patients in the emergency department

Transition  
mgmt

2. Personalized transition management for admitted patients

SNF  
discharge

3. Coordinated transitions with skilled nursing facilities and home health agencies

Palliative  
care

4. Engaging patients with their end-of-life choices

# THE METHOD | The Four Pillars:



Teach  
Medication  
Self-  
management



Teach a  
patient about  
their condition  
and use of  
a personal  
health record

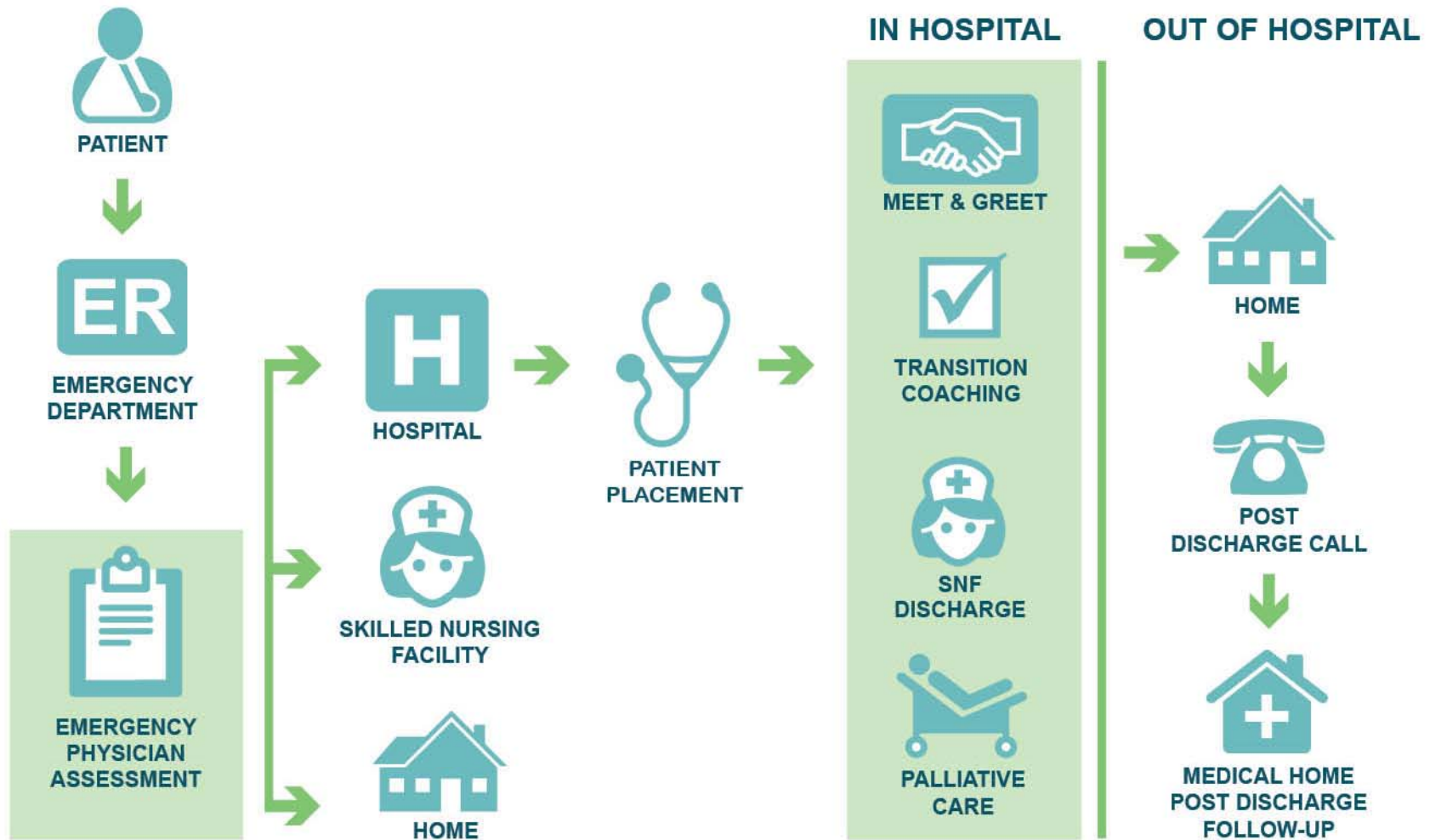


Provide  
knowledge  
of warning  
symptoms  
and how to  
respond



Have a  
patient set  
up follow-up  
care with  
their doctor

# PATIENT EXPERIENCE



# GOALS AND MEASUREMENT

\$51 million total savings for 2010

## OBJECTIVES

- Reduce inpatient costs and readmit rates by providing consistent and reliable post-acute care transitions
- Optimize post-acute care processes
- Reduce unnecessary Emergency Department (ED) utilization and costs

## METRICS

- Readmit rate
- IP admit rates
- Hospital length of stay (LOS)
- SNF admits/1,000
- SNF LOS
- ED visits/1,000



**Patient  
Satisfaction:**

SEPT 2010

**91<sup>st</sup>** percentile

DEC 2009

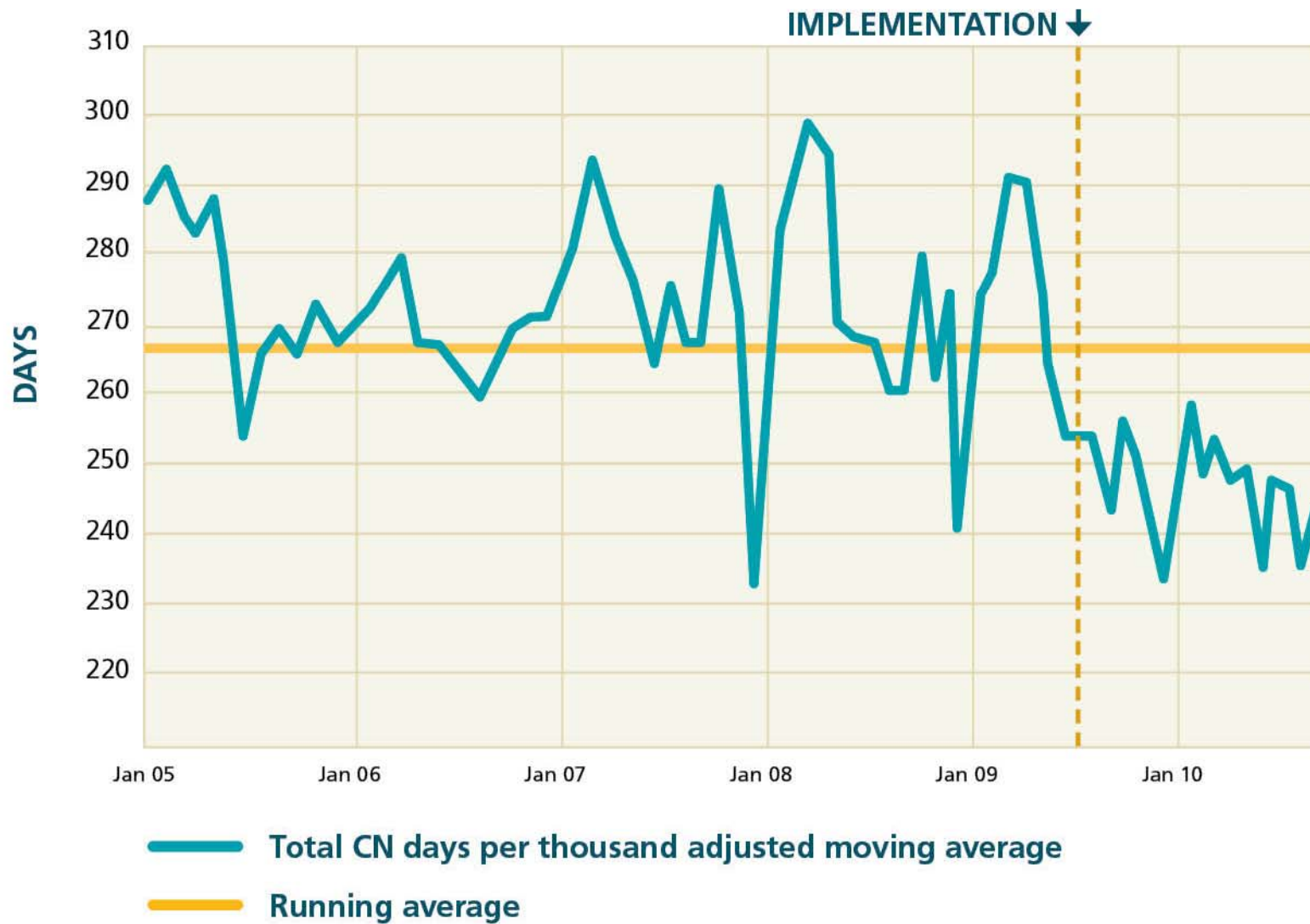
**74<sup>th</sup>** percentile

A close-up photograph of a blue stethoscope resting on a stack of US dollar bills. The stethoscope's chest piece is in the foreground, and its tubing loops across the bills. The bills are slightly out of focus, showing the words 'UNITED STATES OF AMERICA' and 'FEDERAL RESERVE NOTE'.

**\$51** m

HOSPITAL  
COST SAVINGS

# RESULTS



Medicare patient  
readmission:

NATIONALLY:

**19.6%**

WASHINGTON:

**16.4%**

GROUP HEALTH:

**15%**



# OVERALL IMPROVEMENT

Medicare inpatient admits	↓ by 6.3%
Medicare inpatient days	↓ by 3.3%
Non-Medicare inpatient admits	↓ by 7%
Non-Medicare inpatient days	↓ by 10%
SNF Medicare admits	→
SNF Medicare inpatient days	↓ by 5%
ER visits	↓ by 5%

# Medication Reconciliation

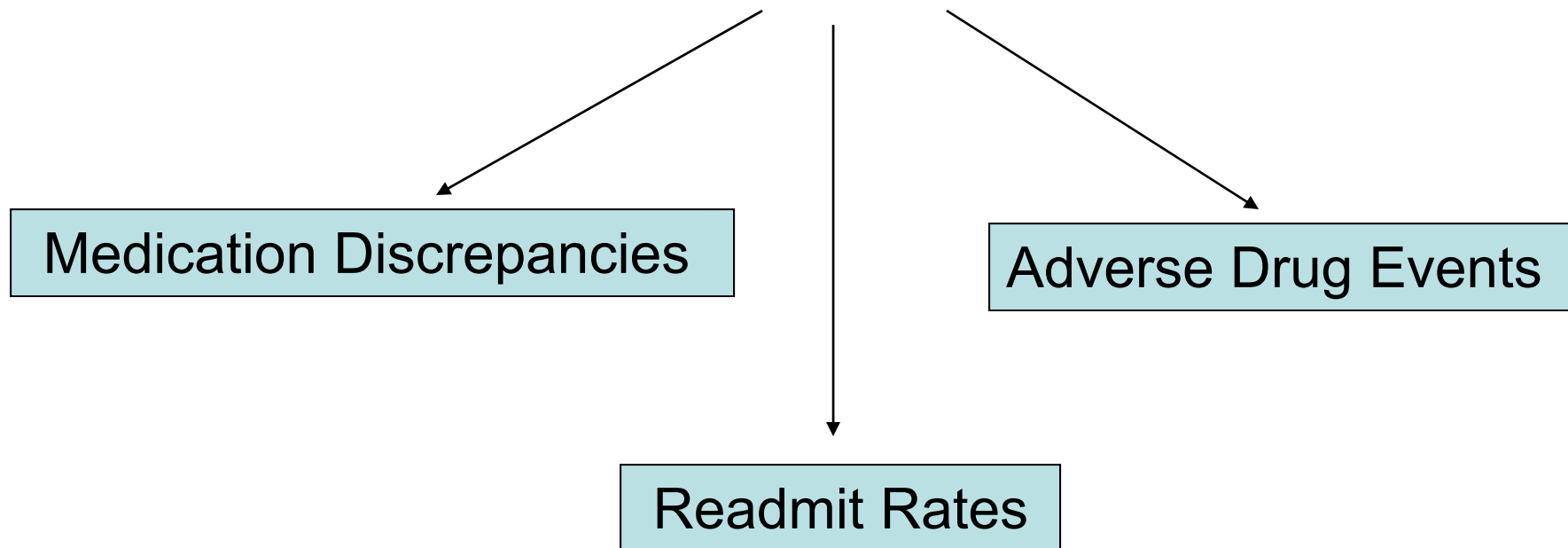
By Ambulatory Clinical Pharmacists  
Post-Hospital Discharge

Diane Schultz, RPh  
Medication Safety Manager

# Background: Current Literature

Medication Reconciliation Post-Discharge

## Common Primary Outcomes



# Background: Common Outcomes

## Post hospital discrepancies

14% had 1 or more<sup>1</sup>

71% an unintentional discrepancy<sup>2</sup>

## Reducing adverse drug events

Discrepancy-associated ADEs  
lower in intervention group<sup>3</sup>





**Med reconciliation  
2-4 days post discharge<sup>4</sup>**

Readmit rates ↓

**Care team with  
pharmacist med rec<sup>5</sup>**

30 days readmit rates ↓  
Time to readmit ↑

**Collaborative med rec  
with physician<sup>6</sup>**

30 days readmit rates ↓  
Visits to ED ↓

# Study Objective

**A retrospective, quality improvement study**

**To assess the impact of ambulatory clinical pharmacist medication reconciliation for patients post discharge on the following outcome measures:**

## **Primary Outcomes**

- ✦ Readmission Rates
- ✦ Financial Savings

## **Secondary Outcome**

- ✦ Medication Discrepancies

# Methods: Participants

Patient in Care Management Discharged:

- 24 – 48 hrs: Care Manager calls

## Intervention

3-7 days: Clinical Pharmacist calls

**Medication Reconciliation**

## Control

No Clinical Pharmacist call

**No Medication Reconciliation**

# Methods: Intervention



PATIENT



PHARMACIST



## Pharmacist Calls Patient

1. Reviews current medications
2. Discusses findings from comparing hospital list and Group Health records
3. Ensures patient understanding



PCP



DOCUMENTATION



Data Collection Tool

Group Health records

# Methods: Data Collection

## What does the Data Collection Tool capture?

1. **\*Medication Discrepancies**
2. Patient number and Primary Care clinic
3. Discharge hospital and date
4. Discharge summary availability
5. Clinical Pharmacist time spent

**\*Medication discrepancies** (*quantity*)



Medication omissions, therapeutic duplicates, dose changes, discontinued medications and drug-drug interactions

\*Other primary data resources: daily discharge census reports, readmission reports\*

# Results

Readmission Rates  
Financial Savings  
Medication Discrepancies

# Results: Participants

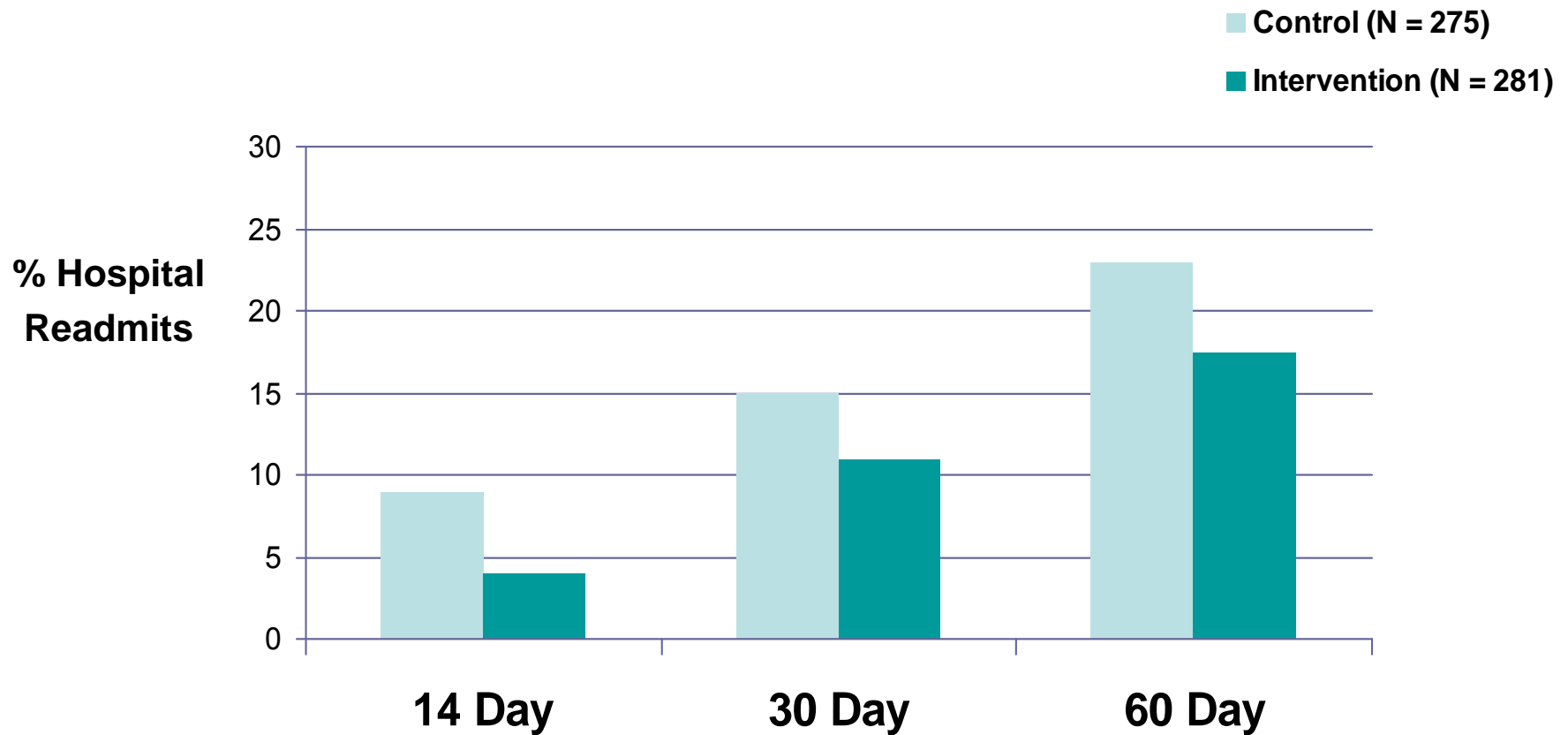
Baseline Demographics	Intervention (N = 281)	Control (N = 275)
Average Age	<b>65</b>	<b>67</b>
% Female	<b>50</b>	<b>51</b>
% >65 years on High Risk Meds in Elderly	<b>9%</b>	<b>13%</b>

*Discharge Diagnosis	Intervention Cases	Control Cases
CHF	<b>1</b>	<b>5</b>
Pneumonia	<b>1</b>	<b>4</b>
Cancer	<b>2</b>	<b>4</b>
Intestinal Obstruction	<b>3</b>	<b>4</b>
Chest Pain	<b>3</b>	<b>4</b>
GI Hemorrhage	<b>3</b>	<b>3</b>
Alcohol Dependence	<b>2</b>	<b>2</b>
Shortness of Breath	<b>2</b>	<b>1</b>

\*Differences not statistically significant

# Results: Primary Outcomes

## ✦ Decreased Readmission Rates



$p = 0.012$

$P \leq 0.05$  is statistically significant

# Results: Decreased Readmit Rates

14 day readmissions	Intervention	Control
# of readmits	12	26
N	281	275
% of readmits	4	9

Number Needed to Treat (NNT): 5 per 100 patients

**For every 20 patients that receive Clinical Pharmacist medication reconciliation, 1 hospital readmission is prevented.**

# Results: Primary Outcomes

## Financial Savings

Prevent 5 readmissions  
per 100 patients

### Savings:

Cost of Readmission  
*\$8,000 per readmit*

### Cost:

Clinical Pharmacist Time  
*36 min per med rec*

### Total Savings

**\$37,000 per 100 patients**

*\*Based on 14 day Readmit Rates*

# Results: Secondary Outcome



## Medication Discrepancies

Medication Discrepancies (from Data Collection Tool)	% patients with 1 or more
Discontinued Medications	48%
Dose Changes	45%
Omissions	44%
Therapeutic Duplicates	19%
Drug-drug Interactions	8%
<ul style="list-style-type: none"><li>- 8 Level 1 – clearly contraindicated</li><li>- 9 Level 2 – causing severe adverse reactions</li><li>- 9 Level 3 – causing moderate adverse reactions</li></ul>	

**80% of patients had 1 or more medication discrepancies.**

# Study Limitations

- ➡ Manual Documentation
- ➡ Study not powered to detect difference in 30 and 60 day readmission rates
- ➡ Potential differences in baseline characteristics: unable to control for due to design of study

# Conclusion

**Medication Discrepancies Resolved**

**Decreased  
Readmit  
Rates**

**Financial  
Savings**



# References

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**Questions?**