Development and Evaluation of a Community Paramedicine Program to Deliver a Care Transitions Program for Older Adults Discharged from the Emergency Department

Courtney Marie Cora Jones, PhD MPH

UNIVERSITY of ROCHESTER

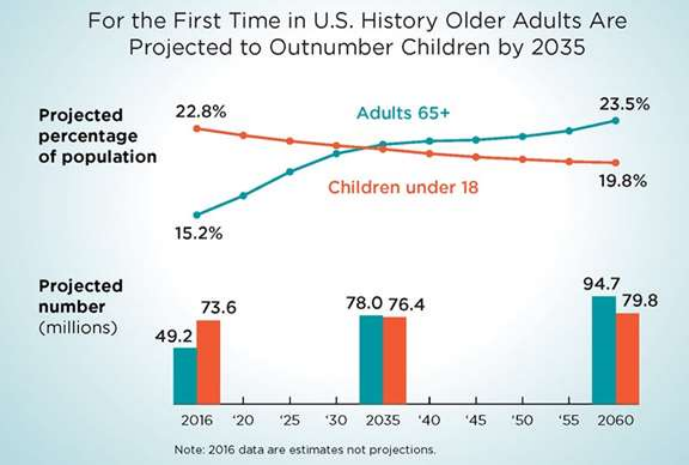
Acknowledgements

Agency Collaborator:
Livingston County EMS

Faculty Collaborators:
Tom Caprio, MD MPH MS
Jeremy T. Cushman, MD MS
Aaron Farney, MD
Timmy Li, PhD
Manish N. Shah, MD MPH
Nancy Wood, MS

Funding:
Greater Rochester Health Foundation

Growing Older Adult Population



Older Adults and Emergency Care

- Older adults frequently visit the emergency department (ED) for acute illnesses and injury
  - >20 million visits per year
  - The majority are treated in the ED and discharged home
  - ED re-visit rate within 30 days is 20-25%

Older Adults and Emergency Care

- The ED can be a dangerous place for older adults and increases the risk of:
  - Infection
  - Delirium
  - Healthcare associated falls
- Thus, reducing repeat visits to the ED has been the focus of much research

UNIVERSITY of ROCHESTER

Example Case 1

- *Mrs. Appleton is a 83 year old female who lives alone. She presents to the emergency department with small left arm laceration from falling in her bathroom earlier today. She takes numerous medications for her high blood pressure, high cholesterol, and osteoarthritis. She also has a number of unmet social needs including food insecurity and difficulty maintaining her home. Her laceration is repaired with stitches and local anesthetic. Social work was not consulted during her visit. Her discharge process, including how to clean her wound and instructions for follow-up, took less than 2 minutes. She is instructed to decrease her blood pressure medication and follow-up with her PCP but it is Friday evening. Mrs. Appleton was able to find a ride home with a friend from her church.*

UNIVERSITY of ROCHESTER

Our Program

- PURPOSE: Leverage emergency medical services to apply the Coleman Care Transition Intervention (CTI) to support community-dwelling older adult patients (age 60+) as they transition from the ED back to home
- GOALS: Increase patient involvement in healthcare, reduce repeat ED visits and hospitalizations, minimize healthcare costs

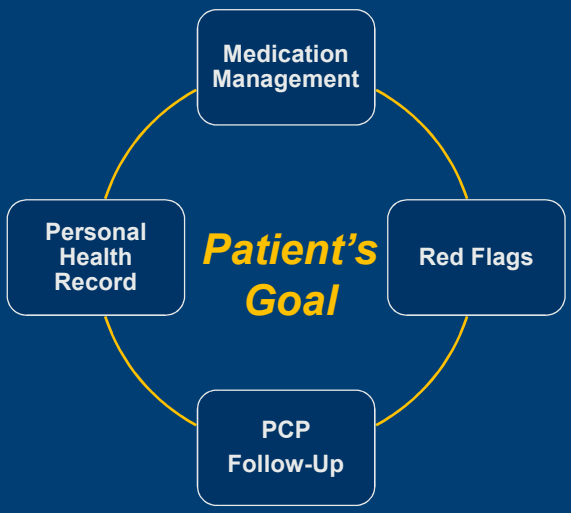
UNIVERSITY of ROCHESTER

Care Transition Intervention (CTI)

- Designed to reduce hospital readmissions for congestive heart failure patients
  - Patient-centered intervention that enhances self-management of health through skills transfer and improving patient-provider communication
  - Intervention is delivered by a “care transitions coach”
  - Centered on a goal identified by the patient
- Validated for the hospital-to-home transition for other conditions
- Reduces 30 day repeat hospitalization rate

UNIVERSITY of ROCHESTER

The CTI Four Pillars



UNIVERSITY of ROCHESTER

Our Adaptation of the CTI

The intervention is the same, *except*:

1. Focus on ED discharge
2. Engage patient at ED discharge through a patient enroller
3. Interviewed and hired paramedics from local emergency medical services (EMS) agencies to act as coaches

UNIVERSITY of ROCHESTER

Key Partner: Livingston County EMS

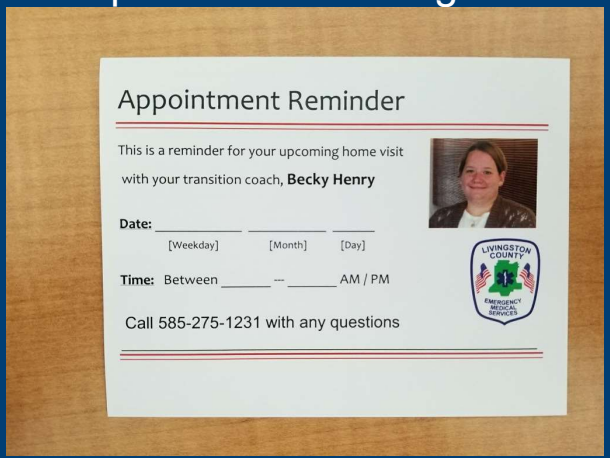
- Rural EMS agency
- 55 paramedics and EMTs
- Call Volume ~ 4,000
- Basic and Advanced Life Support
- Ability for paramedic intercepts with local other EMS agencies
- 5 Community Paramedics

Home Visit Protocol

- Patient identified in the ED and home visit scheduled prior to discharge
- Home visit conducted with 48 hours of ED discharge, usually <24 hours
- One coach per home visit
- No medical equipment brought into the home
- Acute illness and emergency protocol
  - MD on-call during all visits
  - Illness and mental health concerns

Reminder Card

- Given to patient at discharge



Home Visit Vehicle

Research Methods

- Patients were consented in the ED
  - An administrative control group was used (1:2 intervention to control ratio)
  - Matching criteria included: age, acuity level, and day of ED presentation.
- Research phone calls at 4 and 30 days
- Medical record review

Participant Information

- 300 patients were consented over two years
  - 276/300 (92%) remained eligible at discharge
  - 221/276 (80%) completed a home visit
- Mean age: 73 years
- 53% female
- Mean acuity: 3 on emergency severity index
- No differences between intervention and matched controls

Synthesis and Lessons Learned

- A Mobile-Integrated Healthcare program has the potential to increase patient engagement in healthcare and influence healthcare utilization
  - Selecting community paramedics is a vital step to program success!
  - Collaboration and communication with key stakeholders is critical!

UNIVERSITY of ROCHESTER

Thank you!

UNIVERSITY of ROCHESTER

Courtney_Jones@URMC.Rochester.edu

UNIVERSITY of ROCHESTER