Care Coordination Policy and Evidence: A Compendium of MED Reports, 2017–2022

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Introduction

The Medicaid Evidence-based Decisions Project (MED) is housed within the Center for Evidence-based Policy (Center) at Oregon Health & Science University in Portland, Oregon. MED produces reports and other tools to help state policymakers and officials make the best evidence-based decisions possible, while supporting benefit design and coverage decisions made by state Medicaid programs. The links in this report lead to a clearinghouse of documents for participating MED members. If your state is a member of MED and you do not have access to this resource, please contact med@ohsu.edu.

The MED collaborative has published a number of reports related to care coordination, including reports focused on care management, comprehensive care, and integrated care. This brief provides state Medicaid policymakers with a high-level synthesis of these report findings published on the MED Clearinghouse from 2017–2022, with links to the original reports. The reports we review here cover a range of delivery models for care coordination, and explore approaches to beneficiary identification and engagement, payment and financing of care coordination, and evaluation of services and programs. Staff from the Center analyzed these reports and captured cross-cutting themes and actionable takeaways.

Care coordination aims to improve patient and clinical outcomes and reduce health care costs; its focus increasingly surpasses clinical care to address basic human needs (such as food and housing) that also affect beneficiary health (Vendor; Assessment).^{1,4} Care coordination programs look to address the root causes of ineffective care transitions, in an effort to improve the patient experience and care outcomes as patients move between hospitals, skilled nursing facilities, and community settings (*Transitions*).⁵ To achieve effective and efficient care coordination. state administrators may want to consider each of the specific elements outlined in this brief (Figure 1) when designing and implementing care coordination services for their populations. Each of these elements and related considerations are also provided in the state considerations checklist at the end of this brief.

Box A. Care Terms Used

The following terms defined, for the purposes of this brief:

- Care management: A team-based, patient-centered approach, to help patients, their caregivers, and their families manage conditions and care coordination activities
- **Comprehensive care**: Complete suite of physical, behavioral, and psychosocial services, including care coordination
- Care coordination integration: A multilevel or systemic integration of services, in which providers, payers, and health systems fully collaborate and coordinate the planning and implementation of treatment for all patients

Sources. Vendor, Integration, Youth.¹⁻³



Figure 1. Care Coordination Program Design Elements

Care Coordination Interventions

MED reports detail care coordination approaches across 3 levels of care: those that engage beneficiaries in managing their own care; those where a provider manages care on behalf of a

beneficiary; and those focused on coordinating care among beneficiaries, providers, and related services. These 3 types of care coordination interventions described in the MED reports on care coordination are outlined in Table 1.

Intervention Type	Intervention Description	Examples of Specific Intervention Elements
Beneficiary	Focused on tools and strategies to engage beneficiaries in their own health, such as self- management education	 3 state Medicaid programs implemented care coordination programs that incorporated in-person interactions and home visits with beneficiaries A few state Medicaid agencies use a form of health coaching using motivational interviewing techniques focused on empowering clients to activate behavior changes in their care coordination programs For beneficiaries to engage in care coordination programs, it is important to address their basic needs. Beneficiaries have competing priorities including housing and transportation, and if these needs are not met, health improvement strategies might not achieve desired outcomes.
Provider	Focused on how the provider manages a patient's care, which can include training, guidelines, and evidence-based practices	 Provider involvement in care coordination programs could include several strategies: provider education on working with patients with chronic conditions, care managers or care coordinators communicating with providers by attending appointments with beneficiaries, and care managers embedded within provider practices. Embedding care managers offers one of the most promising methods for facilitating physician involvement in care-management programs, as they are physically located on-site with providers, which promotes regular communication and coordination between providers and care managers.
System	Focused on facilitating care coordination among providers, beneficiaries, and agencies, and includes coordination with social services	 Some state Medicaid programs employ community resource specialists to work with beneficiaries to address barriers to care such as housing and other socioeconomic concerns. One state Medicaid program reported they were effective in addressing beneficiary social needs because their care coordinators were state employees and had connections to the other state agency departments that can address issues such as inadequate food and housing.

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Source. Vendor.¹

Delivery of Care Coordination Models

State Medicaid programs have a variety of options to provide, structure, and pay for care coordination services. We explore the following models in this brief:

- Accountable care organizations (ACOs)
- Coordinated care organizations (CCOs)
- Health home models

- Lead entity models
- Vendor-based care coordination.

For each of these models, we provide an overview of the structure and relevant evaluations, and when applicable, describe the target populations, services, and available evidence.

Accountable Care Organizations

- Structure: While there are no regulations or uniform national standards for Medicaid ACOs, states are limited in part by guidance on integrated care models from the Centers for Medicare & Medicaid Services (ACO).⁶ ACOs are groups of doctors, hospitals, and other providers of health care that voluntarily come together to provide high-value, coordinated care for their patients (Integration).² ACOs align payer and provider incentives to emphasize value over volume of care, thereby motivating ACOs to employ care coordination tools to improve patient outcomes (Integration; ACO).^{2,6} To ensure accountability, ACOs implement a value-based payment structure, measure quality improvement, and collect and analyze data (Integration).² Some ACOs also require specialists to develop clinical practice guidelines, which are shared and followed by all providers in the care system (ACO).⁶ As of 2021, 14 states (e.g., Massachusetts, Minnesota) had active Medicaid ACO programs (Integration).²
- **Evidence:** We found limited evidence in the literature about the impact of ACOs on patient outcomes, quality of care, and cost effectiveness. Two studies found clinical service integration in a large ACO resulted in lower costs compared to usual care (*Integration*).²
 - Some evidence showed that ACOs reduced service use (Integration).²
 - Consistent evidence showed improvements in clinical outcomes (Integration).²
- **Evaluations**: One evaluation of a pediatric ACO focused on children with complex needs found a decrease in emergency department (ED) use, inpatient admissions, length of stay, and 30-day readmissions for children, before and after enrollment (<u>ACO</u>).⁶

Coordinated Care Organizations

- **Structure**: CCOs exist only in Oregon and are locally governed with representation from health care providers, Medicaid beneficiaries, and community members. They receive global budgets that grow at a consistent rate to cover a range of services, including physical, behavioral, and oral health care, and are responsible for coordinating these services along with services that address the social services needs of their beneficiaries (*Integration*).²
- **Evaluations:** The effect of the CCO model on care integration activities and patient outcomes has largely been positive. In a 2-year evaluation of data, CCOs were generally associated with reductions in spending growth and improvements in quality measures. In particular, the following outcomes were found (*Integration*)²:
 - Total per-member-per-month (PMPM) spending decreased by 7% among CCO members, largely driven by reductions in inpatient use
 - Financial incentives were strongly associated with improvements in performance
 - Quality measures primarily improved in the domains of prevention and wellness for children and adolescents, ED and hospital use, and avoiding low-value care
 - Most experience of care measures, including member ratings of their overall health care and how well doctors communicate, improved

Health Home Models

 Structure: §2703 of the Affordable Care and Patient Protection Act (§1945 of the Social Security Act) created an optional Medicaid State Plan benefit allowing states to establish health homes to coordinate care for Medicaid beneficiaries who have chronic conditions (*Integration*).² This option includes incentives for state Medicaid participation through an enhanced 90% federal match for Medicaid beneficiaries enrolled in the program for the first 8 fiscal quarters (<u>Transitions</u>; <u>Intervention</u>).^{5,7} At least 21 states (e.g., Maryland, Michigan) have health home models through state plan amendments (<u>Integration</u>; <u>Children</u>).^{2,8}

- Target Populations: Specific populations served by these programs include (Integration)²:
 - o Individuals with a serious and persistent mental illness
 - Individuals with opioid use disorder and risk of additional chronic conditions due to tobacco, alcohol, or other nonopioid substance use, or history of tobacco, alcohol, or other nonopioid substance dependence
 - Individuals who have 2 or more chronic conditions, have a chronic condition and are at risk for a second, or have a serious and persistent mental health condition are eligible to receive health home services. Chronic conditions covered by the statute include mental health conditions, substance use, asthma, diabetes, heart disease, and being overweight; additional chronic conditions such as HIV and AIDS may be considered with Centers for Medicare & Medicaid Services approval
- Services: Pursuant to §2703 of the Affordable Care and Patient Protection Act, home health services include the following components (*Transitions*)^{5,9}:
 - Coordination and provision of access to comprehensive care management
 - Care coordination and health promotion
 - Comprehensive transitional care across settings (e.g., appropriate follow-up from inpatient to other settings, including discharge planning)
 - Patient and family support
 - Referral to community and social support services
 - Use of health information technology, when feasible
- **Evidence**: Published literature on specific models of care coordination is sparse, but the health home model was the most common model described. Evidence findings on health homes included (*Integration*; *Intervention*)^{2,7}:
 - Findings were inconsistent regarding improving outcomes for high-risk patients
 - Few studies found health homes to have an impact on long-term health outcomes such as mortality, while some evidence was seen on short-term outcomes (e.g., body mass index, hypertension)
 - There is mixed evidence on patient outcomes and service use: No effect on inpatient use (e.g., primary care), small reduction in ED and hospital use, and some evidence of improvements in blood pressure control, weight gain, and LDL (low-density lipoprotein) cholesterol control among high-risk patients
 - Although a few studies indicated a reduction in service use, these results did not also translate to total cost savings to the health care system; the vast majority of studies found no effect or increased costs for the health home model
- **Evaluations**: There are multiple federal and state evaluations of the health home program:
 - Summary data provided by 1 state showed an annual reduction in hospital admissions of 12.8% and ED use of 8.2%, and another state reported utilization and spending for inpatient services had reportedly decreased by nearly 30% for a subset of individuals enrolled in health homes (<u>Transitions</u>).⁵
 - One program evaluation analyzed the cost-efficiency of a behavioral health home program and reported on PMPM costs for enrolled beneficiaries compared to PMPM costs for beneficiaries who were not enrolled (components of the PMPM included physical health [e.g., inpatient hospital, emergency room], mental health, and substance

use). Over a one-year period, PMPM costs for enrolled beneficiaries decreased by 8.6%, while PMPM costs increased by 2.2% and 4.8% for those in (not enrolled) control groups 1 and 2, respectively. The greatest change in PMPM cost was for the substance use component, which was a 40.2% decrease for health home beneficiaries and a 3.8% increase and a 9.1% increase for those in (not enrolled) control groups 1 and 2 respectively (*Integration*).²

- An analysis of 1 state Medicaid health home program over 5 years showed positive results related to health care use and cost; all health home participants had a strong demand for core health home services such as care coordination (*Integration*).²
- Ongoing evaluations are needed to determine the long-term sustainability for health homes for children with complex needs. State agencies have reported challenges in implementing health homes for children, stemming from the various systems that children interact with, such as schools, juvenile justice, and child welfare (<u>Children</u>).⁸

Box B. Primary Care Health Home Evaluation

- One state Medicaid program incorporated PCMHs into its existing care coordination system. These PCMHs target high-cost, vulnerable-aged, Medicaid beneficiaries with disabilities and chronic disease.
- The following studies, audits, and reports evaluated the PCMH model (*Intervention*)⁷:
 - One study examined Medicaid claims for over 150,000 nonelderly beneficiaries with disabilities, over a 4-year period. The study found the integration of the care coordination system with regional PCMHs was cost effective over the 5-year integration period, with a per-person savings of over \$120 (in 2011). The rate of hospitalizations was also significantly lower in patients enrolled in care coordination compared to those not enrolled.
 - A state audit of the same program also found inpatient spending was reduced by 17.6%, inpatient admissions were reduced by 25%, and nonacute physician visits increased overall, compared to estimates for these same patients had they not been enrolled in the PCMH. Spending was also reduced across almost all factors measured, with estimated savings of approximately 9% per year.
 - A quality report of the program found key indicators performed better than expected, including its primary care case management program. Inpatient admissions and emergency department visits were 28.5% and 13.7% below expected.

Abbreviations. ED: emergency department; PCMH: patient-centered medical home.

Lead Entity Models

- **Structure:** One state Medicaid program implemented a 5-year demonstration to test locally based initiatives coordinating physical health, behavioral health, and social services for Medicaid beneficiaries who were high users of multiple health care systems yet continued to have poor outcomes.
 - This pilot leveraged collaborative leadership and systematic coordination among public and private entities to identify target populations, share data among systems, coordinate care in real time, and evaluate individual and population health progress. The key difference between this pilot and the health home model is the flexibility of the services

offered; the pilot programs were not required to provide the federally required 6 core health home services (Integration).²

- To facilitate care coordination, programs consisted of a lead entity and contracted participating entities. The lead entity was required to be a certain type of legal entity, including a county, health or hospital authority, or federally recognized tribe, and were required to work with at least 1 managed care entity (*Integration*).² Participating entities also needed to include both the health services, specialty mental health agencies or departments, and at least 1 other public agency or department, which could include county alcohol and substance use disorder (SUD) programs, criminal justice and probation entities, or housing authorities (*Integration*).²
- Target populations include individuals (*Integration*)²:
 - With repeated incidents of avoidable ED use, hospital admissions, or nursing facility placement
 - \circ With 2 or more chronic conditions
 - With mental health disorders or SUDs
 - Currently experiencing homelessness
 - At risk of homelessness, including individuals who will experience homelessness upon release from institutions (e.g., hospital, subacute care facility, skilled nursing facility, institution for mental disease, county jail, state prisons)
- **Evaluation**: An interim analysis of the program was conducted using Medicaid data and program-reported data over 1 year. The analysis described the following program successes (*Integration*)²:
 - A 7% increased rate of follow-up at 7-days and a 9% increase rate of follow-up at 30days posthospitalization for mental illness
 - A 7% increase in the rates of initiation and engagement in alcohol and other drug dependence treatment
 - A 15% increase in the number of beneficiaries receiving a comprehensive care plan within 30 days of enrollment
 - A 9% increase in the rate of suicide risk assessments among enrollees with a diagnosis of major depressive disorder
 - Decreases in ambulatory care visits, ED use, inpatient hospitalization, and all-cause readmission
 - Improvements in beneficiary self-reported overall and emotional health, controlled blood pressure, and diabetes control

Vendor-Based Care Coordination

Table 2 outlines core components of 2 different Medicaid program efforts to contract with vendors for provision of care management services, including but not limited to care coordination.

Program Element	Program A	Program B
Goals	Primary goals of this pilot program were to reduce ED and inpatient hospital stays, and to control Medicaid costs.	Goal of this program was to reduce health care costs for beneficiaries with chronic conditions.
Target Population	Care coordination services provided through local vendors in a 3-year pilot focused on Medicaid beneficiaries with chronic or behavioral health conditions.	Program targeted beneficiaries identified as being the top 5% of Medicaid health care users (based primarily on ED visits and inpatient hospitalizations), and beneficiaries who had conditions that could likely be improved with behavior changes (e.g., diabetes, asthma).
Contracted Services	Care coordination strategies and staffing varied among the vendors, but all vendors had to meet specific requirements for payment including in- person interactions with beneficiaries focused on prevention and appropriate care.	Vendor was contracted to provide clinical documentation systems, analytic capabilities, and robust reporting analysis, but no care management staffing. State agency employees, including nurses, social workers, and substance use and mental health counselors, provided all care management services.
Evaluation	 Pilot encountered many challenges including the vendors' ability to find, enroll, and engage beneficiaries in the program. At the end of the 3-year demonstration, the program only reached about 10% of eligible beneficiaries. An evaluation found the eligible population in the pilot and the control groups had similar numbers of primary care visits, hospital stays, and ED visits at the end of the 3-year demonstration. Evaluators stressed that results should be interpreted with caution, as several beneficiaries in the control group entered Medicaid managed care during the demonstration and thus the 2 groups might not have been truly comparable for the evaluation. Pilot did not meet intended outcomes and ended at the conclusion of the 3-year demonstration. 	An annual report from the state agency compared expected costs of beneficiaries to actual costs. After accounting for administrative program costs, the agency estimated the program's net savings to be \$30,289,353, or an average savings of \$278.31 PMPM.

Table 2. Vendor-based Care Management Programs

Source. Vendor.1

Abbreviations. CM: care management; ED: emergency department; PMPM: per-member-per-month.

Clinical Evidence: Effectiveness and Harms

Most MED report sources included in this compendium had a section focused on the clinical effectiveness and potential harms of care coordination interventions. Table 3 gives a summary of the clinical evidence findings by population in the MED reports reviewed. All of the care intervention programs from these reports included care coordination as a component, and most used social risk factors to differentiate and address the needs of different populations.

Population	Evidence of Effectiveness and Harms
Individuals with high health care use	 Costs often trended down for ED and hospitalization spending, and increased for primary care visits as a result of care intervention programs with a care coordination component. Some modeling studies demonstrated greater initial costs at first, with predicted future savings, and some state Medicaid agencies have reported cost savings as a result of their intervention programs with care coordination targeting super-users. One RCT conducted on the Camden Coalition, a nationally recognized intervention program for super-users, found no effect on overall acute care use, health care costs, or use of some social services. There is inconsistent evidence on the impact of care coordination integration models for high health care users on total costs to the health care system. Although few studies incorporated program implementation costs, the studies that did generally found no effects on total costs to the health care system. Due to short study lengths (< 1 year), studies may not have captured the full benefit of integrated care coordination on total costs over longer time periods.
Youth in	Five studies evaluated 2 alternatives to FFS models: medical homes and single
foster care	 managed care plans. The 5 eligible studies were rated as having poor to fair methodological quality and suggested that either model can effectively deliver comprehensive care while including a care coordination component. Youth in foster care received more health care services more quickly when care was delivered through a medical home or an MCO compared to FFS. No harms related to care delivered via these models were identified in the studies.
Individuals with chronic disease	 CCM might increase rates of treatment initiation and adherence and result in higher levels of patient satisfaction, but does not affect patient knowledge, self-management, or self-efficacy. CCM does not appear to significantly reduce health care use or costs; there was some evidence that more intensive CCM might increase the use and costs of primary care. CCM does not appear to improve mortality or wider societal outcomes, such as homelessness. CCM was assessed as being a cost-effective intervention for people with 2 or more chronic conditions and people with 1 or more chronic conditions with co-occurring depression. CCM for individuals with 2 or more chronic medical conditions appears to significantly improve: Health outcomes, including those related to the chronic condition and some quality-of-life measures Treatment initiation People's perception of their own health status CCM for individuals with 2 or more chronic medical conditions does not appear to significantly improve mortality.
Individuals in SUD treatment	 When compared with TAU, case management for SUD was associated with some significant increases in health care use (medical rehospitalizations and attendance), but effects were not consistent across studies. Other health care use (e.g., ED use) was not significantly different between groups. Case management for SUD was associated with significantly greater engagement with continuing care in people with complex needs when transitioning from institutional SUD treatment to community-based care.

Table 3. Clinical Evidence by Population

Sources. Integration, Youth, Intervention, Chronic Conditions, SUD. 23,7,8,10,11

Abbreviations. CCM: chronic care management; ED: emergency department; FFS: fee-for-service; MCO: managed care organization; RCT: randomized control trial; SUD: substance use disorder; TAU: treatment as usual.

Beneficiary Identification and Stratification

This section explores different strategies for identifying beneficiaries who could benefit from care coordination, including: identification by health conditions (including self-identification); stakeholder partners making referrals; data-driven approaches (including predictive modeling and risk stratification); or a combination of these strategies.

- Identification by health conditions: A specific disease or several diseases can be the target of care coordination programs; common chronic diseases include asthma, diabetes, congestive heart failure, coronary artery disease, and chronic obstructive pulmonary disorder. Some state approaches to care coordination have included other health conditions, such as high-risk obstetrics, mental health, and obesity (Vendor).¹
- Identification by stakeholders: Some Medicaid programs work with community partners (e.g., homeless shelters) and providers (e.g., physicians, regional medical homes) to identify beneficiaries for care coordination services (*Intervention*).⁷
- Identification using data-driven approaches: Many intervention programs use data-driven methods, including clinical risk groups and predictive modeling, to identify and stratify individuals for care coordination. Table 4 provides a description and examples for data used to identify potential beneficiaries as well as methods used for collecting data (*Vendor*, *Intervention*).^{1,7}

Approach	Description and Examples
Data collected	 Examples of quantitative data include claims; ED, hospital, and SNF admissions and discharges; or multiple address changes within a certain timeframe (e.g., 6 months, 1 year). Examples of qualitative information include provider referrals.
Methods for a	collecting data
Hotspotting	Identification of high-users through real-time data on hospital admissions.
Clinical risk groups	• Clinical risk groups, such as 3M Health Information System's Clinical Risk Groups, are used to identify patients whose historical hospital costs are greater than expected based on their clinical burden and to risk-adjust performance measures. After identification through a risk group, some states then use an algorithm to flag patients whose spending is more than expected for that risk group.
Care coordination platform	 Care coordination platforms provide real-time information on member admissions and discharges from hospitals and SNFs, to identify high health care users. Internal collaboration through the platform allows use management staff to notify care teams and population health staff when a member is not eligible for a particular service but needs additional support. Key components to this internal collaboration are the internal care coordination platform, use of data analytics focused on population health, and bidirectional communication.

Table 4. Data Driven Approaches to Identifying Beneficiaries

Sources. Vendor, Intervention.^{1,7}

Abbreviations. ED: emergency department; SNF: skilled nursing facility.

Payment and Financing

State Medicaid programs employ a range of payment structures for care coordination services, including fee for service (FFS) approaches, annual lump-sum payments, and shared savings efforts. States also use a range of population-based payment approaches including PMPM arrangements, bundled payments, or global arrangements. Figure 2 arrays each of these models according to complexity, and we summarize them below.



Figure 2. Care Coordination Payment Options

Source. Adapted from Health Care Payment Learning & Action Network.¹²

Fee-for-Service

One option for state agencies to encourage providers to coordinate health care transitions is to reimburse for transition-of-care activities. There are several codes relevant to transition activities, such as moving from hospitals to home or community-based settings, which could be used for FFS payment options (<u>Children</u>).⁸

Annual Lump-Sum Payments

Some state Medicaid agencies have moved from FFS to annual payments for care coordination. For example, 1 state shifted from FFS (using a billing system, agency-built codes, and billing for the initial assessment and subsequent coordination of health needs in 15minute units), to an annual lump-sum payment (of \$969 per child) where staff members develop a client action plan for each patient and bill for services once a year (<u>Assessment</u>).⁴

Shared Savings

Some state Medicaid agencies have implemented shared savings arrangements for care coordination. For example, some states

Box C. State Payments to Vendors

States reported the following approaches to vendor care coordination payments:

- A flat monthly payment per full-time employee (FTE) for health coaches and practice facilitators and a flat monthly fee for FTE administrative operations. When calculated using a per-member-per-month (PMPM), vendor received approximately \$147.61 PMPM for health coaching.
- A lump amount for initial start-up costs and between \$205 and \$308 PMPM for eligible beneficiaries who were enrolled and who the vendor successfully engaged according to contract requirements; vendors also had upside and downside risks included in contract based on ability to engage and meet cost reductions of beneficiaries.
- A \$216 PMPM for beneficiaries who are engaged in the program during the month of invoice.

Source. <u>Vendor</u>.¹ Abbreviations. PMPM: per-member-per-month. have shared savings arrangements with their ACOs and include payments to physicians as an incentive for care coordination provided (\underline{ACO}).⁶

Population-Based Payments

- **Population-Based Savings Payment:** Some Medicaid programs use a population-based payment authorized through a state plan amendment to support care coordination. For example, 1 state Medicaid program uses a quarterly population-based payment, which includes prepaid savings totaling around 1% of the total cost of care, and is tied to 1 or more interventions related to social risk factors of the health plan's particular population. Some health plans in that state are also responsible for the total cost of care, including both upside and downside financial risk (*Intervention*).⁷
- **PMPM:** 1 state Medicaid program transitioned from FFS to a population health management payment of \$4.52 PMPM (as of 2017) for care coordination (<u>Assessment</u>).⁴
 - ACOs: Many state Medicaid ACOs receive a PMPM payment for providing care coordination services; some ACOs receive an enhanced PMPM payment for care coordination in addition to their standard capitation rate (ACO).⁶ Other Medicaid ACOs receives a globally capitated payment based on an individual's risk stratification (Intervention).⁷
 - Health homes: Some Medicaid programs pay a value-based monthly case rate to their health home partners. For example, 1 state Medicaid program's behavioral health home case rate is \$389.97 PMPM, or \$410.49 PMPM with pay-for-performance; opioid health home case rate is \$364.48 PMPM, or \$383.66 PMPM with pay-for-performance (Integration).²
- Bundled Payments: Under a bundled payment model, providers receive payment for a bundle of care coordination services, such as transition planning. Under Current Procedural Terminology codes for transitional care management services (99495, 99496), a defined set of services, including in-person visits, patient education, and community referrals, are provided in a bundle for a patients transitioning from a hospital to community-based setting (<u>Children</u>).⁸
- Global Payments: Some state Medicaid agencies (e.g., Illinois, North Carolina) have developed global payment arrangements with their ACOs that include care coordination services as part of the bundled arrangement (<u>ACO</u>).⁶ Some state Medicaid agencies (e.g., Colorado) have implemented both shared savings arrangements and global payment arrangements with their ACOs, involving upside and downside financial risks (<u>ACO</u>).⁶

Financing

In addition to the enhanced match for health home models described above, states may want to consider other sources of funding to support care coordination programs in their state. Two approaches involve consideration of funding match through health technology, and partnering with local government entities.

• Health Technology Funding Model: To support the robust data capabilities needed to support effective care coordination, states may want to consider the Medicaid Management Information System (MMIS) functionality on the Medicaid side or structure Medicaid

functionality on the health information exchange side (<u>Intervention</u>).⁷ Some MMIS-related strategies may involve higher federal match opportunities for some states.⁷

• Local government funding: States may also want to consider working with local governments who may provide grant funding for a program if it can be demonstrated that the program will result in cost savings for the city or county over time (<u>Intervention</u>).⁷

Structure of Care Teams

This section outlines 3 key components of care teams for state Medicaid agencies to consider when developing and implementing care coordination services: team members (roles and diversity of expertise), location, and staffing ratios.

- **Team members:** Care coordination teams are typically multidisciplinary, involving clinicians (e.g., physicians, consulting psychiatrist or psychologist, registered nurses, pharmacists) and nonmedical staff (e.g., housing specialists, health resilience specialists) focused on addressing social risk factors (*Integration*; *Transitions*; *Intervention*).^{2,5,7} Having a team of clinicians and a team of service coordinators working together with their own expertise allows for more individualized and efficient patient care (*Transitions*; *Intervention*).^{5,7} Including peers as part of the care delivery can be powerful in providing lived experience and is essential to the care team for populations with complex needs and experiencing health disparities (*Intervention*).⁷
- Location: Care coordinators can be located at the primary care clinician's offices, hospitals, or other locations such as Women, Infants, and Children's Nutritional Services and other community programs (Assessment).⁴ For smaller primary care physician offices that see fewer children, there may not be a care coordinator located within the medical home offices, but a care manager could have a relationship with staff and be able to efficiently share information (Assessment).⁴
- **Staffing Ratios:** Some state Medicaid programs require providers to maintain certain staffing levels based on the number of participants receiving care coordination. For example, 1 state requires that a health home director (dedicated to health home duties at a minimum capacity of 0.5 full-time equivalent per 125 enrollees) be on staff at the health home, along with either a licensed physician or nurse practitioner (*Integration*).² Another state Medicaid program assigns a nurse to every child in foster care for care coordination regardless of medical need; caseloads range from approximately 100 to 130 children. In contrast, another state Medicaid program has a team of nurses (12 for 6,800 children) who provide care coordination for children in foster care (*Youth*).³

Box D. Embedded in Primary Care Offices

At least 1 state Medicaid program shifted their care coordination model to embed care coordinators in primary care offices. In the beginning of the program, significant funding was allocated to connect with and engage beneficiaries in their homes. However, after 4 years, the agency realized a lot of resources were being wasted on care managers failing to complete home visits because people would not answer the door. After the fifth year, the agency and its contracted care coordination vendor changed the model to focus on having health coaches embedded in physician offices, which helped with contacting beneficiaries and keeping clinicians involved in the care management process.

Source. (Vendor).1

Data Sharing and Analytic Infrastructure

To coordinate care across systems, providers, social services organizations, and interventions, programs must work with a variety of government agencies, community organizations, and providers to collect and share data (including claims, ED use, hospital admissions, and patient demographic information) to identify individuals and to track and evaluate the care provided to them (*Intervention*).⁷

This section explores the successes and challenges, as well as infrastructure considerations, of different data and analytic sharing methods and strategies state Medicaid agencies and providers use to provide effective care coordination and reduce barriers across systems of care.

- Successes: States reported successes in developing new software, platforms, data repositories, data sharing across multiple systems, and using data-informed decision making to implement care coordination processes or quality improvement efforts. Successes include development and use of new care coordination platforms and health information exchanges, sharing data with diverse partners (e.g., MCOs, mental health agencies), and using data to inform outreach and coordination activities (e.g., high-risk notifications when enrollees are admitted to the ED, dashboards displaying key metrics) (Integration).²
- **Challenges:** States reported challenges around data reporting, implementing data-sharing systems and integrating data as intended, and lack of buy-in or readiness from partners and staff for new data systems or integrating existing data systems. Factors included inconsistencies in how data were reported across partner organizations, concerns with beliefs about the risks associated with data sharing, and concerns with the quality of available data (*Integration*).²

Box E. Patient Privacy

Effective care transitions require that both referring and receiving providers share information about the patients, and the patient privacy protections codified in 42 CFR Part 2 are often cited as an impediment to sharing such information for SUD treatment. Several states (e.g., Oregon, Washington) have addressed this by issuing guidance to SUD treatment providers on appropriate application of the law, and others give in-person trainings to primary care offices, hospitals and other care providers on how to share patient information without violating 42 CFR Part 2. Some care coordination programs reported they reduced the barrier by creating a standardized release of information form and by creating a common electronic health record shared among SUD treatment providers.

Source. <u>SUD</u>.11

Abbreviations. CFR: Code of Federal Regulations; SUD: substance use disorder.

• Analytic infrastructure is necessary for state agencies to effectively incorporate data during planning, implementation, and evaluation of a care coordination program. Agencies might need to invest resources to establish this type of infrastructure for a successful program. Analytic capacity could be built onto a state agency's MMIS, or an agency could invest in an entirely different system (*Vendor*).¹ Some care intervention programs also stressed the interest and need to use data analytics to better account for use, as well as for outcomes based on race, ethnicity, gender, and primary language to address health disparities (*Intervention*).⁷

Evaluation, Accountability, and Quality

During the design of a care coordination program, state Medicaid administrators may want to consider how quality will be embedded in the program, and ensure that measures are in place to assess both short- and long-term effectiveness (*Vendor*).¹ This section outlines key strategies and elements to consider for evaluating a care coordination program, ensuring accountability of those providing services, and ensuring that quality measures are embedded in the program.

- Communication and oversight: State Medicaid administrators use a variety of program monitoring systems such as regular reports of care coordination activities, use of care coordination use data, and weekly or monthly communications with care coordinator providers (<u>Vendor</u>).¹
- Evaluations of vendor-based programs: Evaluations that are independent of the vendor allow for a neutral analysis of a program's success and, conducted over a long period, allow time for the program to demonstrate potential success and desired outcomes. Evaluation designs may be best informed by stakeholders and program goals (<u>Vendor</u>).¹
- **Timeframe:** Although decision makers and program funders might want to see results quickly, care coordination programs will likely need to operate for several years before showing a tangible impact on the Medicaid budget and use indicators. To make a long-term impact, a care coordination program should consider focusing on priorities that often take significant time, including changing behaviors of beneficiaries and addressing underlying social issues that influence health (*Vendor*).¹

Quality Metrics

The root causes of failed care coordination include structural (e.g., disconnected communication systems, misaligned payment incentives) and process (e.g., communication breakdowns like a failure to send discharge information to primary care provider, and lack of accountability, including unclear responsibilities for the planning and follow-up care for discharged patients) factors (*Integration*, Transitions).^{2,5} Therefore, identifying and using process, structure, and outcome measures are key to evaluating care coordination programs. When electing which quality measures to use, states may want to consider which of the intervention types (e.g., beneficiary, provider, system) they are using, as some metrics may not be relevant for a particular intervention. Two sources for identifying care coordination quality metrics are:

- Agency for Healthcare Research and Quality (AHRQ): In 2014, the AHRQ Care Coordination Measures Atlas (AHRQ Atlas) summarized, cataloged, and compiled all searchable care transition-related definitions and quality metrics, and outlined 9 domains for achieving successful care coordination in health services delivery (*Transitions*).⁵ For more information on measure specification, please refer to the AHRQ Care Coordination Measures Atlas.¹²
- National Quality Forum (NQF): In August 2012, the NQF completed the National Voluntary Consensus Standards for Coordination of Care across Episodes of Care and Care Transitions.¹³ The NQF committee focused on assessing 15 quality measures scheduled for maintenance review based on the quality of the measures. They assessed the evidence base, reliability and validity, feasibility of use, terminology and definitions, and competing and related measures. At the end of the assessment, the committee endorsed 12 structure, process, and outcome measures associated with care transition (Table 5).

Measure Type	Measure Title	Measure Number
Structures	Medical home system survey	0494
Processes	Medication	0097
	Advance care plan	0326
	Timely initiation of care	0526
	Care for older adults—medication review	0053
	Medication reconciliation post-discharge	0554
	Reconciled medication list received by discharged patients	0554
	Transition record with specified elements received by discharged patient	0647
	Timely transmission of transition record	0648
	Transition record with specified elements received by discharged patients	0649
Outcomes	Acute care hospitalization (risk-adjusted)	0171
	Emergency department use without hospitalization	0173

Table 5. National Quality Forum Care Coordination Measures

Sources. National Quality Forum¹³; <u>Transitions</u>.⁵

Conclusions

State Medicaid administrators have many factors to consider when designing and implementing care coordination programs, including which delivery of care model to use, how to structure payments to achieve intended outcomes, and how to use data to identify beneficiaries for care coordination services and effectively evaluate the outcomes of services provided. To aid Medicaid policymakers in designing, implementing, and evaluating a care coordination program, we have created the following checklist with key considerations.

State Medicaid Care Coordination Checklist

Program Element	Specific Considerations
Care Coordination Interventions	 What goal is your state trying to achieve with a care coordination program (e.g., better transitions between settings of care, improved coordination among providers)? What level care is the best fit for your state, and most likely to achieve the goals of your state's care coordination program? Beneficiary (e.g., health coaching) Provider (e.g., primary care office) System (e.g., across system providers, such as hospitals and SNFs)?
Delivery of Care Coordination Models	 Which of the following delivery-of-care models would work best for your state and the population being provided with care coordination services? Accountable care organization Coordinated or managed care organization Health home model Lead entity model Vendor-based care coordinator Does your state have the existing authority to implement the desired care coordination program, or would a waiver or state plan amendment be required? What threshold of clinical evidence is important to consider for your state? How would using of one of these models work within existing care delivery models in the state?
	What adjustments would need to be made within existing care delivery models to accommodate care coordination approaches?
Beneficiary Identification and Stratification	 Will all members be eligible for care coordination, or will members need to meet certain criteria to be eligible? How will individuals eligible for care coordination be identified? Options for identifying individuals may include: Community referrals (e.g., housing and homeless organizations) Social risk factor screenings By health condition (e.g., chronic disease, high-risk obstetrics, mental health) Data-driven approach (e.g., clinical risk groups, hot-spotting method) Which types of data must be collected and shared for identification of beneficiaries? Consider both: Quantitative data (e.g., claims; ED, hospital, and SNF admissions and discharges; multiple address changes within a certain timeframe) Qualitative information (e.g., provider referrals)
Payment and Financing	 What are the funding mechanisms available in your state to support care coordination services (e.g., grant funding, state funds from other agencies that financially benefit from the cost reduction resulting from the care coordination program)? Which of the following payment models will you use to pay for care coordination services? FFS Annual lump-sum payment Shared savings arrangement Population-based payments (e.g., PMPM, global payment) Does your state have a timeline for moving from an FFS or shared savings model to a population-based or risk-based payment model?

Program Element	Specific Considerations
Structure of Care Teams	 Which staff will be a part of the care coordination team? Members could include: Physicians Psychiatrist or psychologist Registered nurses Pharmacists Community health workers Housing specialists Health resilience specialists Where will care coordination staff be located (e.g., care sites, including physician offices, community care clinics, hospitals, and mobile care clinics) to help make connections across all staff providing care to an individual? Will training be provided to clinicians and other staff who work with patients, related to creating trust, empowering patients, and understanding cultural context? How can communication, coordination, and collaboration within and among teams be ensured? Consider how to support teams in deciding who should be responsible for supporting the patient through the care transition, and for maintaining contact with the patient and their care providers.
Data Sharing and Analytic Infrastructure	 Can data analytics be used to better account for care use, and outcomes based on race, ethnicity, gender, and primary language, to address health disparities? Evaluate in-house analytic capabilities; what will be needed for the care coordination program in terms of identifying beneficiaries and evaluating outcomes? Will any of the following need to be developed or improved? Care coordination platforms Health information exchanges Dashboards to display key metrics Are there existing issues with data sharing among key partners (e.g., health plans, hospitals, other state agencies) that must be resolved prior to implementation? How will potential barriers to sharing data related to 42 CFR Part 2 be addressed (e.g., creating a standardized release of information form)?
Evaluation and Accountability	 How will care coordination services be evaluated to ensure desired outcomes are achieved? Consider the use of quality metrics (e.g., AHRQ, NQF measure) or evaluations that include concurrent comparison groups (e.g., RCT, controlled trials, comparative cohort studies such as those using a wait list control group) Consider evaluating additional pilot intervention components in a subset of beneficiaries already receiving comprehensive program, to allow for comparison group (e.g., subpopulation in care coordinating program to receive additional social benefit) How often will the care coordination program be evaluated (e.g., annually, 6 to 12 months after implementation, major changes to the program)? Consider including longer-term evaluations (2 to 5 years) to follow-up on health and mortality outcomes Consider the use of surveys to evaluate the program (e.g., beneficiary and caregiver

Abbreviations. AHRQ: Agency for Healthcare Research and Quality; CFR: US Code of Federal Regulations; ED: emergency department; FFS: fee for service; NQF: national quality forum; PMPM: per-member-per-month; RCT: randomized control trial; SNF: skilled nursing facility.

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