





CRISP

CRISP: Your Health Information Exchange

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Health Information Exchange (HIE)

Hard to define . . . But I know it when I see it!

- Single push messages
 - Intra-organizational
 - Vendor specific inter-organizational
 - Function specific, multi-vendor
 - Regional or affiliation based HIE
 - Statewide HIE
 - Nationwide Health Information Exchange (NwHIN) or eHealth Exchange
-



Maryland's Global Budget Revenue Model

Maryland's hospitals have committed to:

- Saving Medicare \$330 million over five years
- Limiting per capita annual growth of hospital inpatient and outpatient costs to 3.58%
- Capping growth of all Medicare spending to the national average
- Lowering the state's 30-day hospital readmission rate for Medicare beneficiaries
- Reducing hospital-acquired conditions by 30% over a five-year period

If the state fails to meet its targets... bad things happen:

- Hospitals face financial penalties
- Maryland could lose its authority to set targets
- Maryland could lose its Medicare rate-setting exemption



Care Redesign under the All Payer Model

The State recently received federal approval for an Amendment to the All Payer Model. This Amendment, calls on hospitals to engage in Care Redesign initiatives. Starting in CY 2017, hospitals can choose to participate either or both of two new Care Redesign Programs: the Hospital Care Improvement Program (HCIP) and the Complex and Chronic Care Improvement Program (CCIP). Participation in these programs will enable hospitals to access identifiable Medicare data, **provide care coordination resources to non-hospital providers and potentially pay incentives to non-hospital providers.**



CRISP

Chesapeake Regional Health Information System for our Patients

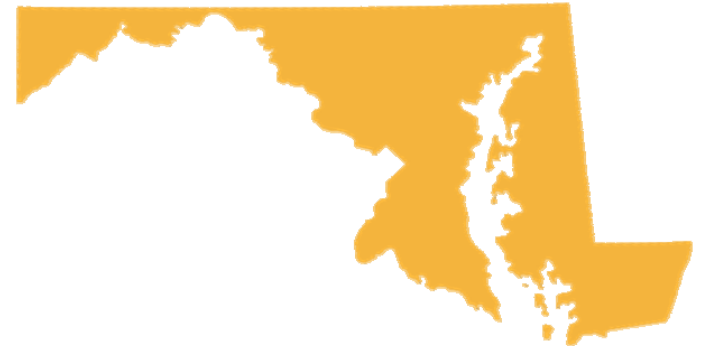
West Virginia
HIE Technology
Services Provider



District of Columbia
Health Information
Exchange



Maryland State-
Designated Health
Information Exchange





Vision – Mission – Guiding Principles

CRISP is a non-profit health information exchange, or HIE, serving Maryland, the District of Columbia and West Virginia.

- Our Vision

- *To advance health and wellness by deploying health information technology solutions adopted through cooperation and collaboration.*

- Our Mission

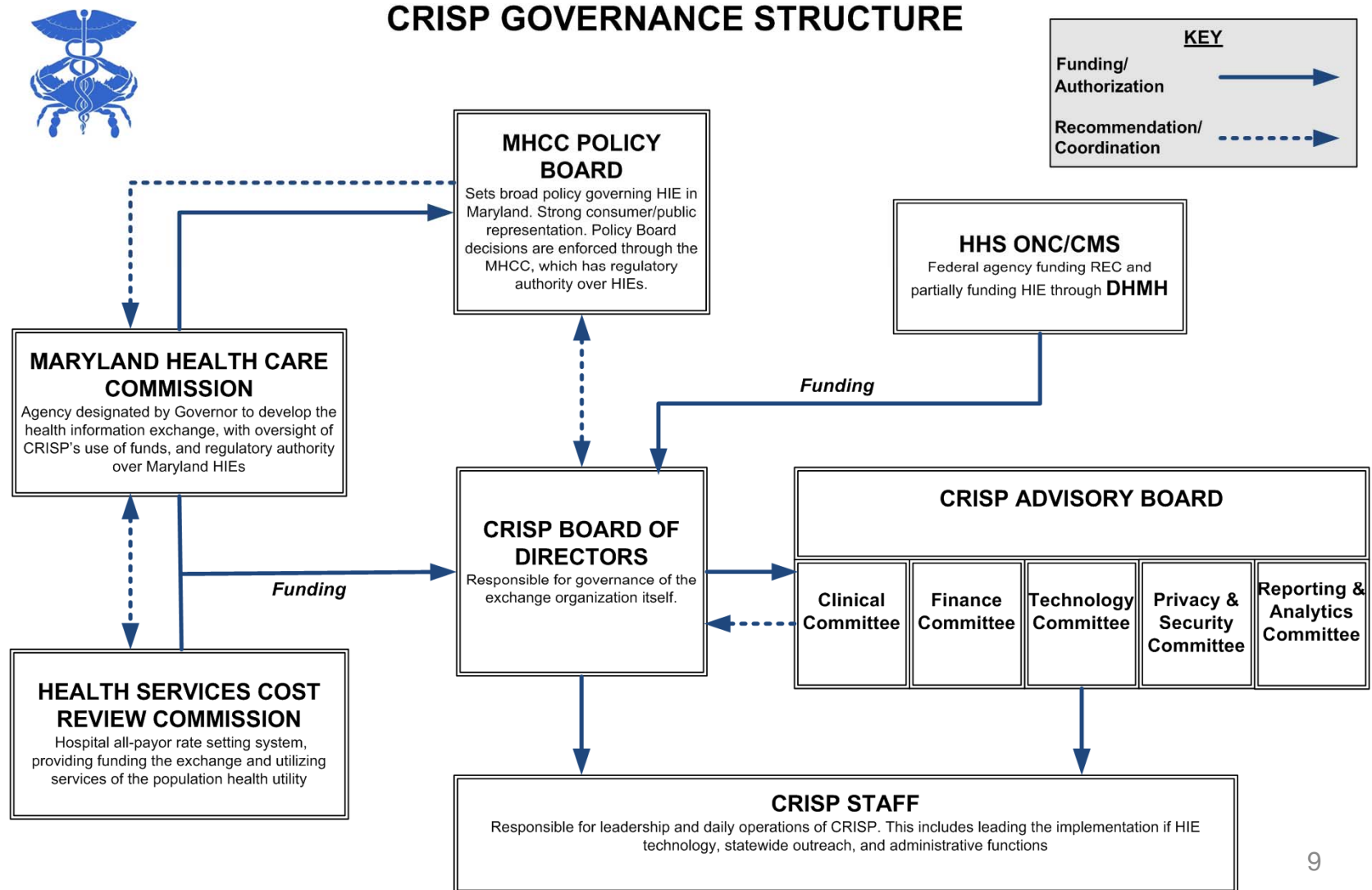
- *We will enable and support the healthcare community of Maryland and our region to appropriately and securely share data in order to facilitate care, reduce costs, and improve health outcomes.*

Our Guiding Principles

- 1. Begin with a manageable scope and remain incremental.*
- 2. Create opportunities to cooperate even while participating healthcare organizations still compete in other ways.*
- 3. Affirm that competition and market-mechanisms spur innovation and improvement.*
- 4. Promote and enable consumers' control over their own health information.*
- 5. Use best practices and standards.*
- 6. Serve our region's entire healthcare community.*



Governance





Governance

Board of Directors
Patty Brown, President Johns
Hopkins Healthcare

Executive Committee
Mark Kelemen UMMS, Tricia Roddy DHMH,
Adam Kane Erickson, Mark Schneider
MedStar

Clinical Committee
Dr. Mark Kelemen, CMIO University of
Maryland Medical System

Privacy & Security Committee
Mark Schneider, CIO MedStar

Analytics & Reporting Committee
Alicia Cunningham, VP Reimbursement
UMMS

Finance Committee
Traci La Valle, VP Maryland Hospital
Association

Technology Committee
Tressa Springmann, CIO LifeBridge

CRISP services are those best pursued through cooperation and collaboration. To make that possible >65 people participate in CRISP leadership through our governance committees.



Patient Privacy

- Patient Privacy policies are foundational to Health Information Exchange
- CRISP operates under a combination of:
 - Federal laws – HIPAA, 42 CFR Part 2
 - State laws and regulations – CMRA, MHCC Regulations
 - Stakeholder agreements – Participation Agreement
 - Data use agreements – HSCRC, MHBE, DHMH
- All participating organizations are required to
 - Update their HIPAA Notice of Privacy Practices to include a paragraph on their participation with CRISP
 - Make CRISP brochures and opt-out forms available at intake areas.
- Patients who do not want to participate must opt-out, by contacting CRISP by phone, online, or by mail.
- Patients have the right to contact CRISP and ask for a list of users who have accessed their information.





Three Core Services

1. Clinical Query Portal

- Search for your patients' prior hospital records (e.g., labs, radiology reports, other dictated reports)
- Monitor the prescribing and dispensing of drugs that contain controlled dangerous substances (PDMP)

2. Encounter Notification Service (ENS)

- Allows providers, care managers and others with a treatment relationship to be notified when patients are hospitalized in any MD, DC or DE hospital
- Has become a critical care coordination service in the state

3. CRISP Reporting Services (CRS)

- Use CRISP Data for patient identification, performance measurement and service coordination



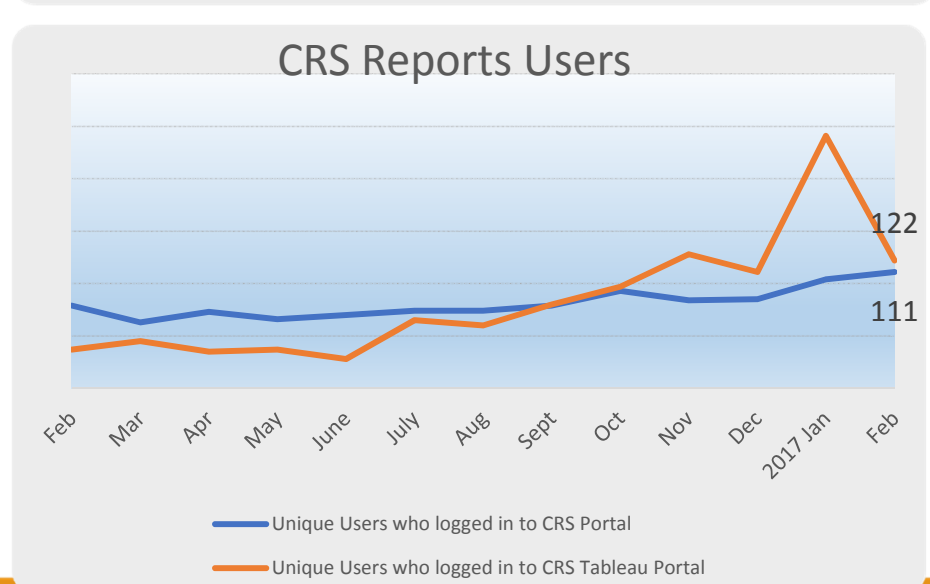
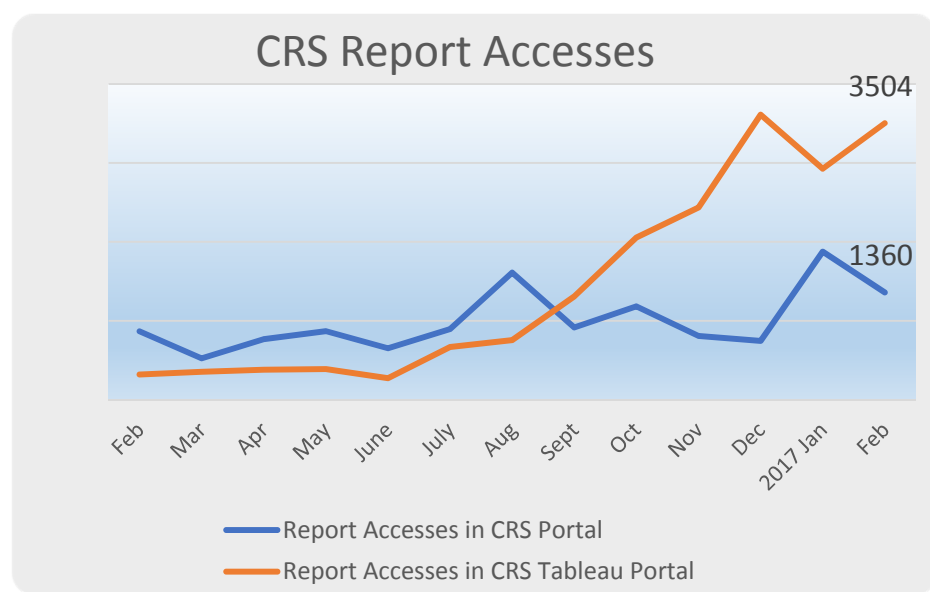
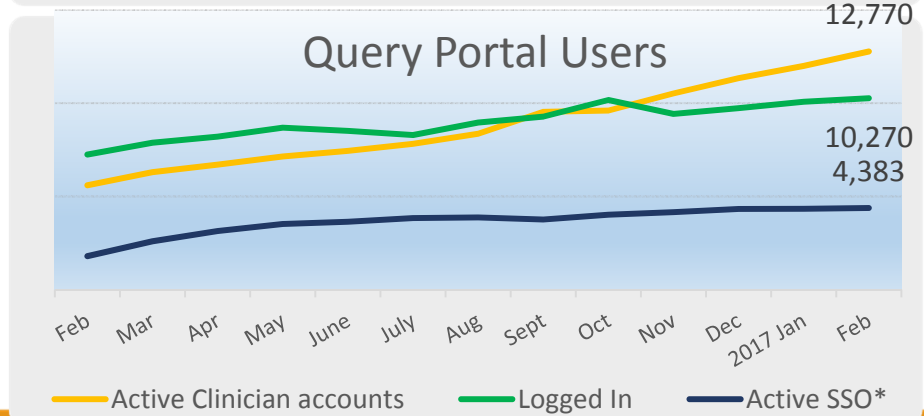
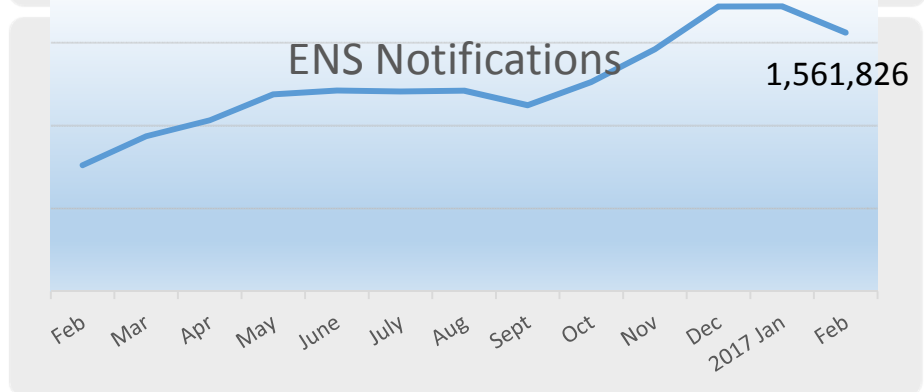
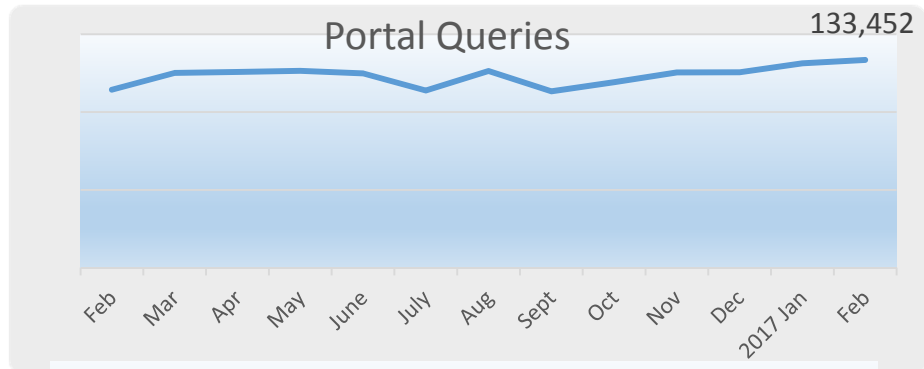
CRISP by the numbers (as of 4/30/17)

CRISP receives inbound data feeds from many provider organizations across the region, including all acute care hospitals in Maryland, D.C., and soon West Virginia. This powers CRISP services, putting clinical information in the hands of those with treatment and care coordination responsibilities.

Data source or attribute	#
Live hospitals	106: 47 in MD, 8 in DC, 22 in WV (via WVHIN), 6 in DE (via DHIN), 22 in VA (via Connect VA), 1 in OH
Live hospital clinical data feeds	271 (lab, rad, clinical document feeds, CCD)
Long-term and post-acute care facilities	132
Standalone labs and radiology centers	16
Unique patients in our index	+17.2 million
Patient searches	+136,500/month
Encounter alerts sent	+1,700,000/month
Provider Orgs using ENS, Query Portal or both	1,350



CRISP Key Performance Indicators (as of 2/2017)





Clinical Query Portal

- Query portal allows credentialed users to search the HIE for clinical data.
- All 49 acute care hospitals in Maryland and 8 DC hospitals share clinical data.
- There are currently over 125,000 queries per month.

The screenshot displays the CRISP Clinical Query Portal interface for a patient named Jenny K. Rollins. The patient's information includes her name, gender (Female), date of birth (12/20/1978), age (36 yrs), and community ID (3344223). The interface is divided into several sections:

- Laboratories (12):** A table listing various lab tests such as TOTAL CHOLESTEROL, CBC W/ AUTO DIFF, MAGNESIUM, CHEM7, DIFFERENTIAL - AUTO, and DIFFERENTIAL - AUTO.
- Imaging (3):** A table listing imaging studies like FLUORO, UP TO ONE HR, CHEST, SINGLE VW (A.), and ANGLE, COMP. (3 VIEWS).
- Medications (5):** A table listing medications such as GIN (SIMVASTATIN B.), GIN (HYDROCODON...), GIN (LORAZEPAM 1...), GIN (LYRICA 100 MG...), and GIN (ZOLPIDEM TAR...).
- Ambulatory Encounters (1):** A table listing ambulatory encounters, including one on 06/27/2014.
- Documentation (1):** A table listing documentation, including an OPERATIVE REPORT on 04/01/2013.
- Vitals (2):** A table listing vital signs, including HR (79) and BLOOD PRESSURE (109/57).

The interface also includes a navigation menu on the left with options like 'Patient Actions', 'Back to List', 'Download CCD', and 'Share Summary'. The top right corner shows 'CRISP Training' and 'CRISP Administrator'.

Data Available:

- Patient demographics
- Lab results
- Radiology reports
- **Maryland PDMP Meds Data**
- Discharge summaries
- History and physicals
- Operative notes
- Consult notes



Patient Care Overview

- “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. Displays the following elements:
 - Patient Attribution
 - Prior Admissions
 - Care Alert
 - Care Manager Attribution
 - Care Plan Availability
 - Payor submitted risk scores

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 months		
Care Alerts						
No Care Alerts found						
Events						
Description		Source Name		Date		
ADT 01 Emergency		Suburban Hospital		2016-04-18		



Encounter Notification Service (ENS) Overview

- CRISP currently receives Admission Discharge Transfer messages in real-time from:
 - All 49 Maryland acute care hospitals
 - 8 of 8 D.C. hospitals
 - All 6 Delaware hospitals (through DHIN)
 - Inova hospitals in northern Virginia
 - 8 West Virginia acute care hospitals
- Through ENS, CRISP generates **real time hospitalization notifications** to PCPs, SNFs, care coordinators, and others responsible for patient care.





What's in an Encounter Notification?

- Patient demographics, including phone number
- Hospital name
- Hospital MRN
- Date and time of event
- Type of event (emergency admit, inpatient discharge, etc.)
- Practice MRN
- PCP name (if provided by practice)
- Specific practice site (if provided by practice)



CRISP Reporting Services (CRS)

Home > Regional Partnership

Regional Partnership

PROJECT

Workbooks 5 Views 10 Data Sources 0 Permissions Details

0 selected

Sort by: Name (A-Z)

General Filters

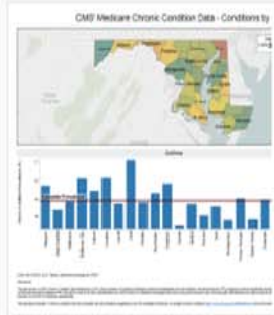
Owner

Tag

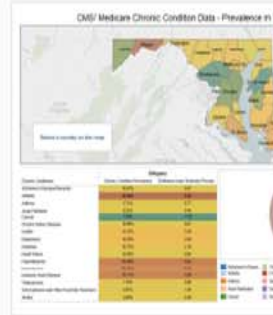
Modified on or after

Modified on or before

- Only my favorites
- Only my recently viewed
- Has an alert



CMS' Medicare Chronic Condition Data - Conditions by



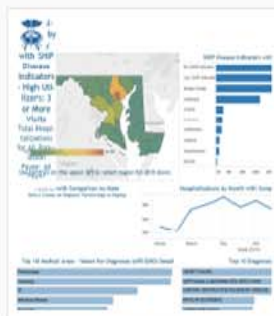
CMS' Medicare Chronic Condition Data - Prevalence in



Individuals with 3 or More Inpatient Discharges in FY2014



RP - MD ED Disease



RP - MD Inpatient

See Appendix for full list of CRS Reports

Three Purposes of CRS:

1. Patient Identification
2. Performance Measurement
3. Coordination of Services



Prescription Drug Monitoring Program

Three Recent Legal Changes Affecting Providers:

1. Mandatory PDMP Registration for CDS Prescribers & Pharmacists

- **Pharmacists:** Licensed in Maryland must be registered with the PDMP by **July 1, 2017.**
- **Prescribers:** Practitioners authorized to prescribe CDS in Maryland must be registered with the PDMP **July 1, 2017.**

Applies to physicians, physician assistants, nurses practitioners, nurse midwives, dentists, podiatrists and veterinarians. This mandate does not apply to nurses

2. Mandatory PDMP Use by Prescribers & Pharmacists Beginning **July 1, 2018:**

- **Prescribers must**, with some exceptions, query and review their patient's PDMP data prior to initially prescribing an opioid or benzodiazepine **AND** at least every 90 days thereafter as long as the course of treatment continues to include prescribing an opioid or benzodiazepine.
- Prescribers must also document PDMP data query and review in the patient's medical record.
- **Pharmacists must** query and review patient PDMP data prior to dispensing **ANY** CDS drug if they have a reasonable belief that a patient is seeking the drug for any purpose other than the treatment of an existing medical condition.

20

3. CDS Prescribers & Pharmacists May Delegate PDMP Data Access



Integrated Care Network Infrastructure Project

- Why: The all-payer waiver and GBR will motivate new population-health efforts and care management initiatives...
- And: Stakeholders will need new infrastructures and access to data to support these activities...
- Then: Elements of these infrastructure could be shared, i.e. pursued cooperatively, both to avoid duplication of costs and to give care managers more complete data...
- And so: CRISP was chartered and is governed to be the place where health IT solutions are deployed through cooperation and collaboration.



Maryland's Strategic Transformation Roadmap

State-Level Infrastructure (leverages many other large investments)

Create and Use, Meaningful, Actionable Data

Develop Shared Tools (Patient Profiles, Enhanced Notifications, Care Needs, Others)

Connect Providers

Alignment

Medicare Chronic Care Management Codes/Medical Homes

Gainsharing & Pay for Performance

Integrated Care Networks & ACOs Including Dual Eligibles

Accelerating All-Payer Opportunities Moving Away From Volume

Care coordination & integration (locally-led)

Implement Provider-Driven Regional & Local Organizations & Resources (Requires Large Investments And Ongoing Costs)

Support Provider-Driven Regional/Local Planning

Technical Assistance

Consumer Engagement

State & Local Outreach Efforts

Develop Shared Tools For Engaging Consumers

Year 2 Implementation Focus Areas

Payment Alignment: Gainsharing, pay-for-performance, Medicare Chronic Care fees, Dual eligible & integrated care networks

Clinical improvement: care coordination, chronic disease management



ICN Project Organization

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.

4. NOTIFICATION & ALERTING

New alerting tools will be built such that notification happens within the context of a provider's 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

Provide a basic care management software solution for those who want to rely on a shared platform and integrate with software for those who want to invest in more robust solutions.

7. PRACTICE TRANSFORMATION

Work with provider stakeholders to optimize their use of CRISP tools and services so they support

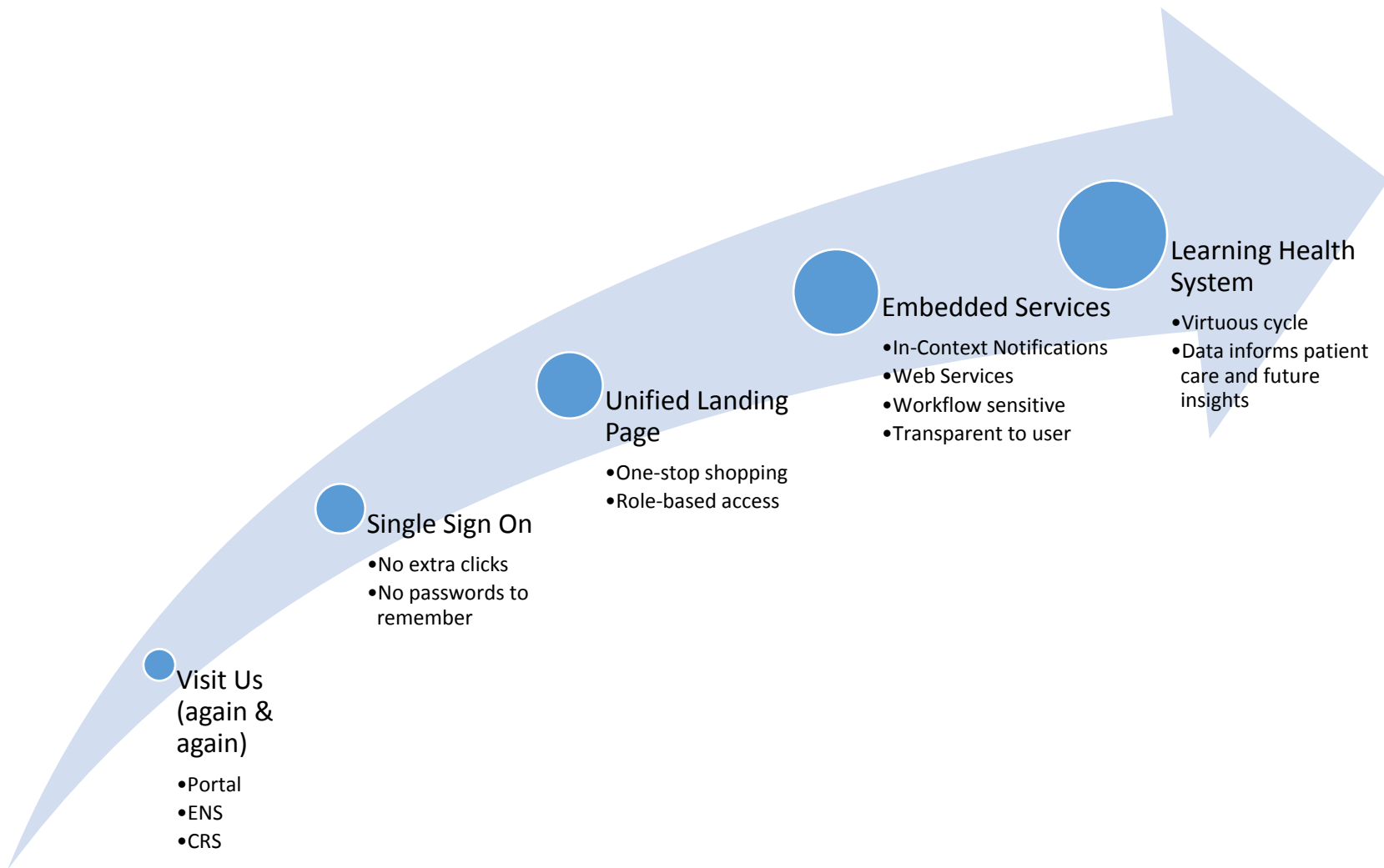


CRISP's Expanding Portfolio

- Core Services:
 - Encounter Notification Service
 - CRISP Reporting Services
 - Clinical Query Portal
 - Prescription Drug Monitoring Program
- Additional offerings:
 - Secure messaging (Direct)
 - Secure texting (DocHalo)
 - Image Exchange
 - Basic Care Management Software (MirthCare)
 - Electronic Quality Measures (CAiPHR)
 - Data Feeds (CRISP APIs)
 - CRISP Research Initiative

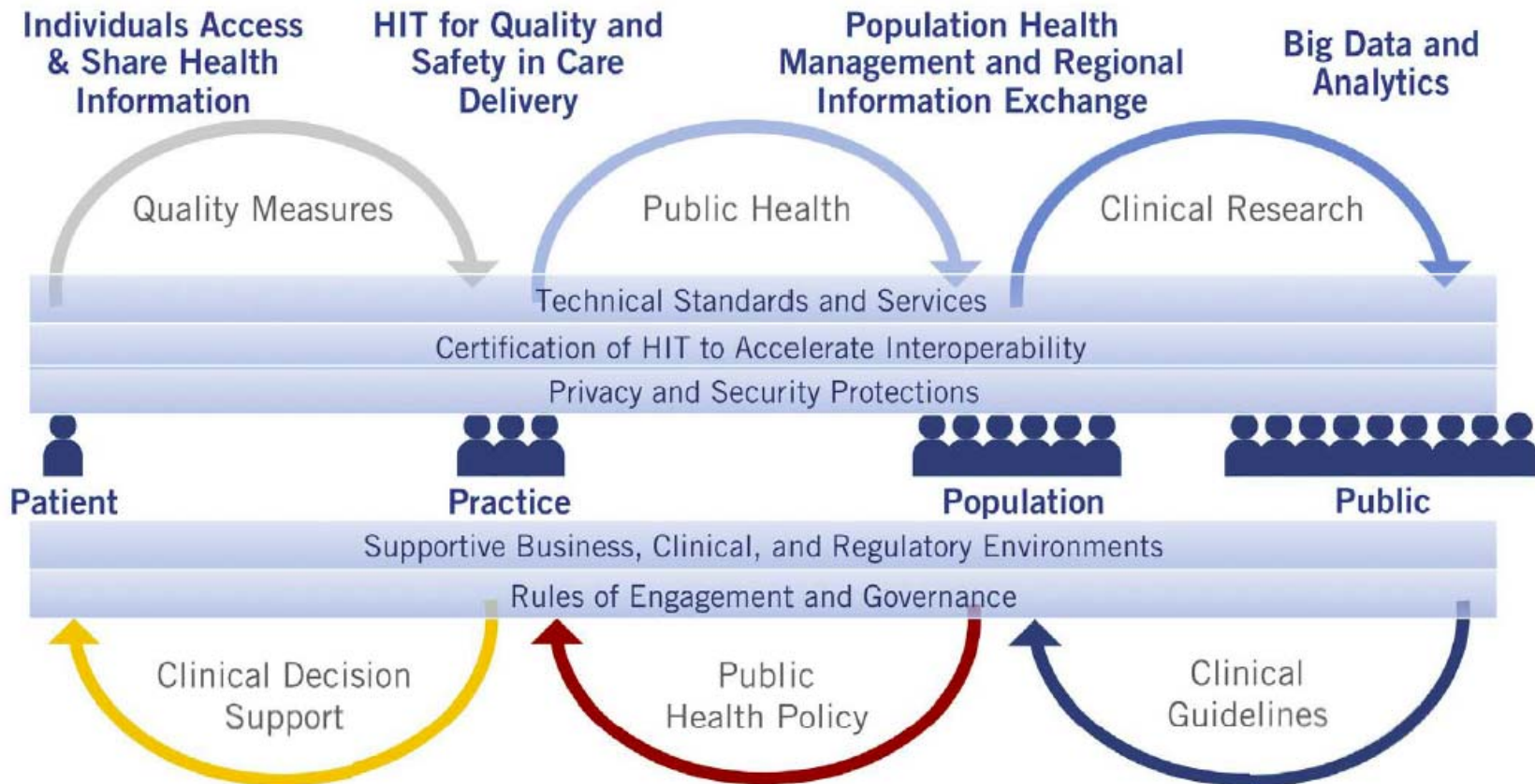


Evolving HIE Strategy





Quo Vadimus: Health IT Ecosystem





Thank you!

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