

Sheila A. Haas, PhD, RN, FAAN

Dean and Professor Emeritus

Niehoff School of Nursing

Loyola University Chicago

Nursing Research Consultant

Northwestern Memorial
Hospital

Beth Ann Swan, PhD, CRNP,
FAAN, Professor, Jefferson
College of Nursing, Thomas
Jefferson University

Traci Haynes, Director of
Clinical Services, LVM
Solutions, MSN, RN, CEN,
CCCTM

Enhancing Care Transitions: Managing the Needs of the Complex, Chronically Ill Patient

Objectives:

- Discuss demand for Care Transition Management for complex chronically ill patients
- Describe development of the Care Coordination and Transition Management (CCTM) dimensions and competencies
- Discuss challenges, future directions and outcomes of the RN-CCTM model in managing care transitions for complex chronically ill patients

Commonwealth Fund Mirror Mirror on the Wall Report (2014)

EXHIBIT ES-1. OVERALL RANKING

COUNTRY RANKINGS

Top 2*
Middle
Bottom 2*



	AUS	CAN	FRA	GER	NETH	NZ	NOR	SWE	SWIZ	UK	US
OVERALL RANKING (2013)	4	10	9	5	5	7	7	3	2	1	11
Quality Care	2	9	8	7	5	4	11	10	3	1	5
Effective Care	4	7	9	6	5	2	11	10	8	1	3
Safe Care	3	10	2	6	7	9	11	5	4	1	7
Coordinated Care	4	8	9	10	5	2	7	11	3	1	6
Patient-Centered Care	5	8	10	7	3	6	11	9	2	1	4
Access	8	9	11	2	4	7	6	4	2	1	9
Cost-Related Problem	9	5	10	4	8	6	3	1	7	1	11
Timeliness of Care	6	11	10	4	2	7	8	9	1	3	5
Efficiency	4	10	8	9	7	3	4	2	6	1	11
Equity	5	9	7	4	8	10	6	1	2	2	11
Healthy Lives	4	8	1	7	5	9	6	2	3	10	11
Health Expenditures/Capita, 2011**	\$3,800	\$4,522	\$4,118	\$4,495	\$5,099	\$3,182	\$5,669	\$3,925	\$5,643	\$3,405	\$8,508

Notes: * Includes ties. ** Expenditures shown in \$US PPP (purchasing power parity); Australian \$ data are from 2010.

Source: Calculated by The Commonwealth Fund based on 2011 International Health Policy Survey of Sicker Adults; 2012 International Health Policy Survey of Primary Care Physicians; 2013 International Health Policy Survey; Commonwealth Fund *National Scorecard 2011*; World Health Organization; and Organization for Economic Cooperation and Development, *OECD Health Data, 2013* (Paris: OECD, Nov. 2013).



Failures in the U.S. Health Care System

- **Cost of care**
- **Access to care**
- **Health care quality**
- **Efficiency**
- **Equity**
- **Healthy lives**


(Commonwealth Fund, 2014)

Health Care System Performance Rankings (2017)

	AUS	CAN	FRA	GER	NETH	NZ	NOR	SWE	SWIZ	UK	US
OVERALL RANKING	2	9	10	8	3	4	4	6	6	1	11
Care Process	2	6	9	8	4	3	10	11	7	1	5
Access	4	10	9	2	1	7	5	6	8	3	11
Administrative Efficiency	1	6	11	6	9	2	4	5	8	3	10
Equity	7	9	10	6	2	8	5	3	4	1	11
Health Care Outcomes	1	9	5	8	6	7	3	2	4	10	11

Source: Commonwealth Fund analysis.





Failures in the U.S. Health Care System (2017)

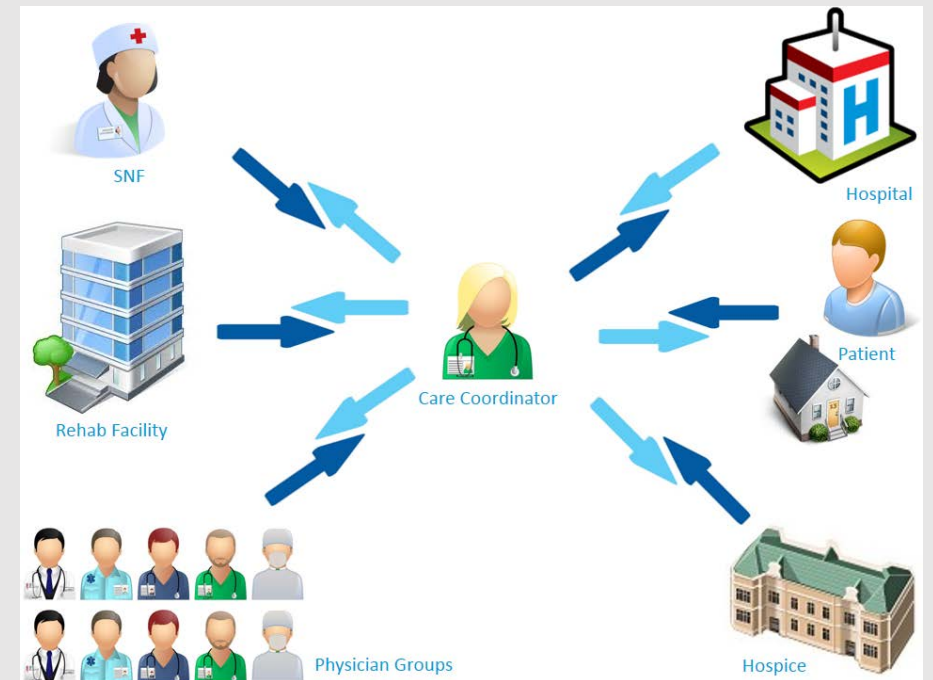
• Rankings

• Cost of Care	16% of GDP
• Care process	5
• Access to care	11
• Health care outcomes	11
• Efficiency	10
• Equity	11

(Commonwealth Fund, 2017)

Background and Significance

- Health care delivery is shifting from inpatient to outpatient and community settings.
- Need for care coordination and management of transitions between types of care, providers and settings is often overlooked, episodic, follows specialty rather than primary care.
- Care coordination and care transitions occurs with no one accountable for coordinating care or managing transitions.



Growing Demand for Care Coordination and Transition Management for High Risk Chronic Care Populations

- Chronic diseases are responsible for 7 of 10 deaths each year, and treating people with chronic diseases accounts for 86% of our nation's health care costs (<https://www.cdc.gov/chronicdisease/> retrieved 1/19/2017)
- 88% of U.S. healthcare dollars are spent on medical care that only accounts for approximately 10% of a person's health
 - Other determinants of health are: lifestyle and behavior choices, genetics, human biology, social determinants, and environmental determinants – accounting for approximately 90% of their health outcomes. Trotter et al., 2016) Retrieved 1/19/2017
[http://www.exerciseismedicine.org/assets/page_documents/Whitepaper%20Final%20for%20Publishing%20\(002\)%20Chronic%20diseases.pdf](http://www.exerciseismedicine.org/assets/page_documents/Whitepaper%20Final%20for%20Publishing%20(002)%20Chronic%20diseases.pdf)
 - Many struggle with multiple illnesses combined with social complexities such as, mental health and substance abuse, extreme medical frailty, and a host of social needs such as social isolation and homelessness (Berwick, Nolan & Whittington, 2008).
- Escalating problem of multiple chronic conditions (MCC) among Americans is a major challenge, associated with suboptimal health outcomes and rising health-care expenses (Parekh et al., 2011)
- Delivery of health services has continued to employ outmoded “siloed” approaches that focus on individual chronic diseases (Parekh et al., 2011)

Definition Chronic Disease

(http://www.health.gov.on.ca/en/pro/programs/cdpm/pdf/framework_full.pdf)

- Chronic diseases are:
 - Long-term diseases
 - Develop slowly over time, often progressing in severity
 - Can often be controlled, but rarely cured
- They include conditions such as cardiovascular diseases (heart disease and stroke), **cancer**, diabetes, arthritis, back problems, asthma, and chronic depression.
- Chronic diseases may significantly impair everyday physical and mental functions and reduce one's ability to perform activities of daily living.

Definition of Complex Chronic Disease (Sevick et al., 2007)

- Complex Chronic Disease (CCD) is a condition involving multiple morbidities that requires the attention of multiple health care providers or facilities and possibly community (home)-based care.
 - A patient with CCD presents to the health care system with unique needs, disabilities, or functional limitations.
 - The literature on how to best support self-management efforts in those with CCD is lacking.
- <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2150604/> Retrieved 1/10/2017

Cancer as a Complex Chronic Disease

- The Institute of Medicine report (2013) recognizes important drivers behind the “crisis” in cancer care relate to:
 - Population ageing
 - Complex care needs of cancer patients go beyond cancer alone
- Aging population and increasing numbers of patients diagnosed with cancer, comorbidity management plays an increasing role in modern health services.
- Need to move beyond single-disease model of studying cancer and embrace complexities of studying and managing people with complex medical conditions
- In the United States, 70 percent of all deaths are due to chronic diseases.
<http://needtoknow.nas.edu/id/threats/chronic-illness-and-cancer/> retrieved 12.29.16

Cancer as a Complex Chronic Disease (Phillips & Currow, 2010)

- Over the past two decades the number of people living with cancer has increased
- Many cancer survivors end up with long term disabilities requiring ongoing care and support
- For many, cancer survival now means living with a chronic and complex condition
- Cancer survivors require ongoing support in four key areas:
 - prevention
 - surveillance
 - intervention for consequences of cancer and its treatment
 - coordination between specialist and generalist providers.
- Cancer survivors experience significant physical and psychological morbidity making minimizing burden of disability and distress a priority.
- Survivors require ongoing care that is well coordinated, focuses on prevention, provides ongoing surveillance; minimizing and managing the long term effects of treatment and other co-morbidities.

Cancer is a Chronic Disease with Comorbidities

- How can we best Care for Patients with Cancer and current and potential comorbidities?
- Suggest: Nurse providers are key:
 - APNs working in Primary Care, having not only APN Pediatric or Adult Certification, also have ONS certification and provide:
 - Evidence-based Primary Care assessment and interventions
 - Provide Preventive assessment, teaching and follow-up
 - Transition management across settings so any new providers have a valid and reliable picture of the patient history and comorbidities
 - Registered Nurses with Care Coordination and Transition Management competencies in ambulatory and acute care:
 - Provide surveillance on comorbidities
 - Standardized transition management communication across providers and settings.

Factors contributing to gaps or errors in care transitions

(Coffey, Truong & Niesen, [in press] Cross Setting Communication and Care Transitions. *In Care Coordination and Transition Management* 2nd ED. (Haas, Swan & Haynes, Eds. Pitman, NJ: Anthony J. Jannetti)

- Incomplete transfer of information:
 - The Joint Commission identified miscommunication as the main cause of serious, unexpected patient injuries and was the second common cause of sentinel events reported during the first six months of 2013 (Ellison, 2015).
 - Potential for medical errors increases when more than one health care provider or site of care is involved in providing services to a patient (Clancy, 2008)
 - Average Medicare patient has seven providers across four care settings involved in their care. Five specialty providers and two primary care providers (IOM, 2013).
 - Four out of five patients are discharged from hospitals without direct communication with primary care provider (PCP) (RWFJ, 2013a, 2013b).

Factors contributing to gaps or errors in care transitions

(Coffey, Truong & Niesen, [in press] Cross Setting Communication and Care Transitions. *In Care Coordination and Transition Management* 2nd ED. (Haas, Swan & Haynes, Eds. Pitman, NJ: Anthony J. Jannetti)

- Effective care **transition communication** is an expectation of quality patient care.
- Adverse events and risk exposures occur due to **ineffective or poor communication** during transitions of care.
 - Poor communication among health care providers and the lack of shared information about patients result in under-treatment, suboptimal therapy, adverse drug events, and hospital admissions or re-admissions (IOM, 2013).
 - Up to 49% of patients experience at least one medical error after discharge, and one in five patients discharged from the hospital suffers an adverse event.
 - Improved communication among providers could prevent up to half or more of these events (Society of Hospital Medicine, 2010).
 - One in five Medicare patients discharged from hospitals are readmitted within 30 days, and 34% within 90 days (Brown, 2018; Robert Wood Johnson Foundation [RWFJ], 2013a, 2013b).

Factors contributing to gaps or errors in care transitions (Coffey,

Truong & Niesen, [in press] Cross Setting Communication and Care Transitions. *In Care Coordination and Transition Management 2nd ED.* (Haas, Swan & Haynes, Eds. Pitman, NJ: Anthony J. Jannetti)

- Communication has been described as a complicated process of transfer and exchange of information reflecting multiple aspects of patient care including:
 - assessment, decision making, goal planning including problem identification and prioritization, and care planning (Allen, Ottmann, & Roberts, 2013).
- Exchange of information occurs informally and formally between members of the healthcare team who say that communication is critical in healthcare (Lancaster, Kolakowsky-Hayner, Kovacich, & Greer-Williams, 2015).
- Communication is a vital component of the post-hospital discharge.
- Kripalani et al. (2007) conducted a systematic review of the literature and found that direct communication between hospital physicians and primary care physicians only occurs 3-20% of the time and written communication in the form of the discharge summary is only available 12-34% of the time.

Our Medical System Rewards Heroic Intervention. When will We Grasp the Power of Incremental Care? (Atul Gawande, 2017)

- “We devote vast resources to surgeons . . . While starving physicians whose steady intimate care helps many more” (Gawande, 2017, p. 37).”
- Primary care MD “It’s no one thing we do. It’s all of it. “ “It’s the relationship.”
- “The doctors, the nurses and the front-desk staff know by name almost every patient who came through the door. Often they had known the patient for years and would know him for years to come” (Gawande, 2017, p. 41).
- “Our ability to use information to understand and reshape the future in multiple ways.
- Four types of information that matter to health and well-being over time are: state of internal systems; state of living conditions and environmental circumstances; state of care received from health care practitioners and state of personal behaviors.
- Instead of annual checkups will use technology (smart phones and wearables) continuously monitor physical status and signs of illness
- Our health care system is not designed for this future

Definition Care Coordination

“Care coordination is the deliberate organization of patient care activities between two or more participants (including the patient) involved in a patient’s care to facilitate the appropriate delivery of health care services. Organizing care involves the marshaling of personnel and other resources needed to carry out all required patient care activities and is often managed by the exchange of information among participants responsible for different aspects of care.”

(McDonald et al., 2007 in AHRQ *Care Coordination Measures Atlas*, 2010, p. 4)



Naylor's Definition of Transitional Care

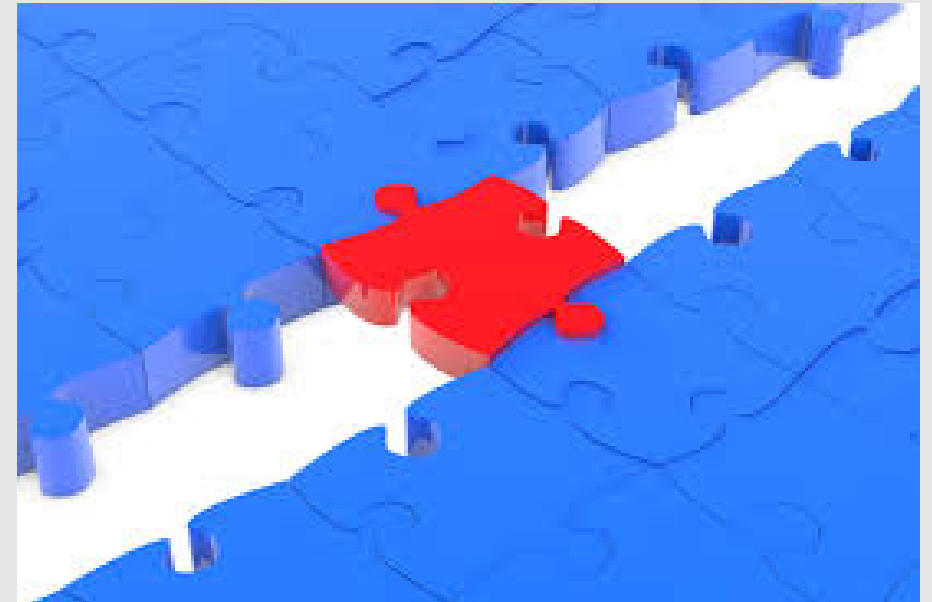
“Transitional care comprises a range of time-limited services that complement primary care and are designed to ensure health care continuity and avoid preventable poor outcomes among at-risk populations as they move from one level of care to another, among multiple providers and across settings.”

(Naylor, 2000)



Transition Management Definition

“the ongoing support of patients and their families over time as they navigate care and relationships among more than one provider and/or more than one health care setting and/or more than one health care service. The need for transition management is not determined by age, time, place, or health care condition, but rather by patients' and/or families' need for support for ongoing, longitudinal individualized plans of care and follow-up plans of care within the context of health care delivery.” (Haas, Swan, & Haynes, 2014, p. 3)



Models to Improve Care Transitions

- **Better Outcomes for Older Adults Through Safe Transitions (BOOST)**
– *Society of Hospital Medicine*
- **Care Transitions Intervention** - *Eric Coleman* - Self management program (4 weeks) provided to patients with complex medical needs and their care givers
- **Transitional Care Model** – *Mary Naylor* - Transitional care by nurses for chronically ill hospitalized older adults
- **Guided Care Model** - *Chad Boulton* - Guided Care Nurse in primary care uses EHR records to guide patient and care givers in 8 processes of care
- **National Transitions of Care Coalition (NTOCC)**
- **Hospital To Home Project (H2H)**

Nursing Case Management and Nurse Navigator Roles

- Case management is a collaborative process that assesses, plans, implements, coordinates, monitors, and evaluates the options and services required to meet the client's health and human service needs. It is characterized by advocacy, communication, and resource management and promotes quality and cost-effective interventions and outcomes. Retrieved 1/23/2017 <https://ccmcertification.org/about-us/about-case-management/definition-and-philosophy-case-management>
 - Focus is individual patient first versus population health management and use of EB Population Guideline
 - Another focal area is utilization review
- **Oncology nurse navigator:** An oncology nurse navigator (ONN) is a professional registered nurse with oncology-specific clinical knowledge who offers individualized assistance to patients, families, and caregivers to help overcome healthcare system barriers. Using the nursing process, an ONN provides education and resources to facilitate informed decision making and timely access to quality health and psychosocial care throughout all phases of the cancer continuum. Retrieved 1/23/2017 https://www.ons.org/sites/default/files/ONNCompetencies_rev.pdf
 - This role is subsumed within care coordination and transition management where focus is on access and standardized communication between providers and settings regarding patient needs and issues

Challenges with Care Coordination and Transition Management in the 90s

Nurses in ambulatory care were performing care coordination, but until Haas et al. 1995 national study, there was no evidence of their work or contribution

- Nurses typically did not chart in ambulatory on paper or EHR
- With advent of EHR, there are few documentation screens for nurse documentation
- There were no indicators to track impact that RNs have on processes or outcomes of patients
- **Nurses and the work of nursing was invisible**

Nurses in acute care may have been doing a form of case management, but not care coordination as delineated in CCTM

- This was more utilization review
- Was not concerned with population health management
- Did not often use best evidence-based practice or evidence based guidelines for specific populations, rather concern was with the individual case

Vision for CCTM RN Model for Registered Nurses

- Consistent with recommendations in the IOM (2010) *Future of Nursing Report – Leading Change Advancing Health*:
 - Nurses should practice to the full extent of their education and training.
 - Nurses should achieve higher levels of education and training through an improved education system that promotes seamless academic progression.
 - Nurses should be full partners, with physicians and other health care professionals, in redesigning health care in the United States.
 - Effective workforce planning and policy making require better data collection and an improved information infrastructure

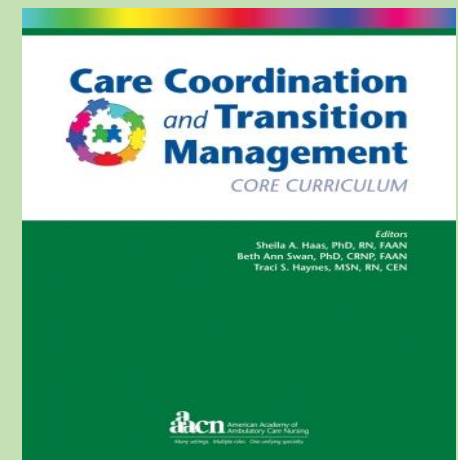


Care Coordination and Transition Management

Sheila Haas, PhD, RN, FAAN

Beth Ann Swan, PhD, CRNP, FAAN

Traci Haynes, MSN, RN, BA, CEN, CCCTM



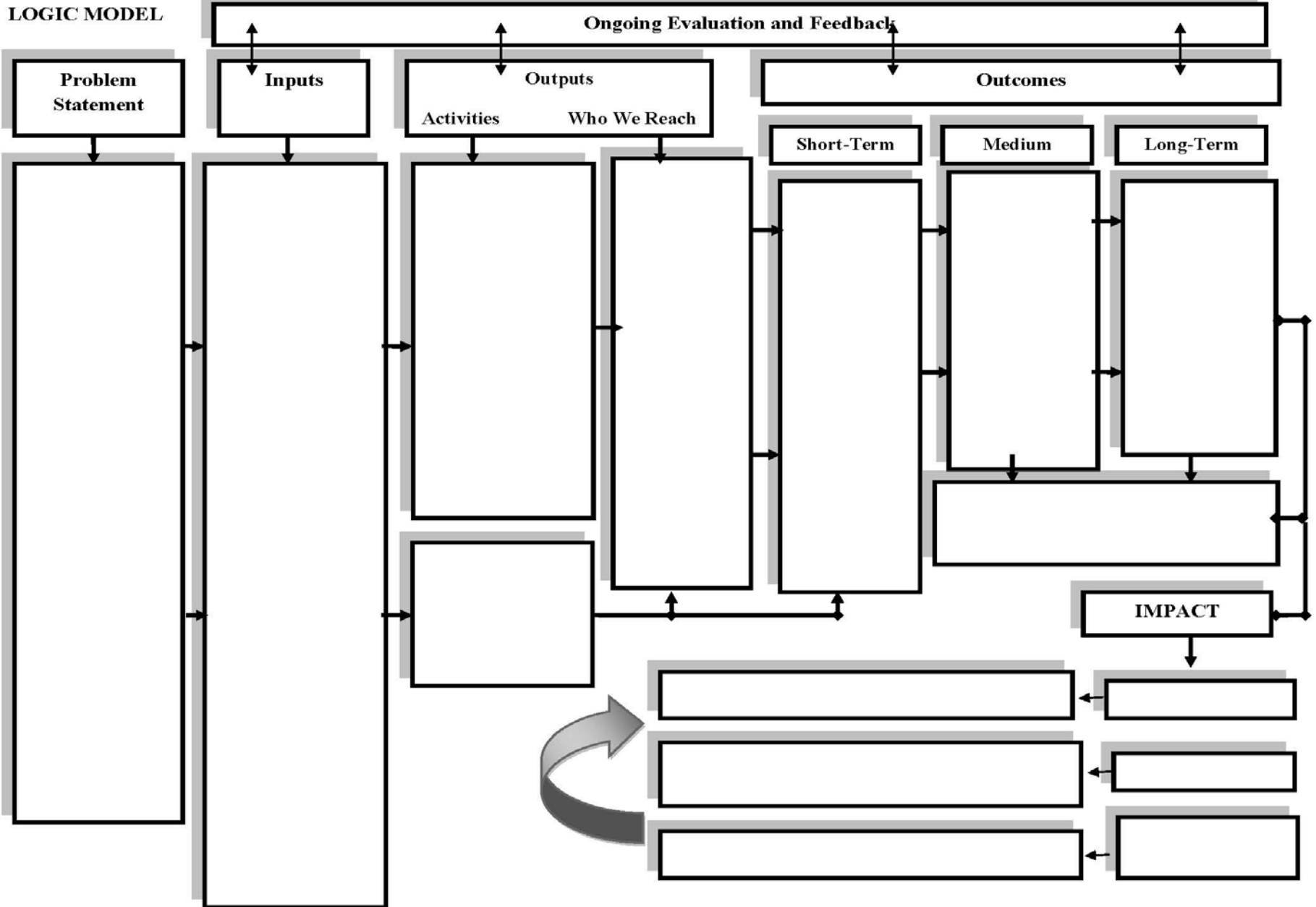
Methods

- Develop evidence-based competencies for Care Coordination and Transition Management done by Registered Nurses
- Tap into expertise of ambulatory and acute care nurse leaders
- Use focus group methods on-line as a cost effective, expeditious approach to bring nurse leaders together
 - Provide opportunities to dialogue and build on each panel expert's knowledge, skills, attitudes and experiences
- Use data summary techniques to capture and share data and outcomes achieved by each panel

Translational Research Methods

- Search and appraise interprofessional evidence for best practices on care coordination and transition management
- Use theory to guide development of dimensions, implementation, adoption, sustainability and dissemination of Care Coordination and Transition Management (CCTM)
- Use Quality and Safety in Education in Nursing (QSEN) format to specify competencies
- Use Logic Modeling to clarify assumptions and relationships between major constructs
- Use project management techniques to keep project on target and on time
- Communicate with major stakeholders at frequent intervals

Logic Models



Use of Logic Model



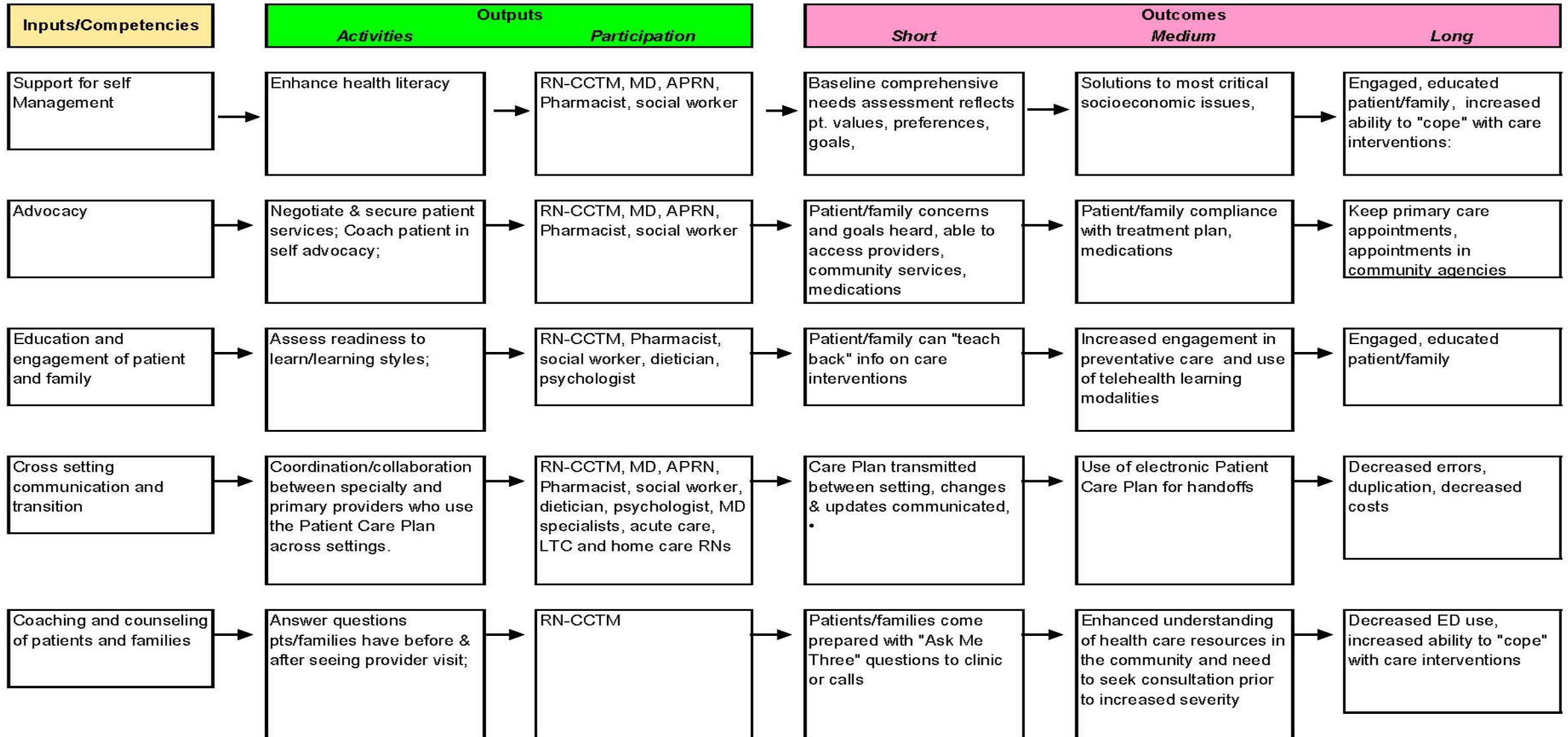
Used in Program Evaluation and Econometric Modeling to:

1. Delineate vision/purpose for a project
2. Surface assumptions, environmental issues and needed knowledge, skills and attitudes
3. Specify relationships among program goals, objectives, activities, outputs, and outcomes.
4. Clearly indicate the theoretical connections among program components; activities involved, who carries out the activities and specification of short, medium and long term outcomes.
5. Set up evaluation by assisting with development of the measures used to determine if activities were carried out (process and output measures) and if the program's objectives are met (outcome measures).

<https://www.bja.gov/evaluation/guide/pe4.htm> retrieved 8/11/2013.

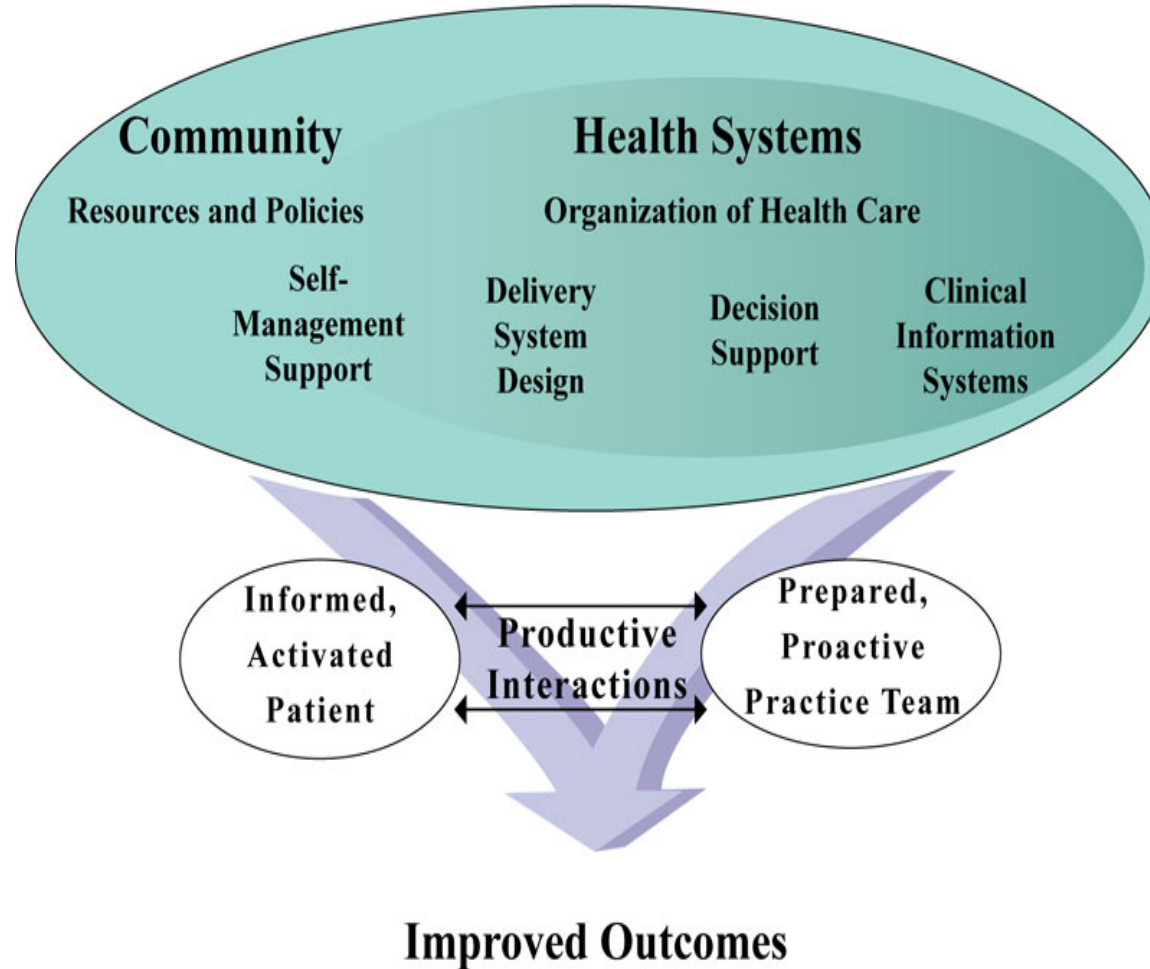
Program: RN-CCTM Model Logic Model © S. Haas & B. A. Swan

Situation: The Registered Nurse - Care Coordination Transition Management Model (RN-CCTM) evolved to standardize work of ambulatory care nurses using evidence from interdisciplinary literature on care coordination and transition management. The vision is the RN-CCTM Model would specify dimensions of CCTM and competencies needed to perform CCTM and make possible development of knowledge, skills and attitudes needed for each competency so the RN-CCTM will meet needs of patients with complex chronic illnesses being cared for in Patient Centered Medical Homes (PCMH) and their preparation and work as an RN-CCTM would be recognized by a certificate credential from the American Nurses Credentialing Center (ANCC) and reimbursed by CMS.



Wagner Model

The Chronic Care Model



Developed by The MacColl Institute
© ACP-ASIM Journals and Books

Reprinted with permission from the American College of Physicians. Wagner EH. [Chronic disease management: What will it take to improve care for chronic illness?](#) *Effective Clinical Practice*. 1998; 1:2-4.

Focus Groups Convened

- Expert Panel 1
- Expert Panel 2
- Expert Panel 3
- Expert Panel 4



Expert Panels

- Represented:
 - Practice and Education;
 - Multiple nursing positions
 - Public, Private, Military, and Veterans Organizations;
 - 15 States in East, West, North, South, and Central United States



AAACN CCTM Experts

Karen Alexander, MSN, RN, CCRN Thomas Jefferson University	Diane Kelly, DrPH, MBA, RN Duke University Cooperatives
Janine Allbritton, RN, BSN Baylor University Medical Center	Lisa Kristosik, RN, MSN VNA of Cleveland
JoAnn Appleyard, PhD, RN University of Wisconsin, Milwaukee	Cheryl Lovlien, MS, RN-BC Mayo Clinic
Jill Arzouman, MS, RN, ACNS, BC, CMSRN, AMSN Treasurer University Medical Center Tucson	Rosemarie Marmion, MSN, RN-BC, NE-BC AAACN
Deborah Aylard, MSN, RN Core Physicians	Nancy May, RN-BC, BSN, MSN Scott White Health
Deanna Blanchard, MSN, RN UW Health University of Wisconsin	Sylvia McKenzie, MSN, RN, CPHQ University of Washington
Elizabeth Bradley, MSN, RN-BC VA Pasco OPC	Kathy Mertens, RN, MN, MPH Harborview Medical Center
Stefanie Coffey, DNP, MBA, FNP-BC, RN-BC The Villages, VA Outpatient Clinic	Shirley Morrison, PhD, RN, OCN Texas Women's University
Sandy Fights, MS, RN, CMSRN, CNE AMSN President	Janet Moye, PhD, RN, NEA-BC George Washington Univ. Center for HC Quality
Jan Fuch, MBS, MSN, NEA-BC Cleveland Clinic	Donna Parker, MA, BSN, RN-BC James H. Quillen VA Medical Center
Patricia Grady, BSN, RN, CRNS, FABC Lahey Clinic Medical Center	Carol Rutenberg, RN-BC, C-TNP, MNSc
Jamie Green, MSN, RN Kaiser Permanente	Deborah Smith, DNP, RN Georgia Health Sciences University
Denise Hannigan, RN-BC, MSN, MHA Cedars-Sinai	Debra Toney, PhD, RN, FAAN Federally Qualified Health Center
Clare Hastings, RN, PhD, FAAN NIH Clinical Center	Barbara Trehearne, PhD, RN Group Health
Anne Jessie, MSN, RN Carillon Clinic	Linda Walton, MSN, RN, CRNP Orlando Health Physician Group
Sheila Johnson, RN, MBA Dartmouth-Hitchcock Accountable Care Programs	Stephanie Witwer, PhD, RN, NEA-BC Mayo Clinic
CDR Catherine McNeal Jones, MBA, HCM, RN BC USN Family Practice Clinic	

First Expert Panel

- Provided with results of a search in MEDLINE, CINAHL Plus, and PsycINFO that yielded 82 journal articles plus white papers available on line from major organizations
- 26-member panel worked in dyads and abstracted data to a table of evidence (TOE)
 - Each dyad reviewed four to five articles and needed to reach consensus on items for TOE
 - Then abstracted the information onto the template table of evidence

Second Expert Panel



- 16-member panel was charged with:
 - Defining the dimensions, identifying core competencies
 - Describing the activities linked with each competency for care coordination and transition management in ambulatory settings
- Using focus group methods online, the expert panel identified nine patient-centered care dimensions and associated activities of care coordination and transition management

Competencies: Knowledge, Skills and Attitudes

- The Quality and Safety in Education in Nursing (QSEN) format was used for each care coordination and transition management dimension identified (Cronenwett et al., 2007)
- Panelists were asked to identify the knowledge, skills, and attitudes identified in the literature, and if absent to use expert opinion to specify each



**American Academy of Ambulatory Care Nursing
Expert Panel on Care Coordination and Transition Management**

DIMENSIONS, ACTIVITIES, COMPETENCIES

<p style="text-align: center;">DIMENSION</p> <p style="text-align: center;">Please use quotes in quotation marks directly from article text with p. #</p>	<p style="text-align: center;">ACTIVITY(IES)</p> <p style="text-align: center;">Please use quotes in quotation marks directly from article text with p. #</p>	<p style="text-align: center;">COMPETENCY(IES):</p> <p style="text-align: center;">KNOWLEDGE (K) SKILL (S) ATTITUDE (A)</p> <p style="text-align: center;">If not available in text, feel free to construct KSAs of your own after reading the article, but cite as yours</p>	<p style="text-align: center;">EVIDENCE (LIST # OF CITATION/REFERENCE)</p>
<p>Patient and Family/Significant Other Education and Engagement</p>	<p>Assessment of Readiness to Learn</p> <p>Development and use of content that is age, education level and culturally appropriate</p> <p>Evaluation of learner understanding of content taught</p>	<p>Knowledge: knows questions to ask and cues to look for regarding physical, psychological and social readiness to learn</p> <p>Skills: Uses techniques that invite/engage patient and significant others in learning</p> <p style="text-align: center;">Uses techniques to assess learning such as “teach back”</p> <p>Attitudes: Demonstrates creativity in planning</p>	

Second Expert Panel Outcomes



- Identified nine dimensions:
 1. Support for self-management
 2. Education and engagement of patient and family
 3. Cross setting communication and transition
 4. Coaching and counseling of patients and families
 5. Nursing process including: assessment, plan, implementation, and evaluation; a proxy for monitoring and intervening
 6. Teamwork and collaboration
 7. Patient-centered care planning
 8. Decision support and information systems
 9. Advocacy
- Identified competencies needed for each dimension including knowledge, skills, and attitudes.

Dimensions, Activities, and Competencies for Care Coordination and Transition Management

Dimension	Activity(ies)	Competency(ies) Knowledge (K) Skills (S) Attitude (A)	Evidence (List Citation/References)
Education & Engagement of Patient and Family	<p>Assessment of readiness to learn</p> <p>Development and use of content that is age, education level, and culturally appropriate</p> <p>Evaluation of learner understanding of content taught</p> <p>Performance of eight clinical processes: "assessing the patient and primary caregiver at home, creating an evidence-based care plan, promoting patient self-management, monitoring the patient's conditions monthly, coaching the patient to practice healthy behaviors, coordinating the patient's transitions between sites and providers of care, educating and supporting the caregiver, and facilitating access to community resources" (Boult, et al., 2008, pp. 321-322).</p>	<p><i>Knowledge:</i> Knows questions to ask and cues to look for regarding physical, psychological, and social readiness to learn.</p> <p><i>Skills:</i> Uses techniques that invite/ engage patient and significant others in learning. Uses technique to assess learning such as "teach back."</p> <p><i>Attitude:</i> Demonstrates creativity in planning appropriate learning experiences for patients and significant others.</p> <p><i>Knowledge:</i> Identifies questions to ask to holistically design an integrated care plan that encompasses a variety of care methods to provide patients with complex care needs with the resources needed to maintain the highest level of function.</p> <p>Has awareness of known risk factors that place a patient at risk for re-hospitalization or exacerbation and utilizes knowledge and critical thinking to identify actions to mitigate risk.</p> <p><i>Skills:</i> Identifies full range of medical, functional, social, and emotional problems that increase patient's risk of adverse health events.</p> <p>Addresses identified needs through education, self-care, optimization of medical treatment, and integration of care fragmented by care setting and provider.</p> <p>Monitors patients for progress and early signs of problems.</p> <p>Utilizes data collection and analysis to design interventions to improve patient outcomes.</p> <p><i>Attitude:</i> Values the services available to patients by delivering services that facilitate beneficial, efficient, safe and high-quality patient experiences and improve patient care outcomes.</p>	<p>Boult, et al. (2008). Early effects of "guided care" on the quality of health care for multimorbid older person: A cluster-randomized controlled trial.</p> <p>Coleman, et al. (2007). Effectiveness of team managed home-based primary care</p>

Third Expert Panel

- Reviewed, confirmed, and created a table of dimensions, activities, and competencies (including knowledge, skills, attitudes) for ambulatory care RN care coordination and transition management
- After much discussion, they determined the original 8th dimension of decision support and information systems, as well as, telehealth practice were technologies that support all dimensions
- Population Health Management became the new 8th dimension given:
 - The prominence it is assuming in outpatient care even though there was little discussion of it in the literature reviewed



Table 3. Cross Walk of Dimensions for Care Coordination and Transition Management with Core Competencies

Dimension RN Care Coordinator and Transition Manager (RN-CCTM)	Quality and Safety Education for Nurses (QSEN) Core Competencies www.qsen.org	Interprofessional Education Collaborative Core Competencies http://www.aacn.nche.edu/education-resources/ipecreport.pdf	Public Health Nursing Competencies http://www.resourcenter.net/images/ACHNE/Files/QuadCouncilCompetenciesForPublicHealthNurses_Summer2011.pdf
Support Self-Management	Patient-centered Care		
Education & Engagement of Patient & Family	Patient-centered Care		
Cross Setting Communication and Transition	Patient-centered Care	Interprofessional Communication	Domain #3: Communication Skills
Coaching and Counseling of Patients and Families	Patient-centered Care		Domain #4: Cultural Competency Skills
Nursing Process: Assessment, Plan, Intervention, Evaluation	Evidence-based Practice Quality Improvement	Roles and Responsibilities	Domain #1: Analytic Assessment Skills
Teamwork and Collaboration	Teamwork and Collaboration	Teams and Teamwork	Domain #8: Leadership and System Thinking Skills
Patient-Centered Planning	Patient-centered Care	Values/Ethics for Interprofessional Practice	Domain #1: Analytic Assessment Skills
Population Health Management	Quality Improvement Informatics		Domain #5: Community Dimensions of Practice Skills Domain #6: Basic Public Health Sciences Skills
Advocacy	Patient-centered Care Safety		Domain #2: Policy Development/Program Planning Skills

Population Health Management: Knowledge, Skills, and Attitudes for Competency

Teamwork and Collaboration

Knowledge	Skills	Attitudes	Sources
<p>Analyze strategies for identifying and managing overlaps in team member roles and accountabilities.</p>	<p>Function competently within own scope of practice as a member of the health care team.</p> <p>Solicit input from other team members to improve individual, as well as team, performance.</p> <p>Assume role of team member or leader based on the situation.</p> <p>Guide the team in managing areas of overlap in team member functioning.</p>	<p>Respect the unique attributes that members bring to a team, including variation in professional orientations, competencies, and accountabilities.</p> <p>Respect the centrality of the patient/family as core members of any health care team.</p>	<p>Cronerwett et al., 2007</p>
<p>“Describe the process of team development and scopes of practice and roles of all health care team members.”</p> <p>“Share accountability with other professions, patients, and communities for outcomes relevant to prevention and health care.”</p> <p>“Apply leadership practices that support collaborative practice and team effectiveness.”</p>	<p>Empower “contributions of others who play a role in helping patients/families achieve health goals.”</p>		<p>Cronerwett et al., 2009</p> <p>Interprofessional Education Collaborative (IPEC), 2011, p. 25</p>
		<p>Value the contributions of all members of the care team in population care planning and health care management.</p>	<p>Jessie et al., 2014</p>

Challenges with Use of CCTM with Complex Chronically Ill Patients

- Developing and using position descriptions that incorporate CCTM Competencies
 - Developing education and evaluation methods that foster CCTM Competencies involving QSEN KSAs within and across professions
- Developing staffing models to support/resource the interprofessional team
- Building human resources/team configuration to support CCTM
- Creating an environment (physical and cultural) to support CCTM
- Choosing and using a tool to stratify Complex Chronically Ill patients that incorporates social determinants
- Developing/standardizing communication methods for communication across settings and between interprofessional team members
- Developing, testing and using process and outcome indicators to track the impact and value of RN-CCTM



What are social determinants of health?

- Social determinants of health are the conditions in which people are born, grow, live, work and age.
- Patterns of **social engagement** and **sense of security and well-being** are also affected by where people live
http://www.who.int/social_determinants/sdh_definition/en
- Social determinants of health are mostly responsible for health inequities - the unfair and avoidable differences in health status seen within and between countries.
- Resources that enhance quality of life can have a significant influence on population health outcomes.
 - Examples of these resources include:
 - safe and affordable housing,
 - access to education, public safety,
 - availability of healthy foods,
 - local emergency/health services,
 - environments free of life-threatening toxins
<http://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-health>

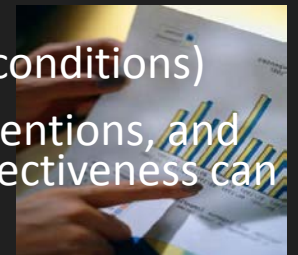


Advantages of Use of Dimensions of CCTM

- Dimensions provide evidence-based assessments, interventions and expected outcomes
- Population Health Management focuses attention on need to address best evidence-based practice for defined populations, prior to individualizing care
- Suggest use of standardized communication tools to enhance transition management between providers and settings
- Suggest use of extant evidence-based algorithm for assessment, planning interventions for complex chronic illnesses
- Structures a layout for EHR documentation screens that provide data for:
 - Decision support tool development
 - Evidence of contribution to comes by distinct members of the interprofessional team
 - Provide data to assist with staffing models
 - Provide evidence of nurse contribution to outcomes of care

What does RN-CCTM Practice Involve?

- Teamwork and Collaboration (huddles and interprofessional report/care planning)
- Establishing an ongoing relationship – Education and Engagement
- Population Health Management (use of evidence-based population guidelines)
- Patient-centered Care Planning (EB guideline interventions modified as needed based on patient values, preferences and goals)
- Assessment (may involve home visits at least initially) and Surveillance (use of smart phones, skype, patient portals, community resources for BP Monitoring etc.)
 - Acute care nurse use of BOOST[®] 8Ps assessment, interventions and evaluation to stratify and prepare for discharge
 - Primary care nurse use BOOST[®] 8Ps assessment, interventions and evaluation to stratify and determine level of surveillance
- Coaching and Counseling
- Support for Self Management
- Cross Setting Communication and Transition Management (sharing of[®] BOOST[®] standardized communication tools with patient movement between settings and providers)
- Advocacy (for insurance coverage, medications, equipment, living conditions)
- Nursing Process (documentation in EHR where assessments, interventions, and outcomes are coded in standardized language (SNOMED-CT) so effectiveness can be evaluated)



Prerequisites to successful care transitions with complex chronically ill:

- **Focus** on Patient Goals for life post transition
- **Staffing** for successful transitions:
 - **CCTM RNs** to advocate for patients, educate and engage patients, coach and counsel, support self management, do cross setting communication and act as a “go to” resource for issues, concerns versus going to ED
 - **Pharmacists** to do medication history, medication reconciliation, identify polypharmacy and identify potential adverse effects and educate patients regarding high risk meds
 - **Social Workers** to arrange transfer to appropriate environments, recommend use of community resources, interface with insurance funding for drugs, equipment
 - **Dieticians** to plan and teach appropriate diet programs
 - **Psychologists** to work with patients with depression

Prerequisites to successful care transitions with complex chronically ill

(Toth-West, Newman & Gertz [in press] Person Centered Care Planning in *Care Coordination and Transition Management* 2nd ED. (Haas, Swan & Haynes, Eds. Pitman, NJ: Anthony J. Jannetti)

- Considerations for patients with dementia:
- Components of a good transitions of care for a person with dementia should involve three components:
 - Attempts to support adaptation to a new environment or maintaining the current environment
 - caregiver involvement and support in the person-centered care plan
 - Support for managing challenging behaviors (Ray, Ingram, & Cohen-Mansfield, 2015)
- Comprehensive assessment of the patient (including the Mini-Cog exam, PHQ-2 or 9 questions and the Caregiver Strain index).
- Evaluate and understand baseline status of patient
- Home safety assessment; address any gaps in plan of care
- Assess needs of caregiver. Caring for those with dementia can have both an emotional and physical toll. Assist planning for respite care as needed.
- Recommend community resources available for both the patient and caregiver
- Educate and coach caregiver to ensure patient medication adherence

References

- Allen, J. Ottmann, G., & Roberts, G. (2013). Multi-professional communication for older people in transitional care: A review of the literature. *International Journal of Older People Nursing*, 8(4), 253-269.
- Albert, N. M., (2016). A systematic review of transitional-care strategies to reduce rehospitalization in patients with heart failure. *Heart and Lung* 45(1), 100-113.
- Arnold, E. C., & Underman Boggs, K. (2016). Interpersonal relationships: Professional communication skills for nurses. St. Louis, MO: *Elsevier*.
- Brown, M. M. (2018). Transitions of Care. In T. P. Dalleman & M. R. Helton (Eds.), *Chronic Illness Care* (369-373). Chapel Hill, NC: *Springer International Publishing*.
- Berwick, D. M., Nolan, T. W. & Whittington, J. (2008). The Triple Aim: Care, health, and cost. *Health Affairs*, 27(3), 759-769.
- Case Management retrieved 1/23/17 <https://ccmcertification.org/about-us/about-case-management/definition-and-philosophy-case-management>
- Chronic Disease retrieved 1/19/17 <https://www.cdc.gov/chronicdisease/> re
- Clancy, C.M. (2008). Improving the safety and quality of care transitions. *AORN Journal*, 88(1), 111-113.

References

Cronenwett, L., Sherwood, G., Barnsteiner J., Disch, J., Johnson, J., Mitchell, P., Taylor Sullivan, D., & Warren, J. (2007). Quality and safety education for nurses. *Nursing Outlook*, 55(3)122-131

Davis, Stremikis, Schoen, & Squires, (2014). *Mirror, Mirror on the Wall, 2014 Update: How the U.S. Health Care System Compares Internationally*, The Commonwealth Fund, June 2014.

Edelbauer, A., Vlasses, F., & Rogers, J. (2013). *The Value Proposition in Nursing*. Presentation at the International Nursing Administration Research Conference, Baltimore, MD.

Ellison, D. (2015). Communication skills. *Nursing Clinics of North America*, 50(1), 45-57.
doi:10.1016/j.cnur.2014.10.004

Freeman H. (2006). Patient navigation: A community-based strategy to reduce cancer disparities. *Journal of Urban Health*, 83(2), 139-141.

Gawande, A. (January, 27, 2017). Tell me where it hurts: The power of incrementalism. *The New Yorker*. pp.36-45.

Haas, S., Swan, B.A., & Haynes, T. (Eds.) (2014). *Care Coordination and Transition Management Core Curriculum*. Pitman, NJ: Anthony J. Jannetti.

References

Haas, S. & Swan, B.A. (2014). Developing the Value Proposition for Registered Nurse Care Coordination and Transition Management Role in Ambulatory Care Settings. *Nursing Economics*, 32(2), 70-79.

Haas, S. & Swan, B.A. (2014). Emerging care coordination models for achieving quality and safety outcomes for patients and families. In Lamb, G. (Ed.), *Care Coordination the Game Changer*. Washington, DC: American Nurses' Association.

Haas, S., Swan, B. A. & Haynes, T. (2013). Developing ambulatory care registered nurse competencies for care coordination and transition management. *Nursing Economics*, 30(1), 44-49, 43.

Haas, S., Hackbarth, D., Kavanagh, J., & Vlases, F. (1995). Dimensions of the staff nurse role in ambulatory care: Part II – Comparison of role dimension in four ambulatory settings. *Nursing Economics*, 13(3), 152-164.

Institute of Medicine: Levit, Balogh, Nass, et al., editors. (2013). *Delivering High-Quality Cancer Care: Charting a New Course for a System in Crisis*. Washington, DC: National Academy Press.

Institute of Medicine (2010) *Future of Nursing : Leading Change, Advancing Health*. Washington, DC: National Academy Press, 2010.

Institute of Medicine. (2001) *Crossing the Quality chasm: a New Health System for the 21st Century*. Washington, DC: National Academy Press, 2001.

McDonald et al., 2007 in AHRQ Care Coordination Measures Atlas, 2010, p. 4. <https://innovations.ahrq.gov/qualitytools/care-coordination-measures-atlas>

References

Haas, S. & Swan, B.A. (2014). Developing the Value Proposition for Registered Nurse Care Coordination and Transition Management Role in Ambulatory Care Settings. *Nursing Economic\$, 32(2)*, 70-79.

Haas, S. & Swan, B.A. (2014). Emerging care coordination models for achieving quality and safety outcomes for patients and families. In Lamb, G. (Ed.), *Care Coordination the Game Changer*. Washington, DC: American Nurses Association.

Haas, S., Swan, B. A. & Haynes, T. (2013). Developing ambulatory care registered nurse competencies for care coordination and transition management. *Nursing Economic\$, 30(1)*, 44-49, 43.

Haas, S., Hackbarth, D., Kavanagh, J., & Vlasses, F. (1995). Dimensions of the staff nurse role in ambulatory care: Part II – Comparison of role dimension in four ambulatory settings. *Nursing Economics, 13(3)*, 152-164.

Institute of Medicine: Levit, Balogh, Nass, et al., editors. (2013). *Delivering High-Quality Cancer Care: Charting a New Course for a System in Crisis*. Washington, DC: National Academy Press.

Institute of Medicine (2010) *Future of Nursing : Leading Change, Advancing Health*. Washington, DC: National Academy Press, 2010.

Institute of Medicine. (2001) *Crossing the Quality chasm: a New Health System for the 21st Century*. Washington, DC: National Academy Press, 2001.

McDonald et al., 2007 in AHRQ Care Coordination Measures Atlas, 2010, p. 4.
<https://innovations.ahrq.gov/qualitytools/care-coordination-measures-atlas>

References:

Kripalani, S., LeFevre, F., Phillips, C.O., Williams, M.V., Basaviah, P., & Baker, D.W. (2007). Deficits in communication and information transfer between hospital-based and primary care physicians: Implications for patient safety and continuity of care. *Journal of the American Medical Association*, 297, 831-841.

Lancaster, G., Klakowsky-Hayner, S., Kovacich, J., & Greer-Williams, N. (2015). Interdisciplinary communication and collaboration among physicians, nurses, and unlicensed assistive personnel. *Journal of Nursing Scholarship*, 47(3), 275-284. doi:10.1111/jnu.12130

McDonald et al., 2007 in AHRQ Care Coordination Measures Atlas, 2010, p. 4.
<https://innovations.ahrq.gov/qualitytools/care-coordination-measures-atlas>

Naylor, M. & Sochalski, J. (2010). Commonwealth Fund Issue Brief - Scaling Up: Bringing the Transitional Care Model into the Mainstream. Retrieved 3/19/15
<http://www.commonwealthfund.org/Publications/Issue-Briefs/2010/Nov/Scaling-Up-Transitional-Care.aspx>

Parekh, A., Goodman, R., Gordon, C., Koh, H. & The HHS Interagency Workgroup on Multiple Chronic Conditions (2011). Managing Multiple Chronic Conditions: A Strategic Framework for Improving Health Outcomes and Quality of Life. *Public Health Rep.* 126(4): 460–471.

Oncology Nurse Navigator Retrieved 1/23/2017
https://www.ons.org/sites/default/files/ONNCompetencies_rev.pdf

Phillips, J. & Currow, D. (2010). Cancer as a chronic disease. *Collegian*, 17(2): 47-50

Porter, M. J. (2010). What is value in health care? *New England Journal of Medicine*, 363, 2477-2481.

References

Robert Wood Johnson Foundation. (2013a). Reducing avoidable readmissions through better care transitions. Retrieved from <http://www.rwjf.org/content/dam/farm/toolkits/toolkits/2013/rwjf404051>

Robert Wood Johnson Foundation. (2013b). The revolving door: A report on U.S. hospital readmissions. Princeton, NJ: Author

Sevick, M., Trauth, J., Ling, B., Anderson, R., Piatt, G., Kilbourne, A. et al. (2007). Patients with complex chronic diseases: perspectives on supporting self-management. J.Gen Inter Med. Dec. 22 (Suppl3): 438-444.

Society of Hospital Medicine (2017) BOOST Retrieved 1/11/2017
http://www.hospitalmedicine.org/Web/Quality___Innovation/Mentored_Implementation/Project_BOOST/About_BOOST.aspx

Trotter et al.,2016) Retrieved 1/19/2017
[http://www.exerciseismedicine.org/assets/page_documents/Whitepaper%20Final%20for%20Publishing%20\(002\)%20Chronic%20diseases.pdf](http://www.exerciseismedicine.org/assets/page_documents/Whitepaper%20Final%20for%20Publishing%20(002)%20Chronic%20diseases.pdf)

Wagner EH. (1998) Chronic disease management: What will it take to improve care for chronic illness? Effective Clinical Practice. 1:2-4