

**Interventions and measurement tools related to
improving the patient experience through transitions
in care: A summary of key literature**

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For The Change Foundation
October 2011**

INTRODUCTION

Healthcare is a complex system involving a multitude of settings, care providers, technology, and information. At times of transitions between settings and providers, patients may be particularly vulnerable to experiencing fragmentation in care, poor quality of care, and adverse medical events (Coleman, 2003). While the literature raises issues that result from poor transitions, these points along the patient healthcare journey remain difficult to resolve. This is particularly evident for those patients with multiple chronic conditions, many of whom are elderly, which adds to the complexity of their health needs. As noted in The Change Foundation's Storyboard (2011), seniors with chronic health conditions and their informal caregivers have multiple and frequent interactions with our healthcare system, and arguably they have the most to benefit from a well-integrated, coordinated healthcare system. The Change Foundation's strategic goal for 2010-2013 is to improve the experience of individuals and caregivers as they move in, out of, and across the healthcare system over time and as their health changes. The Change Foundation will focus on experiences of individuals and their caregivers as they navigate the healthcare system (The Change Foundation, 2010).

FOCUS OF THE LITERATURE REVIEW

To support the strategic directions of The Change Foundation, a literature review was conducted which had two main foci:

- To examine interventions and strategies that have been used to improve the patient experience through care transitions.
- To identify evaluation strategies and tools that measure the patient experience through transitions in care.

This literature review aims to provide a general overview of the types of interventions that have been used for care transitions and how they have been measured, particularly in relation to the patient experience. As such, this review may provide guidance to those organizations/communities interested in The Change Foundation's PATH initiative.

METHODOLOGY

Transitions in care, and issues of continuity in care and care coordination, have been longstanding issues within healthcare that remain a priority in today's health systems. As a result, the breadth and scope of the literature is vast. This literature review is not an exhaustive systematic review of the literature, but rather a means to provide the 'lay of the land' of the broad landscape related to care transitions. Methodology used to conduct this literature review used conventional methods including:

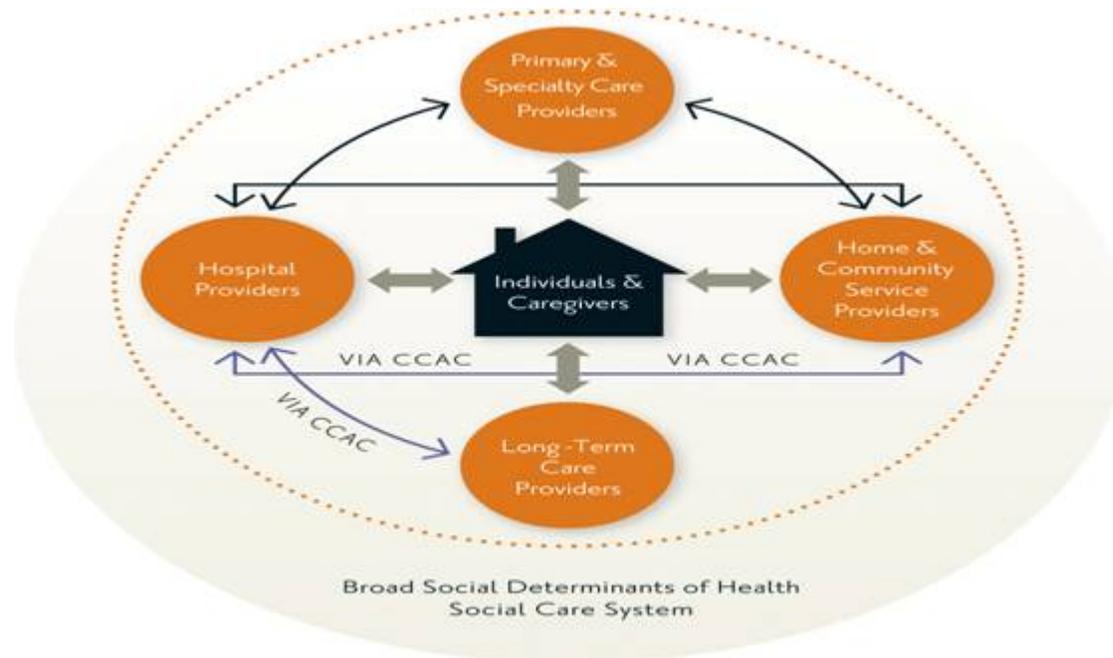
- Search of electronic databases, including Medline, CIHAHL, Embase, and Summon (a search engine which taps into a myriad of electronic databases such as Ageline, Abstracts in Social Gerontology)
- Hand searches of key articles for references and 'related links'
- Google Scholar and Google (for grey literature)

Search terms included: transitions in care, care coordination, continuity of care. These terms were crossed with patient experience, patient satisfaction, patient engagement. Rigid inclusion/exclusion criteria were not applied, but articles that focused on the elderly and chronic

conditions were of prime interest. The search was limited to those articles written in English in the past 10 years (2001-2011).

DEFINITIONS

For the purposes of this literature review, transitions in care or transitional care has been defined as “a set of actions designed to ensure the coordination and continuity of health care as patients transfer between different locations or different levels of care within the same location (American Geriatrics Society, 2003). As noted in The Change Foundation Storyboard (2010) and Strategic Plan, transitions occur as patients move in, out of, and across Ontario’s healthcare system over time and as their health changes.



As depicted above, interactions occur across these settings, and within each of these settings; these interactions may occur with a number of providers and other individuals associated with care. The complexity of the system and number of patient-provider interactions create many points of transitions through the healthcare journey.

CONCEPTUAL FRAMEWORK

To help organize the various types of interventions that were found in the literature, a conceptual framework proposed by Haggerty and colleagues (2003) was used to provide some structure to the findings. Haggerty et al. (2003) were commissioned by three Canadian health services policy and research bodies to synthesize the literature in order to develop a common understanding of the concept of continuity as a basis for valid and reliable measurement of practice in different settings. Their findings suggest that continuity transcends disciplinary and organizational boundaries. Hence, the three types of continuity that they propose cross all disciplines and settings:

- **Informational continuity:** the use of information on past events and personal circumstances to make current care appropriate for each individual.

- **Management continuity:** a consistent and coherent approach to the management of a health condition that is responsive to a patient’s changing needs.
- **Relational continuity:** an ongoing therapeutic relationship between a patient and one or more providers.

Overlap exists between the types of continuity and a single intervention may influence more than one type of continuity. For the purposes of this report, interventions have been classified under one type of continuity based on its main focus with a caveat that it may extend into other types of continuity.

KEY FINDINGS

A. INTERVENTIONS TO IMPROVE TRANSITIONS IN CARE

A broad range of interventions aimed at improving care transitions were found in the literature (see Table 1). Each of these interventions will be described below in brief.

Table 1. Interventions to improve transitions in care

Informational continuity	Management continuity	Relational continuity
<ul style="list-style-type: none"> • Structural levers: <ul style="list-style-type: none"> ➤ Information technology ➤ Financial incentives • Process-oriented interventions: <ul style="list-style-type: none"> ➤ Checklists/forms ➤ Handoff communication strategies ➤ Medication reconciliation 	<ul style="list-style-type: none"> • Information technology • Case management • Transitional coaches • Specialist outreach clinics • Innovative models of care: <ul style="list-style-type: none"> ➤ Virtual ward ➤ Patient-centred medical home ➤ Hospital-at-home • Extended care pathways • Self-management 	<ul style="list-style-type: none"> • Case manager • Transitional coaches • Continuity of primary care practitioner

1.0 Informational continuity

Information is a common thread that links one provider to another and one healthcare event to another. Information needs to contain not only medical information, but also knowledge of the patient’s values, preferences, and context. This type of information helps to bridge care events and to ensure that care is responsive to patient needs (Haggerty et al., 2003). Both structures and processes for information exchange have been discussed in the literature.

1.1 Structural levers:

Two key structural levers take the form of information technology and financial incentives. Interventions that centre around these structural levers have shown some success primarily in integrated health systems in the United States where there may exist some internal control over these structures. These structural levers are key elements to consider in conjunction with other interventions raised in this review.

1.1.1 Information technology:

- Electronic medical record: Much has been written about the electronic medical record (EMR), its benefits, and barriers to its implementation (Bates & Bitton, 2010; Institute of Medicine, 2001; Wang et al., 2003). EMR will solve many of the information problems inherent in transitional care, but it offers only a partial answer. Transitional care is more complex than the simple exchange of information. While it is important for clinicians to have ready access to a patient's medical record, they also must take the initiative to read the information and act accordingly (Coleman, 2003).
- Patient access to information: Strategies to empower patients in their care by having them be the 'keeper' of information or with timely access to their own health information has shown to improve communication amongst the healthcare team, including the patient, adherence to self-management, and patient satisfaction (Coleman, 2003). For example, 'Smart cards' are credit-card sized cards that contain patient medical information that a patient can bring with them to each provider to share pertinent health information (University of Pittsburgh Medical Centre, 2002). 'Patient portals' are becoming increasingly common, particularly in conjunction with self-management programs, which allows patients to access test results and other health information in a timely manner, and to adjust their care accordingly (Bodenheimer, 2008).

1.1.2 Financial incentives: Funding reforms would be needed to provide rewards to those health professionals who manage patients better with respect to quality, safety, efficiency and patient experience and to provide incentives for providers to do so. Current fee-for-service models lack financial incentives to address transitional care and there is little professional accountability for poorly executed transitions. Fee-for-service does not reward the prevention of hospitalization or re-hospitalization, effective control of chronic conditions, or care coordination (Barr, 2010; Davis, 2007; Medicare Payment Advisory Commission, 2006). New funding models look to institute payment for care coordination, paid over and above the existing fee schedule and adjusted to the complexity of the patient's conditions requiring substantial care coordination. Such a payment would create an incentive for primary care practices to improve between visit coordination of care for their patients (American College of Physicians, 2006; Davis, 2007). Pay for performance models have also been suggested to help improve the quality and efficiency of care (Casalino et al., 2007).

1.2 Process-oriented interventions:

Examples of process-oriented interventions include the implementation of standardized forms and checklists (e.g. discharge summary forms, transfer checklists), handoff communication strategies (SBAR, crew resource management), and medication reconciliation (paper and electronic). These types of interventions are most often seen at admission and/or discharge. For example, hospitals have implemented 'discharge bundles' which include medication reconciliation, discharge education for patient and family members, and post-discharge continuity check by a clinician (Agency for Healthcare Research and Quality, 2005). This 'bundle' has been shown to improve the transition period following discharge and helps to provide timely information flow to and from primary care. Care planning tools have also been implemented. These tools may include a current problem list, medications, allergies, baseline

physical and cognitive function, advance directives, and contact for the primary care team and caregivers. Such a tool allows the sending and receiving clinicians to have reliable information about the care the patient has already received and to anticipate next steps (Coleman, 2003). The Consumer Assessment Referral and Enrolment tool (CARE) is an internet-based care management program that enables providers and agencies to exchange information and coordinate care management (Senior Care Manager, 2001). CARE can be accessed on-line, provides a single point of entry for all services, and has become the standard assessment for patients in the programs. The tool can automate referrals to other relevant services within the network and allow programs serving the same individual to share assessments, care plans, and progress notes (Senior Care Manager, 2001).

Medication reconciliation has received much attention, particularly in patient safety circles as it has been shown to reduce error, adverse drug events, and save costs and suffering caused by such events, particularly when a pharmacist is involved as part of the team (Varkey et al., 2007; Wortman, 2008). Specially designed computer-based systems are more effective than EMR add-ons (Ovretveit, 2011).

2.0 Management continuity

Management continuity is particularly relevant for the management of chronic or complex clinical diseases who require multiple care providers. When care is long term, the ability to provide consistent, predictable care provides the confidence and security for both patient and providers (Haggerty et al., 2003). At the same time, care needs to be flexible enough to respond to changing patient health status and need. The bulk of interventions can be seen within this domain of management continuity, although many interventions also enhance other types of continuity.

2.1 Information technology

2.1.1 Telemedicine, telecare interventions

Telemedicine and telecare strategies have evolved over the years. Telemedicine strategies include those such as remote consultation, patient monitoring, and proactive patient reminders, which may improve patient access to care, care coordination, and adherence to care strategies (Ovretveit, 2011). Telecare has typically involved follow-up reminders and patient monitoring to improve adherence to the care plan and self-management, particularly related to chronic diseases such as hypertension (Bosworth, 2005) and diabetes (Kim & Oh, 2003). Studies have also been done examining the impact of follow-up telephone calls to patients after hospitalization, led by the pharmacist involved in discharge planning. Follow up calls by a pharmacist was associated with increased patient satisfaction, resolution of medication-related problems, and fewer return visits to the emergency department (Dudas et al, 2001).

2.1.2 Referral agreements and e-referrals

A promising practice to improve access to specialists and information exchange that has been seen in both dispersed and integrated health systems are referral agreements between primary care physicians and specialty practices. These agreements specify the responsibilities of both parties by outlining the types of conditions best managed by primary care and those that should be referred, and specifying the types of tests that should

be performed prior to the referral. Importantly, they obligate the specialist to see the patient promptly and respond to those concerns identified by the primary care physician, and report back to the referring physician in a timely manner (Murray, 2002). For example, in the Veterans Health Administration, referral agreements are facilitated by the system-wide electronic medical record and are assisted by diagnosis-specific templates that facilitate the exchange of information between the primary care physician and specialist (Bodenheimer, 2008).

Similarly, e-referrals aim to improve access to specialty consultations by providing primary care physicians with direct access to specialists who have agreed to consult through electronic exchanges, appropriate for those types of consultations that can be done without seeing the patient directly. Primary care physicians can email data regarding the patient's medical history, physical examination, laboratory tests, and radiographic results to specialists, asking specific questions about the patient. If those questions can be answered without the need to see the patient, the specialist will email back the response. However, such a system would require adequate technological support (e.g. EMR) as well as referral agreements to facilitate the use of e-referrals. Early evidence points to decreases in wait times for specialty consultation, improved care coordination, and better and more timely information flow between primary care physicians and specialists (Kilo, 2005).

2.2 Case management

Case management is not a new concept, but has evolved with new titles such as care management, and care transition manager. Targeted case management approaches are a means of superimposing coordination over existing structures. It can improve value if those patients who can benefit most are targeted to reduce preventable hospitalizations. In particular, case managers play a key role in reducing the risk for medical errors through care transitions when patients may be most vulnerable. They may be involved in transitions and handoffs, medication reconciliation, patient and caregiver education, self-management, assist with accessing services through the care plan, and provide consistent communication among providers (Tahan, 2007). In systematic reviews of case management, home visit and continuous contact with patients, early post-discharge and frequent contacts, patient education, and the use of specialized nurses who could offer appropriate training and coaching were most valued, with improvements seen in processes of care and patient satisfaction (Chiu & Newcomer, 2007; Latour et al., 2007).

2.3 Transitional coaches

2.3.1 Care Transitions Model

Eric Coleman and colleagues (2004) have developed the Care Transitions Model, to help facilitate transitions from hospital to home. Coleman et al. (2004) see the patients and families as critical to improving care transitions, as they are the common factor moving across sites of care. The Care Transitions Intervention focuses on four specific areas which patients and caregivers identified as most essential and most needed: medication self-management, a patient-centred record, primary care and specialist follow-up, and knowledge of warning signs and symptoms. These four pillars are operationalized through two mechanisms: a personal health record, and a series of visits and telephone calls with a transition coach. These mechanisms are designed to empower and educate older patients to

meet their healthcare needs and promote care coordination and continuity across settings post-discharge. The transition coach encourages self-management and direct communication between the patient and primary care provider rather than functioning as another healthcare provider per se. The transition coach visits the patient prior to discharge from hospital and again within 24 – 72 hours of discharge home, which helps provide care continuity. In a randomized control trial of this intervention, patients reported high levels of confidence in obtaining essential information for managing their condition, communicating with members of the healthcare team, and understanding their medication regimen. As well, rates of re-hospitalization were reduced at 30, 90, and 180 days (Coleman et al., 2006).

2.3.2 Transitional Care Model

The Transitional Care Model (Naylor & Keating, 2008) provides comprehensive in-hospital planning and home follow up for chronically ill, high risk older adults hospitalized for common medical and surgical conditions. In this model designed by Mary Naylor and colleagues (2004) from the University of Pennsylvania, the intervention is led by a Transitional Care Nurse who follows patients from the hospital into their homes and provides services designed to streamline plans of care. While the Transitional Care Model is nurse-led, it is multidisciplinary in nature as it includes physicians, social workers, discharge planners, pharmacists, and other members of the healthcare team. The model aims to increase patients' and caregivers' ability to manage their own care. In a randomized control trial of this model, elders hospitalized with heart failure increased the length of time between hospital discharge and readmission, reduced total number of re-hospitalizations, and decreased healthcare costs (Naylor et al, 2004).

2.3.3 Teamlet model

The Teamlet model (Bodenheimer & Laing, 2007) is one designed for primary care, where the physician generally does not have the time required for care coordination. A teamlet consists of 1 clinician and 1-2 health coaches. A clinical encounter includes 4 parts: a pre-visit by the coach, a visit by the clinician together with the coach, a post-visit by the coach, and between-visit care by the coach. Coaches may be retrained medical assistants, community health workers, licensed practical or vocational nurses, registered nurses, or health educators. In larger health practices, the two-person dyad (physician-coach) is part but not all of the larger team. The coach may handle duties such as assist with paperwork and authorizations and help patients obtain necessary tests and appointments needed before referrals. Using reminders systems and checklists, the coach makes sure that consultation reports come back from specialists and that results are transmitted to patients. This model aims to improve the patient experience and enhance their self-management skills by expanding the encounter to include time with a trained health coach, and to reduce healthcare costs by decreasing unnecessary hospitalizations and emergency room visits through intensive management of high-risk and high-utilizing patients by using health coaches to provide frequent personal contact with these patients (Bodenheimer & Laing, 2007).

2.4 Specialist outreach clinics:

Specialist outreach clinics involve one or more specialists visiting a primary care or rural setting in order to increase collaboration between primary care providers and specialists, and to improve access to specialists. In a review that examined the effectiveness of these clinics, specialist outreach clinics were shown to improve access (decreased cost, distance, and travel time for patients), attendance at clinics, quality of care (adherence to guidelines and to treatment) and health outcomes. However, some clinics cost more to implement than they saved overall to the healthcare system (Gruen et al, 2003).

2.5 Innovative care models

2.5.1 Virtual Ward

The ‘Virtual Ward’ is a new and emerging model of care targeting patients who are deemed high risk for re-admission (Rankin, 2010; Ontario Ministry of Health and Long Term Care). Those patients are ‘admitted’ to the Virtual Ward on their day of discharge; no physical ward exists, patients are cared for in their own homes. While at home, they receive case management and medical support from an interdisciplinary team, which integrates hospital, primary and home care. The Virtual Ward team meets daily to discuss the patients’ needs and collaborate with the primary care physician to develop a shared care plan. Care with the Virtual Ward ranges from 2 – 6 weeks until discharge from the Virtual Ward back to the care of their primary care physician.

Early findings from Virtual Wards piloted in the United Kingdom show that this intervention is likely to improve quality and has reduced readmission rates, but may not reduce overall costs due to the cost of the intervention itself (Rankin, 2010). Currently in Ontario, the Virtual Ward model is being tested in a randomized controlled trial by a collaboration of hospitals in Toronto together with the Toronto Central Community Care Access Centre (Ontario MOHLTC).

2.5.2 Patient-centred medical home

The Patient-Centered Medical Home (PCMH) has been defined as ‘an approach to providing comprehensive primary care that facilitates partnerships between individual patients, their personal physicians, and the patient’s family’ (American Academy of Family Physicians et al, 2007). In essence, it is an interprofessional primary care model that puts the patient at the centre of the team. The PCMH embraces five key principles: patient centredness (whole person focus), comprehensive care (interprofessional team), care coordination (across settings and providers), continuous, superb access to care, and a systems-based approach to quality and safety (AHRQ).

Geisinger Health is well known for its work in establishing the ‘patient-centred medical home’. Called ProvenHealth Navigator (Steele, 2009), it combines traditional medical home models with patient engagement. There are ‘embedded’ nurses as part of the physician office care team. Working with the physicians and other care team members, these nurses are expected to know the patients and their families, to coordinate all of their patients’ care, and help patients’ gain access to specialists and social services. Continuity is assured as the nurses follow patients from hospital back to their home setting. The EMR is central to this model, in providing access to all participants, including physicians, care

managers, and patients. Patient EMR features include internet-based lab results display and results trending over time, clinical reminders, self-scheduling, secure email with providers, prescription refills, and educational content (Paulus et al, 2008).

Evaluation of this model has shown greatly reduced hospital 30-day readmissions, as well as a reduction in overall hospital admissions and decreased cost of care (Arvantes, 2010; Paulus et al, 2008). A summary report of other PCMH models in the United States found similar results with improved quality of care, patient experience, access, and care coordination in conjunction with decreases in emergency room use, hospitalizations, and costs (Grumbach et al, 2009).

In a recent article in the *New England Journal of Medicine*, patient-centred medical homes were likened to Ontario's Family Health Teams (FHT) (Rosser et al., 2010). The FHT model is designed to expand the capacity of primary care through development of interdisciplinary teams and to improve the breadth and quality of care through incentives provided by a blended payment model. The use of interdisciplinary teams expands the range of services provided and reduces overload for individual physicians. Nurse practitioners are increasingly seen within FHTs. Evaluation of FHTs is ongoing but preliminary results are encouraging, indicating improved quality of care, patient outcomes, and patient and physician satisfaction (Rosser et al, 2010).

2.5.3 Hospital at home

The Hospital-at-home model is generally defined as the community-based provision of services usually associated with acute in-patient care. Care is provided by physicians, nurses, and other team members on a daily basis with 24-hour coverage, as they would receive within hospital (Leff et al., 2005).

Many different models exist under the banner of 'hospital at home' which has made evaluation of its effectiveness difficult. A recent systematic review by Sheppard and colleagues (2009) looked specifically at 'admission-avoidance' hospital-at-home models and found there was a statistically significant reduction in mortality at 6-months of follow-up, greater satisfaction with care, lower rates of complication, and lower costs. However, they also reported a non-statistically significant increase in hospital readmissions at 3 months. Hospital-at-home programs that include frequent physician visits to the home and comprehensive geriatric assessment of patients have demonstrated a substantial reduction in hospital readmissions (Aimonino et al, 2008).

In the United States, the hospital-at-home model originally developed at John Hopkins University, and trialed in several Medicare-managed care organizations and a Veterans Affairs hospital (Leff et al, 2005). Findings of this trial showed that substitutive hospital-at-home care was feasible and efficacious. Patients received timely hospital-level care at home that met quality standards. Compared with traditional acute hospital care, those who received treatment at home had fewer important clinical complications such as delirium, patient and family member satisfaction was higher, and costs of hospital-at-home care were lower (Leff et al., 2005).

Hospital-at-home is a complex clinical model and as such requires enormous infrastructure for its implementation. As a result, it is not an easy model to replicate. One of the main barriers to its adoption is the predominate fee-for-service funding model that exists. As a result, the hospital-at-home care has been limited to integrated delivery systems such as Medicare-managed care and Veterans Affairs health systems that have different payment structures in place (Leff, 2009).

2.6 Extended care pathways

Care pathways provide protocols for each phase of a patient's care, including roles that the interprofessional clinicians should play throughout the care journey. They provide detailed guidance for each stage in the management of a patient with a specific condition over a given time period, and include progress and outcomes. Clinical pathways aim to improve, in particular, the continuity and coordination of care across different disciplines and sectors. They can be viewed as algorithms in as much as they offer a flow chart format of the decisions to be made and the care to be provided for a given patient for a given condition in a step-wise sequence (Coleman, 2003).

In a recent systematic review of care pathways (Rotter et al, 2010), there was reduced in-hospital complications and improved documentation, and lower lengths of stay but no evidence on differences in readmission to hospital or in-hospital mortality. Overall there were lower hospital costs.

2.7 Self-management programs

Self-management programs, particularly for patients with chronic illness, is seen as an essential component of any intervention aimed at improving transitions in care and care coordination. Within models of chronic care, self-management and support are a key focus. The Chronic Care Model presented by Wagner and colleagues (2005) summarizes the basic elements for improving care in health systems on different levels. These elements are the community, the health system, self-management support, delivery system design, decision support, and clinical information systems. This model can be applied to a variety of chronic illnesses, healthcare settings, and target populations.

The Stanford Self-Management Program is a community-based self-management program that helps people with chronic illness gain self-confidence in their ability to control their symptoms and manage how their health problems will affect their lives (Lorig et al, 1999).

3.0 Relational continuity

Relational continuity bridges not only past to current care, but also provides a link to future care. The development of interpersonal relationships with a consistent core of caregivers provides patients with a sense of predictability and coherence (Haggerty et al., 2003). In particular, roles discussed previously in management continuity such as a case manager, care transitions manager, and transitional coach aim to provide relational continuity as patients move through various healthcare settings and providers.

As well, the establishment of PCMH or FHTs is seen as essential in creating a primary care hub, which is seen to be the most efficient structure for coordination of care (Bodenheimer, 2008). All

information resides at the hub and with the patient, and communication flows in and out of the hub. Thus, the strengthening of primary care may be the most significant macro health policy capable of improving care transitions (Bodenheimer, 2008).

4.0 Summary of Interventions

The interventions reported above are those that are provider-led. While some of the interventions had patient/caregiver input into their development, none of the interventions reported were patient-led. However, emerging literature points to ‘experience-based co-design’ as a method in which patients collaborate fully with providers in re-designing systems and processes (Bate & Robert, 2006; Bate & Robert, 2007). Initially conceived in the United Kingdom through the Institute for Innovation and Improvement and the King’s Fund, this collaborative method brings patients and families to work together with staff and leaders in the re-design of processes and systems of care based on their experiences, with the goal of improving the patient experience. Examples have emerged in the area of cancer care in the United Kingdom, and Emergency Care in Australia with positive results in improving the patient experience. The Institute for Innovation and Improvement in the National Health System (United Kingdom) has produced a toolkit for the implementation of experience-based design (see http://www.institute.nhs.uk/quality_and_value/introduction/experience_based_design.html).

B. MEASUREMENT TOOLS

Many evaluation strategies related to evaluating interventions aimed at improving care transitions have been noted in the literature. Evaluation of such interventions have focused on two main areas: the individual level and the system level (see Table 2 for evaluation strategies).

Table 2: Evaluation strategies for interventions aimed at improving care transitions

Individual level indicators	System level indicators
<ul style="list-style-type: none"> • Quality of life • Patient satisfaction • Clinical outcomes • Staff satisfaction • Patient experience <ul style="list-style-type: none"> ➤ Consumer assessment of Health Providers and Systems (CAHPS®) ➤ Commonwealth Fund International Health Policy survey ➤ NRC Picker Patient Satisfaction Surveys ➤ Care Transitions Measure ➤ Ambulatory Care Experience Measure 	<ul style="list-style-type: none"> • System utilization <ul style="list-style-type: none"> ➤ Hospital readmission rate ➤ Emergency room use ➤ Cost of care ➤ Adverse events

This literature review focused solely on measurement tools that measure the *patient experience through transitions of care*. The National Transitions of Care Coalition Measures Working Group (2008) in the United States does not endorse any one measure, but provides guidance in terms of the elements required within a measurement tool for care transitions. Based on the work of Donabedian (1988), they recommend the inclusion of measures for structure (e.g. an

accountable provider at all points of care transition, a tool for plan of care in place), process (e.g. care team processes, information transfer and communication between providers and care settings, patient and family education and engagement), and outcome (satisfaction with care received, provider experience, healthcare utilization and costs, health outcomes consistent with patient's wishes).

The five instruments presented in this report are measures of patient experience that all have domains/questions related to transitions in care, coordination, and/or continuity. They have been tested for validity and reliability, and have been reported widely in the literature or public domain, and thus may be familiar to some. The first three tools (Consumer Assessment of Health Providers and Systems (CAHPS®), Commonwealth Fund International Health Policy Survey, and NRC Picker Patient Satisfaction Surveys) have questions that measure the patient experience in a range of settings (e.g. hospital, primary care, and/or community); the Care Transitions Measure focuses on transitions from hospital to home (or other setting), and the Ambulatory Care Experience Measure is aimed specifically at primary care interactions.

1.0 Consumer Assessment of Health Providers and Systems (CAHPS®)

The CAHPS® are now being extensively used in the United States, as the successor of the NRC Picker suite of surveys. CAHPS® have been developed by the Agency for Healthcare Research and Quality in the United States and consist of a suite of measures to capture the patient experience in a number of settings (e.g. hospital, ambulatory care, clinical and group survey, surgical care, home health care) and have various supplemental sets (e.g. health literacy, cultural competence, children with chronic conditions). These tools are used by all publicly funded healthcare institutions in the United States, as well as adopted by many health management organizations as a mechanism for performance measurement which is publicly reported, and linked to funding of health systems.

Domains which focus on transitions of care include: discharge composite, coordination of care, and care from doctor or specialists in the last 12 months. A recent study done in California (Rothman et al., 2008) looked to augment the hospital CAHPS (H-CAHPS) with supplemental questions related to the discharge composite and coordination of care. Seven additional questions were found to significantly improve the psychometric properties of the H-CAHPS. However, these additional questions have not yet been systematically adopted by CAHPS to be included in their current tools. The tools are in the public domain and can be found at www.cahps.ahrq.gov.

Examples of questions within the CAHPS of relevance to the patient experience through transitions include:

- During this hospital stay, did you get information in writing about what symptoms or health problems to look out for after you left the hospital?
- In the last 12 months, how often did this doctor seem to know the important information about your medical history?
- In the last 12 months, how often did your doctor seem informed and up-to-date about the care you got from specialists?

2.0 Commonwealth Fund International Health Policy Survey

The Commonwealth Fund conducted a telephone survey to gain insight of the patient experience of chronically ill adults aged 18 years and older in eight countries (Burgers et al., 2010). Part of this survey included 9 questions derived from other validated surveys that examined coordination of care in four areas: the patient experience with a regular doctor, experience with specialists, care management, and care for multiple chronic conditions.

Types of questions include:

- In the past 2 years, how often did you feel your time was wasted because your medical care was poorly organized?
- After you saw the specialist or consultant, did your regular doctor seem informed and up-to-date about the care you got from the specialist/consultant?
- In the past 2 years, how often have any of your doctors or your pharmacists reviewed and discussed all the different medications you are using, including medicines prescribed by other doctors?

3.0 NRC Picker Patient Satisfaction Surveys

The NRC Picker Patient Satisfaction Surveys are familiar tools in Ontario, as they are used extensively to capture the insights of random samples of discharged patients from Ontario hospitals, rehabilitation centres, complex continuing care, long term care, ambulatory care, and home care. These performance measures are reported publicly, and are widely used as indicators of quality of care and patient satisfaction. Specific domains within some hospital measures include continuity and transition, client-centred education, and coordination of care.

Examples of questions include:

- Did someone tell you about medication side effects to watch for when you went home?
- Did the doctors and nurses give your family or someone close to you all the information they needed to help you recover?
- Did you know who to call if you needed help or had more questions after you left the hospital?

4.0 Care Transitions Measure

Eric Coleman and colleagues (2005) have done extensive work in the development of a tool that is both substantively and methodologically consistent with the concept of patient-centredness, and one that would be useful for performance measurement and public reporting. The Care Transitions Measure (CTM) focuses on the post-hospital transition experience from the patient perspective. It was developed with extensive input from patients and caregivers to understand the key components of care transitions that contribute to a positive patient experience and tested in a wide range of populations, particularly those who may be underserved and at risk for poor care transitions. The measure consists of 15 questions in four domains: critical understanding, preferences important, management preparation, and care plan. A 3-item CTM has since been developed that has been tested and found to closely approximate results of the 15-item measure (Parry et al., 2008). The CTM-3 has been endorsed by the National Quality Forum in the United States and is gaining traction for use nationally and internationally. The tool is available in the public domain at www.caretransitions.org.

The 3-item CTM consists of the following questions:

- The hospital staff took my preferences and those of my family or caregiver into account in deciding what my healthcare needs would be when I left the hospital.
- When I left the hospital, I had a good understanding of the things I was responsible for in managing my health.
- When I left the hospital, I clearly understood the purpose for taking each of my medications.

5.0 Ambulatory Care Experience Survey

Safran et al. (2005) developed and validated a survey that measures patient experiences with their primary care practitioner and their practice. It consists of 2 main domains with 8 summary measures which examines the patient-physician relationship (communication, integration of care, health promotion, knowledge of patient), and organizational features of care (organizational access, visit-based continuity, clinical team, office staff). This tool has contributed significantly to an emerging standard for measuring patients experience with individual clinicians and their practices.

Examples of questions include:

- How often did your personal doctor seem informed and up-to-date about the care you received from specialist doctors?
- How often did you feel that the other doctors and nurses in your personal doctor's office had all the information they needed to correctly diagnose and treat your health problem?
- How often did your personal doctor give you clear instructions on what to do if symptoms got worse or came back?

6.0 Summary

The tools listed in this report are a few measurement tools that exist for capturing the patient experience through care transitions. While there are common domains/line of questioning, the wording in each of these tools varies slightly. Some questions may be used across a number of settings (e.g. those related to understanding of medication regime, signs and symptoms, care plan, who to call). Other tools have also been developed that focus on disease-specific patient experience (e.g. diabetes care, see Gulliford et al., 2006). Regardless of the type of tool used, there is general agreement that performance measures are needed to assess the patient experience of care transitions, to facilitate comparisons between healthcare setting and healthcare systems, to encourage professional accountability for patients through transitions, and to enhance quality improvement efforts (Coleman, 2003).

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