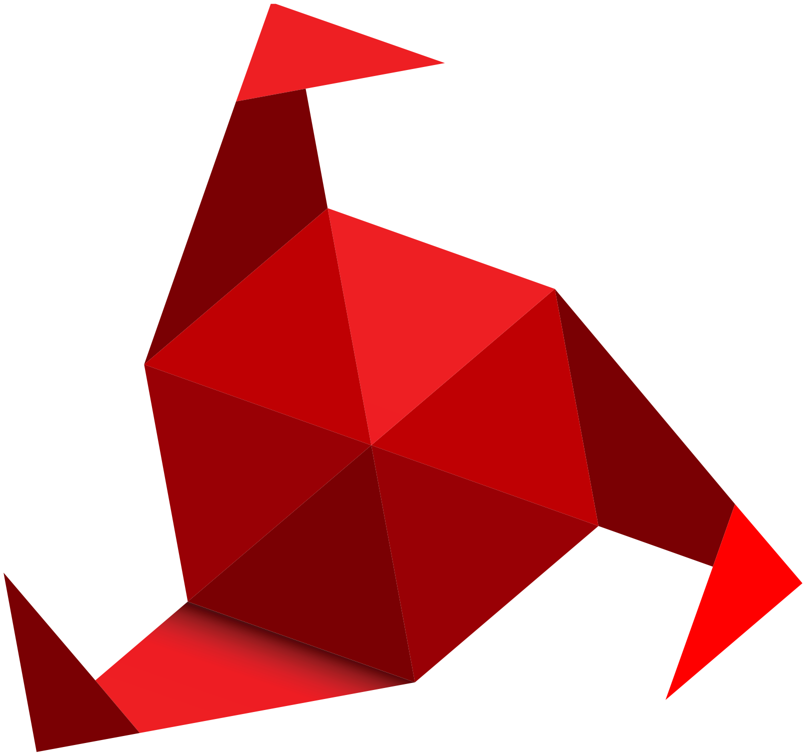
LONGITUDINAL CARE PLANS



DELIVERING ON THE PROMISE OF PATIENT-CENTERED CARE

A Chilmark Research *Care Management*
Insight Report

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Chilmark Research is a global research and advisory firm whose sole focus is the market for healthcare IT solutions. This focus allows us to provide our clients with the most in-depth and accurate research on the critical technology and adoption trends occurring throughout the healthcare sector. Areas of current research focus include among others: Clinician Network Management, Cloud-computing Models for Healthcare, IT-enabled Accountable Care Organizations, Care Coordination, Adoption of Mobile Technology and Consumer-facing Health & Wellness Applications and Services.

Using a pragmatic, evidence-based research methodology with a strong emphasis on primary research, Chilmark Research structures its research reports to serve the needs of technology adopters, consultants, investors and technology vendors. In addition to reports for the general market, Chilmark Research performs research for clients based on their specific needs. Such research has included competitive analyses, market opportunity assessments, strategic assessment of market and vendors for partnership and/or acquisition.

In 2012, Chilmark Research launched its newest service, the Chilmark Advisory Service (CAS). The CAS was created in direct response to clients' request for a continuous feed of research on the most pertinent trends in the adoption and use of healthcare IT. This is an annual subscription that provides not only access to a number of re-search reports throughout the year, but also direct access to Chilmark Research analysts to answer specific client needs. Please contact us directly for further information about CAS.

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Chilmark Research LLC

745 Atlantic Ave, Suite 901
Boston, MA 02111
www.ChilmarkResearch.com
info@chilmarkresearch.com
Ph. 617.615.9344

To the following organizations who were interviewed and provided feedback for this report:

- ACT.md
- Allscripts
- American Academy of Family Physicians (AAFP)
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Thank You

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WHAT IS A COORDINATED CARE PLAN?

A coordinated care plan is a written or electronic plan designed to coordinate a patient's daily healthcare needs across multiple stakeholders. It outlines the patient's short- and long-term needs, recovery goals, and coordination requirements, and it identifies who is responsible for each part of the plan (the physician, care team, patient, and so on).

Care plans are a crucial part of supporting and helping patients through recovery. Perhaps one of the most important aspects of a coordinated care plan is that it engages patients in their own care and facilitates patient self-management. Patient-centered treatment — treating patients as partners, involving them in planning their healthcare, and encouraging them to take responsibility for their own health — generally increases patient adherence and satisfaction.

DRIVERS IN THE PUSH FOR COORDINATED CARE PLANS

Much of the push for coordinating care plans comes from government initiatives out of the Centers for Medicare and Medicaid Services (CMS) and the Department of Health and Human Services (DHS). They are pursuing a strategy of 'carrots' and 'sticks' to encourage adoption but primarily using 'carrots' until 2018.

Meaningful Use

For the time being, Meaningful Use requirements for care plans are minimal. Stage 2 MU requirements include communication of coordinated care plan components such as patient problems, goals, patient instructions, allergies, medications, and responsible clinicians for the clinical summary requirement at transitions of care. Patient goals and instructions are optional fields and not required for Stage 2.

Stage 3 MU requirements increase the thresholds for the electronic care summary exchange at transitions of care and patient record sharing required by providers. While this helps drive increased information sharing among providers, it is not likely to do much to advance the utilization of coordinated care planning.

Chronic Care Management (CCM) Coding

Starting Jan. 1, 2015, CMS initiated a chronic care management (CCM) coding payment, 99490, which reimburses primary care practices $43.28 per month (with geographic modifiers where applicable) for non-visit-based care of traditional Medicare fee-for-service beneficiaries with multiple chronic conditions. This is the 'carrot' approach CMS is utilizing to drive coordinated care planning adoption.

To receive the payment, practices must meet specific requirements for reimbursement -- the most important being the development of a care plan, followed by provision of at least 20 minutes of non-visit based chronic care services per month by a physician or other eligible practice staff.

Readmission, Bundled Payments, and ACOs

As a part of the Patient Protection and Affordable Care Act (PPACA), CMS is administering various programs that are having an indirect effect on provider adoption of coordinated care planning. The Readmissions Reduction Program probably has the most direct impact on encouraging the adoption of coordinated care planning as an extension of traditional discharge planning due to the potential reductions in Medicare reimbursement. Several various methodologies utilized for discharge planning (such as Project RED) emphasize elements of coordinated care planning.

SELECTING A CARE PLAN

Providers looking to establish longitudinal care plans have a couple of options to choose from, eachwith their own particular strengths and weaknesses.

Clinical Content Vendors

All of the major commercial evidence-based content vendors (Elsevier, Wolters Kluwer, and Zynx Health) offer care plan content for the inpatient setting. These three vendors and Motive Medical all have future plans for supporting shared care plans across multiple care settings although are at the beginning stages of creating this care plan content.

Physician Specialty Societies

Chilmark Research spoke with several physician societies that have developed care plans: the American Society of Clinical Oncology, American College of Cardiology, American Academy of Family Physicians, and the American Academy of Pediatrics. Their experiences, the challenges they've faced, and in some cases the steps they've taken to overcome those challenges are instructional for any provider looking to develop and implement a care plan.

Data Elements of a Care Plan

Chilmark Research did that there was a fairly consistent set of data elements that should be part of a longitudinal care plan:

- Basic patient demographics including name, age and sex
- All current members of the patient's care team including their spouse or family caregiver(s), PCP (if they have one) and the individual in charge of coordinating the care team activities for the patient
- All treatment programs the patient is currently enrolled in
- Active problems that need to be addressed
- Goals including self-management goals
- All interventions and the status of those interventions including their current completion status and their start and end dates
- Risk factors or barriers
- Active medication list

There were also a number of additional types of data elements that were mentioned more than once as a part of a longitudinal care plan that can be grouped into three broader categories:Clinical-specific data elements; Administrative-specific data elements; Patient-specific data elements. These varied by care setting, patient population, and the care management goals of the provider organization.

USING THE CARE PLAN

Once the care plan has been selected, the care team organized, and a plan for generating and sharing data agreed upon, the care plan is ready for use. This is where things get interesting. We've grouped healthcare providers into three groups, according to the status of their technology and types of patients they typically care for. The way these different providers will use care plans will vary accordingly.

Care Plans in Physician Practices

The pervasiveness of electronic health records in physician practices makes EHRs the clear choice as a starting place for care planning.Some practices use their EHRs to help create a “huddle sheet,” which lists patients scheduled for the day and notes pertinent issues for each patient that might not already be included in the EHR. Otherwise, the EHR can deliver messages via instant messaging, within-chart notes, phone templates routed to team members’ inboxes, and task assignments. EHRs though over the longer term will not be sufficient to address longitudinal care plans. Instead, the key issue will be how the longitudinal care plan, which will reside elsewhere, will be accessible and rendered through the EHR.

Care Plans in Post-Acute Care

While hospitals and physician practices were enjoying an influx of meaningful use funding, skilled nursing facilities (SNFs), home health agencies (HHAs) and other post-acute care providers had to make do with what they had -- either paper or minimalist IT solutions. This picture is starting to change. Vendors are starting to develop, or acquire, solutions geared toward post-acute care. The result is that health IT for post-acute care facilities is expanding beyond bare-bones documentation and putting more emphasis on integration with other systems. Vendors are also coming up with ways to accomplish broader goals of post-acute care -- for instance, the ability to digitize the details of a home health visit, including if that visit was by social worker.

Care Plans for Behavioral Health

Behavioral health (BH) and physical health (PH) services are typically delivered by different providers in separate settings, often with little coordination or integration. This fragmented delivery of care can be particularly problematic for individuals with serious mental illness (SMI) because of their behavioral health needs and their often-significant physical health problems. Care plans have potential to close some of these gaps.

Most behavioral health providers are not paid to monitor their patients’ physical health, at least not for now, but a care plan could provide a low-cost way to track and follow up PH issues, even when detected by a BH clinician. New healthcare delivery models, such as accountable care organizations and health homes, as well as changes to healthcare financing, may enable more providers to incorporate practices that increase the integration of physical and mental health services, particularly the integration of physical health into behavioral health settings to help address the needs of individuals with SMI.

While the technology and concept are currently immature, Chilmark Research believes strongly that care plans are an important next stage of realizing the potential of health IT to provide a more cohesive, inclusive experience for patients who have put their wellbeing in the hands of the healthcare system. We have prepared this report to help move this important technology forward.

INTRODUCTION

The modern age has seen huge advances in medical treatments and much greater specialization among healthcare professionals. However, even as medicine has produced innovations like the Human Genome Project and minimally invasive surgery, it has not found a way to reliably share the full story of a patient's care or coordinate healthcare professionals around a shared set of goals and assumptions for a patient. This is where care plans come in.

WHAT IS A COORDINATED CARE PLAN?

A coordinated care plan is a written or electronic plan designed to coordinate a patient's daily healthcare needs across multiple stakeholders. It outlines the patient's short- and long-term needs, recovery goals, and coordination requirements, and it identifies who is responsible for each part of the plan (e.g. the physician, care team, or patient). A number of people might create and maintain the care plan: The patient or family member, the healthcare team or, if necessary, community or social services.

Care plans are a crucial part of supporting and helping patients through their health journey. As such, care plans should not be made distinct from the daily provision of care. Because many patients receive care from a number of loosely affiliated or unaffiliated care providers, coordinated care plans facilitate communication between the parties involved in a patient's care. They help physicians and patients manage numerous medical therapies prescribed by various health professionals within the patient's circle of care. Thus, care plans are a key mechanism by which a person's individual care and treatment can be developed, documented, modified and shared with everyone involved.

Perhaps one of the most important aspects of a coordinated care plan is that it engages patients in their own care and facilitates patient self-management. Patient-centered treatment — treating patients as partners, involving them in planning their healthcare and encouraging them to take responsibility for their own health — generally increases patient adherence and satisfaction.

ABOUT THIS REPORT

Chilmark Research spent several months interviewing healthcare providers and health IT vendors, delving into how care is (or could be) coordinated in a wide variety of healthcare settings. For this report, we expanded our research beyond the United States, exploring how care plan innovations in Australia, Canada, Ireland, the Netherlands, Sweden, and the United Kingdom connect the often numerous caregivers and facilities involved in a patient's care.

The first part of this report looks at the key components of a care plan. The concept of care plans is still in its infancy and therefore undergoing the necessary stages of planning, testing, and revision that typify any new use of technology. Our list of care plan components reflects this current state of flux. While it should not be taken as a strict set of hard-and-fast rules, it does provide a useful checklist of the people, roles, and technology to consider when creating a care plan.

We then move to the basic steps providers need to take to facilitate coordinated care and how a care plan fits into that picture. Several care plans are available for purchase on the market today;some have been developed by clinical content vendors, while others are the product of physician specialty societies.

As with any health IT, care plans rely on data. We also look at the data elements that a care plan requires to meet its goal. These include the data points gathered in a given setting that caregivers in subsequent patient-provider interactions need in order to carry out the shared plan. Of course, breaking down barriers between, for instance, the ICU at a large integrated delivery network (IDN) and a community-based home health agency is not a simple or straightforward endeavor. Those who set out to develop and implement a care plan need to prepare for the challenges they will face along the way -- and we have outlined many of them, along with providing suggestions for staying the care-plan course.

In our section on using care plans, we look at three major categories of care plan users: Inpatient and physician practices with well-established electronic health records (EHRs); post-acute settings such as skilled nursing facilities (SNF) and hospices that have not enjoyed the windfall of HITECH funding with which to purchase sophisticated health IT tools, and behavioral health facilities whose patients typically present complex mixtures of physical and mental health issues.

We close with care plan best practices and our assessment of the care plan market now and over the next two to three years. While the technology and concept are immature, Chilmark Research believes strongly that care plans are an important next stage of realizing the potential of health IT to provide a more cohesive, inclusive experience for patients who have put their wellbeing in the hands of the healthcare system. We have prepared this report to help move this important technology forward.

COORDINATED CARE PLANS AND A LONG-TERM VISION OF COORDINATING CARE

Nursing care plans have been used in U.S. hospitals and nursing homes for decades as a means to meet certification (e.g., JHACO) or billing requirements. More recently, the concept of a coordinated or longitudinal care plan has emerged.

Coordinatedcare plans have high expectations to fulfill. They are supposed to be:

- Truly patient-centered, incorporating the wishes of the patient or their caregivers into the treatment goals
- Interdisciplinary, including providers beyond just physicians and nurses
- Holistic, tracking the patient across care settings
- Dynamic, with updates as the patient interacts with the healthcare system

Needless to say, this is quite a lofty set of expectations even with the more widespread adoption of EHRs by hospitals and physician offices.

Since the concept of a longitudinal care plan was mentioned in the Patient Protection and Affordable Care Act (ACA) and the Health Information Technology for Economic and Clinical Health (HITECH) Act, there has been confusion between the terms,care plan, plan of care and treatment plans. The best clarification to date came from the Standards and Interoperability (S&I) Framework, a group set up by the ONC's Office of Standards&Interoperability. The S&I Framework describes a hierarchical structure of care plan components with different layers of complexity.

- Care plans are at the highest level and used longitudinally
- Plans of care relate to a discipline or setting-specific set of related problems or health concerns
- Treatment plans relate to a single problem or health issue

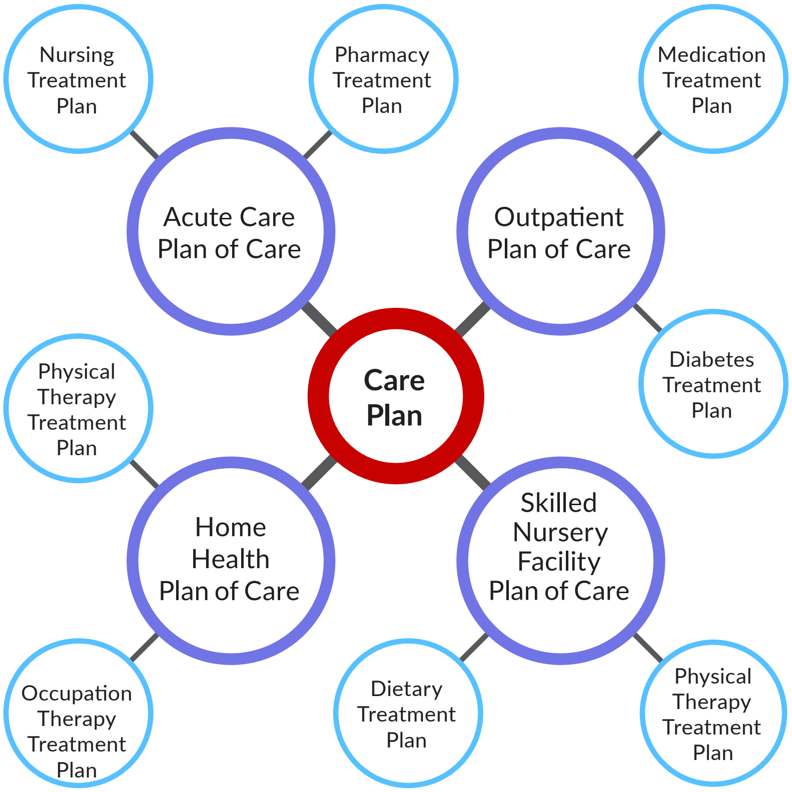


Figure 1: S&I Framework for Care Plans, Plans of Care, and Treatment Plans

Using the S&I framework, each patient can have one care plan but many plans of care and treatment plans. As the number of problems, providers, and care settings increase, a master care plan or longitudinal care plan provides overall coordination of different provider-specific treatment plans, discipline and site-specific plans of care.

Chilmark Research did find general agreement among vendors and providers that provider treatment plans should go into the care plan. The differences that we found were mainly concerning where elements of the treatment plan including physician orders and clinical decision support should reside (e.g., within the physician's EHR or a care co-ordination or care management platform) and how this information should be updated.

The reality today is that each organization providing care to an individual has its own treatment plan, care plan, and in some cases a plan of care for that individual, although this remains limited. These documents are contained in different systems but mainly reside in the EHR of each organization, though their structures are often quite different. The U.S. health care system is at least 8 to 10 years away from achieving an idealized version of thecoordinated care plan. Providers are in the early phases of adopting care plans in certain care settings (e.g., ambulatory) or expanding their functionality beyond basic billing requirements (e.g., skilled nursing facilities). The industry has a long way to go before it is ready to coordinate care in a truly patient-centered, interdisciplinary, holistic manner across multiple venues of care.

KEY ELEMENTS OF A COORDINATED CARE PLAN

As described in the introduction, a care plan coordinates a patient's daily healthcare needs across multiple affiliated and unaffiliated stakeholders, including the patient. While it is possible to execute a care plan on paper, this report focuses entirely on care plans that are created and shared electronically.

What follows is a compilation of core care plan elements that Chilmark Research identified while researching the topic across several jurisdictions: The United States, Australia, Canada, Ireland, the Netherlands, Sweden, and the United Kingdom. This is not an exhaustive list, however. The elements highlighted below serve only as a framework that can be customized to meet the needs of virtually any health-related organization that are responsible for coordinated care planning.

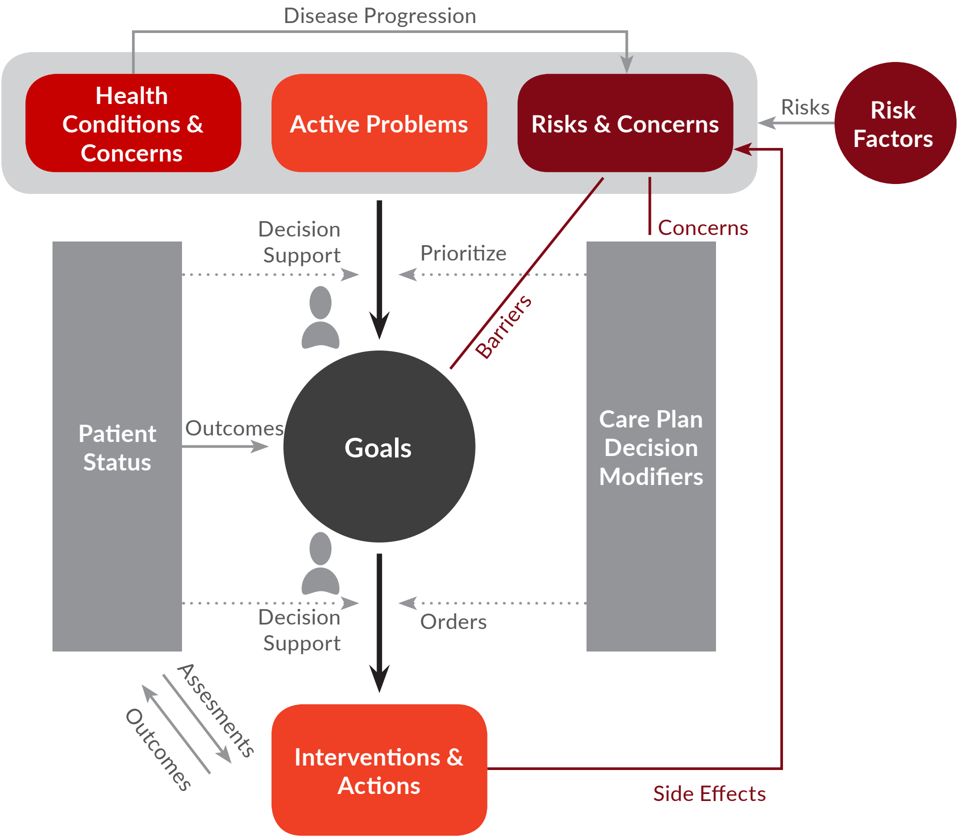


Figure 2: Overview of a Coordinated Care Plan

1. PATIENT INFORMATION AND MEDICAL SUMMARY

This portion of the care plan presents the patient's basic demographic information along with their current medical issues and therapy regimens. In many ways, it is similar to the patient summary screen of an EHR or health information exchange (HIE), although with slightly less information. Contact and medical information will facilitate the ease of information sharing from one level of health or community care to another. Information in this section should be brief and concise, with more detailed information regarding medical conditions, treatments, and therapies accessible in other sections of the care plan.

Specific information that could be included in the Patient Information and Medical Summary include the following:

- Contact information for the person who is preparing the care plan
- Patient demographics such as name, age, address, phone number, e-mail, normal weight, basic vital signs, and cultural, ethnic or religious beliefs
- Family and/or caregiver contact information (including substitute decision-maker)
- Contact information for primary physician, medical specialists, and community providers such as a home care worker or the facility where the patient currently resides)
- An indication of whether there is an advanced care plan in place (e.g., a living will or advanced directives)
- Allergies and medications
- Principal diagnosis and active problem list
- A summary of past health history,including hospitalizations
- Current therapies

2. PATIENT MEDICAL STATE AND NEEDS ASSESSMENT

This section provides a more detailed description of the patient's medical conditions, treatments and therapies and can serve as the basis for a needs assessment. Providers can refer to this section for a deeper understanding of the patient's condition, whilepatients can use it to participate in the planning process.

Patient self-assessments of their current physical, psychological, and social state present an opportunity to identify areas where risks may be most significant and additional supports may be needed. Physicians and other care providers have noted that patients may over- or underestimate their needs in the presence of families and/or friends. It is important to encourage patients to be honest about their current health and capabilities.

Self-assessments may cover the following tasks:

- Measure psychological well-being, including mood, signs of depression, or issues related to cognitive functioning and memory
- Identify social and support systems, including family or friends nearby, who to call in case of emergency, substitute decision-maker, and participation in activities outside of the home that may require assistance to continue
- Assess current living situation and physical challenges, including eating and food preparation, walking and other movements, sleeping, and self-care routines like washing and dressing. An assessment tool that focuses on a patient's Activities of Daily Living Scale (ADL) may be helpful here.

Information collected through the self-assessment can be used to develop a plan of care that identifies and coordinates the support services a patient will need in order to maintain or improve health and mitigate the risk of decline. The subsequent plan identifies needs such as the following:

- Whether the patient needs assistance administering insulin and if short-term assistance will suffice to help the patient feel comfortable with self-injections
- Whether the patient needs assistance with meal preparation
- Whether the patient needs to be referred to an allied health professional or a medical specialist

- Whether the patient would be better off at home or in a skilled nursing or senior living facility
- Whether the patient needs a full-time caregiver
- How often the patient should return for a follow-up evaluation

Some healthcare providers find it useful to perform a standardized risk assessment at this stage in the planning process to determine the best timing for any additional follow-up. This can help identify patients who are at high risk for readmission and ensure they receive timely and appropriate intervention, whether that means being seen by their primary care team as soon as possible or receiving a scheduled follow-up phone call within 48 hours.

To facilitate scheduling, staff responsible for planning the patient's transition may wish to contact the physician's office on the patient's behalf before the patient is released. An in-patient facility, for instance, may decide not to release a high-risk patient on a Friday if that patient cannot be seen by a physician until at least the following Monday.

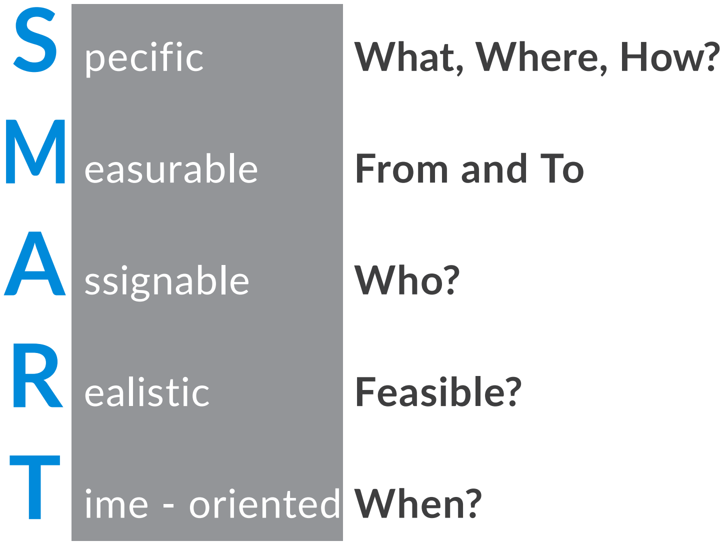
Finally, healthcare providers may wish to include information about how to recognize indicators that would signal the need for immediate medical attention or emergency care. Patients could be provided with a list of possible symptoms and corresponding directions about who to contact during scenarios such as the following:

- If you have flu symptoms that prevents you from taking your medication, contact your family physician.
- If you experience a fever, contact the transplant nurse.
- If the voices in your head get worse, contact you mental health professional.
- If your weight increases by more than three pounds in three days, double your diuretic.

3. PATIENT GOALS

This section of the care plan serves the important purpose of involving patients in setting goals and developing solutions to ensure that the plan will work with their life situation and ultimately improve patient adherence to the plan. A number of different community or healthcare providers may be involved in helping patients achieve various goals; these include the primary physician, a physical therapist, a home-care nurse, and specific family members or friends.

Goals should be structured in a SMART goal format (Figure 3). Other approaches to goal setting can be used but the principal advantage of SMART objectives is that they are easier to understand and to know when they have been done. SMART goal formatting is also something that has been used in healthcare for a while now including in nurse care planning.



S	pecific	What, Where, How?
M	easurable	From and To
A	ssignable	Who?
R	ealistic	Feasible?
T	ime - oriented	When?

Figure 3: 'SMART' Goal Format

Specific

Clear, detailed goals that can be understood by everyone involved in the patient's care. This may involve breaking larger goals into smaller, specific steps, as patients who can achieve small gains in specific areas are more likely to be motivated to share responsibility for their care. For example, a patient may have a goal of continuing to live at home. Breaking this one goal into several distinct goals – preparing a meal, getting in and out of the bathtub safely, remembering to take medications, getting dressed by himself, and so on – gives the patient specific things to work on.

Measurable

Quantifiable changes that make it possible to track improvement over time. For example, a patient may have a goal of taking their dog for a walk. The measure may begin with a short walk of 100 feet and increase the distance by 50 steps each week until the patient can walk around the entire block.

Assignable

Assignable goals are clearly either assigned to a specific member of the care team, a community resource, a caregiver or family member, or the patient themselves. For example, if the patient needs assistance to be transported to an office visit since they cannot drive themselves, it is clear who is responsible for bringing the patient to and from their residence.

Realistic

Practical goals that take the patient's current abilities or resources into account. For example, a patient may not be ready to prepare a Thanksgiving meal for a family of ten this year, but he or she may be able to prepare one or two dishes to bring to a dinner hosted by another family member. They also address the issue of risk and ensure that the patient is not being placed at any additional risk in order to complete the goal.

Time-oriented

A defined timeframe that allows sufficient opportunity for improvement while also motivating patients to take action. For example, a patient learning to inject insulin may need a caregiver to do it for the first week, then caregiver supervisionof patient self-injectionfor the second week, with the goal that the patient is proficient with self-injections by the end of the third week.

Self-Care Considerations

Many proponents of coordinated heath care plans recommend a self-care component as a follow-up to the patient goals section of the care plan. In the best-case scenario, self-care involves a partnership between patients and providers engaged in two-way communication, negotiation, and decision-making. Both the patient and the healthcare professional contribute to the care planning process to achieve the best possible outcomes for the individual.

For instance, a patient with limited mobility who has set a goal of spending X number of hours out of bed will need assistance from a physiotherapist to build muscles and increase tolerance for sitting in a chair. However, there is a self-care component that the patient could be responsible for. The patient could, for instance, commit to scheduling and keeping physiotherapy appointments, going to bed on time at night, and avoiding afternoon naps to improve sleep. Such concrete, proactive steps can give patients some control over their treatment and progress.

4.INTERVENTIONS AND ACTIONS OF THE CARE PLAN

After the patient goals have been set and agreed to by the patient and relevant care team providers, the next step is to create a list of interventions with specific actions. Each specific goal in the care plan will have a specific number of interventions associated with it. The types of interventions associated with a goal can vary considerably. They may involve scheduling a referral to another provider, creating an appointment with another provider, reminding the patient to have lab work done or picking up their medications, having the patient review relevant patient education materials, etc.

Interventions may be created manually by a care manager or created automatically by completing an assignment or a clinical event. Each intervention will be assigned to a particular member of the care team and will have an end date of when the intervention is to be completed.

5. REVIEW THE CARE PLAN

An important and often-overlooked piece of establishing a care plan is deciding when and how the care plan will be reviewed and optimized. Whenever possible, the patient should be directly involved in the review along with their caregivers. A patient with complex long-term conditions may need their care plans reviewed more often than a patient with low-level needs, who may only have a review once a year.

A care plan review happens for a number of reasons:

- > Assess whether care plan goals have been achieved
- > Determine if there are any barriers to progress
- > Identify early signs of difficulty with the patient, the plan, or the goals identified
- > Evaluate the suitability or quality of the care provided
- > Reassess current needs based on progress made
- > Determine whether the care plan still meets the patient’s goals and needs
- > Revise and optimize care plan with new inputs derived from assessment review
- > Set the date for the next review

If the care plan is revised based on the review, all stakeholders should receive a copy of the revised plan that highlights significant changes.

DRIVERS IN THE PUSH FOR COORDINATED CARE PLANS

Coordinated care plans are not a new concept, but several issues hinder their development and use, including the lack of clarity regarding naming conventions, regulatory requirements, content, communication and messaging standards, care plan ownership, and participation. The biggest barrier, though,is the simple lack of direct reimbursement for providers to engage in coordinating care.

Much of the push for coordinating care plans comes from government initiatives out of the Centers for Medicare & Medicaid Services (CMS) and the Department of Health and Human Services (HHS). They are pursuing a strategy of “carrots” and “sticks” to encourage adoption, but primarily using “carrots” until 2018.

Meaningful Use

For the time being, Meaningful Use (MU) requirements for care plans are minimal. Stage 2 MU requirements include communication of coordinated care plan components such as patient problems, goals, patient instructions, allergies, medications, and responsible clinicians for the clinical summary requirement at transitions of care. Patient goals and instructions are optional fields and are not required for Stage 2. The Stage 3 MU requirements increase the thresholds for the electronic care summary exchange at transitions of care and patient record-sharing required by providers. This helps drive increased information sharing among providers, but it is not likely to do much to advance the utilization of coordinated care planning.

This could change within the next couple years, however. CMS is considering requiring additional data elements that could improve communication across transitions for future stages of MU. These include patient preferences, diagnostic and therapeutic plans related to patient goals, pending tests, information onfollow-up care, the self-care management plan, and orders fortreatments and interventions.

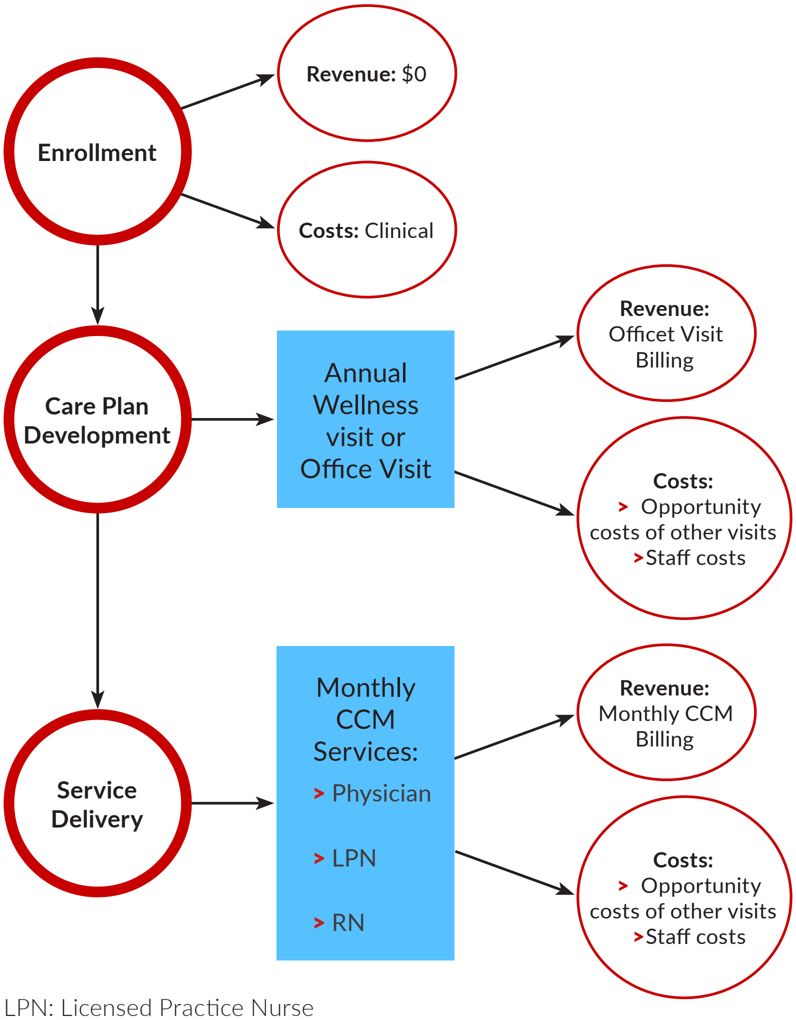
In 2018, Stage 3 MU attestation will be mandatory for all non-exempted providers; otherwise, they will receive an annual penalty on CMS reimbursement. This is the “stick” to drive a number of policy initiatives including coordinated care planning. As for the MU program itself, lots of uncertainty remains about its ultimate fate beyond Stage 3, including whether or not it might be folded under other CMS programs or scrapped entirely, placing the ‘stick’ portion of coordinated care planning in jeopardy. In particular, proposed MIPS program that will begin in 2019 will likely migrate MU requirements to value-based initiatives

Chronic Care Management (CCM) Coding

Primary care practices increasingly provide non-visit-deliver monthly services in accordance with care coordination and population health requirements. Previously, non-face-to-face care management was considered to be part of existing evaluation and management services -- specifically, part of the pre- and post-service work for E&M codes, whether it be home visits or office visits. Starting Jan. 1, 2015, CMS initiated a CCM code, 99490, which reimburses primary care practices $43.28 per month (with geographic modifiers where applicable) for non-visit-based care of traditional Medicare fee-for-service beneficiaries with multiple chronic conditions. This is the “carrot” approach CMS is utilizing to drive coordinated care planning adoption.

To receive the payment, practices must meet specific requirements for reimbursement -- with the most important being the development of a care plan, followed by provision of at least 20 minutes of non-visit based chronic care services per month by a physician or other eligible practice staff. If practices participate in the program, they must receive written consent from eligible patients (who will be billed a copayment), develop care plans for them, and decide how to deliver monthly services in accordance with the program requirements.

The CCM reimbursement coding presents both an opportunity and a dilemma for practices. Delivery of CCM services presents a potential lucrative revenue opportunity especially with practices with a number of Medicare fee for service (FFS) recipients. At the same time, it may distract from routine patient visits, while requiring the hiring of additional staff and the purchase of additional technology. Although the CCM payment could represent nearly $500 in annual revenue per eligible Medicare beneficiary, practices are showing hesitancy to seek these payments because of the considerable startup and reoccurring costs incurred to meet CMS requirements.



LPN: Licensed Practice Nurse
RN: Registered Nurse

Figure 4: Provider CCM Delivery Strategy

Whether a practice will realize net revenue depends on several factors, but the primary factors will be its staffing capabilities and ability to automate CCM workflow. If practices employ LPNs and RNs to provide routine care under the CCM reimbursement program, concurrent with adopting solutions that automate steps in the process, and are able to enroll a sufficient number of Medicare beneficiaries, they should be able to realize positive (albeit small) net revenue.

CMS has not publicly released any data so far on the program. Limited survey data and conversations Chilmark Research has had seem to indicate there is still a general lack of awareness among providers about even the availability of the CCM code, let alone aggressive adoption by PCP practices to date. This “carrot” is not driving market adoption of coordinated care planning. We are, however, seeing MCO-like organizations offering practices a small percentage cut of total CCM reimbursement via an outsourcing partnership.

Additionally, the 99490 code is likely the tip of the iceberg in terms of what CMS will approve in coming years to drive increased coordinated care planning. CPT 99487, which is reported when clinical timefor patients requiring moderate or high complexity reaches 60 minutes a month, is still not payable under Medicare, but Chilmark Research believes this will be approved payable under Medicare sooner than later. Various physician specialty societies are pushing Medicare to approveother E&M services. For example, the American College of Physicians (ACP) proposed paying for additional E&M services that do not involve face-to-face contact with the patient for FY2016. Among these are online medical evaluation and care plan oversight for home and hospice care.

It is always possible that CMS will hold off on paying for additional services that will drive chronic care coordination over the next few years, but Chilmark Research believes the 99490 CCM code is the first of several ‘carrots’ that CMS is going to offer in the years to come to accelerate coordinated care planning.

Readmission, Bundled Payments, and Accountable Care Organizations (ACOs)

As a part of the ACA, CMS administers various programs that are having a more indirect effect on the adoption of coordinated care planning by providers. The Readmissions Reduction Program probably has the most direct impact on encouraging the adoption of coordinated care planning as an extension of traditional discharge planning due to the potential reductions in Medicare reimbursement. Several methodologies utilized for discharge planning, such as Project RED, emphasize elements of coordinated care planning.

Other voluntary programs with various components where payments are in part based on controlling costs, such as the Bundled Payments for Care Improvement initiative and the Pioneer & Medicare Shared Savings Program ACO programs, should drive increasing levels of coordinated care planning.But the connection is more nebulous and defuse. Things may change if these programs suddenly become mandatory, as is the case in the 75 geographic areas, including Los Angeles and New York City, where as of next year CMS requires hospitals to participate in a test of bundled payments for hip and knee replacements. Otherwise, these programs are likely to have a weak overall effect in driving the adoption of coordinated care planning.

DEVELOPING THE CARE PLAN

This section covers several issues related to developing a care plan,including the types of care plans available, data elements that should be part of the care plan (or not), andsome of the most challenging aspects of the care plan to capture and convey. But first, it's important to understand the basic activities required to coordinate patient care:Providers need to identify, contact, and coordinate with collaborators to monitor the patient's condition. The coordinated care plan represents a key lynchpin in tying together the various activities related to coordinated care.

1. IDENTIFY COLLABORATORS

Any form of care coordination must involve identifying members of a patient's care team — both within and across settings and specialties. Collaborators can include a patient's primary care and specialty physicians, nurse case manager, pharmacist, social worker, physical therapist, or laboratory or imagining facility. Often patients or their caregiverswant to specify members of their care team, which will also help identify them.

Most, though not all, EHR andcare management applications support provider look-up functionality and tools that help determine which specialty or individual provider would be most able to help with a patient's specific needs. The best look-up tools also show which providers are covered by the patient's health plan; however, the integration of this data remains limited within EHRs and care management applications.

Most EHRs and care management applications either have a proprietary enterprise Master Patient Index or integrate with the broader MPI at their provider sites. Providers should ask their vendors about their roadmap in this area and whether they are planning additional functionality, including the ability to identify caregivers with no national identifiers and other provider sites.

Once the individual members of the care team are identified, they should be included in the care plan, along with whomever has principal responsibility for overseeing the care plan.

2. CONTACT COLLABORATORS

Contact between providers today is done in a mostly ad hoc, disorganized manner. Failure to contact collaborators is part of the ineffective communication that is a leading cause of medical errors and patient harm. Health IT tools generally, and care plans specifically, can change that.

Tools within a care plan should enable providers to contact other providers for either urgent or non-urgent matters. A request for collaboration shouldinclude the level of urgency, based on the patient's status. Ideally, collaborating providers should also be able to indicate their level of availability via access to their schedule. A provider might be highly interrupt-able due to a last-minute patient cancellation or in the middle of surgery and completely uninterruptable.

While care plans do not directly enable electronic referrals and scheduling meetings between providers and patients, such activities do need to be noted in the care plan. Thus, the care plan should be able to pull information from scheduling wizards and referral tools.

3. COLLABORATE

Vendors are creating new health IT tools to structure clinical communication by helping to record and share the patient's care planand assist in the formulation of treatment plans with input from multiple providers. The model is-similar to a Wiki that creates an overarching structure and allows multiple users to edit the contents. These tools can be used to enhance care coordination in several ways, including coordinating the scheduling of care, reconciling medication lists, closing care gaps, and managing transitions between settings of care. At a more basic level, these new health IT tools have the potential to improve the process of communication during clinical collaborations.

Clinical collaboration tools should support various forms of messaging and real-time, interactive communication, including free text and structured text-based messages, image exchange, voicemail, video conferencing, and multi-modal messages and conferencing. Many of these functionalities have already been implemented in non-healthcare settings and can be adapted to healthcare without major changes. Many issues will still need to be addressed, however, such as determining what pieces of informationand what elements of the care plan should be recorded in the physician's EHR.

4. MONITOR

One of the biggest potential problems in care coordination is dropping the baton, particularly during patient handoffs. Newer health IT tools address this process through community-based referral management and focusing on transition management so that the patient does not fall off the radar of providers who are accountable for them. Using a coordinated care plan can facilitate this by keeping track of the status of a patient's referral and using it has a means to follow up with a patient once they are discharged from an acute stay or have an ED visit.

Health IT tools that incorporate a coordinated care plan also help providers keep track of tasks and health goals andmaintain a roster of a patient's active team members. Coordinated care plans can ensure that each team member receives secure, role-based access to relevant clinical changes, monitors patient indicators – possibly even biometrics - and identifies patients at high risk for receiving poorly coordinated care (such as those with psycho-social needs). In particular, tools can generate electronic alerts and reminders if a patient falls off a treatment or care plan,missesan important follow-up visit or has patient-reported data (e.g., glucose reading) fall outside a predetermined range.

USING OFF-THE-SHELF CARE PLANS

In researching this report, Chilmark Research had a series of discussions with clinical content vendors and several physician specialty societies.We asked what types of care plan content they are currently offering and what should be included in a care plan. Providers looking to establish longitudinal care plans have a couple of options, all with their own particular strengths and weaknesses.

CARE PLANS DEVELOPED BY CLINICAL CONTENT VENDORS

The three major commercial evidence-based content vendors (Elsevier, Wolters Kluwer, and Zynx Health) offer care plan content for the inpatientsetting. These vendors, along with Motive Medical, all have noteworthy plans for supporting shared care plans across multiple care settings and incorporating multiple types of clinically-related data regarding a patient.

Elsevier

Elsevier's inpatient setting care plan offering came primarily from its purchase of the Clinical Practice Model Resource Center (CPMRC) from Eclipsys in 2007 and did not significantly change until last year. Elsevier's provider clients saw the care plan shiftfrom an inpatient communication tool to an interpersonal tool that needed to incorporate patient preferences and communications. Additionally, Elsevier clients expressed a need for pre-packaged care plan content that could work across the continuum of care,beyond acute care settings.

In the past year, Elsevier has rolled out care plan content for four additional settings: Emergency rooms, inpatient rehabilitation, behavioral health, and ambulatory care. Each setting-specific content packageincorporates relevant evidence-based guidelines, assessments and screening instruments, and automated documentation. Elsevier acknowledges that other settings need this type of content as well,including the entire post-acute spectrum of home health services and skilled nursing facilities. As alternative primary care sites such as retail health clinics and urgent care centers become more prevalent, Elsevier strongly believes they will need tailored content as well, although there are no plans at this time to build additional care plan content for these settings.

Wolters Kluwer

Wolters Kluwer's care plan offering, ProVation Care Plans, provides evidence-based care plans developed by the Lippincott Solutions team. Combined with the ProVation software, it allows provider organizations to define and maintain a custom care plan library while adhering to industry-accepted nursing and medical diagnoses, goals, and interventions. ProVation Care Plans supports the care plan customization process, utilizing a full suite of embedded links to online, evidence-based practice content from Lippincott Solutions.

Provider clients can customize more than 300 evidence-based care plan templates and either import them into their EHR system or use in separate applicationsfor clinicians to use as a basis for care. Wolters Kluwer updates ProVation Care Plans content twice a year and provides documentation explaining the release changes; examples include changes to medication or links to new evidence.

Wolters Kluwer has not yet focused on developing care plan content for settings such as behavioral health or home health. The vendor does not believe its provider clients are ready for this, as they are still focusing on moving from paper to an electronic care planning process through their EHR. For now, Wolters Kluwer says its clients are focusing on developing and adopting electronic care plans inhigh-cost areas such as sepsis, joint replacement, and open-heart surgery. To that end, Wolters Kluwer is narrowing itscontent, focusing on the goals and interventions of a care plan that can be sent from one EHR to another. While this approach does meet the needs of the provider market in the interim, it does place Wolters Kluwer at risk of falling behind its competitors if coordinated care planning adoption becomes more robust over the next year or two.

Motive Medical

A new entrant to the market, Motive Medical emphasizes cloud-based clinical content. As provider organizations and EHR and care management vendors are just starting to adopt the concept of coordinated care plans, Motive sees the market developing slowly. Nonetheless, the company believes enough in the future of care plans to have invested significant resourcesto develop content that supports a coordinated care plan.

Motive's Care Plans for Population Health Management solutionincorporates three types of care coordination approaches: strategic, nursing, and operational. The care plans themselves are built as a set of interlocked care maps that cross from acute care to the outpatient setting;they also cover the discharge transition process in between. As the care map interacts with a patient's data in an EHR or other IT system, the evidence in the care map defines the triggering criteria that initiate patient-specific interventions. Motive has not specified whether it is developing content for other clinical settings, including post-acute or home health, which will hamper providers attempting to develop a coordinated care plan across these settings.

Motive Medical has struggled to sell its approach and vision for clinical content directly to providers, but a few vendors with care management or care coordination solutions have adopted Motive Medical as their clinical content provider.

Zynx Health

Zynx Health sees an increasing need for what the company defines as plans of care – a highly individualized, holistic approach to patients and their transitions to the next care setting. Zynx places increasing emphasis on care provided to the patient outside of the hospital and hasmoved away from the traditionally siloed approach to care in the community.

In order to succeed in this approach, providers need to know which care intervention will have the most positive potential impact on the patient. Determining how and where to present this information to clinicians poses a considerable challenge, however. If it goes into the EHR, it is often very difficult to glean at a glance what needs to be done and how everyone on the patient's care team is contributing. Further, there are no standards or regulatory approaches around a plan of care. Provider organizations just use it as they see fit.

Zynx's current care plan product, ZynxCare, provides the basis for assessing, planning, and evaluating patient care, emphasizing the most common problems that members of the interdisciplinary care team manage.

Zynx still sees the plan-of-care concept as relatively immature from a utilization and adoption standpoint. Clinicians and relevant informatics experts predominantly drive the concept, but that is changing as provider organizations hire more chief nursing informatics officers (CNIOs). Increasing emphasis on clinical, operational, and financial outcomes should drive adoption as well. Finally, Zynx has streamlined its deployment model in the past two years to customize its offering and focus on what provider organizations need to get their care management programs up and running.Addressing this longstanding issue with deploying clinical decision support should help drive quicker "wins" for an organization and increase support among daily clinical users.

Care Plans and the Future Role of Clinical Content Vendors

Each clinical content provider Chilmark Research interviewed spoke of the increasing need for clinical content for non-acute care plans. While these vendors are in various phases of addressing this need, all of them have some level of clinical content available for outpatient care plans. Elsevier has been the most aggressive, with content for behavioral health already developed.

Clinical Content Vendor	Care Settings							
	Inpatient	ED	LTP AC	IRF	SNF	Home Health	Behavioral Health	Ambulatory
Elsevier	X	X		X			X	
Motive Medical	X							X
Wolters Kluwer	X							
Zynx Health	X							

X= Care Plan Content is Currently Available

Table 1. Clinical Content Vendors and Available Care Plan Content across Various Care Settings

As the concept of the coordinated care plan becomes more refined, clinical content providers expect providers to increasingly look to purchase care plan content. The biggest issues are:

- What conditions or disease states should initial care management programs focus on?
- How quickly providers will adopt a coordinatedcare plan outside of their EHR?
- What additional settings beyond the outpatient clinical setting they extend the coordinated care plan concept to?

This forces providers into a quandary, as they likely have to cobble together evidenced-based content for a coordinated care plan for certain clinical settings, especially the post-acute or home health settings. Larger, more sophisticated providers,with their own clinical informatics teams and possibly even a clinical expert for a particular domain or clinical issue, will be better placed to deal with these challenges. Mid-sized providers that lack either expertise or personnel (or both) will be forced to lean more heavily on clinical content providers. Given where provider organizations are at just implementing anelectronic coordinated care plan across various clinical settings, this concern is premature.

Not surprisingly, clinical content vendors expect that efforts by other health IT vendors to develop and maintain their own evidence-based clinical content for care plans will fail to meet provider needs. Sometime over the next few years, they expect health IT vendors (e.g., EHR and care management vendors)to turn to them to form partnerships in order to supply prepackaged content for their care plan solutions. This has happened in a few cases already but it is still an emerging trend.

In the interim, companies such as Elsevier and Wolters Kluwer expect most provider organizations to stick with their own homegrown content or the basic, out-of-the-box content they can get from their current vendor. This is especially true for organizations that are just launching initial care management programs. The clinical content providers did acknowledge that, in clinical areas such as oncology, a number of smaller competitors are also developing care plan content – and this represents their greatest near-term challenge.

CARE PLANS DEVELOPED BY PHYSICIAN SPECIALTY SOCIETIES

Physician specialty societies, with their experience and credibility, are well positioned to developclinical best practices, evidence-based content, care guidelines, and care plans. Chilmark Research spoke with four physician societies that have developed care plans. Their experiences, the challenges they've faced, and in some cases the steps they've taken to overcome those challenges are instructional for any provider looking to develop and implement a care plan.

American Society of Clinical Oncology

Nearly a decade ago, the American Society of Clinical Oncology (ASCO) initiated a series of activities to promote chemotherapy treatment plans and summary care plans. Patients receive the SCP once they are symptom free and transitioning from oncology care to their PCP. The SCP is not used for patients with end-stage cancer who are being transferred to a hospice.

Over the past decade, oncology practices in community-based settings, LIVESTRONG cancer centers, and National Cancer Institute-designated cancer centers have had limited success implementing SCPs.The ASCO formed a workgroup with multiple stakeholders in 2012 to address some of the shortcomings of SCPs. The workgroup identified a number of barriers to putting SCPs into practice and took several steps to overcome them.

Barriers	Solutions
> The time-consuming process of preparing an SCP > Lack of reimbursement for preparation and development time	> Using a Delphi survey method to reduce the SCP template from 4 pages to 2 pages
> Lack of compatibility of existing templates with EHRs and the difficulty of capturing critical information in an SCP	> Producing a more EHR template-friendly document
> Lack of clarity regarding whether oncologists, oncology nurse practitioners, or nurses complete and maintain the information	> Producing the updated SCP template and additionally producing slightly customized templates for various forms of cancer
> Lack of partnership between oncologists and PCPs to facilitate communication and care coordination	> Directly incorporating what oncologists wanted to communicate to other providers and patients into the SCP

Table 2. Barrier and Solutions to SCPs

The ASCO has also worked to develop HL7 standards for SCPs. Cancer programs and EHR vendors are now developing EHR functionality to address care survivors' issues, including incorporating the SCP into the EHR directly. Lastly, ASCO has worked with the Commission on Cancer (COC) to ensure that, by 2019, all appropriate cancer patients will have an SCP in place or the program will not be eligible for COC accreditation.

Consistent implementation may be several years away for many settings, and oncology providers may still struggle to implement SCPs in their practices now. The ASCO approach has made it easier for providers to use SCPs, developed a more template-friendly solution that is consumable by EHRs and other applications and, through the COC certification process, created an actionto encourage and drive adoption without being monetarily punitive. It is an example that other physician specialty societies wishing to create and drive care plan adoption should follow.

American College of Cardiology

The American College of Cardiology (ACC) creates and updates a series of paper-based clinical guidelines and toolkits for its members. Cardiologists polled by the ACC in 2012 self-reported that the guidelines were useful in clinical practice (~90%) and that they applied these guidelines when managing their patients (>80%) in most circumstances.

Though many cardiology practices avidly embrace the concept of team-based care, the reality of team-based care may vary depending on the size and setting of a practice, state regulations, workforce availability, and financial factors. Some cardiovascular practices have not adopted team-based care, possibly owing to a lack of awareness of the capabilities of advanced practice providers and the advantages of multidisciplinary care delivery.

The group believes that broad dissemination of cardiovascular team-based care paradigms will best be realized by further educating the cardiology community about their components, characteristics, and potential to improve patient outcomes. While the ACC guidelines could be a starting point for introducing certain care plan elements into member practices, they primarily focus on whether a certain test, procedure, or treatment regimen is appropriate for a particular patient. These guidelines can be utilized to create bundles of interventions, tasks, and goals for patients with certain cardiovascular conditions, but in and of themselves they are not sufficient to meet the goals of the patient care plan. In addition, as they are paper-based, they will be of ever limited utility in an industry that is becoming increasingly digital.

American Academy of Family Physicians

The American Academy of Family Physicians (AAFP) distributed a basic care plan template,dubbed a Patient-Centered Care Plan (PCCP), in an article that appeared in the January/February 2015 issue of Family Practice Management on CCM coding. The two-page, paper-based template developed by Dr. Kenneth Adler consists of several sections to be completed in two phases.

Completed before the office visit (by the patient)	Completed during the office visit (by the provider)
> Top concerns and barriers to health or recovery > Symptom management > Healthcare providers > Resources and supports	> Medications, allergies, and conditions > Treatment goals and targets, with specific measurable clinical goals > Summary of patient responsibilities and specific tasks to complete, broken out by lifestyle and behavioral change issues, certain medical events, test orders, and medication compliance > Expected outcome if the patient complies with the plan > Basic information about the care team, including the care team manager and his or her contact information > Patient and physician's signature

Table 3. Sections of Care Plan Completed Before and After the Office Visit

The AAFP does not have a formalized group that generates proprietary, evidence-based content and has not created a formally endorsed care plan. The PCCP was mainly created to comply with requirements for CCM coding. It is a useful starting point in that it contains the basic elements of a care plan: It defines patient symptoms, identifies what tasks patients need to do tomanage those symptoms, outlines clinicallymeasurable goals to track progress, anddescribes what patients can achieveby completing assigned tasks.

However, similar to the ACC care plan, the AAFP care plan is a paper-based template that leaves all the heavy lifting of care plan implementation, including EHR or clinical system integration, entirely up to physician practices. The care plan does not clarify which member of the care team should accomplish what processes, how to avoid issues with duplicate documentation and, most importantly, what kind of time burden to expect with various types of patients.

American Academy of Pediatrics

The American Academy of Pediatrics (AAP) has developed clinical content in several areas. These include health and disease promotion, injury and violence prevention, infectious disease diagnosisand prevention, and the medical home model for young patients, which itself encapsulates the current and historic medical and social aspects of child and family needs.

The AAP offers two sample templates, both on paper: The Sample Care Plan and the Integrated Services Plan for children with special needs. The AAP breaks the critical data elements of the care plans into three basic sections:

- Primary elements include patient and family demographic and basic medical information such as diagnoses, medications, allergies, hospitalizations, and surgeries.
- Secondary elements include medical history, ADLs, communication devices, housing and transportation needs, hearing or vision services, feeding/diet/nutrition needs, and child's strengths and likes
- Support services includes information about the child's school/care, social support agencies, equipment needs, and any services that child may be receiving (such as speech, physical therapy, or occupational therapy)

No electronic templates are available; once again, the heavy lifting is almost entirely up to providers and their health IT vendors. The length of the plans, especially the 11-page Integrated Services Plan, poses an additional challenge.

This is an example of an ideal sample template with little practical application or testing. While the need to coordinate care for children with special needs is beyond dispute, it is simply not realistic that a pediatrician will have time to fill out an 11-page paper document, never mind maintain it on an ongoing basis. Therefore, little has been done to test the AAP care plans in actual practice, measure the value that various stakeholders derive from the information in them, or encourage theirwidespread adoption.

Future Role of Physician Specialty Societies in Developing Care Plans

With the exception of the ASCO, the physician societies we spoke with have not played a major role in the development of care plans. In most cases, the paper-based templates have not been translated to an electronic format or widely vetted and tested in actual clinical practice. Additionally, these groups have not taken definite steps or policy actions to encourage the broader adoption and use of these care plans by their physician membership.

Just as physician specialty societies lagged in developing performance measures for quality and safety, and thus ceded that authority to other healthcare entities, they will likely cede the responsibility for developing, adopting, and using care plan templatesto providers and their health IT vendors.

CONTENT THAT IS A PART OF THE CARE PLAN

The information that should be contained as a part of the coordinated care plan depends upon several factors including the care settings where the patient has accessed recently (e.g., in the last 12-18 months), billing or regulatory requirements, medical complexity of the patient, purpose or intent of the longitudinal care plan, etc.

Despite all of this complexity surrounding the longitudinal care plan, Chilmark Research found a common set of data elements that are considered to be a part of a longitudinal care plan by vendors and providers currently in use:

- Basic patient demographics including name, age and sex

- All current members of the patient's care team including their spouse or family caregiver(s), PCP (if they have one) and the individual in charge of coordinating the care team activities for the patient
- All treatment programs the patient is currently enrolled in
- Active problems that need to be addressed
- Goals including self-management goals
- All interventions and the status of those interventions including their current completion status and their start and end dates
- Risk factors or barriers
- Active medication list

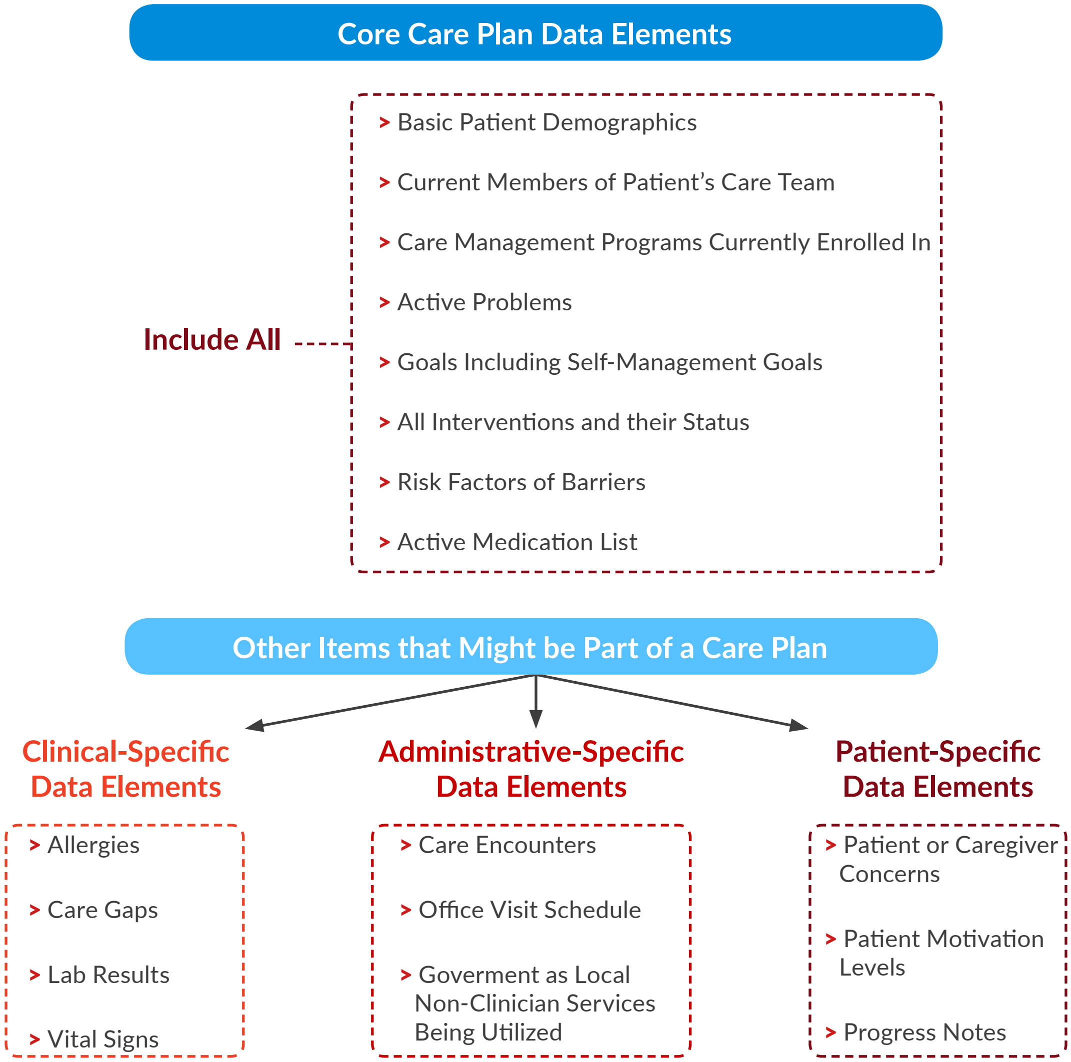


Figure 5: Data Elements That Are, or Might be a Part of a Care Plan

Additional types of data elements that were mentioned more than once as a part of a longitudinal care plan that can be grouped into three broader categories:

Clinical-specific data elements

- Activities of Daily Living (ADLs)
- Allergies especially medication allergies
- Care gaps
- Clinical documentation (e.g., a text message regarding a particular goal or intervention)
- Smoking status
- Lab results especially most recent ones for relevant disease conditions (e.g., HB1Ac for diabetes)
- Links to clinical data support for underlying care plan information
- More detailed medication information including route, dosage, frequency and recently added/ removed medications
- Vital signs (e.g., weight, blood pressure)

Administrative-specific data elements

- Care encounters (e.g., most recent hospitalization and/or ED visit)
- Community or local government services being utilized by the patient
- Office visit schedule
- Health plan eligibility and benefits

Patient-specific data elements

- Patient or caregiver(s) concerns
- Patient motivation levels
- Patient progress notes
- Guidance for patient and their caregiver(s) to ensure the patient understand what they are agreeing to and what actions or interventions they are responsible for to achieve the goals of the longitudinal care plan

There were a number of other data elements that were also mentioned once by a provider or a vendor including cognitive status of the patient, pain assessment of the patient, dietary restrictions or nutritional needs, etc. These data elements were largely dictated by the setting of care and patient population or particular patient demographics.

The list of data elements that should not be a part of the care plan was almost non-existent and consisted of the physician's treatment plan for a patient including the specific orders that are contained in the EHR.

It was not surprising that there was significant variation in which data elements should be contained in a longitudinal care plan for several reasons:

Issue	Explanation
> The relative 'newness' of the concept	> Having an electronically-available, longitudinal care plan that incorporates multiple care plans and follows the patient across multiple settings of care is a new concept
> The lack of a well-defined data standard	> C-CDA R2.1 builds on existing work and addresses issues with C-CDA 1.0 and 2.0 but still does not provide a clear blueprint for what data elements should or should not be a part of a longitudinal care plan or how to enable sharing of care plan elements
> Lack of specification provided by Stage 2 and 3 MU	> Stage 2 and 3 MU only have listed a number of data elements that should be part of a longitudinal care plan including patient problems, goals, patient instructions, allergies, medications, and responsible clinicians with patient goals and instructions being optional data elements.
> Different provider objectives	> HCOs may have different objectives for using a longitudinal care plan in their care management and care coordination efforts and thus incorporate various data elements they think are necessary
> Different regulatory requirements	> Care plans, especially in the SNF or home health setting, still have to heavily focus on documentation aspects to meet Medicare or Medicaid billing requirements.

Table 4. Reasons for Variation in Care Plan Data Elements

GENERATING DATA FOR THE CARE PLAN

There are several methods by which data is being generated for care plans. They can be categorized into either automatic or manually driven processes. In terms of the automatic processes, this is mainly limited to select structured data elements that are being extracted from EHRs via HL7 interfaces or in some limited instances via RESTful APIs. Some vendors have mentioned an ability to utilize clinical-summary documents such as CCDs to generate some of the data elements in a care plan but this seems nearly nonexistent among provider clients today. The developing standard FHIR (Fast Healthcare Interoperability Resources) gets some mention, but that is just on the roadmap for most vendors as an item to address in 2016 or later.

The principal method in which data is generated for care plans today is though manual processes completed by a clinician who is often a care manager, care coordinator, or care navigator. The most basic approach offered is for a care manager to manually create the core elements of a care plan including the goals and interventions through down-drop pick lists or limited blank text fields. This is incredibly time-consuming, misses important data items necessary to complete the care plan, and is largely impractical in terms of trying to scale provider-led care management efforts. The more standard approach is for the care manager to go through an assessment with patient either via phone or in-person. In some cases, a portion of the assessment are being pushed out to the patient's smartphone or via their patient portal but this remainsan exception to most clinical practices.

This assessment is built into the care management solution or EHR directly. These health assessments can vary considerably but they generally ask questions on the following topics:

- Personal and family health history, including chronic illness and acute events
- Any special needs the patient might have in terms of hearing, vision, mobility, or limited English proficiency

- Self-perceived health status
- Questions relevant to the particular demographics of the patients (e.g., ability of elderly patients to accomplish ADLs)
- Questions to identify effective behavioral change strategies for individual patients that are condition-specific
- Question that try to capture patient barriers or risk factors

Based upon the responses provided to the assessment, a list of goals and interventions is generated. This list of inventions is usually based upon some evidence-based, rules logic that is provided by the solution. The care manager reviews this with the patient or a caregiver to determine if the list of goals and interventions are appropriate, relevant, and can be agreed upon by the care manager and the patient. It is not uncommon for a care manager though to have to manually reenter relevant care plan data though from other systems or even paper-based documents, especially faxes, when generating a care plan.

Depending upon the sophistication of the solution, there may be some underlying rules logic that automatically determines what type of intervention is signed to a particular user or individual on the care team, the start and end date of an intervention, etc. but often this is left to the discretion of the responsible clinician (often the care manager) to determine when generating the care plan too.

POSSIBLE DIFFICULTIES IN CARE PLAN DEVELOPMENT

There was a long litany of difficulties mentioned when developing and setting up a longitudinal care plan. This is to be expected though, especially when trying to actually implement a new, complex concept in clinical practice across multiple care settings. The main difficulties mentioned are summarized below:

Care Plan Element	Specific Difficulties
> Data sources	> Setting up the process to extract data from various EHRs and claims and rendering them into a longitudinal care plan on the front-end > Translating a text-based care plan into a codified set of information that is data driven > Capturing unstructured data (e.g., progress notes) > Terminology support
> Decision support	> Monitoring latest curated clinical standards and updating clinical content as relevant > Translating clinical evidence and clinical pathways into a care plan format of goals, interventions, concerns, etc. > Annotating sources for clinical evidence used for goal and intervention selection in a straight-forward display fashion
> Goals	> Managing patient goals versus clinically-driven goals > Setting short-term goals versus long-term goals > Level of confidence in a patient to achieve set goals and their propensity to change their behavior
> Barriers	> Capturing and defining critical patient barriers especially related to social or behavioral determinants of health > Determining how barriers should influence both goals and interventions selection

Care Plan Element	Specific Difficulties
> Interventions	> Determining interventions tied to non-clinically driven goals > Prioritizing intervention order by other methods than simply by the start date and completion date > Level of confidence in patient to complete an intervention especially by the completion date > Patient level of understanding what is expected of them to complete a particular intervention > Assigning an intervention that requires multiple stakeholders of the care team to be involved > Tracking intervention status beyond just overdue completion date
> Concerns	> Capturing patient and/or caregiver concerns in a succinct and structured fashion > Determining how patient concerns should influence goal and intervention selection
> Outcomes	> Translating goals and intervention completion into measurable improvements > Particular outcomes that should be utilized to measure improvement at various levels (e.g., individual patient, care program, etc.) > Translating care plan completion into organizational cost improvement or savings

Table 5. Difficulties in Care Plan Development

It is not surprising that highest number of difficulties pertain to the Interventions section of the longitudinal care plan, since this is the "gist" of the care plan and determines what will be done and who will be responsible. The most challenging area of the longitudinal care plan is the barriers and concerns sections, both in terms of capturing them in a succinct and structured manner and determining how they should impact the rest of the care plan especially the goals and Interventions sections.

HCOs are obviously concerned about the outcomes section. However, low maturity of provider-led care management programs today leave this very much a "work in progress." It takes an HCO at least 18-24 months to really begin to understand what kind of effect implementing elements of a longitudinal care plan have at a macro-level. Most HCOs right now that are tracking outcomes related to care plans are trying to "right-size" their care management programs including determining the number of patients that can be served, what particular patients they should focus on, and how to drive patient compliance to the care plan.

USING THE CARE PLAN

Once the care plan has been selected, the players organized and a plan for generating and sharing data agreed upon, the care plan is ready for use. This is where things get interesting. Unfortunately but not surprisingly, using a shared care plan in or across healthcare providers and facilities creates numerous challenges. Our intention is not to strike an overly discouraging note but, rather, to help providers anticipate possible troubles and avoid or minimize them where possible.

This section groups healthcare providers into three groups, according to the status of their technology and types of patients they typically care for.

CARE PLANS IN PHYSICIAN PRACTICES

The pervasiveness of EHRs in physician practices makes themthe clear shorting pointfor these settings to provide the technology backbone of a care plan in the interim. Some practices use their EHRs to help create a "huddle sheet," which lists patients scheduled for the day and notes pertinent issues for each patient that might not already be included in the EHR (e.g., "Be sure that the care manager talks to the patient about his hypertension management after the meeting with the physician today"). Otherwise, the EHR can deliver messages via instant messaging, Direct secure email, within-chart notes, phone templates routed to team members' inboxes, and task assignments. When combined with revised clinical workflows, the EHR can make it easier to delegate tasks and avoid duplication. Examples include message distribution from the patient portal to a provider's inbox and task manager software that's part of the EHR itself.

The ability to deliver care plans that reside outside the EHR is still incredibly limited. There are three primary methods that are utilized:

- **Care plans available via a 'call back URL'** – Upon clicking on the URL within the patient record, the care plan is available with appropriate authentication and access privileges applied; almost entirely 'read only' functionality available

- **Care plans are available via PDF or in a document inbox** – The entire care plan can be exported as a PDF document and delivered to the appropriate care team members via an inbox; 'read only' functionality is available

- **Care plans are sent to the EHR** – The care plan is sent via an interface and embedded into the patient record; mostly 'read only' functionality

Some bidirectional interfacing does exit if the care plan is part of a care management solution being offered by the same EHR vendor. There are also a handful of examples of startup vendors and care management vendors who offering some examples of bidirectional-interfacing between an EHR and an external care plan but this is still almost nonexistent today in the market place. Some vendors mentioned that FHIR might help address this challenge acknowledged that it is something that be in a 'pilot phase' over the next few years.

Challenges to EHR Use for Care Coordination and Possible Solutions

As with any new technology, physician practices using an EHR to execute a care plan face numerous challenges. Often, teams have to create workarounds and alter their clinical workflows to overcome deficiencies in the EHR to support care plan processes. Frequently cited EHR challenges related to care coordination include monitoring a panel of patients with specific needs, supporting care management across a network of stakeholders, being accountable for EHR data, and standardizing data entry across the team. This section reviews the potential challenges and provides advice for overcoming them.

Specific Steps to Use an EHR to Enhance Care Coordination
1. Ensure the EHR includes a clinically useful practice patient registry or integrates seamlessly with the practice's registry.
2. Create functionalities to permit easy tracking of an individual patient over time – listing prior hospitalizations, for example.
3. Create functionalities to permit tracking of population subgroups over time.
4. Build care management functionality into the EHR or ensure better communication.
5. Create a clear place for care plans in the EHR, to include agreed upon goals, steps to reach those goals, as well as changes in the care plan over time, as the patients' needs change.
6. Ensure the EHR permits the creation of huddle sheets and pre-visit planning tools that can be populated with important patient data.

Table 6. Steps to Enhance Care Coordination Using an EHR

CHALLENGE: RUDIMENTARY, TEMPORARY WORKAROUNDS

Most practices' EHRs lack a care management tool or any clear place for care managers to input notes and track patients via a care plan. As a result, care managers and RNs often create their own workaround solution, or practices create templates, separate tabs, or pop-ups for care management documentation. Such customizations only support the most rudimentary documentation of goals for the patient, barriers to those goals, follow-up visits and progress toward the goals. Justifiably, practices fear their workarounds will be lost when the practice upgrades to a newer EHR version. There is also the challenge that these workarounds create yet another silo of information, potentially contributing to lack of visibility

Solution: Ideally, EHRs vendor would create clinically meaningful care plan functionalities within EHRs that can be modified over time, as patient preferences and needs change, and that can be accessed by all relevant team members, including the patient.

CHALLENGE: ACCOUNTABILITY

Questions shadow current care plan efforts; "Does each data unit entered into the EHR need to be traceable to an individual member of the care team?" is but one example. Also, how will patient self-reported data enter the care plan? Establishing accountability is a particularchallenge for clinicians in practices owned by larger health systems that have their own compliance, coding, and legal departments.

Solution: While the physician is ultimately accountable for the actions of the care team, there needs to be some latitude when it comes to data entry. The team should be the accountable unit, not the individual members of the team. Otherwise, delegating efficient patient care and task delegation becomes quite difficult.

CHALLENGE: CONSISTENT DATA ENTRY

Without structure, different team members are prone to enter data in a variety of formsin a variety of places in the patient's record. Elements such as a problem list, the medication list, and the documentation of patient counseling are particularly important, to ensure data is accessible to other team members.

Solutions: Often, this challengeis overcome by teaching everyone in the care team where and how to enter certain types of data. Another common solution to this challenge is clearly defining who on the careteam enters what information into the EHR.

CONCLUSION

EHRs are likely going to be the starting place for most HCOs trying to begin implementing care plans in physician practices but they are not going to be sufficient for several reasons over the long term to meet the needs of a longitudinal care plan. Instead, the longitudinal care plan is going to reside outside of the patient's record in the EHR. The key question is how will it be rendered and available in the EHR in the physician practice and what level of functionality will be available. Bi-directional interfacing is the obvious ideal method of delivery but even if FHIR is adopted more quickly this is still 3 to 5 years away. In the interim, physicians who are members of the care team will be kept updated about changes to the longitudinal care plan via alerts and messages.

CARE PLANS IN POST-ACUTE CARE

While hospitals and physician practices enjoyed the influx of meaningful use funding, SNFs, home health agencies (HHAs) and other post-acute care providers had to make do with what they had, either paper or minimalist IT solutions. Even though SNFs have to complete a lengthy care plan for each patient to qualify for reimbursement, the economic reality is that, in most facilities, technology is limited to very basic documentation.

This picture is starting to change. Many large IDNs own or have close partnerships with at least one HHA and SNF, creating a demand for credible solutions that will connect those settings to acute care providers. Health IT vendorsare pursuing either buy, build or partner strategies to provide their customers with solutions that facilitate digital interactions to support transitions in care across care venues. While these solutions today remain immature, major gaps in solution capability will close in next two to three years.

The result is that health IT for post-acute care facilities is expanding beyond barebones documentation and putting more emphasis on integration with other systems. Vendors are also coming up with ways to accomplish broader goals of post-acute care – for instance, the ability to digitize the details of a home health visit, including if that visit was by social worker. This aspect of the market will take time to mature, given the functional requirements of meeting the needs of many stakeholders and capturing information that would be needed in the different post-acute settings — assisted living, inpatient rehabilitation, long-term care hospitals, and all-inclusive care for the elderly, to name a few — but at least there is some progress where formerly there was none.

Types of Care in Post-Acute Settings

In general, post-acute patients fall into three basic categories of care.

- Rehabilitation. These patients of all ages require immediate post-surgery therapy as they transition from a hospital to a facility where they will receive therapy for days, weeks, or even months.

- Long-Term Care. These patients with multiple comorbidities usually require complex, chronic, longitudinal care. Often these patients are referred to as residents, as this setting will most likely be their home for the remaining years of their life.

- Chronic Care Management. Three distinct populations of all ages require chronic care management in post-acute settings:

    1. Short-term, post-acute or post-discharge patients.

    2. Chronic-care populations.

    3. Long-term care populations.

These patients may be discharged into any number of settings including SNF or home care.

Many persons transitioned to post-acute facilities require care for multiple comorbidities. In the urgency and complexity of managing an acute incident, hospital clinicians often do not document, address or even identify the underlying chronic condition(s).

Post-Hospital Transition of Case Percentages

	Long-Term Acute Care Hospital	Inpatient Rehab	Skilled Nursing Facility	Outpatient Rehab	Home Health
Patient's first site of discharge after Acute Care hospital stay	2%	10%	41%	9%	38%
Patient's use of site during a 90 day episode	2%	11%	52%	21%	61%

Figure 6: Breakdown of Where Hospitals Discharges Go

Post-Acute Care Coordination Challenges

As with physician practices using an EHR, any care plan implementation in a post-acute setting should come with a game plan for the inevitable challenges that arise.

SILOS STILL RULE

Organizational silos impede care coordination during discharge planning and as patients move across settings. Most acute care entities remain in their own silos as well, even within multi–institutional health systems. The same stumbling blocks that keep organizations isolated also impede the development of seamless care coordination. These barriers include:

- Continued desire to maximize reimbursement at each provider entity.
- Unresolved issues related to physician continuity and payment.
- Lack of information flow to allow appropriate choice by the provider.
- Historical referral patterns.
- Lack of shared patient assessment tools and clinical information systems.
- General confusion and concern about when and with whom information can be shared regarding a patient's care plan, especially among affiliated providers or non-owned providers.

Health systems have had varying success in breaking down these barriers. Any joint venture arrangement must guarantee access to beds, and include mutually agreed-upon outcome and length-of stay-targets. It must ensure that patients are returned to the system if they need further care — and guarantee that the post-acute care provider receives fair payment.

Few health systems have the full range of post-acute care resources, which include freestanding rehab facilities, long-term acute care, SNFs, HHA services, and ambulatory care. Many health systems have recognized these deficiencies and are moving to expand their post-acute services through owned or contracted facilities.

INFORMATION TRANSFER STILL POOR

Despite research showing that the transfer of information during patient handoff can prevent hospital readmissions and facilitate better care, communication between the various levels of health and community remains a challenge.

Obstacles that hinder information transfer for coordinated care plans include:

- Lack of time, staff and resources to commit to recording and communicating patient needs through the care planning process, or to following up with the patient after discharge.
- Lack of standardized communication tools and processes available to the health care or community facilities.
- The need to better integrate care planning and communication into the regular workflow.
- The inability for facilities to communicate with each other using compatible information technology.
- Reluctance of caregivers to participate in information sharing due to privacy concerns.

CARE PLANS STILL INCLUDE INADEQUATE, INACCURATE OR OUT-OF-DATE INFORMATION

At times, it may be difficult to collect adequate information from a patient to include in a coordinated care plan. Other times inaccurate information is recorded. Examples of possible errors include:

- Incorrect understanding of a patient's capacity to manage in their home environment.
- Assumption that a patient understands a care plan and post-discharge instructions because the patient has been living with the chronic condition for a long time.
- Failure to notice a deterioration in the patient's clinical status prior to discharge.
- Faulty assessment of the patient's health status, leading to inaccurate assumptions about required levels of care or the appropriate setting for care.
- Incomplete information given by the patient regarding medications they are already taking, possibly leading to medication errors.
- Focusing on one condition and possibly missing other support that are needed, such as addressing the physical needs of a congestive heart failure patient but not realizing the patient also suffers from depression.
- Not identifying key persons who are responsible for maintaining or updating the plan or and for communicating changes to the patient's entire care team, including family members.

PATIENT COMPLIANCE STILL INCONSISTENT

Involving the patient as an active contributor to the care plan helps promote patient compliance with the plan – but not all patients want to be involved in the planning process. Patients with the capacity for functional improvement or restorative gains, as well as those who motivated to reverse declining health or participate in a specific program, are most likely to take part in developing their own care plan goals.

On the other end of the spectrum are non-compliant patients, a frequent concern with patients with a number of comorbidities. In addition, patients with behavioral or substance abuse issues may resist treatment for any number or reasons, including concerns about medication dependency or side effects, a lack of family or social support, or an apathetic attitude toward treatment.

IMPLEMENTATION STILL DIFFICULT

Implementing the appropriate workflows within the organizations involved in the care planning process is of significant importance to the success of coordinated care. Without a common and well-defined standard for coordinated care planning and transport standards, care plans will remain largely siloed within provider organizations for the foreseeable future.

Questions regarding who is responsible for creating, maintaining, monitoring, and distributing care plans need to be addressed before efficient coordination between facilities or health care practitioners can occur. Regardless of who is chosen, it is essential to identify someone as the designated lead for a patient's coordinated care plan to ensure the process works effectively for the patient.

Preparing care plans in an electronic format increases the accessibility and usability of the document by the patient and other caregivers within the provider organization, including individuals who are not direct members of the patient's care team. Electronic care plans, especially those in a standardized format, are easier to update and distribute, which increases the likelihood that they will be used and followed.

Enhancing Coordinated Care in the Post-Acute Setting

While there are several challenges involved in the practice of coordinated care planning, a positive approach can assist with, and hopefully improve, the care planning process. These steps include:

- Designate responsibility for coordination and maintenance. When updates to a plan are made, there needs to be a system in place to distribute the updated care plan to the patient's care team and to the patients themselves
- Involve patients in all aspects of the care planning process to increases the likelihood of compliance with the recommended treatments. When possible, involve the family, patient advocate, or primary caregiver in the planning process as well.
- Communicate the purpose of the care plan and the process with the patient. Prepare the care plan using language that is easy to understand; use plain language and avoid health care jargon.
- Make the care plan available in a format that is easily accessible to the patient. Ensure the patient has a copy of the plan and ask him or her to keep a copy in a convenient place.
- Ask the patient what issues are important and reflecting those issues through the patient goals.
- Think beyond traditional treatments, including financial resources such as welfare or food stamps, educational resources, support groups, or support programs such as Meals on Wheels.

Technology for Post-Acute Settings

In the post-acute market, patient assessment systems were built with the goal of being able to create the federally mandated Minimum Data Set (MDS). Inpatient systems used by hospitals and EHRs used by ambulatory providers do not incorporate the MDS, asthey are built to generate a clinical summary document calledthe Continuity of Care Document (CCD). The MDS and CCD have similarities but, for the most part, are not compatible in their native state. This presents a problem in enabling the meaningful exchange of patient information among providers. An additional barrier is that most long-term post-acute care (LTPAC) facilities use several electronic systems to document various activities.

The resources needed to effectively integrate these systems and the EHR are often not available. Securely exchanging patient data across providers during care transitionshas also proven to be challenging. This is best accomplished through participation in ahealth information exchange. But again, the incompatibility of MDS and CCD stand in the way.

HIEs help enterprise and affiliated physicians meet MU criteria by enabling direct communication with other providers, small labs, radiology, and other services and care settings. For post-acute care, HIEscan serve as an alternative to fax machines and paper to exchange data and documents. Exchanging health information through a secure network is achieved bysending clinical documentation attached tosecure email.

Post-acute term care facility assessment tools provide the data elements captured in the MDS (nursing home) and OASIS (home health) assessment tools. The ability to exchange patient assessment information will require the use of standardized exchange formats.

Conclusion

Most of the post-acute HCOs we reviewed are still in the early stages of integration, having undertaken modest steps to enhance care coordination and information sharing and make the organizational changes needed to deliver relatively seamless services across the continuum for a given episode of care. Many of the actions taken to date are simply patches in care delivery, though, and they don't yet amount to true systems. The HCOs with the most advanced outlook on this seem to be ahead of their peers mainly because they organized all post-acute assets under one management and governance system even if most of these are still a work in progress. Organizing the health IT assets still lags considerably behind.

The essential ingredients of effective acute and post-acute integration are corporate leadership, physician buy-in, integrated information and case-management systems, sound quality and outcome metrics, and, above all, financial systems that align incentives across all entities. Most critical for success is the development of systems that pay for value, not volume, by rewarding both near-term and longer-term outcomes. Healthcare reform embraces many of these elements by offering new tools and incentives for innovation and best practice across the acute and post-acute continuum of care.

CARE PLANS FOR BEHAVIORAL HEALTH

Behavioral health (BH) and physical health (PH) services are typically delivered by different providers in separate settings, often with little coordination or integration. This fragmented delivery of care can be particularly problematic for individuals with serious mental illness (SMI) because of behavioral health needs and often significant physical health problems. Individuals with SMI are at greater risk of complex physical health problems, may face more barriers in accessing physical health care and, on average, die younger than those individuals without a serious mental illness.

New healthcare delivery models, such as ACOs and health homes, as well as changes to healthcare financing, may enable more providers to incorporate practices that increase the integration of physical and mental health services, particularly the integration of physical health into behavioral health settings to help address the needs of individuals with SMI.

Do Examples of Integrated Physical and Behavioral Healthcare Exist?

Health homes and the Program of All-Inclusive Care for the Elderly (PACE) aim to integrate care for the full patient. These models are distinguished from most health care delivery in the U.S. by the presence of a multidisciplinary team that shares information and collaborates to deliver a holistic, coordinated care plan.

In these models, the multidisciplinary team shares the same physical working space. Short of fully integrated models, providers can aim to increase communication across multidisciplinary providers in multiple settings. Behavioral health providers can adopt these models and deliver increasingly integrated care by incorporating a number of services, described in the list below.

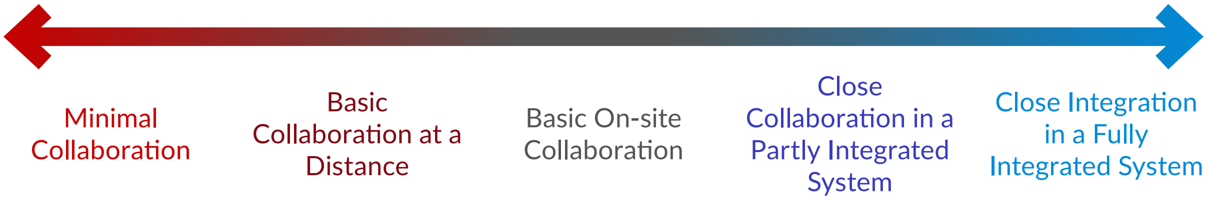


Figure 7. Models of Integrated Physical and Behavioral Health Care

Approaches to Integrated Behavioral Health

- **Minimal collaboration**: Mental health providers and primary care providers work in separate facilities, use separate systems, and communicate sporadically.
- **Basic collaboration at a distance**: Primary care and behavioral health providers use separate systems at separate sites but communicate about shared patients, typically by phone or letter.
- **Basic on-site collaboration**: Mental health and primary care professionals useseparate systems but share the same facility. Proximity allows for more communication, but each provider remains in his or her own professional culture.
- **Close collaboration in a partly integrated system**: Mental health professionals and primary care providers share the same facility and usesome common systems for tasks such as appointmentscheduling or medical records. There is a sense of being part of a larger team in which each professional appreciates his or her role in working together to treat a shared patient.
- **Close collaboration in a fully integrated system**: The mental health provider and primary care provider work on the same team. The patient experiences mental health treatment as part of his or her regular primary care.

Specialty behavioral health providers play a vital role in improving the health of individuals with SMI. In the current health care delivery environment, there will be increased opportunities to organize and pay for care that encompasses behavioralhealth concerns. Providers who can expand their capacity to deliver more integrated care will effectively position themselves to serve SMI consumers who may already have greater connection to specialty behavioral health settings and providers than to primary care.

The Future of Care Plans in Behavioral Health

Because of their frequent interaction and strong rapport with clients, behavioral health providers can identify and address physical health problems and concerns facing individuals with SMI. Physical health assessment and screening, care coordination and management, and patient engagement all provide an opportunity for early identification and monitoring of physical health problems. The table below lists ideas for organizations that want to better incorporate behavioral health into their coordinated care plans.

Physical Health Assessments	Care Coordination and Care Management	Patient Engagement and Peer Support
Log patient demographic and vital signs; if necessary	Train care coordinators to engage with organizations serving mentally ill patients	Incorporate patient life goals into care plans
Screen patients for risk of developing comorbidities	Connect physical, behavioral health providers	Incorporate evidence-based interventions into care plans
Educate patients about preventive health (flu shots, mammograms)	Help patients develop self-management goals	Identify appropriate, relevant wellness programs
Refer patients to community health and wellness programs	Refer patients without a PCP to providers accepting new patients	Make wellness resources available to clients within the care plan
Assess, monitor physical health indicators over time	Share abnormal health indicators with PCP	Partner with community organizations (YMCA, farmer's markets)

Table 7: Aspects of Coordinated Care Plans That Address Behavioral Health

CONCLUSIONS

The coordinated care plan is a commonly envisioned tool to support care coordination and care management, but it is still not something widely used in practice by HCOs. Most HCOs are just at a point of working more closely to integrate care plans across various settings of care, especially between the acute and outpatient settings with their own organization. Integration of care plans from other settings within the HCO, especially behavioral health or-post-acute care, is still very nascent. Instead, providers today share certain care plan data elements from setting to setting; this information typically includes patient demographics, the responsible physician or clinician, a problems list, and a list of active medications as a part of a CCD document, discharge planning document, or other clinical summary document.

Follow-up interventions are often listed, too, but they are often not tied to specific goals that are a part of a coordinated care plan. Other basic data elements of acare plan, including risk factors or barriers or patient goals,are often not included at all. Other difficulties to developing a coordinated care plan stem from the fact that the patient's "care narrative" is still created by phone and fax, with information related to the coordinated care plan contained in free text or unstructured fields, which forces some level of manual transfer from one system to another. Until all of the data elements of a coordinated care plan are captured in a standardized, structured electronic format within individual provider settings and readily exchanged across settings, the concept of a coordinated care plan will struggle to reach its promised potential.

The role of patients and their caregivers in the coordinated care plan development is also limited. In many cases, they cannot even access their coordinated care plan electronically and instead receive a paper copy. In some cases, it is available through a patient portal, but this is not likely to be a common practice for another two or three years. Meanwhile, the level of involvement of patients and their caregivers in developing and updating their coordinated care plan will depend heavily upon the processes and infrastructure an HCO sets up. Cooperation among affiliated or partnered providers who are not owned by the HCO will also influence the adoption of practices and policies that better incorporate the patient into the care planning process.

Given the prevalence of EHRs in the ambulatorysetting, these systemsare often the starting place for HCOs implementing coordinated care plans – butusing template-driven care plans embedded in ambulatory EHRs have several key limitations. A number of vendors have stepped in to offer a solution or module that enables an HCO to begin coordinated care plan implementation across care settings. Even ambulatory EHR vendors are creating new solutions to address this emerging need, especially with HCOs that have a large number of different EHR vendors.

Over the next year or two, expect to see robust adoption of care management vendor solutions that utilize elements of a care plan as a key part of their workflow for a care team. Adoption of the coordinated care plan across multiple care settings will still be very much a “work in progress” though; even basic features such as sending, receiving, and compiling care plan data elements will remain limited, as will using a coordinated care plan in post-acute and behavioral health settings.

RECOMMENDATIONS FOR CARE PLANS USERS

Clinical Content Vendors

Prepare to create care plan content. This market is not quite there yet. Care management vendors and HCOs alike still must cobble together their own evidenced-based content for coordinated care plans. Even if robust demand for care plan content that is relevant for various settings is likely two or three years away, clinical content vendors should be prepared to offer it.

Bring patient-generated data into care plans. Patient goals and concerns are still treated largely as stand-alone items that may or not be integrated into the coordinated care plan workflow. Clinical content vendors need to define what types of interventions can be linked to specific patient goals and understand how patient concerns might impact care plan goals and interventions selection and completion.

Keep tabs on emerging areas of clinical content. The list of specific clinical data elements that should be in a coordinated care plan is still very much a work in progress, but clinical content vendors need to watch for specific, in-depth types of content vendors in emerging areas such as nutrition.

Make plans meaningful to patients and their caregivers. Even as clinical content vendors create clinically sound care plan content forHCOs outside the inpatient setting, they need to ensure that the content they develop also resonates with patients to drive better compliance with care plan interventions.

Physician Specialty Societies

Get involved. Physician specialty societies need to create formal, sustainable efforts around this topic rather than let individual members or a small group of interested members tackle clinical care plan contenton an ad-hoc basis.

Create electronically available care plan templates. With the exception of ASCO, the physician specialty societies Chilmark Research spoke with still have not make substantive strides to create electronic, template-driven care plans that their members can use as a starting place or that vendors or that providers can possibly incorporate into their solutions. Simply creating and updating evidence-based guidelines will be insufficient to meet this need alone, though.

Keep it short and sweet. While having a care plan that meets every possible conceivable need of patients and their caregivers is an ideal goal, it creates a high hurdle for HCOs to actually adopt and put into practice. Physician specialty societies need to determine the basic set of structured data elements their coordinated care plans should contain and what variations they need to make for the most relevant disease states or patienttypes.

Finds creative ways to drive adoption. Even if physician specialty societies create electronicallyavailable care plan templates, the likelihood that members, HCOs, or vendors will adopt and utilize them is still quite low. Physician specialty societies must drive HCO adoption without simply imposing it as some type of maintenance requirement for their members.

Care Management Vendors

Create access for patients and their caregivers. It is all too common for patients or caregivers to receive a printed copy of a coordinated care plan as they are discharged from the hospital, SNF, or physician's office. They need electronic access to the care plan in a method and format that meets their needs.

Incorporate all relevant data. Without the right ingredients, a recipe will not work. Coordinated care plans are no different. Not only do they need the prerequisite clinical data from EHRs (the current industry standard), they also need additional data elements such as adjudicated claims, relevant clinical documents, and discharge reports. Additional data types (including unstructured data) will be likely be necessary in a few years – butjust gathering the basic prerequisite data today is a large enough challenge.

Capture the "care narrative." Care team members need to be able to initiate a discussion among themselves about various elements of the care plan in multiple ways. They also need to be able to include patients, caregivers, and others as necessary to participate in relevant discussions within the scope of the application that contains the coordinated care plan. Sending hundreds of Direct messages and alerts to email inboxes each week will not scale.

Link care team performanceto organizational performance goals. HCOs look to their vendors to not only help them determine which metrics are the most meaningful to measurecoordinated care plan compliance and care team performance but also how to link these measurements to larger organizational efforts to improve quality, safety, patient satisfaction, or efficiency.

Providers

Put governance in place first. This seems straightforward, but it is still not uncommon for HCOs to have the leadership of various care settings siloed, especially for post-acute settings. For a coordinated care plan to truly work across settings, various stakeholders need to be able to communicate in some type of regular forum or meeting about what in a coordinated care plan is working, is not working, or needs to be adjusted. This is especially true for affiliated providers.

Assess organizational readiness. HCOs have to carefully consider if they are truly ready to implement a longitudinal care plan as part of a broader provider-led care management program. The HCO may not have the required health IT infrastructure, organizational or partner assets, leadership expertise, or required capital to hire and sustain the clinical and non-clinical personnel to administer the program. Instead, it may make more sense for the HCO to redeploy existing personnel and reengineer an existing care coordination workflow process such as referral management, pre-admission hospital planning, or discharge planning.

Set an enterprise-level focus. A coordinated care plan must expand beyond just the inpatient and ambulatory settingsto have a true impact. This means adding care settings as well as incorporating community-based resources as appropriate for particular patient populations.

Incorporate the needs and concerns of patients and their caregivers. Simply transferring the historical approach of payer-led care managementto provider-led care management, and continuing theemphasison labor-intensive documentation, will only result in marginal improvementsto patient adherence to the care plan. HCOs need to figure out how to incorporate patient goals and concerns into the coordinated care plan and implement this within the workflow at various care settings.

Enable a coordinated care plan now. A plethora of health IT vendors already (or soon will) offer some type of coordinated care plan solution, but no single solution on the market today or in the near future will enable a coordinated care plan to work seamlessly across all clinical settings. The concept of an electronic longitudinal care plan has just started to emerge, and even clarity on basic issues such as sending and receiving structured care plan data elements are still at least a year or two away. As a result, HCOs need to think long and hard about adopting additional point solutions to meet this need in the interim.

LIST OF ACRONYMS USED

Acronym	Definition
AAFP	American Academy of Family Physicians
AAP	American Academy of Pediatrics
ACA	Patient Protection and Affordable Care Act
ACC	American College of Cardiology
ADL	Activities of Daily Living
API	Application Programming Interface
ASCO	American Society of Clinical Oncology
BH	Behavioral Health
CCD	Continuity of Care Document
CCM	Chronic Care Management
CMS	Centers for Medicare and Medicaid Services
CNIO	Chief Nursing Informatics Officer
EHR	Electronic Health Record
FFS	Fee-For-Service
FHIR	Fast Healthcare Interoperability Resources
HHA	Home Health Agency
HHS	Department of Health and Human Services
HIE	Health Information Exchange
HITECH	Health Information Technology for Economic and Clinical Health Act
IDN	Integrated Delivery Network
JHACO	The Joint Commission
LPN	Licensed Practical Nurse
LTPAC	Long Term and Post-Acute Care
MDS	Minimum Data Set
MIPS	Merit-based Incentive Payment System
MPI	Master Patient/Provider Index
MU	Meaningful Use
OASIS	Outcome and Assessment Information Set
PCP	Primary Care Physician
PH	Physical Health
RN	Registered Nurse
SCP	Survivorship Care Plan
S&I	Standards & Interoperability
SMI	Severe Mental Illness
SNF	Skilled Nursing Facility

Table 8: Acronyms Used in Report

CHILMARK
RESEARCH

745 ATLANTIC AVENUE, 8TH FLOOR

BOSTON, MA 02111

WWW.CHILMARKRESEARCH.COM

INFO@CHILMARKRESEARCH.COM

PH: 617.615.9344