Attaining Value from Health Information Exchange

Arizona HIMSS Chapter Event

Connecting the Dots...Healthcare Technology and Interoperability

Al Kinel
President of Strategic Interests

March 24, 2017

strategic interests
strategic vision + thinking + relationships

Agenda

- Value Drivers of HIE
- Defining Scope to Attain Value
  - Enhancing Transitions of Care (ToCs)
  - Enabling Patient Engagement & Care Management
  - Supporting Analytics for Pop Health & Value-Based Payment
- Foundation for Success - Collaboration
- Case Studies

Perspective of the Role of HIE

- Providers and other stakeholders can indeed utilize HIE to:
  - Improve care, lower clinical and administrative costs
  - Improve satisfaction of providers, staff, and patients
  - Address the strategic needs of the organization(s)

- However, it is not an IT Science Project, or a way to implement cool technology

- HIE is an architecture and *IT utilities* that can liberate data and enable the organization to use it

- In order to successfully implement an HIE, providers must first:
  - Define how the HIE can help accomplish their specific objectives & initiatives
  - Confirm that the investment will provide a strong return
  - Get alignment with leadership to prioritize this project above other initiatives requiring resources

Value Drivers of HIE

Provider Perspectives & Links to Initiatives

Overall Benefits

=

TCO

=

Value $$

Category	OBJECTIVES	TYPICAL INITIATIVES
Quality & Compliance	•Improve Outcomes •Compliance	• **Enhance decision-making cycle time / effectiveness / TOC** • **Coordinated care, streamlined referral processes / PCMH** • **Quality Improvement Programs (i.e. avoid errors, ADEs)** • **Reduce readmissions, unnecessary procedures** • **Enhance patient engagement – for outcomes and loyalty** • MU, PQRS, MACRA/MIPS, Immunization, RAC, Malpractice, HIMSS7
Financial	•Cost Reduction •Increase Revenue •Cash Acceleration •Increase Effective Capacity	• **Ops Excellence to reduce cost of supply chain, labor, overhead** • **Reduce unnecessary procedures and hospitalizations** • **Increase referrals, outreach,** • **New service lines or become COE** • **Improve rates with payers, enhance charge capture** • **RCM: Coding / Billing / CDI / Denials Management** • **Save time providers spend looking for / sending data** • **Productivity tools to enable PCMH** • **Deployment of telehealth**
Strategic	•ACO / P4P •Population Health •Provider / Patient User Experience •Scale	• **Risk-sharing contracts with upside and minimal revenue loss** • **Clinical integration network and workflow that aligns key partners** • **Programs to identify, stratify, engage, and manage high risk patients** • **Care / Disease / Case management views and tools** • **Enhance satisfaction of providers, staff, and patients** • **Mergers and Acquisitions – and Integration** • **Affiliation and Alliances**

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Defining the Scope of HIE Program

Once an organization decides to invest in an HIE architecture and utilities to support initiatives, need an approach to define the objectives & scope including stakeholders, content & use cases.

The lenses through which scope can be defined include:

- Enhancing Transitions of Care (ToCs)
  - *Which ToCs? - What Data? - What Facilities? – Workflow?*
- Enabling Patient Engagement & Care Management
  - *Which Problems? - Functions? - What Apps? – Workflow?*
- Supporting Analytics for Population Health & Value-Based Payment
  - *What Contracts? - Which Population? - What Measures? – What Data?*

Keys for Successful ToCs – More than HIE

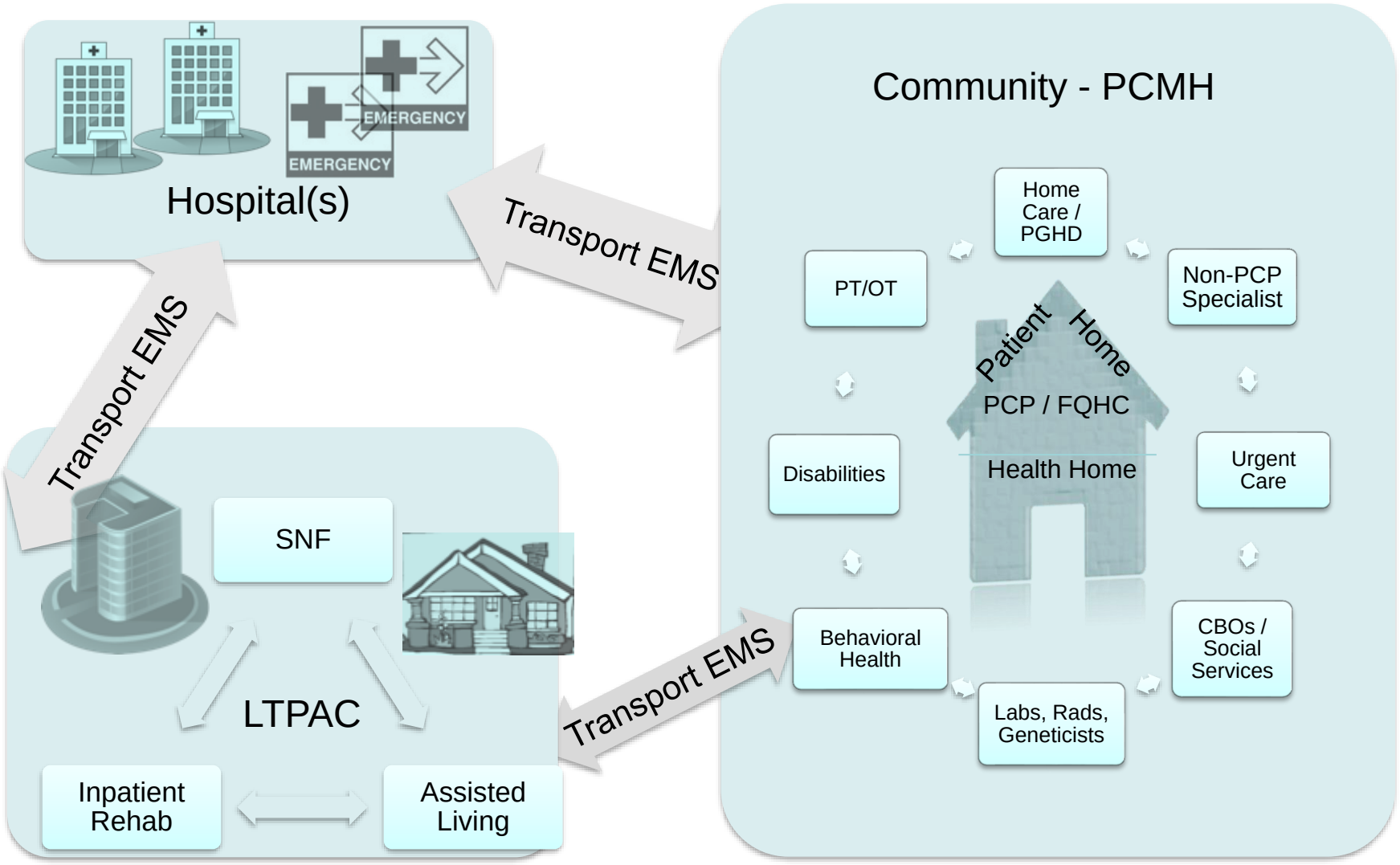
- **Right information, right time, right format…without extra noise**
- Comprehensive Care Coordination, Health Coaching and PCMH Model
- Medication Management
- Effective Hand-offs to Providers and Social Workers
- Timely Post Discharge Follow-up
- Self-Management Care Plans with Patient Education and Clear Follow-up
- Identify and Provide Resources for Social Determinants of Care
- High Patient Satisfaction (correlated with lower 30 day readmit rates)

Sources:

- Project BOOST (Better Outcomes by Optimizing Safe Transitions) – www.hospitalmedicine.org
- Care Transitions Interventions (CTI) –www.caretransitions.org
- CMS Community-Based Care Transitions Program (CCTP) – www.innovations.cms.gov/initiatives/CCTP/
- Guided Care Comprehensive Primary Care for Complex Patients – www.guidedcare.org
- Project RED (Re-Engineered Discharge) – www.bu.edu
- State Action on Avoidable Rehospitalizations (STAAR) – www.ihi.org

Enhancing Transitions of Care

Where Information Gaps Appear & Compromise Care



Key Transitions

- Use Case 1:
  - **HOSPITAL to HOME**
- Use Case 2:
  - **HOSPITAL to LTPAC**
- Use Case 3:
  - **LTPAC to HOME**
- Use Case 4:
  - **PCMH – PCP to Other**
- Use Case 5:
  - **HOME to HOSPITAL**
- Use Case 6:
  - **LTPAC to HOSPITAL**
- Use Case 7:
  - **Hospital to Hospital**
- Use Case 8:
  - **HOME to LTPAC**

Which ToCs Should be Addressed for You?

- Use Case 1: **HOSPITAL to HOME**
- Use Case 2: **HOSPITAL to LTPAC**
- Use Case 3: **LTPAC to HOME**
- Use Case 4: **PCMH – PCP to Other**
- Use Case 5: **HOME to HOSPITAL**
- Use Case 6: **LTPAC to HOSPITAL**
- Use Case 7: **Hospital to Hospital**
- Use Case 8: **HOME to LTPAC**
- **Other**

For each assess:

- Do problems exist? Are they significant?
- Are causes understood? Tied to important initiatives?
- Are they acknowledged by key stakeholders?
- How much value would addressing it generate?
- What content would address problems?
- Can source systems provide content?
- Can HIE deliver the content?
- Can receiving systems utilize content?
- Can workflow be defined? Can alignment be attained?
- Can cost be estimated?
- Do standards exist? Pending?
- Can a solution for this ToC address others?

Then Address Data Needs that can be Addressed by Multiple ToCs

How Standards Support ToCs

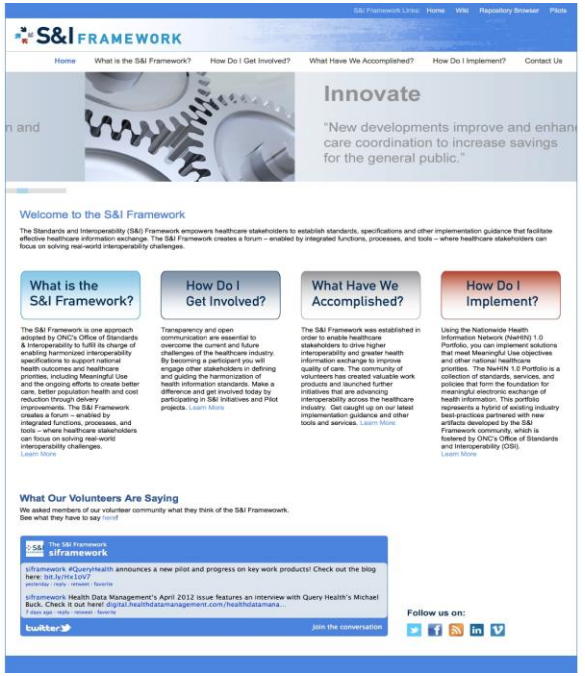
ONC Drivers of Interoperability: MU, S&I Framework, ToCs

- MU required information to be exchanged in transition of care
- Providers confused on how to use specs to exchange clinical data
- Concept of C-CDA established
- S&I Framework formed
- Lack tools to aid development & use of templated clinical documents
- Major impediment to the widespread adoption of the standards

ONC Transition of Care (ToC) Initiative:
Formed to improve the exchange of core clinical information among providers, patients and other authorized entities electronically

- Interoperability Standards Advisory (ISA) formed holds great promise

S&I Framework - 2011



- Specs
- Implementation Guides
- Data Models
- Vocabulary & Values
- Test Tools & Data
- Reference Implementations

C-CDA: Consolidated Clinical Document Architecture

Enabling Specific Transitions

1. Choose C-CDA Document Template for clinical workflow

2. Include components defined:
- Required components
- ***Optional components for the clinical situation***

3. Add components required to meet MU/MIPS:
- Review requirements met
- Add C-CDA components aligning to data requirements that have not yet been met

C-CDA IG Purpose: Single Source for CDA Templates

Putting the I in HealthIT
www.HealthIT.gov

HL7 Implementation Guide for CDA R2: IHE Health Story Consolidation, DSTU Release 1.1 (US Realm) July 2012

Document Templates: 9
- Continuity of Care Document (CCD)
- Consultation Note
- Diagnostic Imaging Report (DIR)
- Discharge Summary
- History and Physical (H&P)
- Operative Note
- Procedure Note
- Progress Note
- Unstructured Document

Section Templates: 60

Entry Templates: 82

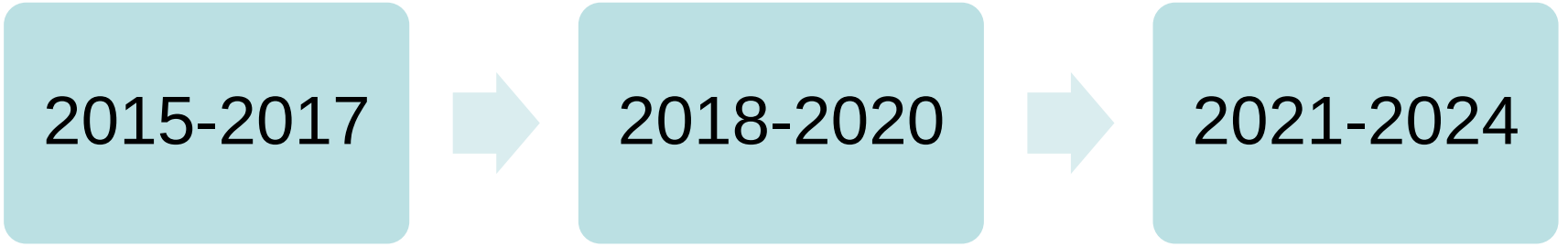
Document Template	Section Template(s)		
Continuity Of Care Document (CCD)	Allergies Medications Problem List Procedures Results Advance Directives Encounters	Family History Functional Status Immunizations Medical Equipment Payers Plan of Care	Section templates in GREEN demonstrate CDA's interoperability and reusability.
History & Physical (H&P)	Allergies Medications Problem List Procedures Results Family History Immunizations Assessments	Assessment and Plan Plan of Care Social History Vital Signs History of Present Illness History of Present Illness	Chief Complaint Reason for Visit Review of Systems Physical Exam General Status

ONC Interoperability Roadmap

October 2015

The three overarching themes of the roadmap:

- giving consumers the ability to access and share their health data
- ceasing all intentional or inadvertent information blocking
- adopting federally-recognized national interoperability standards



Enable Sending, Receiving, Finding & Using Data

Expand data sources and increase the number of users to create healthier populations

Build nationwide interoperability with person at the center of a system that can improve care, public health and science through real-time data access."

Interoperability Standards Advisory - ISA

Standards and Implementation Specifications for:

- Section I: Vocabulary, Code Set, Terminology
- Section II: Content & Structure
- Section III: Services

https://www.healthit.gov/standards-advisory/draft-2017

Despite the efforts of ONC, standards bodies, and associations, it is still difficult for stakeholders to apply standards to define projects and solutions to enhance information exchange and support ToCs

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Patient Engagement Strategies

Tell me and I forget. Teach me and I remember. Involve me and I learn.

- Benjamin Franklin

"Will this lollipop suffice for patient engagement?"

"I don't know which doctor to choose. One has more friends on Facebook, but the other one just retweeted my message."

Patient Engagement Strategies & Tools

Patient Portal

Outreach & Engagement

Education

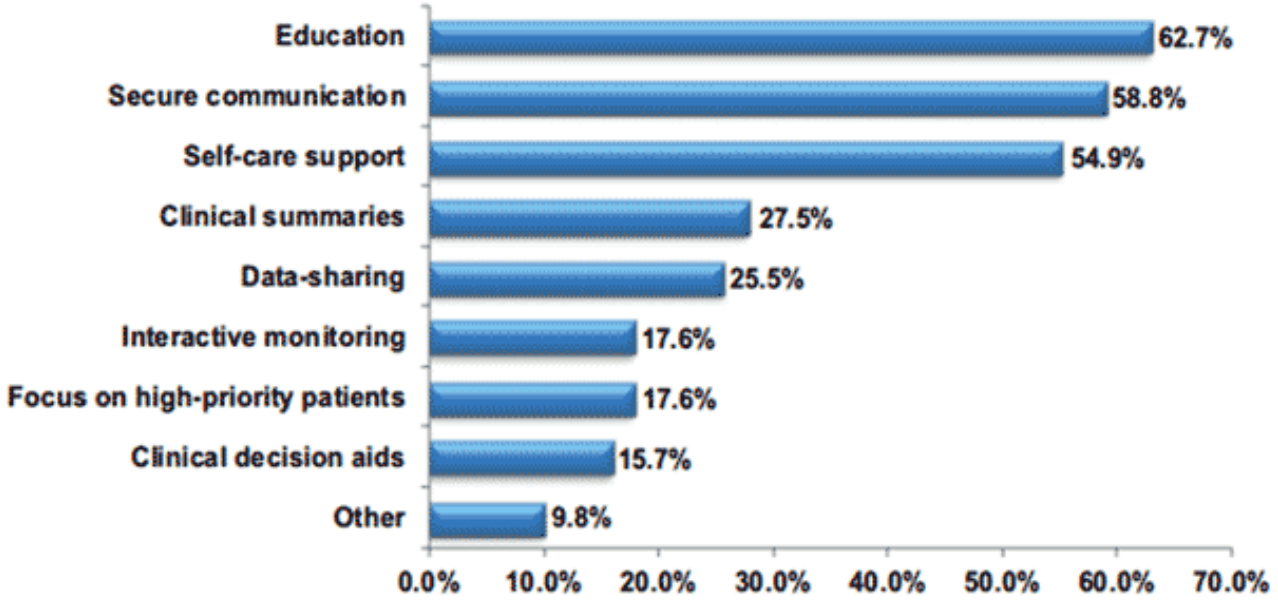
Personal Health Record

Remote Monitoring

Meds Management

Interoperability Use Cases Enabling Patient Engagement

Common Uses of Patient Portal
Supported by Interoperability



HIN Patient Engagement Survey
August, 2015

Patient Health Record
Enabling Patients to be in Control

Patient Generated Health Data (PGHD)

Value & Challenges

Value of PGHD

- Empower patients for larger role in care
- Holistic view of a patient's health over time
- Increase visibility into patient's adherence
- Enable timely intervention before a costly care episode
- Establish personalized care plan
- Reduce time, effort, and costs of patient encounters and workflow

Challenges with PGHD

- Lack common specs, workflows, training to support PGHD intake
- Confirming accuracy & validity of PGHD
- Difficulty attaining insights from data
- Lack guidance and best practices
- Liability concerns - inaccurate PGHD used / ignoring PGHD in the clinical settings
- Disconnected from EHR systems

Patient Generated Health Data (PGHD)

Architecture & Benefits

ONC Framework / Architecture

Accenture White Paper

- the collection and validation of data and tools that capture PGHD
- data sharing between clinicians and researchers
- current regulatory landscape
- opportunities to combine PGHD with clinical data for analysis and patient care
- patient recruitment for research studies and trials
- data interoperability
- big data analysis

http://www.distilnfo.com/provider/2017/01/16/onc-releases-accentures-draft-guidance-develop-pghd-framework/

Enhancing the Conversation

mHealth – Billings Clinic – 3 States - Mayo

- 18-month program
- ~150 patients
- blood pressure control rates improved from 38.6 percent to 70 percent
- average blood pressure improvements:
  - avg. systolic from 148.8 to 139.6
  - avg. diastolic from 92.5 to ~85
- helped patients gain control over their personal health
- helped establish richer relationships with their healthcare professionals

http://mhealthintelligence.com/news/how-mhealth-gets-the-conversation-going

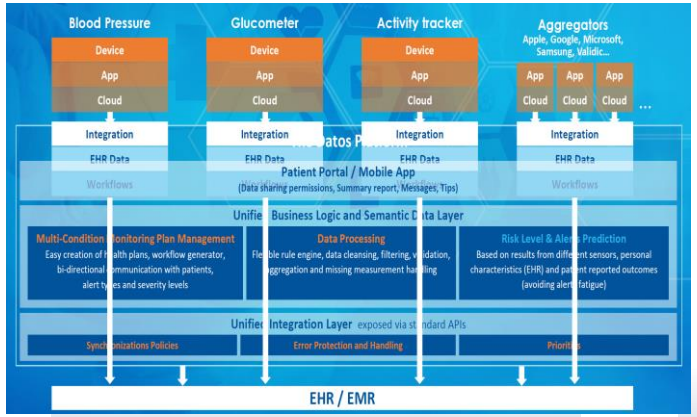
Interoperability for PGHD Requires Multiple Integrated Functions

Must make sense of limitless amounts of digital data from a multitude of devices

And enhance decision making with efficient workflow to attain better care at lower cost

Any wearable or medical device

Mobile app to manage devices & patient communication



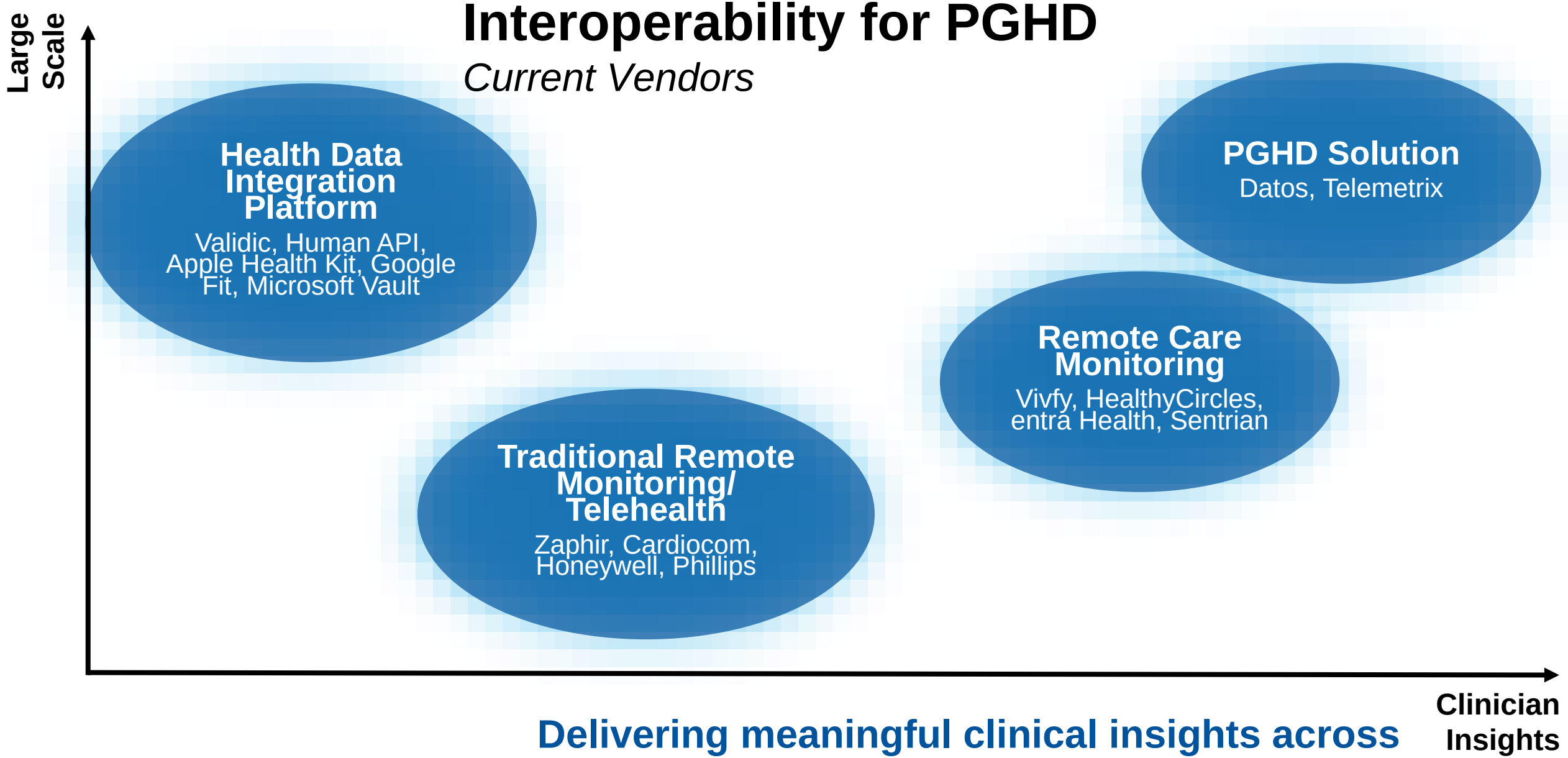
PGHD Data Management Platform

Care Management Dashboard

Turn PGHD into manageable clinical intelligence

Interoperability for PGHD

Current Vendors



Delivering meaningful clinical insights across large scale (100K+) patient deployments

Market Landscape

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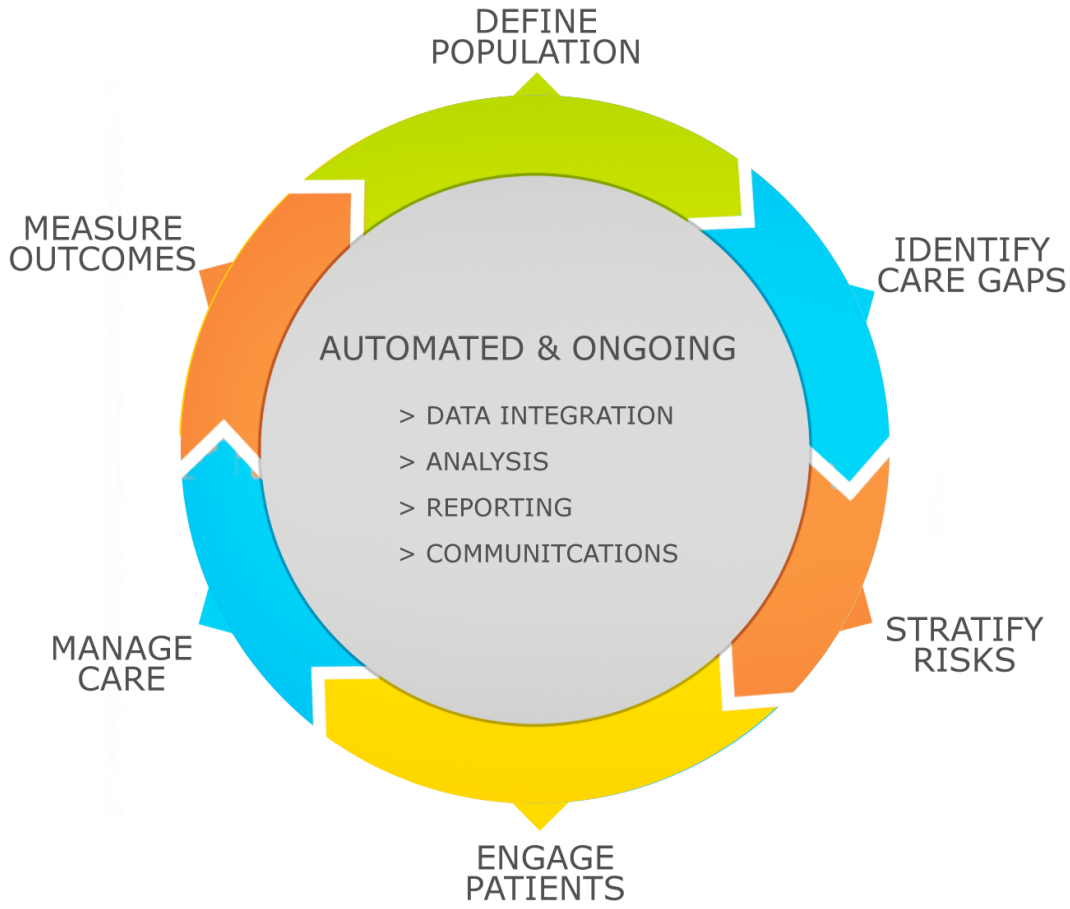
Improving Population Health

Coordinated efforts to improve the health of a population with a management process and creative approaches that utilize systems, data, and tools



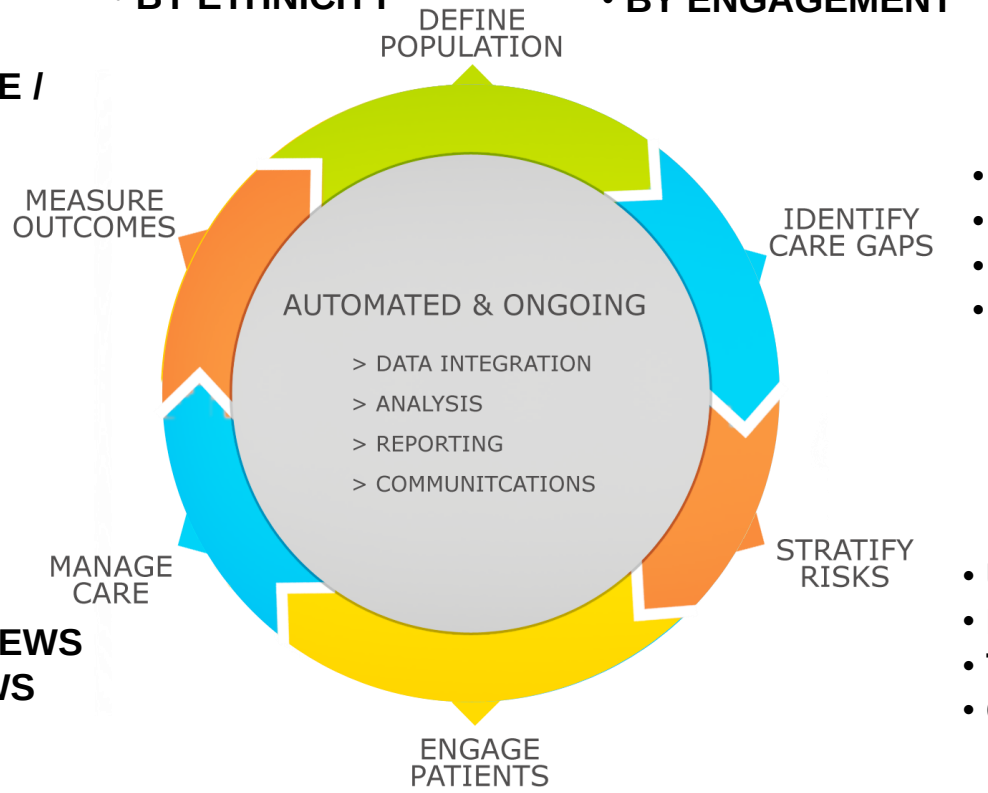
Source: www.ihealthtran.com

Identifying & Managing a Population & Patient Needs

- BY DISEASE(S)
- BY PAYER
- BY AGE
- BY INCOME
- BY ETHNICITY

- BY SOCIAL DETERMINANTS
- BY ETHNICITY
- BY TECH ADOPTION
- BY PREFERENCES
- BY ENGAGEMENT

- BY SITE / PRACTICE /
- BY SPECIALTY
- BY PROVIDER
- BY PAYER
- BY RISK
- OTHER



- CLINICAL
- PSYCHO
- SOCIAL
- COMPLIANCE

- PCMH
- DAILY HUDDLE
- REFERRALS
- PERFORMANCE REVIEWS
- REVISED WORKFLOWS

- URGENT
- HIGH
- TRENDING
- OTHER

- During Appointments
- With Outreach
- Ongoing

Source: Strategic Interests, **Population Health Summit**; Digital Rochester 04-15-16

ACO Data Use & Analytics

Impact of Interoperability

ACOs most often analyze:

- Claims data (96%)
- Clinical data (79%)
- Administrative data (52%)
- Disease registry data (39%)
- Patient-reported data (38%)

In order to:

- Identify and close gaps in care (84%)
- Identify outliers in cost/utilization (80%)
- Compare clinician performance (77%)
- Measure/report on quality (77%)
- Proactively identify risk (68%)

Results are Used to:

- Address specific high-cost or high-utilization patient populations (84%)
- Care transitions management/care coordination programs (82%)
- Disease-management programs (73%)
- Post-discharge programs (68%)
- Development of evidence-based clinical/care guidelines (55%)
- Medication management programs (38%)

Barriers to Population Health

Interoperability as Enabler

- If an organization is to achieve better outcomes for a defined population at lower cost, its many clinical and administrative systems must be able to communicate and exchange relevant data.
- “Information systems are designed for the unique needs of different settings and specialties,”. eHi Annual Report 2015
- Without interoperability, it’s impossible for providers to know for sure if a patient’s records are comprehensive.
- Without key information from disparate systems collected and available in a single place, it’s impossible to use data analytics to develop the insights that ultimately improve performance.

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Community - Collaboration - “Co-opetition”

Effective community collaboration among strong organizations willing to work together to solve difficult problems, despite competition.

FLHSA
The community health fulcrum.

mcms
Monroe County Medical Society

ROCHESTER RHIO
Regional Health Information Organization

Health Systems

University of Rochester Medical Center | Unity Health System | HEAL BENEFIT! Rochester General Health System

Payers

Excellus | MVP Health Care

Employers

Kodak

Wegmans

xerox

Excellus

Unity Health System

ROCHESTER REGIONAL HEALTH

Case Study

Unity Health System – now Rochester Regional Health

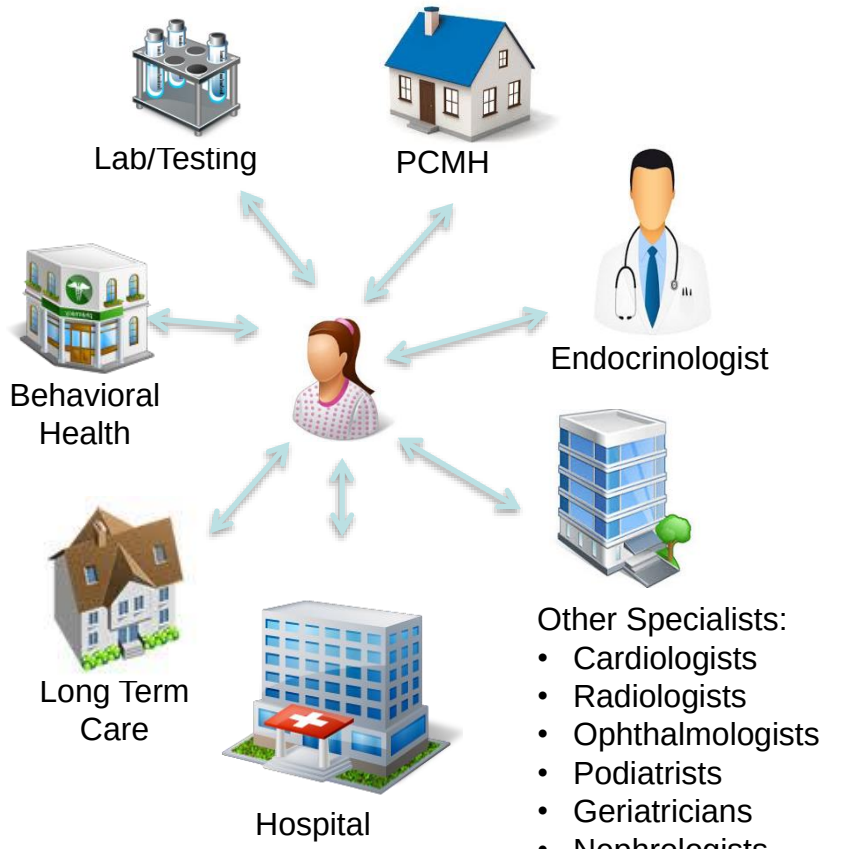
Using HIE to:

- Address challenges of ToCs
- Enhance patient engagement
- Enable Population Health

Improving Population Health at Unity Health*

Community Diabetes Collaborative - CDC

Diabetes Across Care Continuum



Stratification Options Included

- Acuity, Provider, Payer, Income, Ethnicity, etc.

Results

- **Reduced # of patients with uncontrolled A1c (> 9%) by 14%** in Year 2, and more in Year 3
- Collaboration amongst diverse set of providers to better serve diverse set of patients with diabetes
- NCQA Diabetes Recognition Certification for all PCPs
- Decreased time to bring patients in control of fasting BGs through intensive insulin management tool (61 days)
- Improved patient satisfaction scores
  - 3.8% improvement by Year 2 in the participating PCMH practices, averaging 95.2%
- Hospital readmissions dropped by Year 3

* Unity Health System is now part of Rochester Regional Health

Unity IT Situation - 2010

Used electronic health records early – Best of Breed

- Ambulatory, 2004 - NextGen
- Hospital, 2006 – Cerner
- Home care – Allscripts
- Elder care – AOD

Strategic IT Needs

- Enable clinical integration within Unity and the community
- Improve clinical adoption and EHR optimization
- Further analytic capabilities across the continuum of care
- Shift from silo-care to cohesive, patient-centric care organization
- Develop infrastructure and tools to facilitate resource-intensive PCMH model for Care/Disease Management

Unity Community Diabetes Collaborative (CDC)

Innovative Program – funded by NYS - to Improve Population Health

Access

- Improved access to information with connected EMRs

Share

- Create a unified patient view for Unity Health System
- Community interoperability, leveraging Rochester RHIO

Care Management

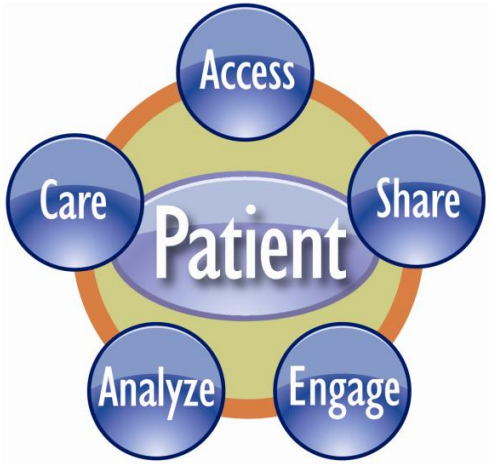
- Tools to support PCMH model for ToCs & chronic disease management

Analyze

- A longitudinal patient record to support data analysis and decision support

Engage

- Patient engagement via patient portal outreach



CDC Participants

Those Who Care for Patients with Diabetes

Unity Participants

- Six Primary Care Practices
- Wound Care Center
- Diabetes and Endocrinology Services
- Dialysis Centers
- Vascular Surgery
- Diagnostic Imaging
- Unity Hospital
- Behavioral Health
- Long-Term Care Facilities
- ACM Laboratory

Community Participants

- Nursing Homes
- Lifetime Care Home Health
- University Cardiovascular Associates
- Two Podiatry Practices
- Nephrology Associates
- Radiology Practice
- Several Ophthalmology Practices
- Rochester RHIO
- Payers: Excellus & MVP

Upstate NY RHIO Situation 2010

Rochester RHIO:

- Rochester RHIO well established by 2010 with connectivity to 15 hospitals, over 800 physicians and 2,500 users
- Messages flying, data not normalized / organized
- Lofty goals yet limited data to-date
- Providers not utilizing data
- Limited ability to rapidly add providers

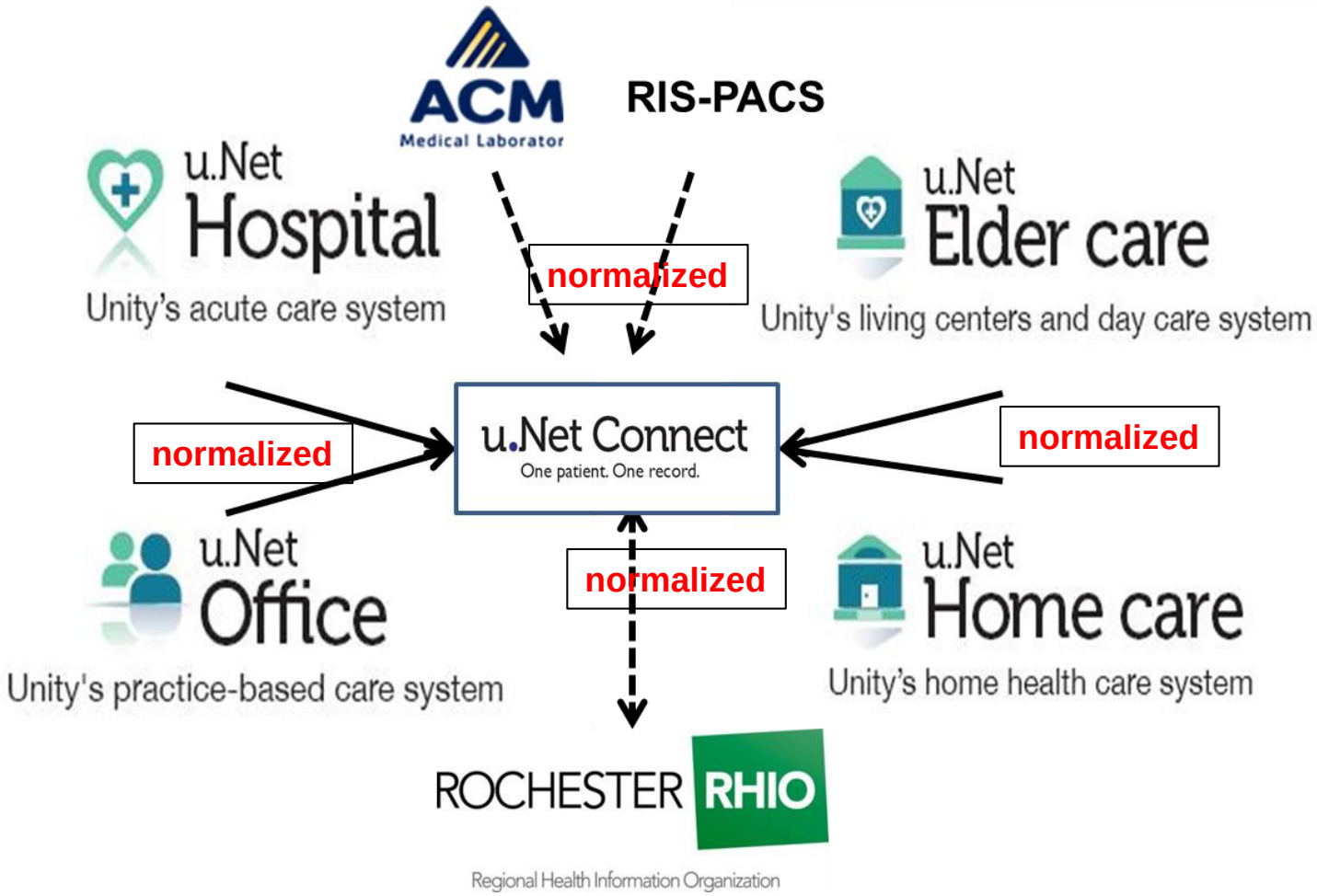
NYS DOH Introduced HEAL 17 with the objectives to:

- Advance New York's HIT infrastructure with SHIN-NY
- Use HIEs locally to drive PCMH, chronic disease, mental health

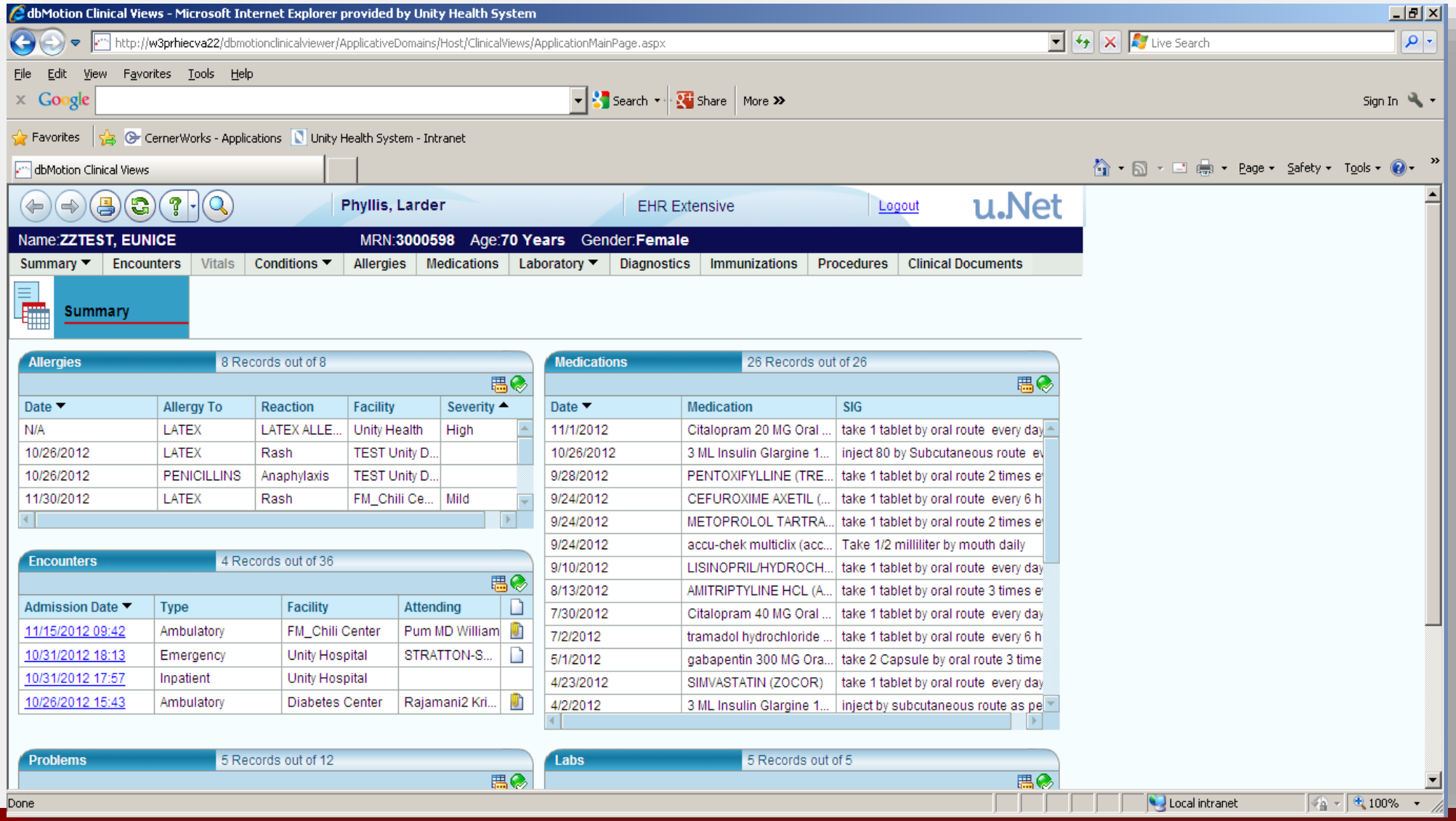
How Did Unity Accomplish This ?

- Program management: teams with broad representation based on referrals
- Collaboration with providers involved in care and defined:
  - Transitions of Care (TOC)
  - Data, Images & Process Change to improve TOCs
  - Longitudinal record across facilities
  - Diabetes protocols (based on NCQA standard)
  - Patient engagement based on complete record
- Purchased, built, & integrated systems using **Public & Private HIEs**
- Clinical adoption of analytics, tools and new processes
- $6.5 million in NYS Grant funds

Interoperability within Unity & the Community



u.Net Connect – Longitudinal Patient Record



Types of Data Available in u.Net Connect

Demographics: Age, Gender, Language, Marital Status, Race, Ethnicity, Religion

Diagnoses (ICD-9 / 10), Labs, Radiology, Pathology (reports)

Medications

Encounters: Hospitalizations (ED, Inpatient), physicals, consult, Outpatient

Immunizations, vaccinations (ordered and administered), Procedures (CPT)

Problems, procedures, allergies

Documents: Digital & scanned documents consultant reports, discharge summary, etc.

Vitals: Temp, pulse, blood pressure, body mass index

Doc Management: Links to systems with scanned documents

ROCHESTER RHIO

Images: Radiology and Cardiology

Subscription: hospitalizations and other event notification

eResults: labs, radiology, cardiology, and hospital reports

u.Net Connect Today

Planned u.Net Connect

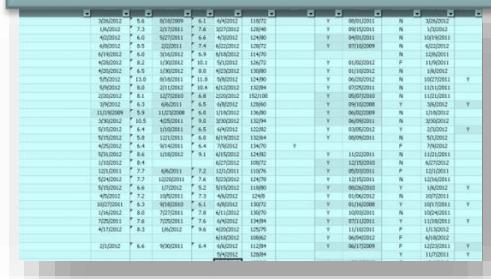
Provided by RHIO

RHIO Clinical Sharing Modes Available

- **VHR:** Virtual Health Record including access to Images
  - **Pros:** Web-based, query tool on-demand with Diagnostic image viewer
  - **Cons:** Performance, password management, patient match, not normalized
- **eResults:** EMR Integration – reports and
  - **Pros:** Delivers lab results, radiology reports, other transcribed documents (discharge, etc.) into EMR inbox – with links to images via IERD
  - **Cons:** Only for providers that ordered or were copied on order
- **DIRECT:** Secure Messaging, HIPAA Compliant
  - **Pros:** Effective for **s**ecure messaging between providers with ability to include attachments (CCDs, Images, Documents Care Plans, etc.)
  - **Cons:** Not yet widely used
- **Subscription:** Patient Content
  - **Pros:** All relevant content available for patients with consent
  - **Cons:** Need to increase content, cost is per patient, lower eMPI match
- **Alerts:** Awareness of Impactful Events (ED, Admission)
  - **Pros:** RRHS Interface Engine and HIE can do more with a simple ADT alerts
  - **Cons:** Alerts should include RHIO eMPI ID (exact look-up for Query-based access)

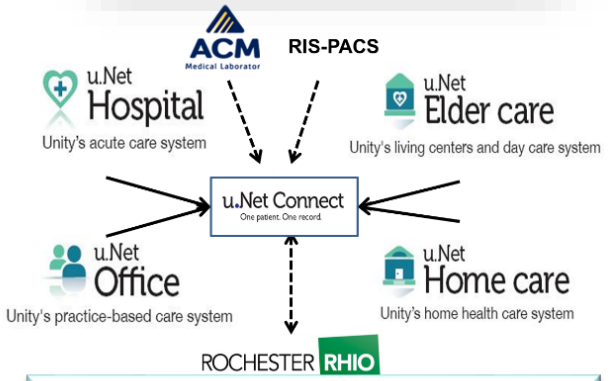
HIE is a Foundation for Population Health

Patient Registries & Care Management



Identify Gaps in Care

- Point of Care
- Between Appointments



Dashboards & Care Opportunity Reports

Patient Engagement

u.Net Connect Supports Care Management

Combining Tools, Process & Organizational Change

Offices

- View hospital discharge reports
- Med Reconciliation
- Diabetes Education notes
- Social Work/CM notes
- Utilization information
- Self care goals
- Blood glucose downloads

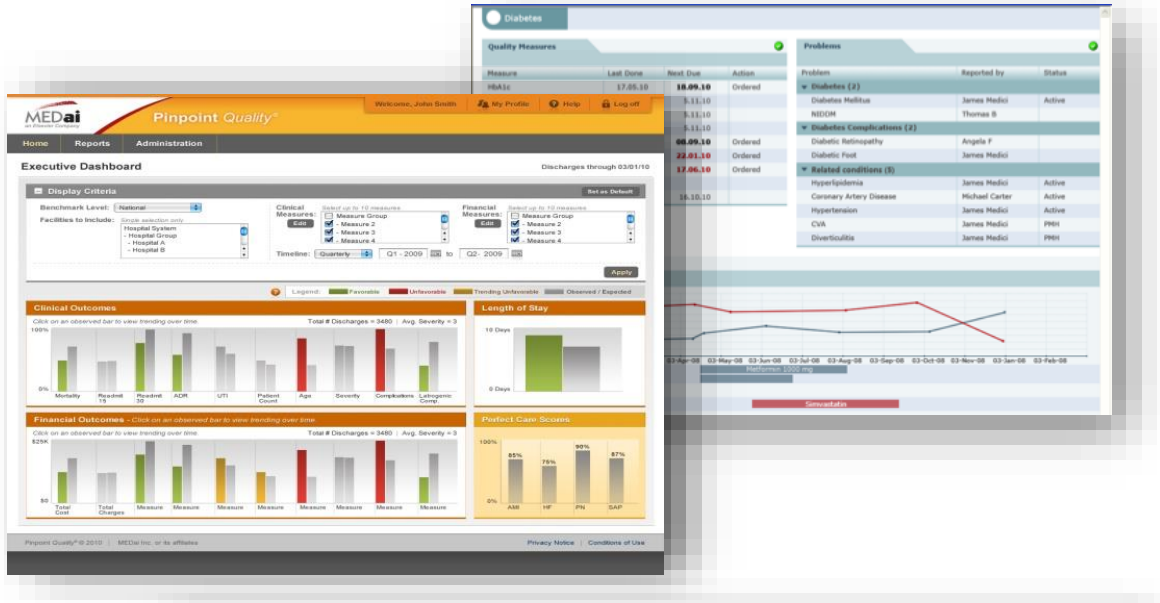
Hospital

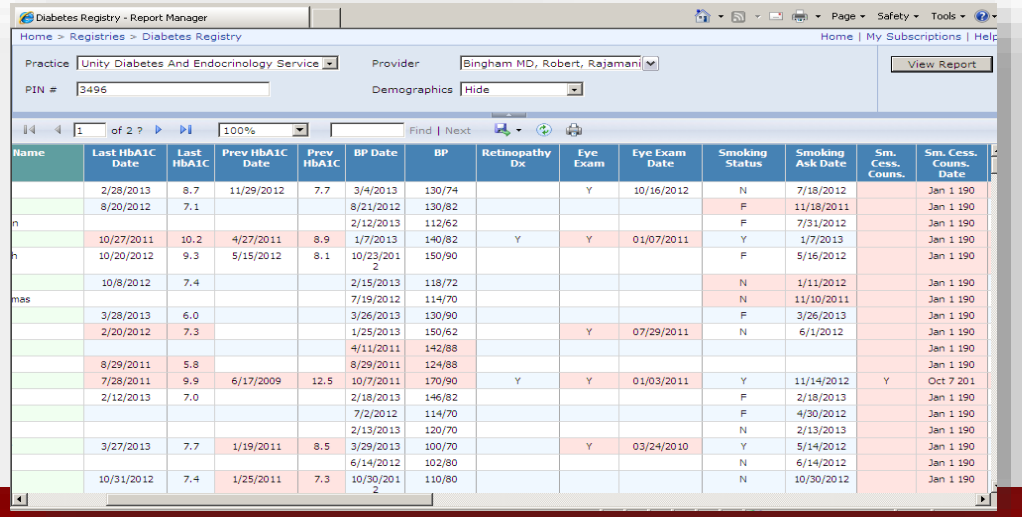
- Last PCP encounter
- Office Care Management Notes
- Med Reconciliation
- Utilization information
- Diabetes Education notes
- Self care goals
- Blood glucose downloads

Disease Management – ID Gaps in Care

Diabetes Care Technology

- Registry of patients with profile
- Intensive insulin management protocols
- Blood glucose download in office or remote in community
- Perioperative protocols
- Diabetes online community





Name	Last HbA1C Date	Last HbA1C	Prev HbA1C Date	Prev HbA1C	BP Date	BP	Retinopathy Dx	Eye Exam	Eye Exam Date	Smoking Status	Smoking Ask Date	Sm. Cess. Couns.	Sm. Cess. Couns. Date
	2/28/2013	8.7	11/29/2012	7.7	3/4/2013	130/74		Y	10/16/2012	N	7/18/2012		Jan 1 190
	8/20/2012	7.1			8/21/2012	130/82				F	11/18/2011		Jan 1 190
n					2/12/2013	112/62				F	7/31/2012		Jan 1 190
	10/27/2011	10.2	4/27/2011	8.9	1/7/2013	140/82	Y	Y	01/07/2011	Y	1/7/2013		Jan 1 190
h	10/20/2012	9.3	5/15/2012	8.1	10/23/2012	150/90				F	5/16/2012		Jan 1 190
	10/8/2012	7.4			2/15/2013	118/72				N	1/11/2012		Jan 1 190
mas					7/19/2012	114/70				N	11/10/2011		Jan 1 190
	3/28/2013	6.0			3/26/2013	130/90				F	3/26/2013		Jan 1 190
	2/20/2012	7.3			1/25/2013	150/62		Y	07/29/2011	N	6/1/2012		Jan 1 190
					4/11/2011	142/88							Jan 1 190
	8/29/2011	5.8			8/29/2011	124/88							Jan 1 190
	7/28/2011	9.9	6/17/2009	12.5	10/7/2011	170/90	Y	Y	01/03/2011	Y	11/14/2012	Y	Oct 7 201
	2/12/2013	7.0			2/18/2013	146/82				F	2/18/2013		Jan 1 190
					7/2/2012	114/70				F	4/30/2012		Jan 1 190
					2/13/2013	120/70				N	2/13/2013		Jan 1 190
	3/27/2013	7.7	1/19/2011	8.5	3/29/2013	100/70		Y	03/24/2010	Y	5/14/2012		Jan 1 190
					6/14/2012	102/80				N	6/14/2012		Jan 1 190
	10/31/2012	7.4	1/25/2011	7.3	10/30/2012	110/80				N	10/30/2012		Jan 1 190

Case Study

Image Exchange in New York

Image-Enabling HIEs

Image Exchange Use Cases & Workflow

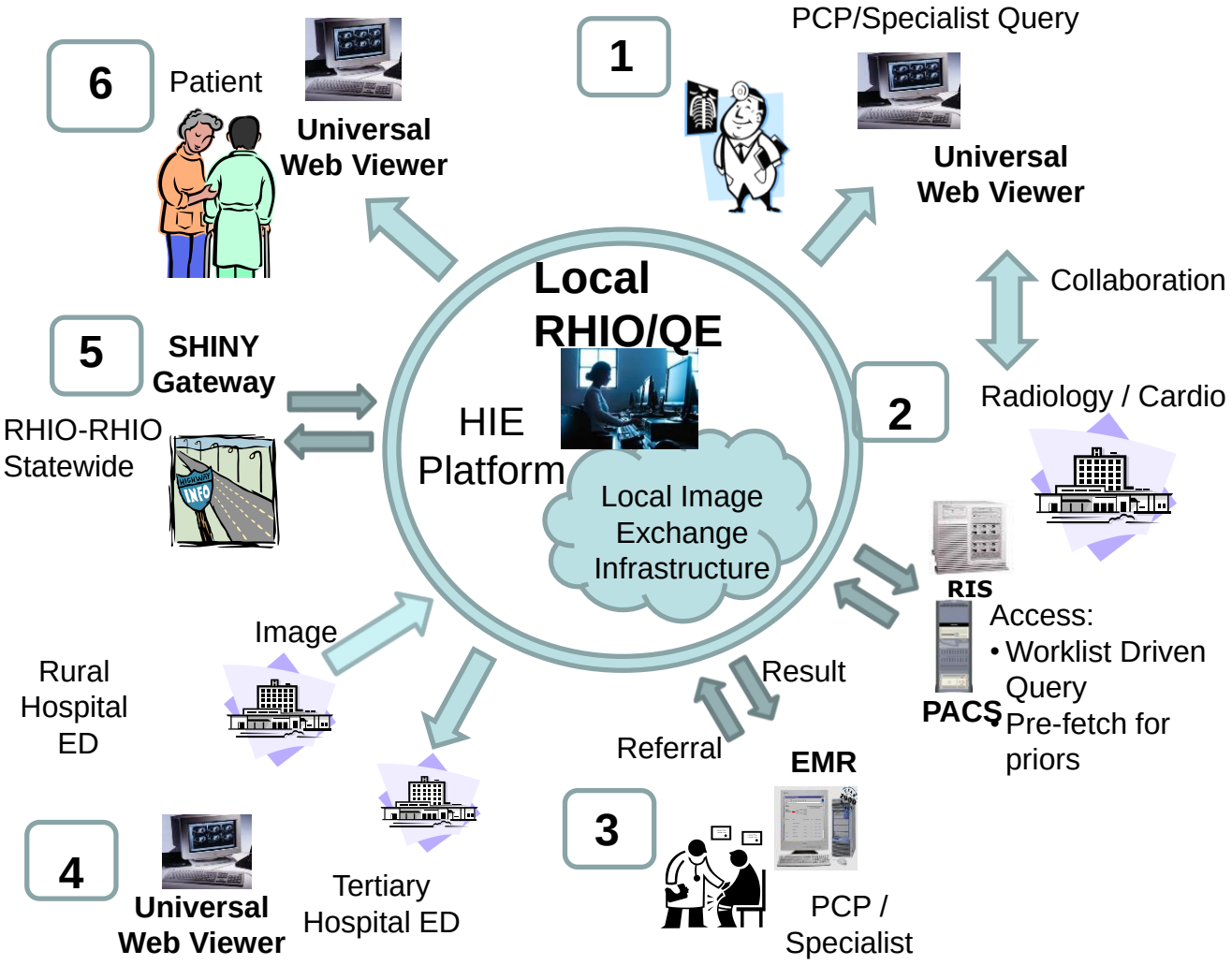


Image Exchange Use Cases

1. **Provider HIE Wide Patient Centric Query**
2. **Rad HIE Wide Search, Collaboration & Download to PACS**
3. **Image Enabled Results Delivery – link to EHR**
4. **Urgent Care – Referral**
5. **Statewide Patient Centric Query**
6. **Patient Engagement & Image Management**

Image Exchange Adoption in New York

- Implemented and Operational in 4 RHIOs
- Under contract, implementation complete, outreach underway in two more
- Significant usage helping avoid unnecessary images, reduce time/effort to access images

eHealth TECHNOLOGIES

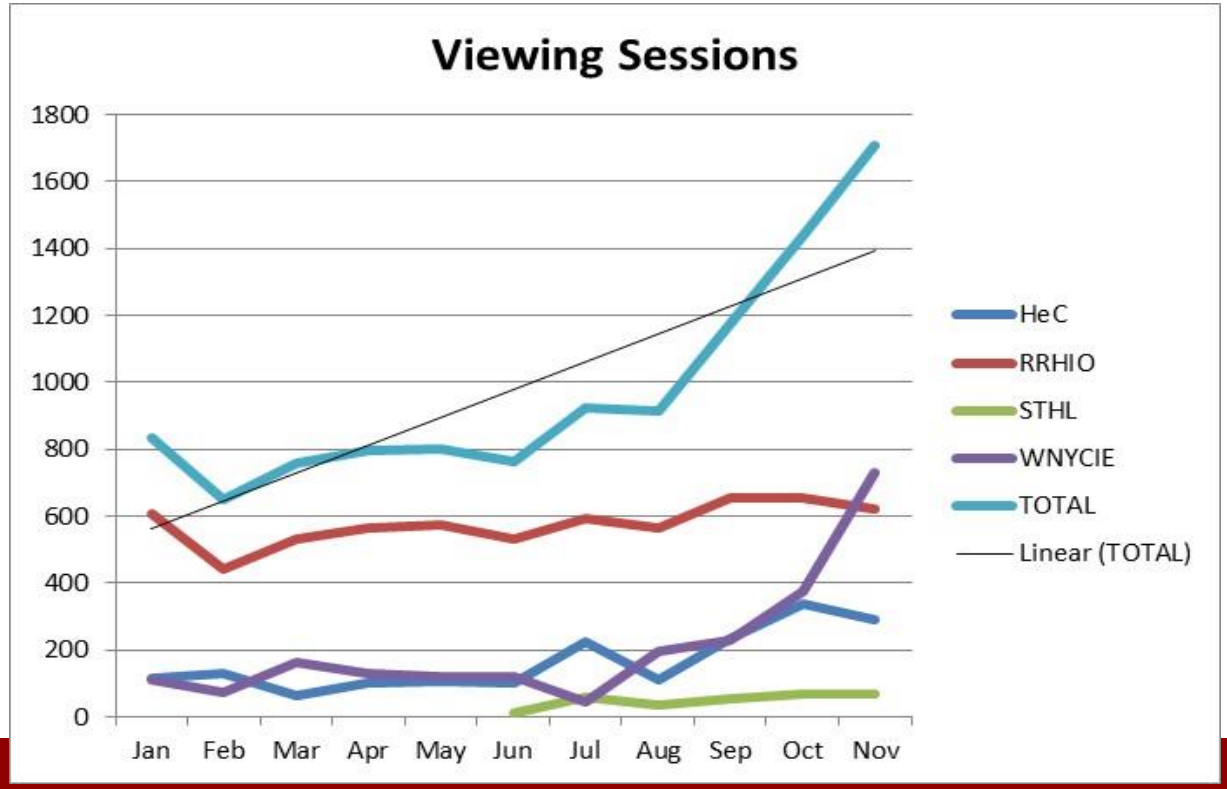
FOR IMMEDIATE RELEASE

E: Deanna.Peters@eHealthTechnologies.com
P: (877) 344-8999 ext. 617

eHealth Technologies and HealtheConnections Enhance Exchange of Images; Improve Provider Efficiency and Patient Care

HIE Image Transfer Capabilities with Connected Providers Dramatically Improves the Efficiency, Cost and Quality of Care

Rochester, N.Y., February 9, 2017 – eHealth Technologies, the leading provider of image-enabled Health Information Exchange (HIE) solutions, and HealtheConnections, a Syracuse-based regional health information organization (RHIO) supporting HIE for the 11 counties of central and northern New York have teamed up to share medical images across the care provider community in a way never before possible.



Case Study

Defining Requirements to Share Data within a Community

NY DSRIP – A $6.2B Medicaid Redesign Program

Finger Lakes Performing Provider System (FLPPS)

FLPPS FINGER LAKES PERFORMING PROVIDER SYSTEM

DSRIP Overview

Delivery System Reform Incentive Payment (DSRIP) program: CMS initiative, engaged in NY to redirect Medicaid funds to radically transform the Medicaid delivery system and address uninsured.

- Incentivizes healthcare and community-based providers to collaborate and introduce innovative system transformation to better serve Medicaid and uninsured populations who often experience greater healthcare disparities.

- $6.42 billion allocated to NYS DSRIP with payouts based upon achieving predefined results in system transformation, clinical management, and population health.

Overarching Objective: Improve clinical outcomes and reduce avoidable ED use and hospital admissions by 25% over five years.

Five program principles:

- Patient-centered
- Transparency
- Collaboration
- Accountability
- Value-Driven

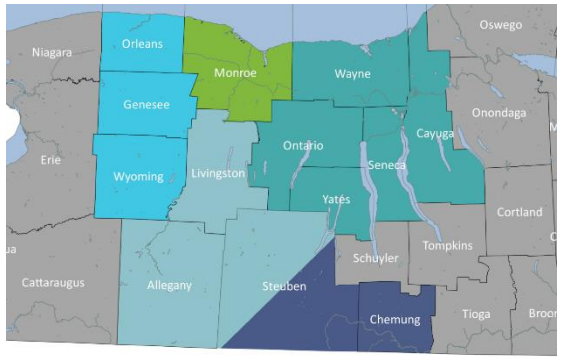
Finger Lakes Performing Provider System

Rochester Area PPS

FLPPS Overview:

- Sponsored by two competing health systems
  - University of Rochester Medical Center
  - Rochester Regional Health

- The largest, most dispersed PPS in NY, with a mix of urban and rural sub-populations



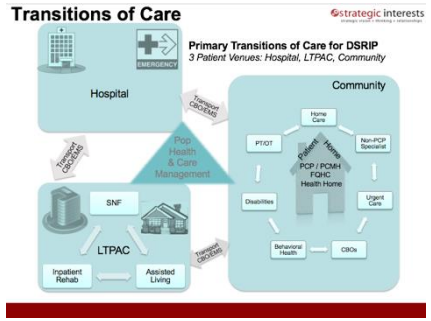
DSRIP Projects:

- 2.a.i. Integrated Delivery System
- 2.b.iii ED Triage
- 2.b.iv. Transition of Care
- 2.b.vi Housing
- 2.d.i. Patient Activation
- 3.a.i. BH-PCP Integration
- 3.a.ii BH Crisis Intervention
- 3.a.v. BH-SNF Integration
- 3.f.i. Maternal / Child Care
- 4.a.iii BH/Substance Abuse
- 4.b.ii Chronic Care Mgmt

Improving data available for ToCs deemed critical to success

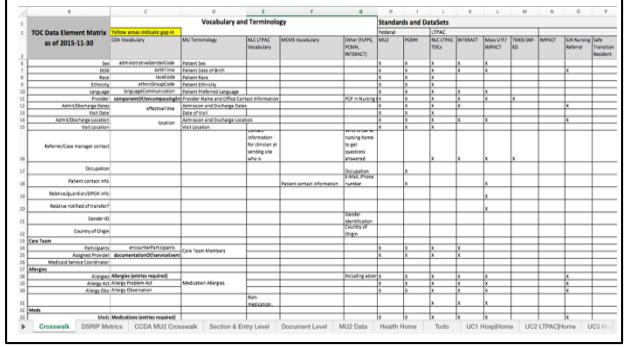
ToC Exchange Gap Methodology

1. Defined Transitions of Care and Developed Use Cases

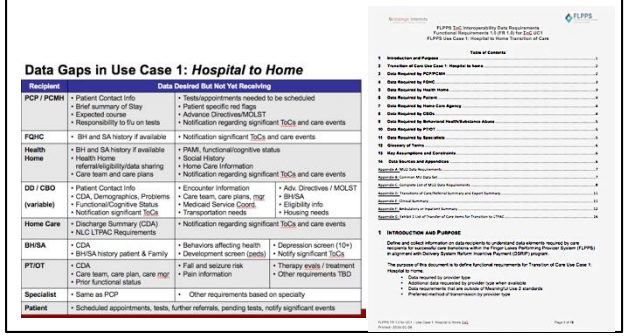


2. Researched Standards, Best Practices; Interviewed Providers for Capability and Data Requirements.

3. Crosswalked Data from MU, PCMH, INTERACT, MIPS, etc. to ID gaps & needs

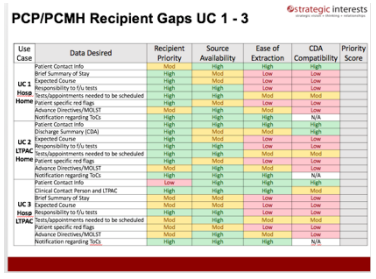


4. Defined and documented functional requirements for Provider types by use case



5. Prioritized data gaps by entity, effort, importance, and ability to address.

Rank Value/Cost/Work



6. Determined Highest Impact Priorities with the Lowest Relative Costs/Work

Impact on FLPPS success

a) Number of provider types requesting
b) Number/importance of projects affected
c) Impact on DSRIP primary objectives
d) Affect on FLPPS funding

Implementation cost determination

a) Complexity
b) Existing capabilities of RHIO, CDA, EHRs and providers
c) Time to implement

Some require expensive, complex implementation, changes to CDA, CCD, EHR, workflows

Focus should be on items with Highest value to FLPPS and Low/Moderate costs

Relative Cost to Implement Highest Value Data Items to FLPPS

ToC Alerts/Notifications to Eligible Providers → CDA to Eligible Providers → eMOLST use, SSO and Education → Care Manager Hierarchy and Communication → Housing and Transportation Needs

Industry Standards Resources for ToCs

Focus on LTPAC?

National Learning Consortium
Advancing America's Health Care

Care Coordination Tool for Transition to Long-Term and Post-Acute Care

JAMDA 15 (2014) 162–170

ELSEVIER

JAMDA

journal homepage: www.jamda.com

Special Article

The Interventions to Reduce Acute Care Transfers (INTERACT) Quality Improvement Program: An Overview for Medical Directors and Primary Care Clinicians in Long Term Care

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[d] Massachusetts Senior Care Foundation, Boston, MA

ABSTRACT

Keywords:

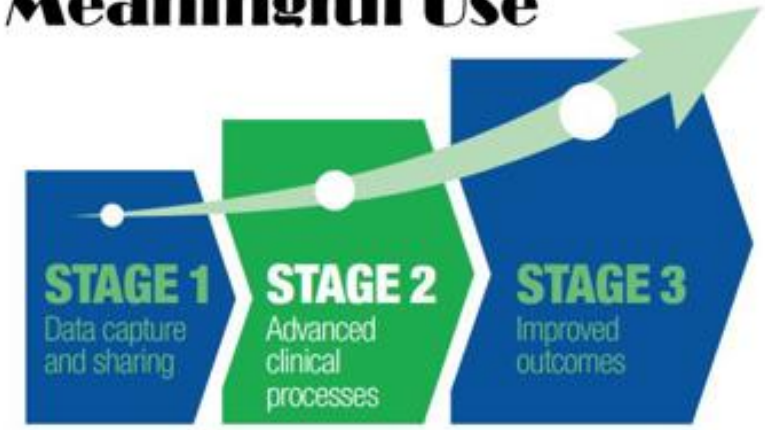
Interventions to Reduce Acute Care Transfers (INTERACT) is a publicly available quality improvement program that focuses on improving the identification, evaluation, and management of acute changes in condition of nursing home residents. Effective implementation has been associated with substantial reductions in hospitalization of nursing home residents. Familiarity with and support of program

shm project BOOST
Better Outcomes by Optimizing Safe Transitions

IMPACT - Improving Massachusetts Post Acute Care Transfers

IMPACT, which stands for Improving Massachusetts Post-Acute Care Transfers, was an Office of the National Coordinator (ONC) grant-funded project designed to improve care transitions using an enhanced electronic Universal Transfer Form (UTF) and Electronic Health Information (HIE) exchange.

Meaningful Use



Data Gaps in Use Case 2: *Hospital to LTPAC*

A physician executive recently said that post-acute care has long been an archipelago of small islands, with no bridges, poor transportation, and limited communication options to the rest of the health care system.
Deloitte Center for Health Solutions, Viewing post-acute care in a new light: Strategies to drive value

Recipient	Data Not Receiving		
LTPAC	•Referrer contact for questions •O2 sat, pain info (eg. non-verbal) •Detail functional / cognitive status •Pre-hospital admission meds •PT/OT care & abilities / willingness	•Pressure ulcers/ skin/ wounds •Detailed nursing care: nutrition, hydration, devices, therapies •Advance Directives / MOLST	• Relative notified ToC? • Vendor/ supply info • Notification on significant ToCs
PCP / PCMH	• Patient Contact Info • Brief summary of Stay • Expected course • Responsibility to f/u on tests	• Tests/appointments needed to be scheduled • Patient specific red flags • Advance Directives / MOLST • Notification regarding significant ToCs and care events	
HH	Notification regarding significant ToCs and care events		
DD / CBO **(variable)**	Patient Contact Info CDA, Demographics, Problems Functional/Cognitive Status	Encounter Information Care team and care plans Medicaid Service Coord.	Adv. Directives / MOLST BH/SA Eligibility info
Home Care	Discharge Summary (CDA) NLC LTPAC Requirements*	Notification regarding significant ToCs and care events	
PT/OT	CDA Care team, care plan, care mgr Prior functional status	Fall and seizure risk Pain information	Therapy evals and treatment Other requirements TBD
Specialist	Clinical contact person at LTPAC	Brief summary of stay	Other based on specialty
Patient	Scheduled appointments, tests, further referrals, pending tests, notification for significant events		

Data-Standards Crosswalk

MU, PCMH, MCMS, etc.

- 390+ discrete data elements
- 28 Industry standards, local standards, datasets and templates compared
- 8 ToC Use Cases, 13 Provider/Recipient Types

TOC Data Element Matrix as of 2015-11-30	Vocabulary and Terminology				Standards and DataSets												
					Federal		LTPAC									Primary Care	
	MU Terminology	NLC LTPAC Vocabulary	MCMS Vocabulary	Other (FLPPS, PCMH, INTERACT)	MU2	PCMH	NLC LTPAC TOCs	INTERACT	Mass UTF/ IMPACT	TMDS SNF-ED	IMPACT	SJH Nursing Referral	Safe Transition Resident		JSL LTC Admit from PCP	Summary of Care Record	MCMS PCP to ED admission
Immunizations	Immunizations				X	X	X	X	X						X	X	X
Administered during Visit	Immunizations Administered during the Visit				X	X	X	X	X						X		X
Pneumovac and Flu vac												X					
Vitals																	
Vital signs (height, weight, BP, BMI)	Vital signs (height, weight, BP, BMI)				X	X	X	X	X			X				X	
					X	X	X	X	X			X				X	
					X	X	X	X	X			X				X	
O2 Saturation		O2 Saturation					X	X	X								
FS blood glucose									X								
Mental Status at Discharge		Mental Status at Discharge					X	X				X					
Diagnostics/Lab																	
Laboratory Tests/Value(s)/Result(s)	Laboratory Tests/Value(s)/Result(s)				X	X	X									X	
					X	X	X									X	
					X	X	X									X	
Results of tests during stay			Results of tests done during stay					X									
Relevant Lab results (1-3 months)								X	X								
Relevant Lab results (1-6 months)															X		
BUN												X					
Creatinine												X					
Diagnostics/Imaging																	
Laboratory Tests/Value(s)/Result(s)	Laboratory Tests/Value(s)/Result(s)				X	X	X									X	
					X	X	X									X	
					X	X	X									X	
Relevant x-rays and diagnostic test results								X	X						X		
Care Plan																	
Future Appointments	Future Appointments				X	X	X	X	X				X				
Future Scheduled Tests	Future Scheduled Tests				X	X	X	X					X				
Referrals to Other Providers	Referrals to Other Providers				X	X	X	X					X				
Care plan field(s), including goals and instructions; Future Scheduled Appointments; Referrals to Other	Care plan field(s), including goals and instructions; Future Scheduled Appointments;				X	X	X		X				X			X	
					X	X	X		X				X			X	
Diagnostic Test(s) Pending; Future Scheduled Tests	Diagnostic Test(s) Pending; Future Scheduled Tests				X	X	X	X	X				X			X	
Person following up future tests			Person following up on future tests														
Follow up tests and appointments needed/recommended			Follow up tests and specialty appointments that need to be	Recommended follow-up				X									

Stratify & Rank Data Gaps

Prioritize: Value to Recipient, Effort & Cost – Use Case 2: Hospital to LTPAC

Content

- PAMI
- Labs
- Diagnostic Images
- Clinical Documents
- Referral Admin Info
- Claims
- Insurance Info

Clinical Documents

Data Desired by LTPAC	Recipient Priority	Source Availability	Ease of Extraction	CDA Compatibility
Referrer Contact for Questions	High	High	High	Mod
02Sat	High	High	High	Mod
Detailed Pain Information	High	Mod	Low	Low
Detailed Functional and Cognitive Status	High	Mod	Low	Low
Pre-hospital admission meds	High	High	High	Mod
PT/OT care, abilities and willingness	Mod	High	High	Mod
Pressure ulcers / skin / wounds	High	High	High	Mod
Detailed Nursing Care: nutrition, hydration, devices, therapies	High	High	Mod	Low
Advance Directives/MOLST	High	High	Mod	Low
Relative Notified of Transiton of Care?	Mod	Mod	Mod	Low
Vendor Supply / Info	Mod	Mod	Mod	Low
Notification regarding ToCs	High	High	High	N/A

Thank You

Al Kinel
President of Strategic Interests

strategic interests
strategic vision + thinking + relationships