Sufficiently developed, existing measures of coordination of care could not be identified for endorsement. A standardized definition of care coordination and a framework for measuring care coordination will facilitate urgently needed development of measures for this priority area.

**Definition of Care Coordination**

Care coordination is a function that helps ensure that the patient’s needs and preferences for health services and information sharing across people, functions, and sites are met over time. Coordination maximizes the value of services delivered to patients by facilitating beneficial, efficient, safe, and high-quality patient experiences and improved healthcare outcomes.

**Framework for Measuring Care Coordination**

The framework encompasses five domains and four principles. The domains represent essential components and subcomponents for which performance measures should be developed if care coordination is to be comprehensively measured and improved; no single domain should be interpreted as being of greater emphasis. The four principles address overarching considerations in measuring care coordination.

**Domains**

1. **Healthcare “home”**—a source of usual care selected by the patient (such as a large or small medical group, a single practitioner, a community health center, or a hospital outpatient clinic). The medical home should function as the central point for coordinating care around the patient’s needs and preferences. The medical home should also coordinate between all of the various team members, which include the patient, family members, other caregivers, primary care providers, specialists, other healthcare services (public and private), and non-clinical services as needed and desired by the patient. Important characteristics of the medical home include:

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1 Endorsed in May 2006, as part of phase 3, cycle 1 of NQF’s ambulatory care project.
2 The “medical home” concept is used by the American Academy of Pediatrics, the American Academy of Family Physicians, and the American College of Physicians.
• Enduring relationship. A true relationship is not established simply by continuity, but by comprehensive knowledge of the patient, the patient’s choice of provider,\(^3\) and the patient’s identification of the source of his or her care as his or her healthcare home.

• Point of access. The patient and family know to communicate with the healthcare home as the appropriate point of access when any healthcare need arises and should have no difficulty contacting or obtaining care in a timely manner.

• Information about the patient and origins of interpretation of information from many sources. The healthcare home serves as a clearinghouse for all information about a patient’s health status, including all related activities, services, and results. The healthcare home is responsible for synthesizing, reconciling, and interpreting the most current information from many sources to inform and educate the patient, identify needs, and establish goals.

• Routine, acute, and chronic care coordination. The healthcare home should promote and guarantee a system that coordinates continuous, comprehensive care for preventive services, acute or episodic illnesses, and chronic, complex conditions.

2. **Proactive Plan of Care and Follow-up**—an established and current care plan that anticipates routine needs and actively tracks up-to-date progress toward patient goals.

• Practice or organization has a system for developing a plan of care. The practice or organization has effective systems, policies, procedures, and practices to create, refine, and execute such a plan of care for every patient.

• Goal setting with patients and joint management of the plan of care. The plan of care is jointly created and managed by the patient/family and a team coordinated by the healthcare home. Both the patient’s most current and longstanding needs are assessed, and the goals reflect those needs. Care coordination may be a challenge for some vulnerable populations, who cannot or will not participate in a jointly managed plan of care. The comprehensive management plan should be culturally appropriate and consistent with the abilities and desires of the patient.

\(^3\) TAP members noted that some insurance plans limit choices and patients may be stuck with an assigned provider. Patient preferences must be included in effective, integrated care delivery systems.
• Assessment of progress toward goals. Jointly with the patient/family, care coordination assesses progress toward goals and refines the plan of care as needed to accommodate new information or circumstances.

• Evidence-based referrals. Referrals to specialists or services should be based on transparent and easily understood evidence that the selected specialist or service provides high-quality care and is appropriately matched to meet the patient’s needs effectively and efficiently.

• Follow-up of tests, referrals, treatments, or other services. A critically important part of care coordination is a systematic process of follow-up to tests, referrals, treatments, or services that includes interpretation of the information for the patient and appropriate, timely response to the results. The responsibility for follow-up is shared by the provider ordering the test and the provider of the service.

• Self-management support. Patient education about his or her condition, treatments and medications, and patient self-management support and sufficient financial resources are necessary components of a joint plan of care.

• Community services and resources. The plan of care includes community and non-clinical services as well as traditional healthcare services that respond to a patient’s needs and preferences and contribute to achieving the patient’s goals.

3. Communication—available to all team members, including patients and family.

• Shared plan of care. All medical home team members work within the same plan of care and are measurably co-accountable for their contributions to the shared plan and achieving the patient’s goals.

• Tests and services. All team members are aware of tests and services coordinated within the plan of care, and results are readily available at all times to all team members to avoid unnecessary duplication of services.

• Patient safety/avoid errors in diagnosis and treatment. Availability of patient information, such as consultation reports, progress notes, test results, and current medications to all team members caring for a patient reduces the chance of error.

• Shared decision-making with patient and family. Health Insurance Portability and Accountability Act of 1996 (HIPAA) privacy rule-compliant communications with
patient and family are as important as communication with other providers and team members.

• Not limited to office visits. HIPAA-compliant communications with patients, family, and providers should occur as needed through various communications methodologies. Use of structured asynchronous communications such as e-mail or web-messaging, as well as traditional methods, should be encouraged and appropriately reimbursed.

• Privacy and information access. The patient’s health information should be available to all medical home team members. Mechanisms in compliance with federal law should be in place to protect personal privacy, yet these mechanisms also should enable all who require secure access to necessary information to have such access, such as the patient, the family, the caregiver in the home, primary care providers, and specialty care providers.

4. Information systems— the use of standardized, integrated electronic information systems with functionalities essential to care coordination is available to all providers and patients. Important characteristics include seamless interoperability; an evidence-based plan of care management; efficient and effective integration of patient information, laboratory, imaging, referrals, medications, social and community services, and self-management support; patient registries and population-based data, especially those promoted by local, state and federal public health agencies; support for quality improvement and safety; case/disease management; decision support tools; and provider alerts and patient reminders.

5. Transitions or “hand-offs”— transitions between settings of care are a special case because currently they are fraught with numerous mishaps that can make care uncoordinated, disconnected, and unsafe. Some care processes during transition deserve particular attention:

• medication reconciliation,

• follow-up tests and services,

• changes in plan of care,

• involvement of team during hospitalization, nursing home stay, etc.,

• communications with persons who do not speak English well or at all,
• communication between settings of care, and
• transfer of current and past health information from old to new home (to be done in a timely manner when a patient moves to a new healthcare home, so that care coordination needs are not interrupted).

Principles

1. Care coordination is important for everyone. Everyone is at risk for, at a minimum, acute, episodic illness with at least temporary needs for care coordination.

2. Some populations are particularly vulnerable to fragmented, uncoordinated care on a chronic basis (not mutually exclusive):
   • children with special healthcare needs;
   • the frail elderly;
   • persons with cognitive impairments;
   • persons with complex medical conditions;
   • adults with disabilities;
   • people at the end of life;
   • low-income patients;
   • patients who move frequently, including retirees and those with unstable health insurance coverage; and
   • behavioral healthcare patients.

3. Many components of the care coordination framework are suitable for measurement at the individual physician level, and appropriate accountability lies with the individual provider. Some components, however, may be more suitable for measurement at the practice, group, or organizational level.

4. Patient and/or family surveys of their experience with the processes and outcomes of care coordination efforts are essential to measure the safety, effectiveness, efficiency, and timeliness of care coordination in an equitable fashion. Patient and/or family surveys should be administered within close proximity to the healthcare event.