How Analytics, HIE, & BI are Transforming Maryland's Healthcare Delivery & Financing

September 10th, 2015

HSCRC
Health Services Cost Review Commission

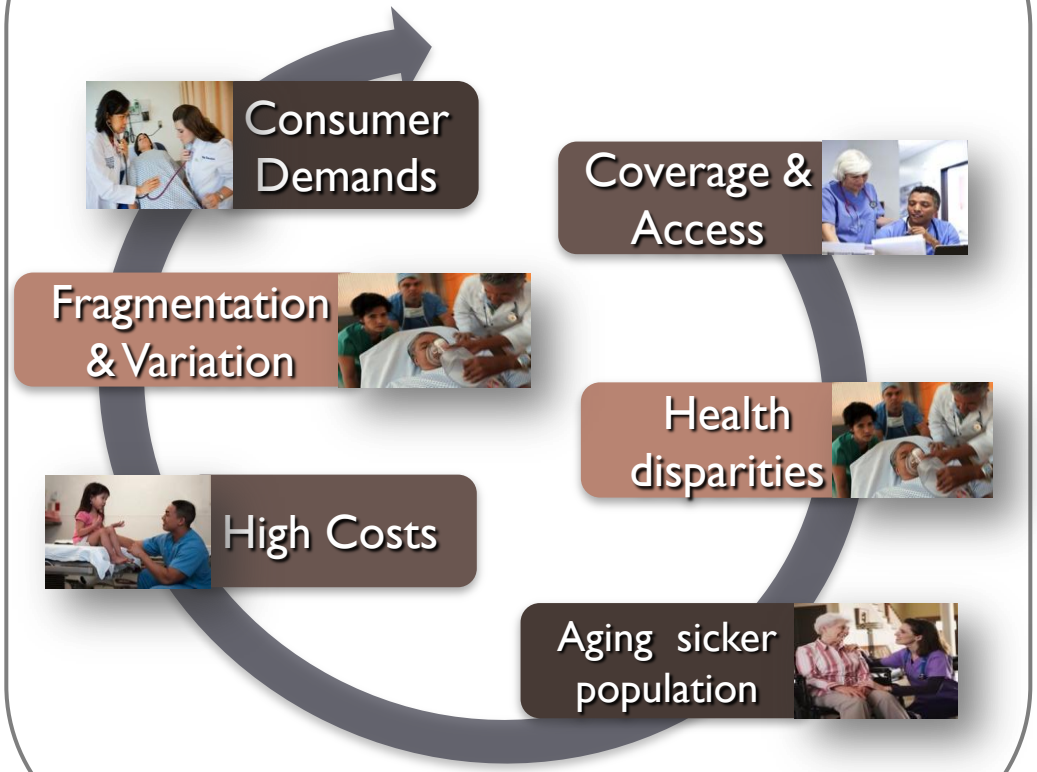
Overview

- The Nation's Evolving Healthcare Landscape: Shifting to Value
- Unique Changes in Maryland's Healthcare Delivery System
- Analytics, HIE & BI- Key Role in Facilitating Transformation
- Appendix

The Nation's Evolving Healthcare Landscape: Shifting to Value

Context: Health Care System Challenges

Current



More Ahead. . .

- Changes in Demographics and Expenditures

Year	Age 65+
2010	40 million
2020	55 million
2030	72 million

- Federal Budget & Health Care Spending
  - More Entitlements, Fewer Contributors

CMS and National Strategy--Change Provider Payment Structures, Delivery of Care and Distribution of Information

Focus Areas	Description
Pay Providers	• Increase linkage of payments to value • Alternative payment models, moving away from payment for volume • Bring proven payment models to scale
Deliver Care	• Encourage integration and coordination of clinical care • Improve population health • Promote patient engagement through shared decision-making
Distribute Information	• Create transparency on cost and quality information • Bring electronic health information to the point of care for meaningful use

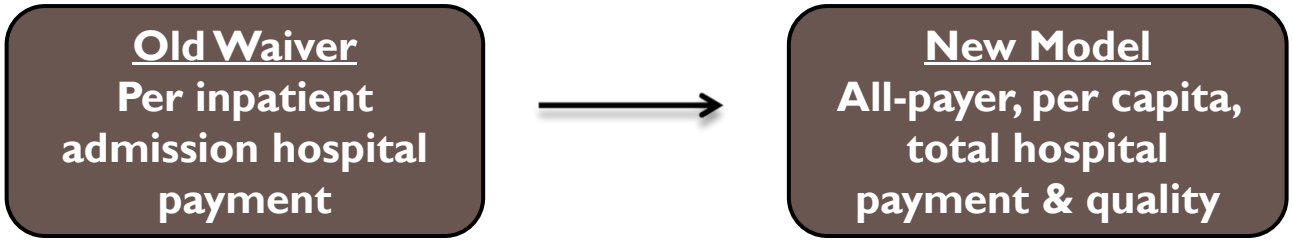
Source: Summarized from Sylvia Burwell (US Secretary of Health) presentation

Unique Changes in Maryland's Healthcare Delivery System

New Model: Maryland's All-Payer Model

Maryland is implementing an All-Payer Model for hospital payment

- Contract approved by Center for Medicare and Medicaid Innovation (CMMI) effective January 1, 2014 for 5 years
- Modernizes Maryland's Medicare waiver and unique all-payer hospital rate system in place since 1977
  - Allows the Health Services Cost Review Commission (HSCRC) to set hospital rates for Medicare as well as Medicaid and commercial payers.
  - The HSCRC oversees hospital rate regulation in Maryland with broad statutory authority
- Shifts focus to patients: Providing the right services and reducing utilization that can be avoided with better care
  - Unprecedented effort to improve health and outcomes, and control costs

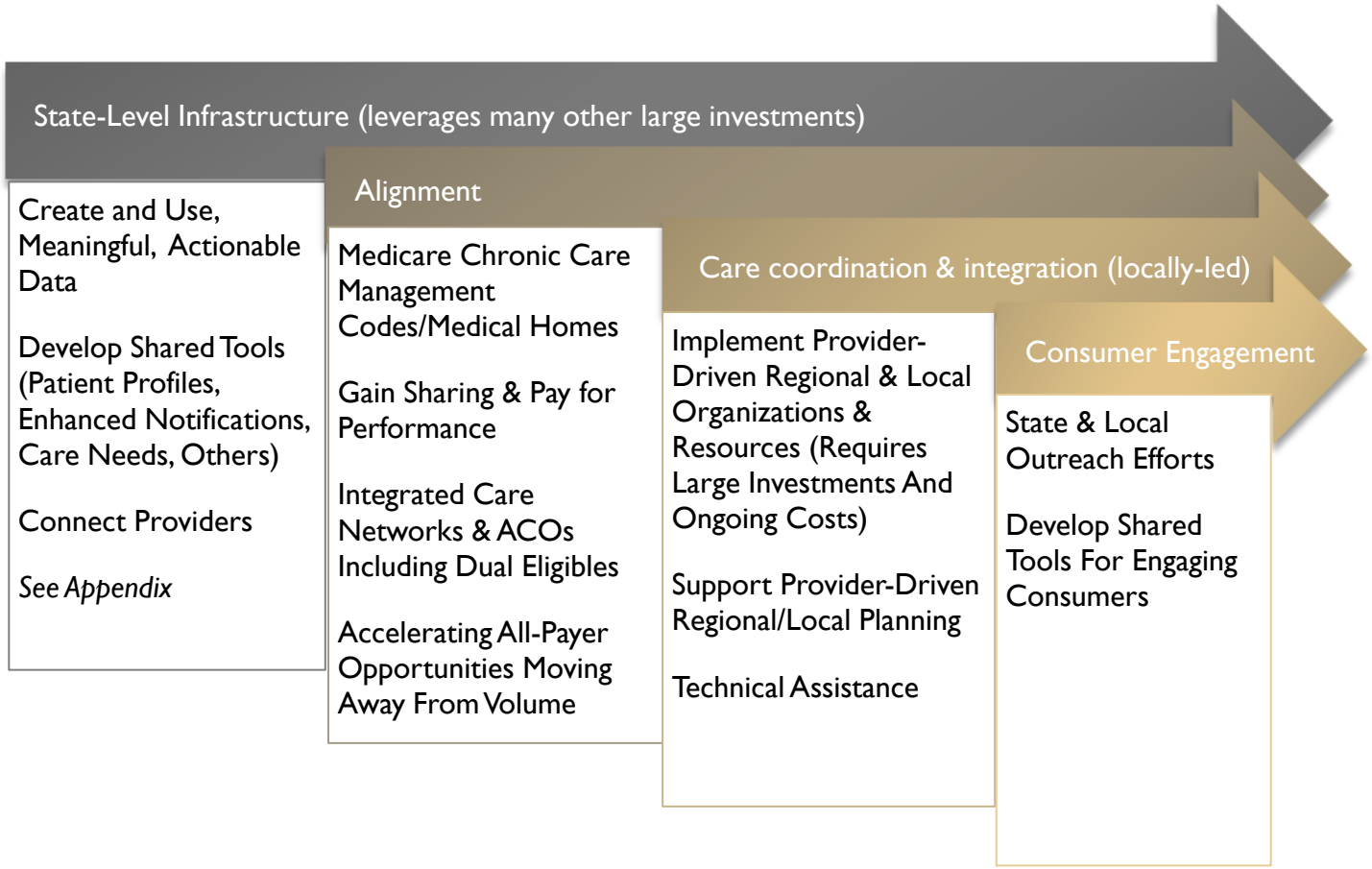


Maryland's Strategy

Focus Areas	Description
Health Information Exchange and Tools	• Enhance capabilities of CRISP (Maryland's Health Information Exchange) to support providers and payers • Connect providers in addition to hospitals (physicians, long term care, etc.) • Develop shared tools (e.g. common care profiles) • Bring additional electronic health information to the point of care
Alignment	• Promote value-based payment systems, focused on improved outcomes • Develop alternative payment models and gain sharing and pay for performance opportunities between hospitals and other providers, focusing on care integration and coordination that is facilitated by hospital global budgets already in place • Build on private payer medical home models, Accountable Care Organizations formed by providers, and emerging Medicare Advantage plans
Care Delivery	• Encourage the integration and coordination of clinical care services • Support provider-driven plans for improving care for complex patients and improving chronic care • Support enhancement of primary care practices and models • Promote consumer engagement through shared decision-making and state & local outreach efforts

Maryland's Strategic Transformation Roadmap

All Maryland hospitals are now operating under global budgets

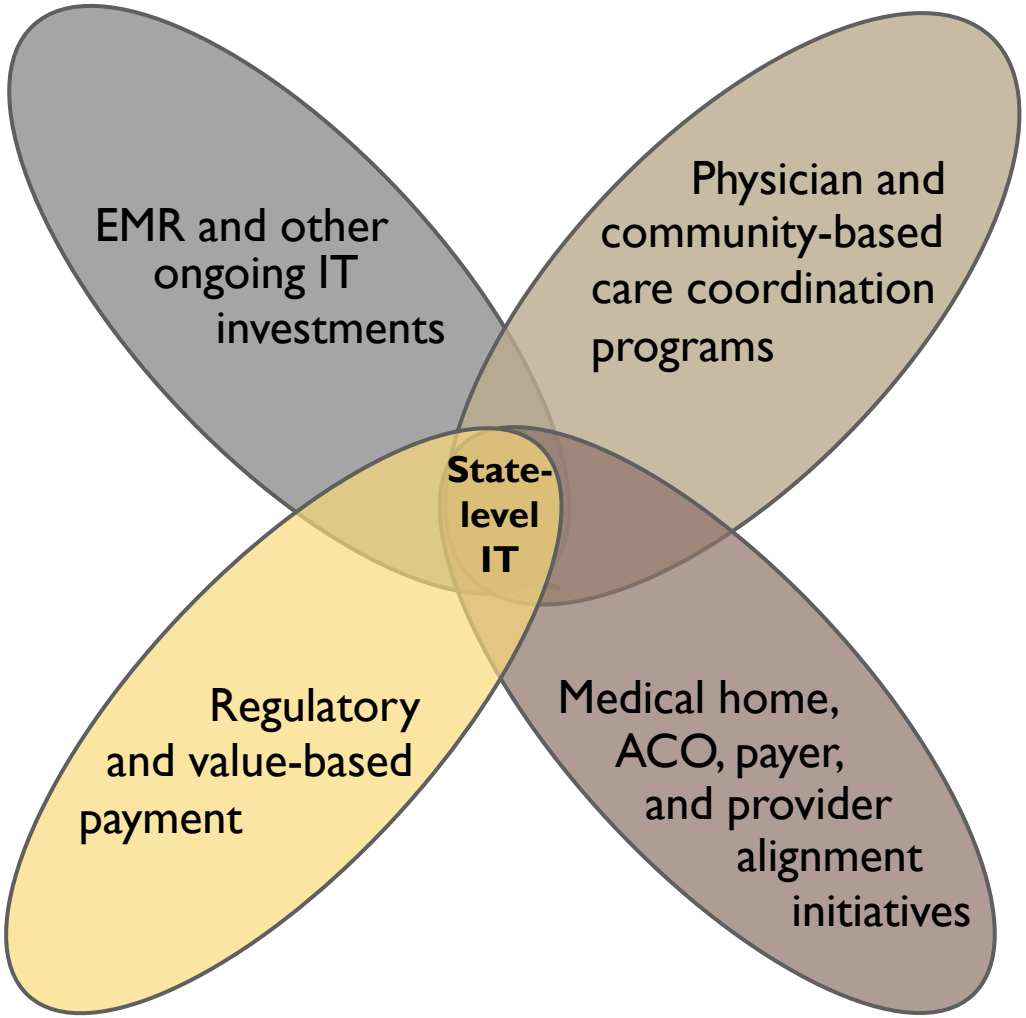


Year 2 Implementation Focus

- Clinical Improvement Focus:
  - Chronic Care
  - Care Coordination
  - High Needs Patients
- Alignment

Leveraging Analytics, HIE & BI in Maryland

Enhanced IT Infrastructure Supports Care Delivery Improvements and Value-Based Models



Analytics, HIE, & BI Enable Care Transformation

Identify Opportunities to Transform Care Delivery

- Better risk stratify patients, and in near real-time, to identify opportunities for intervention
- Improve clinical encounters with access to more complete ambulatory medical history and simple knowledge of who else provides care for a patient
- Coordinate care between parties such as through more informative referrals
- Use EHR data to identify gaps in care to support population health improvement
- Reduce administrative burden such as by auto-generating emergency notification system (ENS) patient panels and automating patient privacy protections

Measure Performance for Evaluation & Continuous System Improvement

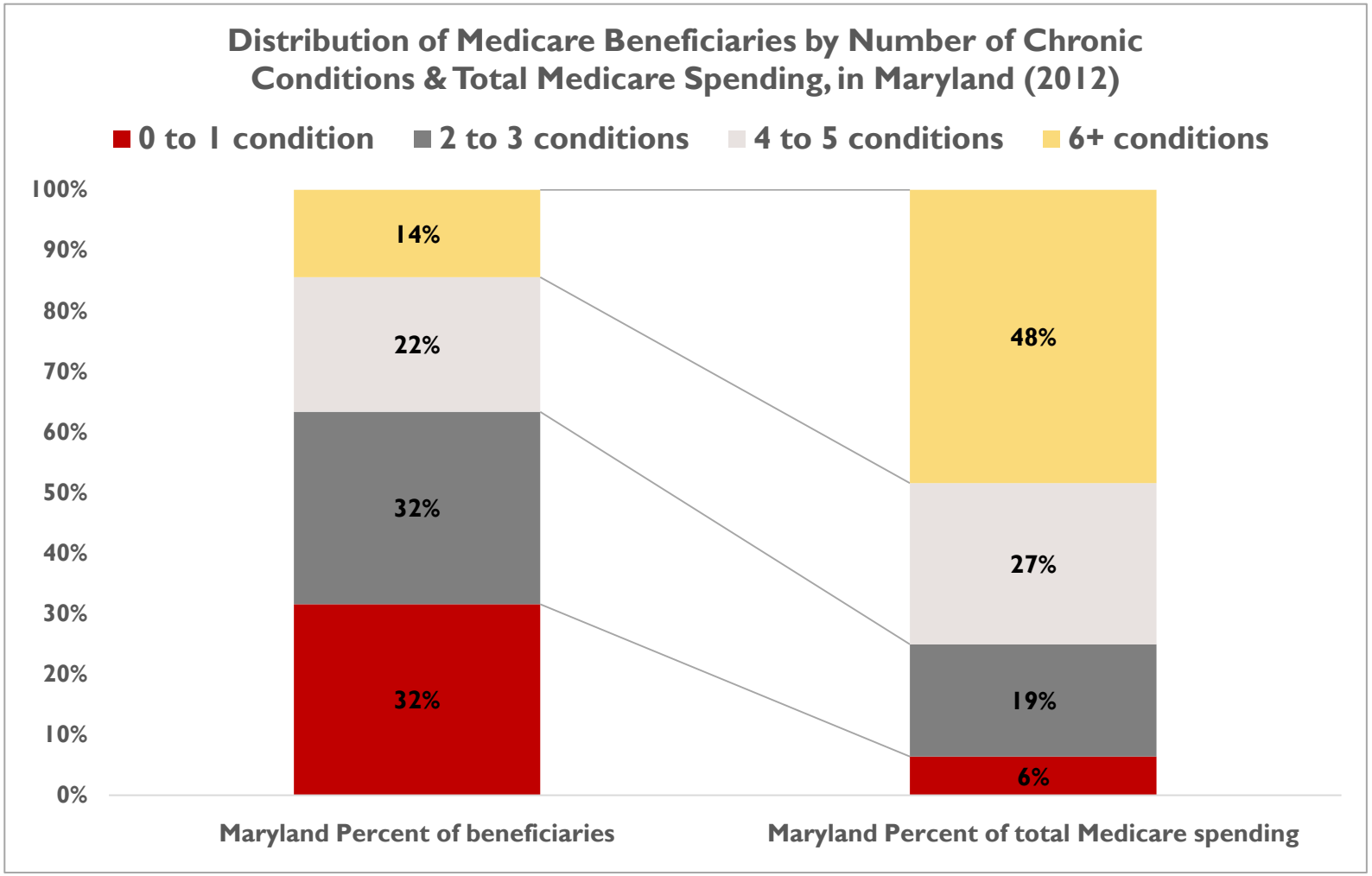
- Calculate and gather data on quality measures, or e-measures, cost measures, and other outcome measures
- Facilitate implementation of value-based payments such as global budgets, shared savings, pay-for-performance, gain sharing, etc.
- Confirm compliance with a plan of care to support care management

Example: Population Health Management

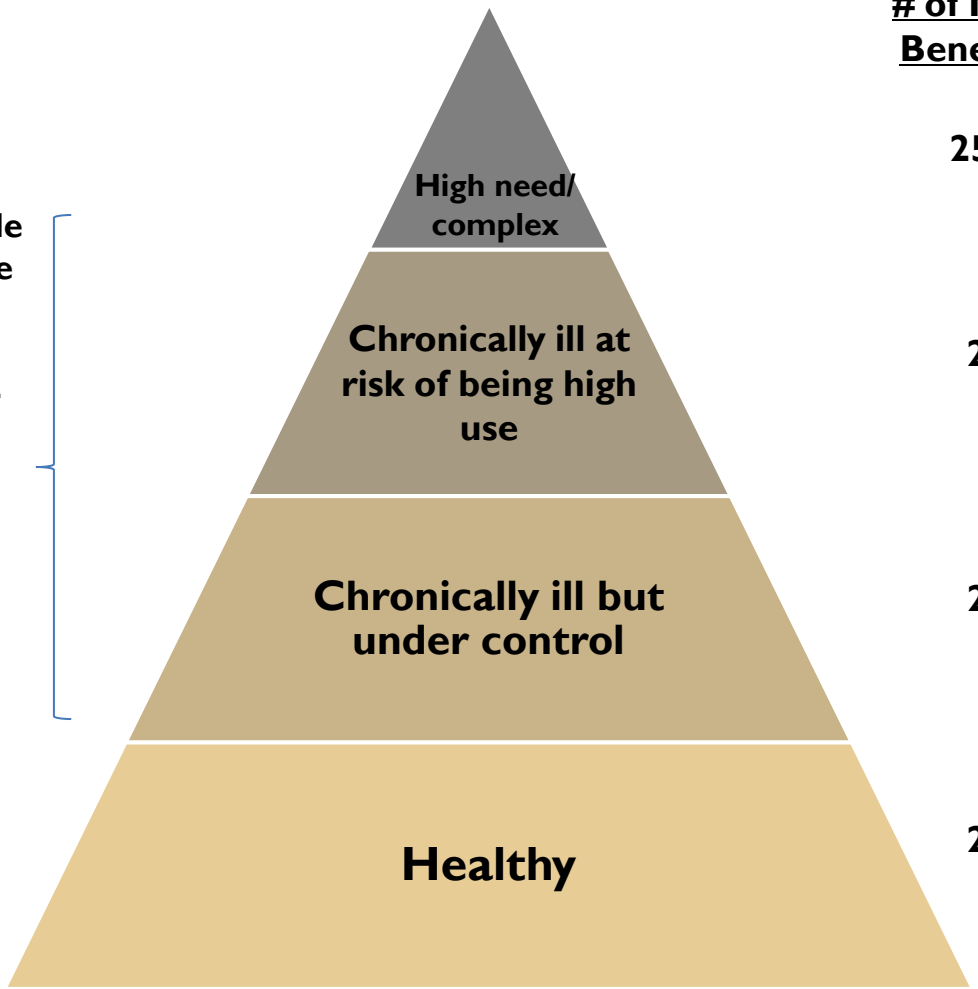
- Clinical improvement and coordination and integration of care
  - Focus on populations with the greatest opportunity to improve care and reduce potentially avoidable utilization
    - **Identify** patients at high risk for poor outcomes and avoidable utilization
    - **Stratify** patients to customize and focus approaches
  - Implement approaches and interventions to reduce and modify risks and integrate care across providers and settings
  - Monitor outcomes

- Partnerships with physicians and practitioners, long term and post-acute care providers, and community health and service organizations to create effective strategies, infrastructure, and operations for care management
  - Leverage practice connectivity and interoperability

Context: 14% of Medicare beneficiaries with 6+ chronic conditions drive half of cost



Emerging Vision–
Target Resources Based on Person Centered Needs



# of Medicare Beneficiaries

25-40K

240K

240K

280K

A

Care plans, support services, case management, new models, and other interventions for individuals with significant demands on health care resources

B

Address modifiable risks and integrate and coordinate care, develop advanced patient-centered medical homes, primary care disease management, public health, and social service supports, and integrated specialty care

C

Promote and maintain health (e.g. via patient-centered medical homes)

Success of the New All Payer Model is Dependent on Effective Analytics, HIE & BI

- SEE WHAT MATTERS
  - Population and person centered opportunities
  - Critical person centered information at the point of care
- MEASURE WHAT MATTERS
  - Outcomes of care delivery
  - Information needed for value based payments
- CHANGE WHAT MATTERS
  - Transformation to person centered care based on needs
  - Care coordination

Data Quality: A Critical Issue

- Coding is not the only issue, it is also about the quality of the data
  - Missing surgical codes, missing drug codes on outpatient data
  - Depth of coding on outpatient claims
- More data coming directly from EHR in the future
  - Feeding quality, population, and outcomes measures
  - Identifying "gaps in care" that when addressed can improve population health
- CRISP ID
  - Policy, payment and care delivery

Areas of Focus for Analytics, HIE, & BI in the Maryland All-Payer Model

Need for Data Competencies & Decision Support Tools

Revenue

- Market Shift Adjustment
- Quality Programs
- GBR Contract Issues
- Productivity
- Potentially avoidable utilization

Management

- Risk adjustment
- Chronic conditions
- High needs patients
- Patient profiles and patient centered care
- Potentially avoidable utilization
- Gain sharing

Thank you for the opportunity to work together to improve care for Marylanders through creating and accelerating the benefits of analytics, HIE and BI that are possible

Questions?

MARYLAND

Appendix

Maryland Quality-Based Payment Programs

QBR
(Quality Based Reimbursement)

- Clinical Process of Care Measures
- Patient Experience of Care (HCAHPS)
- Mortality, Outcomes

MHAC
(Maryland Hospital-Acquired Conditions)

- 65 Potentially Preventable Complications

Readmissions

- Readmission Reduction Incentive Program and Shared Savings Adjustments

Additional Performance-Based Payment Adjustments

PAU (Potentially Avoidable Utilization)

Potentially Avoidable Utilization (PAU)

- "Hospital care that is unplanned and can be prevented through improved care, coordination, effective primary care and improved population health."
  - Readmissions/Rehospitalizations that can be reduced with care coordination and quality improvements
  - Preventable Admissions and ER Visits that can be reduced with improved community based care
  - Avoidable admissions from skilled nursing facilities and assisted living residents that can be reduced with care integration, remote services, and prevention
  - Health care acquired conditions that can be reduced with quality improvements
  - Admissions and ER visits for high needs patients that can be moderated with better chronic care and care coordination

Current CRISP Tools: Taking Advantage of Available Technology Resources

Maryland has already demonstrated success with HIE, and with health IT which is pursued collaboratively. Additional investments will further the benefits of proven solutions.

- The Clinical Query portal operated by CRISP is used at every hospital and in every county of Maryland. Clinician look for records as part of a treatment encounter 3,500 times each day.
- The Encounter Notification Service (ENS) is used to inform PCPs and care managers in real-time about an ED visit, admission, or discharge. Today over 40% of Medicare discharges result in a real-time notification to a care manager.
- CRISP Reporting Services (CRS) provides every Maryland hospital with six monthly performance reports, such as inter-facility readmissions by line of service. CRS is already in use by several hundred pilot ambulatory providers.

CRISP Projects in Development

1. Ambulatory Connectivity

- The project aims to achieve bi-directional connectivity with ambulatory practices, long-term-care and, other health providers. Multiple methods of connectivity will be employed, including HL7 interfaces, CCDA exchange, and administrative networks.

2. Data Router

- A key concept of the infrastructure effort is to send relevant patient-level data to the healthcare organizations who can use it for better care management. The data router will receive and normalize health records, determine a patient-provider relationship, verify patient consent, and forward the records where they should go in near real time.

3. Clinical Portal Enhancements

- The existing clinical query portal will be enhanced with new elements, including a care profile, a link to a provider directory, information on other known patient-provider relationships, and risk scores.

CRISP Projects in Development

4. Notification & Alerting

- New alerting tools will be built such that notification happens within the context of a providers existing workflow. So for instance, if a patient who is part of a specific care management initiative shows up at the ER, an in-context alert could inform the clinicians that the patient has a care manager available.

5. Reporting & Analytics

- Existing reporting capabilities, built on Tableau and Microsoft Reporting Services, will be expanding and made available to many more care managers. Will also plan for a potential new solution to support thousands of ambulatory practices.

6. Basic Care Management Software

- The current scope is for planning only, as the advisors help us determine an appropriate path.

7. Practice Transformation

- The current scope is for planning only, as the advisors help us determine an appropriate path.

CRISP Statewide Analytics, HIE & BI Infrastructure in Development

Care Managers	Clinicians Point-of-Care	LTC/HH/ Other Providers	Public Health Officials	ACO, PCMH, Other Payers	Patients
• Risk stratified patient analysis • Care profile view • Care management tools • Notifications • New clinical data feeds for care management • Performance metrics • Consent management	• Richer clinical query portal information • Care profile view • Notifications • In-context alerts • Care alerts receive & create • Consent management •	• Richer clinical query portal information • Care profile view • Performance metrics • Consent management	• Performance metrics • Statewide & regional analytics	• Risk stratified patient analysis • Care profile view • Care management tools • Notifications • New clinical data feeds for care management • Performance metrics • Consent management	• Control of health data consent • All providers have a patient-centric understanding of their health status

CRISP Terminology

	Definition
 **Clinical Query Portal Enhancements**	Improvements to the existing clinical query portal including approaches to simplify access, incorporating new content such as access to care profiles, and displaying the patient's providers.
 **In-Context Notifications and Alerting**	Inclusive of a range of alert types sent to the point-of-care or to a care manager, in a manner consumable with their workflow. Alerts may pertain to critical information about a patient, identify care gaps, indicate post-discharge follow-up care has not occurred, etc.
 **Care Profile View**	The care profile provides, in one readily viewable place, the key characteristics of a patient and their current medical status. Key elements in the care profiles could include patient demographics, most recent clinical alerts, summary of recent hospital encounters – diagnoses and procedures, visit dates, subscribing providers, and the existence of a current care plan.
 **Data Router**	The router is a service that includes key functionality to support connectivity, consent management, data routing to other services or data consumers, and patient-provider relationship determination. The approach may rely on connectivity through a health system, through a hosted EHR, directly to the practice, or via an administrative network.
 **Standardized Risk Stratification Tools**	Deployment of one or more centralized risk stratification methodologies to support stratification of patients initially using HSCRC case mix data housed in CRS but expanding to include broader data sets. Predictive risk score will be shared through a range of tools, including the query portal and ENS.