



CRISP

*Connecting Physicians With Technology
to Improve Patient Care in Maryland*

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Chesapeake Regional Information System for Our Patients

Maryland Health Care Commission

Update from CRISP

June 2013



CRISP Mission and Vision

Chesapeake Regional Information System for Our Patients

Mission

To advance the health and wellness of Marylanders by deploying health information technology solutions adopted through cooperation and collaboration.

Vision

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



Numbers at a Glance

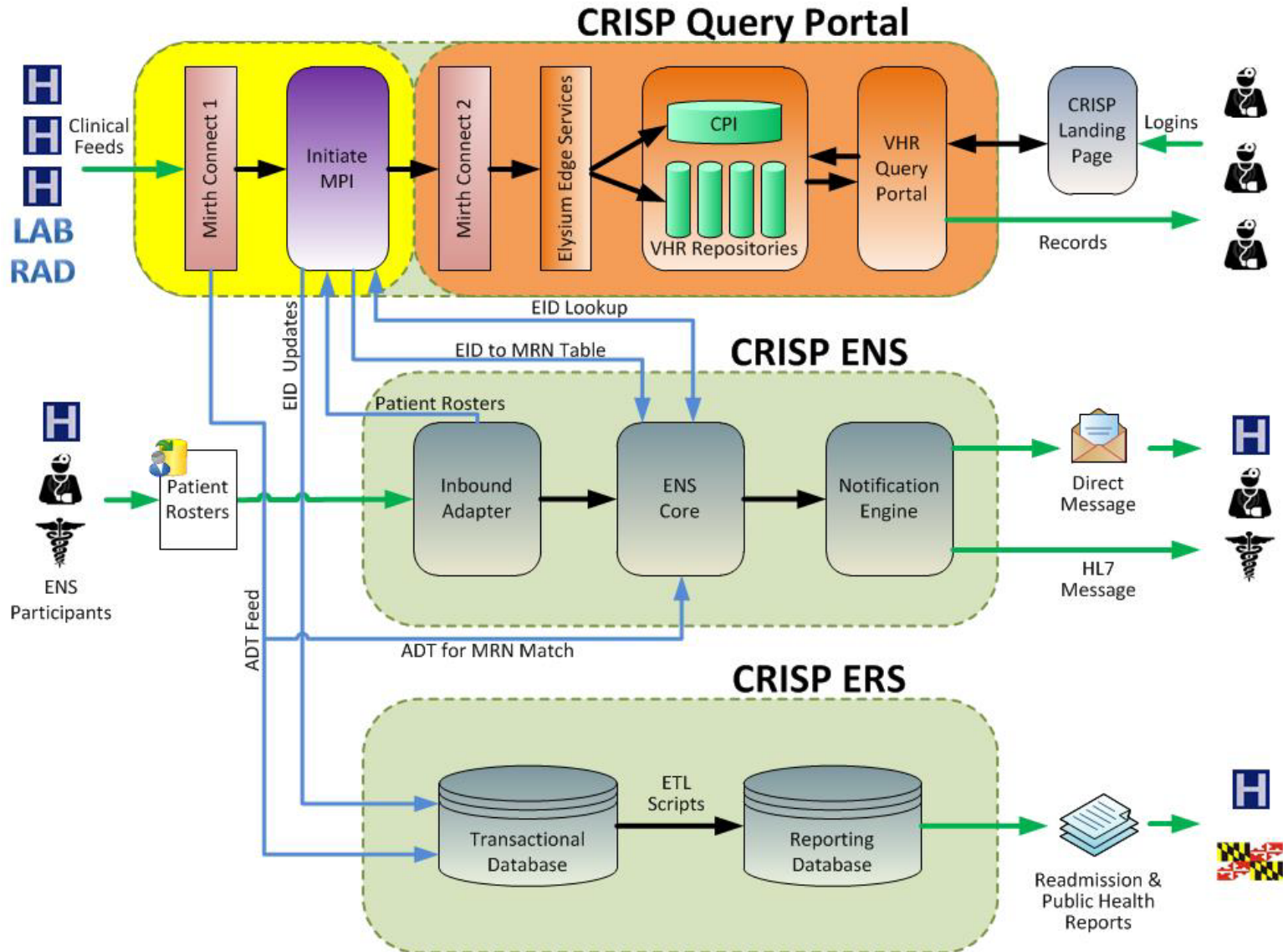
Chesapeake Regional Information System for Our Patients

Progress Metric	Mar '12	May '13
Live Hospitals	48	47
Live Labs and Rad Centers (non-hosp)	5	9
Live Clinical Data Feeds	55	98
Identities in MPI	~2.8M	~5.4M
Lab Results Available	~7.8M	~29M
Radiology Report Available	~ 2.4M	~8M
Clinical Documents Available	~ 1.1M	~4M
Opt-Outs	798	2,031
Queries (past 30 days)	887	~14,000
Notifications (past 30 days)	0	~34,000
Participating physicians (query & notification)	129	~1,200



Technical Architecture Overview

Chesapeake Regional Information System for Our Patients





Query Portal

Chesapeake Regional Information System for Our Patients

Browser address bar: [https://crisptest.axolotl.com/EA/EmergencyDocuments.nsf/\(wProduceTabbedInterface\)?OpenAg...](https://crisptest.axolotl.com/EA/EmergencyDocuments.nsf/(wProduceTabbedInterface)?OpenAg...) SMITH, John J [16-Jan-1942]

Navigation: VHR Home | Inbox | Support Request | Change Password | Home | Links | Help | Log Out

Search filters: SMITH, John J - 01/16/1942 M Visit: [] Facility: [] From: 1/1/2006 To: 5/9/2011

Navigation tabs: All | Summary | Cumulative Lab | Lab | Radiology | Reports | ADT | Consent | Office Memos | Encounters | Orders | Patient Info | Open Report

Lab

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9/30/2006 4:18:00 PM	CBC	T Nguyen
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9/30/2006 4:18:00 PM	OP PROTIME	R Jones
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9/30/2006 4:18:00 PM	TROPONIN I	J Contreras
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9/30/2006 4:18:00 PM	CPK +MB IF INDI	J Wallaby
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9/30/2006 4:18:00 PM	BASIC PANEL-OP	R Jones

Radiology

<input type="checkbox"/>	<input type="checkbox"/>	2/13/2007 10:10:00 AM	HANDS	T Kennedy
<input type="checkbox"/>	<input type="checkbox"/>	9/30/2006 3:00:00 AM	US CAROTID ART	M Keeler
<input type="checkbox"/>	<input type="checkbox"/>	9/30/2006 3:00:00 AM	CT BRAIN W/O	T Morningstar
<input type="checkbox"/>	<input type="checkbox"/>	6/10/2006 3:00:00 AM	CHEST 2 VIEWS	J Contreras
<input type="checkbox"/>	<input type="checkbox"/>	6/5/2006 3:00:00 AM	CHEST 2 VIEWS	J Wallaby

Reports

<input type="checkbox"/>	6/15/2010	Cancellation Policy	D Pcp
<input type="checkbox"/>	6/15/2010	Cancellation Policy	D Pcp
<input type="checkbox"/>	12/19/2006 3:00:00 AM	Chart Notes	M Keeler
<input type="checkbox"/>	10/11/2006 3:00:00 AM	Chart Notes	T Morningstar
<input type="checkbox"/>	8/22/2006 3:00:00 AM	Chart Notes	T Nguyen

ADT

No results matched your search.

Cumulative Lab Not all lab test results and observations can be displayed in a cumulative view. For specific observations not present in this view, search within the lab or other tabs.

Elements	09/30/06 04:18 PM	09/19/06 01:45 PM	08/14/06 11:35 AM	06/10/06 12:45 PM	06/07/06 11:25 AM	06/06/06 09:13 AM	06/05/06 02:02 PM	06/04/06 09:37 AM	Next
HCT	34.1	35.9		31.1		25.5	24.0	29.1	
BANDS	3			12			8		
RDW	13.1			12.2		12.8	14.0	12.9	
PROTEIN-TOTAL	6.3								
LDL			85		82				
ESR									

Coming soon... 

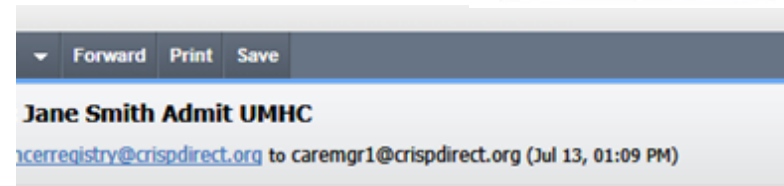


Encounter Notification Service



Chesapeake Regional Information System for Our Patients

- ENS went live in August 2012
- Subscribers submit a patient panel to CRISP and identify which types of alerts they would like to receive
- Phase 1 notifications include demographic information and the event types; Phase 2 (available from a dozen hospitals now) include chief complaint and discharge diagnosis
- Over 500 physicians receive alerts, for a patient panel of 750,000
- Other care coordinators, such as at Medicaid MCOs, are beginning to use ENS



bramble@crispdirect.org

- OriginalMessage ----
From: caremgr1@crispdirect.org
To: sjcancerregistry@crispdirect.org
Date: Tue, Jul 10, 2012, 09:01 AM
Subject: Jane Smith Admit UMHC

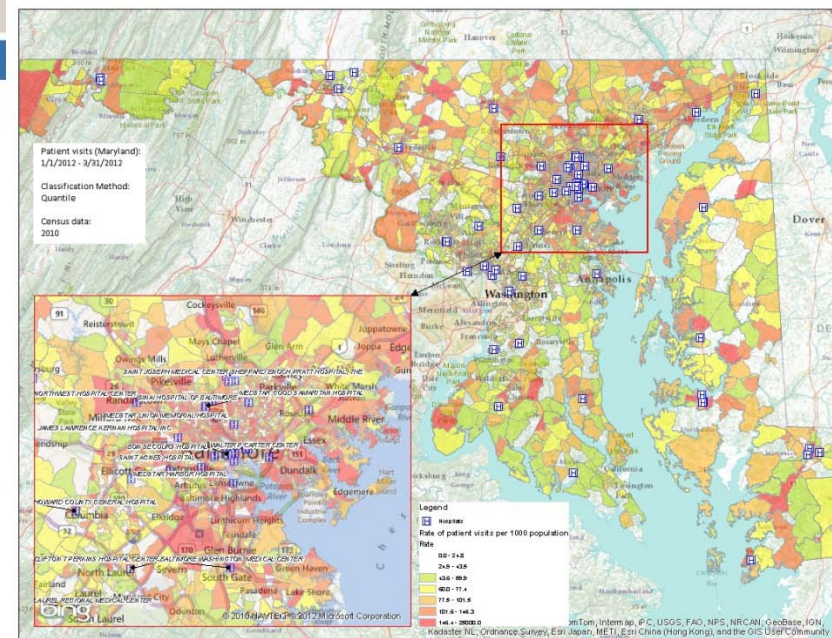
Date: 03-22-2012 23:48
Event: Patient Admit
Name: Jane Smith
Patient ID: 0000001111
Facility: Hopkins
DOB: 03-01-05
Address: 1112 Main Street,
Gaithersburg, MD 33310
Gender: F
Phone: 301-443-9999



CRISP Encounter Reporting System

Chesapeake Regional Information System for Our Patients

- ERS is a CRISP-developed solution that relies on the real-time HL7 Admission-Discharge-Transfer (ADT) messages from all hospitals to produce utilization reports
- ADT data can be extracted for various time periods and processed through scripting logic to produce consolidated reports showing in-patient admissions, ER visits, or other hospital utilization data across all Maryland hospitals.
- Our initial efforts have focused on creating a inter/intra-hospital 30-day readmission reports for hospitals



██████████ Hospital
All Cause 30-Day Readmissions [Basic Inter] 8/1/2012 - 8/31/2012

Total Admissions ██████████ Admissions which were a 30-day Readmission: 69 Incoming Readmission Rate: 8.2%			Total Discharges: ██████████ Total 30-day Readmission: 112 Outgoing Readmission Rate: 12.9%		
IH = Admissions that represent a Readmission			OUI = Discharges resulting in a Readmission		
Source Hospital	Readmit #	% of Readmit	Destination Hospital	Readmit #	% of Readmit
██████████	49	71.0%	██████████	77	68.8%
██████████	5	7.2%	██████████	12	10.7%
██████████	4	5.8%	██████████	6	5.4%
██████████	3	4.3%	██████████	5	4.5%
Meritus Medical Center	2	2.9%	Suburban Hospital	3	2.7%
Carroll Hospital Center	1	1.4%	Carroll Hospital Center	2	1.8%
Doctors' Community Hospital	1	1.4%	Sinal Hospital of Baltimore	2	1.8%
Laurel Regional Hospital	1	1.4%	Shady Grove Adventist Hospital	2	1.8%
Frederick Memorial Hospital	1	1.4%	Meritus Medical Center	1	0.9%
Johns Hopkins Hospital	1	1.4%	University of Maryland Medical Center	1	0.9%
Sinal Hospital of Baltimore	1	1.4%	Howard County General Hospital	1	0.9%



MHCC Partnership

Chesapeake Regional Information System for Our Patients

MHCC plays certain formal roles in the HIE efforts

- HIE Regulation with Policy Board input
- Grant funding oversight
- Naming of a State Designated HIE
- Certification of MSOs for the REC program

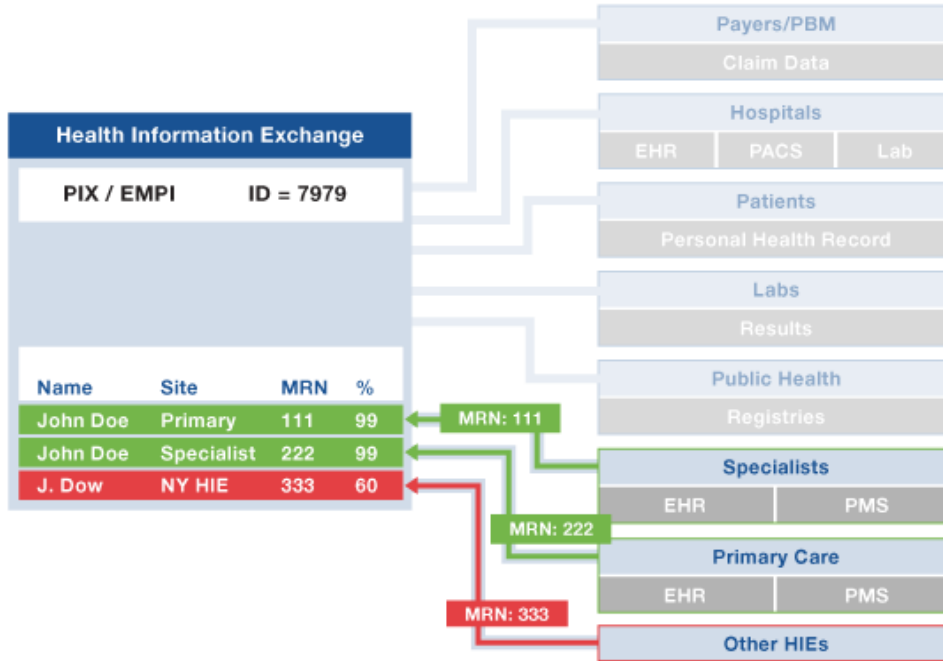
MHCC plays probably more important roles as partners

- Collaboration on Use Case development
- Engagement of provider community
- Coordination with public health efforts
- Joint response or feedback to new funding opportunities
- Liaison with state and federal officials
- Participation in CRISP governance meetings



Master Patient Indexing

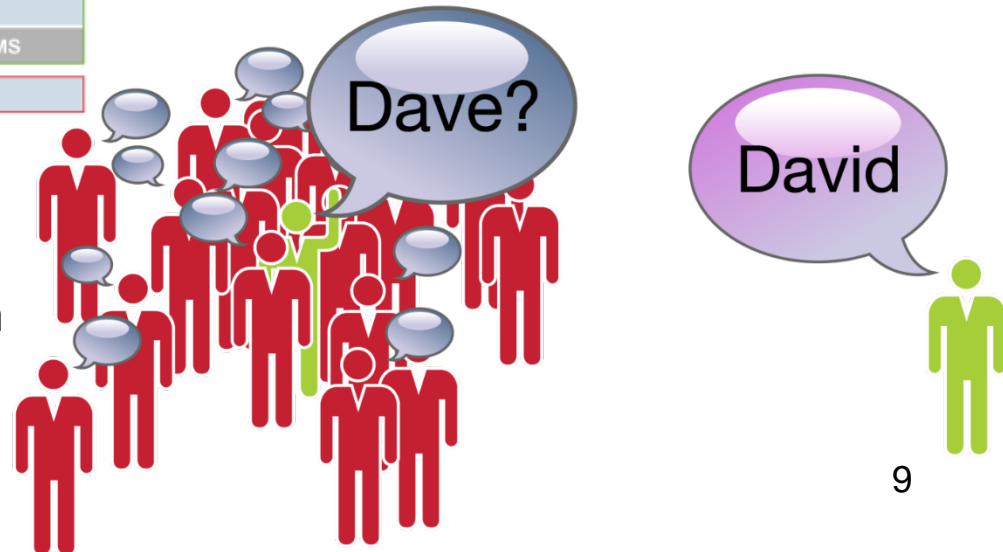
Chesapeake Regional Information System for Our Patients



The Challenge: accurately and consistently linking identities across multiple facilities to create a single view of a patient.

A zero or near-zero tolerance of a “false positive” match with a low tolerance of a “false negative” match.

Accurate cross-entity patient identity management is a critical function for an HIE to serve multi-organizational reform initiatives





CRISP Project with the APCD

Chesapeake Regional Information System for Our Patients

CRISP is partnered with the Maryland Health Benefits Exchange and MHCC, to link enrollment records with a common (but fully de-identified) record number

- Will allow analysis of “churn” between qualified health plans and other insurance
- Is a step towards ways to view full patient care patterns, which is necessary in reimbursement models built on population health management





HIE Sustainability

Chesapeake Regional Information System for Our Patients

	2010 (Actual)	2011 (Actual)	2012 (Actual)	2013 (CE)	2014 (Budget)	2015	2016	2017
Hospital Fees	\$ -	\$ -	\$ 563,085	\$ 1,402,000	\$ 1,454,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000
Physician Fees	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Federal HIE Grant #1	\$ 606,451	\$ 2,643,543	\$ 3,313,916	\$ 1,999,997	\$ 750,017	\$ -	\$ -	\$ -
State HIE Grant #1	\$ 1,802,143	\$ 1,992,356	\$ 2,024,758	\$ 1,986,772	\$ 2,193,972	\$ -	\$ -	\$ -
New Payor Related Source						\$ 1,500,000	\$ 1,500,000	\$ 1,500,000
New Public Source						\$ 1,000,000	\$ 1,000,000	\$ 1,000,000
New Initiative Funding					???	???	???	???
Total Revenue	\$ 2,408,594	\$ 4,635,899	\$ 5,901,759	\$ 5,388,769	\$ 4,397,989	\$ 4,000,000	\$ 4,000,000	\$ 4,000,000
Wages	269,895	247,350	246,433	285,915	270,000	350,000	350,000	350,000
Fringe Benefits	80,969	82,182	118,438	77,101	84,000	100,000	100,000	100,000
Other Employee Costs	-	-	78,407	82,510	58,000	50,000	50,000	50,000
Non-Capital Equipment	6,749	1,120	3,343	-	18,000	5,000	5,000	5,000
Software & Services	270,108	2,582,495	2,790,549	2,200,000	2,597,000	2,000,000	2,000,000	2,000,000
Supplies	6,410	8,343	24,114	22,659	11,000	10,000	10,000	10,000
Rent	29,163	35,871	30,577	35,325	20,000	30,000	30,000	30,000
Postage	100	330	619	207	1,000	1,000	1,000	1,000
Contract labor	1,603,524	1,544,460	1,860,917	2,105,163	1,286,000	1,200,000	1,200,000	1,200,000
Legal Expense	193,833	220,754	114,049	192,612	120,000	80,000	80,000	80,000
License & Registration	2,412	4,201	2,780	-	1,000	2,000	2,000	2,000
Memberships/Dues	200	3,240	2,970	-	-	1,000	1,000	1,000
Telecom	6,132	7,474	16,254	13,291	7,000	12,000	12,000	12,000
Meals & Entertainment	8,264	355	1,127	-	6,000	10,000	10,000	10,000
Outreach & Communication	9,100	79,264	25,273	19,503	45,000	20,000	20,000	20,000
Insurance	6,005	6,014	11,996	17,549	10,000	20,000	20,000	20,000
Training	3,595	7,115	5,335	5,338	8,000	8,000	8,000	8,000
Bank Fees	200	-	-	-	-	-	-	-
Travel	23,935	20,412	24,930	26,103	19,000	15,000	15,000	15,000
Other	(112,198)	(221,101)	4,630	-	6,000	6,000	6,000	6,000
Conference lines	200	6,020	8,202	5,493	3,000	5,000	5,000	5,000
Capital			330,816	-			200,000	
Gross Spending	\$ 2,408,594	\$ 4,635,899	\$ 5,701,759	\$ 5,088,769	\$ 4,570,000	\$ 3,925,000	\$ 4,125,000	\$ 3,925,000



Other CRISP Projects

Chesapeake Regional Information System for Our Patients

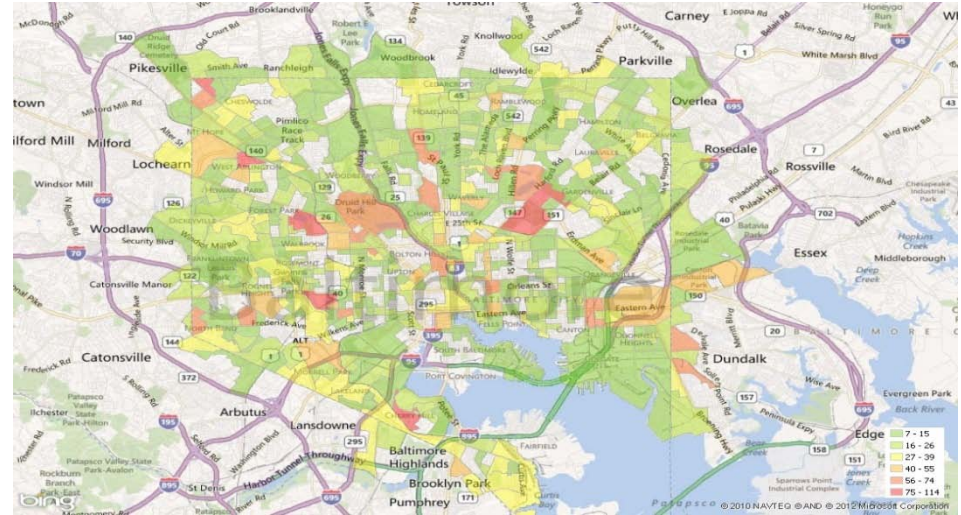
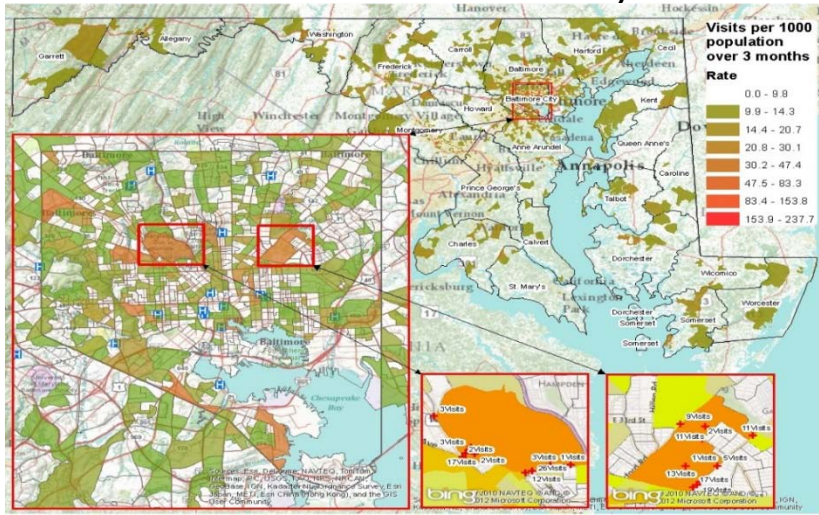
Project	Funding
Prescription Drug Monitoring Program – implementation of a provider access portal	\$750k
State Innovation Model grant – partner with DHMH for population health mapping and analysis	\$450k
Medicaid IAPD – deploying new HIE functionality, such as single sign on, to Medicaid providers	\$2,600k
Regional Extension Center – Consulting assistance to PCPs deploying an EMR, through sub-grants	\$1,250
Health Benefit Exchange – three projects to assist the HBE, one being a link with APCD data	\$1,300
Challenge Grant – extending HIE functionality through sub-grants to long-term-care providers	\$800k



Next Steps

Chesapeake Regional Information System for Our Patients

- Population health management reports to hospitals and care teams
- Prescription Drug Monitoring information during clinical encounters
- Geographic mapping for public health officials
- Readmission reports by line of service and other similar information gained through pairing encounters and claims data
- More granular patient control of clinical information
- Single sign-on and HIE ease of use
- Health plan participation in HIE
- Advanced Directives and MOLST availability
- Inter-state connectivity





Discussion

Chesapeake Regional Information System for Our Patients



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443-285-0161