Health Information Exchange
for Care Coordination
Between Behavioral Health and Physical Health Care

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April 27, 2016

Presentation Agenda / Goals

Agenda

- The value of integrating behavioral and physical health
- Health Information Exchange (HIE)
- Behavioral Health and HIE
- Implementation of HIE with behavioral health: two case studies
- Conclusions / Discussion

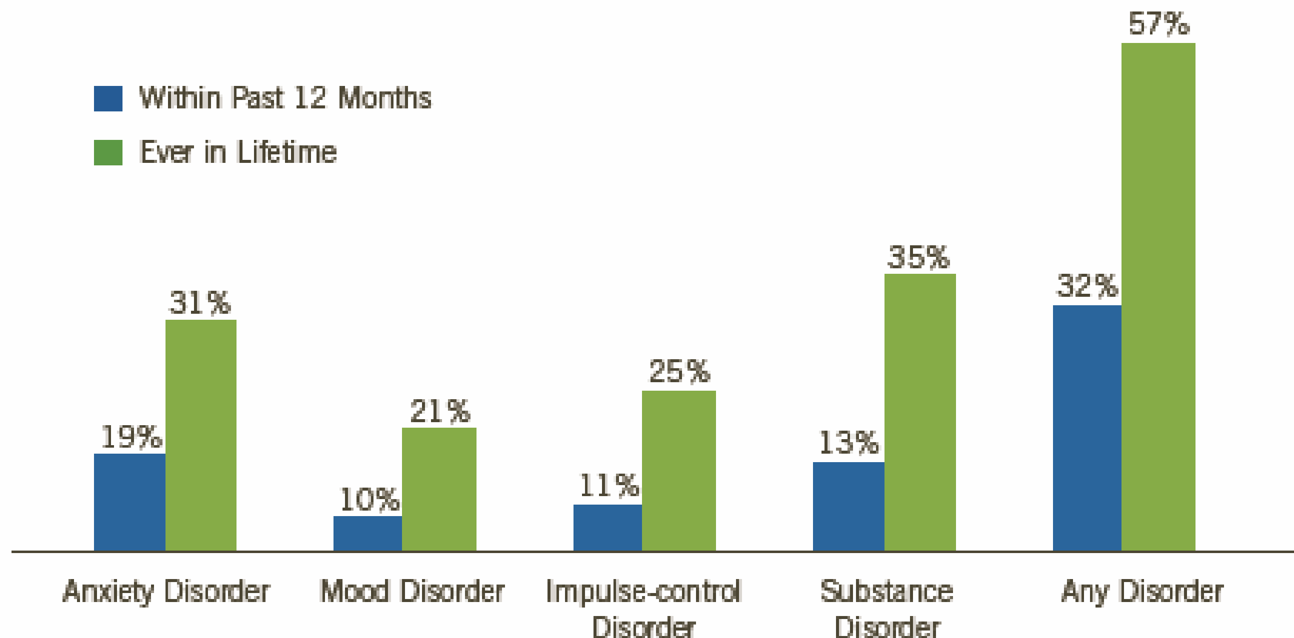
Session goals are to enable participants to:

- Understand opportunities and obstacles for implementing technical HIE solutions between behavioral and physical health care
- Discuss privacy and security issues related to sharing mental and behavioral health information
- Cite examples of successful data sharing between behavioral and physical health

VALUE OF INTEGRATING BEHAVIORAL & PHYSICAL HEALTH

Behavioral health conditions are prevalent among adults in the U.S.

Chart 1: Percent of U.S. Adults Meeting Diagnostic Behavioral Health Criteria, 2007

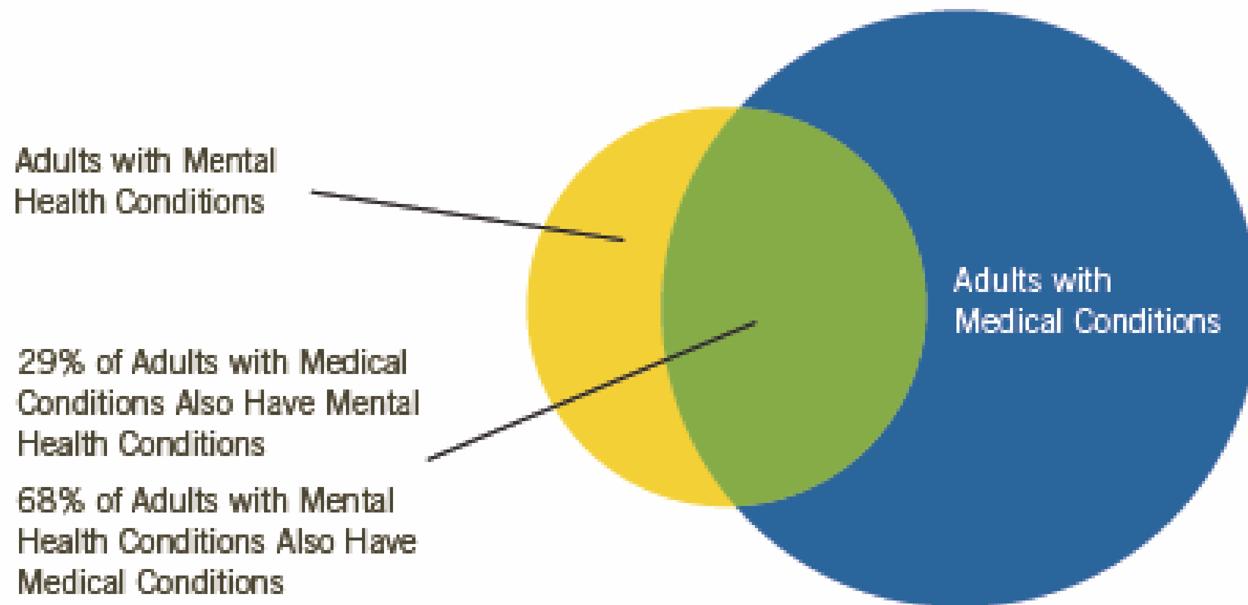


Note: Anxiety disorder includes panic disorder, agoraphobia, specific phobia, social phobia, generalized anxiety disorder, post-traumatic stress disorder, obsessive compulsive disorder, and adult separation anxiety disorder. Impulse-control disorder includes oppositional defiant disorder, conduct disorder, attention deficit/hyperactivity disorder, and intermittent explosive disorder. Substance disorder includes alcohol abuse, drug abuse, and nicotine dependence.

Source: Kaiser Commission on Medicaid and the Uninsured. (April 2011). *Mental Health Financing in the United States: A Primer*. Washington, DC.

Individuals with behavioral health conditions frequently have co-ocurring physical health conditions.

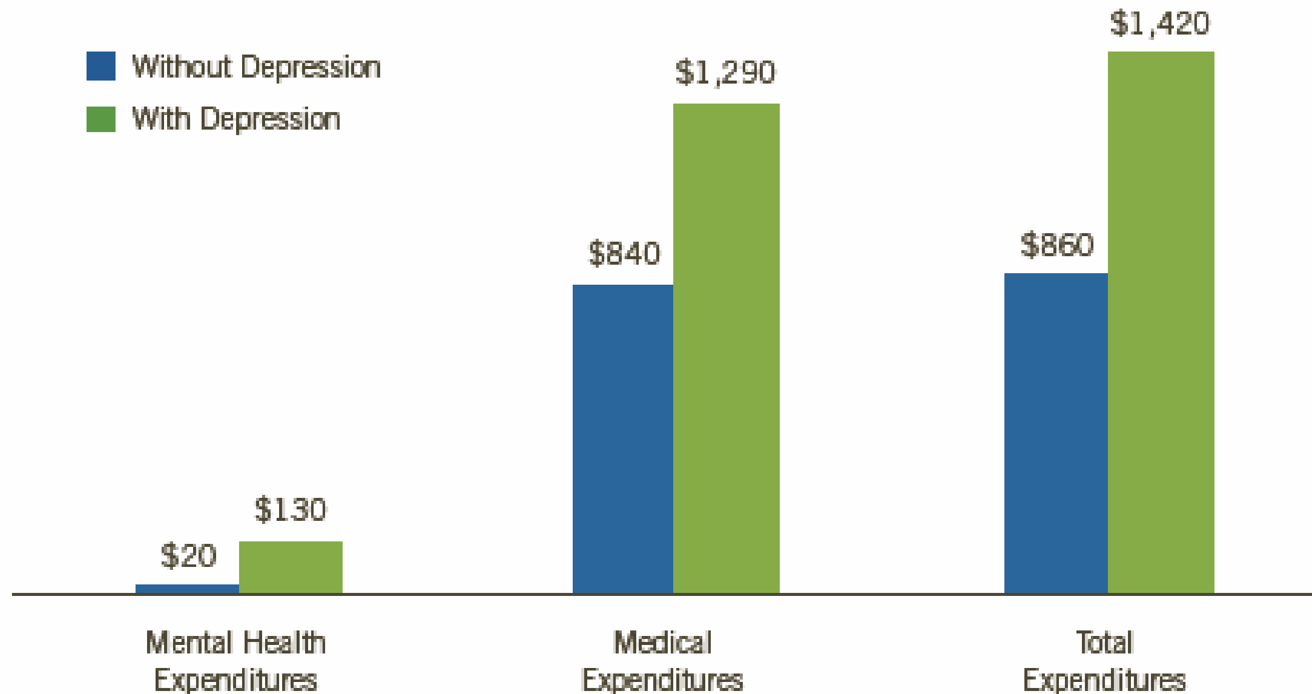
Chart 2: Percentage of Adults with Mental Health Conditions and/or Medical Conditions, 2001-2003



Source: Druss, B.G., and Walker, E.R. (February 2011). *Mental Disorders and Medical Comorbidity.* Research Synthesis Report No. 21. Princeton, NJ: The Robert Wood Johnson Foundation.

The presence of a mental health disorder raises treatment costs for chronic medical conditions.

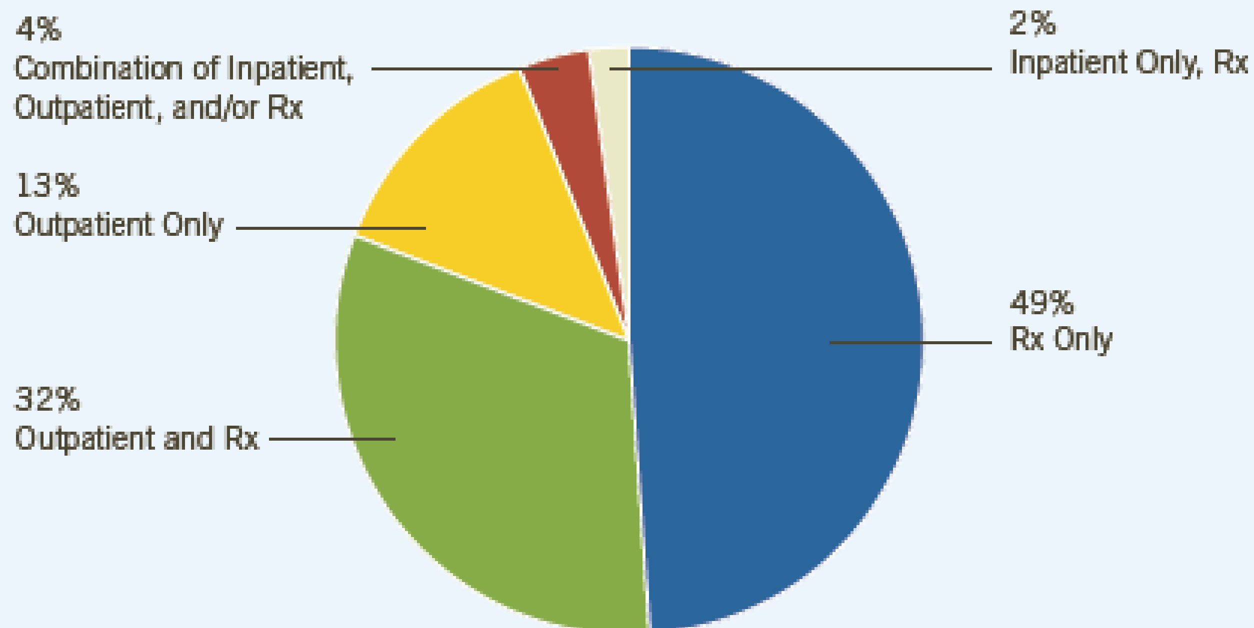
Chart 3: Monthly Health Care Expenditures for Chronic Conditions, with and without Comorbid Depression, 2005



Source: Melek, S., and Norris, D. (2008). *Chronic Conditions and Comorbid Psychological Disorders*. Cited in: Druss, B.G., and Walker, E.R. (February 2011). *Mental Disorders and Medical Comorbidity*. Research Synthesis Report No. 21. Princeton, NJ: The Robert Wood Johnson Foundation.

Treatment for behavioral health problems is most frequently delivered on an outpatient basis.

Chart 6: Types of Mental Health Services Used in Past Year, Among Adults Receiving Treatment, 2009

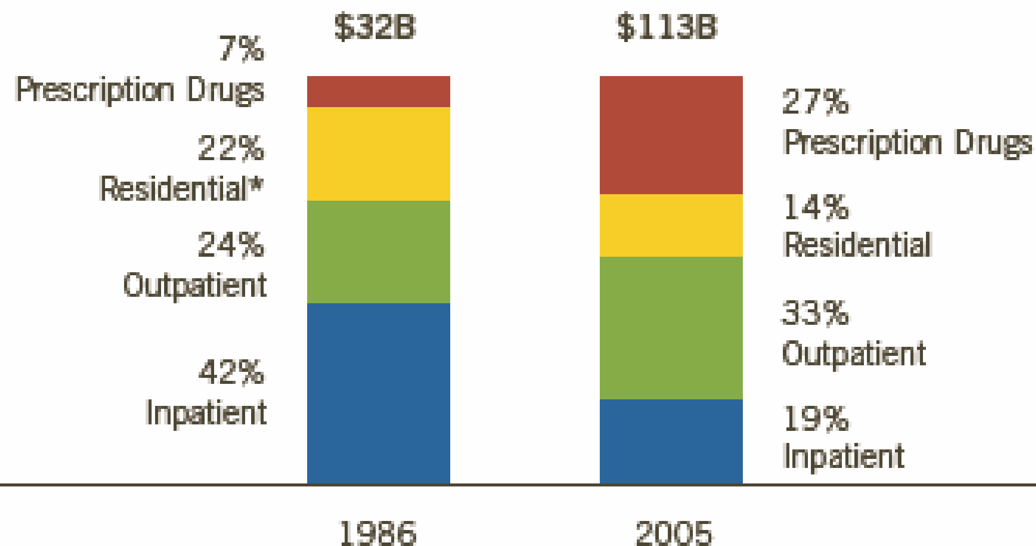


Note: Excludes treatment for substance abuse disorders.

Source: Kaiser Commission on Medicaid and the Uninsured. (April 2011). *Mental Health Financing in the United States: A Primer*. Washington, DC.

Increased utilization of prescription drugs and decreased reliance on inpatient services has shifted spending over time.

Chart 7: Distribution of Mental Health Expenditures by Type of Service, 1986 and 2005



Note: Excludes spending on insurance administration. Data not adjusted for inflation.

* Residential treatment includes spending in nursing home units of hospitals or in nursing homes affiliated with hospitals.

Source: Substance Abuse and Mental Health Services Administration. (2011). National Expenditures for Mental Health Services & Substance Abuse Treatment 1986-2005. Washington, DC. As cited in Kaiser Commission on Medicaid and the Uninsured. (April 2011). *Mental Health Financing in the United States: A Primer*. Washington, DC.

Slides 2 through 6 are reproduced from American Hospital Association, Trendwatch, January 2012.

Patients with Serious Mental Health Conditions vs Patients without SMH Conditions

Measure	Range	Mean
Standardized Mortality Rates	0.6 – 4.9	2.2
Average Years Life Lost	13.5 – 29.3	25.2
Average Age at Death	48.9 – 76.7	56.8

Source: AHRQ webinar, Joe Parks, MD, Chief Clinical Officer, Missouri Department of Mental Health, April 18, 2013.

Reasons for Shorter Life

- Physical health primarily
  - Smoking (44% of smokers)
  - Overweight
  - Triglycerides
  - HDL
  - Blood pressure
  - Glucose

Source: See prior slide.

Practice Transformations

- Focus on overall health
- More medically oriented team members
- Open access scheduling
- No-show/cancellation policies
- Increased patient input processes
- Significant increase in data reporting and outcomes
- Treatment planning tools supported by treatment guidelines

Source: Same as prior 2 slides.

Outcomes

- Cost
- Quality of care
  - Medications adherence
  - HEDIS
- Avoidable admissions
- Experience of care

Montefiore Medical Center

- Implemented behavioral health interventions for hospital physical health patients
- In two years, reduced readmission rate by almost 50%

Source: AHRQ webinar, 2013.

AHRQ Series of Webinars

- Combining mental health and physical health services
- Set in primary care environment as part of the care process
- Leaders
  - Veterans Administration
  - Community Clinics

St Anthony Hospital

Oklahoma City

- Added a mental health admission office in the emergency department
- Behavioral health screening prior to bed placement
- Average wait time for patients in ED from 44 min to 28 min
- Average time in ED reduced from 254 min to 177 min
- More patient now seen in ED with a 12 to 20% reductions in hospital admissions

ABOUT HIE

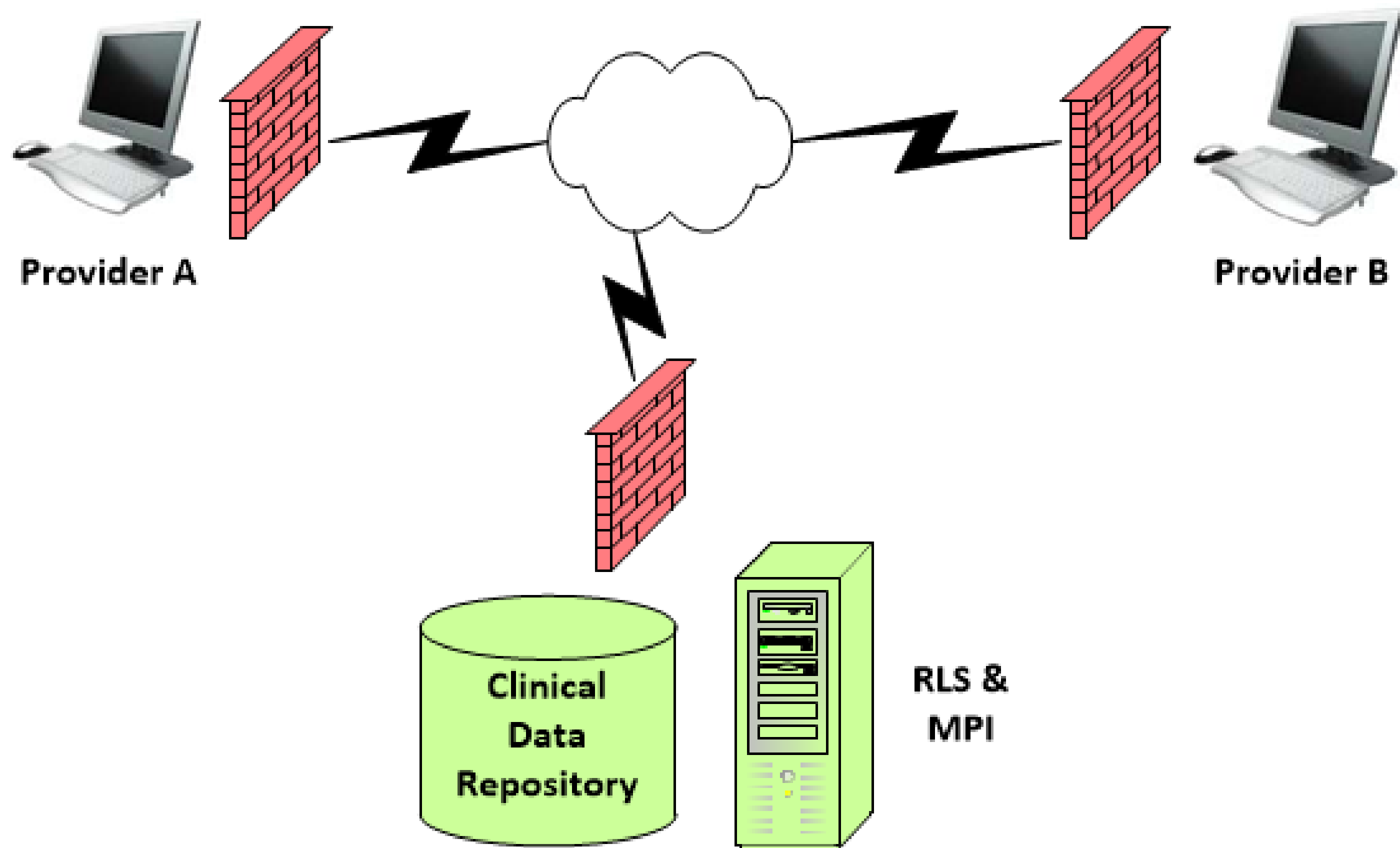
What is HIE?

- Health Information Organization. An entity that organizes and governs the exchange of health information for a specific set of participants.
- Health Information Exchange (noun). An HIO that operates the software for data exchange.
- HIE (verb). The exchange of health information.

What are the types of HIE entities?

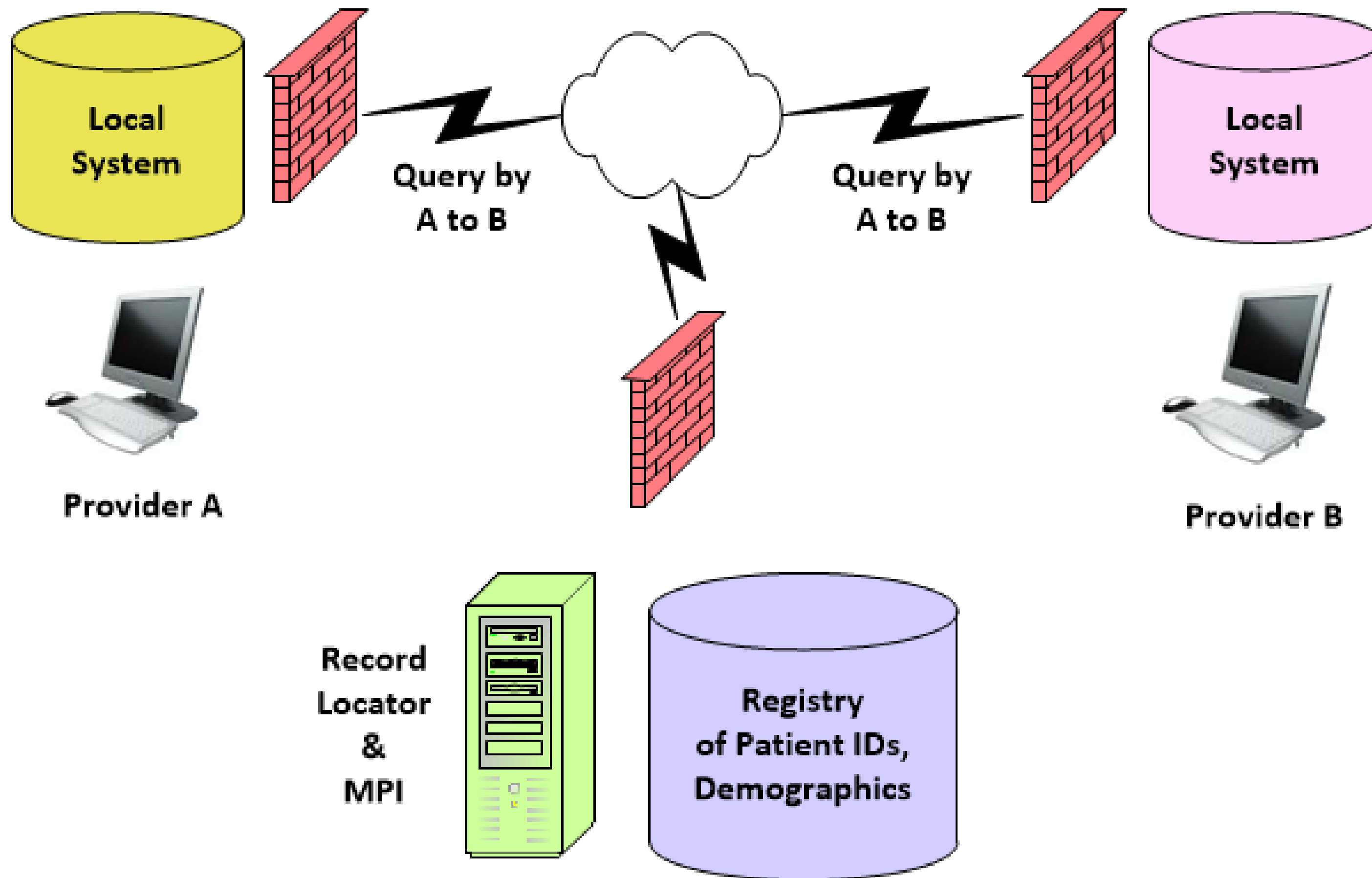
- Repository
- Federated
- Hybrid

Repository Model HIE



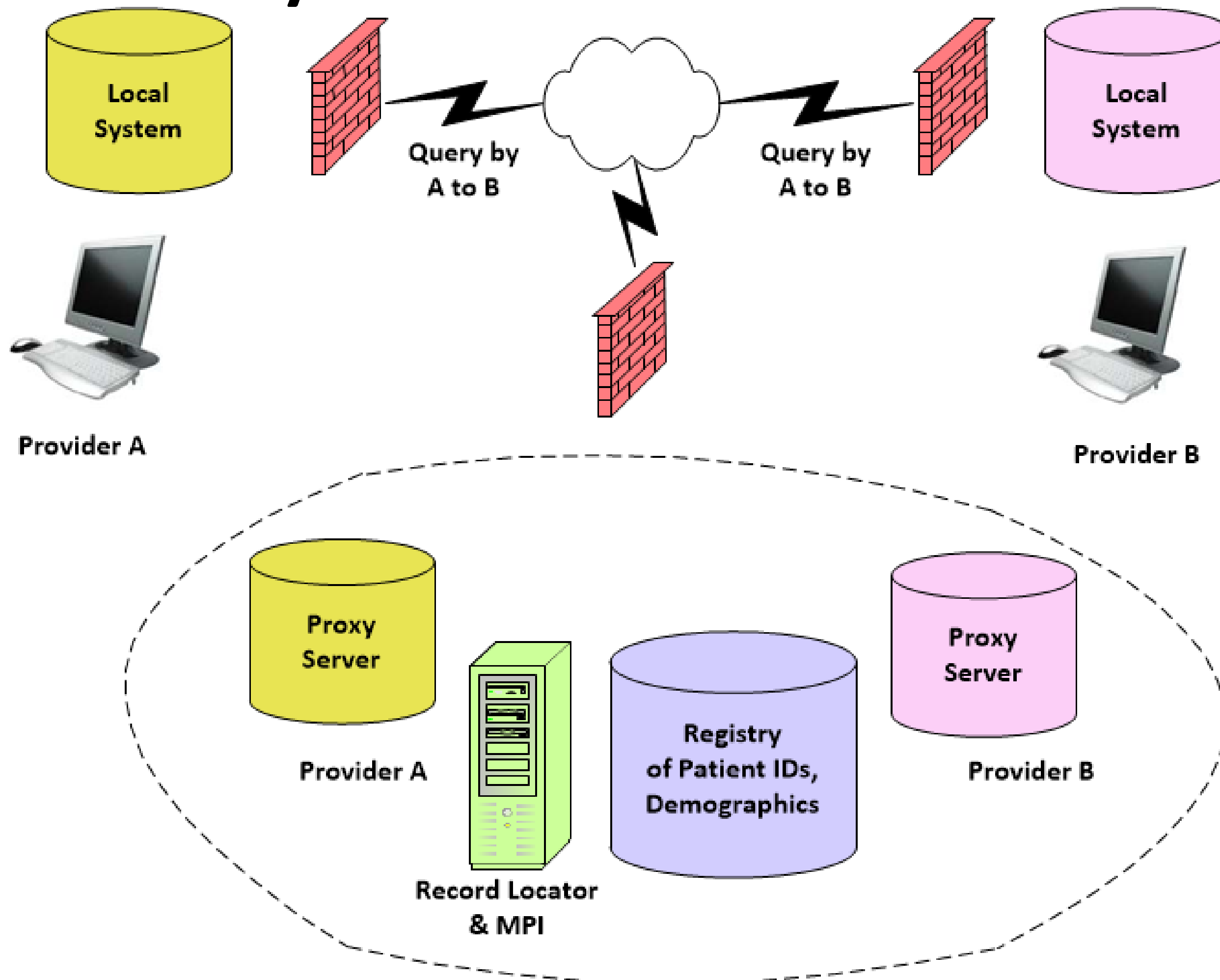
Source: HIO Development Guide, CHEQ, L Dennis, December 2012, p. 80.

Federated Model HIE



Source: HIO Development Guide, p. 77.

Hybrid Model HIE



Source: HIO Development Guide, p. 79.

HIE ACTIVITY IN CALIFORNIA

Community HIEs

Central Coast Health Connect	Monterey
Central Valley Health Information Exchange	Fresno, Madera, Tulare, Kings
ConnectHealthcare	Sonoma, Napa, Solano, Yolo
Inland Empire Health Information Exchange	Fresno, Tulare, San Joaquin, Madera, Sonoma, Napa, Solano, Yolo, San Joaquin, Stanislaus, Riverside, San Bernardino, San Diego, Imperial, Orange, Los Angeles, Mono
Los Angeles Network for Enhanced Services (LANES)	Los Angeles, Orange
North Coast Health Information Network	Del Norte, Humboldt
Orange County Partnership Regional Health Information Organization (OCPRHIO)	Orange
RAIN-Live Oak Health Information Exchange and Telemedicine Network	Santa Barbara, Ventura
Redwood MedNet	Mendocino, Lake, Sonoma, Marin, Humboldt
SacValley MedShare	Siskiyou, Modoc, Trinity, Shasta, Lassen, Tehama, Plumas, Glenn, Butte, Colusa, Sutter, Yuba
San Diego Health Connect	San Diego, Imperial
San Joaquin Community Health Information Exchange	San Joaquin, Stanislaus
Santa Cruz Health Information Exchange	Santa Cruz

Enterprise HIEs

California Integrated Date Exchange (Cal INDEX)	All of California
Coastal eHealth Connection	Santa Barbara
Dignity Health	Hospital and practice locations
St Joseph Health	Hospital and practice locations
Sutter Health	Hospital and practice locations

California Community HIOs

PLAY TIMELINE

OR CLICK ON INDIVIDUAL YEARS

1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013

HITECH ERA

Source: HIE Activity in California, CHeQ, UC Davis Institute for Population Health Improvement, 2014.

DEVELOPMENT OF AN HIE

HIE Options

- Conventional HIE query/response
  - Dashboard (like an EMR)
  - See any data available immediately
  - May have access to data through local EMR
- Direct – point-to-point, like fax, but electronic
- eHealth Exchange – query/response; 3 steps:
  - Data on Lyman?
  - What data on Lyman?
  - Want x data on Lyman.

Issues in healthcare & HIE 1

- Transition from individual and group practice to value-based, organized care
- Use of care teams – many team members may desire access to HIE
- Patient matching – complex
- Other entity priorities
  - Community HIEs
  - Enterprise HIEs

Issues in healthcare & HIE 2

- Fear of loss of proprietary or historical market position
  - Vanity Fair: The publishing companies largely dragged their feet and failed to embrace electronic publishing leaving the field to Google and Amazon. [Paraphase]
- Requirement for provider change
- Sustainability
- Move toward more systematized processes

BEHAVIORAL HEALTH & HIE

MENTAL HEALTH DATA

HIPAA & Sensitive Health Information

- With respect to mental health records, HIPAA only prohibits sharing of psychotherapy notes, which are not considered part of the medical record.
- The Chief Privacy Officer of the Office of the National Coordinator identifies 8 types of sensitive health information.

Sensitive Health Information based on clinical nature of the data

- HIV/AIDS
- Drug/alcohol abuse (not Part 2)
- Mental health/behavioral health
- Reproductive health of women
- Genetic information (not GINA)
- STD
- Teen health information
- Domestic violence health information

Source: Lucia Savage, CPO, ONC, HIMSS 2015.

State Laws

Source: Lucia Savage, CPO, ONC, HIMSS 2015.

Under California Law

- Mental health record data may be shared in accordance with HIPAA.
- Lanterman Petris Short Act places an additional restriction on data.
  - Ok for treatment
  - Ok for payment
  - Not ok for operations. Healthplan case management is considered operations.

42 CFR PART 2 DATA

Part 2 Data

Pre-NPRM

- Confusion about “Federally Assisted” meaning
- Confusion about “Program” coverage in general medical facilities and general medical practices
- No provision for HIEs

SAMHSA NPRM

- "[Part 2 regulations] are intended to ensure that a patient receiving treatment for a substance use disorder in a part 2 program is not made more vulnerable by reason of the availability of their patient record than an individual with a substance use disorder who does not seek treatment."

Source: 42 CFR Part 2, Subpart A, §(b) Effect, (2).

Federally Assisted

- “Federally assisted” is a requirement for a part 2 program but because an entity is federally assisted, it is not presumed to be a “Program.”

“Program”

1. An **individual or entity** that holds itself out as providing, and provides, substance use disorder diagnosis, treatment or referral for treatment.
2. An identified **unit** within a general medical facility or general medical practice that ….
3. **Medical personnel or other staff** in a general medical facility or general medical practice whose primary function is the provision of….

Source: 42 CFR Part 2, Subpart B—General Provisions, §2.11 Definitions, *Program* means:

Disclosures with Patient Consent

"To Whom"

(4)(i) Name of the **individual** to whom a disclosure is to be made

(ii) The name of an **entity** with a treating provider relationship with the patient

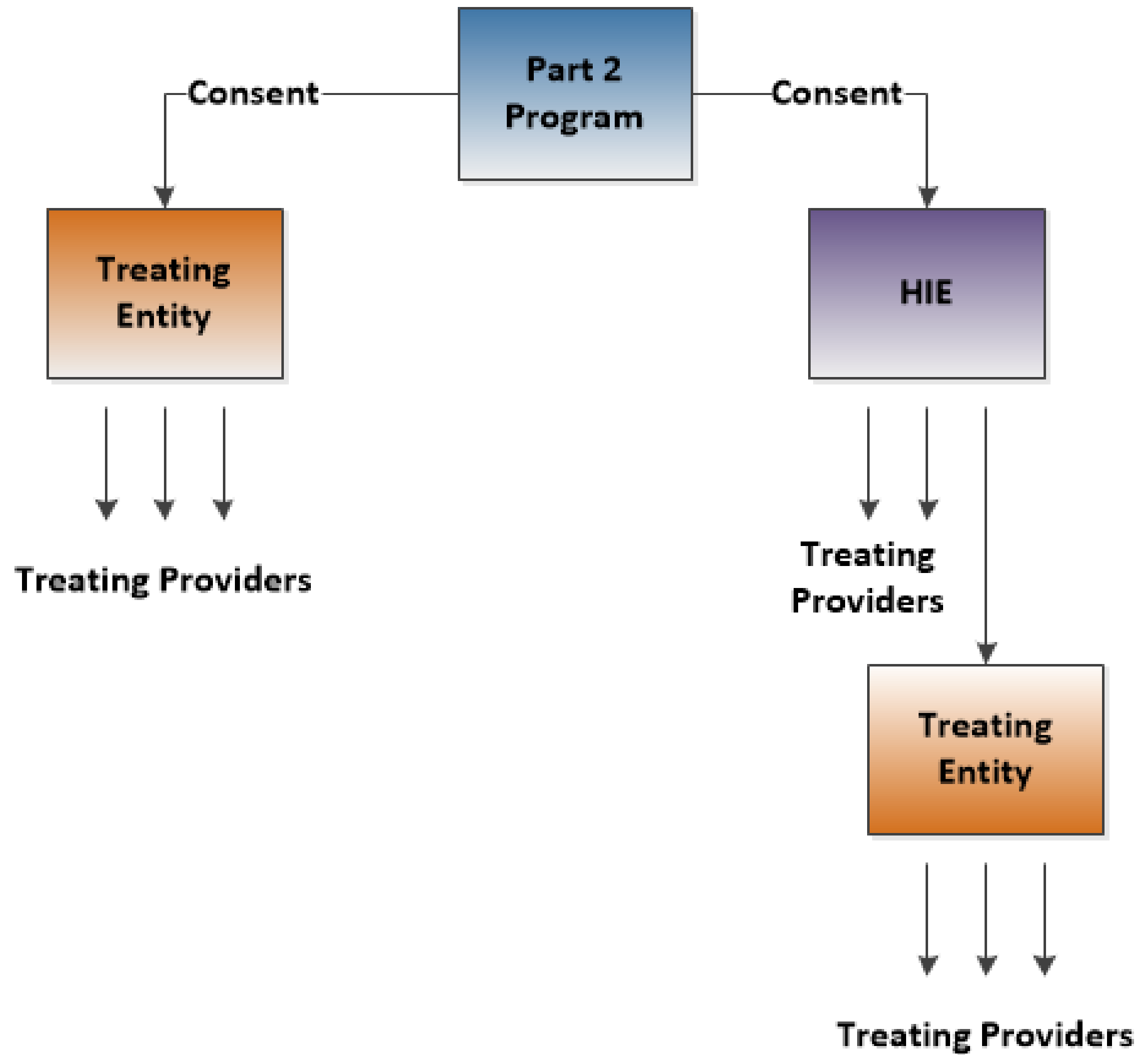
(iii) Third party **payer** that requires patient information for reimbursement

(iv) The name of an **entity that facilitates the exchange of health information** [or research institution] and [next slide]

Within the HIE

- The name of an **individual** participant,
- The name of an **entity** participant with a treating provider relationship with the patient, or
- A **general designation** of an individual or entity participant or a class of participants who have a treating provider relationship with the patient, e.g., **"my treating providers"** or "my present and future treating providers."

Consent and Data Flows



List of Disclosures

- Upon request, a patient who has consented to disclose patient identifying information using a general designation must be provided a list of entities to which their information has been disclosed:
- Disclosures within the **past two years**
- Response due in 30 days
- Description of patient identifying information disclosed

IMPLEMENTATION OF HIE WITH BEHAVIORAL HEALTH

Local Health Departments and HIE

- County Local Health Departments
  - EHR adoption
  - Increasing interest in HIE
  - “Neutral convenors”
- Examples
  - San Joaquin, Marin, Merced, Stanislaus, San Diego, LA, Riverside and San Bernardino

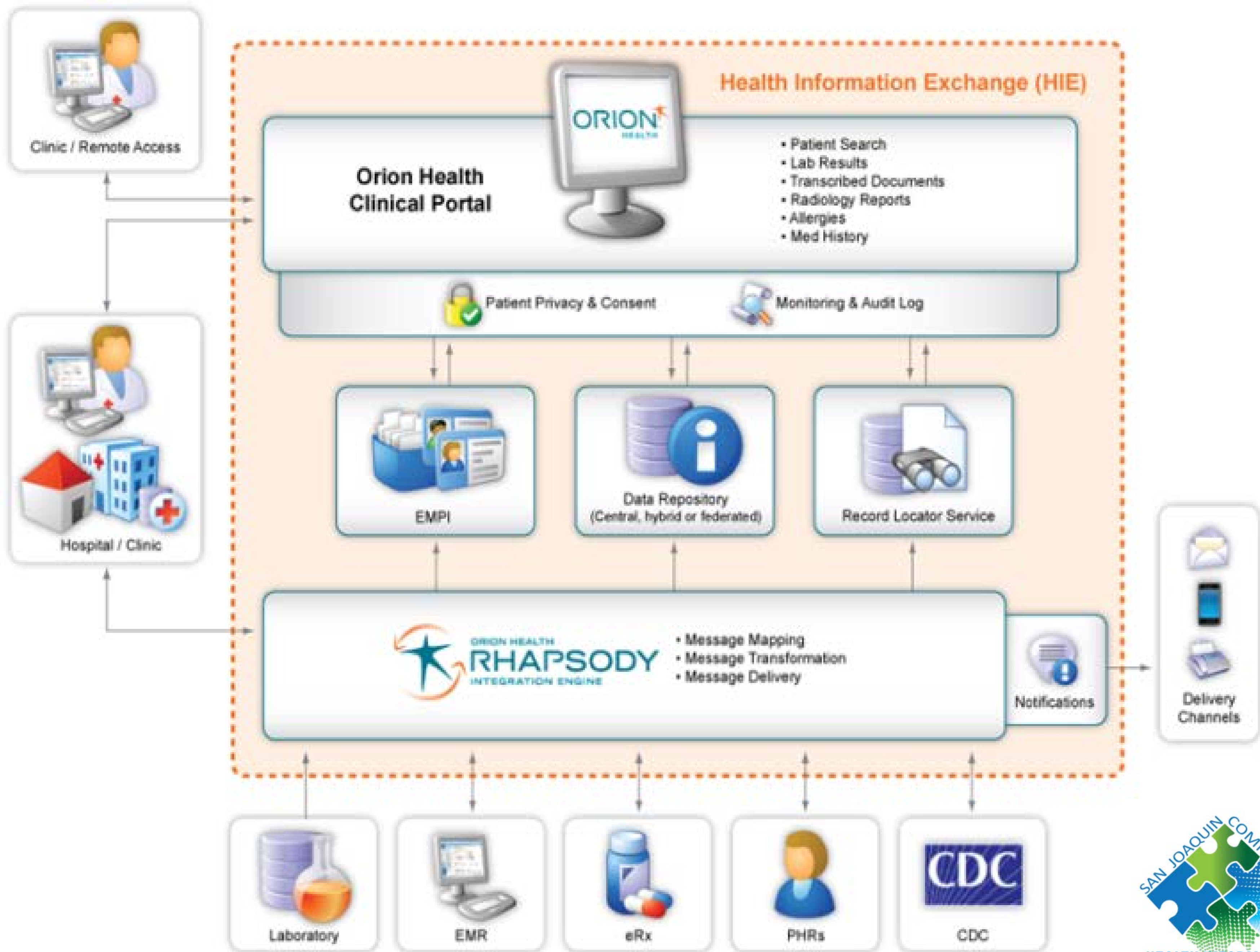
LHD Interest in HIE

- Behavioral / physical health care integration
- Public / population health
- Federal programs
  - CDC Lifetime of Wellness
  - DHCS PRIME, Whole Person Care
  - Meaningful Use

Example 1: San Joaquin County, CA

- SJC Health Care Services Agency and BHS
- On Clinician’s Gateway EHR
- First County BHS department to contribute data to a community HIE in CA
  - San Joaquin Community Health Information Exchange (SJCHIE)

SJCHIE Founding Members



Clinic / Remote Access
Health Information Exchange (HIE)
ORION HEALTH
Orion Health
Clinical Portal
• Patient Search
• Lab Results
• Transcribed Documents
• Radiology Reports
• Allergies
• Med History
Patient Privacy & Consent
Monitoring & Audit Log
Hospital / Clinic
EMPI
Data Repository
(Central, hybrid or federated)
Record Locator Service
ORION HEALTH
RHAPSODY
INTEGRATION ENGINE
• Message Mapping
• Message Transformation
• Message Delivery
Notifications
Delivery
Channels
Laboratory
EMR
eRx
PHRs
CDC
CDC
SAN JOAQUIN COMMUNITY
HEALTH INFORMATION
EXCHANGE

SJCHIE Initial Functionality

- Longitudinal patient record look-up
- Notifications / alerts
- Meaningful Use 2 related services
  - Direct messaging
  - Public health reporting
  - MU-2 certified patient portal

SJ Behavioral Health Approach

- Limited Mental Health data set shared
  - Demographics, diagnoses, medications, allergies, and lab results
  - No substance use information (42.CFR.2) or psychotherapy notes
  - Data filtered on way out of EHR & further segmented in HIE
- Opt-in, whereas rest of HIE is opt-out
  - 97%-98% opt-in rate to date
  - Consent status captured via electronic signature, transmitted from EHR to HIE

Consent Form Excerpt

San Joaquin County Behavioral Health Services (BHS) Patient/Client Participation Form for SJCHIE

FILL OUT THIS FORM COMPLETELY AND RETURN IT TO BEHAVIORAL HEALTH SERVICES (BHS)

Patient/Client Name: ______________________________

Last First Middle

Maiden Name/Other Name Used in the Past: ______________________________

DOB: ______________ **MR#:** ______________

San Joaquin Community Health Information Exchange (SJCHIE) will make available the following information to other health providers solely for treatment purposes: Demographics, Diagnoses, Current Medications, Allergies, and Laboratory results.

BHS clients/patients can change participation in SJCHIE at any time at Behavioral Health Services (BHS) by requesting a change. The system will reflect your request as soon as the change is processed.

SJ BHS Next Steps

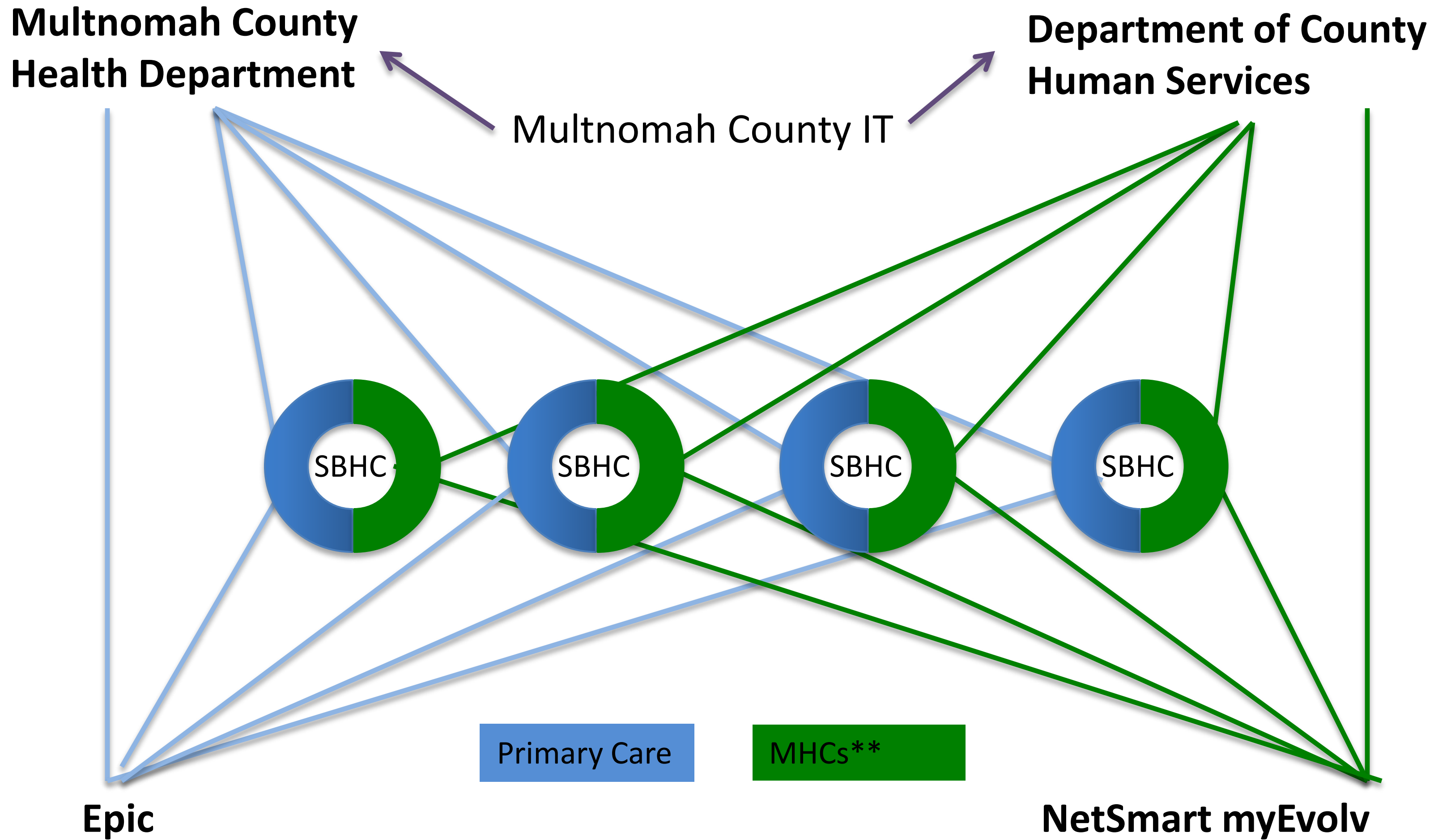
- Address “VIP Patient” issue
- Onboard SJ BHS clinician users
- Implement interfaces with Stanislaus County
  - Behavioral Health and Recovery Services
  - Primary Care Clinics

Example 2: Multnomah County, OR

*The Problem: Primary Care Providers and Mental Health Consultants within small **School Based Health Centers (SBHCs)** practice on two separate, non-connected EHRs*

- Conducted feasibility study in 2015
- Subcontractor to CedarBridge Group in Portland
- County implementing recommendations

Multnomah SBHC IT Landscape



SBHC = School Based Health Center (13)

** MHCs = Mental Health Consultants

Existing State

- Existing data sharing within SBHCs
  - Face-to-face
  - Suicide risk binder
  - Red binder for referrals
- Existing data sharing in physical / mental health silos
  - Physical health: Epic Care Everywhere
  - Mental Health: Other programs on myEvolv, CCO / state-level reporting

Project Goals

1. Better Patient Care
2. Maintaining both EHR Systems
3. Consistent and Efficient Processes

Targeted Use Cases

1. Suicide risks identified in both EHRs
2. Electronic referrals between primary care / MHCs
3. Updated med lists / histories in both EHRs
4. Close the loop on referrals
5. Ensure matching demographic info
6. Matching diagnosis and chronic condition info

Selected Approach: Direct

- What is Direct Messaging?
  - National standards to support workflows where patients transition care settings
  - Functions like regular e-mail, with additional security to ensure messages are accessible only by the intended recipient
    - Ability to send either structured data (problems, allergies, medications, demographics) in documents / CCDAs or unstructured data (clinical notes)
    - Providers, or facilities, will receive a "Direct address" – The address will appear like a normal e-mail address, and will act as the credentials for sending/receiving messages
      - The domain of the address will specify the location (e.g. clinician@direct.ddsbhc.org)
  - For the County, functionality will be available from within the EHR systems
    - For myEvolv, a subscription to Netsmart's CareConnect Interoperability Platform is required.

Benefits of Direct

Simple approach to help to cut costs, improve safety, and delivery of an improvement in the quality of care

- Address gaps in the ability for providers to share clinical information
- Reduce the costs (financial and time) associated with inefficient, manual processes
- Increase security and privacy protections for PHI
- Utilize a single national standard that both EHR systems can leverage; integrated into both EHRs
- Improve electronic communication between providers

Staffing / Workflow

- NPs and MHCs
  - Use current workflow, send Direct messages from EHR
- Referral Manager (Epic)
  - Expand upon responsibilities of existing County position
  - Processes Direct messages from the *Incoming Messages Report (IMR)*
  - Conduct patient matching and strive to prevent duplicate record creation
  - Ensure records are assigned to the correct provider
- Message Coordinator (myEvolv)
  - New, centralized role
  - Clinical training required (RN or CHN)
  - Conduct patient matching and strive to prevent duplicate record creation
  - Assign CCDs to clients or enroll new referrals based on message/CCD contents
  - Conduct clinical reconciliation, when appropriate, or reach out to provider for assistance with reconciliation via an Alert
- *Cross-training of other staff on these responsibilities is recommended

Targeted Use Cases

1. Suicide risks identified in both EHRs
   - *CCDA sent from Epic; CCDA plus suicide risk assessment sent from myEvolv*
2. Electronic referrals between primary care / MHCs
   - *Referrals via Direct*
3. Updated med lists / histories in both EHRs
   - *If new med prescribed during primary care visit, CCDA with new meds sent from Epic*
4. Close the loop on referrals
   - *CCDAs sent to close the loop*
5. Ensure matching demographic info
   - *Monitoring of incoming CCDAs and manual reconciliation*
6. Matching diagnosis and chronic condition info
   - *CCDAs sent when new conditions identified*

Technical Conclusions

- More prevalence of HIE in California than ever before.
- Major behavioral health medical record systems like Cerner Anasazi and Netsmart Avatar now able to exchange data using HL7, CCDA.
- SAMHSA NPRM suggests that HIEs are empowered to participate in exchange of Part 2 data.

Implementation Conclusions

- Robust technical, policy, and workflow approaches *are being adopted today* to enable health information exchange between behavioral and physical health.
- We expect that *this trend will significantly increase* as lessons learned from early adopters are shared.
  - This *excludes some sensitive information,* although the SAMHSA NPRM indicates that substance use information will become sharable in appropriate circumstances via HIE.
- We anticipate a *positive impact* on both physical and mental health.

Questions

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