



NATIONAL TRANSITIONS OF CARE COALITION



## Transitions of Care Measures

Paper by the NTOCC Measures Work Group, 2008

# Transitions of Care Measures

## NTOCC Measures Work Group

At present, there is a large evidence base that demonstrates the existence of serious quality problems for patients undergoing transitions across sites of care. While currently there are transitions of care measures on the structure, process, and outcomes of care that are useful, measure gaps still exist. According to a report from the Agency for Healthcare Research and Quality (AHRQ)<sup>1</sup>, there is a need to reach consensus on definition, conceptual model(s), and outcomes related to care coordination. There also exists a need to continue the conduct of research to evaluate the value of different care coordination efforts and tools. In order to measure the progress in improving care transitions, what is needed is a comprehensive, more robust set of measures that is applicable to all aspects of care transitions, to all populations across all care settings.

### Background

The Case Management Society of America (CMSA) convenes the National Transitions of Care Coalition (NTOCC) to develop recommendations on actions that all participants in the health care delivery system can take to improve the quality of care transitions. The multi-disciplinary members of NTOCC work collaboratively to develop policies, tools, and resources as well as recommend actions and protocols to guide and support providers and patients in achieving safe and effective transitions of care. The Measures Work Group is one of four work groups convened to focus on specific areas. The objectives of the Measures Work Group are:

1. To develop a framework for measuring transitions of care.
2. To conduct an environmental scan for existing transitions of care quality measures, evaluate these measures, and assess gaps in measures.
3. To develop recommendations on how to fill gaps in measures.

### DISTINCTION BETWEEN TRANSITIONAL CARE AND TRANSITIONS OF CARE

Clarification is essential for two key terms: *care coordination* and *transitions of care*. **Care Coordination** is the deliberate organization of patient care activities among two or more participants (including the patient and/or the family) to facilitate the appropriate delivery of health care services. Organizing care involves marshalling personnel and other resources to carry out all required patient care activities, which is often managed by the exchange of information among participants responsible for different aspects of the care.

**Transitions of Care** refer to the movement of patients between health care locations, providers, or different levels of care within the same location<sup>2</sup> as their conditions and care needs change. Specifically, they can occur:

1. Within settings; e.g., primary care to specialty care, or intensive care unit (ICU) to ward.
2. Between settings; e.g., hospital to sub-acute care, or ambulatory clinic to senior center.

3. Across health states; e.g., curative care to palliative care or hospice, or personal residence to assisted living.
4. Between providers; e.g., generalist to a specialist practitioner, or acute care provider to a palliative care specialist.

Transitions of care are a set of actions designed to ensure coordination and continuity. They should be based on a comprehensive care plan and the availability of well-trained practitioners who have current information about the patient's treatment goals, preferences, and health or clinical status. They include logistical arrangements and education of patient and family, as well as coordination among the health professionals involved in the transition.

In effect, transitions of care are a subpart of the broader concept of care coordination.

## Measuring Transitions of Care

Measures are typically based on agreed upon standards of care and practice. They can be used to promote better health care processes and outcomes through internal quality improvement activities, public recognition, incentives from payers (e.g., pay for performance), and informed consumer decisions. Measures are most effective when the structure or process of care being measured is based on strong scientific evidence linked to good outcomes and when the outcome being measured is influenced or impacted by one or more specific clinical interventions. There is consensus in the quality measurement community that there are a few essential attributes and/or criteria for selecting and evaluating measures. These are importance, scientific soundness, usability, and feasibility. The NTOCC Measures Work Group takes these into consideration in evaluating appropriate measures for transitional care. In its statement released in August, 2007, the Step Up to The Plate Alliance (SUTTP), convened by the American Board of Internal Medicine Foundation (ABIM), noted that transitions of care often involve interactions between unrelated parts of the health care delivery system, and that transitions occur "in the 'white space' between individuals and organizations that is neither owned nor claimed by anyone."<sup>3,4</sup> This crosscutting nature of transitions of care necessitates particular attention in developing measures to areas that the work group has considered, including:

1. Patients: all or only those identified as high risk.
2. Applicability to all health care settings and providers or to a defined subset.
3. Types of measures: structure, process, outcome, patient experience, efficiency, effectiveness.
4. Focus of measures: patient's perspective or experience, provider's perspective or experience.
5. Feasibility of data sources and data collection.
6. Unit of measurement: organization/facility/practice, individual health care professionals, multidisciplinary teams, system level, communities, population.

## **Patients**

A key issue to consider for the care transition measure set is the type of patients to include in the denominator population. Should the measure focus only on certain high-risk patients? Should there be multiple measures on care transitions focusing on specific disease conditions? Or should there be a set of care transition measures applicable to all patients undergoing transitions? Since care transitions are not unique to any specific condition or patient population, the work group recommends having care transition measures that apply to all patient populations.

## **Health Care Settings and Providers**

Another key issue involves health care settings such as hospitals, nursing homes, physician offices, home health agencies, and the like. Should different care transition measures be developed for different health care settings or provider types? Or should there be a set of care transition measures that applies to the health care setting or provider types involved in the care transition activities? Since an important ingredient for successful, effective, and safe care transitions is teamwork across settings and providers, the Measures Work Group recommends that care transition measures apply to all health care settings and provider types. This will promote shared accountability across all providers who are involved with the patient's care transitions.

## **Types and Focus of Measures**

An ideal set of care transition measures should evaluate the adequacy of certain structural elements in the health care setting, especially those that promote safe transitions of care. It should also have process measures that evaluate the timeliness and completeness of information transferred and received between care settings and/or providers. In addition, there should be process measures that evaluate the adequacy of the providers tracking vital information and acting on the information. Moreover, the set of measures should include outcome measures that evaluate the adverse events occurring as a result of inadequate care transitions. Efficiency measures could include the inappropriate utilization of resources, such as unnecessary readmissions and duplication of tests. Patients' and providers' experience and perspectives should also be measured.

## **Feasibility of Data Sources and Data Collection**

The data sources for producing the care transition measures are critical factors to consider. The use of standardized data sources such as patient demographics and discharge summaries is essential for comparisons across sites or providers, and for benchmarking. Outcome measures may be produced by claims data; however, simply having outcome measures is not sufficient to promote quality improvement in the area of transitions of care. As stated earlier, an ideal set of measures should have structural and process measures as well. The use of medical record data abstraction or paper tracking tools to produce structural or process measures is quite burdensome. While the use of surveys is also resource intensive, they are ideal data sources for

assessing patients' perspectives and feedback and should be used in every health care setting. Measures for care transitions should ideally be based on longitudinal, electronic health records. Electronic databases such as the use of the CMS CARE tool might serve as a valuable data source for future care transition measures.

## **Unit of Measurement**

An additional issue to consider in developing or evaluating measures for care transitions is the unit of measurement. Should the measure be calculated at the individual provider level, the facility level, the team level, or the system level? Since care transition requires that all providers involved with the patient's care transition activities within a setting or between settings be cooperative and accountable, the ideal set of measures should apply to the providers as well as the teams. It should allow aggregation at the provider level, facility level, and the system level.

Because the outcome(s) of a care transition activity may not be evident until after the transition has been completed—that is, after the handover from one care setting or provider to the next—it is important to consider measuring outcomes of care transitions applying a “paired” approach. This means that measures should be developed and examined in a way that would best link the impact of the two care settings and/or providers involved (i.e., the sending and receiving) in the care transition activities.

Many measures of transitions of care that could be particularly meaningful to communities or consumers may lack reliable data sources or specific units of measurement. For example, a measure that might make sense to consumers could look for evidence of medication reconciliation in an outpatient medical record at a given interval after hospitalization. In practice, however, this measure may be unworkable outside of vertically integrated delivery systems or managed care organizations.

This is because the measure presupposes that all patients have a designated principal ambulatory care giver (a primary care provider, or PCP, a medical home, or a care coordination hub) known to the other parts of the delivery system. SUTTP lists having a central care coordination hub for all patients as one of the principles underlying effective care transitions. NTOCC concurs, but must acknowledge that this is not the current state for a majority of patients. One reasonable goal of transition of care measures would be to promote consumer engagement in designating a principal coordinating caregiver.

In this example, data for the denominator —“patients discharged from the hospital” — would come from hospitals or from payers. The numerator would be derived either from medical record reviews at the ambulatory practice site or could come from payer data if a billing code were introduced to indicate post-hospital medication reconciliation. But who is being measured in this case? Is it the hospital? Is it the ambulatory care professional? Is it both? To implement such a measure would present a great challenge knowing that currently there is no shared sense of responsibility and accountability among the providers involved in the patient's care in both settings, and where the financial incentives are not aligned.

We should also not ignore the larger case. An effective care transition requires a series of steps or actions that must be taken by the responsible providers along the continuum of care or the

pathways the patient is traveling. NTOCC believes that appropriate, stepwise measurement of the accountable provider at each of these steps could not only help to assure that each step is taken responsibly but could also serve to promote better communication within the delivery system. Ultimately, these actions promote effective outcomes and safe patient care practices.

## Evaluation of Existing Measures

The NTOCC Measures Work Group compiled a list of existing measures, “Assigning Existing Measures to the NTOCC Framework for Measuring Transitions of Care,” based on a comprehensive environmental scan. The list, which is attached to this paper, was last updated in September 2008. The list is used by the work group to analyze measure gaps. The work group evaluated these measures using the four standard measure evaluation criteria mentioned above, and taking into consideration the special measurement issues described above. While there are a few patient experience measures in use, and a few structural, process and outcome measures for transitions of care endorsed by the National Quality Forum (NQF), measure gaps still exist. While the HCAHPS and CTM-3 survey based measures are important measures of patients’ experience upon discharge from hospitals, a standardized set of questions should be part of every patient experience survey tools used in all care settings. Most of the process measures are either specific to a particular health condition (e.g., disease entity), are not well specified, or address only a specific subset of care transitions (e.g., discharge from hospital to nursing home). While there are NQF endorsed measures of readmissions and preventable emergency department visit, other types of outcome measures are needed (e.g., relating to medication errors).

The work group has determined that in order to measure the progress in improving care transitions, what is needed is a comprehensive, more robust set of measures applicable to all aspects of care transitions in a more generic manner.

## Framework for Measuring Transitions of Care

In order to develop a framework for measuring transitions of care, the NTOCC Measures Work Group evaluated the NQF’s Framework for Measuring Care Coordination and decided that since transitions of care are a subset of care coordination, a different framework more suitable for transitions of care should be developed. This framework will describe the basic components of optimal transitions of care rather than recommending a particular model or approach to transition care. The framework also will describe the basic elements of structural quality, the common processes that should occur in any setting of care and that are applicable to all patients experiencing care transition, the outcomes and cost/resource utilization as a result of care transition, and the experience of patients and providers during the transition of care. The work group also agreed to define the gaps in measures, prioritize the domains created, and seek partners that are, or can be, contributors or creators of transitions of care measures.

At present, there exist few policy statements to guide practitioners on what constitutes optimal transitions of care. Policy papers that provided guidance to the work group included *Definition and Framework for Measuring Care Coordination*<sup>5</sup>; *Commissioned Paper: Transitional Care Performance Measurement*<sup>6</sup>; *Position Statement: Improving the Quality of Transitional Care for Persons with Complex Care Needs*<sup>7</sup>; and *One Patient, Many Places: Managing Health Care Transitions*.<sup>8</sup>

The following framework for measuring transitions of care, as proposed by the NTOCC Work Group, is based on the key elements of optimal transitions of care, as recommended by the policy papers above.

## **Key Elements of the Framework for Measuring Transitions of Care**

### **I. Structure:**

#### **A. Accountable provider at all points of care transition:**

Patients should have an accountable provider or a team of providers during all points of transition. The provider(s) would provide patient-centered care and serve as central coordinator(s) across all settings, and with other providers. This care coordination hub has to have the capacity to send and receive information when patients are transitioning between care sites. While the primary care patient-centered medical home incorporates such a hub, other practitioners can take this role as well.

#### **B. A tool for plan of care:**

The patient should have an up-to-date proactive care plan that would take into consideration the patient's and family's preferences and would be culturally appropriate. This care plan should be available to all providers involved in the care of the individual.

C. Use of a health information technology-integrated system that would be interoperable and available to both patients and providers.

### **II. Processes:**

#### **A. Care team processes:**

- i. Care planning ( including advance directives)
- ii. Medication reconciliation (this process includes patient and family)
- iii. Test tracking (laboratory, radiology, and other diagnostic procedures)
- iv. Tracking of referrals to other providers or settings of care
- v. Admission and discharge planning
- vi. Follow-up appointment tracking
- vii. End-of-life decision making

#### **B. Information transfer/communication between providers and care settings:**

- i. Timeliness, completeness, and accuracy of transferred information
- ii. Protocol of shared accountability in effective transfer of information

#### **C. Patient and family education and engagement:**

- i. Patient and/or family preparation for transfer
- ii. Patient and/or family education for self-care management (e.g., the NTOCC tools "*My Medicine List*" and "*Taking Care of My Health*").
- iii. Patient and/or family agreement with the care transition (active participation in making informed decisions)

- iv. Appropriate communication with a patient with limited English proficiency and health literacy.

### III. Outcomes:

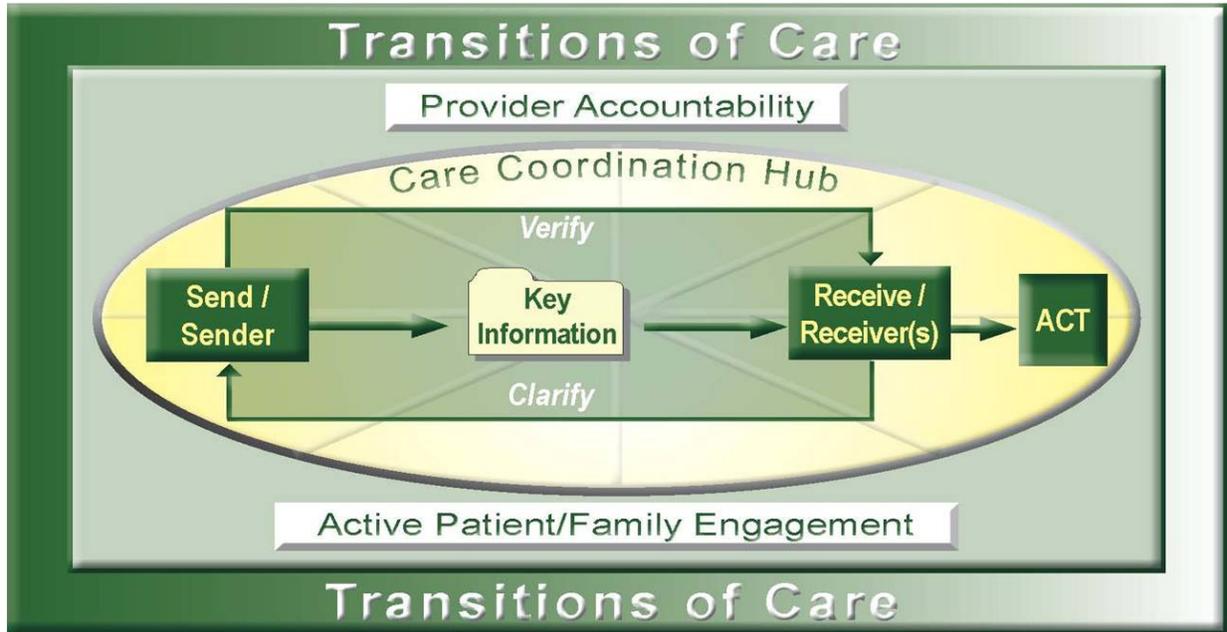
- A. Patient's and/or family's experience and satisfaction with care received.
- B. Provider's experience and satisfaction with the quality of interaction and collaboration among providers involved in care transitions.
- C. Health care utilization and costs (e.g., readmissions, etc.).
- D. Health outcomes consistent with patient's wishes (e.g., functional status, clinical status, medical errors, and continuity of care).

The NTOCC Measures Work Group further proposes the conceptual model shown in Figures 1 and 2 for measuring the structure, process(es) and outcome(s) of care transitions. The care transition process measures can be conceived as a paired set of measures for both the **sender** and the **receiver** of critical medical and health-related **information** for transitions. The sender would be accountable for ensuring that the key information transferred to the receiver was complete and timely. In this case, the sender would have to **verify** that the information was received by the intended recipient. The receiver also would have to be accountable and respond, as well as acknowledge the receipt of complete information from the sender in a timely manner. In addition, the sender would be available to **clarify** or answer any questions that the receiver may have regarding the information received. Moreover, the receiver would act upon the information received—that is, to evaluate the information and determine whether the plan of care should be altered before continuing its implementation and, if so, in what way. Measuring both the sender and receiver would promote shared accountability across care settings and providers.

Transfers of information have to be as complete, accurate and timely as possible. Timely means that the transfer of information from one care setting or provider to another must occur in a time frame appropriate for the receiving provider to assume responsibility for the patient's care. Such handover must take place during an interval that allows the receiver enough time to anticipate the patient's encounter and to plan effective implementation of the care plan or any needed intervention/modification. The sender and receiver must make every effort to adhere to pertinent nationally/internationally recognized standards when defining what "timely" means. These standards may include quality, patient safety, regulatory, and accreditation standards.

The care transition-based interaction(s) between the accountable providers of care (i.e., both the sender and receiver of information) occurs in a "**care coordination hub**" context with a primary aim of ensuring effective and safe transition of care between care settings and/or providers. While the concept of patient-centered medical home incorporates such a "hub," SUTTP recommends the independent advancement of this notion and rather than waiting for the medical home concept to be operationalized. Integral to this "care coordination hub" is active involvement by the patient and family. The sender, especially, is expected to educate the patient and family about the necessary care transition activities, answer their questions, and seek their active participation in the decisions about the transition.

**Figure 1: Conceptual Model for Transitions of Care**



**Figure 2: Clarifying the Transition of Care Interaction between the Sender and Receiver**

	Who	What	To Whom	When	Verify/ Clarify	Act Upon	How is this Documented
<b>SENDER</b>	Accountable provider	<ul style="list-style-type: none"> <li>◦ Tests</li> <li>◦ Consultations</li> <li>◦ Medication reconciliation</li> <li>◦ Transition/discharge summary</li> <li>◦ Assessments</li> <li>◦ Patient education</li> <li>◦ My Medicine List</li> </ul>	Accountable provider and patient	Send the information timely for appropriate intervention with patient	<ul style="list-style-type: none"> <li>● Sender verifies information is received by intended recipients.</li> <li>● Sender clarifies information for recipient.</li> </ul>	<ul style="list-style-type: none"> <li>● Sender will document transaction.</li> <li>● Sender will resend information if not received by intended recipient.</li> </ul>	Document data source: <ul style="list-style-type: none"> <li>◦ Paper medical record</li> <li>◦ Electronic health record (EHR)</li> <li>◦ Checklist</li> </ul>
<b>RECEIVER</b>	Accountable provider	<ul style="list-style-type: none"> <li>◦ Tests</li> <li>◦ Consultations</li> <li>◦ Medication reconciliation</li> <li>◦ Transition/discharge summary</li> <li>◦ Assessments</li> <li>◦ Patient education</li> <li>◦ My Medicine List</li> </ul>	Accountable provider and patient	Received the information timely for appropriate intervention with patient.	Receiver acknowledges having documents and asks any questions for clarification of information received	<ul style="list-style-type: none"> <li>● Receiver uses the information and takes actions as indicated</li> <li>● Receiver ensures continuity of plan of care/ services</li> </ul>	Document data source: <ul style="list-style-type: none"> <li>◦ Paper medical record</li> <li>◦ Electronic health record (EHR)</li> <li>◦ Checklist</li> </ul>

## Summary and Recommendations

The NTOCC Measures Work Group conducted an environmental scan of existing measures that are applicable to care transitions. They evaluated these measures and found that while there are some measures on the structure, process, and outcomes of care transitions that are useful, measure gaps still exist.

The work group determined that in order to measure the progress in improving care transitions, what is needed is a more robust set of measures that is applicable to all aspects of care transitions in a more generic manner. The work group further recommends a framework for measurement along with a conceptual model of care transition. The measure set should consist of structural, process, and outcome measures. It should be applicable to all patient populations regardless of disease or risk categories. Process measures should be paired and should address both the sending and receiving providers to promote shared accountability. The following are a few examples:

1. Measures confirming documentation (at every patient encounter) of the patient's designated "hub of care" and permission from the patient to exchange information about patient care with other providers. This measure could be applicable to every care setting and would serve three purposes: (1) It would provide the information components of the delivery system needed to effect better care transitions; (2) It would help to make the patients, their families, and providers aware of the importance of a care coordinating hub; and (3) It would clarify the patient's and family's preferences for information exchange.
2. Measures of accountability that are applicable to the "sending" care provider confirming that key information (such as a medication list) has been sent to the intended "receiving" provider and the "hub."
3. Measures of accountability that are applicable to the intended "receiving" provider documenting attention to key information received.
4. Measures of accountability at the "care coordination hub" documenting appropriate and necessary care coordination activities.

Lastly, the work group recommends aligning NTOCC's efforts with other interested stakeholders and partners such as the AMA-PCPI, the NQF, and other efforts under way relating to interoperable health information exchanges and patient-centered medical home.

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