

## Problem Description and Rationale

• Readmissions cost \$15-20 billion dollars annually and affect 1 in 5 Medicare beneficiaries (Alper et al., 2015)

↑ When patients do not have a follow-up, there is a 10x higher likelihood of readmission (Misky et al., 2015)

• Less than half of patients follow-up with PCP within 2 weeks of discharge (Nelson & Pulley, 2015)

## PICOT Question?



Does conducting a telemedicine visit by the NP within 3 days of discharge of an unplanned hospital admission, followed by a 14-day oflce visit, reduce 30-day readmission rates when compared with the usual practice of conducting a 14-day oflce visit for adults after an unplanned hospital admission?

## Factors Affecting Readmission

- Age 80 or older with > 2 chronic diseases (Gorina et al., 2015)
- Unclear discharge instructions (Nelson & Pulley, 2015)
- Premature discharge (Alper et al., 2018)
- Adverse drug events (Alper et al., 2018)
- Socioeconomic factors (Alper et al., 2018)
- History of falls, dementia or polypharmacy (Alper et al., 2018)

• Lack of follow-up with PCP (Alper et al., 2018)

## Available Knowledge

Transitional Care Interventions are well-studied and improve patient outcomes  
• Can reduce 30-day readmissions for up to 1 year after initial hospitalization (Nelson & Pulley, 2015)

### Multiple/bundled interventions better than single interventions

• Telephone call follow-up alone does not always improve readmission rates but has shown to improve follow-up rates with primary care providers (D'Amore et al., 2011; Biese et al., 2014; Robinson et al., 2015)

Naylor model dominant influencing force in the literature

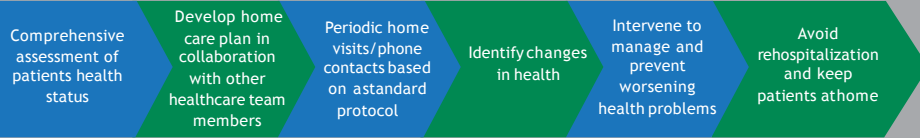
• Uses APRN to identify early warning signs of deterioration and expedite interventions to avoid repeat hospitalization (Nelson & Pulley, 2015)

### APRN-led interventions shown to be highly effective

• Interventions led by NP's reduced hospital readmission rates by 7-48% in a systematic review (Mora et al., 2017)

## Theoretical Framework: Transitional Care Model (Naylor et al., 1989)

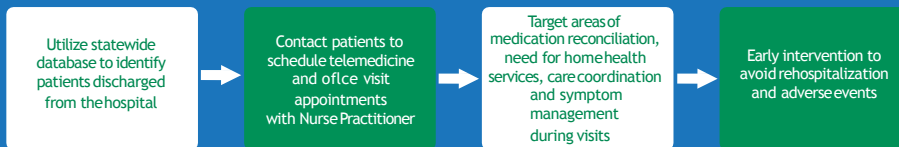
- Evidence-based, APN-led set of interventions
- Rigorously tested through randomized controlled trials all showing benefits
- Prevent complications and rehospitalizations of chronically ill patients
- Uses Advance Practice Nurse Role



## Project Goals

- Decrease 30-day readmission rate
  - Medicare average readmission rate 17.8% (Alper et al., 2018)
- Use state database to identify patients admitted to and discharged from hospital
- Improve oflce follow-up within 14 days of discharge
- Early intervention to avoid rehospitalization
- Decrease healthcare costs

## Intervention:



## Implications for Future Practice and Recommendations

• APNs uniquely positioned to bridge care gaps during post-discharge period

• NP's are a cost-effective use of healthcare resources in today's value-based healthcare climate

• Transitional care is a priority in ACA

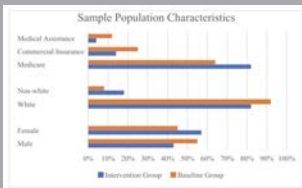
• APN is the heart of Naylor's model

• Transitional care still has a long way to go

• Post-discharge phone calls may improve follow-up for populations who have barriers to care access

## Participants

- Adults over 18 with an unplanned hospital admission
- Recruited from a suburban Baltimore, MD primary care practice
- Project conducted as part of a patient's usual care therefore did not require informed consent for participation
- Approved by Wilmington University Human Subjects Review Committee and project site



## Results

Decreased readmission rate from 22.4% to 18.2%

Increased oflce follow-up within 14 days of discharge from 37% to 86%

Savings of \$40,700 (37.3% reduction in 3 months)

Increased discharge to readmit time from 6.7 days to 10 days

## Methods

- Baseline and post-intervention 30-day readmission rates compared
- Descriptive statistics for index and readmitted patients
- Cost comparison done using AHRQ Data
- Chi-square analysis
  - Readmission rates
  - Inclusion in state database
  - Oflce visit within 14 days
  - Readmitted patients baseline and intervention group
- T-test
  - Average # of days from discharge to readmission

## Limitations

- Small sample size & small group of readmissions in each group
- Different seasons were compared
- CRISP database missing patients, malfunction
- Project was labor-intensive for NP and televisits for Medicare not reimbursable
- Did not include patients discharged from psychiatric or skilled nursing facilities, or obstetric patients
- Population was homogenous (primarily white and insured)