



CHESAPEAKE REGIONAL INFORMATION SYSTEM FOR OUR PATIENTS

CRISP Infrastructure Updates

April 18, 2016

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Agenda Overview

1. Welcome/Introduction
2. CRISP Update
 1. Care Coordination Tools
 2. Ambulatory Connectivity
 3. CRISP Reporting Services
3. Patient Consent and Granular Control
 1. Patient Identity Proofing
 2. Challenges
4. Questions and Discussion
5. Closing



Vision – Mission – Guiding Principles

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.*



CRISP Core Services

Clinical Query Portal

- Patient information accessible at the point of care, including: lab results, radiology reports, PDMP, discharge summaries, and more

Encounter Notification Service (ENS)

- Real-time hospital admission, discharge, and transfer notifications available to providers who submit a patient list
- Auto-subscriptions for hospitals to receive alerts for readmissions within 30-days across Maryland, DC, and Delaware hospitals

CRISP Reporting Services (CRS)

- Reporting and analytic tools to support patient identification, care coordination, and performance measurement



Care Coordination Support

CRISP is developing infrastructure to support the Integrated Care Network and population health programs

- Continuing efforts from the HSCRC's Care Coordination Workgroup
- Alignment with HSCRC and waiver initiatives

Resources to support hospital, regional, and other provider-based collaborations

- Data connectivity and sharing
- Population-based reporting, reporting across facilities
- Other needs to support partnerships



Clinical Query Portal

- The clinical query portal allows credentialed users to search the HIE for clinical data.
- All 47 acute care hospitals in Maryland and 6 of 8 DC hospitals share clinical data.
- There are currently over 100,000 queries per month.
- 12,000 Active Portal Users
- 18 hospitals have enabled “single sign-on” connectivity to the portal enabling single-click access to data in CRISP.
- PDMP Data from MD, WV, VA, and CT

The screenshot displays the 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), community ID (0144071), and address (206 Oxford Court, Columbia, MD 21031). The interface is divided into several sections:

- Laboratories (12):** A table listing various lab tests such as TOTAL CHOLESTEROL, CBC W/ AUTO DIF, MAJORCDAM, CHEM7, CHEM8, CHEM9, CHEM10, CHEM11, CHEM12, CHEM13, CHEM14, CHEM15, CHEM16, CHEM17, CHEM18, CHEM19, CHEM20, CHEM21, CHEM22, CHEM23, CHEM24, CHEM25, CHEM26, CHEM27, CHEM28, CHEM29, CHEM30, CHEM31, CHEM32, CHEM33, CHEM34, CHEM35, CHEM36, CHEM37, CHEM38, CHEM39, CHEM40, CHEM41, CHEM42, CHEM43, CHEM44, CHEM45, CHEM46, CHEM47, CHEM48, CHEM49, CHEM50, CHEM51, CHEM52, CHEM53, CHEM54, CHEM55, CHEM56, CHEM57, CHEM58, CHEM59, CHEM60, CHEM61, CHEM62, CHEM63, CHEM64, CHEM65, CHEM66, CHEM67, CHEM68, CHEM69, CHEM70, CHEM71, CHEM72, CHEM73, CHEM74, CHEM75, CHEM76, CHEM77, CHEM78, CHEM79, CHEM80, CHEM81, CHEM82, CHEM83, CHEM84, CHEM85, CHEM86, CHEM87, CHEM88, CHEM89, CHEM90, CHEM91, CHEM92, CHEM93, CHEM94, CHEM95, CHEM96, CHEM97, CHEM98, CHEM99, CHEM100.
- Imaging (3):** A table listing imaging studies such as ELKOREL (PT) DNG-HY, CHEST SINGLE V/W, ANGLE COMP. D NEWS.
- Medications (5):** A table listing medications such as OLANZAPINE, QUINAPRIL, LISINAPRIL, METOPROLOLOL, METOPROLOLOL ER.
- Ambulatory Encounters (1):** A table listing ambulatory encounters such as 002107H.
- Documentation (1):** A table listing documentation such as OPERATIVE REPORT.

Types of data available:

- Patient demographics
- Lab results
- Radiology reports (with Image Exchange in some facilities)
- **PDMP Meds Data**
- Discharge summaries
- History and physicals
- Operative notes
- Consult notes
- **Immunization Details**



Image Exchange

Imaging

Download Report | View Clinical Messages | Delete | Share | Send to Me | **View Image** | RT H&E Worklist

Male

Flag: General, Low, High | Abnormal: 1 | Critical: 0 | Severe: 0

Order Info		Providers On Order	Source Information
Order Type	Diagnostic Imaging	Ordering Provider	Source Northwest Hospital (LifeBridge)
Collected On	Jan 20, 2016 9:09:53 AM		Received On Jan 20, 2016 9:11:42 AM
Status	Final		
Placer Order Id	1750527971		

XR-Shoulder 2V LT

Status	Placer Field 1	Placer Field 2
F		

Notes

XR-Shoulder 2V LT 1/20/2016 9:09 AM

Clinical history: wvc, shoulder pain

Comparison: none available.

Findings/Impression: There are changes of degenerative changes in the left

Dictated By:

Electronically Signed By:

Signed Date/Time:

Performing Facilities

Northwest Hospital (LifeBridge)
5401 Old Court Road
Randallstown, MD 21133

MRN:
Age:
Sex:



Desc: CXR2V CHEST 2 VIEWS 71020
ACC #:
Study Date: 01-20-2016
IM Time: 11:04:16
Zoom Factor: 0.27

1/1
IM #: 1001
SE #: 1001
WL: W:1024 L:512

Inst: Mercy Health Services



Clinical Query Portal - Single Sign-on

Single Sign-On (SSO) is an approach to enable faster and more efficient access to the query portal through the EHR.

Inpatient Summary

Diagnoses (10)

Selected visit:

- Acute Pain (118.4)
- Bile duct stricture (574.2)
- Gout, Unspecified (724.8)
- Hypertrophy (Benign) of Prostate without Urinary Obstruction and Other Lower Urinary Tract (LUTS) (548.80)
- Malignant Neoplasm of Extrahepatic Bile Ducts (198.12)
- Obstruction of Bile Duct (585.2)
- Obstruction of Bile Duct (585.2)
- Tobacco Use Disorder (305.1)
- Unspecified Essential Hypertension (401.9)
- Unspecified Glaucoma (362.8)

Problems (16)

Allergies/Intolerances (1)

Medications & Fluids Administered

Home Medications (12)

Immunizations (0)

D/C Follow up (1)

Patient Status Orders

Vital Signs

Last 36 hours for the selected visit

No results found

Measurements and Weights (4)

Selected visit:

	Source	Previous	Change
Weight Dosing	60 kg	60 kg	0 kg
Weight/Length Dosing	157 cm	157 cm	0 cm
BSA Dosing	1.6 m ²	1.6 m ²	0.0 m ²
Body Mass Index Dosing	24.34 kg/m ²	24.34 kg/m ²	0.00 kg/m ²

MedStar HIE

Note: No new data has been received for this patient in the last 30 days.

Click Here to view patient in MedStar HIE

Click here for Help/Training

CRISP HIE

Click here to access CRISP

Click here to view CRISP data sources

For CRISP support, call 877-952-7477



By securely sending a local user's credentials and the current patient medical record number (or other demographics), CRISP can send the user directly to the patient summary screen.

CRISP Production

CRISP Patients

Menu

- Inpatient Summary
- Summary2
- Results Review
- Orders
- Clinical Documents
- IMR Summary
- Infection Billing Report
- Allergies/Intolerances
- Form Browser
- Medication List
- Immunization Schedule
- Advanced Growth Chart
- Patient Information
- Patient Care Summary
- Reference Test Browser
- Diagnosis & Problems
- Histories
- Chart Level NPage
- Chart Search
- Clinical Coding Summary

Patient Actions

- Back to List
- Download Summary PDF
- Show All Data

Summary

Date	Name	Source
Sep 18	CATF-F	MS_GUH
Sep 18	GFR	MS_GUH
Sep 18	CMF	MS_GUH
Sep 18	CBC w/DIFF	MS_GUH
Apr 07	CMF	MS_GUH
Apr 07	LAC	MS_GUH

Ambulatory Encounters (17)

Date	Type	Source
Sep 18	ROUTINE	MS_GUH
Sep 18	ELECTIVE	MS_GUH
Sep 18	ROUTINE	MS_GUH

Imaging (0)

No Imaging to display

Medications (0)

No Medications to display

Documentation (0)

No Documentation to display

Allergies (1)

Allergen	Reactions	Reported
NO KNOWN ALLERGIES	UNKNOWN	SEP 18



Care Profile

Testing, Maureen female 11/11/1951 (64 yrs) (Community ID:30866132)

Summary More Patient Information External Document Search Patient Groups Patient Documents **Care Profile** eHT HIE Worklist Interstate PDMP

Organizations subscribed to this patient

Name	Phone Number
University Family Medicine	(410) 328-8792

Care Alert

Test Care Coordination Note
This note has multiple lines.
for patient Maureen Testing, if the patient presents with fever and
and shaking hands, call personal intervention manager at telephone
number (301) 555-8977 (ask for Bryant).
Patient displays aggressive behavior when approached to get an injection.

- Care Plan Availability
- Patient Attribution
- Prior Admissions (ENS Encounters in the past 60 days)
- Care Manager Attribution
- Care Alerts



Encounter Notification Service – Current Capabilities

- CRISP currently receives Admission Discharge Transfer messages in real-time from:
 - All Maryland Acute Care Hospitals
 - 6 of 8 D.C. Hospitals
 - All Delaware Hospitals
 - All Inova Hospitals (Virginia)
- Through ENS, CRISP generates **real - time hospitalization notifications** to PCPs, care coordinators, and others responsible for patient care.



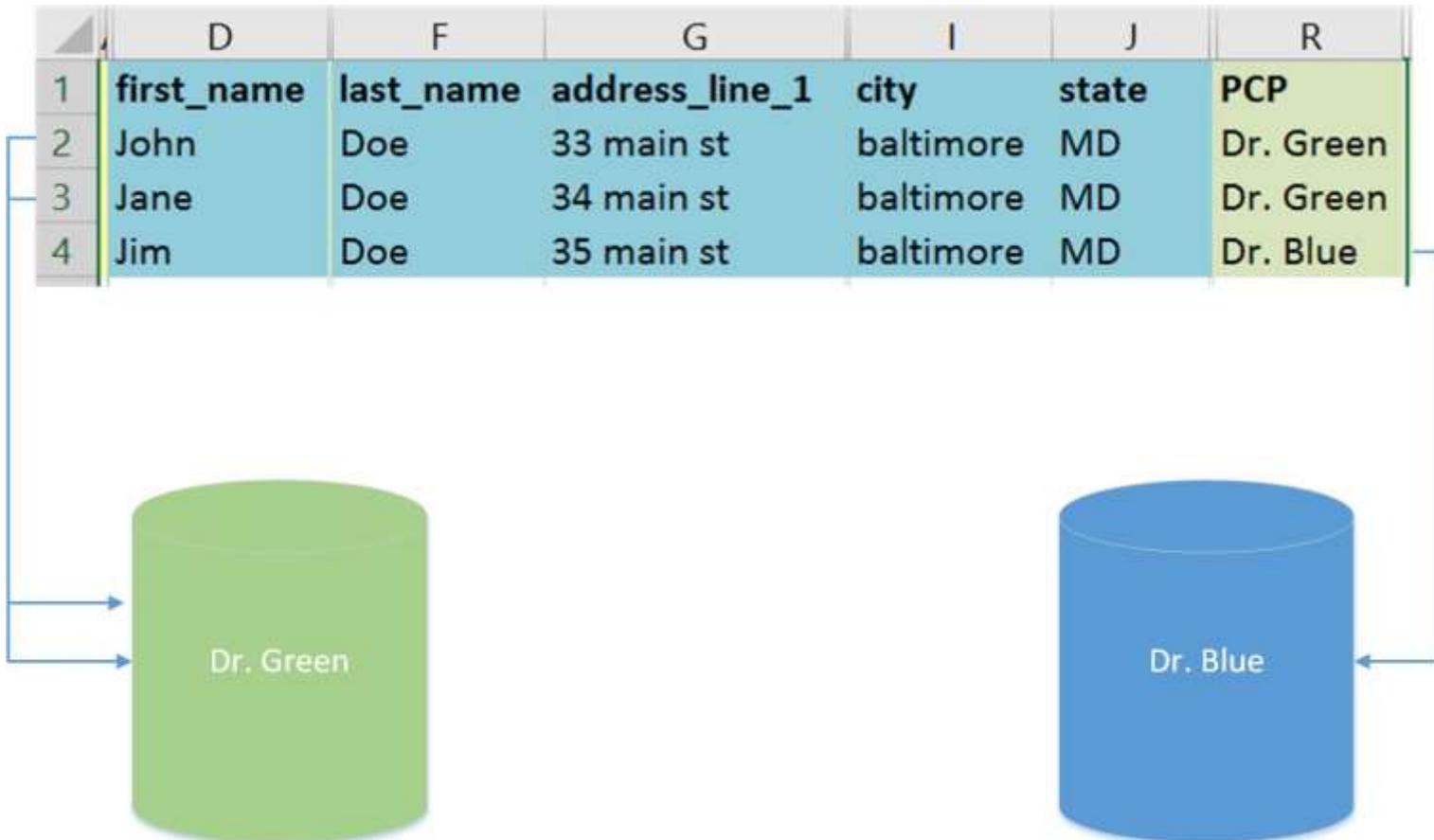
Important Current Capabilities

- Full Continuity of Care Documents (CCDs) are also routed through ENS to subscribing providers, who elect to receive them to support transitions of care.
 - 17 Hospitals currently send CCDs to CRISP
- Hospitals can “auto-subscribe” so they can be alerted when one of their past discharges is being readmitted within 30 days. This same capability allows the receiving hospital to be notified, when a patient arriving at their facility had been discharged from another facility, within the past 30 days.
 - 34 hospitals currently auto-subscribe to receive readmission notifications
- ENS was recently enhanced to include the ER and IP visits for a given patient with the past 6 months
- Panels can be customized to include treatment groups, PCP, program Start/End dates, and insurance information



CRISP Triages Alerts Based on Your Workflow

Participants can work with CRISP to improve workflow by providing a single panel and let CRISP route alerts to individual providers, offices, or programs using multiple Direct inboxes.





Near-term Additional Approaches for ENS

Outside Messages 0 unread, 1 total

From: ENS, User
Addressed To: Stephen Sisson, MD
Routed To: Jhoc Internal Medicine Clinical Support Staff
Content: CRISP Event Notification

Discharge Summary - CareEverywhere, Jackie (50 y.o. Female) As of Jul. 17, 2015

Patient Demographics

Patient Address	Communication	Language	Race / Ethnicity
111 Main St Baltimore, MD 21222	Unknown	Unknown	Unknown / Unknown

Hospital Discharge Diagnosis

Diagnosis Code	Diagnosis Description
X0026	peritonitis ofanus (bromosis and

Chief Complaint and Reason for Visit

AdmReasonCode=O2 zmesk

ENS PROMPT

Proactive Management of Patient Transitions

Notifications from: LAST 30 DAYS

Sheel Stanton (88770)

901-030-5837

DOB: 12/24/60
Address: 174 First Street
City/State: San Diego, MI
Name: Sheel
Identity: Unknown

POP: Attyal Berlin
MFI: 641436
ACD:

MOST RECENT EVENT

Event Date: 7/15/15 4:34 PM
Event Type: IP Admit
Event Location: Ala Burke County Campus
Hospital Service: LT 100 PAIN/FOOTBALL
Patient Diagnosis: LT 100 PAIN/FOOTBALL
Discharge Description:
Discharge to Location:
Patient Complaint: HEAD INJ
Admit Source: Transfer from a hospital

EVENT HISTORY

Date/Time	Diagnosis	Location	Event Type
7/15/15 11:38 PM	Diagnosis: LOW B/P Complaint: HEAD INJ	Ala Transford Campus	Admit
7/15/15 1:30 PM	Diagnosis: YAK W/IN ON BOTT BUCK Complaint: HEAD INJ	Ala Transford Campus	Registration

- ENS is in final testing to deliver notifications directly into Epic.
- Notifications are also currently flowing into other recipient systems in production.

- CRISP will also offer an ENS user interface rather than a simple spreadsheet via secure email.
- Users will still have the ability to download the spreadsheet.



Ambulatory Connectivity

- Initiative focuses on expanding integration with providers across multiple care settings:
 - Primary Care
 - Specialists
 - Post-Acute Facilities
- Connectivity will facilitate the electronic access and exchange of patient information for the purpose of improving health outcomes
 - Connectivity also supports other hospital and community alignment activities



Benefits of Integration

- **Current benefits to practices:**
 - Provide greater access to patient clinical data across multiple care settings
 - Improve communication and care coordination among providers and care managers
 - Reduce the cost of care by minimizes duplication of services
 - Auto-generate CRISP's required ENS panel data submissions

- **Potential future benefits:**
 - Access to additional tools and reports
 - Enhanced ability to participate in alternative payment models and pay-for-outcomes programs



Sharing of Patient Data

Encounter Data

- Identify when a patient visit occurs at an ambulatory practice or SNF

Clinical Data

- Retrieve clinical data in the form of C-CDA (Consolidated-Clinical Document Architecture) associated with the patient visit
- Patients may opt-out of data sharing (more on granular consent shortly)
- Practice and SNF encounter data is only permitted to be used for treatment or care management



Integration Approaches

1. EHR Vendor

- CRISP will work directly with the practice and their vendor to develop the integration

2. Third Party Integrator

- Option available if collaborating with a practice's EHR vendor is difficult due to excessive costs or technical limitations
- CRISP partners with integration companies with experience extracting data from systems with minimal vendor involvement



Connectivity Progress

Participant Type	Agreed	In Dev	Tier 2	Tier 3
Regional Partners/ACOs	14	43	35	20
Hospital Practices	56	484	322	4
Independent Practices	33	23	1	1
Administrative Networks	20	0	4	0
LT/PAC	23	19	8	0
Total	146	569	370	25

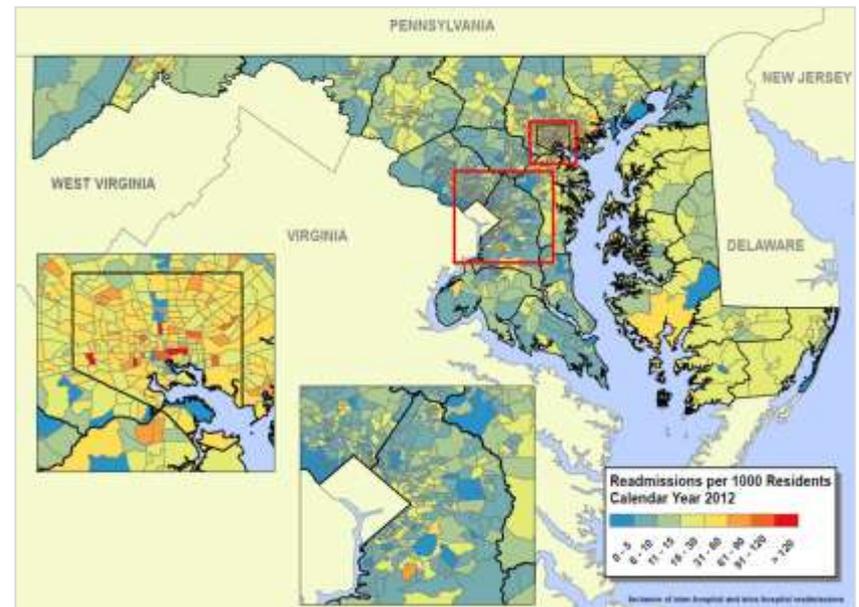
Physician Breakdown	Agreed	In Dev	Tier 2	Tier 3
Grand Total	159	2,610	2,022	85



CRISP Reporting Services (CRS)

- Reports generated from a collection of data sources to support quality improvement, strategic planning, financial modeling, and other activities
- Originally focused on hospitals, but expanding to public health departments, regional partnerships, and ambulatory providers
- Allowable data use varies based on the amount of detail included

Example: Patient-level detail in new Patient Total Hospitalization (PaTH) Dashboard is only permitted to be used for care coordination activities





Data Sources

CRS utilizes data from multiple sources

- Integrates HSCRC Case Mix data with CRISP EID, adds geocoding
- Draws upon other data sets as available and applicable: CMS CCW, Census, ENS, ADT

Provides users with easy-to-use, timely content

- Point and click access and filtering
- Data refreshes following case mix schedule

Report logic developed in conjunction with HSCRC

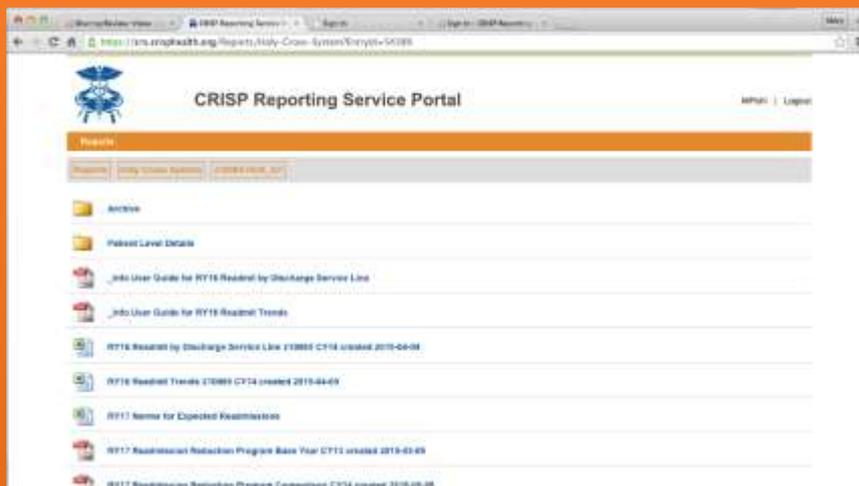
- Rate year, readmission calculations, and other data aligned with rate-based reporting
- Care coordination tools use the same data foundation but are developed with stakeholder input



CRISP Methods for Reporting

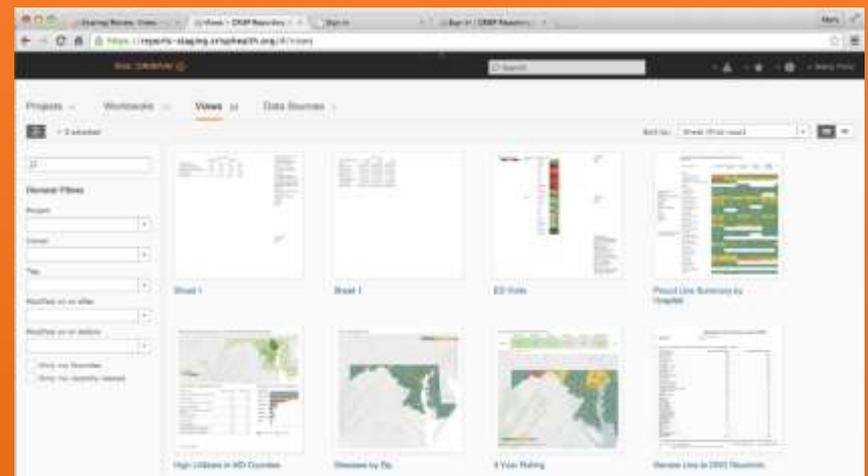
Portal

- Internet-based
- Distributes static reports, includes archived reports
- Evolved from emailing users
- In use for over 2 years
- Patient-level data
- Target audience: Hospital Admin



Dashboards

- Internet-based
- Separate entry point from Portal, shared credentialing
- Mostly aggregated data; patient level data piloting
- Portals for Hospitals, Ambulatory Providers, and Populations

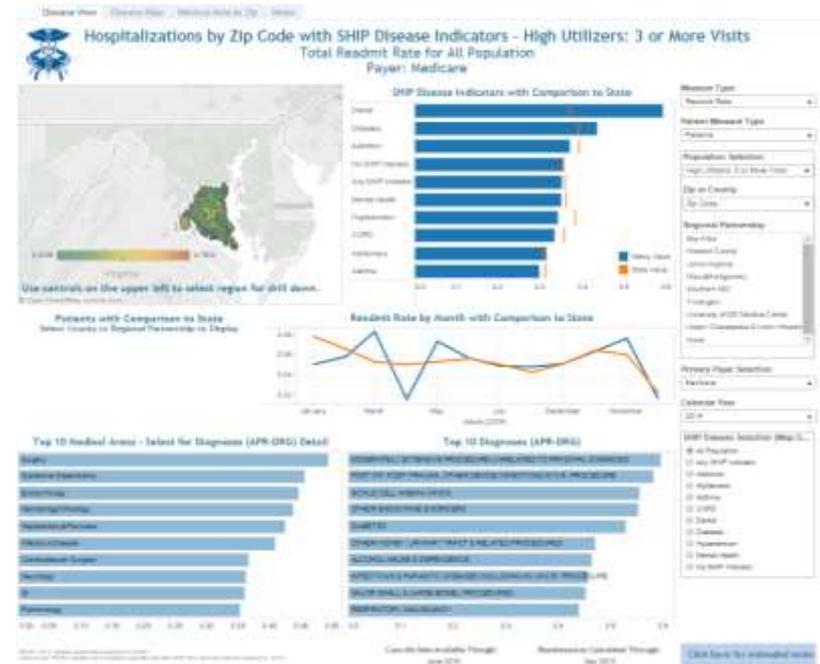




New Reporting and Analytics Tools

- The CRS team is enhancing the care network infrastructure for reporting and analytics
- Developing tools and information to support:

1. High-Risk Patient Identification
2. Regional Coordination and Planning
3. Performance Measurement





High-Risk Patient Identification: Patient Total Hospitalization (PaTH)

- Currently available and in use by 34 hospitals; working towards sharing similar information appropriate non-hospital participants
- Dashboard incorporating cross-facility, patient-level data
 - Visualization of all casemix data with ability to view individual patient utilization data across all hospital facilities in Maryland
- Three levels of drill-downs (and notes page)
 - Summary level data
 - PaTH tab
 - Patient detail tab
- Filters enable users to focus on a specific population
 - Filter on service dates, visits, readmissions, charges, zip codes, MRN, primary payer, age, chronic condition, etc.
 - View high utilizers across all hospitals in the past 12 months

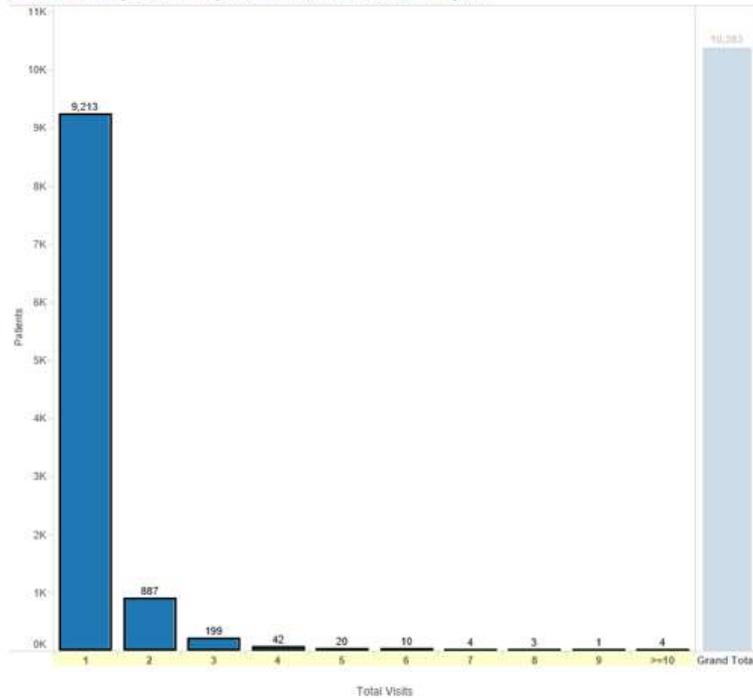


PaTH Summary View



Patient Total Hospitalizations Summary - Patients by Number of Visits All Population

Last 3 Months Patients by Total Number of Visits
Select one or multiple bars from top to bottom to view total visits at all hospitals



Hospital Name

Time Period
Last 3 Months

Total Charges
All values

Total Visits
All values

Readmissions
All values

Ambulatory ER Visits
All values

Bedded Care (IP + Obsv<=24 hrs)
All values

MIRN

Zip on Recent Visit

Primary Payer
All

Secondary Payer
Multiple Values

Age Group
All

High Utilizers
Across All Hospitals
All Population

Conditions

Chronic

- Asthma
All
- COPD
All
- Chronic Kidney Disease
All
- Diabetes
All
- Heart Failure
All
- Hypertipidemia
All
- Hypertension
All
- Mental Health
- Alzheimers/Other Dementia
All
- Depression
All
- Oncology
- Colorectal Cancer
All
- Endometrial Cancer
All
- Female/Male Breast Cancer
All
- Lung Cancer
All
- Prostate Cancer
All
- Other
- Anemia
All
- Atrial Fibrillation
All
- Hip/Pelvic Fracture
All
- Ischemic Heart Disease
All
- Osteoporosis
All
- Stroke/Transient Ischemic Attack
All

Last 3 Months Total Visits and Charges Across All Hospitals

Current Hospital (orange square) Other Hospitals (blue square)



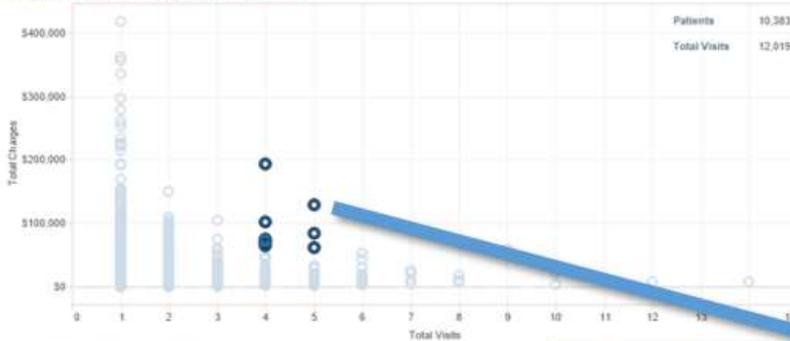


Patient-Level Details



Patent Total Hospitalizations Dashboard - Patients by Visits and Charges All Population

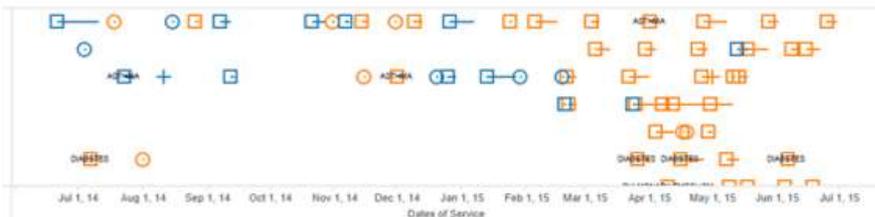
Last 3 Months Patients by Visits and Charges
Select one or more bubbles to view patient details



Last 12 Months Patient Details:

EID	Current Hospital							All Hospitals Total		
	Total Charges	Total Visits	Visits IP	Visits ODV	Visits ER	Bedded Care	Age	Total Charges	Total Visits	Total Hospitals
\$158,466	13	10	0	3	10	50	\$253,788	19	2	
\$157,089	6	8	0	0	6	72	\$187,693	8	2	
\$86,765	8	6	1	1	7	53	\$147,757	16	3	
\$78,282	5	5	0	0	5	57	\$86,052	7	2	
\$70,551	4	2	0	2	2	23	\$70,551	4	1	
\$82,609	6	5	0	1	5	58	\$82,609	6	1	
\$83,505	5	5	0	0	5	29	\$83,505	5	1	
\$192,912	4	3	0	1	3	24	\$358,551	6	2	
\$102,064	4	3	0	1	3	25	\$102,564	4	1	

Last 12 Months Patient Hospital Utilization Timeline Across All Hospitals
Select EID to view hospitalizations details



Hospital Name

Time Period
Last 3 Months

Utilization

Total Charges All values

Total Visits All values

Readmissions All values

Amputatory ER Visits All values

Days in Hospital (ODV >= 24 hrs) All values

MRN

Zip Recent

Primary Payer All

Secondary Payer Multiple Values

Age Group All

High Utilizers Across All Hospitals All Population

Conditions

Chronic

- Asthma All
- COPD All
- Chronic Kidney Disease All
- Diabetes All
- Heart Failure All
- Hyperlipidemia All
- Hypertension All

Mental Health

- Alzheimers/Other Dementia All
- Depression

Oncology

- Colorectal Cancer All
- Endometrial Cancer All
- Female/Male Breast Cancer All
- Lung Cancer All
- Prostate Cancer All

Other

- Anemia All
- Abial Fibrillation All
- Hip/Pelvic Fracture All
- Ischemic Heart Disease All
- Osteoporosis All
- Stroke/Transient Ischemic Attack All

Patient Total Hospitalizations - Patient Detail Sorted by Admit Date
Inpatient, Observation, and Emergency Department Services at All Hospitals

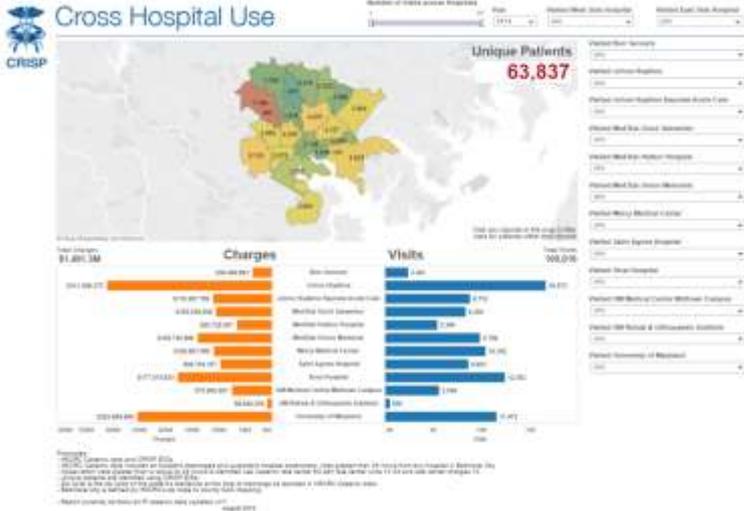
Hover over More link on the right to view diagnoses description

MR	IP	OP	DRG	DRG Description	SOI	Diagnosis Description	Dr1	Dr2	Dr3	Dr4	More
1	Yes	141	ASTHMA	2	"ASTHMA W/ACUTE EXACERBATION (Begin 2009)"	49392	V483	24909	V8142		More
6V	Yes					"ASTHMA W/ACUTE EXACERBATION (Begin 2009)"	49392	V148	V141	V9587	More
1	Yes	148	CHRONIC OBSTRUCTIVE PULMONARY DISEASE	3	"CH OB ASTHMA W/ACUTE EXACERBATION (Begin 2009)"	49322	49291	V85	4280		More
D						"ASTHMA W/O STATUS ASTHM"	49399	42731	7224	48291	More
1	Yes	Yes	141	ASTHMA	2	"ASTHMA W/ACUTE EXACERBATION (Begin 2009)"	49392	4250	V85	25000	More
D						"CH OB ASTH W/ STAT ASTH (Begin 1988)"	49320	3384	V12	42731	More
1	Yes	720	SEPTICEMIA & DISSEMINATED INFECTIONS	2	"STAPH SEPTICEMIA UNSPEC (Begin 1997)"	93810	486	48326	79803		More
1	Yes	Yes	148	CHRONIC OBSTRUCTIVE PULMONARY DISEASE	4	"CH OB ASTHMA W/ STAT ASTH (Begin 1988)"	49321	5849	4821	8341	More
D						"PAIN IN LIMB"	7265	4280	496	4019	More
D						"SCIATICA"	7243	27858	4200	496	More
1	Yes	347	OTHER BACK & NECK DISORDERS, FRACTURES & INJURIES	2	"PATH FX/VERTEBRAE (Begin 1993)"	73313	4280	V85	2768		More
1	Yes	721	POST-OPERATIVE POST-TRAUMATIC, OTHER & DEVICE INFECTIONS	4	"INFECT OUT CENT VEN CATH (Begin 2007)"	96651	51881	5845	2762		More
1	Yes	248	NON-BACTERIAL GASTROENTERITIS, NAUSEA & VOMITING	3	"INFECTIOUS ENTERITIS NOS"	6880	4280	V85	73313		More
6V						"NONINF GASTROENTERIT NEC"	5668	4280	5999	48326	More
1	Yes	Yes	148	CHRONIC OBSTRUCTIVE PULMONARY DISEASE	3	"CH OB ASTHMA W/ACUTE EXACERBATION (Begin 2009)"	49322	4280	V482	8054	More
1	Yes	148	CHRONIC OBSTRUCTIVE PULMONARY DISEASE	3	"CH OB ASTHMA W/ACUTE EXACERBATION (Begin 2009)"	49322	51881	4280	27801		More

Click here for extended notes



Regional Coordination and Planning



Hospital Panel Enrollment Dashboard

Hospital Name:

Payer Groups: (All)

High Utilizers: (All), High Utilizers Only, No High Utilizers

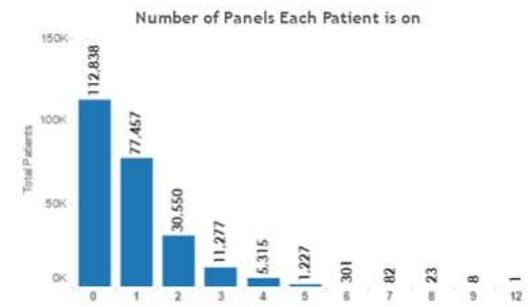
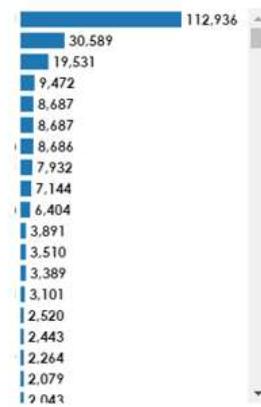
Time Range: 12 Months, 6 Months, 3 Months

Total Patients: 239,079

Patients with Notifications: 16,530

Patient Group Profile

Avg. IP Encounters Per Patient	0.2
Avg. OP Encounters Per Patient	3.4
Avg. ED Visits Per Patient	1.8
Avg. Charges Per Patient	\$10,745
Avg. Chronic Conditions Per Patient	3
Percent of Patients on a Panel	52.8%



➤ Information and visualizations to support hospital collaborations and regional partnerships with community providers



Performance Measurement

Ad Hoc Report: Inpatient Hospital Discharges and Readmissions

By Hospital - Calendar Year 2015

Hospital	IP Discharges	IP Readmissions
Doctors' Community Hospital	80	18
Greater Laurel Hospital	16	< 11
Prince George's Hospital Center	127	20
<u>Other Hospitals</u>	<u>225</u>	<u>19</u>
Grand Total	448	61

Source: CRISP, February 2016. HSCRC Case Mix Inpatient Data.

Using ENS Panel as of February 25, 2016.

30 day readmissions as defined by the HSCRC. Readmission data not yet available for December 2015.

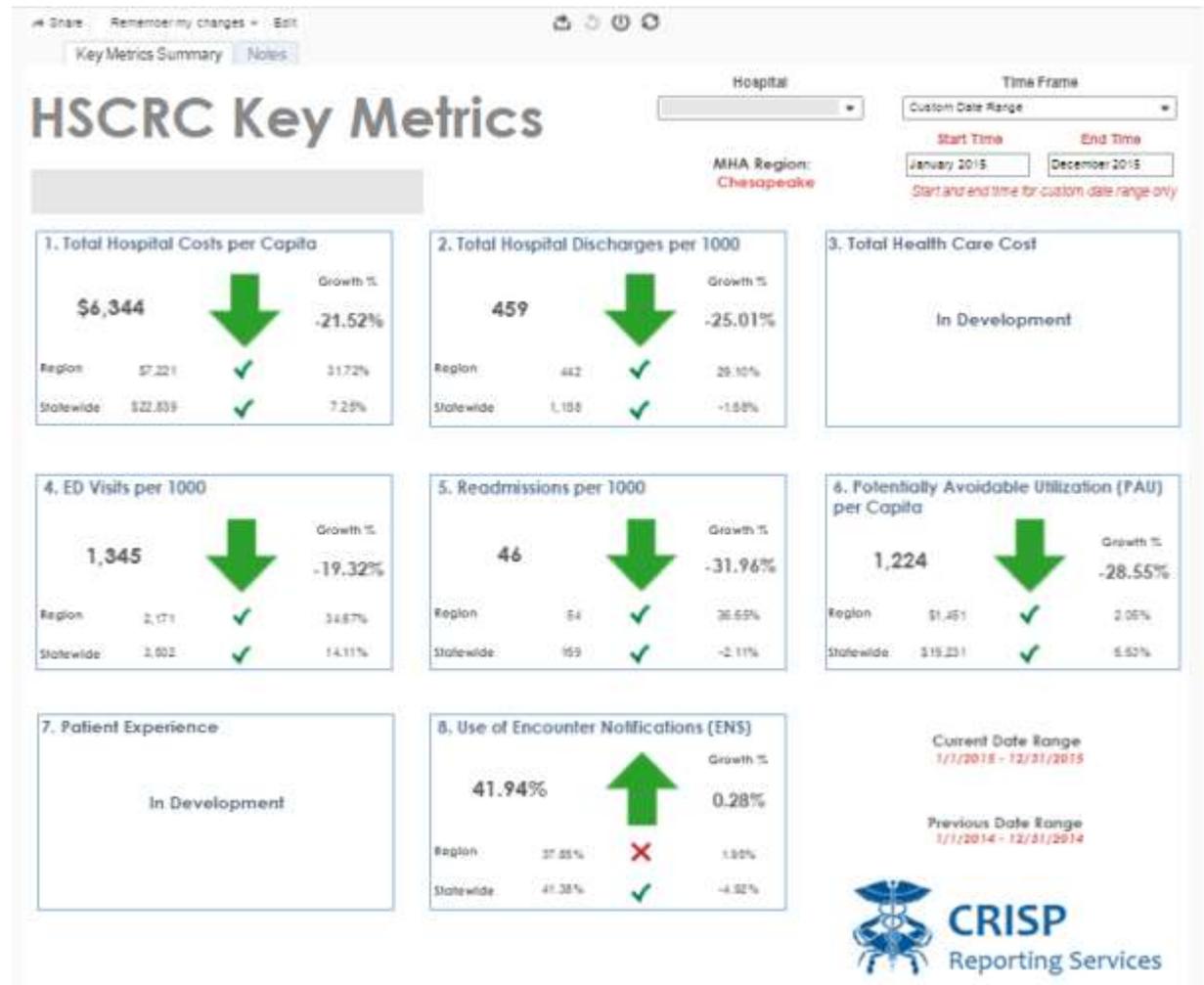
➤ Samples of ad hoc reports requested by participants in order to understand changes in utilization





Performance Measurement - Hospitals

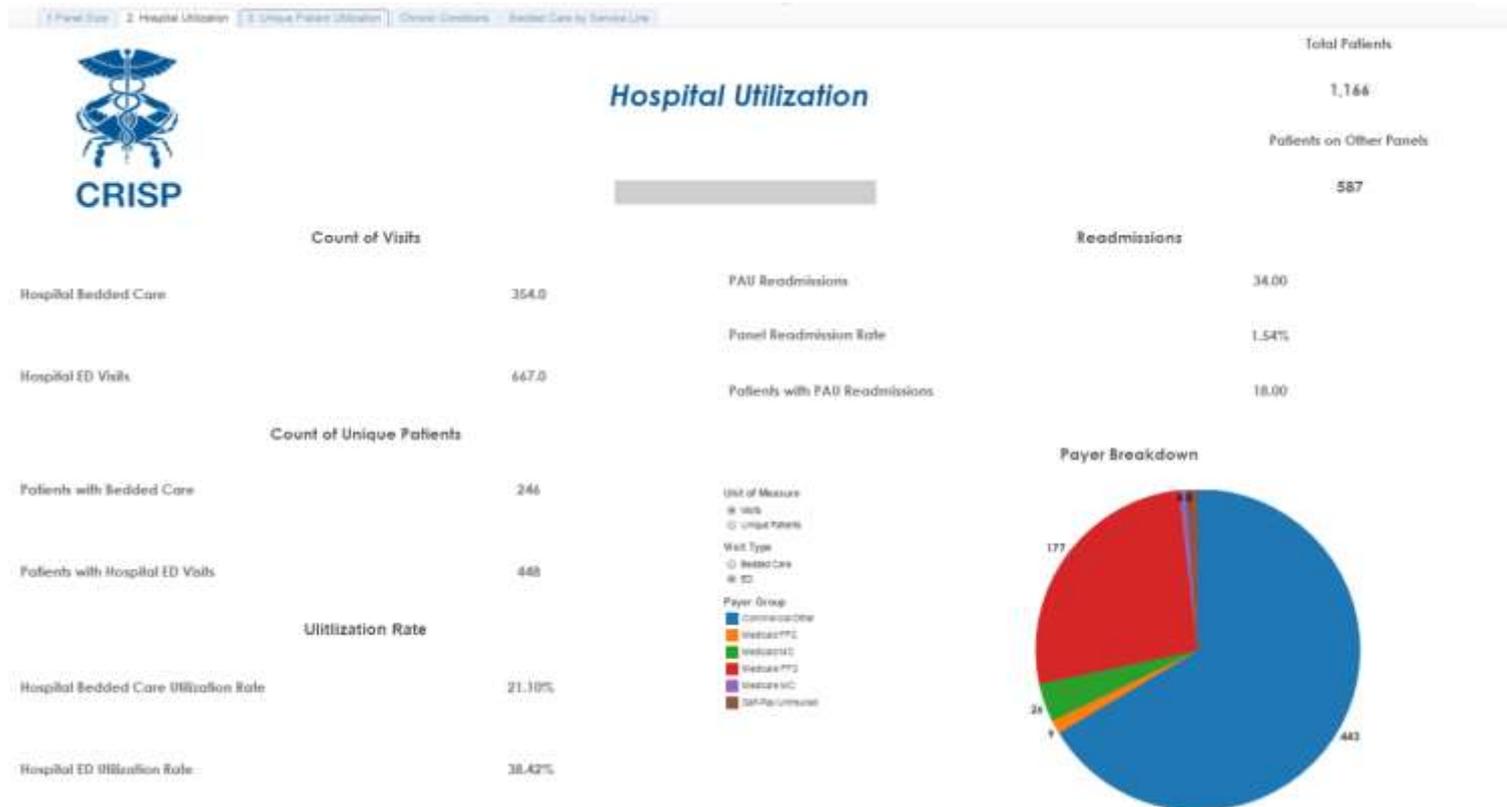
- New dashboard coming soon to help hospitals understand status against metrics defined by the HSCRC





Performance Measurement - Practices

- Early draft dashboard showing utilization rates and other statistics for a participant's panel





Privacy and Security

All CRISP services are fully compliant with State and Federal Regulations, and HIPAA. CRISP adheres to industry best practices, such as:

- Passwords must be 8 characters, contain 3 character types, and change every 90 days
- All PHI is encrypted in transit; all PHI will be encrypted at rest in January
- Client-side rendering is limited or removed from Tableau reports, and users are encouraged to clear their web browser cache after viewing reports

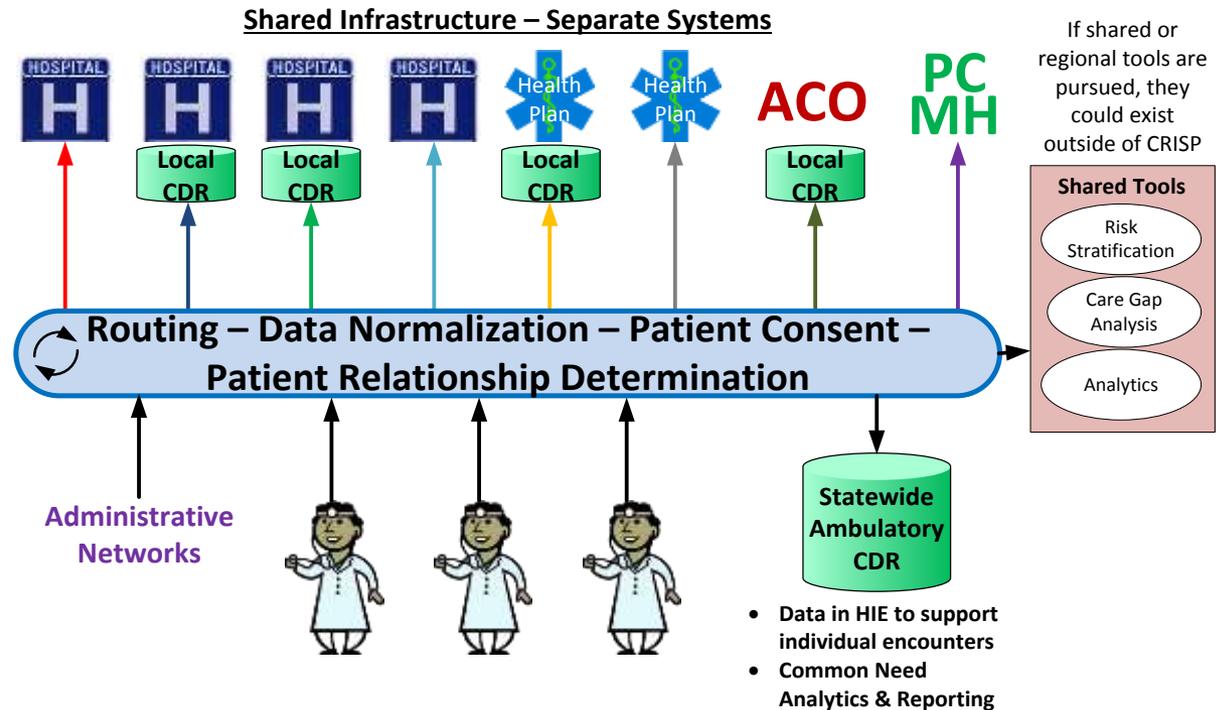
All participating organizations must distribute opt-out information to patients. CRISP is working to enhance patient information shared by providers, as well as developing more granular consent policies.



Data Router and Non-Hospital Connectivity

Key Functions include:

- Consent management
- Data normalization
- Data routing
- Patient-provider relationships determination and management



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 determine patient-provider relationships. These approaches may rely on connectivity through a health system, through a hosted EHR, directly to the practice, or via an administrative network.



Router Continued

- **Connectivity and Routing** – inclusive of a range of connectivity approaches including connections to practice through health systems, direct connectivity to EHRs, hosted EHR connectivity, and administrative network connections.
- **Data Normalization** – applications of message transformation and vocabulary mapping services to inbound data.
- **Relationship Determination** – patient to provider relationships could be established and maintained through a range of data types flowing through CRISP, for example by using administrative claim data and ENS subscription panels. Other tools to enable management of those relationships are also planned in order to facilitate program enrollment (and consent), such as CCM.
- **Consent Engine** – next slide...



Router Consent Engine

- Centrally managed consent engine will still require provider/care manager patient engagement and a significant patient education campaign.
- Patients will be given additional granularity over clinical data flows (more than 'all-in' or 'all-out').
- The types of data that can flow into the router for a patient and the types of users that can access that data will be configurable





Patient Consent and Granular Control

- Clear need for greater patient awareness and control over their data
 - Patient relationships and education is the responsibility of participating providers/organizations
 - CRISP can better support our participants
- Subgroup of the CRISP Board reviewing best practices
- Router technology enables more specific customization over where data goes
 - No longer restricted only to sharing everything or opting out of everything



Patient Identity Validation

Can be validated through a variety of data sources...

- Public records
- Credit reports
- Consumer demographics
- Self-reported marketing data

...At numerous organizations

- Experian
- LexisNexis
- Idology

Knowledge-based authentication:

- Users answer questions based on the data and algorithm assigns an identity “score” – either Verified or Not Verified



Patient Identity Validation

Barriers at CRISP

- **Cost**
 - Upfront fees
 - Service costs are calculated on per user validation basis rather than fixed-price

- **Time & Effort**
 - Integration of new tool requires modification of current registration process/website
 - Retraining support team



Questions and Discussion



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