Care Plan
Exchange Report

CRISP

Chesapeake Regional Information System for our Patients

*Connecting Providers with Technology
to Improve Patient Care*

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Executive Summary

As part of Maryland's Round Two State Innovation Model (SIM) Design grant from the Center for Medicare and Medicaid Innovation (CMMI), Chesapeake Regional information System for our Patients (CRISP) worked with stakeholders over the past year to develop an approach to enable the aggregation and exchange of care plans across providers who are treating the same patients, especially during emergency room visits and hospitalizations. Improving the exchange of care plans will help to support the goal of the SIM Design work to develop a strategy to integrate care delivery for high need patients in Maryland including those with multiple chronic illnesses, high utilizer populations, and individuals dually-eligible for both Medicaid and Medicare. This report outlines the current state of care plan development in Maryland and the CRISP enabled solutions to store and make available care plans across providers who are treating the same patients.

Care Plan Development Findings

Care plans are a new document that the provider community is still in the process of defining and around which standards and clinical norms are still developing. Developing care plans is not currently embedded into clinical responsibilities and is a time consuming process that is not always a priority. Currently when care plans are developed there is significant variability in the development process and the structure and content of care plans across organizations. No consensus has developed on what should be included. Patients can have multiple active care plans from different organizations.

The current technical standards for care plans are at a nascent stage of adoption and deployment by health IT developers. The most prominent technical standard for care plans used by health IT developers and supported by the Office of the National Coordinator for Health Information Technology is in the early stage of being rolled out and it is unclear how many health IT developers will adopt this optional standard.

Care Plan Exchange Findings

Over the past year, CRISP has worked closely with stakeholders to develop a scalable solution, currently in use by three hospitals in Maryland, to facilitate care plan exchange from hospitals to other providers treating the same patient. CRISP aggregates care plans from these facilities and makes them available through a variety of platforms for other providers to access. CRISP is also working with facilities to develop and share care alerts, which are designed to provide a quick view of actionable information on a patient, particularly to support providers who have not previously seen a patient. This initial set of service offerings are a starting point to support providers, based on existing technology and workflows, and will be built upon moving forward.

Next Steps

As implementation of Maryland's All Payer Model moves forward care coordination will continue to increase in importance to Maryland stakeholders. CRISP has implemented foundational infrastructure to centrally aggregate care plans and make them available through multiple avenues to providers. In the near term, CRISP is working to expand the number and types of organizations submitting and using care plans moving forward. Health plans are a significant potential source of care plans for CRISP that to date have not been made available for exchange. CRISP will continue to work to improve the initial infrastructure to make it easier for providers to integrate care plans and care alerts natively within their EHRs. In the long term, CRISP

is working to develop and implement a policy framework to allow non-covered entities to submit care plans to CRISP. This will enable community based organizations, an important player to the long term success of the All Payer Model, to share care plans through CRISP as well.

In addition to the work CRISP will undertake, stakeholders and policy makers have a number of potential opportunities they could pursue to further support the exchange of care plans. Providers could develop consensus on the overall structure of a care plan or a subset of content that should be included and a common approach for determining which patients should receive care plans. Stakeholders also have the opportunity to develop approaches to coordinate care management resources for common patients with care plans.

Introduction

In recent years, Maryland has embarked on a significant and innovative effort to improve care and reduce growth in health care spending. In this effort, Maryland has partnered with the Centers for Medicare and Medicaid Services (CMS) to transform the state's existing all-payer hospital payment system that has been in place for over forty years. Maryland received approval of the new All-Payer Model (Model) and began implementation at the start of 2014. The Model includes a number of cost containment and quality improvement requirements including:

- All-payer, total hospital per capita annual revenue growth no greater than 3.58 percent;
- Medicare hospital payment savings of $330 million over five years relative to the national growth rate;
- Reduce Medicare 30-day unadjusted, all-cause, all-site readmission rate to the corresponding national average over five years;
- An annual aggregate reduction of 6.89 percent in Potentially Preventable Conditions (PPCs) over five years, which will result in a cumulative reduction of 30 percent in PPCs over the life of the model; and
- Other outcomes and quality indicators to be measured and monitored.

Improving care coordination is an important component of Maryland's strategy to meet the goals of the Model.[1] To support this work, Chesapeake Regional information System for our Patients (CRISP) has embarked on an expansion of its existing services to cover the cooperative IT and data needs of stakeholders in Maryland, including hospital systems, physicians, health plans, and public health officials.

Over the past year CRISP has worked closely with stakeholders to identify the statewide care coordination needs that would benefit most from cooperative IT solutions. Stakeholders identified the increasing importance of sharing care plans across providers as care management and care coordination activities accelerate across the state.

Purpose of Project

Based on this feedback, and as part of Maryland's Round Two State Innovation Model Design grant from CMMI, CRISP worked with stakeholders over the past year to develop an approach to enable the aggregation and exchange of care plans. The approach described in this report has been to expand on the early work

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[1] Care coordination involves deliberately organizing patient care activities and sharing information among all of the participants concerned with a patient's care to achieve safer and more effective care. Source http://www.ahrq.gov/professionals/prevention-chronic-care/improve/coordination/index.html

already in development, facilitating the creation of a state-wide solution. This report outlines the current state of care plan development in Maryland and the CRISP enabled solutions to store and make available care plans across providers who are treating the same patients, especially during emergency room visits and hospitalizations. Improving the exchange of care plans will help to support the goal of the SIM Design work to develop a strategy to integrate care delivery for high need patients in Maryland including those with multiple chronic illnesses, high utilizer populations, and individuals dually-eligible for both Medicaid and Medicare.

Background

Current CRISP Services

CRISP started eight years ago with a focus on enabling providers to access patient data at the point-of-care to support treatment use cases. The Clinical Portal, CRISP's initial services offering, provides access to lab results, radiology reports, electronic reports and discharge summaries. Over time the information available in the Clinical Portal has expanded to include encounter information and medications from the Prescription Drug Monitoring Program (PDMP) in Maryland and other neighboring states. CRISP's service offerings have also expanded to include encounter notifications, the Payer Portal, and reporting analytics services.   With the addition of these services CRISP has also moved from enabling point-of-care access only for treatment purposes to supporting a wider set of uses including care coordination and quality. CRISP has also expanded the allowed users from providers only to include, for certain services and under set rules, care coordinators and payer staff.

Today, CRISP has 232 active clinical data feed connections to healthcare organizations in Maryland and Washington D.C. All of the acute care hospitals in Maryland and most in Washington D.C. are connected to CRISP. CRISP is connected to long-term care facilities, ambulatory providers, radiology facilities, laboratories, and emergency medical facilities. Providers log approximately 125,000 queries for patient information per month from the Clinical Portal. Over 700,000 encounter notifications are sent to subscribing providers per month.

Care Coordination Workgroup

Over the past seven years CRISP has been engaged with a breadth of provider organizations to facilitate data exchange to improve care delivery. Accordingly, in late 2014, the Health Services Cost Review Commission convened the Care Coordination Workgroup, which established a new focus for CRISP services to support care management through enhanced data infrastructure. Specifically, the Care Coordination Workgroup identified goals to build on CRISP's data exchange infrastructure and to enable the exchange of care profiles and care plans. As stated in the Workgroup final report:

> The care plan is the comprehensive plan of services and other activities aimed at assisting patients and their care givers achieve individualized and prioritized goals; care planning is the process that generates a care plan. Care plans have the information in the care profile but also include a much broader sweep of services. Care plans identify the range of problems, the current plans for each of the problems and the overall plan that the patient and care team have made for their optimal care and well-being. These care plans need regular maintenance. Care coordination designates the processes that the care team uses to ensure that the care plan is implemented across time and settings.

Accordingly, the Workgroup laid out the case for a new set of services and infrastructure necessary to move the State forward to expeditiously manage high needs patients including the sharing of care plans.

Deployment of New CRISP Infrastructure

The CRISP Integrated Care Network (ICN) IT Infrastructure project is the overarching set of shared IT infrastructure being developed statewide to support care management by providers and payers. The underlying assumption is that in their efforts to achieve the three-part aim of health reform, Maryland stakeholders will need new IT infrastructure. Pursuing some elements of the build-out cooperatively will result in more complete patient information being available to clinicians and care managers, since individual institutions using just their own data sources often have only a partial picture. A shared IT infrastructure with active exchange of patient data will result in better coordination for complex patients who use multiple different hospitals and health systems. Subsequently, better coordination will result in further cost savings, by avoiding duplication of effort.

Having been chartered to pursue health IT projects which are best done cooperatively, CRISP is well positioned to manage the build-out of shared infrastructure. By virtue of its governance model, the stakeholders who use CRISP services direct the organization, providing oversight and accountability, and this design has been extended to the new infrastructure project. The new tools are being built on top of the existing HIE platform, which CRISP already operates.

The CRISP ICN IT Infrastructure aims to connect providers in multiple settings -- from hospitals and physician practices to long-term care facilities -- with the proper information to improve health outcomes and reduce costs by providing tools, data, and services to support care coordination. The CRISP ICN IT Infrastructure project is a multi-year initiative that includes seven primary workstreams that together build on the existing CRISP data and service offerings to enhance clinical care and care coordination -- especially when patients receive services from multiple providers. CRISP is working in collaboration with and in support of the Regional Partnerships for Health System Transformation participants. The CRISP ICN IT Infrastructure workstreams are organized into seven major initiatives that include:

1. **Ambulatory Connectivity:** Connect more practices, long-term care facilities, and other health providers to the CRISP network.
2. **Data Router:** Build a data router that includes data normalization, patient consent management, patient-provider relationships – for sharing patient-level data.
3. **Clinical Portal Enhancements:** Enhance the existing Clinical Query Portal with a patient care overview; a provider directory; information on other known patient-provider relationships; and risk scores.
4. **Notification & Alerting:** Create new alerting tools to allow notifications to happen within the context of a provider's existing workflow.
5. **Reporting & Analytics:** Expand existing CRISP reporting services and make them available to a wider audience of providers and care managers.
6. **Basic Care Management Software:** Support care management efforts throughout the state and region – through data feeds, reports and potentially a shared care management platform.
7. **Practice Transformation**: Assist provider efforts to improve care delivery by training them on leveraging CRISP data and service, sharing best practices, and supporting collaborative partnerships.

The Regional Partnerships and other collaborative efforts that followed the recommendations of the Care Coordination Workgroup and leveraged the infrastructure developed by CRISP. The ICN services mentioned above, which were in large part developed in response to the global budget model, created opportunities for CRISP to engage in planning processes to determine specific processes around care plan creation, sharing, and use. Some regional partnerships, especially the Bay Area Transformation Partnership, placed special emphasis on care plan and care alert sharing as a critical aspect of care coordination. As CRISP began to engage more deeply in care plan document sharing approaches, additional efforts within specific hospitals began to emerge. The hospitals that were actively working on care plan creation processes offered an opportunity for CRISP to work directly with clinicians to begin working toward care plan sharing pilots.

Separately, managed care health plans and other specific health plan-led care management models have incorporated care plans into their models. Medicaid Managed Care Organizations (MCO) and CareFirst's Patient Centered Medical Home Program each have significant care plan creation and curation processes which could contribute to a care plan exchange ecosystem enabled through CRISP.

Current Care Plan Development Overview

Care planning and care plan development have been of growing importance in the broader care managements discussions in Maryland in the past year. Hospitals, community-based organizations, and health plans have all been actively working to increase care planning efforts across the state.

Care Plan Document Standards

The current technical standards for care plans are at a nascent stage of adoption and deployment by health IT developers. The most prominent technical standard for care plans used across health IT developers is a template of the Consolidated-Clinical Document Architecture (C-CDA), which was developed by Health Level Seven International (HL7), a standards developing organization. This template is new in the updated C-CDA version; formerly, components of the care plan were included in the Care Coordination Document (CCD) template, though not widely implemented.

In an effort to promote the use of the care plan template, the Office of the National Coordinator for Health Information Technology (ONC) included it as an optional certification criteria in the 2015 Edition Health IT Certification Criteria. The criteria requires the ability to create a care plan using the care plan template in C-CDA Release 2.1 but does not address the ability to receive or reconcile information in a care plan into a patient's record. The care plan template provides a structured format for documenting information such as goals, health concerns, health status evaluations, and outcomes and interventions. It is unclear how many health IT developers will get certified to this optional certification criteria. As of the time of writing this report, certification for the 2015 Edition had just started and no products had yet been certified.

CMS is interested in further advancing the use of the care plan template by health IT developers and providers. While not required in the 2015 Edition of certification or for Meaningful Use, CMS is requiring providers have technology certified to the care plan criteria to participate in certain alternative payment models. CMS defines what certified technology participating providers must use when it establishes the requirements for each alternative payment model. For instance, CMS is requiring that by the end of 2018, providers participating in the Comprehensive Primary Care Plus Track 2 must have technology certified to the care plan criteria and utilize the technology to create and share care plans. In the notice of proposed rulemaking implementing the Merit-Based Incentive Payment System (MIPS), CMS proposes to use the Meaningful Use definition of certified technology for eligible clinicians participating in MIPS, which does not require providers to have technology certified to the care plan criteria.

Hospital Care Planning

Based on CRISP discussions with stakeholders, hospitals are in the early stages of establishing internal processes for the creation of care plans. Today, there is not a consistent definition across organizations or programs of what a care plan is and what content it should contain. Care plans are being used for varying purposes including to support care coordination and avoid inappropriate utilization of services. A sample care plan is included below and Appendix A includes additional examples. While hospitals are taking varied approaches to the details of creating care plans the following steps are generally implemented by Maryland hospitals:

1. **Identifying Patients for Care Planning:** Hospitals are establishing criteria for which patients should receive a care plan. Qualifying criteria for a patient to receive a care plan are usually focused on high utilization and cost populations. The criteria often look at measures such as: utilization of emergency department services, total costs, or in some cases specific qualifying chronic conditions (i.e. chronic obstructive pulmonary disease).
2. **Care Plan Development:** Three general approaches to developing care plans have been found in Maryland hospitals to date. In the first approach, generic care plan templates associated with specific chronic conditions or high ED utilization are developed with no content tailored to the patient. In the second approach, patient-centric care plans that are tailored to each individual patient are developed. The third approach, is a hybrid of the first two approaches combining generic content with patient specific tailored content in the care plan.
3. **Governance Process:** Hospitals are typically establishing multidisciplinary review committees that provide input and approval of care plans and in some cases support their ongoing management. Hospitals are finding this adds rigor to the care planning process but it is time consuming and can be difficult to prioritize in the context of other important clinical objectives.

Figure 1: Care Plan Example

COPD/Asthma Management

@name@ has been identified as patient who appears to have difficulty managing their COPD/Asthma in the community. It is recommended that:

1) If there is no significant, **objective** criteria to admit or place the patient in an observation status (such as a low 02 sat, or failure to space nebs), please try to discharge the patient if it is safe to do so.
2) Please write orders for pre and post nebulization peak flows.
3) Administer a long acting **INTRAMUSCULAR** steroid (such as Decadron) prior to discharge.
4) **Give the patient an albuterol MDI for home;** write for "2 puffs" of an MDI, the patient can take the inhaler home afterwards.
5) During business hours, please contact the Community Health Worker at 443-683-0565 or a Care Transition Liaison at 410-382-0581 to see the patient in the ED to secure follow up care. After business hours, please leave a message on the Care Transitions after hour phone line at x3809 so that a member of the team can follow up with the patient.

This plan approved for this patient by the Care Coordination Committee, a multidisciplinary team of physicians, social workers, case managers, nurses, outcomes managers, health advocates, and other members of the patient care team, on ***.

Hospital Challenges and Limitations

Today, there are a limited number of hospitals that have adopted processes for creating care plan documents. Increasing hospital participation will be important to statewide efforts to improve care management. In hospitals that are creating care plans, the number being produced is a function of the resources available to create and approve them and the priority that the process takes in the context of other important clinical objectives.

Care plans are a new document that the provider community is still in the process of defining and around which standards and clinical norms are still developing. Developing care plans is not currently embedded into clinical responsibilities and is a time consuming process that is not always a priority. Currently when care plans are developed there is significant variability in the structure and content of care plans across organizations. No consensus has developed on what should be included. CRISP's experience with discharge summaries, a long standing clinical document, is that there is still great variability in what is captured across providers and organizations. Absent a broader process to create a standardized approach, there may be a similar trend with care plans.

Anecdotal information from hospitals has found that care plans significantly reduce utilization of services for patients that receive them. Similar reductions in utilization have been seen with generic and patient tailored care plans. The analyses have been based on only the hospital's data so it is unclear if the patient's utilization is increasing at other facilities.

Health Plan Care Planning

Commercial Health Plans

Health plans have historically had the most aligned financial interest in effectively managing the health and utilization of their members. Most notably within Maryland, CareFirst's Patient-Centered Medical Home (PCMH) program has a substantial emphasis on engaging chronically ill members in intensive and member-specific care planning processes.

As stated within the CareFirst PCMH Program Description and Guidelines, "the establishment of Care Plans by PCPs/NPs for the multi-chronic Member is intended to reduce hospital admissions and readmissions (and ER use) and to overcome fragmentation in the health care system that is essential to improving outcomes for these Members. Breakdowns in the health status of Members are common due to the lack of coordination of services for the multi-chronic Member."

CareFirst creates several financial and non-financial incentives for the development of care plans. Care plans are created for patients who meet certain qualifying criteria and consent to participate. Providers are assisted in creating the care plans by care coordinators. PCMH providers receive payment for developing ($200) and maintaining ($100) care plans for members who meet the programs requirements. Care plans are created through a proprietary web-based system. Other CareFirst providers treating the patient can view the care plan through the provider portal.

The CareFirst model places substantial importance on the on-going engagement between the PCP and the member. The CareFirst PCMH Guidelines describes that "the PCP or NP must be deeply involved in the Care Plan and implementation process for their eligible Members. Each Care Plan must, in effect, constitute a "contract" between PCP or NP and Member if it is to be effective. Care Plan development and maintenance in the PCMH Program cannot be relegated by a PCP or NP to someone else."

However, the development and sharing of the care plan is internal to the CareFirst world. The care plans created through CareFirst's PCMH program are not available through CRISP and therefore not available to hospital providers treating a given CareFirst member during an emergency department or inpatient visit. While there has been minimal progress on any substantial number of care plans being shared from the hospital community, the existing care plan documents created through the CareFirst PCMH program could hold significant care coordination opportunity during hospitalization if shared through CRISP.

Medicaid Managed Care Organizations
Medicaid Managed Care Organizations (MCOs) represent another existing source of care plans. Within MCOs the member specific content is typically a function of the member being engaged in specific case management services based on their medical needs or complexity or in specific disease management programs. Many case management services focus on certain conditions such as diabetes, asthma and HIV. Certain populations are also covered including pregnant, homeless, and individuals with developmental or physical disabilities.

MCOs take different approaches to patient enrollment but all provide the ability to opt-out of participation. Providers can refer patients to the MCO for care management or patients many self-refer. Some MCOs automatically enroll beneficiaries based on information from claims data or pharmacy data. For instance, Riverside Health automatically enrolls members who are identified as diabetic or asthmatic in their disease management program. Members are often stratified across risk levels and receive information resources to help manage their condition. Higher risk members can receive additional services such as dedicated care managers. Some provide notifications to the member's primary care provider of any gaps in care based on the MCOs care guidelines.

There are other specific programs, such as the Rare and Expensive Case Management program, which also produce patient specific management plans (though enrollees are not MCO members). However, CRISP has not yet engaged in enabling the sharing of MCO developed care plans through the HIE.

Current CRISP Approach to Care Plan Exchange

As care management activity and care plan development accelerates throughout the state, the ability to share care plans across providers is becoming increasingly important. CRISP's core objective for care plans is to facilitate the exchange of care plan information among providers treating the same patient, especially during emergency room visits and hospitalizations. The initial focus has been on receiving care plans from hospitals as they have been at the center of Maryland's global budgeting efforts.

The care plan exchange services CRISP is deploying today serve as a starting point aimed at facilitating the availability and exchange of care plans documents and care alerts. It is anticipated this work will unearth other opportunities to further coordination (or de-duplication of services) by making visible the fact that a patient has multiple active care plans from different organizations.

Over the past year, CRISP has worked closely with stakeholders to develop a scalable solution to care plan exchange. The approach described in the next section outlines a systematic, efficient process to share care plans developed in hospitals and other care settings with other care providers around the state. CRISP is leveraging its state-wide infrastructure to develop a solution to address the care coordination challenges previously described to expand on the ad hoc sharing of care plans within organizations today.

Care Plan Exchange Solution
To date, CRISP has focused on facilitating the exchange of care plans from hospitals to make them available to other providers treating the same patient. CRISP is currently receiving care plans from three hospitals, St.

Agnes Hospital, Bon Secours Baltimore Health System, and Upper Chesapeake Medical Center.[2] CRISP has been working with these hospitals for the past year to better understand how care plans are developed and how CRISP can support their exchange across organizations. As of May 2016, Greater Baltimore Medical Center and Carroll Hospital Palliative Care are in process of sharing care plans with CRISP. Additional hospitals are in discussion with CRISP to share care plans.

Table 1: Organizations Sending Care Plans and Care Alerts to CRISP in Maryland

Organization	Document Types	Began Sharing with CRISP
St. Agnes Hospital	Care plan	2016
Bon Secours Baltimore Health System	Care plan	2016
Upper Chesapeake Medical Center	Care plan	2016
Anne Arundel Medical Center	Care alert	2016
Baltimore Washington Medical Center	Care alert	2016

Sharing Care Plans

For CRISP to enable care plan exchange, a few foundational elements have to be in place. **First**, organizations need to have care plans available to share. Organizations that do not already have processes in place to create care plans will need to develop them. These steps include:

1) Establishing qualifying criteria for which patients will receive care plans;

2) Allocating sufficient resources to implement and maintain ongoing support for the process of creating and maintaining care plans; and

3) Establishing a governance process to provide input into the development and structure of care plans.

To maintain momentum for effective care planning the process will need to become an organizational priority and be built into staff workflows and responsibilities.

Second, for inter-organizational electronic exchange, organizations must use the technical infrastructure CRISP has implemented to support the exchange of care plans. CRISP is focused on serving as a central hub for care plans for organizations that are able and willing to share them. The figure below outlines the live infrastructure CRISP is using to receive and share care plans today and the following texts describes the approach in more detail.

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[2] Upper Chesapeake Medical Center is providing care plans through the CRISP basic care management solution, discussed in more detail below.

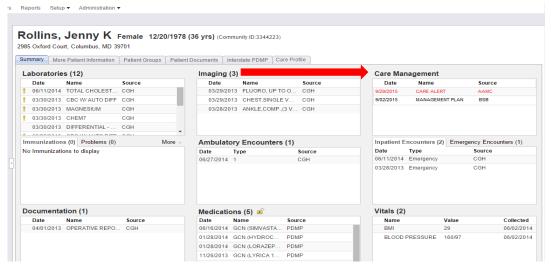**Figure 2: CRISP Care Plan Exchange Approach**

In reviewing Figure 2, care plans are sent to CRISP through new or existing data feeds from participating organizations. CRISP is receiving care plans in a variety of formats (PDF, structured HL7 message) that organizations can send them today. When CRISP receives a care plan, it is turned into a PDF and made available to other providers treating the patient in a new section of the Clinical Portal patient summary screen called "Care Management." The clinical portal is the main/initial access point for most providers. For an individual patient one care plan from each source is available in the Clinical Portal and when the plan is updated the previous version is replaced. For example, if hospital A shared a care plan on a patient with CRISP and then subsequently submitted an update of that care plan the updated version would replace the old care plan in the Clinical Portal.

In addition to the Clinical Portal, CRISP is working to make care plans available through multiple other avenues to meet the needs of providers. CRISP is actively working with health IT developers to integrate care plans and care alerts into providers' native electronic health record (EHR) workflows. CRISP has created an application program interface (API) that will notify third party systems when a care plan is available on a patient. This will enable providers to receive in-context alerts in their EHR when a care plan is available in the Clinical Portal.

CRISP is offering a basic care management solution to organizations that do not currently have a care management solution that supports the development and exchange of care plans. Care plans created in the solution also populate the Clinical Portal. The basic care management solution is currently a pilot initiative underway to determine the value to participants of CRISP offering such a solution. For organizations that already have a care management solution in place, CRISP is working to integrate with their system to feed it with patient information, which could include care plans.

Figure 3: Location of Care Plans in CRISP Clinical Portal

Care Alert

A care alert can be a component of a care plan or shared via CRISP independent of a care plan. The Bay Area Transformation Partnership has championed the approach of developing and exchanging "care alerts" as a component of a care plan that is being extracted for quick view.[3] The intent of a care alert is to provide in a few sentences the most important and specific information another provider should know about a given patient. The care alert is designed to support providers who may not have previously seen a given patient, therefore exchange of the alert is a key aspect of its value. This approach recognizes the limited time providers have to review clinical documentation, especially when providing emergency care. While a care plan may contain important and more general guidance on a given patient's health goals and the care alert may provide specific actionable information such as phone numbers for family members or a highly targeted course of action that has proven to be an effective path towards a disposition for a patient in crisis.

Care alerts are currently being piloted by Anne Arundel Medical Center and Baltimore Washington Medical Center. Care alerts are available in the "Care Management" section of the Clinical Portal. An important challenge associated with the care alert is motivating providers to create the content; something not currently embedded within most existing care planning processes.

Care Alert Example

> "This is a 45 year old with chronic schizophrenia that lives in a shelter in Dundalk. When she gets angry at staff (approximately every 3 months), she will use her cache of bus tokens to come to other hospitals and request hospitalization "for a few days until I get myself together because I'm suicidal and homicidal." She is generally future oriented, has never attempted suicide, and never has a plan for suicide completion or a specific target of her homicidality. She is usually unhappy with but amenable to discharge."

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[3] The Bay Area Transformation Partnership includes the counties of Anne Arundel, Queen Anne's and Talbot. Applicants included Anne Arundel Medical Center (lead applicant); University of Maryland Baltimore Washington Medical Center; Healthy Anne Arundel Coalition; and MedChi,

Care alerts will also be available in the CRISP Patient Care Overview, an on-the-fly compilation of pieces of care management data that might be relevant for a provider or care manager at the point of care. The Patient Care Overview will be accessible via one-click from the patient's CRISP summary page within the Clinical Portal and will display the following elements:

- **Patient Attribution:** Uses ENS data to indicate who else is involved (i.e., subscribed to the patient in ENS) in the care of the patient.
- **Prior Admissions:** Provides a list of the last 60 days of encounter information for patient.
- **Care Alert:** A short summary of the most pertinent information needed for a provider to treat the patient.
- **Care Manager Attribution:** List of care management programs the patient is enrolled in alongside the name of the care manager and their contact information.
- **Payer Submitted Risk Scores:** If available a payer can submit a risk score to CRISP and it will display in the portal with an explanation of the score and the organization that submitted it.

Figure 4: Patient Care Overview Tab

| Summary | More Patient Information | Patient Groups | Patient Documents | Patient Care Overview | eHT HIE Worklist | Interstate PDMP |

Organizations subscribed to this patient

Participant	Care Program	Manager
Name: CareFirst Insurance Phone Number: 410-555-1212	Diabetes Management	Davey Johnson
Name: Medical Faculty Associates Phone Number: 410-555-1212		

Risk Measures

Participant	Risk Score	Methodology
Name: CareFirst Insurance Phone Number: 410-555-1212	Low	Lace -based on length of stay, ED visits, and comorbidities in the past 6 monts

Care Alerts

No Care Alerts found

Events

Description	Source Name	Date
ADT 01 Emergency	Suburban Hospital	2016-04-18

Challenges and Limitations

Exchanging care plans and making them available in the Clinical Portal will likely raise a number of new coordination questions across hospitals and other organizations. In cases when multiple hospitals have a care plan on the same patient, how will they coordinate efforts and resources? Will hospitals coordinate to develop a single unified care plan for the patient? To better leverage the information gained through care plan exchange efforts, organizations will have to work together to coordinate resource use on common patients.

The significant variability of the content of care plans and lack of widespread adoption of technical standards could hurt providers' willingness to review care plans from other organizations. Some provider leaders feel that without more consistent content across organizations' care plans it is likely that use will be limited as the provider accessing the document will be uncertain if they will find valuable information. Until additional hospitals start sharing care plans it will be difficult to determine if this concern is valid or not. As CMS and ONC continue to advance care plan standards adoption by health IT developers and push its use by providers, technical variability may be addressed.

As CRISP expands the types of organizations that we receive care plans from beyond hospitals and other covered entities new policy issues will arise. CRISP is continuing to evolve its governance and policy structure to adapt and address these new policy issues. For example, care management organizations and non-providers will be required to get the patient's consent prior to sharing a care plan with CRISP.

Next Steps

As implementation of Maryland's All-Payer Model continues care management and care coordination will continue to increase in importance to Maryland stakeholders. CRISP is working to expand its technical infrastructure to support the cooperative IT needs of stakeholders to succeed in the All-Payer Model. CRISP has implemented an initial set of infrastructure to centrally aggregate care plans and make them available through multiple avenues to providers. Three hospitals are sharing care plans today. Health plans are a significant potential source of care plans for CRISP that to date have not been made available. CRISP will work over the next year to further advance the exchange of care plans through the following steps.

CRISP Priorities

- **Expand Organizations Submitting and Using Care Plans:** In the near term, CRISP is actively working to expand the number of hospitals that submit care plans and care alerts. We are working to add additional sources of care plans and are in active discussion with health plans and ambulatory providers to begin sharing them. We are also working to inform providers of the availability of care plans in CRISP and encourage their use.
- **EHR Integration:** In the near term, CRISP is working to improve the initial infrastructure to make it easier for providers to integrate care plans and care alerts natively within their EHRs. This will include exposing access to the care plan via an API so that an EHR can query CRISP behind the scenes to check for the availability and actually present a care plan within the EHR workflow. This is the ideal workflow for accessing CRISP generally and is especially important in the context of indicating care plan availability.
- **Identify Additional Avenues to Leverage Care Plans:** In the medium term, CRISP will also work with users to determine additional avenues for leveraging care plans. For instance, functionality could be added to ENS to allow organizations to receive an alert when a new care plan has been developed for patients they are subscribed to.
- **Implement Policy Framework for Non-Covered Entities:** In the long term, CRISP is working to develop and implement a policy framework to allow non-covered entities to submit care plans to CRISP. This will enable community based organizations, an important player in the All Payer Model, to share care plans through CRISP as well.

In addition to the work CRISP will undertake, stakeholders and policy makers have a number of potential opportunities they could pursue to further support the exchange of care plans. In particular there are a number of areas where additional standardization of care plan approaches and content could be pursued if stakeholders are interested.

Policy Recommendations

- **Standardize Care Plan Content:** Stakeholders have the opportunity to come together and agree on the overall structure of care plans or a subset of content that must be included in a care plan. This could help improve standardization and increase the utility of the document to other organizations as providers will know that certain content will always be included. Provider associations could be well positioned to lead this dialogue.

- **Coordinate Care Management Resources Across Organizations:** Enabling cross organization care plan exchange will unearth patients with care plans from multiple organizations. This will provide an opportunity for organizations to coordinate their efforts if desired. While CRISP is well positioned to assist with additional cooperative IT needs, the Regional Partnerships or provider associations are better positioned to lead the development of a coordinated approach to address the clinical and resource use questions raised when a patient has care plans from multiple organizations.

- **Common Criteria for Identifying Which Patients Should Receive a Care Plan:** Organizations could come together to establish common criteria for which patients should receive care plan. While there will be necessary and appropriate variability across organizations, depending on the alternative payment model they are participating in, certain common criteria could be established for all organizations while still enabling flexibility to support the needs of different alternative payment models. Provider associations could be well positioned to lead this dialogue.

- **Care Plan Infrastructure and Alternative Payment Models**: Providers looking to participate in future Alternative Payment Models programs will need to track requirements issued by CMS and other payers to determine how CEHRT will be defined in the future. CMS has already included a requirement in the CPC+ Track 2 that providers have technology certified to create a care plan by 2018. CMS and other payers may include this requirement in other Alternative Payment Models in the future. Consideration should also be given to how to expand care planning in Maryland over time to align with the future direction of U.S. Department of Health and Human Services.[4]

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[4] ONC and CMS recently outlined a vision for creating a comprehensive shared care plan. See the following link for more information http://catalyst.nejm.org/making-the-comprehensive-shared-care-plan-a-reality/.

Appendix A: Care Plan Examples

Bon Secours Baltimore Health System Examples

ACO Care Management Plan

This patient is a member of the Good Help ACO Group. The ACO Management plan is intended to provide consistent evaluation of pertinent needs and treatment for this patient with appropriate follow up care.

Follow the ACO Care Management Plan as follows:

1. Please notify the Nurse Care Manager on the Care Team:
    a. **If the patient has Dauda or Ahmed, call 443-683-0335**
    b. **If the patient has any other PMD, call 443-602-2348**
    c. **After hours and on weekends, leave a message at x3230**
2. Direct Patient or Care Provider to call their Primary Care Physician's Office on the next business day to arrange a post ED visit follow up within 5 days. If they do not have a PCP please provide them with contact information for Bon Secours Family Health and Wellness at (410) 362-3612.

BRAVO/Cigna Healthspring Care Management Plan

This patient has BRAVO/Cigna-Healthspring Insurance

BRAVO/Cigna-Healthspring has a large collection of resources and a walk-in clinic for all of their patients. This patient has been designated a High-Utilizer by BRAVO and has access to their "Complex Care" services which include case management, social work, pharmacy assistance, transportation, and food during their visits. **They would like to pick up this patient after each discharge in order to help them secure services.**

If patient presents **during WALK IN CENTER BUSINESS HOURS** (Monday-Friday 8a-6p; Saturday 9a-4p) please do the following:

1) Clear the patient of any emergent medical condition
2) Call walk-in clinic charge nurse @ 443-257-2540 (cell) – CALL EVEN IF YOU HAVE "SOLVED" THE PATIENT'S PROBLEM
    a. They will arrange for transportation (a van) to the walk-in center and then transport patient home as well
    b. Give them the security desk phone number to call when transport arrives – 410-362-3479
3) Discharge patient to waiting room to wait for transport

If patient presents **after WALK IN CENTER BUSINESS HOURS**

1. Check for accuracy of patients address and telephone number

2. Have operator page the BRAVO hospitalist on call
    a. Notify them of any barriers the patient is facing to getting care so that they can set up resources; they will arrange to have patient contacted and seen ASAP. Transportation is provided.
3. Refer patient to the BRAVO walk-in center for future visits that are not life threatening (transport provided):

   312 N. Martin Luther King Jr. Blvd,2nd Floor

   Baltimore, MD 21201

   (located behind the Rite Aid on MLK Blvd. and W. Saratoga St.)

   443-278-7001

COPD/Asthma Management

@name@ has been identified as patient who appears to have difficulty managing their COPD/Asthma in the community. It is recommended that:

1) If there is no significant, objective criteria to admit or place the patient in an observation status (such as a low 02 sat, or failure to space nebs), please try to discharge the patient if it is safe to do so.
2) Please write orders for pre and post nebulization peak flows.
3) Administer a long acting INTRAMUSCULAR steroid (such as Decadron) prior to discharge.
4) Give the patient an albuterol MDI for home; write for "2 puffs" of an MDI, the patient can take the inhaler home afterwards.
5) During business hours, please contact the Community Health Worker at 443-683-0565 or a Care Transition Liaison at 410-382-0581 to see the patient in the ED to secure follow up care. After business hours, please leave a message on the Care Transitions after hour phone line at x3809 so that a member of the team can follow up with the patient.

This plan approved for this patient by the Care Coordination Committee, a multidisciplinary team of physicians, social workers, case managers, nurses, outcomes managers, health advocates, and other members of the patient care team, on ***.

CT Utilization Quicktext

@name@ has been identified as frequenting the ED for a chronic condition. @name@ has received extensive work-ups in the ED, many involving significant doses of radiation.

1) The patient's usual complaint is ***
    a. Please look through the patient's record for further description of their usual complaint to decide whether radiological evaluation is warranted

2) As higher cumulative doses of radiation pose significant long-term risks to the patient, please be judicious in your use of radiology with this patient. If they present with pain typical for their usual complaint, consider alternative diagnostic investigations that do not use radiation.

a. Please look through the patient's record (including CRISP) for their previous CT scans and results

Pain Management

1) If there is no significant, **objective** criteria for narcotic analgesia requiring admission please use alternative methods for pain control.
2) Each and every time @name@ presents to the Emergency Department, @his@ pain management specialist should be contacted. If no pain management specialist is available, the primary care doctor should be contacted. Unless **objective** criteria for narcotic analgesia exist, the patient's pain management specialist or primary care doctor should make all decisions regarding narcotic pain management in order to provide consistent care during each visit. **If no physician is reachable, please do not give narcotic analgesia unless serious objective criteria exist.**
3) No prescriptions should be written for controlled substances in the absence of serious objective pathology. Dental pain may be managed with the offer of a dental regional anesthetic, for example.
4) During business hours, please contact the Community Health Worker at 443-683-0565 or a Care Transition Liaison at 410-382-0581 to see the patient in the ED to secure follow up care. After business hours, please leave a message on the Care Transitions after hour phone line at x3809 so that a member of the team can follow up with the patient.

Please note that opiate-habituated patients may require dose adjustments (usually higher) when they are treated for severe objectively painful conditions, such as a gross deformity with extremity fracture.

This plan approved for this patient by the Care Coordination Committee, a multidisciplinary team of physicians, social workers, case managers, nurses, outcomes managers, health advocates, and other members of the patient care team, on ***.

St. Agnes Hospital Example

Documentation - Desai, Samit MD

Octagon, Crazy
DOB: 1/23/70 46 F

SA0000008474 / SA00000715 / SBATVIG00007
Adult Main Emergency Dept REG

ⓘ Allergy/AdvReac: No Known Food/Drug Allergies

Document: High Utilization Program - High Utilization Program

(UR NOTE)

─ Frequent User Program

*Program Highlights:	Patients for whom improved care coordination and communication across the continuum are vital have been designated for a		
*Enrolled?	○ Yes, NO care plan	○ Yes, WITH care plan	
*Care Program:	○ HCAM	○ Heart Failure Center	○ West Baltimore
*Date enrolled:			
Previous Note?	○ Yes	○ No	
Date of Previous Note:			

─ Clinical Summary

*Synopsis (include CRISP):	
Recent Studies/Interventions:	

─ Utilization Review

ED Visits (last 12 months):	
Adm/Obs (last 12 months):	
CT Studies (last 12 months):	
Xrays (last 12 months):	
MRI Studies (last 12 months):	
Other Comments:	

─ Care Map

*Medical Plan:			
Care Team Members:			
Code Status:	○ Full Code (CPR)	○ DNR/DNI:NIMV/Pressors OK	○ DNR/DNI:No NIMV/Press OK
	○ DNR (no CPR):Intubate OK	○ DNR/DNI:No NIMV/Pressors	○ DNR/DNI:Rx Symptoms Only
Psychosocial Issues:			
Upcoming Appointments:			

─ Case Reviewers

*PopHealth Provider:	EDIT
Care Manager:	
Social Worker:	
RN Navigator:	
Date of Review:	

Appendix B: EHR Integration Approach

CRISP is actively working with hospitals and their EHR vendors to integrate care plans and care alerts into native workflows. The following steps outline the process for a hospital to develop, submit a care alert to CRISP and the process to receive a care alert from CRISP.

1. Hospital adds Care Alert to the "problems" section of a Continuity of Care Document (CCD)
2. CRISP extracts the care alert from the CCD
3. CRISP sends the care alert to the clinical data repository/portal as an HL7 result
4. Hospital queries CRISP for an on-demand CCD
5. Hospital receives the care alert in a specific CCD location
6. Hospital extracts the care alert and presents it to user in the EHR
7. Care Alert is also available in the Care Management and Patient Care Overview sections of the Clinical Portal

Hospitals that are producing care plans today are attempting to make it easy for providers to find care plans within their clinical systems. This is being done by prominently locating the care plan tab and providing in-context notifications that a care plan is available.

Example of How Care Plans are Displayed in Clinical Systems