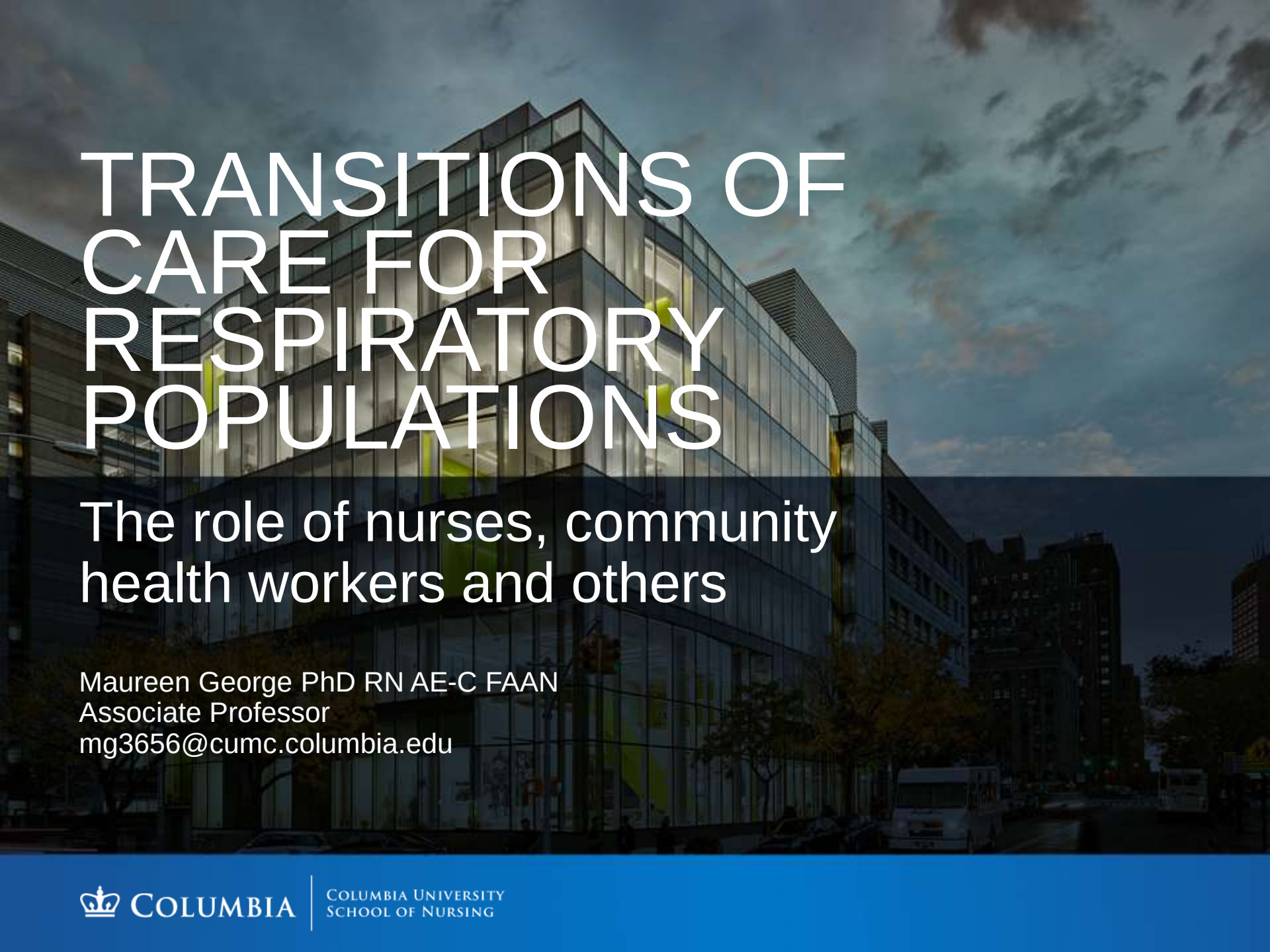

TRANSITIONS OF CARE FOR RESPIRATORY POPULATIONS

The role of nurses, community health workers and others

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Objectives

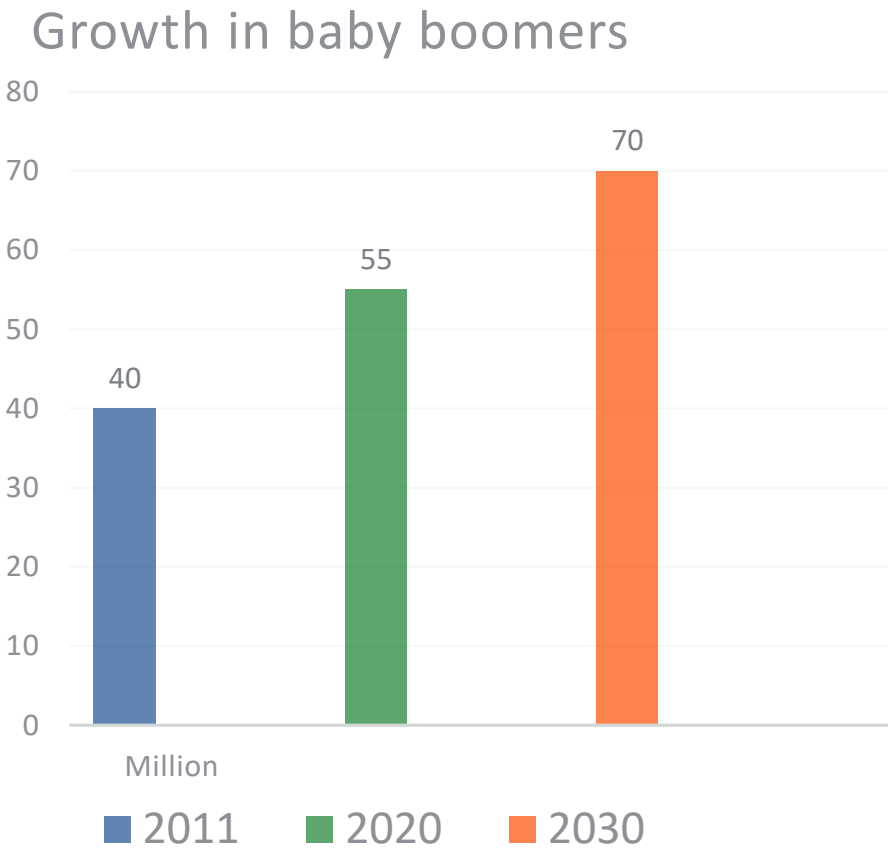
- Explore chronic care needs in the US
- Describe transitional care models
  - Naylor's Transitional Care Model (TCM)
  - IMPaCT
  - PA-ACP
  - CHICAGO Plan
  - MDS in heart failure
- Identify future directions

STATE OF CHRONIC CARE IN THE US

Increase in chronic care demands in the US

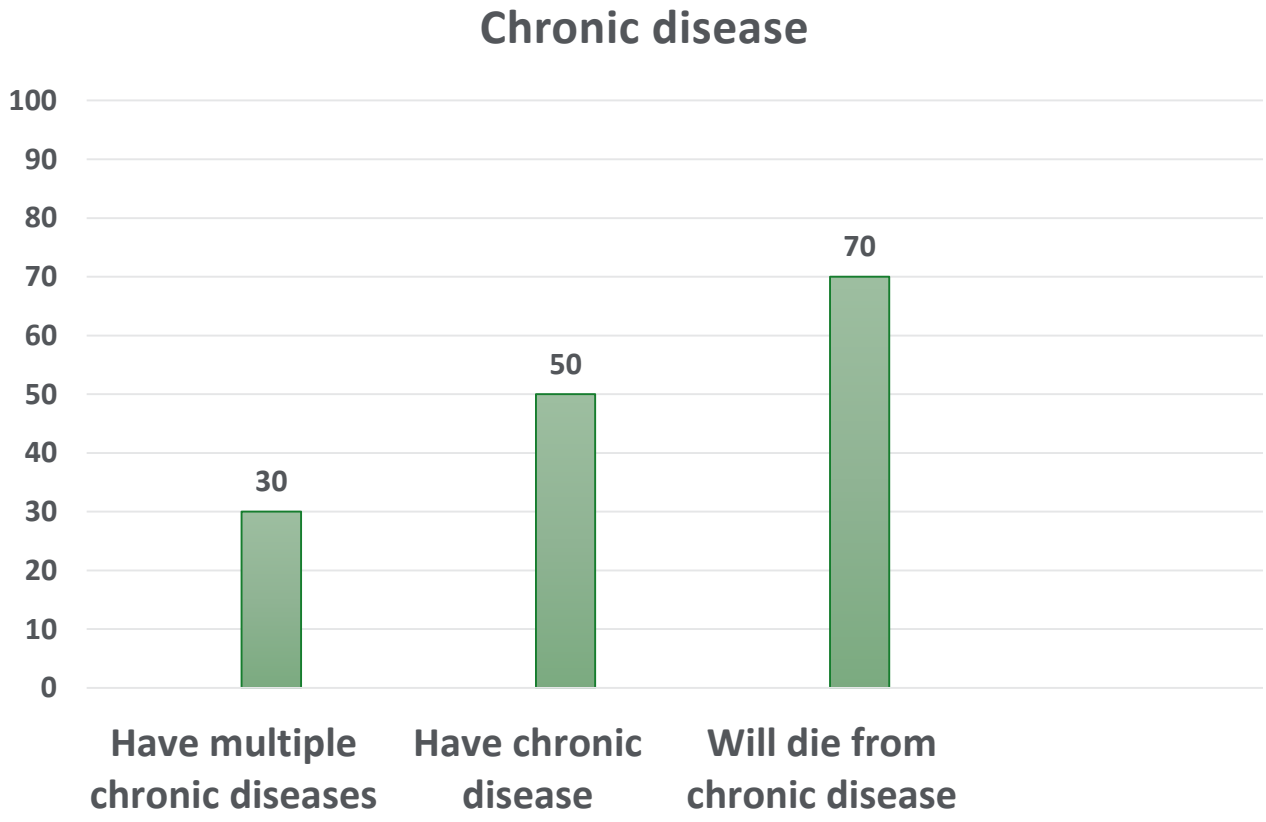
Commonwealth Fund – 2007

- Among 6 developed countries, US is
  - 1st in expenditures
  - 5th in quality
  - 6th in access, equity and accessibility
- America's silo'ed health care system is not ready
  - Health care professionals aren't trained



Increase in chronic care demands in the US

65% of all USD spent on health care goes to chronic disease management



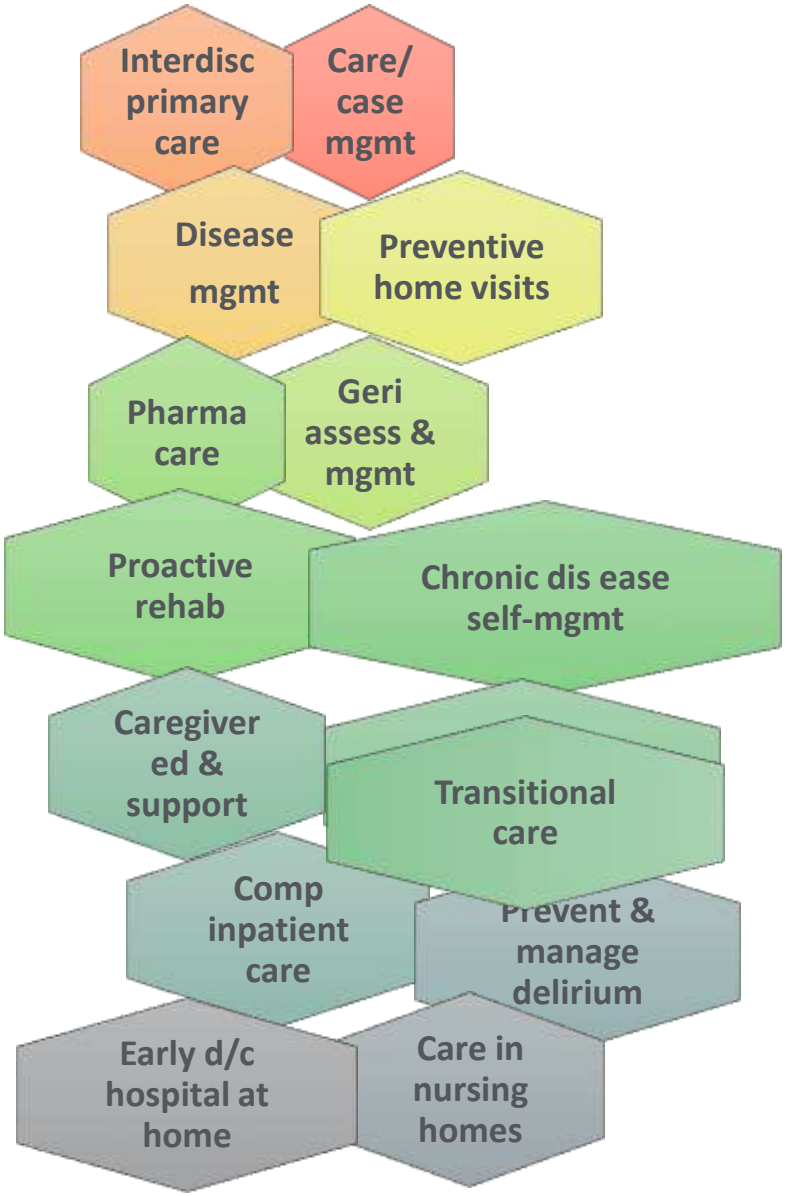
Knowns

- Quality is low, cost is high
- Some populations are more vulnerable in transitions
- Poor “hand offs” result in more dissatisfaction with care, more rehospitalizations and more adverse events

IOMs Principles of Care for Older Adults

- Health care needs to be assessed comprehensively
- Services need to be provided efficiently
- Older adults need to be active participants in their care

SUCCESSFUL CHRONIC DISEASE MODELS F0R THOSE 65+


Interdisc primary care
Care/ case mgmt
Disease mgmt
Preventive home visits
Pharma care
Geri assess & mgmt
Proactive rehab
Chronic dis ease self-mgmt
Caregiver ed & support
Transitional care
Comp inpatient care
Prevent & manage delirium
Early d/c hospital at home
Care in nursing homes

Transitional Care

- Uses nurses or advanced practice nurses (APNs) to facilitate safer, smoother and more efficient transitions from hospital to the next site of care
- Nurse or APN prepares patient and caregiver
  - Provides self-care education
  - Coaches about communication
  - Performs home visits
  - Monitors patient after transition
- Usually paid for by insurer

Conventional Targets for Transitional Care

- Vulnerable elders and their CGs with
  - With and without cognitive impairment
  - Stroke
  - Heart failure
  - Multiple chronic diseases

Naylor's Transitional Care Model (TCM)

- TCM is needed to meet care and educational needs when
  - The intensity of the caregiving role overwhelms the CG
  - There is inadequate community support
  - There is a lack of collaboration and communication with the health care team
  - Patient/caregiver is not engaged
  - There is discontinuity of care
  - There are gaps in services
  - The patient and caregiver are inadequately prepared to self-care/give care
  - There are multiple health and social challenges
  - Management is complex

Strong champions, clear communication, and organizational commitment

Components of Comprehensive and Effective Transitional Care

- Delivering Services from Hospital to Home
- Screening At Risk Older Adults
- Relying on APNs
- Promoting Continuity
- Coordinating Care
- Collaborating with Patients, Caregivers & Team
- Maintaining Relationships with Patients & Caregivers
- Engaging Patients & Caregivers
- Managing Symptoms and Other Risks
- Educating/Promoting Self-Management

Journal of the American Geriatrics Society, Volume: 65, Issue: 6, Pages: 1119-1125, First published: 03 April 2017, DOI: (10.1111/jgs.14782)

Critical features of transitional care teams

- Low case loads
- Expert nurses
- Strong nurse-physician relationships
- Adherence to evidence-based guidelines

Why APNs?

- Masters prepared nurse specialists with advanced training in the management of a population using an evidence-based protocol can provide a high level of care
  - Telephonic support - Available by phone from 8:00AM–8:00PM Monday to Friday and 8:00AM – 12:00PM on weekends
  - Individualized care plan is developed for care needs outside of these hours
  - APNs have the flexibility to schedule visits at any time to best meet the needs of the patient/caregiver

Evidence in support of TCM effectiveness

- Improved quality of life and decreased cost has been demonstrated
- Mixed results on function and survival
- Quality of care not assessed

Boult et al 2009; Panno et al 2000

Barriers to scaling up

- Cost reductions often come from savings which are hard for many organizations to track
  - Cost reductions in one “silo” increase costs in another
- Lack of partnerships between sites of care
- Proprietary models and few experts
- Medicare structure
- Process standards are focused within, not across settings
- EHRs that don’t speak to one another
- Nurses/APNs are high-cost interventionists
- Usually only supported if on Medicare

ADAPTATIONS TO THE TRANSITIONAL CARE MODEL

TCM adaptations

- Use of multi-disciplinary teams
- Use of community health workers
- Use of nursing students
- Extension to
  - Primary care
  - Poor community-based populations
  - Pediatric populations
  - Transition between Emergency Rooms and home

Individualized Management for Patient-Centered Targets IMPaCT

- IMPaCT is a standardized intervention in which CHWs provide tailored social support, navigation, and advocacy to help **low-income** (Medicaid and uninsured) patients achieve health goals
- CHWs are trusted lay members of the community – usually with a high school degree, special training and intrinsic attributes (eg empathy and active listening)
- 3 stages that are not disease-specific
  - goal-setting
  - tailored support
  - connection with long-term support

IMPaCT

- Goal-setting and probing for unmet needs
  - CHWs get to know the patients holistically and assess socioeconomic determinants of health (eg, trauma, food or housing insecurity, drug and alcohol use, or family stress)
- Tailored support
  - Individualized goals became the basis for tailored action plans
  - 6 months of hands-on, tailored support using coaching, social support, advocacy, and navigation
  - Communicate with patients at least once per week & monthly face-to-face contact
  - CHWs visit the patient if hospitalized and coordinates care with inpatient team
  - CHWs do not directly provide health education or clinical care
- Connection with long-term support
  - CHWs help patients identify long-term supports that could bolster the patients after the intervention ends

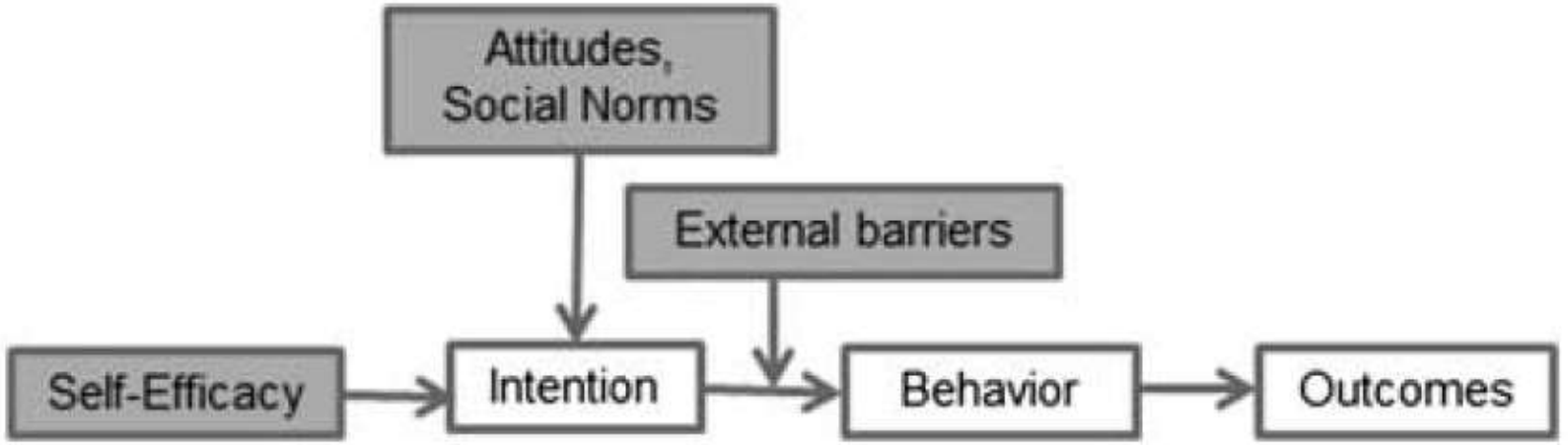
IMPaCT results

- 1st trial in hospitalized patients demonstrated improved access to primary care, mental health, patient activation and quality while reducing 30-day readmissions (1 hospital)
  - Kangovi et al JAMA Intern Med 2014
- 2nd trial involved outpatients with multiple chronic conditions (eg COPD and asthma) demonstrated reduced HbA1c, BMI, systolic BP, cigarettes per day, hospitalizations; improved mental health and quality of care (1 clinic)
  - Kangovi et al Am J Public Health. 2017
- 3rd trial involved primary care patients with multiple chronic conditions demonstrated improved patient-perceived quality of care while reducing hospitalizations; self-rated health did not improve (3 clinics)
  - Kangovi et al JAMA Intern Med.2018

IMPaCT limitations

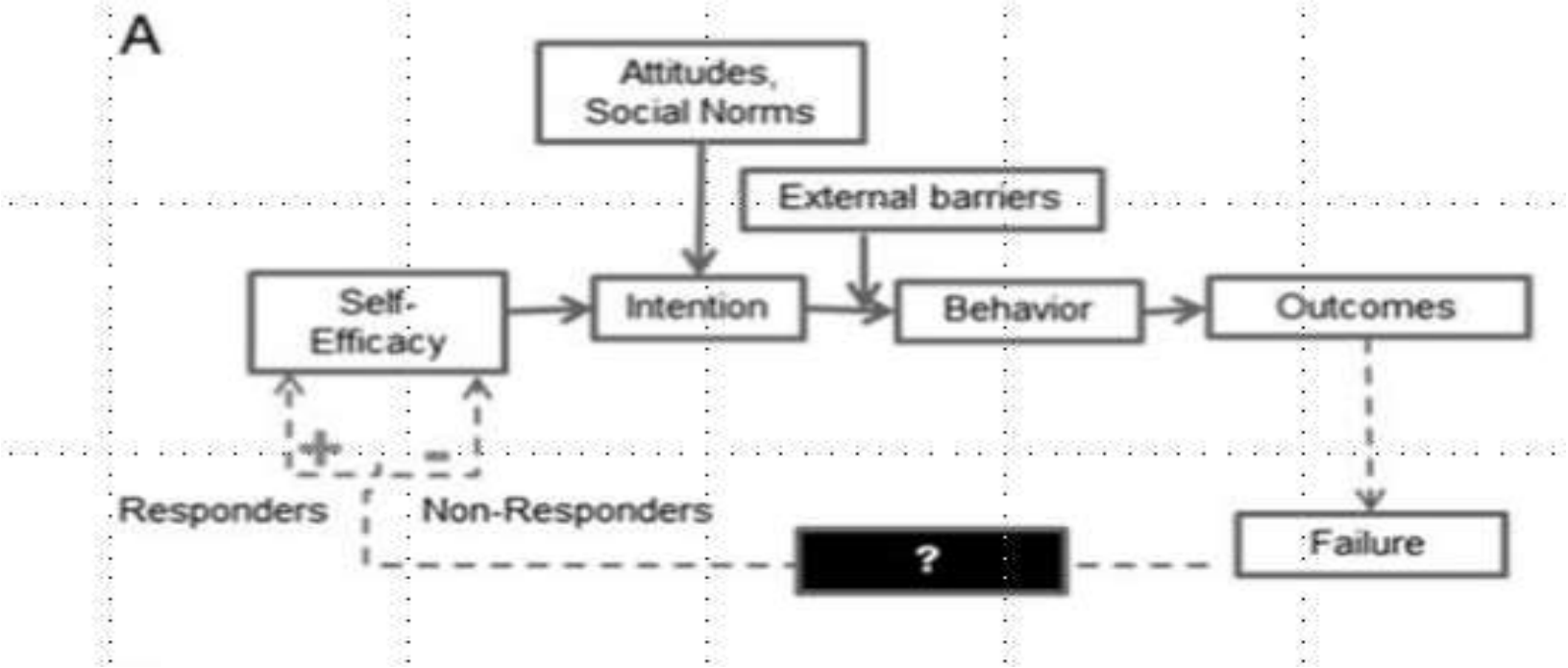
- One city
- Hasn’t been compared to a dose-matched controlled condition

Theory of Reasoned Action guides IMPaCT and helps explain difference between responders and non-responders



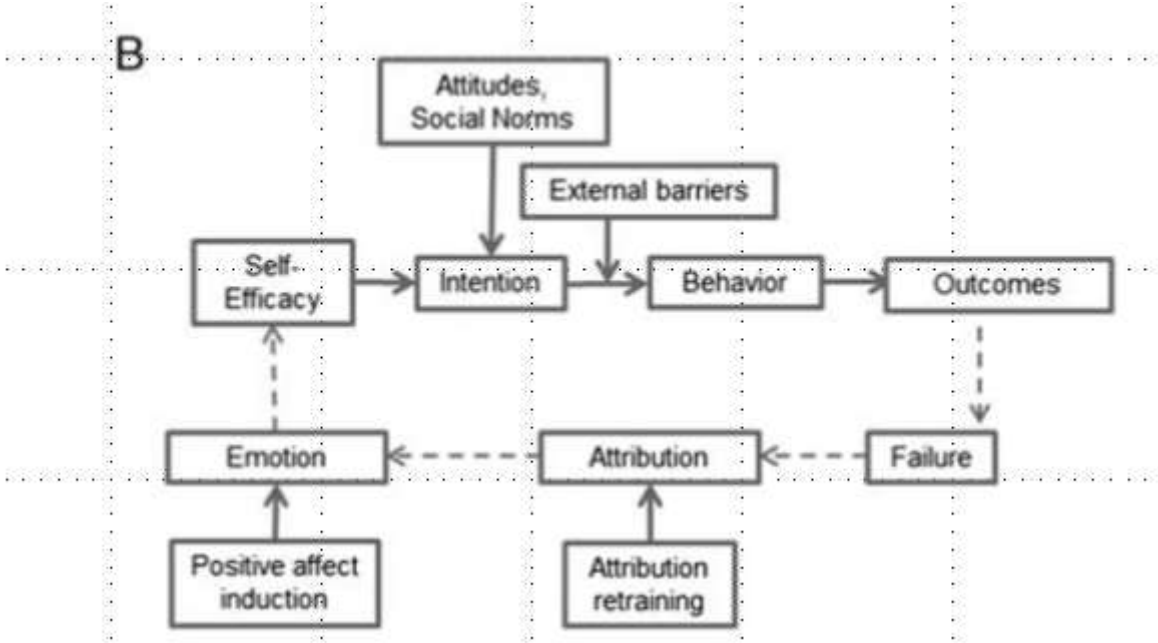
Edlind et al Medical Care 2018

Non-responders



Edlind et al Medical Care 2018

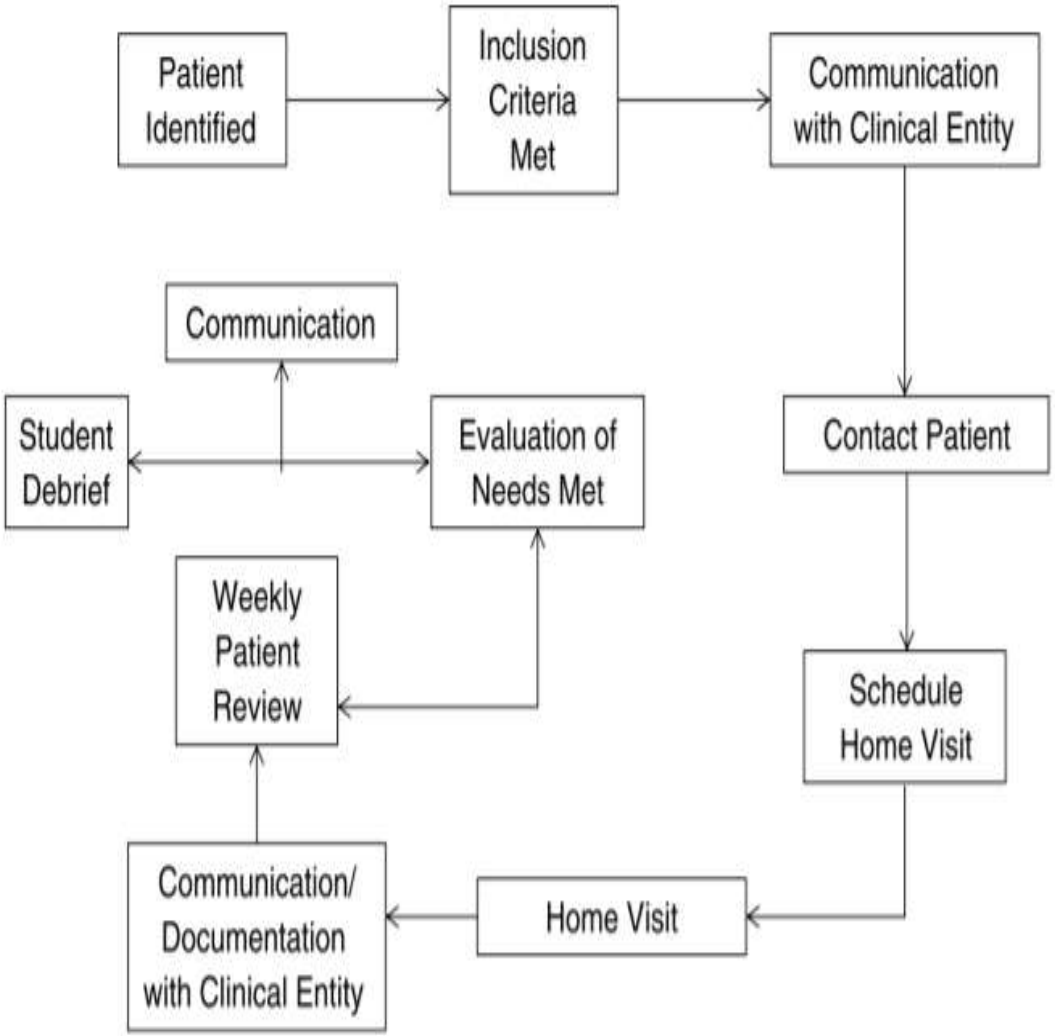
Responders



Edlind et al Medical Care 2018

Pediatric Asthma Academic-Clinical Partnership (PA-ACP)

- Clinical champion identified pediatric asthma patients and referred to nursing faculty with expertise in pediatric asthma
- Pairs of nursing students made home visits and weekly phone calls over 3 semesters



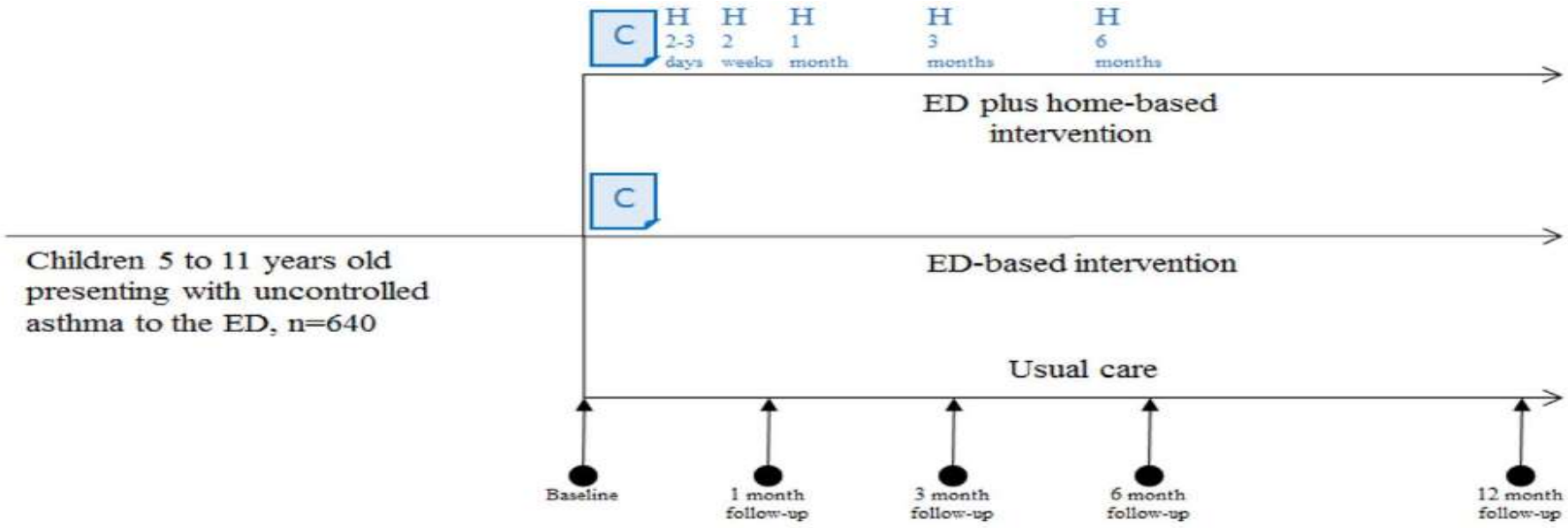
KM Smith, M Lutenbacher, N McClure - Nurse Educator, 2015

PA-ACP limitations

- One site
- Not a randomized trial
- No comparator arm

Coordinated Healthcare Interventions for Childhood Asthma Gaps in Outcomes (CHICAGO) Plan

- 5 home visits conducted by CHWs for children randomly allocated to the ED plus home-based intervention group
- Each visit is estimated to require 60 to 90 min to teach competencies



Krishnan et al Contemporary Clin Trials 2017

CHICAGO Plan Components

1	Introductions and explanation of CHICAGO Plan, role of CHW	10 min
2	Asthma basics: what is asthma, how does it affect the airways	5 min
3	Symptom recognition and understanding of controlled vs. uncontrolled asthma; when to seek care	10 min
4	Education using teach-back about appropriate use of medications, including MDI devices	15 min
5	Identification of major triggers (cigarette smoke, cockroach, mouse) in home, remediation strategies, trigger avoidance strategies	30 min
6	Identification of other triggers (mold, dust mite, pets, pollen, food, strong odors, cold/flu, extremes in weather, exercise, emotions) in home and strategies to avoid them	30 min
7	Review and confirm understanding of the CAPE tool or updated asthma action plan	10 min
8	Education about 504 plan and how to submit paperwork to schools	5 min
9	Develop behavior change plan and assess progress since last visit	10 min
10	Other topics (e.g., allergy testing, referrals, peak flow meter)	5 min
Estimated time to complete each visit		

CHICAGO Plan

- No results
- One city (many Emergency Rooms)
- Hasn’t been compared to a dose-matched controlled condition

Multidisciplinary (MDS) teams in heart failure (HF)

- High strength of evidence
  - MDS reduced all-cause readmission
  - Structured telephone support (STS) reduced HF-specific readmissions
- Moderate strength of evidence
  - STS did not reduce all-cause readmissions
  - Home-visiting programs, MDS-HF clinics, and STS produced a mortality benefit
  - Neither telemonitoring nor nurse-led clinic interventions reduced readmissions or mortality

Transitional Care Interventions To Prevent Readmissions for People With Heart Failure Agency for Healthcare Research and Quality (US); 2014 May. Report No.: 14-EHC021-EF.

Multidisciplinary (MDS) teams in heart failure (HF)

- Components of interventions showing efficacy for reducing all-cause readmissions or mortality include:
  - HF education emphasizing self-care
  - HF pharmacotherapy, emphasizing adherence and evidence-based HF options
  - Streamlined mechanism to contact care delivery personnel (e.g., patient hotline).
- Interventions worked best if of higher intensity, delivered face to face, and provided by MDS teams

Transitional Care Interventions To Prevent Readmissions for People With Heart Failure Agency for Healthcare Research and Quality (US); 2014 May. Report No.: 14-EHC021-EF.

WHAT WE KNOW…

….And what we don't know

Future directions

Table 5 Quality indicators assessed in study outcomes- included studies (n = 12)

First author (year)	Quality indicators assessed in study outcomes					
	Effectiveness	Efficiency	Timeliness	Safety & risk	Equity	Person & family centred care
• *Discharge protocol & advanced practice nurse*						
Naylor (1990) [72]	✓	✓		✓		
Naylor (1994) [68]	✓	✓		✓		
Naylor (1999) [77]	✓	✓		✓		✓
Naylor (2004) [75]	✓	✓		✓		✓
Enguidanos (2012) [74]	✓	✓		✓		✓
• *General practitioner and primary care nurse models*						
Weinberger (1996) [67]	✓	✓		✓		✓
McInnes (1999) [73]	✓	✓		✓	✓	✓
Preen (2005) [66]	✓	✓	✓	✓	✓	✓
• *Self-management and transitional coaching*						
Coleman (2006) [69]	✓	✓		✓		
• *Discharge case management*						
Lim (2003) [76]	✓	✓		✓		
• *Inpatient geriatric evaluation, co-management and transitional care*						
Hansen (1995) [70]	✓	✓		✓	✓	
Legrain (2011) [71]	✓	✓		✓		

Allen et al. BMC Health Services Research 2014

What does the future hold?

- More rigorous research
  - RCTs with dose-matched control conditions
  - To determine which components are essential
  - Of longer duration and in more diverse populations
  - That includes cost analysis
  - That examines timeliness, equity and patient/family engagement as important components of quality of care outcomes
- Dissemination
- More financial support for more diverse populations
- More inter-organizational partnerships