



CRISP State Designation Agreement

JULY 21, 2022

DRAFT

Background



- ▶ Health General §19-143 (2009) charged MHCC and HSCRC with the designation of a statewide health information exchange (HIE)
- ▶ CRISP was competitively selected in August 2009 to build and maintain a secure technical infrastructure that supports electronic health information exchange
 - ▶ CRISP is a 501(c)(3) independent non-stock Maryland membership corporation



See Appendix for additional HIE information



Process Overview

- ▶ MHCC develops and executes the *State-Designated Health Information Exchange Designation Agreement* (SDA)
- ▶ The SDA sets conditions for CRISP as Maryland's State-Designated HIE
- ▶ Re-designation builds on CRISP's accomplishments and supports MHCC in advancing a strong, flexible health IT ecosystem in the State
- ▶ SDAs were previously executed with CRISP in 2009, 2013, 2016, and 2019



Key CRISP Services



1. POINT OF CARE – Clinical Query Portal & In Context Information

- ▶ Search for a patients' prior health records (e.g., labs, radiology reports, etc.)
- ▶ Determine other members of a patient's care team
- ▶ View external records in a SMART on FHIR application inside an EHR

2. CARE COORDINATION – Encounter Notifications

- ▶ Notification when a patient is hospitalized in any regional hospital
- ▶ Enhance workflows across multiple care settings and teams

3. POPULATION HEALTH REPORTS – CRISP Reporting Services (CRS)

- ▶ Use administrative and clinical data to design and measure interventions

4. PROGRAM ADMINISTRATION

- ▶ Make policy discussions more transparent and informed
- ▶ Disseminate evidence-based best practices and technology

5. PUBLIC HEALTH DATA UTILITY (HDU)

- ▶ Deploy services in partnership with health officials
- ▶ Provide information and services to State and local health departments
- ▶ Support COVID-19 response efforts

Service	Typical Week
Clinical Docs Delivered to EHRs	1.5 mil
Patients Manually Searched	205,000
ENS Messages Sent	3.5 mil
Clinical Docs Processed	675,000
Portal Users	107,000
Live ENS Practices	1,580
Reports Accessed	2,750
Report Users	2,000

COVID-19 Support Initiatives



1. SHARING CASE DATA FROM THE MARYLAND DEPARTMENT OF HEALTH (MDH) TO DOWNSTREAM USERS

- ▶ Initiating Contact tracing with feed to MD COVIDLink
- ▶ Notifying EMS of transmission risks, alerting providers of positive patients regardless of testing site
- ▶ De-duplicating and cleaning vaccine registration lists

2. RECEIVING DATA FROM HOSPITALS AND PROVIDERS TO SHARE WITH LOCAL HEALTH DEPARTMENTS, MDH, AND CDC

- ▶ Point of care test results from skilled nursing facilities, practices, schools, and other sites
- ▶ Survey data from hospitals and skilled nursing facilities
- ▶ Patient characteristics (co-morbidities, race, ethnicity) from claims and clinical data

3. CENTRAL SOURCE FOR UP-TO-DATE DATA AND REPORTS

- ▶ Secure reporting dashboards with lab results, case files, survey data and surge counts
- ▶ Track Remdesivir administration, monoclonal antibody infusions, and vaccinations
- ▶ Test results going to select universities; agreement executed with Baltimore City Public Schools

4. TECHNOLOGY INTEGRATOR FOR STATEWIDE RESPONSE NEEDS

- ▶ Developed and operating lab orders, scheduling, and workflow software for State-run testing sites
- ▶ Reused referral tools to allow community referrals for monoclonal antibody infusions
- ▶ Enabled centralized surge response through hourly monitoring of ICU bed occupancy and alternative care sites

Public Health Initiatives



PRESCRIPTION DRUG MONITORING PROGRAM (PDMP)

- ▶ PDMP data available to providers and dispensers along side clinical data
- ▶ Close partnership with Behavioral Health Administration to support the continued development of the program

POPULATION HEALTH REPORTS

- ▶ Geographic mapping for public health officials of hospital encounters, and when combined with HSCRC claims data, includes specific conditions

MEANINGFUL USE

- ▶ CRISP facilitates public health reporting and attestation for hospitals and providers

SUPPORT OF STATE MEDICAL EXAMINER AND FATALITY REVIEW TEAMS

- ▶ CRISP serves as a source of clinical information in death investigations

DISEASE INVESTIGATION

- ▶ Public Health Investigators utilize CRISP for reportable disease investigation
- ▶ HIV Care Reengagement
 - ▶ Alert DHMH when HIV positive individuals encounter health system
 - ▶ Reconnect individuals to treatment and individuals who never learned status

OZ SYSTEM

- ▶ Newborn alerting, to facilitate mandatory hearing screening

CALIPR

- ▶ Clinical Quality Measure calculation tool for Medicaid eligible professionals and hospitals, using EHR data to automate selected clinical quality measures

IMMUNET REGISTRY

- ▶ MDH ImmuNet registry data available in CRISP Clinical Portal



State Designation Agreement – 2019

Key Components



- ▶ **HISTORY AND PURPOSE** - Governance framework; information about CRISP, including key initiatives since its inception
- ▶ **MHCC OVERSIGHT** - Grant funding; annual budgeting and reporting; insurance requirements; notice of service expansion; and protocols for correcting acts of noncompliance
- ▶ **CRISP GOVERNANCE** - Bylaws; protocols for the sale, merger, lease, or closure of CRISP; and bonds and other appropriate assurances
- ▶ **PRIVACY AND SECURITY** - Auditing requirements, including SOC 2 and cybersecurity testing; remediation of audit findings; notification to MHCC of a security incident.
- ▶ **COLLABORATION OF CRISP AND MHCC** - Workgroups and advisory board participation; use case developments and implementation; transparency; and provider and consumer engagement
- ▶ **OTHER** - Legal matters, including indemnification and limitation of liability; termination of the State Designation Agreement, etc.



State Designation Agreement - 2022

Modification to Key Components



▶ **MHCC OVERSIGHT**

- ▶ Formalizes the role of CRISP as a Health Data Utility* and collaboration with MHCC to support public health goals
- ▶ Clarifies various funding arrangements across State agencies and MHCC's right to request information, if needed
- ▶ Defines MHCC role in State funding opportunities

▶ **PRIVACY AND SECURITY**

- ▶ Streamlines reporting to MHCC in part by aligning HIE registration with the completion of certain audits
- ▶ Establishes bi-annual reporting of internal controls for all third-party vendors
- ▶ Defines timing of notification activities related to a security incident

▶ **COLLABORATION OF CRISP AND MHCC**

- ▶ Establishes meeting frequency for all legislative matters during the design, development, and implementation phases
- ▶ Expands work plan development and communication on legislatively required HIE activities
- ▶ Modifies annual reporting on provider, community, and public engagement

**2022 Md. Laws Ch. 70 (H. 70)*



Requested Commission Action

- ▶ Staff recommends the Commission approve to execute the SDA with CRISP



Appendix

HIE Background



- 2005** - MHCC initiated development of guiding principles for an interoperable and secure statewide clinical data sharing utility
- 2008** - MHCC and HSCRC funded two multi-stakeholder groups to develop competing approaches for developing a statewide HIE
- 2009** - MHCC released an RFA to build a statewide HIE (April) and competitively selected CRISP (August); MHCC subsequently began convening a multi-stakeholder HIE Policy Board (workgroup) to advise on policies for HIEs operating the State
- 2011** - House Bill 784, *Medical Records – Health Information Exchanges* required MHCC to adopt HIE privacy and security regulations
- 2015** - HSCRC engaged CRISP in the development of an Integrated Care Network initiative with the aim of fostering more coordinated care to meet the needs of the Maryland All-Payer Model
- 2013** - In collaboration with MDH, CRISP established the PDMP to support providers and their patients in the safe and effective use of controlled dangerous substances
- 2021** - House Bill 1375, *Health Information Exchanges - Electronic Health Information - Sharing and Disclosure*, alters the definition of an HIE and requires MHCC to adopt regulations for a consumer consent management application to be implemented and maintained by CRISP
- 2022** - House Bill 1127, *Public Health - State Designated Exchange - Health Data Utility*, requires CRISP to operate as a HDU by collecting, aggregating, and analyzing clinical information, public health data, and health administrative and operations data; requires dispensers to submit information on noncontrolled prescription drugs to CRISP

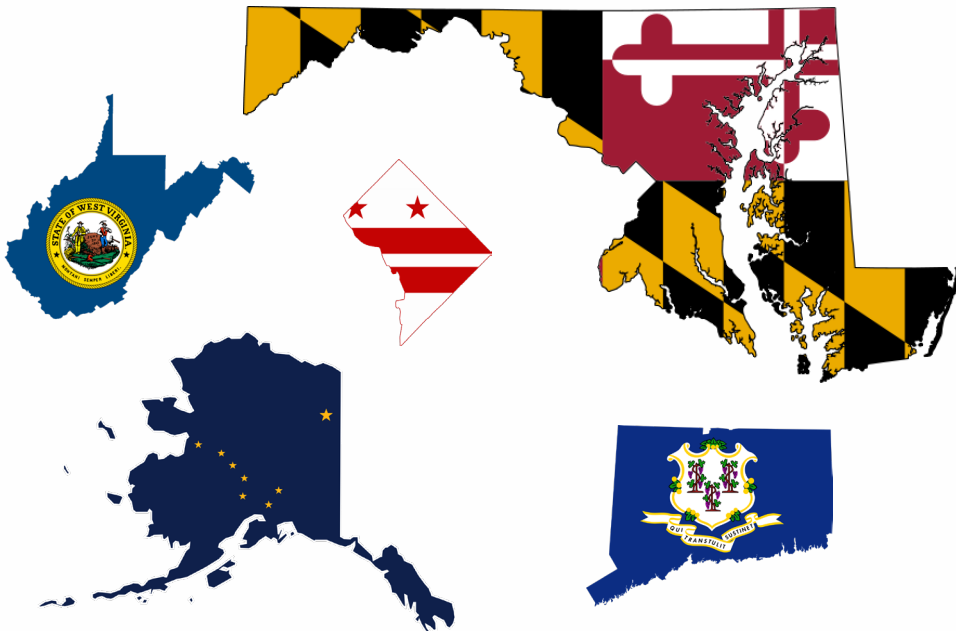


About CRISP

State Designated Health Information Exchange (HIE):

Serving Maryland, and in affiliation with the HIEs in West Virginia, the District of Columbia, Connecticut, and Alaska

Vision: To advance health and wellness by deploying health information technology solutions adopted through cooperation and collaboration



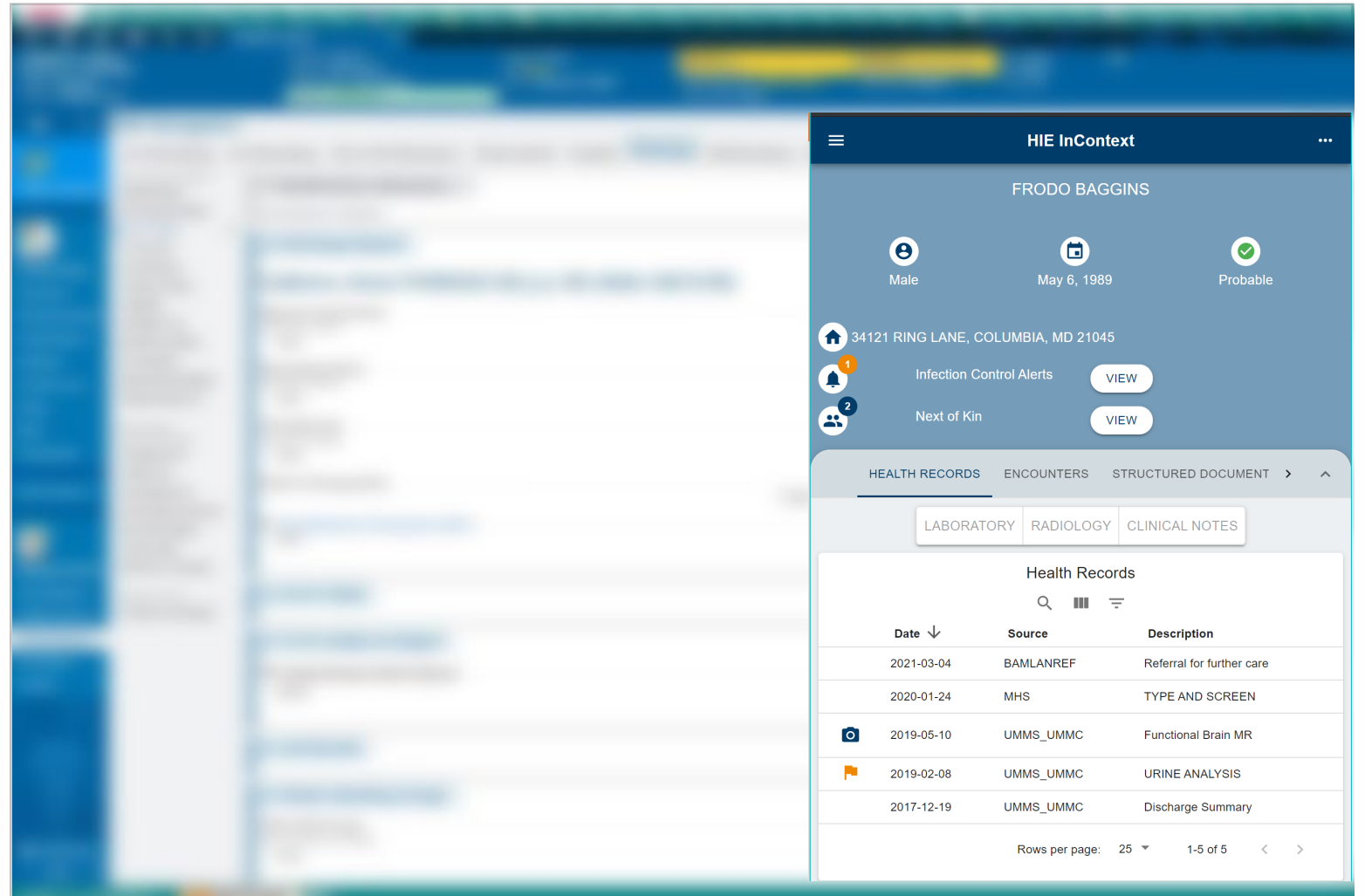
Guiding Principles

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



Point of Care: InContext Data Delivery

- ▶ View of patient data, pulled from multiple repositories and sources, embedded in the end user's EHR
- ▶ Integrations can occur in EHR native app stores or through API queries
- ▶ CRISP delivers over 1.5M pieces of data per week through this method (and rising)



HIE InContext

FRODO BAGGINS

Male May 6, 1989 Probable

34121 RING LANE, COLUMBIA, MD 21045

Infection Control Alerts [VIEW](#)

Next of Kin [VIEW](#)

HEALTH RECORDS ENCOUNTERS STRUCTURED DOCUMENT

LABORATORY RADIOLOGY CLINICAL NOTES

Health Records

Date ↓	Source	Description
2021-03-04	BAMLANREF	Referral for further care
2020-01-24	MHS	TYPE AND SCREEN
2019-05-10	UMMS_UMMC	Functional Brain MR
2019-02-08	UMMS_UMMC	URINE ANALYSIS
2017-12-19	UMMS_UMMC	Discharge Summary

Rows per page: 25 1-5 of 5



Care Coordination: Encounter Notifications

- ▶ Real-time or batch alerts to appropriate providers based on treatment and care management relationships
- ▶ User interface within CRISP secure portal or messages delivered into Direct or EHRs
- ▶ ENS subscription information (a patient's Care Team) is displayed at the point of care through ULP or In-Context

The screenshot displays the ENS PROMPT interface, which is used for proactive management of patient transitions. The interface is divided into several sections:

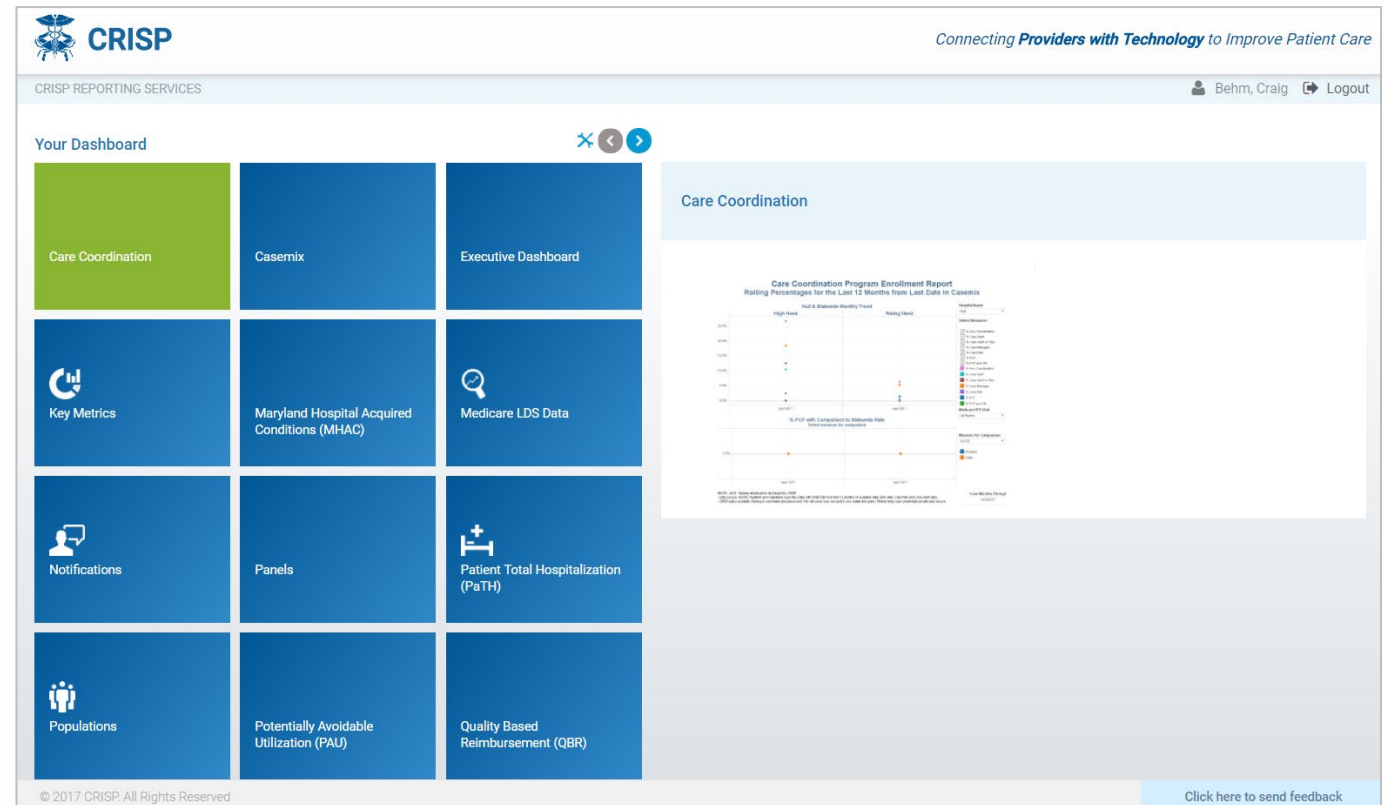
- Header:** Includes the ENS logo, "Encounter Notification Service", and "PROMPT Proactive Management of Patient Transitions". A user profile "cbehm" is visible in the top right.
- Search and Filter:** A search bar labeled "Filter by Name or MRN" and a dropdown menu for "CHF Program" with an "Add Filters" button.
- Encounter List (Left Panel):** A list of patient encounters with details for each provider:
 - DEBORAH REILLY (018687697):** Mount Sinai Hospital, 7/22/16 7:23 AM, IP Transfer, HIL6Stomach Pain FES27982LOW B/P.
 - IRENE KEMP (948752605):** Toronto General Hospital, 7/22/16 1:43 AM, ER, KEM1Stomach Pain XOJ082LT LEG PAIN/FOOTBALL.
 - JODIE LUTZ (423091650):** Toronto General Hospital, 7/21/16 6:14 AM, IP Transfer, NAR92636HEAD INJ PEJ4325LOW B/P.
 - MARTY QUINN (406996551):** Toronto General Hospital, 7/20/16 1:22 PM, IP Discharge, PAP5Stomach Pain NIB19LT LEG PAIN/FOOTBALL.
 - DARRICK ALVAREZ (321311855):** (Details partially obscured).
- Patient Details (Right Panel):** Focuses on MARTY QUINN (406996551).
 - Contact:** 003-331-7142
 - DOB:** 1/28/68
 - Address:** 904 South White Fabien Boulevard
 - City/State:** Glendale, WV
 - Race:** White
 - Ethnicity:** Not Hispanic or Latino
 - PCP:** Xavier Newman
 - NPI:** 1939129716
 - ACO:** CHF Program
- Most Recent Event:**
 - Event Date:** 7/20/16 1:22 PM
 - Event Type:** IP Discharge
 - Event Location:** Toronto General Hospital
 - Practice Location:** Chevy Chase
 - Hospital Service:** Diagnosis
 - Patient Diagnosis:** NIB19 LT LEG PAIN/FOOTBALL
 - Discharge Disposition:** Discharged/transferred to an intermediate care facility ICF
 - Discharge to Location:** Hospital
 - Patient Complaint:** PAP5 Stomach Pain
 - Admit Source:** Transfer from a hospital
- Status Log:** A section for tracking patient status changes.
- Event History:** A table of past events:

Date	Diagnosis	Location	Event Type
5/29/16 9:50 PM	Diagnosis: DUB348LOW B/P Complaint: BAPHEAD INJ	Toronto Western Hospital	ER Discharge
5/20/16 5:01 AM	Diagnosis: BEG19170LOW B/P Complaint: TAH2793Stomach Pain	Shouldice Hospital	ER Registration



Population Health: CRISP Reporting Services

- ▶ Dashboards from administrative data to support high-needs patient identification, care coordination, and progress reporting
- ▶ Primary data sets are hospital casemix and Medicare claims and claim line feed (CCLF)
- ▶ Different levels of patient data available for hospitals based on HSCRC payment requirements and Total Cost of Care Model participation
- ▶ There are over 600 active users viewing 85 reports over 2,000 times per month





Program Administration: Learning System

CRISP was asked to support HSCRC-sponsored transformation efforts by:

- ▶ Being a central source for document submission
- ▶ Facilitating reports for participants
- ▶ Helping in the protocol design for new programs as requested by stakeholders

Care Redesign Program Tracks and Initiatives:

- ▶ Hospital Care Improvement Program (HCIP)
- ▶ Episode Care Improvement Program (ECIP)
- ▶ Episode Quality Improvement Program (EQIP)
- ▶ Care Transformation Initiatives (CTI)
- ▶ Complex & Chronic Care Improvement Program (CCIP) phased out for MDPCP

Care Transformation Participation

	2017	2018	2019	2020	2021
CCIP	6	3	2		
ECIP			12	19	21
HCIP	10	40	40	7	4
EQIP					34 applications representing 9,000 providers
CTI					43 hospitals with 105 active CTIs

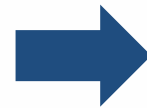


Technical Functions of a Health Data Utility

Services

- ▶ Enrich Data
 - ▶ Link disparate data sets
 - ▶ Use multiple sources to fill gaps
 - ▶ Improve data feeds
 - ▶ Surface key insights
- ▶ Distribute Information
 - ▶ Create visualizations
 - ▶ Control access levels
 - ▶ Push individual clinical records
 - ▶ Share analytic files
- ▶ Enable Interventions
 - ▶ Flag patients at the point of care
 - ▶ Notify appropriate end users
 - ▶ Share relationships between organizations

Value



All data becomes more useful when it is linked, normalized, deduplicated, and cleansed within a single analytics engine



User experience is enhanced and usage increases when a single entity is responsible for governance and distribution



Alignment between population level reports and actionable individual experiences is more likely to result in a positive change



Near-term HDU Activities

- ▶ Leverage existing data feeds for multiple use cases
 - ▶ Hospital HL7 can be aggregated for public health dashboards
 - ▶ Medicaid claims can be shared at the point of care
- ▶ Support collaborative governing bodies to share ideas, best practices, and recommendations
 - ▶ Groups that do not routinely interact get the opportunity
 - ▶ Diverse stakeholders can make the case to share – or withhold! – information
- ▶ Launch pilots by leveraging existing infrastructure and staff; expand or stop based on real-world results
 - ▶ Push suspected overdose events to a local health department to try new outreach programs
 - ▶ Try sending referrals from primary care practices to community-based organizations



Privacy & Security

- ▶ Opt-out model gives patients the right to block electronic access to their information shared through the HIE
 - ▶ All participating providers must update Notice of Privacy Practices and make patient education materials available
 - ▶ If a patient opts out, no information will be available through the portal and notifications about hospitalizations for this patient will be blocked
 - ▶ EXCEPTION: By Maryland law, opt-outs do not apply to PDMP and this data is visible in a patient's record
- ▶ Annual audits and reports as required by State Designation Agreement, regulations, and best practices
 - ▶ SOC 2 Type 2
 - ▶ HIPAA & COMAR Compliance
 - ▶ Cybersecurity & Social Engineering Testing
- ▶ Adhering to industry best security standards
 - ▶ EHNAC HIE accredited since Feb. 2017
 - ▶ HITRUST certificated since Nov. 2017
- ▶ Continuous privacy monitoring
 - ▶ Protenus software monitors query activity to identify potentially suspicious activity outside of a permitted use case

