
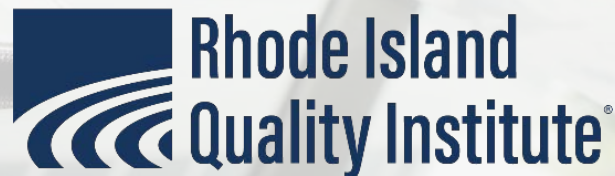




Innovations in using HIE to assist with Transitions of Care

Margaret M. Menna, MBA, *Senior Training & Education Specialist*

Jennifer C. Cormier, MEd, RN, *Senior Quality Improvement Advisor*



*Presentation to CTC Learning Collaborative
October 24, 2019*

The background of the bottom half of the slide features a blurred image of a medical chart with a stethoscope resting on it. The chart has various text and symbols, including a large "EKG" graphic. A network diagram with blue nodes and lines is overlaid on the bottom left of the chart area.



Rhode Island's state-wide Health Information Exchange (HIE)

Be your own healthcare advocate

CurrentCareRI.org

Patients Decide to Enroll...



- RI is an “Opt-In” state
- More than 530,000 Rhode Islanders enrolled

One, two, three, then add a designee!

1

SIGN UP for CurrentCare

CurrentCare is a *free* service that keeps all of your health records in one place. Save time, money and discomfort from unnecessary x-rays or lab tests, because this information is already in CurrentCare.



2

ADD CurrentCare for Me

Take control of your own healthcare record with CurrentCare for Me. Access your record online 24/7, keep track of your meds, lab tests and more.



3

GET Peace of Mind

- You can track your own health information and healthcare online 24/7 from anywhere
- Avoid prescription errors and repeat tests



+

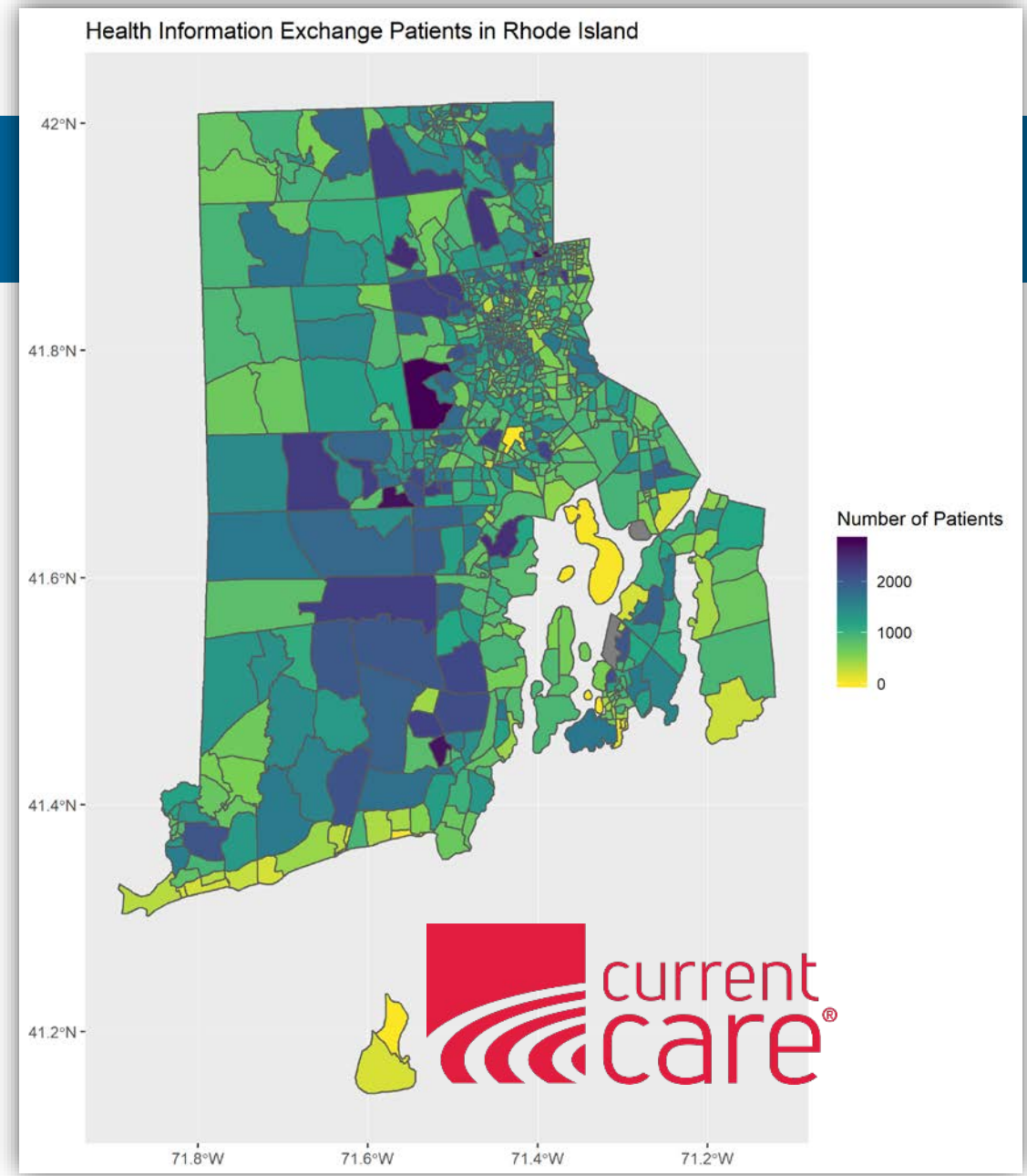
Designee

When you sign up for CurrentCare for Me, you can easily designate access to your health record to someone else on your behalf. Just go to: CurrentCareRI.org/Designee and sign up today!

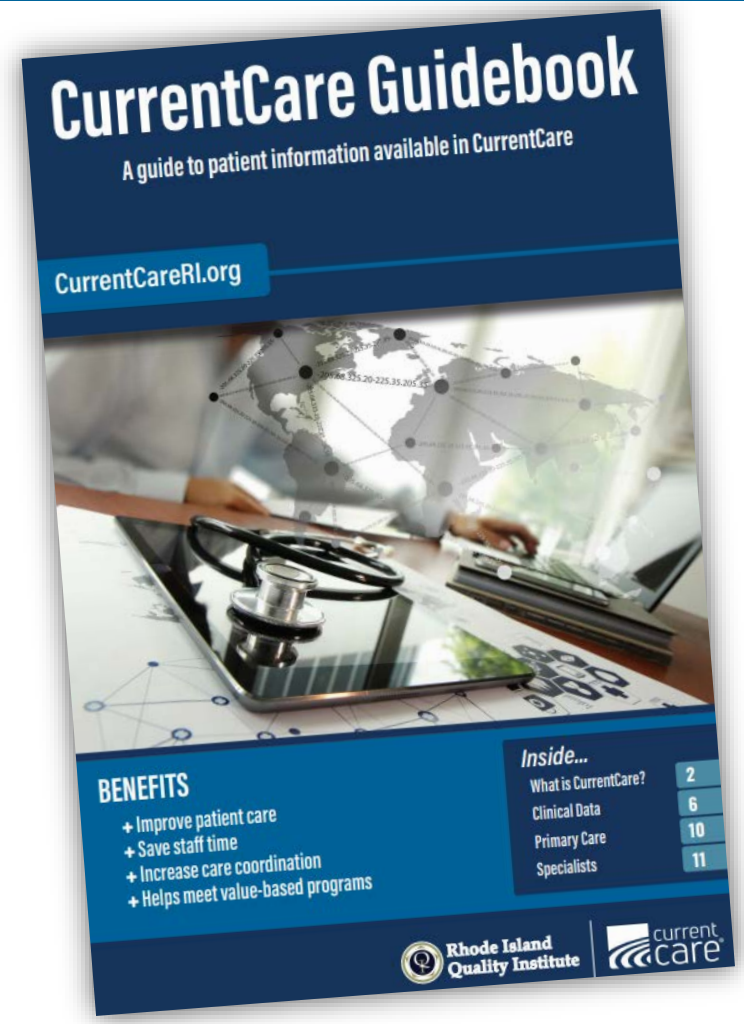


RIQI Hosts Rhode Island's Statewide HIE

- 525,000 patients have enrolled - about half the state
- Receives clinical data from 521 sites, including all hospitals in the state
- Provider and patient web portals for record lookup
- Integrations at major healthcare systems call up record automatically within Electronic Health Record (EHR)
- We are a non-profit with the mission of improving healthcare in the state of RI and beyond



Where does the data come from?



- *Over 520 data sources from:*
 - Hospital Admissions, Discharges, and Transfers (ADTs)
 - Labs
 - Imaging facilities
 - Pharmacies
 - Pharmacy benefit managers
 - Providers' EHRs
 - Urgent Care Facilities
 - Skilled Nursing Facilities
 - Rhode Island Emergency Medical Services
- www.currentcareri.org/guidebook

	Encounter Documents			ADTs*	Encounter Data				Tests/Results		
	Clinical Summary	Discharge CoC	Discharge Summary		Allergies	Meds	Diagnoses	Problem List	Labs	Imaging	EKG Imaging
Hospital Systems & Facilities											
LIFESPAN											
Rhode Island Hospital (RIH) <i>(excluding BH units)</i>	✓	✓		✓	✓	✓	✓	✓	✓	✓	
Hasbro Children's Hospital	✓	✓		✓	✓	✓	✓	✓	✓	✓	
The Miriam Hospital (TMH)	✓	✓		✓	✓	✓	✓	✓	✓	✓	
Newport Hospital (NPH)	✓	✓		✓	✓	✓	✓	✓	✓	✓	
Lifespan Labs	///	///	///	///	///	///	///	///	✓	///	///
<i>Ambulatory Practices - See Pages 8-11</i>	✓	///	///	///	✓	✓	✓	✓	///	///	///
Gateway Health Center - Part 2 Data	✓ Thru 2017	///	///	///	✓ Thru 2017	✓ Thru 2017	✓ Thru 2017	✓ Thru 2017	///	///	///
CARE NEW ENGLAND											
Kent Hospital <i>(excluding BH units)</i>				✓	✓		✓	✓	✓		✓
Women & Infants (WIH)	✓			✓	✓	✓	✓	✓	✓		✓
Butler Hospital - Part 2 Data	✓ Thru 2016				✓ Thru 2016	✓ Thru 2016	✓ Thru 2016	✓ Thru 2016			
<i>Ambulatory Practices - See Pages 8-11</i>	✓	///	///	///	✓	✓	✓	✓	///	///	///
The Providence Center - Part 2 Data	✓ Thru 2017	///	///	///	✓ Thru 2017	✓ Thru 2017	✓ Thru 2017	✓ Thru 2017	///	///	///
CHARTERCARE											
Our Lady of Fatima Hospital	✓		✓	✓	✓	✓	✓	✓	✓	✓	
Roger Williams Medical Center (RWMC)	✓		✓	✓	✓	✓	✓	✓	✓	✓	
<i>Ambulatory Practices - See Pages 8-11</i>	✓	///	///	///	✓	✓	✓	✓	///	///	///
LANDMARK MEDICAL											
Landmark Medical Center (LMC)			NEW!	✓	✓		✓	✓	✓		
Rehab Hospital of RI (RHRI)			NEW!	✓	✓		✓	✓	✓		
YALE NEW HAVEN HEALTH											
L & M Hospital				✓	✓		✓	✓			
Westerly Hospital				✓	✓		✓	✓	✓		
Yale New Haven Hospital											
SOUTH COUNTY HOSPITAL											
South County Hospital (SCH)	✓			✓	✓	✓	✓	✓	✓		
<i>Ambulatory Practices - See Pages 8-11</i>	✓	///	///	///	✓	✓	✓	✓	///	///	///
VA MEDICAL CENTER											
VA Medical Center	✓				✓	✓	✓	✓	✓ Docs Tab	✓ Docs Tab	
4 Outpatient Clinics	✓	///	///	///	✓	✓	✓	✓	✓ Docs Tab	✓ Docs Tab	///

Hatched indicate that data type is not applicable for the source
 Empty cell indicates that data from this source is not currently available
 * ADT = Modification of ED/Inpatient Admission, Discharge and Transfers

Other Data Sources (Independent Facilities)	Encounter Documents			ADTs ⁺	Encounter Data				Tests/Results		
	Clinical Summary	Discharge CoC	Discharge Summary		Allergies	Meds	Diagnoses	Problem List	Labs	Imaging	EKG Imaging
URGENT CARE											
Armistice Urgent Care Center	✓				✓	✓	✓	✓			
CVS Minute Clinics (8 sites)	✓				✓	✓	✓	✓			
Providence Community Health Centers Express	✓				✓	✓	✓	✓			
IMAGING											
Advanced Radiology										✓	
Coastal Imaging										✓	
Open MRI of New England										✓	
Rhode Island Medical Imaging										✓	
XRA Medical Imaging										✓	
LABS											
Coastal Medical (labs)									✓		
Dominion Diagnostics									✓		
East Side Clinical labs									✓		
RI Department of Health (DOH)									NEW!		
Quest Diagnostics									✓		
SKILLED NURSING FACILITIES											
Genesis HealthCare	✓			✓	✓	✓	✓	✓			
Health Concepts											
AMBULANCE VISITS											
RI EMS - All Ambulance Companies	NEW!			NEW!	NEW!						

Hashes indicate that data type is not applicable for the source Empty cell indicates that data from this source is not currently available + ADT = Notification of ED/Inpatient Admission, Discharge and Transfers

SKILLED NURSING FACILITIES > Expanded

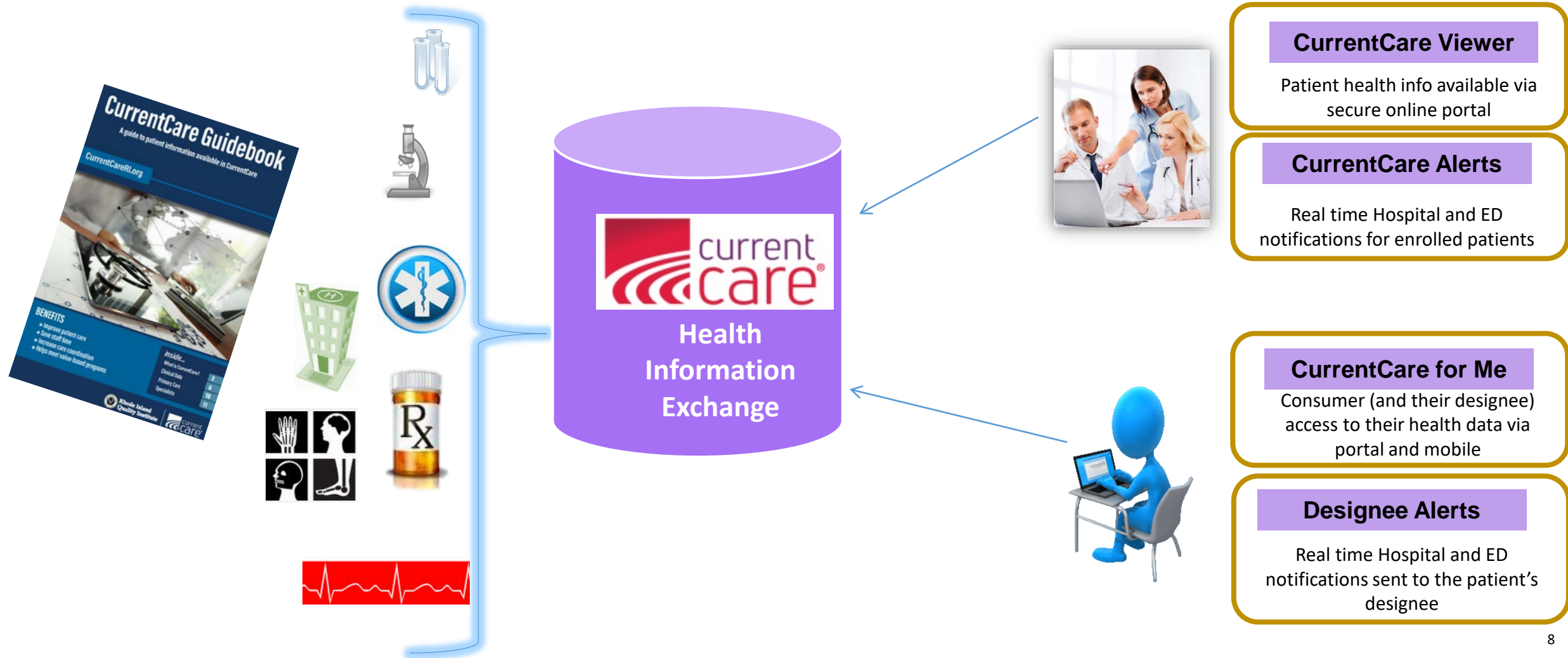
Genesis HealthCare

- Coventry Skilled Nursing & Rehab
- Grand Islander Center
- Grandview Center
- Greenville Center Skilled Nursing & Rehab
- Greenwood Center
- Kent Regency
- Pawtucket Center Skilled Nursing & Rehab
- South County Nursing & Rehab Center
- Warren Center Skilled Nursing & Rehab

Medication Data Sources

Pharmacies	Pharmacy Benefit Managers (SureScripts)	Providers/Hospitals
Any Prescriptions from:	Prescriptions at any pharmacy through:	Medications as noted by participating provider organizations
CVS	CVS Caremark (CMX)	See Pages 4-11 for a list of provider and hospital organizations sending Clinical Summary data
Rite Aid	Express Scripts (ESII)	
Walgreens	Optum Rx (ORX)	
	Prime BCBSRI	
Displays as "Date Dispensed"	Displays as "Date Dispensed"	Displays as "Date Started"

Who Has Access to the Data?




CurrentCare Viewer Landing Page

- Patient Search
- Summary Report
- Part 2 History
- Knowledge Center
- RI PDMP
- Logout

Shelley , Fran **Female** **09/03/1949** **69 Years**

- + Encounters
- Clinical Documents
- Discharge Documents
- EMS Documents
- Allergies & Alerts
- Directives
- Conditions
- Medications
- Lab Results
- Diagnostic Imaging
- EKG Imaging
- Patient Surveys
- Vital Signs



CurrentCare Guidebook
A guide to patient information available in CurrentCare
CurrentCareRI.org



BENEFITS

- + Improve patient care
- + Save staff time
- + Increase care coordination
- + Helps meet value-based programs

Inside...

- What is CurrentCare? 2
- Clinical Data 6
- Primary Care 10
- Specialists 11

Rhode Island Quality Institute currentcare

Encounter Start	Facility	Department	Location	Care Providers	Encounter Number	Insurance	Reason for Visit
11/01/2016 07:39	S	RIEMS	EMS		358046		
12/22/2016 00:00	Hallett Center for Diabetes and Endocrinology				LIFESPAN5860864DEMO		12/22/2016 Telephone Hallett Center for Diabetes and Endocrinology 900 Warren Ave East Providence, RI 02914-1430 401-444-8344 Tessier, Christopher M, MD 900 Warren Avenue Suite 302 East Providence, RI 02914 401-444-8344 401-444-7870 (Fax)
10/12/2016 16:58	Emergency	CHARTERCARE	CHARTERCARE	ERA		CHARTERDEMO5604560	ABD PAIN N/V

Discharge Documents - Summary

- Discharge Summary - Encounter specific
- Opens in new window
- Shows discharge disposition

Patient Search Summary Report Part 2 History Knowledge Center

Shelley , Fran Elizabeth **Female** **09/03/1949**

+ Encounters
Clinical Documents
Discharge Documents
EMS Documents

Discharge Documents

Document	Provider	Doc Type	Source	Last Updated
Discharge Summary - Roger Williams ER Visit - 10/28/2016	ALEXIS CHARPING	Discharge Summary	CHARTERCARE	10/28/2016 18:49
Continuity of Care (CoC)		Discharge CoC	LIFESPAN	06/06/2015 00:00

Shelley , Fran Elizabeth Female 09/03/1949 69 Years

Discharge Document

Provider ALEXIS CHARPING

Doc
Type Discharge Summary

Symptoms are consistent with gastritis. Patient will be sent home with Zofran and instructed to follow up with her PMD. The patient expressed understanding and agrees with plan. All questions were addressed. The patient is able to ambulate with a steady gait. The patient is instructed to return to the ED with any changing or worsening symptoms. The patient is discharged in stable condition.

Departure

Time of Disposition: 18:48

Disposition: Home, Self-Care 01

Impression:

Primary Impression: Gastritis

Notes Condition: Stable

Scribe Attestation

Scribe Statement:

Alexis Charping 10/12/16, scribing for and in the presence of Dr. Antonio Barajas MD

Provider Attestation:

I personally performed the services described in the documentation, reviewed and edited the documentation which was dictated to the scribe in my presence, and it accurately records my words and actions Dr. Antonio Barajas MD 10/28/16.

Electronically signed by Dr. Antonio Barajas MD

Last
Updated 10/29/2016 19:36 CHARTERCARE
Document

Medication Data Sources



Medication Data Sources

Pharmacies	Pharmacy Benefit Managers (SureScripts)	Providers/Hospitals
Any Prescriptions from:	Prescriptions at any pharmacy through:	Medications as noted by participating provider organizations
CVS	CVS Caremark (CMX)	See Pages 4-11 for a list of provider and hospital organizations sending Clinical Summary data
Rite Aid	Express Scripts (ESI)	
Walgreens	Optum Rx (ORX)	
	Prime BCBSRI	
Displays as "Date Dispensed"	Displays as "Date Dispensed"	Displays as "Date Started"

www.currentcareri.org/guidebook

Medications

Patient Search Summary Report Part 2 History Knowledge Center RI PDMP Logout

Shelley, Fran Female 09/03/1949 69 Years

Encounters

- Clinical Documents
- Discharge Documents
- EMS Documents
- Allergies
- Directives
- Conditions
- Medications
- Lab Results
- Diagnostic Imaging
- EKG Imaging
- Patient Surveys

Medications From Last 90 Days

Item	Directions	Qty Dispensed	Duration	Status	Source	Prescribed By	Date Started	Date Dispensed
ACUPRIL 40 MG	TAKE 1 TABLET DAILY	30	30 Days	Executed	RITEAID	ALBERT PUERINI		07/14/2013
ACUPRIL 40MG			32 days	Inactive	Family Health and Sports Medicine		07/13/2013 00:00	
VICODIN 5/500 MG	TAKE 1 TABLET BY MOUTH EVERY 6	30	15 Days	Executed	RITEAID	ALTAF GIRACH		07/17/2013

Medications From 91 to 365 Days

Item	Directions	Qty Dispensed	Duration	Status	Source	Prescribed By	Date Started	Date Dispensed
ACETAMINOPHEN 500 MG			31 days	Inactive	Family Health and Sports Medicine		05/11/2013 00:00	
ACETAMINOPHEN 500 MG	TAKE 2 TABLETS BY MOUTH EVERY	100	30 Days	Executed	RITEAID	ALBERT PUERINI		05/12/2013

Medications From 366+ Days

Item	Directions	Qty Dispensed	Duration	Status	Source	Prescribed By	Date Started	Date Dispensed
LOTENSIN 40 MG TABLET				In Progress	Cumberland Primary Care		08/09/2011 00:00	
LOVESTATIN 20 MG			32 days	Inactive	Family Health and Sports Medicine		08/03/2011 00:00	
LOTENSIN 40 MG	TAKE 1 TABLET DAILY	30	30 Days	Executed	RITEAID	ALTAF GIRACH		08/09/2011
LOVASTATIN 20 MG	TAKE 1 TABLET DAILY	30	30 Days	Executed	RITEAID	ALBERT PUERINI		08/03/2011
AMOXICILLIN 875 MG	TAKE 1 TABLET BY MOUTH EVERY 1	20	10 Days	Executed	RITEAID	JEAN MCSMITH		09/15/2011

Incomplete Medication Records (one or more fields missing)

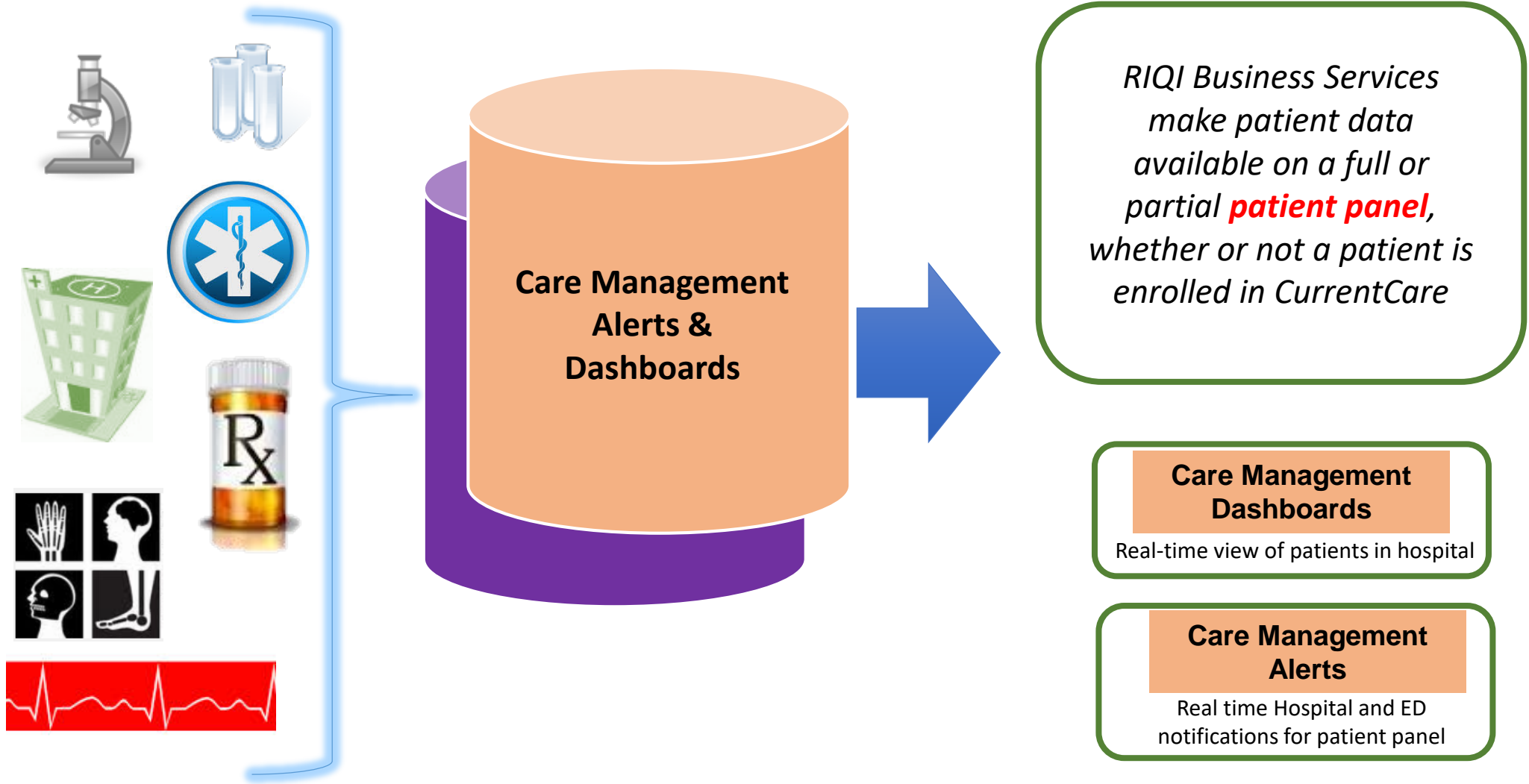
Item	Directions	Qty Dispensed	Duration	Status	Source	Prescribed By	Date Started	Date Dispensed
Item								

Vaccinations

Item	Date Administered	Status	Ordered By
Item			

Development of Care Management Alerts & Dashboards

HIE Products & Services



*RIQI Business Services make patient data available on a full or partial **patient panel**, whether or not a patient is enrolled in CurrentCare*

Care Management Dashboards
Real-time view of patients in hospital

Care Management Alerts
Real time Hospital and ED notifications for patient panel

Alerts- Direct Email Alerts for Admissions, Discharges and Transfers

Features available in Alerts only:

- Alerts received for **Emergency Medical Services (Ambulance)** encounters
- **Continuity of Care (CoC) Document** for discharges from Lifespan facilities
- **Diagnoses** related to the encounter
- **Potential Overdose Flag** based on keywords in the Reason for Visit and/or Diagnoses
- **Expired Flag** for patients who passed away at the facility

```
Subject Care Management Alert The Miriam Hospital Discharge from ED for [FIRSTNAME LAST] in panel(s) MyPanel
Lifespan CoC sample with no PHI.rtf (319 KB) -
The following patient has been discharged from The Miriam Hospital Emergency Department and is being followed for
the patient panel(s) below:

MyPanel

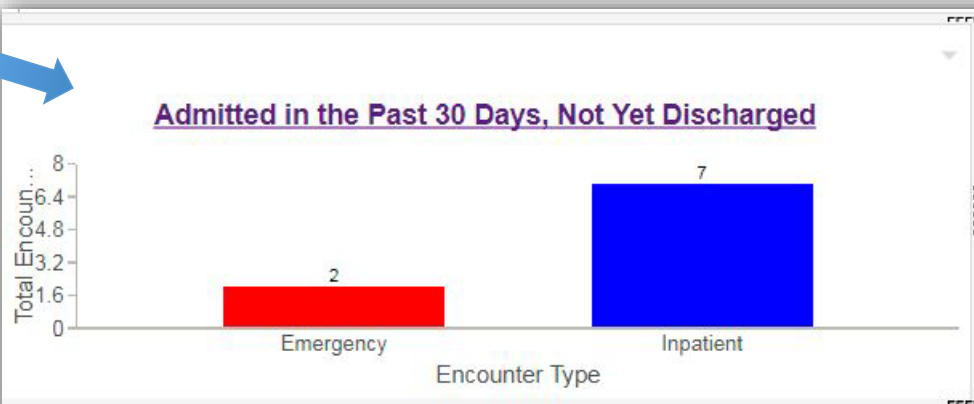
Name: FIRSTNAME LAST
CurrentCare ID: 123456
Date of Birth: 01/01/1970
Age: 48 years old
Gender: Female
Address: 1 Test Lane, Providence, RI 02908
Phone: 4015555555
Primary Care Provider: Physician Name
Referring Clinician: Physician Name
Admitting Clinician: Physician Name
Attending Clinician: Physician Name
Visit Start Date: 10/25/2018 08:00:00
Visit End Date: 10/25/2018 09:08:00
MRN: 00b0000-1234
Visit Number: 12345689
Discharge Disposition: 03
Discharge Location: St. Elizabeth's
Patient Class: Emergency Department

Reason for Visit: fatigue
Diagnosis/Diagnoses:
J18.9 Pneumonia, unspecified organism
H10.9 Conjunctivitis of right eye, unspecified conjunctivitis type

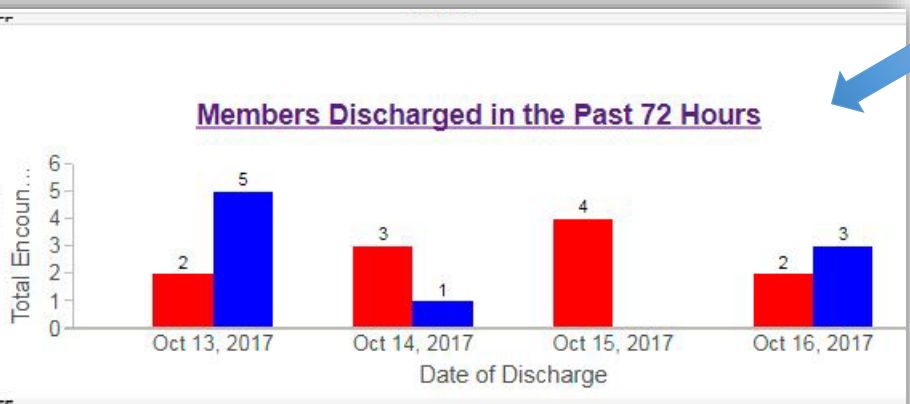
For Discharge Alerts, click here to learn more about Discharge Disposition and/or Discharge Location codes.
```


Main Dashboard answers three questions:

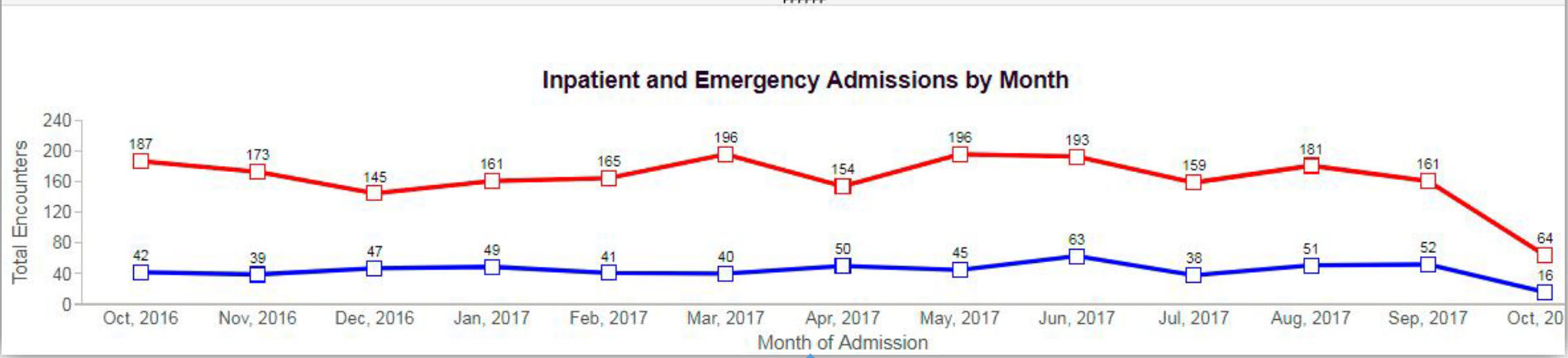
Who is currently in the hospital?



Who has recently been discharged?



How has your patient panel fared over time?



Dashboard Features – Patient Details

Patient Drilldown Report: Each patient encounter is displayed as a row and includes information documented at the hospital or skilled nursing facility

Report

1 - 44 out of 44 records, Page 1 of 1

High Risk	MPIID	CurrentCare Status	First Name	Middle Name	Last Name	Date of Birth	Age	Gender	Six Month ED Visits	Six Month Inpatient Visits	Charlson Comorbidity Index	LACE	Phone	Street Address
	111000	Enrolled	Masako		Hillyer	1988-02-09	28	F	1	1	1 (Low)	2 (Low)	401-829-0000	7626 Rock Creel
	222000	Not Enrolled	Sherlyn		Trumble	1954-04-19	62	F	90	2	3 (Moderate)	N/A	401-651-0000	9204 Sage St.
	333000	Enrolled	Tabatha		Baeza	1944-02-12	72	F	2	3	1 (Low)	2 (Low)	401-309-0000	840 SE. Oakwood
Yes	444000	Not Enrolled	Ettie	M	Maslowski	1964-02-11	52	F	26	8	7 (High)	8 (Moderate)	401-999-0000	8942 Cherry
	555000	Enrolled	Lavona		Fabela	1923-01-08	93	F	1	0	1 (Low)	N/A	401-523-0000	8348 Hillcrest
	666000	Enrolled	Antione		Rouff	1935-04-04	81	M	1	0	1 (Low)	N/A	401-579-0000	9552 Southfield
	777000	Not Enrolled	Moises		Eichler	1951-08-21	65	M	2	2	3 (Moderate)	N/A	401-263-0000	
	888000	Enrolled	Paris	A	Eliason	1957-11-12	58	M	1	3	5 (High)	6 (Moderate)	401-868-0000	
Yes	999000	Not Enrolled	Mckinley		Stumpff	1939-11-03	76	M	3	1	12 (High)	10 (High)	401-347-0000	

More columns

High Risk: This custom column is available for use by your organization to identify the high risk patients within your panel. This column is viewable within the dashboard (not available in Alerts).

Six Month ED/Inpatient Visits: Count of encounters in last six months derived from Analytics on the HIE

Charlson Comorbidity Index/LACE: Calculated field based on Diagnosis History, Number of Days in Hospital, etc.

Dashboard Features – Six Month Visits & Risk Scores

Six Month ED and Inpatient Visits

Drill down on the total to view the encounter details

Charlson Comorbidity Index

Predictor of mortality risk based on a weighted score of chronic conditions.

LACE index

Indicator of readmission risk based on:

- Length of stay
- Acuity of admission
- Charlson Comorbidity Index
- ED – 6 mos. ED visit count

Six Month ED Visits ▼	Six Month Inpatient Visits ▼	Charlson Comorbidity Index ▼	LACE ▼
<u>1</u>	<u>1</u>	1 (Low)	2 (Low)
<u>90</u>	<u>2</u>	3 (Moderate)	N/A
<u>2</u>	<u>3</u>	1 (Low)	2 (Low)
<u>26</u>	<u>8</u>	7 (High)	8 (Moderate)
<u>1</u>	0	1 (Low)	N/A
<u>1</u>	0	1 (Low)	N/A
<u>2</u>	<u>2</u>	3 (Moderate)	N/A
<u>1</u>	<u>3</u>	5 (High)	6 (Moderate)
<u>3</u>	<u>1</u>	12 (High)	10 (High)

These calculations are available exclusively in the dashboard (not available in Alerts)

Dashboard Features – Patient Details (slide 2 of 3)

Site Name ▼	Assigned Room ▼	Encounter Type ▼	Start Time ▼	End Time ▼	Admission Reason ▼	Admission Type ▼	Discharge Location ▼	Discharge Disposition ▼
Women and Infants Hospital		Inpatient	2016/05/02 13:51	2016/05/03 16:15	painful urination	E		1
Kent Hospital	232	Inpatient	2016/05/04 13:45	2016/05/05 16:09	alcohol withdrawal uncomplicated	I	CNE Home Care VNA	6
The Miriam Hospital	0478	Emergency	2016/05/02 12:13	2016/05/03 14:37	LOW BACK PAIN, FEVER			
Landmark Medical Center	LMC A11	Emergency	2016/05/02 05:07	2016/05/03 07:31	ABD PAIN, BACK PAIN	ER	HOME	HOME-HEALTH
Landmark Medical Center	LMC A17	Emergency	2016/05/03 22:15	2016/05/05 00:39	RASH	ER	RI Sub Acute	REHAB
Rhode Island Hospital	B604	Emergency	2016/05/03 19:46	2016/05/04 22:10	Sprain	I	RI Skilled N	HOSPICE
South County Hospital	316	Inpatient	2016/05/01 14:56	2016/05/02 17:20	STOMACH LOWER BACK PAIN	DIS IN		HOME
Rhode Island Hospital	P422	Inpatient	2016/05/04 11:12	2016/05/05 13:36	Vertigo	I		3
Grandview Center	N05	Inpatient	2016/05/03 23:56	2016/05/05 02:20	Shortness of breath	3 - Elective	VNA OF CARE NEW E	AND



Dashboard Features- Patient Details (slide 3 of 3)

Admission Reason ▼	Admission Type ▼	Discharge Location ▼	Discharge Disposition ▼	Referring Clinician ▼	Provider First Name ▼	Provider Last Name ▼	Custom2 ▼	Custom3 ▼
painful urination	E		1		Jane	Fake doc	TEAM A	BCBS
alcohol withdrawal uncomplicated	I	HOME	6	GOOD	John	Testdoc	TEAM B	TUFTS
LOW BACK PAIN, FEVER			HOME					
ABD PAIN	ER			SMITH	Jane	Fake doc	TEAM A	NONE
Rash			REHAB		John	Testdoc	TEAM B	BCBS
Sprain	3- Elective			EDDY	Jane	Fake doc	TEAM A	
Vertigo	DIS IN	RI Skilled N	HOSPICE	DOE	Jane	Fake doc	TEAM A	NHP
Shortness of breath		VNA OF CARE NEW ENGLAND		WILLIAMS	John	Testdoc	TEAM B	SELF PAY

Provider Name: Assigned doctor on Patient Panel submission

Custom fields: Allow for partners to apply Care Teams, Health Insurance type, etc.

Dashboard Features - Active Members Report

Care Management Clinical Dashboard Active Panel Members

Report

1 - 500 out of 1067 records, Page 1 of 3

Active Panel Members as of June 15, 2018

* Asterisks next to column headings indicate information submitted by your organization.

High Risk *	MPIID	CurrentCare Status	First Name *	Middle Name *	Last Name *	Date of Birth *	Age	Gender	Six Month ED Visits	Six Month Inpatient Visits	Charlson Comorbidity Index	Phone	Address
	111000	Enrolled	Masako		Hillyer	1988-02-09	28	F	1	1	1 (Low)	401-829-0000	7626 Rock Cree
	222000	Not Enrolled	Sherlyn		Trumble	1954-04-19	62	F	90	2	3 (Moderate)	401-651-0000	9204 Sage St.
	333000	Enrolled	Tabatha		Baeza	1944-02-12	72	F	2	3	1 (Low)	401-309-0000	840 SE. Oakwo
Yes	444000	Not Enrolled	Ettie	M	Maslowski	1964-02-11	52	F	26	8	7 (High)	401-999-0000	8942 Cherry Dr
	555000	Enrolled	Lavona		Fabela	1923-01-08	93	F	1	0	1 (Low)	401-523-0000	8348 Hillcrest I
	666000	Enrolled	Antione		Routt	1935-04-04	81	M	1	0	1 (Low)	401-579-0000	9552 South Bra
	777000	Not Enrolled	Moises		Eichler	1951-08-21	65	M	2	2	3 (Moderate)	401-263-0000	553 Riverview.
	888000	Enrolled	Paris	A	Eliason	1957-11-12	58	M	1	3	5 (High)	401-868-0000	340 Redwood S
Yes	999000	Not Enrolled	Mckinley		Stumpff	1939-11-03	76	M	3	1	12 (High)	401-347-0000	8737 Shady St.

Uses/benefits: can be used to find individual patients or assess entire population based on specific criteria (e.g. patients with high Charleston Comorbidity Index score)

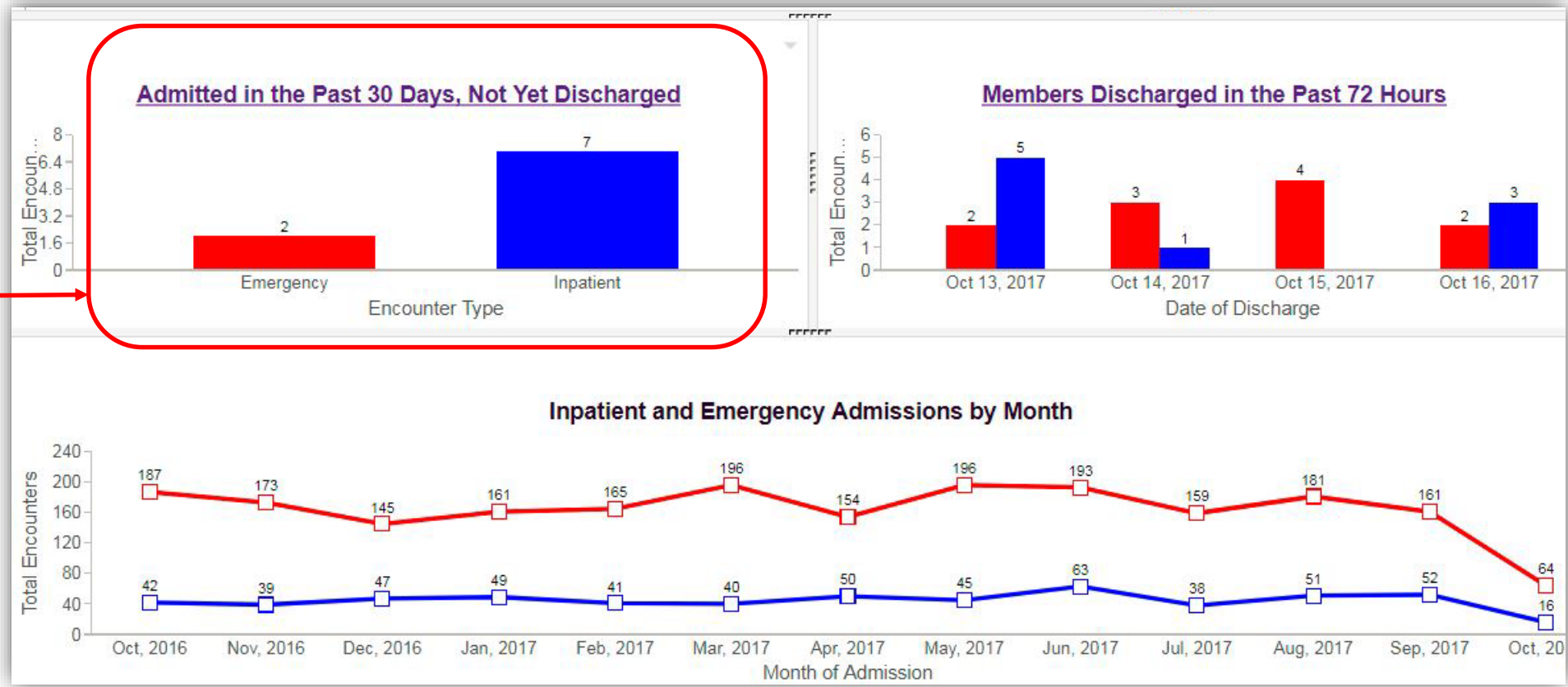
Implementation and Use of Alerts & Dashboards for Improving Patient Care

Sample Workflow: Improving ToC with HIE Tools

- Patient **admitted** to an acute care hospital (or participating SNF) in RI:

Patient (on panel) will appear on Dashboard updated approximately every 10 minutes

*Alerts sent within seconds

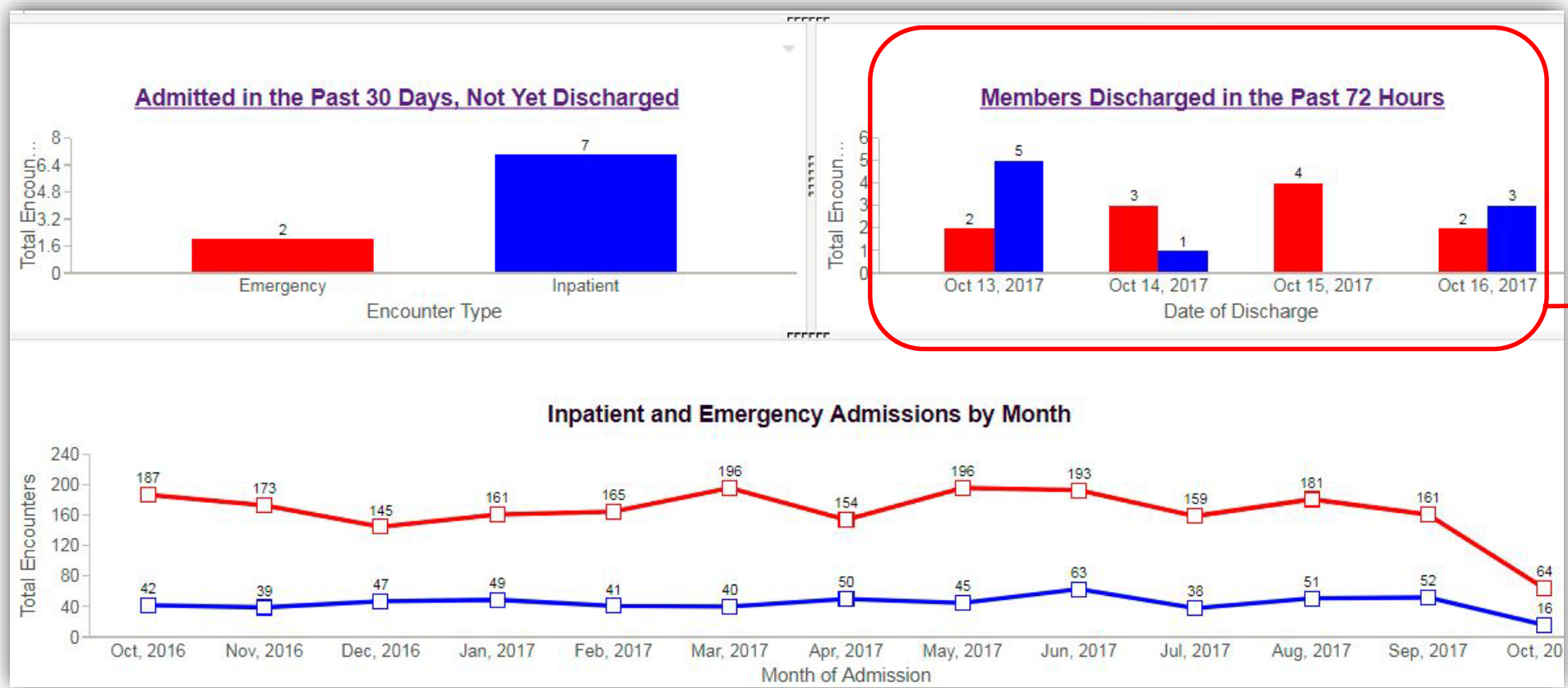


Sample Workflow: Improving ToC with HIE Tools

- When patient is admitted to ED/Inpatient, practice workflows vary
 - Outreach to staff at hospital for care coordination and pre-discharge planning
 - Outreach to patient via phone
 - In person visits to patient (typically only for complex care/non-engaged)
 - Preparation for post-discharge follow-up
 - *Recommended*: document information in EHR for tracking/reporting

Sample Workflow: Improving ToC with HIE Tools

- Patient **discharged** from an acute care hospital (or participating SNF):



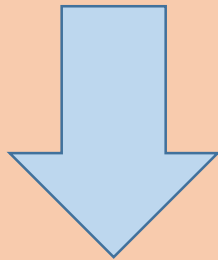
Patient (on panel) will appear on Dashboard/Alert sent

Sample Workflow: Improving ToC with HIE Tools

- When patient is discharged from an ED/Inpatient setting most practices engage in post-discharge follow-up and care coordination
 - *Recommended*: document information in EHR for tracking/reporting
 - Include receipt of Alert information plus associated documents
 - Gather information needed for optimal care transition
 - Data available in the Care Management Alert/Dashboard (discharge disposition/location; Lifespan CoC document with Alert)
 - **Data available in CurrentCare**
 - Additional data needed directly from hospital source/portal
 - Outreach to patient via phone
 - Follow-up outreach to patient (telephonic/in-person appointment)

Using Care Management Alerts & Dashboards with the Viewer

Care Management Dashboard



VIEWER

Report

1 - 44 out of 44 records, Page 1 of 1

High Risk	MPIID	CurrentCare Status	First Name	Middle Name	Last Name	Date of Birth	Age	Gender
	111000	Enrolled	Masako		Hillyer	1988-02-09	28	F
	222000	Not Enrolled	Sherlyn		Trumble	1954-04-19	62	F
	333000	Enrolled	Tabatha		Baeza	1944-02-12	72	F
Yes	444000	Not Enrolled	Ettie	M	Maslowski	1964-02-11	52	F
	555000	Enrolled	Lavona		Fabela	1923-01-08	93	F
	666000	Enrolled	Antione		Routt	1935-04-04	81	M
	777000	Not Enrolled	Moises		Eichler	1951-08-21	65	M
	888000	Enrolled	Paris	A	Eliason	1957-11-12	58	M
Yes	999000	Not Enrolled						

- In CurrentCare:**
- Lifespan CoC
 - Discharge Summaries (Fatima, Roger Williams, Landmark)
 - Medical Record Summaries (CCDs)
 - Medications, Lab Results, Imaging and More

current care

[Home] > [Patient Search]

Enter any criteria and click Search. Click [here](#) for help.

Last Name

First Name

Middle Name

Gender

Date of Birth

CurrentCare ID

Select one or more matching patients. Only select more than one patient if you are sure you want to view all records.

View Selected Patient Records

Identifiers	Name	Gender/DOB
<input type="checkbox"/> 578210	Shelley, Fran Elizabet	F 1949-09-03
<input type="checkbox"/> 578212	Shelley, Alphonse	M 1970-03-15

Using Care Management Alerts & Dashboards with the Viewer

Care Management Alerts & Dashboards

*For all patients on a panel
submitted by a
practice/organization*

Who is in the hospital now?

Who has recently been discharged?

Trends over time

CurrentCare Viewer

*Encounter data for enrolled
patients from over 520
sources*

Encounters

Clinical Documents

Discharge Documents

EMS Documents

Allergies & Alerts

Directives

Conditions

Medications

Lab Results

Diagnostic Imaging

EKG Imaging

Patient Surveys

Vital Signs

Key data for ToC available in the CurrentCare Viewer

Discharge Documents

- Lifespan CoC
- CharterCare (Roger Williams/ Fatima)
- Landmark

Medications

- During Hospital encounter
- Filled at pharmacy

Item	Directions	Qty Dispensed	Duration	Status	Source	Presc
Glimepiride 4 MG TABS	twice a day		34 days	Inactive	PCHC	Cesar Mora
Amitriptyline HCl 50 MG TABS	once daily		279 days	Inactive	PCHC	Maria C Ch
Enalapril Maleate 10 MG TABS			91 days	Inactive	PCHC	Jeffrey E. H
Glimepiride 4 MG TABS	once a day		172 days	Inactive	PCHC	Cesar Mora
Ferrous Sulfate 325 (65 Fe) MG TBEC			360 days	Inactive	PCHC	Cesar Mora
MetFORMIN HCl 1000 MG TABS	twice a day		1 day	Inactive	PCHC	
MetFORMIN HCl 1000 MG TABS	twice a day		40 days	Inactive	PCHC	Cesar Mora
Accu-Chek Aviva Plus Strip	as directed			In Progress	PCHC	Cesar Mora
Simvastatin 20 MG Tablet	once daily		223 days	Inactive	PCHC	
BD Insulin Syringe Ultrafine 31G X 5/16" 1 ML			264 days	Inactive	PCHC	Cesar Mora
Miscellaneous (not specified)						
Contour Test Strips	Test BS 2-3 times a day		60 days	Inactive	Lifespan	

HealthShare - Google Chrome
 demo.currentcareri.com/csp/healthshare/hsaccess/web/csp/websys.csp?TUID=320&TU

Shelley, Fran Female 0

Discharge Document

Provider: ALEXIS CHARPING
 Doc Type: Discharge Summary

EMERGENCY ROOM VISIT NOTES

PATIENT: Shelley, Fran
 MR #: RWHMRN1
 PHYSICIAN: ANTONIO BARAJAS, M.D.
 ADM/SVC DATE: 10/12/16
 ACCT #: CHARTERDEMO5604560

Report Status: Signed

Notes

General
 Exam Limitations: no limitations
 Chief Complaint: Abdominal Pain
 Stated Complaint: ABD PAIN N/V
 Time Seen by MD: 17:11
 Source: patient

History of Present Illness
 Initial Comments
 67 year old female presents to the ED for evaluation of epigastric cramping with nausea and vomiting onset at 0130 this morning. She denies fevers, chills, diarrhea, and constipation. She has a history of obesity, diabetes, CHF and hyperlipidemia.

Allergies:
 Coded Allergies:

Last Updated 10/29/2016 19:36 CHARTERCARE Document

Test Results: Laboratory Tests and Radiology Reports

Test Items	D65048058 04/13/2016 18:15	W51412599- 1 03/14/2016 11:18	1197517333 02/12/2016 08:48	D56668099 09/23/2015 17:52	D52 07/23/2015 21:15
Calcium [Mass/volume] in Serum or Plasma	9.2	9.2*	9.5*	9.5	9.4
OSMOLALITY Carbon dioxide, total [Moles/volume] in Serum or Plasma	233.4			287.6	280
Chloride [Moles/volume] in Serum or Plasma	100	100*	99*	101	100
Creatinine [Mass/volume] in Serum or Plasma	0.65	0.78*	0.91*	0.91	0.9
Glucose [Mass/volume] in Serum or Plasma	281	120	291*	152	101
Potassium [Moles/volume] in Serum or Plasma	3.3*	3.6*	4.3*	4.0*	4.0*
Sodium [Moles/volume] in Serum or Plasma	151	139	140*	140	140
Urea nitrogen [Mass/volume] in Serum or Plasma	21	12*	18*	29	26
BUN/CREAT RATIO	24.7			30.2	28.0
ASTOR CAP	7				

NM BONE SCAN 3 PHASE

Order Details [Print](#)

Order Start Date & Time	06/26/2015 10:00	Result Date & Time	06/26/2015 10:00
Ordering Provider	CONTE, JOHN	Result Status	Final
Specimen Information		Specimen ID	246760364
Specimen Collection Date & Time	06/26/2015 10:00	Performed At	Contact Lifespan Radiology for Info
Specimen Received Date & Time	06/26/2015 10:00	Age at Time of Test	65 Years

HISTORY: bilateral knee pain & medial swelling, question synovitis and/or prosthetic loosening; -M25.561-Pain in left knee

TECHNIQUE: Following the intravenous administration of 21.8 mCi of Tc-99m MDP, three-phase bone scan of the knees pool and delayed images of the hips were also obtained.

COMPARISON: Pelvis x-ray from 9/11/2012. Bilateral knee x-rays from 12/30/2008.

FINDINGS:
 Flow and blood pool phases are unremarkable. On delayed imaging, there is photopenia at both hips and both knees prostheses. There is mild increased activity present at both knee prostheses in a symmetric fashion. This is most prominent at the tibial plateau and at the patellas. There is also minimal diffuse increased activity laterally at the prostheses. No other significant abnormalities are noted.

IMPRESSION:
 Mild increased activity at both knee prostheses on delayed images only suggestive of mild prosthesis loosening. Increased activity at the lateral aspect of the right hip prosthesis also likely due to slight prosthesis loosening.

Signing Doctor: Richard Noto, MD Date Signed: 2015-06-26 12:53 PM
 Patient MRN: 10010917045 Accession Number: 50788007
 DOS: 2015-06-26 9:21 AM Exam: IMG402 NM BONE SCAN 3 PHASE

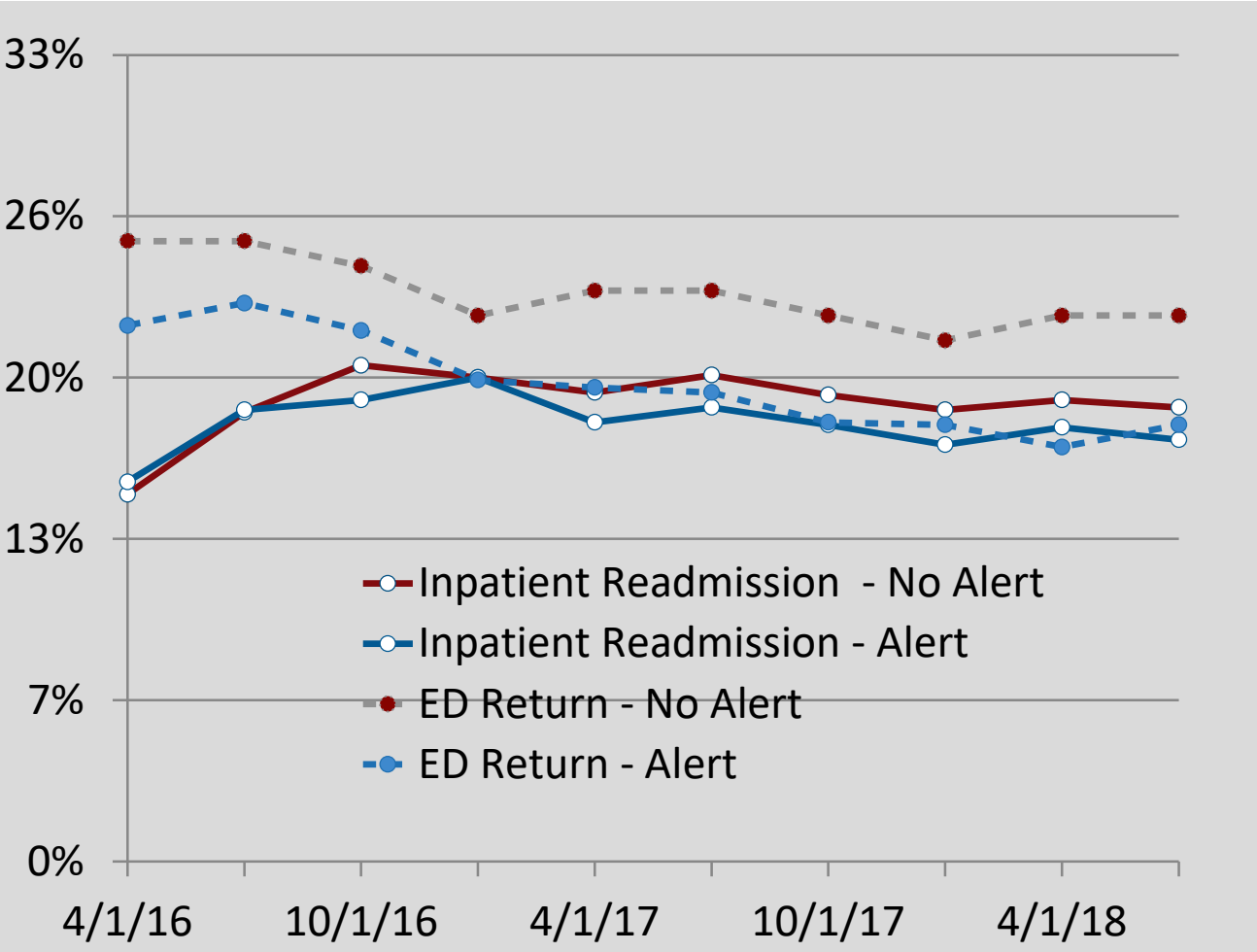
Sample Workflow: Takeaways

- Critical Focus: medication reconciliation
 - Important to have as much, up-to-date information as possible for review
- Benefits of using HIE Tools:
 - Timely information (particularly when follow-up is needed)
 - Fewer calls/less wasted time
 - Workflows that are more streamlined
- Opportunities for deeper patient engagement
 - Outreach is more informed and proactive
- Upcoming: Improvements to documents used in Care Transitions in RI
 - ToC Steering Committee is in planning phases

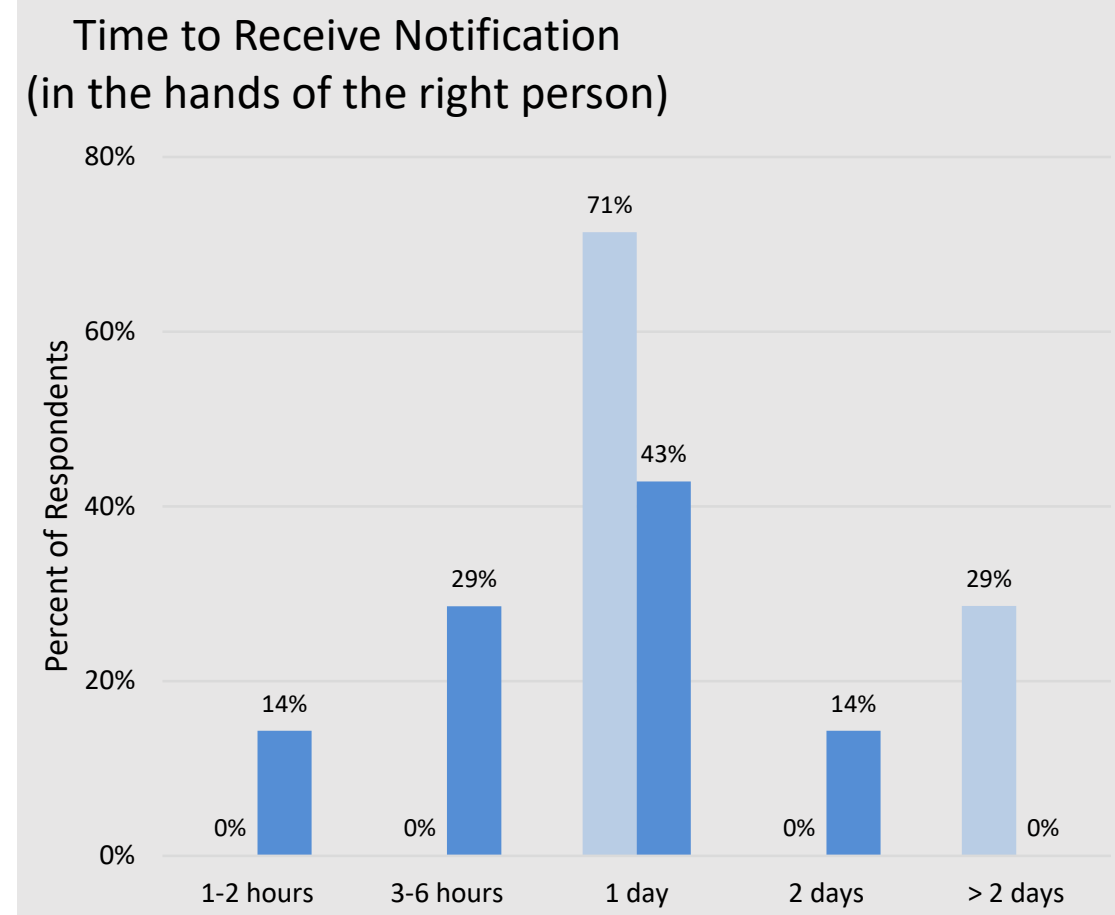
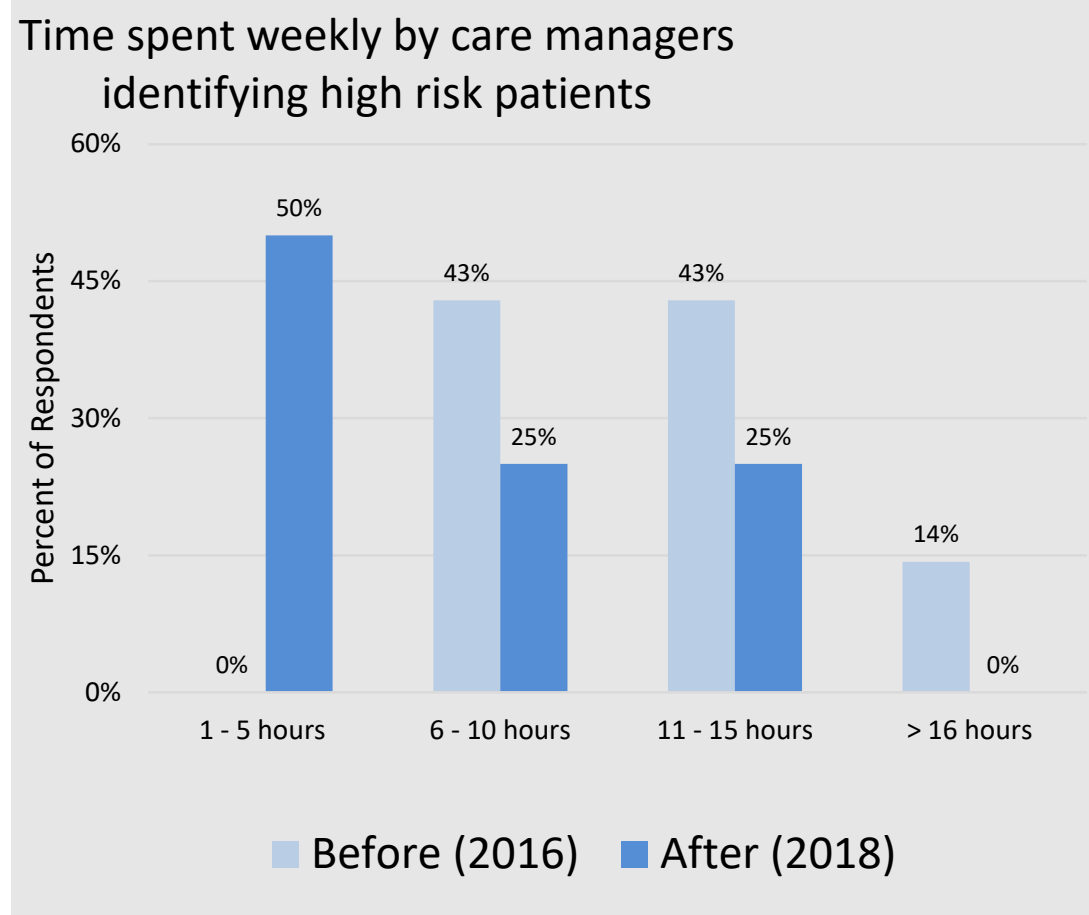
Impact of the HIE and Care Management Alerts & Dashboards

Alerts have demonstrated a significant impact

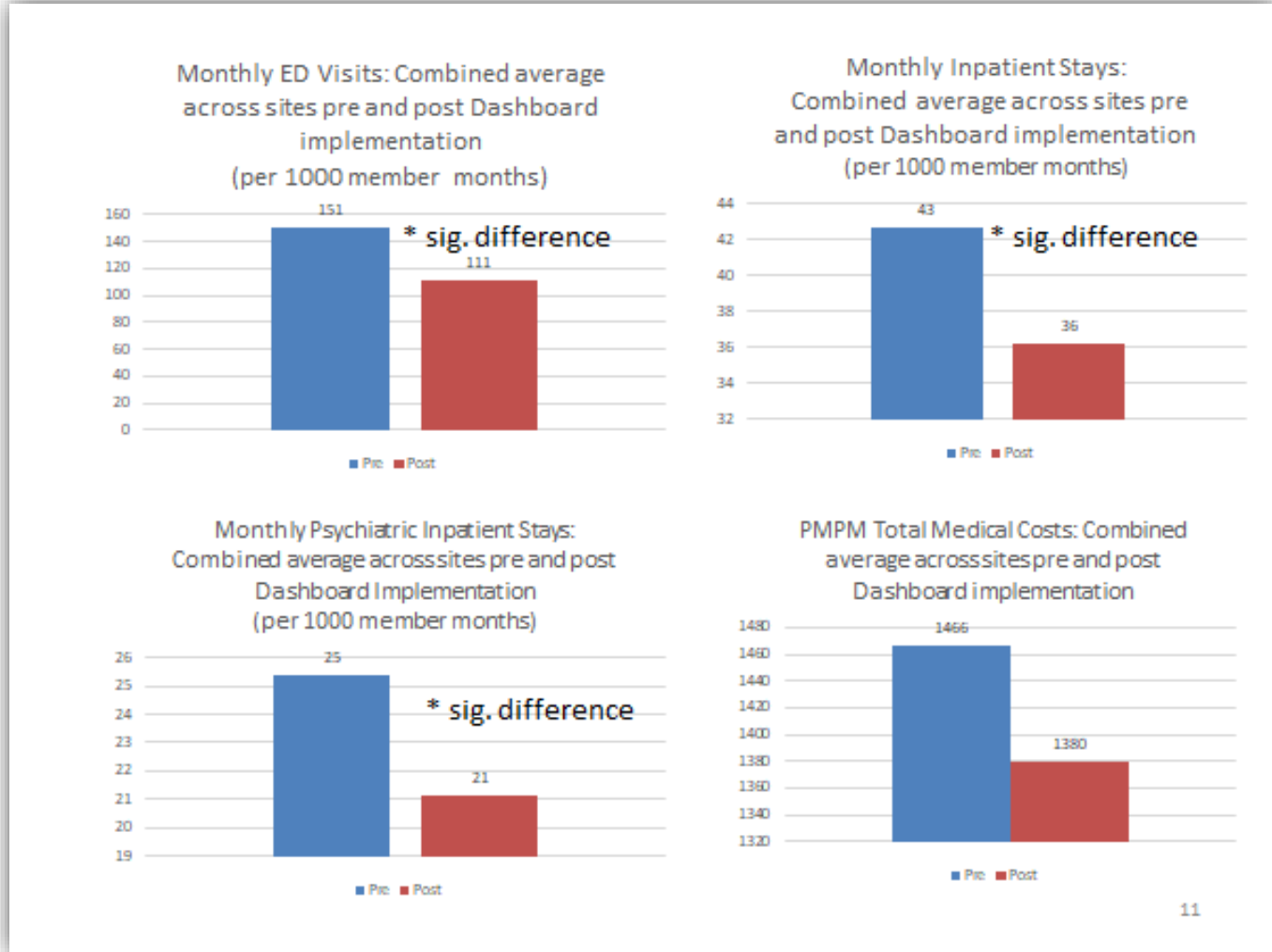
- Within 30 days of a hospital admission, patients with an alert sent see reductions of
 - Emergency Room returns (-20%)
 - Inpatient readmissions (-13%)
- Yearly effect is a reduction of
 - 980 Emergency Room visits
 - 350 Inpatient Stays per year
- Yearly savings of \$6 Million



Providers identify high-risk patients faster



Evaluation found impact for mental health orgs



- Independent SIM-URI evaluation on Clinical Mental Health Organizations found:
 - Statistically significant impact on Monthly Emergency room visits, Inpatient Stays, Psychiatric Stays
 - Could not determine significance on Total Medical Costs

Data is sourced from Behavioral Health On-Line Database's mandated reporting by licensed Behavioral Organizations in Rhode Island

Significant impact on 125k general population

Pre- and Post- Analysis of Impact of Care Management Dashboards

	Encounters in 6 months leading up to inclusion on CM panel	Encounters in 6 months following inclusion on CM panel	Effect on overall Encounter volume	Annualized Avoided Events
Emergency	45,138	44,081	-2.3%	2,407
Inpatient	17,303	16,226	-6.2%	2,122

\$29 M
Annual Savings

Testimonials (Qualitative Data)



Comprehensive Community Action Program (CCAP)

For the Nurse Care Managers on the team, our efforts are really focused on calling and reaching out to patients when they are identified so we can help prevent them from being readmitted. Armed with the information we receive from Care Management Tools, we can better assist our patients in maintaining their health and managing their comorbidities. We have gotten feedback that patients are impressed that we knew they were in the hospital and by the speed that we can connect with them – and that feels good. Also, sometimes our nurses are happy that they made the call because many patients really appreciate the outreach and feel cared about.



Center for Treatment and Recovery (CTR)

Before we had our Care Management Tools, we didn't realize how many different hospitalizations we didn't know about. If patients didn't inform us and bring us their paper work, we simply didn't know. Now we know *every single time*...Now we can always be sure to be aware...so we can verify that the dosing is correct and safe.

Data Innovation Continues

- Emergency Department Smart Notification (EDSN)
 - Flag within the Emergency Department's Electronic Health Record
 - Based on automatic query from the ED's EHR to RIQI checking for specific criteria such as number of previous ED visits, Opioid risk
- Intelligent Overdose Flag
 - special notice inside an alert indicating a 'potential overdose'
- Know My Health platform
 - Advanced Directives, SBIRT (Screening Brief Intervention, Referral to Treatment), and other assessments
 - Working with the State of Rhode Island and the State Opioid Response
- Bidirectional information in different settings
- Looking at other types of data for predictive modeling

Thank you!

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