# Data and Infrastructure Work Group Report to the Commission:

# Recommendations on Data Requirements for Monitoring the All-Payer Model

**Health Services Cost Review Commission**

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This document contains recommendations from the Data and Infrastructure Work Group for addressing the data infrastructure needs for care coordination. The recommendations in this report are for discussion purposes and do not require formal action by the Commission.

# Introduction

Beginning January 1, 2014, the State of Maryland entered into a five-year all-payer demonstration with Center of Medicaid and Medicare Innovation (CMMI), in which Maryland agreed to specific targets in cost and quality of hospital care.

In an effort to engage various stakeholders in the implementation process, the HSCRC convened four workgroups to make recommendations on implementation issues. The Data and Infrastructure Workgroup (Workgroup) was charged[1] with making recommendations on data and infrastructure requirements to support care coordination initiatives, with a focus on potential opportunities for using Medicare data to support these initiatives. The purpose of the report is to provide recommendations on the principles and desirable features of a data infrastructure to support care coordination with Medicare Data.
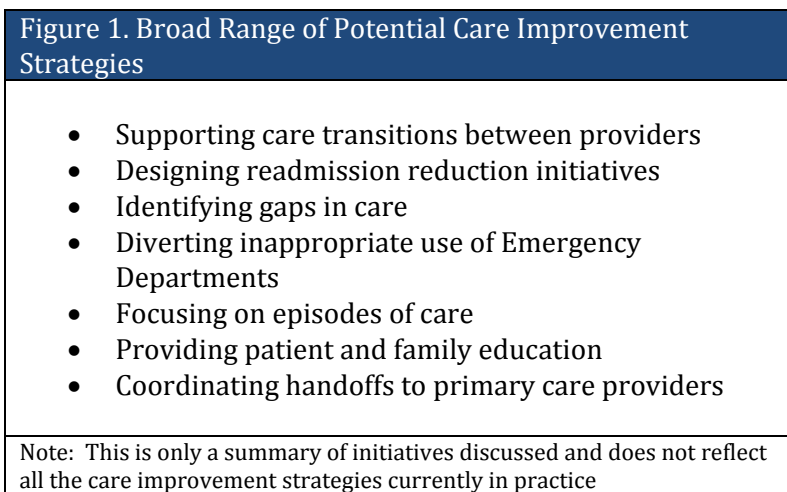
# Background

The goal of the new All-payer Model is to improve health outcomes, enhance patient experiences and control costs across the State. Maryland has committed to meeting all-payer per capita revenue requirements as well as Medicare savings. The need for patient-level Medicare data to support care coordination has always been recognized as an important resource to support care coordination activities needed to achieve the objectives of the New All-payer Model. The State application to CMMI envisioned enhanced care coordination and the Advisory Council urged the HSCRC to focus attention on identifying high-risk Medicare patients where few beneficiaries are in managed care. Hospital discharge data, alone, is insufficient to support an understanding of the needs of Medicare patients and effective care coordination. Timely and complete patient-level Medicare data is essential to understanding the non-hospital utilization of Medicare patients, identify high risk patients, assessing their gaps in care and implementing effective care coordination strategies.

The Department of Health and Mental Hygiene, HSCRC and hospital leaders are engaged in a discussion with CMMI about accessing confidential Medicare data to support the needs of hospitals and other providers under the new hospital payment model. While discussions with CMMI are on-going, a more concrete understanding of how Maryland will use this data efficiently and effectively to achieve the goals of the new model is needed. The Workgroup was tasked with considering what the data infrastructure for care coordination would look like and how it can address different provider needs.

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[1] The Data and Infrastructure Workgroup was charged with making recommendations on: 1. data requirements, 2. Care Coordination Data and Infrastructure, 3. Technical and Staff Infrastructure, and 4. data sharing strategy

The Data and Infrastructure Workgroup held a joint meeting with the Physician Alignment and Engagement Workgroup to better understand strategies already in place in Maryland to use data to support care coordination and the needs in Maryland.  Providers, payers and others shared different care improvement strategies currently underway.  The common element for most strategies was identifying high need individuals through predictive modeling tools, risk assessment and risk stratification.  Different predictive modeling tools and risk assessment tools were discussed and there are pros and cons of different tools related to the availability of data,  how the tools relate and support specific care improvement initiatives, and the sophistication of the infrastructure needed to support the predictive modeling, risk assessment and risk stratification process.

There was interest and discussion about a range of care improvement initiatives (see figure 1). Some strategies were used as part of a comprehensive initiative and many of the strategies are over-lapping or related.

| Figure 1. Broad Range of Potential Care Improvement Strategies |
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| <ul><li>Supporting care transitions between providers</li><li>Designing readmission reduction initiatives</li><li>Identifying gaps in care</li><li>Diverting inappropriate use of Emergency Departments</li><li>Focusing on episodes of care</li><li>Providing patient and family education</li><li>Coordinating handoffs to primary care providers</li></ul> |
| Note:  This is only a summary of initiatives discussed and does not reflect all the care improvement strategies currently in practice |

There was broad agreement in the Workgroup that there is a critical need for data to support care coordination and the importance of a data infrastructure designed to meet the new population health focus of the health care delivery system.  The Workgroup recognized that there was a high degree of variability in the current infrastructure and capacity of hospitals and other providers to support their data needs.  Building data infrastructures takes time and significant resources, making it critical to develop a roadmap based on a shared sense of needs and prioritizing efforts.

The new payment model fundamentally alters the payment incentives for hospitals and will likely change their role in care coordination as well as the role of other providers.  The data needed by hospitals and other providers to support population based models is similar to the data infrastructure used by Accountable Care Organizations and payers to manage population health and will require more data than exists with any one provider.   Several Workgroup members expressed interest in a high level data framework shared by an expert presenter during the joint meeting (see Figure below).

# Shared Data Assets As The Foundation
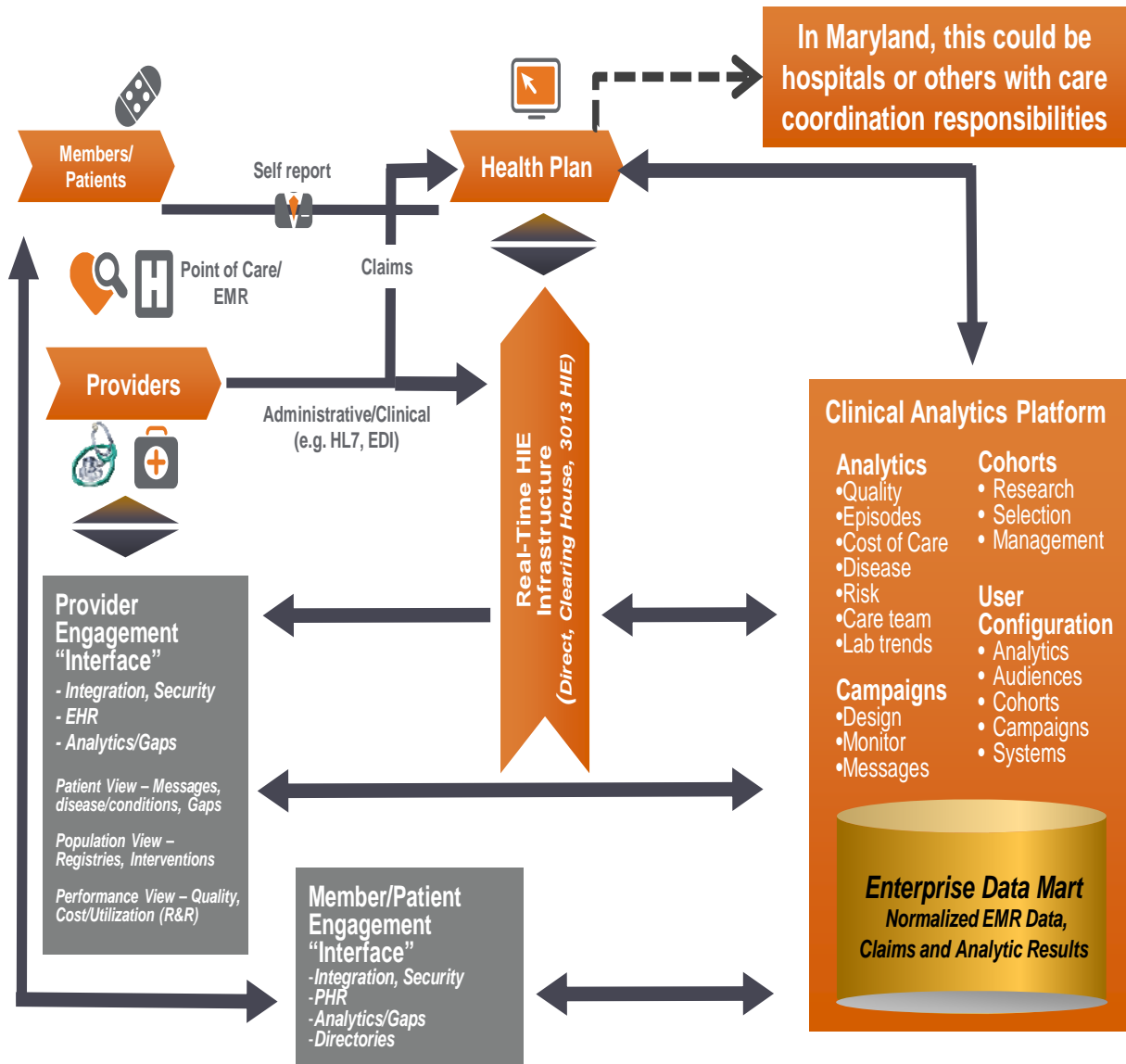


*Source: Adapted from Dean Farley, OptumInsight,  HSCRC Joint Work Group Meeting, 3/27/14*

The Workgroup was challenged to consider the care coordination infrastructure roadmap without a concrete understanding of specific care coordination initiatives that will be used.  Specific strategies are still evolving and require input from a broader set of stakeholders.  Further, care coordination strategies are likely to continually evolve.  The Workgroup recognized that while there are many unknowns in the strategies that will be used, there are many common data needs across care

coordination initiatives and planning must begin.  The Workgroup focused on broader discussions about the roadmap for data infrastructure.

A data infrastructure will ultimately be needed to support multiple purposes.  Data is needed to support policy and program evaluation, operational management decisions and clinical decision-making.  Clinically actionable data must be patient-level data and as real-time as possible to identify high risk patients and care improvement opportunities.  Population based models will require getting data at the right time and right place to support clinical decision making.

The roadmap discussed by the Workgroup builds on a foundation of data and analytic resources in Maryland that should be fully leveraged.  The State has robust data on hospital utilization through the hospital abstract data.  The HSCRC and industry leaders are experienced with analyzing these data sets to support policy and operational needs.  The policy and operational needs are evolving to require a broader population health focus.  The investments Maryland has made in Health Information Exchange are particularly important to create a unique identity to support cross entity analyses that are essential to population health analytics.  Medicaid and the Hilltop Institute at UMBC have significant experience analyzing Medicaid data and other data sets to support analyses of health care financing and delivery.  The Maryland Health Care Commission manages the Medical Care Claims Data Base (MCDB), which has detailed information from commercial health plans.  Enhancements to the MCDB are underway to make it timelier and address data gaps that will make it an important resource for population health analytics.  The statewide Health Information Exchange, CRISP, provides clinical information to providers through a query portal.  The portal includes Maryland's Prescription Drug Monitoring Program, which provides complete information on schedule II through V drugs.  CRISP has real-time and complete administrative data from Maryland hospitals, which has enabled an encounter notification services to provide physicians, other providers and care coordinators information on patient admissions, discharges and transfers that some providers use in their care coordination efforts.  There is an opportunity for CRISP to improve connectivity with ambulatory providers.

## Principles and Desirable Features

The Workgroup developed principles and desirable features of data infrastructure designed to host Medicare data.  The Workgroup considered what type of infrastructure is needed to support clinical decision making for Medicare beneficiaries by hosting data, applying analytic tools (such as predictive modeling algorithms) to support care coordination and sharing data with providers to support a varying level of need and capacity.

### Principles

1. **Medicare Data should be accessible to different providers compliant with state and federal laws, policy and data use agreements for confidentiality and security and**

**consistent with best practices**.  The data infrastructure must be designed to support the protection of data, including role-based access to information.

2. **Data should be transparent to hospital and non-hospital providers to provide a uniform understanding of data findings (consistent with privacy and security requirements)**.  Success under the new model will require collaboration among providers to meet the needs of the population.  This collaboration is needed with hospitals and non-hospital providers, as well as among different hospitals that may be serving the same population. A uniform understanding of the data should be shared with providers consistent with the data use agreements and privacy and security protections.

3. **Gaps in Medicare data should be addressed through other data sources such as real-time HIE or DHMH.**  Medicare claims data alone will not support comprehensive care coordination.  Some ACOs have experienced delays in accessing data from CMS, which makes considering what can be done to address data gaps in the short run important.  Clinical information that may be available through other resources or captured through risk assessments are important sources of information to support care coordination.   Risk assessments can help identify additional factors that affect the need for care coordination, such as family support systems, ADL limitations, cognitive limitations, and other factors that may affect care management needs.

4. **Hospital, providers and policy makers should work collaboratively to leverage shared infrastructure to the extent it is feasible to minimize duplication, encourage efficiency and work from a uniform understanding of the data**.  The data infrastructure needed to support care coordination under the new model will be costly and leveraging shared infrastructure will reduce wasteful spending on duplicate efforts.   Shared infrastructure can also be used to focus on reducing duplication of care coordination resources assigned to support the same individual where multiple facilities are accessed by a patient.

5. **Achieving population health goals will require the interoperability of data systems to allow the exchange of data among providers**.  Making data clinically actionable requires building it into provider workflows and getting it to providers who can act on it.

6. **The data infrastructure should maximize existing infrastructure and capacities and promote partnerships among providers and systems to coordinate and improve care.**  There is varying capacity among Maryland hospitals and other providers to support population based care coordination.  Maryland has organizations with advanced analytic skills.  Maryland has already invested in some shared data resources such as the MCDB to support policy and operational analysis, and CRISP to support clinical decision making.

## Desirable Features

1. Have independent and broad-based governance;
2. Ensure data security and confidentiality;
3. Be efficient and scalable;
4. Provide access to data and analytic tools to providers with varying level of capacity, including hospitals and non-hospital providers;

5. Have the ability to easily integrate with other systems, such as the HIE, while maintaining patient identity integrity across datasets;
6. Be flexible to support different uses of the data (i.e., predictive modeling, care management tools, quality improvement, etc.).

## Recommendations and Next Steps

The Workgroup made the following recommendations and identified next steps.

1. **There should be a focused effort to get access to Medicare data because of its importance to care coordination and achieving the goals of the new model**. Identifying high risk Medicare patients and standing up care coordination initiatives are a important to achieving the Medicare savings goals of the new model. The HSCRC should continue to work closely with the Department of Health and Mental Hygiene, hospitals and CMMI to gain access to the data for Maryland providers.

2. **The most efficient and effective way to host Medicare data is through a shared infrastructure that is accessible hospitals and other providers**. Medicare data should be hosted in a shared infrastructure that can include other shared data sources and analytic tools (such as predictive modeling) that can be applied to enhance the value of data for care coordination purposes. The infrastructure would need to be flexible, to accommodate innovations in clinical decision making by providers, but also be uniform in how providers understand the underlying metrics related to payment. The Workgroup did not want to mandate a particular predictive modeling tool but recommended flexibility to accommodate different provider capabilities and needs. While some providers may have robust care management platforms and need to leverage additional data feeds, other providers may have limited capacity and need more basic tools. Regardless of the level of need, the infrastructure would need to promote transparency so providers are working from a uniform understanding of the metrics used to evaluate the data, as well as, the results.

3. **Defining specific use of data will be important to preparing Maryland to standup an infrastructure efficiently as well as supporting the case to CMMI to secure the data**. More work is needed to better understand the potential care coordination strategies and the data needed to support them. Implementation planning tasks should include defining the different providers and stakeholders with data needs and what data is needed. Hospitals are likely to have data needs to support different roles in their organizations. Other providers and organizations will have data needs, including physicians, other heath care professionals, post acute and long term care providers, ACOs, Local Health Departments, DHMH and potential new organizations that may be created as a part of the State Innovation Model (SIM) Community Integrated Medical Home. Implementation tasks should also include engaging stakeholders in identifying and potentially procuring predictive modeling tool(s) and other analytic resources.

4. **There needs to be an analysis of potential use cases of data and identify gaps in data sharing policy that should be addressed**.  Access to Medicare data will be limited to Medicare approved use cases and based on well established Medicare data use agreements that govern policy on data sharing.  There is existing federal and state policy that will affect data sharing policy, including HIPAA, Maryland Confidentiality of Medicare Records Act and the HSCRC Data Use Polices for abstract data.  The MHCC Policy Committee, which has consumer participation, can be a resource for additional policy development as needed.