



Agency for Healthcare Research and Quality

Advancing Excellence in Health Care

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A National Web Conference on Enhancing Behavioral Health Care Using Health IT

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Moderator and Presenters Disclosures

Moderator:

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Agency for Healthcare Research and Quality

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There are no financial, personal, or professional conflicts of interest to disclose for the speakers or myself.



VisualDecisionLinc: Data-driven Approaches to Augment Clinical Decisions in EMR Era

Ketan Mane, PhD
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Renaissance Computing Institute
UNC-Chapel Hill

How Can Visualization Help?

6	4	3	9	6	8	4	3	7
1	5	6	4	3	7	6	2	8
4	3	1	8	2	9	3	7	6
9	6	8	7	4	1	3	2	5
3	9	6	4	2	7	5	1	8
7	4	1	6	4	8	2	9	3
6	5	4	1	6	5	8	6	1
8	5	3	2	8	9	1	3	2
1	5	6	4	3	7	6	2	8
3	9	9	4	2	3	5	1	8



To Reduce Cognitive Overload

6	4	3	9	6	8	4	3	7
1	5	6	4	3	7	6	2	8
4	3	1	8	2	9	3	7	6
9	6	8	7	4	1	3	2	5
3	9	6	4	2	7	5	1	8
7	4	1	6	4	8	2	9	3
6	5	4	1	6	5	8	6	1
8	5	3	2	8	9	1	3	2
1	5	6	4	3	7	6	2	8
3	9	9	4	2	3	5	1	8

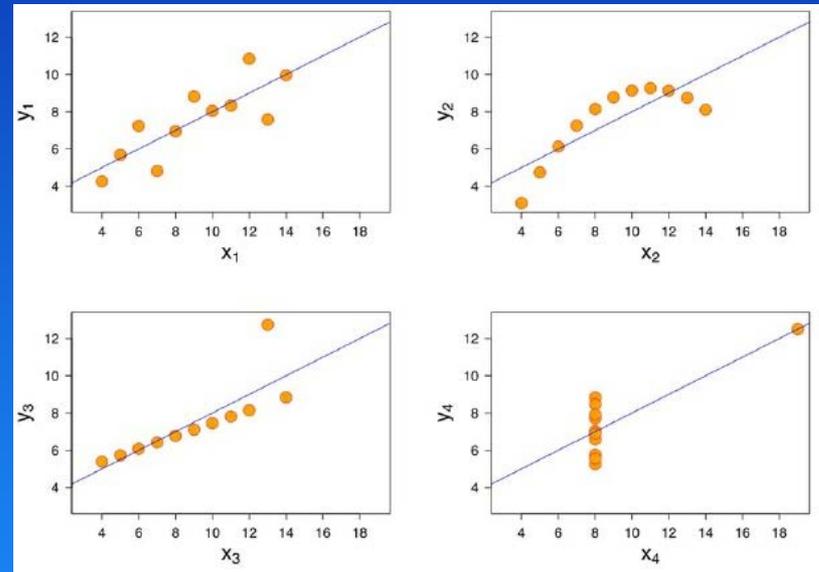
Symbiotic Use Analysis and Visualization

Process large volume of data

Present it in a meaningful format

1		2		3		4	
x	y	x	y	x	y	x	y
10.0	8.04	10.0	9.14	10.0	7.46	8.0	6.58
8.0	6.95	8.0	8.14	8.0	6.77	8.0	5.76
13.0	7.58	13.0	8.74	13.0	12.74	8.0	7.71
9.0	8.81	9.0	8.77	9.0	7.11	8.0	8.84
11.0	8.33	11.0	9.26	11.0	7.81	8.0	8.47
14.0	9.96	14.0	8.10	14.0	8.84	8.0	7.04
6.0	7.24	6.0	6.13	6.0	6.08	8.0	5.25
4.0	4.26	4.0	3.10	4.0	5.39	19.0	12.50
12.0	10.84	12.0	9.13	12.0	8.15	8.0	5.56
7.0	4.82	7.0	7.26	7.0	6.42	8.0	7.91
5.0	5.68	5.0	4.74	5.0	5.73	8.0	6.89

Property	Value
Mean of x	9.0
Variance of x	11.0
Mean of y	7.5
Variance of y	4.12
Correlation	0.816
Linear regression	$y = 3 + 0.5x$



Can Informatics Help Here?

Doctors Are the Third Leading Cause of Death in the U.S.

770,000 deaths/Year (ADE) [AHRQ]

making this the third-largest cause of death in the U.S., following heart disease and cancer.

Writing in the *Journal of the American Medical Association (JAMA)*, Dr. Starfield has documented the tragedy of the traditional medical paradigm in the following statistics:

Deaths Per Year	Cause
~42% 106,000	Non-error, negative effects of drugs ²
80,000	Infections in hospitals ¹⁰
45,000	Other errors in hospitals ¹⁰
~5% 12,000	Unnecessary surgery ⁸
~3% 7,000	Medication errors in hospitals ⁹
250,000	Total deaths per year from iatrogenic* causes

~50%

* The term *iatrogenic* is defined as "induced in a patient by a physician's activity, manner, or therapy. Used especially to pertain to a complication of treatment."



MindLinc: EMR

- Largest de-identified psychiatry outcome data warehouse in existence
- Widely distributed to 25 US institutions (academic institutions (25%), community mental health centers (50%), and private practice, hospitals, other combined (25%))
- 110,000 patients or 2,400,000 clinical encounters collected over a 10-year span

Sample data for analysis:

~ 30,000 visits of patients with Major Depressive Disorder (MDD)

All Patients (N = 110002)			
Demographics		Primary Diagnosis	
Child	14809	Additional	9582
Adolescent	13804	Adjustment	11114
Adult	70028	Anxiety	10427
Senior	11294	Bipolar	9189
		Childhood	10484
		Cognitive	8881
Gender		Depression	20462
Male	50217	Dissociative	54
Female	59163	Eating	1452
		Factitious	26
Race		GMC	223
Black	19714	Impulse Control	1314
White	44923	Mood	6038
Other	12115	Other	1856
Race unknown	33250	Personality	791
		Psychotic	5511
		Schizophrenia	3150
		Sexual	130
		Sleep	704
		Somatoform	494
		Substance	9649

Table 1: Characteristics of patients in MindLinc

Our Focus

EMR data available



Brainstorming with Clinician/Researchers

Raw EMR Data



Actionable Data for Decision Support for Physicians



Theme: EMR Data for Clinical Decision Support

■ Explored Areas

Physician View

I.
Build an
Integrated View
of Patient History

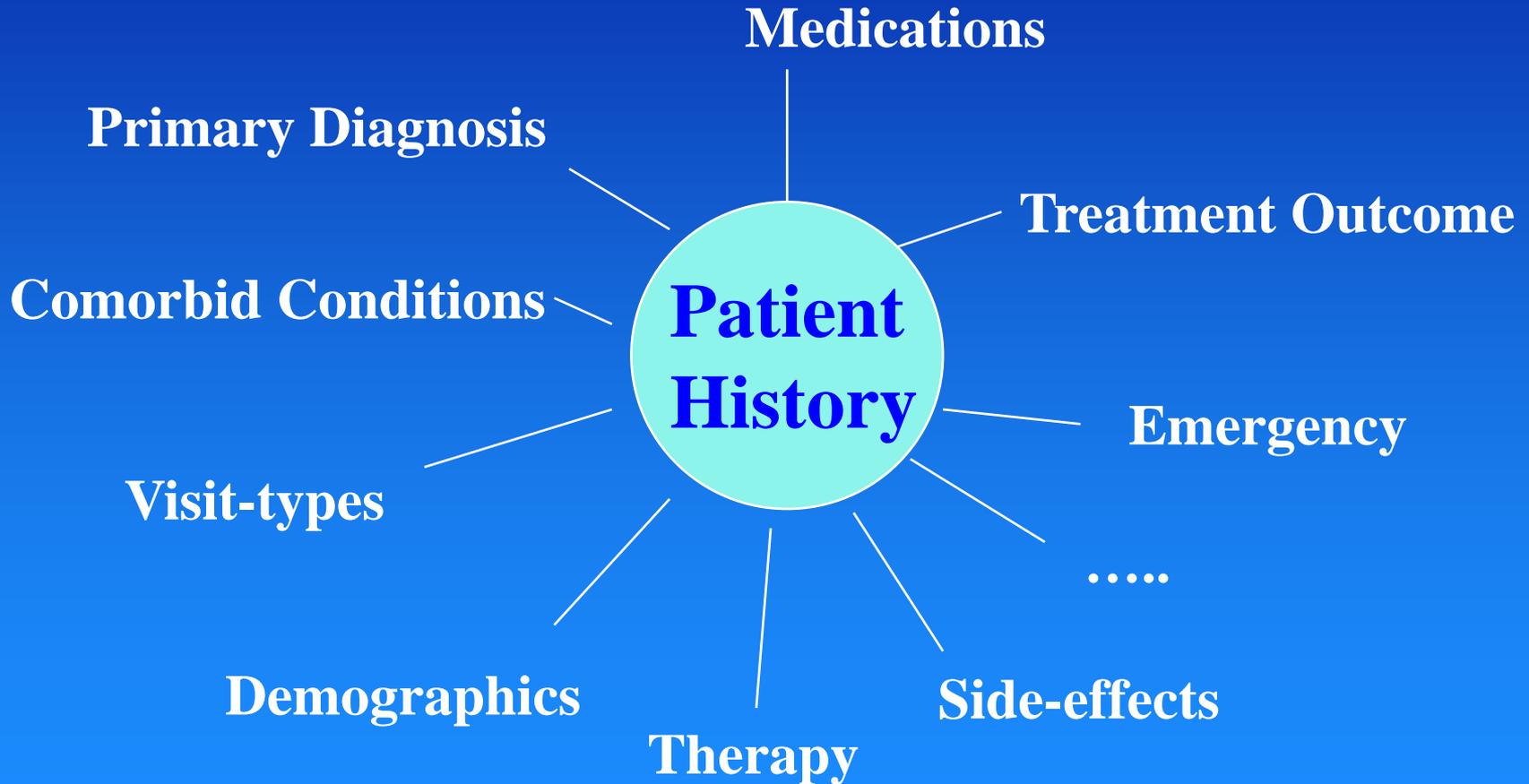
II.
Leverage EMR
Data for
Personalized Care

III.
Bridge Evidence
Gap from
Clinical Trials

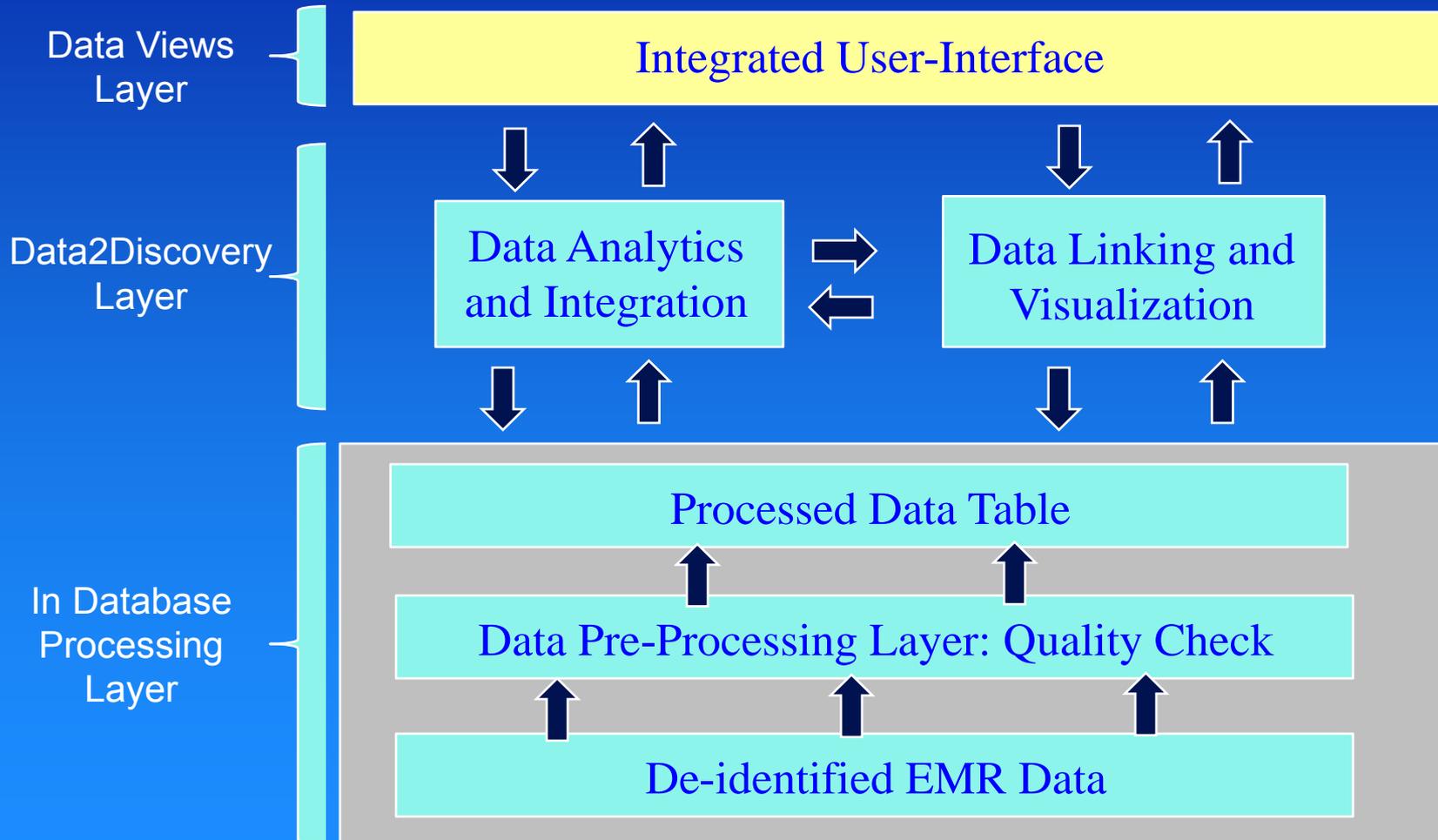
IV.
Decision Support
in Real Time at the
Point-of-Care



Data Challenges: Integration and Quality



Infrastructure: Building Blocks





A. Need for Integrated Patient Profile View

- Information in tabs (silos), fragmented – fails to give at a glance overview + Tabular

The screenshot illustrates a fragmented patient profile view. The main window shows a patient's profile with tabs for 'Outpatient Progress Note', 'Backfill Note', 'Allergy', 'Medications', 'Prescription', and 'Allergies / Adverse Reactions'. The 'Allergy' tab is highlighted with a red box. The 'Medications' window is open, showing a list of medications and a detailed view of a prescription for sertraline. The 'Prescription' window is also open, showing details for the sertraline prescription, including the prescriber, medication, and pharmacy. The 'Allergies / Adverse Reactions' window is also open, showing a list of allergies and adverse reactions. The interface is cluttered with multiple overlapping windows and tabs, making it difficult to get a clear overview of the patient's profile.

Medications

Name	Type	GENERIC	DRUG_SYN_ID
Zoloft	Brand	sertraline	1554

Products

Product Name	OTC/RX	Type	Active	Strength	Doseform	GEF
sertraline 100 mg oral tablet	RX	Generic	1	100 mg	tablet	304
sertraline 20 mg/mL oral concentrate	RX	Generic	1	20 mg/mL	concentrate	715
sertraline 25 mg oral tablet	RX	Generic	1	25 mg	tablet	570
sertraline 50 mg oral tablet	RX	Generic	1	50 mg	tablet	305
Zoloft 100 mg oral tablet	RX	Brand	1	100 mg	tablet	304
Zoloft 20 mg/mL oral concentrate	RX	Brand	1	20 mg/mL	concentrate	715
Zoloft 25 mg oral tablet	RX	Brand	1	25 mg	tablet	570
Zoloft 50 mg oral tablet	RX	Brand	1	50 mg	tablet	305

Prescription

Refills(total fill = refill) Quantity

Sequential Rx Days

Product Select * DAW

Fill/Refill Date * 8/29/2012 Method

Pharmacy: CVS Pharmacy # 7047 (3573 HILLSBOROUGH RD., DURHAM)

Fill/Refill History:

Prescriber Comments

Pharmacy Comments

Side Effects

* Hand entered. ** Scheduled. Neither are E-Prescribable. * Required

Allergies / Adverse Reactions Reconciled NKA/NKDA



A. Processing Data to Display

Primary Diagnosis

Comorbid Conditions

Visit-types

Demographics

Medications

Treatment Outcome

.....



Aggregate
Summarize
Linking
Visual Mapping



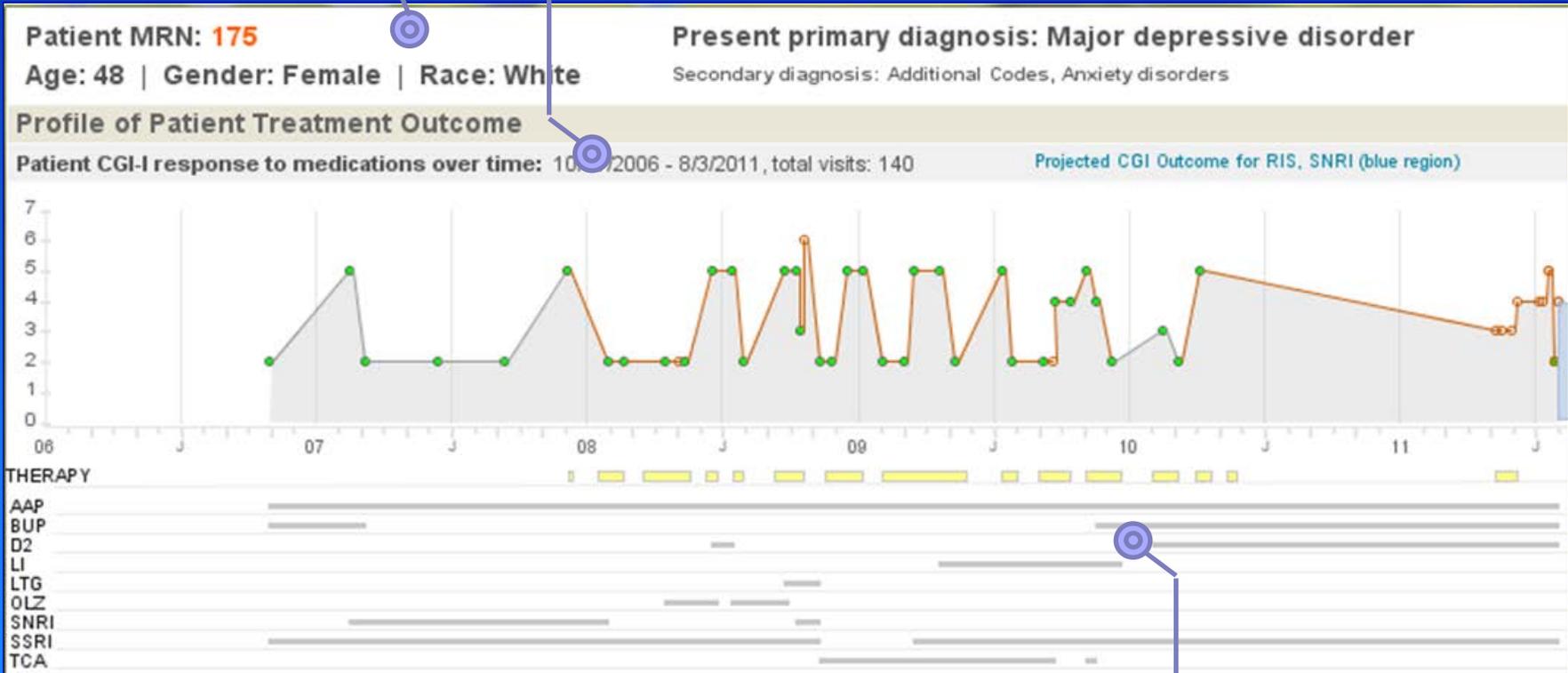
Data Views



A. Visual-based Integrated Patient Profile View

Patient demographics

Profile of outcome response to prescribed medications



Profile of about prescribed medications and therapy

Single View: Patient Treatments & Outcome

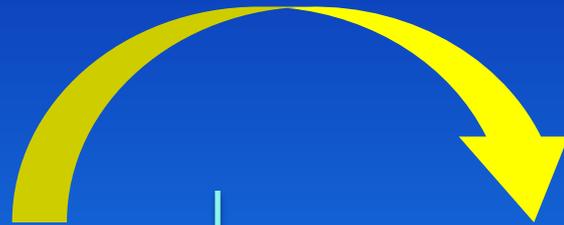
Visual Analytics

Decision Support

In Real Time

B. Can We Leverage EMR Data for Personalized Care?

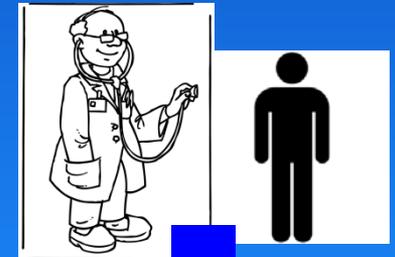
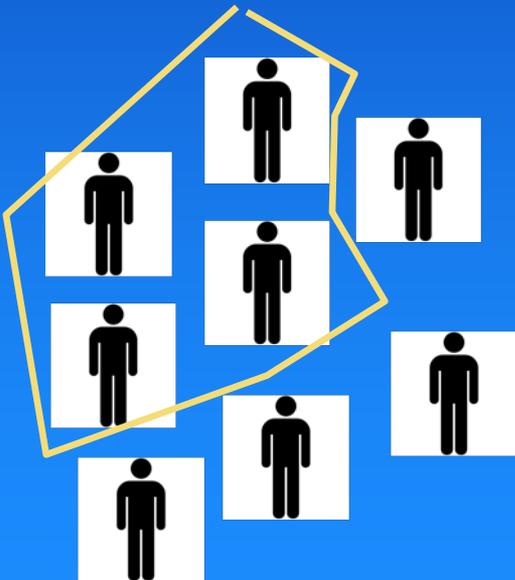
Comparative Effectiveness Research



Evidence

Visual Analytics Layer

Stratify Patient Population
Alternate Treatment Options
Predictive Insight
Patient-Centric Rx



Target Patient

B. Collective Data to Deliver Personalized Care with Predictive Insight

Patient demographics

Profile of outcome response to prescribed medications

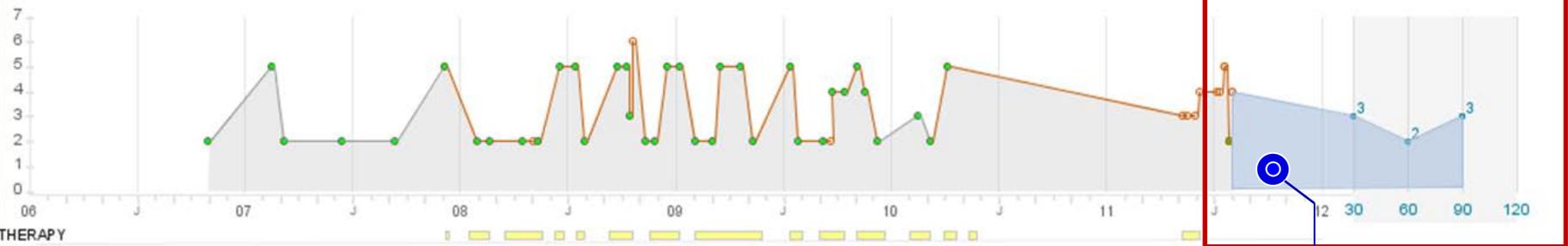
Open filter panel

Patient MRN: 175 **Present primary diagnosis: Major depressive disorder** Status: Ready.

Age: 48 | Gender: Female | Race: White **Secondary diagnosis: Additional Codes, Anxiety disorders**

Profile of Patient Treatment Outcome SHOW FILTER

Patient CGI-I response to medications over time: 10/31/2006 - 8/3/2011, total visits: 140 Projected CGI Outcome for RIS, SNRI (blue region)



THERAPY

AAP	-----
BUP	-----
D2	-----
LI	-----
LTG	-----
OLZ	-----
SNRI	-----
SSRI	-----
TCA	-----

TimeLine legend

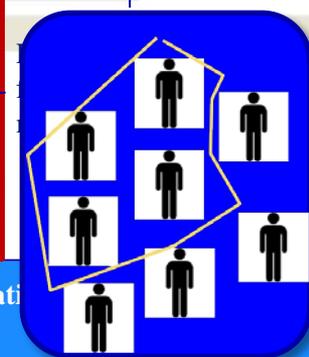
- Outpatient Visit (140 / 140)
- ▲ Emergency (0)
- Med Maint.
- Inpatient (0)
- Therapy Visit

Treatment Outcome for Similar Patients (on different Rx) - selected Rx: RIS, SNRI

Treatment options	# Improved patients	Total patients	% Patients improved	Level of evidence
⊕ SNRI	3	35	9%	Med (Level I)
● MRT	1	10	10%	Med (Level I)
● MRT, RIS	1	6	17%	Med (Level I)
● RIS, SNRI	1	3	33%	Med (Level I)
● LTG, SNRI	2	2	100%	Med (Level I)

Treatment evidence aggregated from comparative population

Profile of about prescribed medication and therapy



C. Interactive & Ad-hoc Filtering for Real-time Decision Support

Filter Panel



Patient MRN: 175 | **Present primary diagnosis: Major depressive disorder**
Age: 48 | **Gender: Female** | **Race: White** | **Secondary diagnosis: Additional Codes, Anxiety disorders**

Profile of Patient Treatment Outcome
 Patient CGI-I response to medications over time: 10/31/2006 - 8/3/2011, total visits: 140 | Projected CGI Outcome for MRT, RIS (blue region)



THERAPY

AAP	07/01 - 07/31
BUP	07/01 - 07/31
D2	08/01 - 08/31
LI	09/01 - 09/31
LTG	09/01 - 09/31
OLZ	09/01 - 09/31
SNRI	09/01 - 09/31
SSRI	09/01 - 09/31
TCA	09/01 - 09/31

Treatment Outcome for Similar Patients (on different Rx) - selected Rx: MRT, RIS

Treatment options	# Improved patients	Total patients	% Patients improved	Level of evidence
SNRI	3	29	10%	Med (Level I)
MRT	1	6	17%	Med (Level I)
MRT, RIS	1	5	20%	Med (Level I)
LTG, SNRI	2	2	100%	Med (Level I)

Status: Ready

Display mode

EXPERT MODE - MATCH BASE
 COMORBID GENDER AGE RX
 GUIDELINE MODE

Data Filters for Comparative Populations REFRESH

Demographic filters

Gender: ALL FEMALE MALE UNKNOWN
 Race: ALL BLACK HISPANIC OTHER UNKNOWN WHITE
 Age: LOW AGE RANGE HIGH AGE RANGE

Previous Rx Class filters

Y N AAP	Y N LTG	Y N RIS	Y N TCA
Y N BUP	Y N MAOI	Y N SNRI	
Y N D2	Y N MRT	Y N SSRI	
Y N LI	Y N OLZ	Y N T3	

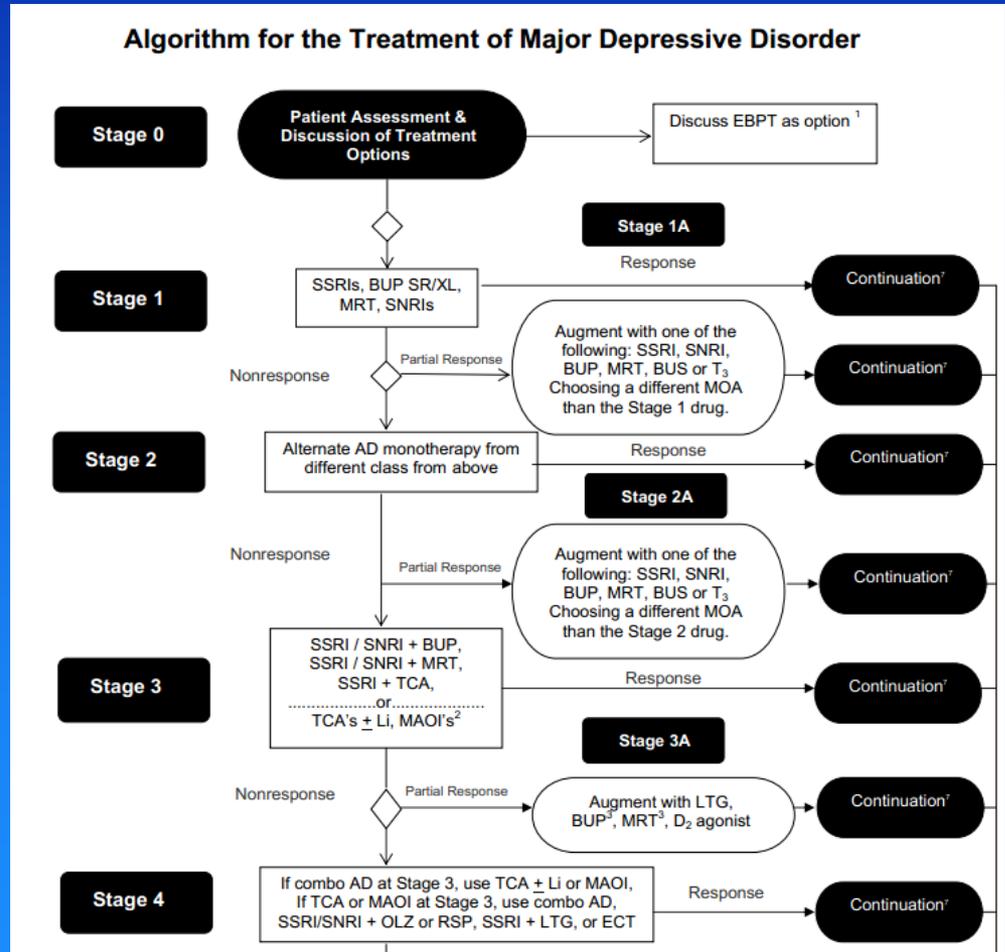
CoMorbid Condition filters
 Patient (red) and Comparative Population (black)

Y N Additional Codes (28)
 Y N Adjustment disorders (1)
 Y N Anxiety disorders (28)
 Y N Delirium, dementia, amnesic, cognitive (3)

D. Knowledge Gap in Treatment Guidelines

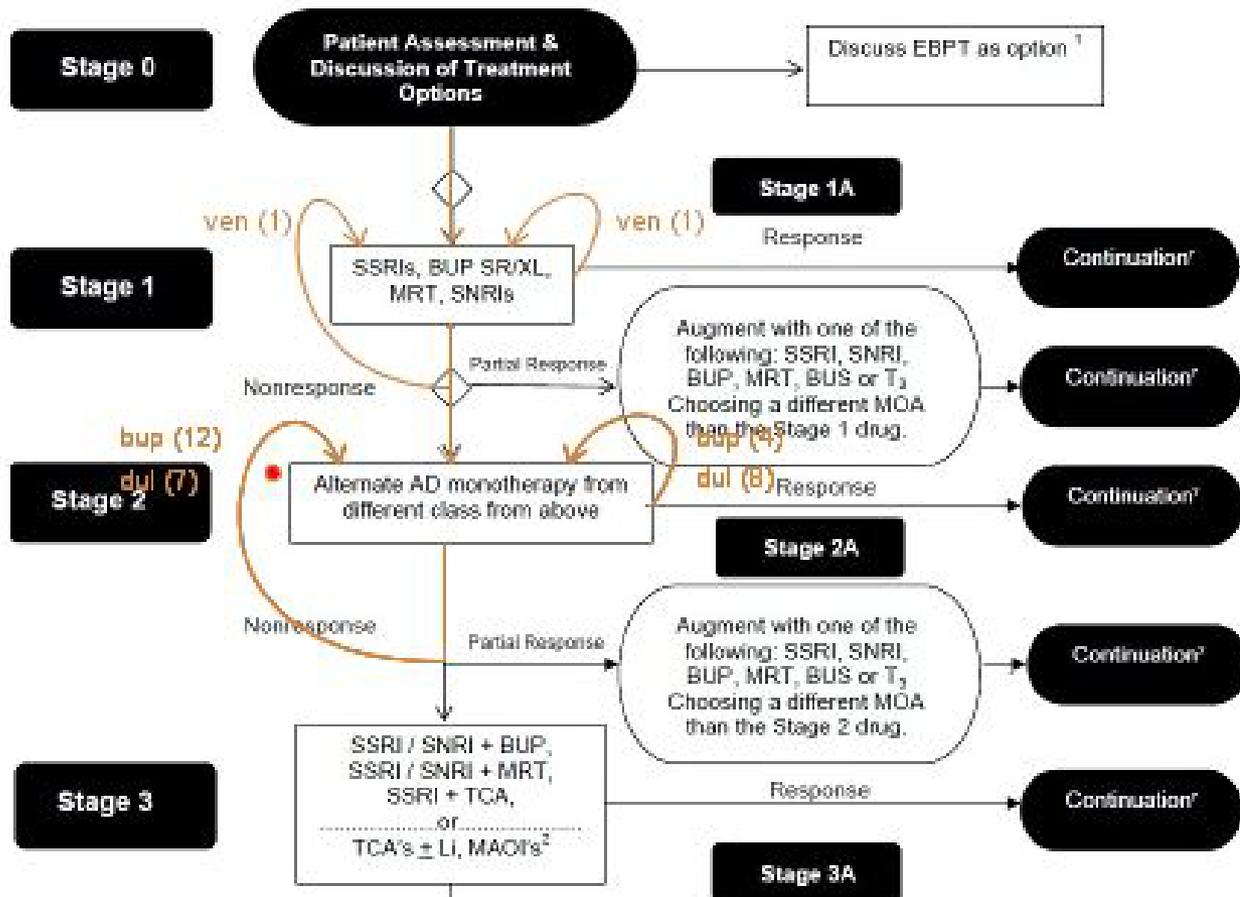
Distribution in the current format (text/flowchart) clearly needs more refinement

Therefore, chest radiographs should be ordered before any therapy is prescribed in nearly all patients with chronic cough (Grade II-2). Chest radiographs do not have to be routinely obtained before beginning treatment for presumed PNDS in young nonsmokers, in pregnant women, or before observing the result of discontinuation of an ACEI.



D. Patient-Centric Guidelines

Algorithm for the Treatment of Major Depressive Disorder



Helps offer insight about:

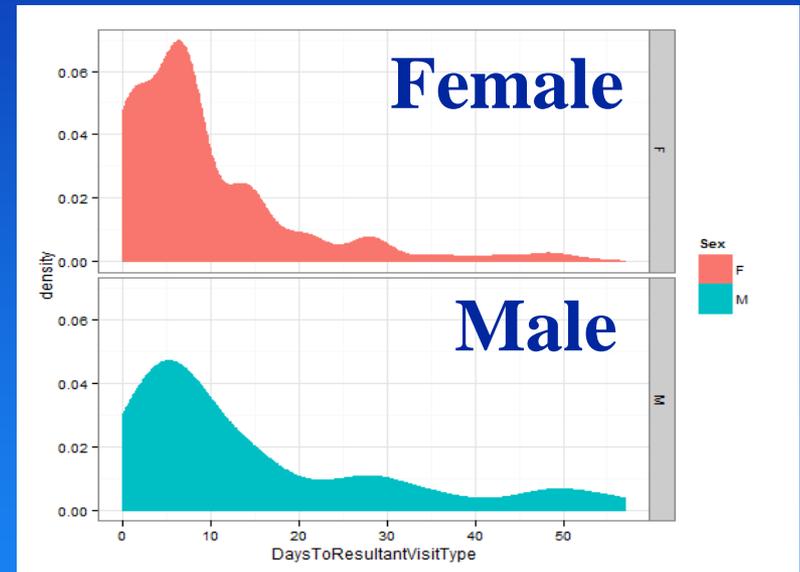
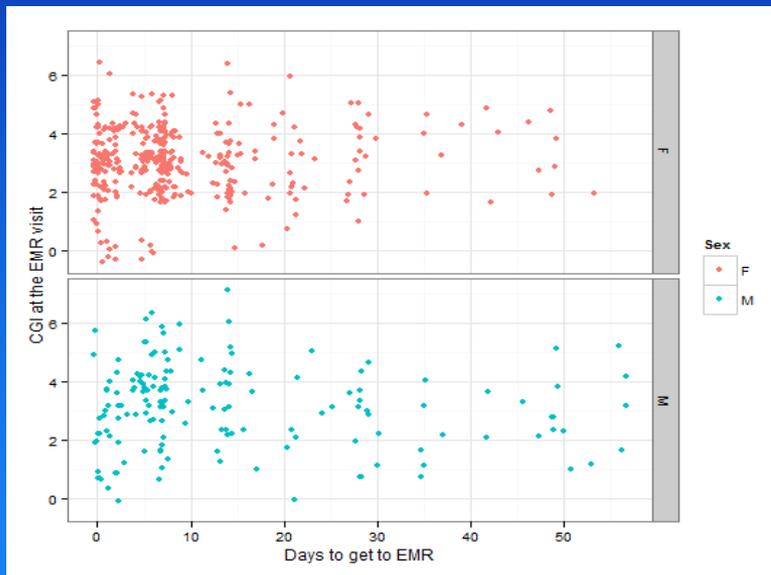
+ How is my patient being treated in the context of the guideline?

+ Where is my patient in the guideline?

+ How has my patient responded to past treatments?

Exploratory Data Analysis

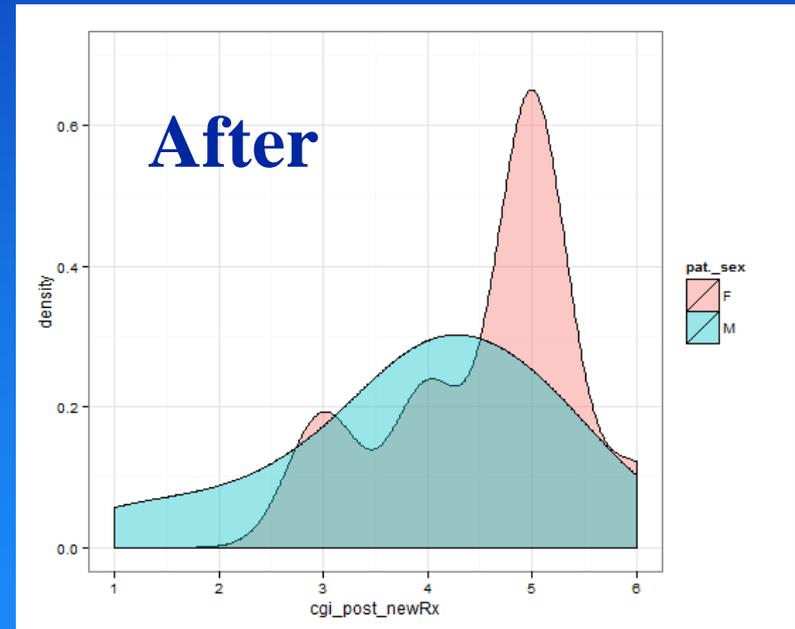
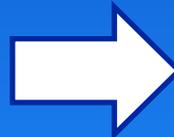
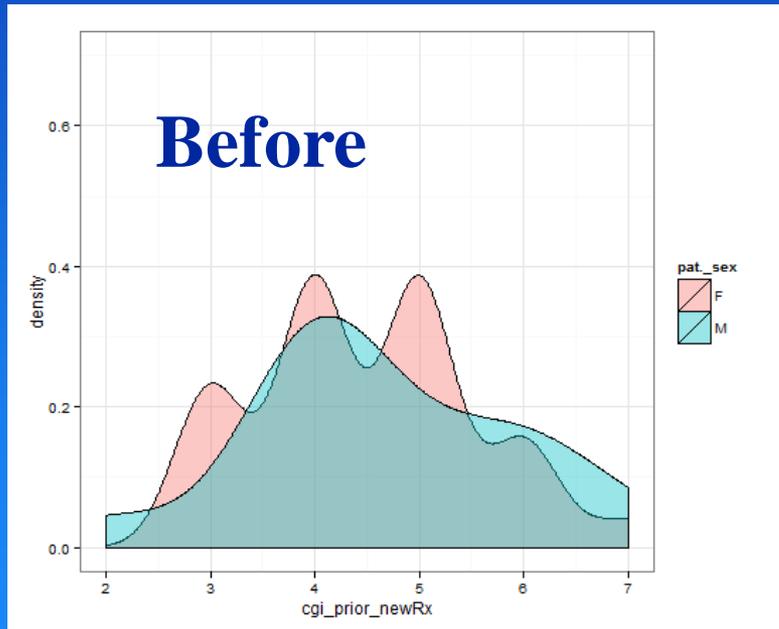
Trend in Emergency Visit in response to Drugs (by gender)



In response to new medication, female population has higher incidence of emergency visits in early days than male population.

Exploratory Data Analysis

Effect of switching patients to new medications (by gender)



Rx switch more likely to affect female population more severely than male population.



CDS Work Possible Because of...

Funding Source



Researchers / Clinicians Involved

RENCI

Ketan Mane (Project Lead)
Charles Schmitt
Phillips Owen
Kirk Wilhelmsen
Stan Ahalt

Duke

Ken Gersing
Ricardo Pietrobon
Igor Akushevich

UNC

Javed Mostafa



Contact Information

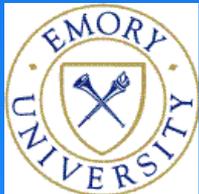
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An Electronic Personal Health Record for Mental Health Consumers



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Persons with Serious Mental Illness (SMI) as a Health Disparities Population

Disparities are “*systematic, plausibly avoidable health differences adversely affecting socially disadvantaged groups.*” (Healthy People 2020)¹

1. Am J Public Health. 2011 Dec;101 Suppl 1:S149-55.



Trends in Studies of Excess Mortality in SMI¹

Year of Publication	Excess Risk of Death
1970s	1.84
1980s	2.98
1990s	3.20

1. Saha et al *Arch Gen Psychiatry*. Oct 2007;64(10):1123-1131
http://www.qcmhr.uq.edu.au/epi/index_files/Page562.htm



Improving Quality of Medical Care in People with SMI

- Care for these patients is typically provided across multiple settings (primary care, mental health, substance abuse) and poorly coordinated
- Patients commonly not well engaged in self management behaviors or as participants in formal medical care



What is an Electronic Personal Health Record (PHR)?

- “An electronic application through which individuals can access, manage, and share health information.”¹
- Like an electronic medical record, a PHR
 - Enhances exchange of information across the health system
 - Maintains privacy of information
- Unlike an electronic medical record
 - Is under control of the patient rather than the health system
 - Contains information across multiple providers
 - May also include health goals and other personal information



PHRs, Quality and Outcomes

- PHRs might be able to improve care via improved patient activation and/or improved provider coordination
- However, almost no research exists on using PHRs to improve care in either the medical or mental health literature



Randomized Trial

- Randomized trial of PHR vs. Usual Care for patients with one or more chronic medical condition (n=170)
- Setting: Urban public-sector mental health clinic.
- Participants received a manualized computer skills assessment and basic computer skills training before setting up their PHR.



Shared Care Plan

- Perhaps the best established community-based electronic personal health record; developed at Peace Health in Bellingham, WA
- Developed using principles of user-centered design, with initial plan created by a group of patients with chronic medical conditions



Adapting the Shared Care Plan

- Collaborated with Shared Care developers, MH consumer leaders
- Focus groups with consumers, MH and medical providers
 - Enormous excitement from consumers
 - Providers: some initial concerns about TMI, trustworthiness of information
- Modifications based on focus groups



Adapting the Shared Care Plan

- Mental health advanced directives
- Links to community resources and health information
- Personal mental health goals
- Option of adding a “Health Partner”

Other lessons from focus groups:

- Consumer focus groups revealed that access to computers is not a major barrier to conducting the study.
- Gathered information about what kind of information would be useful to clinicians to increase buy-in.

Example of a PHR

My Health Record - Mozilla Firefox

File Edit View History Bookmarks Tools Help

http://gradymhr.com/HomePage.aspx

Google



MyHealthRecord

You are In Charge of Your Health

<p>Username: <input type="text"/></p> <p>Password: <input type="password"/></p> <p><input type="button" value="Sign In"/></p>	<p>Learn more about how the My Health Record can help you take charge of your health.</p> <p><input type="button" value="Find out more!"/></p> <p>Explore A Sample Plan</p>	<p>Get your own FREE My Health Record.</p> <p><input type="button" value="Sign up now!"/></p> <p>For news & updates enter your email address:</p> <p><input type="text"/> <input type="button" value="Go"/></p>
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HEALTH

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Printouts, More Pics

MyHealthRecord
 You are In Charge of Your Health

Signed In : Johnnie Thomas, RN
[My Registration](#)
[Sign Out](#)

Johnnie D Thomas, RN
 7/27/1969, 40 years old, female

- [Edit Johnnie's Registration](#)
- [Printout Options](#)
- [Privacy Summary](#)
- [Who's Accessed My Care Plan?](#)

- Home
- Care Team**
- About Me
- Diagnoses
- Next Steps
- Health Log
- Medications
- Allergies
- History
- Documents

Important: Do not use your browser's back or forward buttons, as this may cause unusual results.

Emergency Contact [\(Help\)](#)

Your Emergency Contact is the person you would like called first should you have an emergency. Your Backup Emergency Contact is the person you would like called if your primary Emergency Contact is unavailable.

[Add New](#)

Contact	Name	Phone Number	Alternate Phone Number
No Emergency Contact record. Please click "Add New" to add a new Emergency Contact.			

Care Team Members [\(Help\)](#)

Care Team Members are people and/or organizations who help you manage your health. Anyone who you feel has a role in your health care can be part of your Care Team.

[Add New](#)

Apts.	Name	Contact	Role/Description	Access Level	Comments	Action
	Johnnie Thomas, RN	johnniethomas@usa.net	Patient	Fully Edit		Edit
	John Doe	svonese@emory.edu	Spiritual Support	View Only		Edit Delete
	John Doe	janeygirlatl@yahoo.com	Nurse	Fully Edit		Edit Delete
	Dr. Jane Smith	(404) 555-1212 janeygirlatl@yahoo.com		No Access		Edit Delete
	Community Clinicians		Emergencies & Treatment	Fully Edit	Click [Edit] to adjust clinical access to your Health Records.	Edit

Invited Care Team Members

Name	Date Invited	Status	Contact	Role/Description	Electronic Access Level	Action
----------------------	------------------------------	------------------------	-------------------------	----------------------------------	---	------------------------



Data Output

- Wallet cards that provide a quick overview or detailed printouts
- Summaries of their medical histories
- Tracking of personal health goals including: number of depressed days, number of cigarettes smoked, blood pressure, and glucose monitoring



Addressing Low Digital Literacy

- Low digital literacy for about 50% of consumers
- Community resources too burdensome on consumers
- Nursing student provides each client with individualized assessment and training
- Computer training classes increase retention of consumers with low digital literacy
- Computer training provides added incentive for participation



Implementing the PHR

- Consumer primary driver behind maintaining the PHR
- The nurse specialist only gathers and verifies initial labs
- The primary role of nurse specialist is to help the consumer identify the treatment data that is the most essential, obtain from their medical records, and enter it into their PHR
- Patient activation tool (PAM) is used as a tool to drive intervention approach
- After 6 months, patients “graduate” to maintaining and shaping record themselves



Data Entry and Maintenance

- Consumer-driven; initial data entry in collaboration with nurse specialist
- Explain to consumers how they might identify the treatment data that is most essential, obtain it from their records elsewhere, and enter it into their PHR



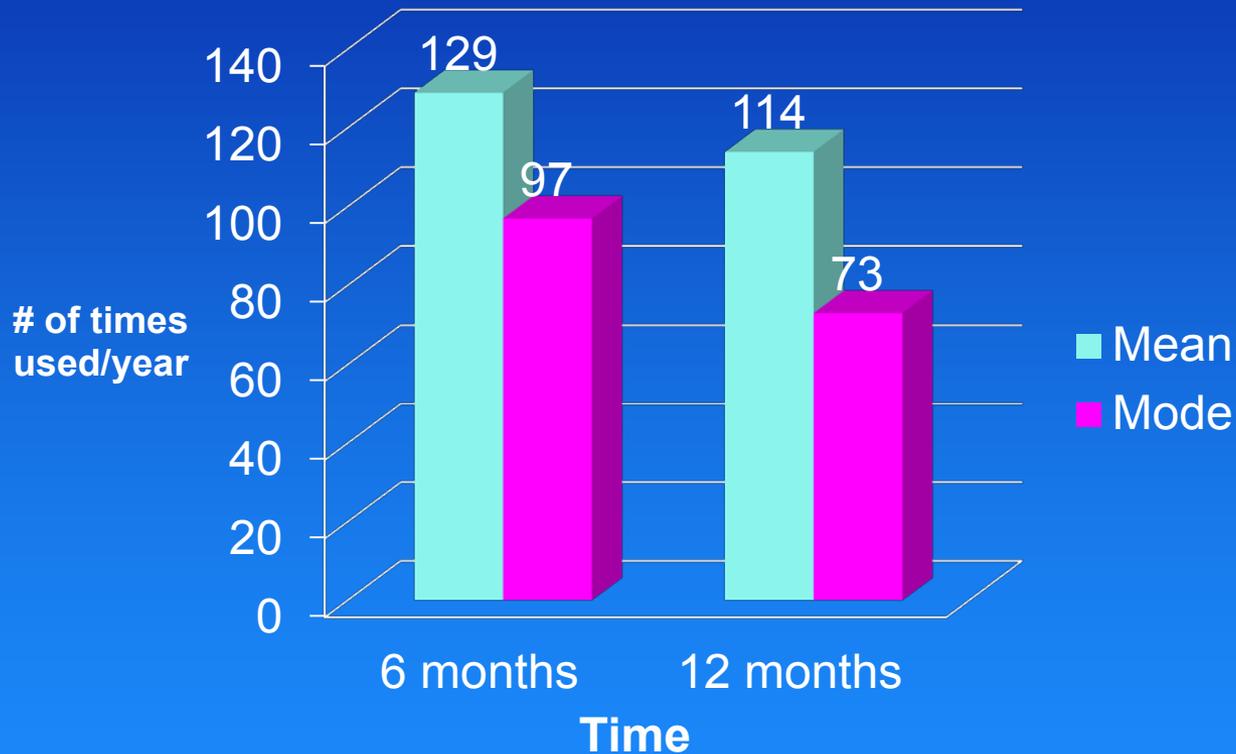
Privacy and Sharing

- Explain to consumers how they might manage access to their PHR data most effectively, especially how they might set varied security settings



PRELIMINARY RESULTS

Results – PHR Usage



Page Usage





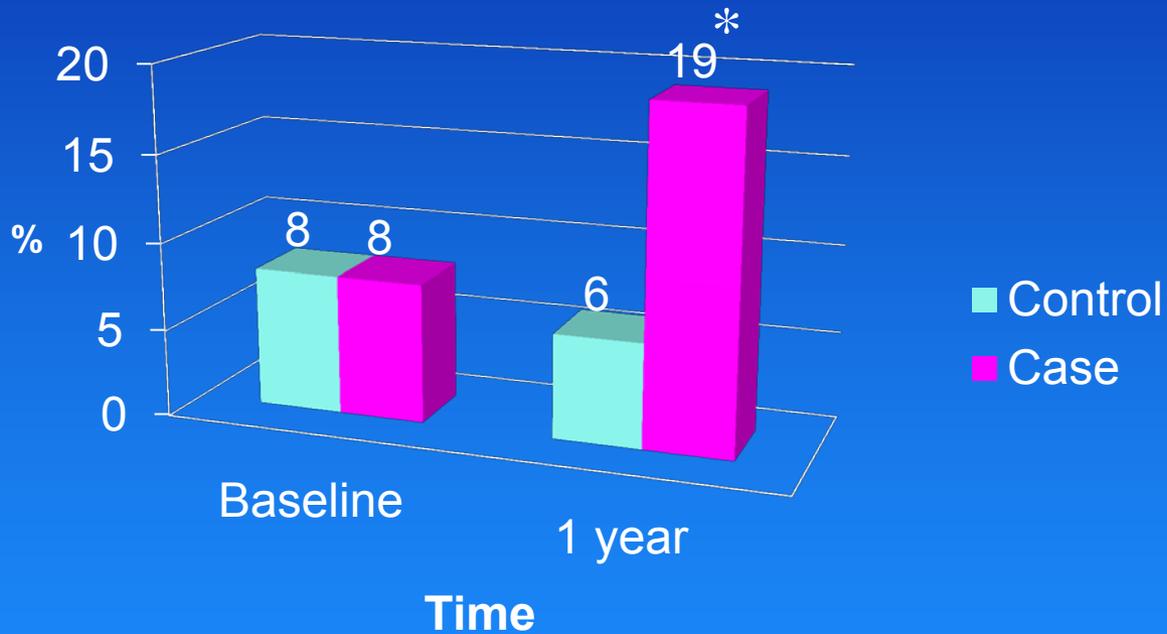
Results – Preventive Services

- Physical exam received
- Recommended vaccinations
- Health education by provider
- Overall preventive services received



Results – Preventive Services

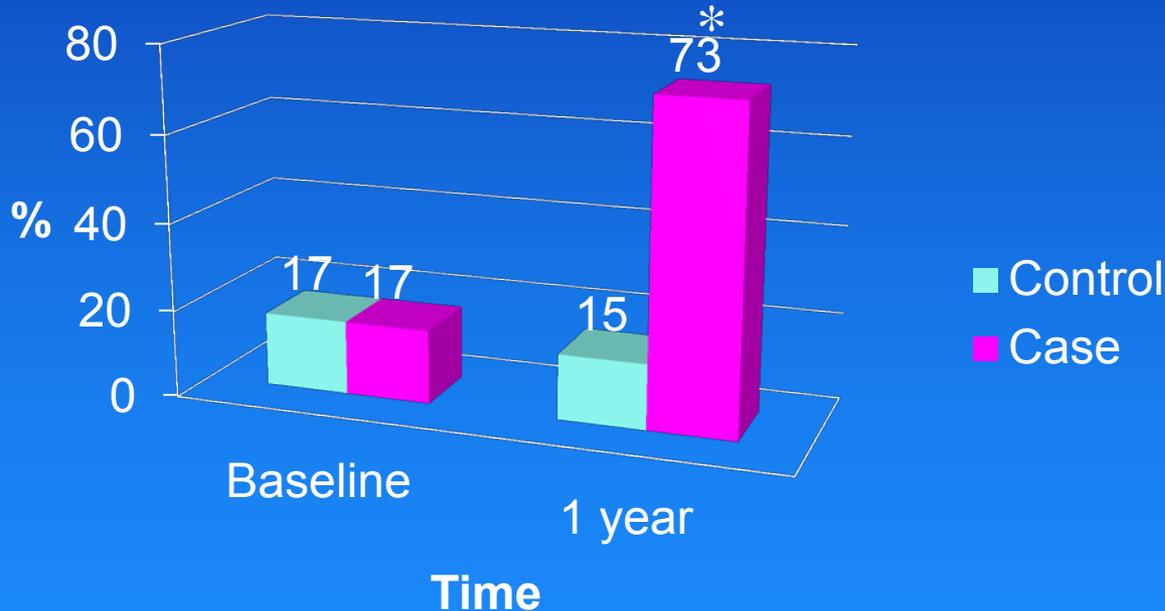
% Received Recommended Vaccinations



Group * Time Interaction: $p < 0.0001$

Results – Preventive Services

% Received Health Education from Provider

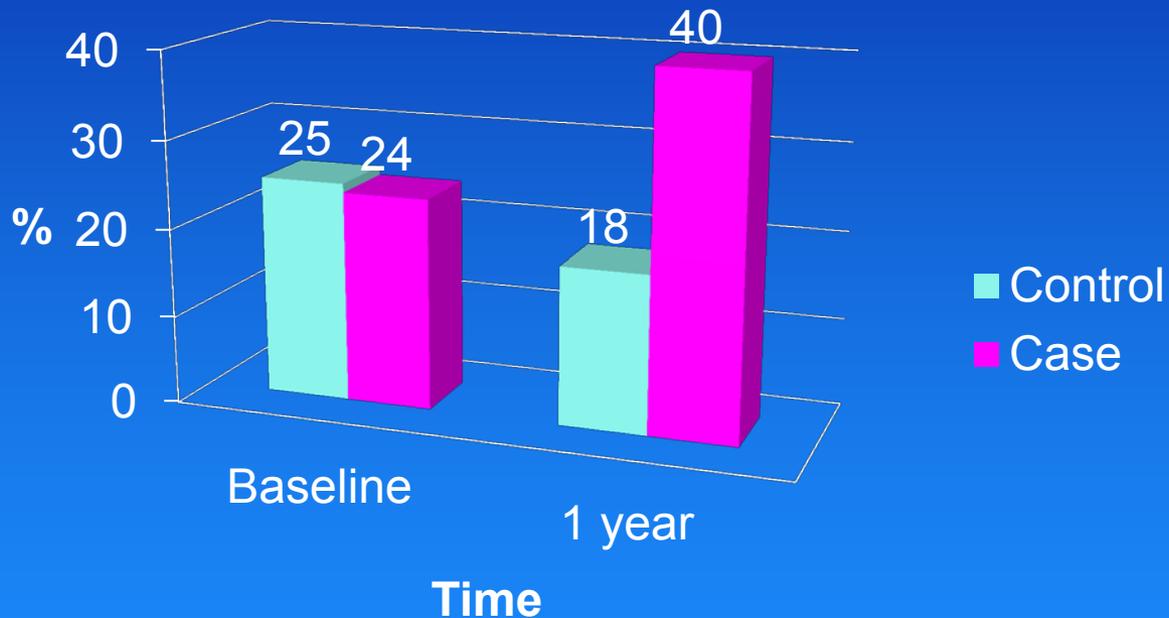


Group * Time Interaction: $p < 0.0001$



Results – Preventive Services

% Eligible Preventive Services Received *



Group * Time Interaction: $p < 0.0001$



Lessons Learned

- Consumers: computer training has proved critical in engaging consumers in the project
- Low digital literacy: significant portion of consumers; but can be successfully addressed with basic computer training
- Providers: primary care providers have found the records helpful
- Consolidated record helps bypass a fragmented system
 - Printouts help direct consumer - clinician interactions
 - “Activated” consumers take over directing their own health care and are less passive receivers of healthcare



Looking Ahead

- PHRs may be important tool not only for improving care but for consumer empowerment
- Integrated community-based PHRs with lab data, pharmacy data, and multiple EHRs
- Transition to mobile technology



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Enhancing Behavioral Health Care Using Health IT: Issues and Challenges for Implementing HIE in a Behavioral Health Environment

Wende Baker, MEd

Executive Director

Electronic Behavioral Health Information Network



Disparities in Health Outcomes

The Epidemic of Premature Death in Older Persons with Serious Mental Illness

The average life expectancy in the US has steadily increased to 77.9 years (increasing by almost 5 years since the 90s alone)
At the same time.....

Mentally ill die 25 years earlier, on average

By Marilyn Elias, USA TODAY

Adults with serious mental illness treated in public systems die about 25 years earlier than Americans overall, a gap that's widened since the early '90s when major mental disorders cut life spans by 10 to 15 years, according to a report due Monday.

**For people with serious mental illness:
The average life expectancy is 53 yrs.
“50 is the New 75”**



Healthy People 2010

- In 2002 - responded to statistic with a call to action
- Poor access and communication between BH and medical settings
- How to utilize technology to “follow the patient” between treatment settings
- Health information exchange technology emerging
- AHRQ THQHIT grant facilitates capabilities assessment



Study Findings

- Nature of BH illnesses characterized by episodic need for acute care
- Regular movement of patients from rural to urban areas to access acute care services
- Big disparities in technology capability between providers – hospital EMRs while most provider organizations paper-based
- No organized system for referral of patients between treatment settings – follow-up inconsistent
- Duplication of testing services, time consumed in determining appropriate service level



How Providers View EHRs

Theme	Description	Benefits	Barriers
Client Safety and Quality of Care	Care is delivered so as to prevent harm and achieve positive outcomes.	100%	59%
Privacy and Security	Client information is only accessible to those with the need and right.	22%	100%
Delivery of Behavioral Health Services	Behavioral health organizations and providers operate in a time and cost-efficient manner.	66%	97%



First Challenge – What Data is Shared?

- All providers in region submitting same data set to register and discharge patients
- Added “enhancements” for crisis intervention and emergency contacts



Summary Record Scope

- Demographic Information including Name, Date of Birth, and Social Security Number
- Emergency Contact Information
- Substance Abuse History Summary
- Diagnosis Information
- Insurance Information
- Trauma History Summary
- Current Medications and Allergies
- Employment Information
- Mental Health Board Disposition
- Living Situation and Social Supports
- Billing Information

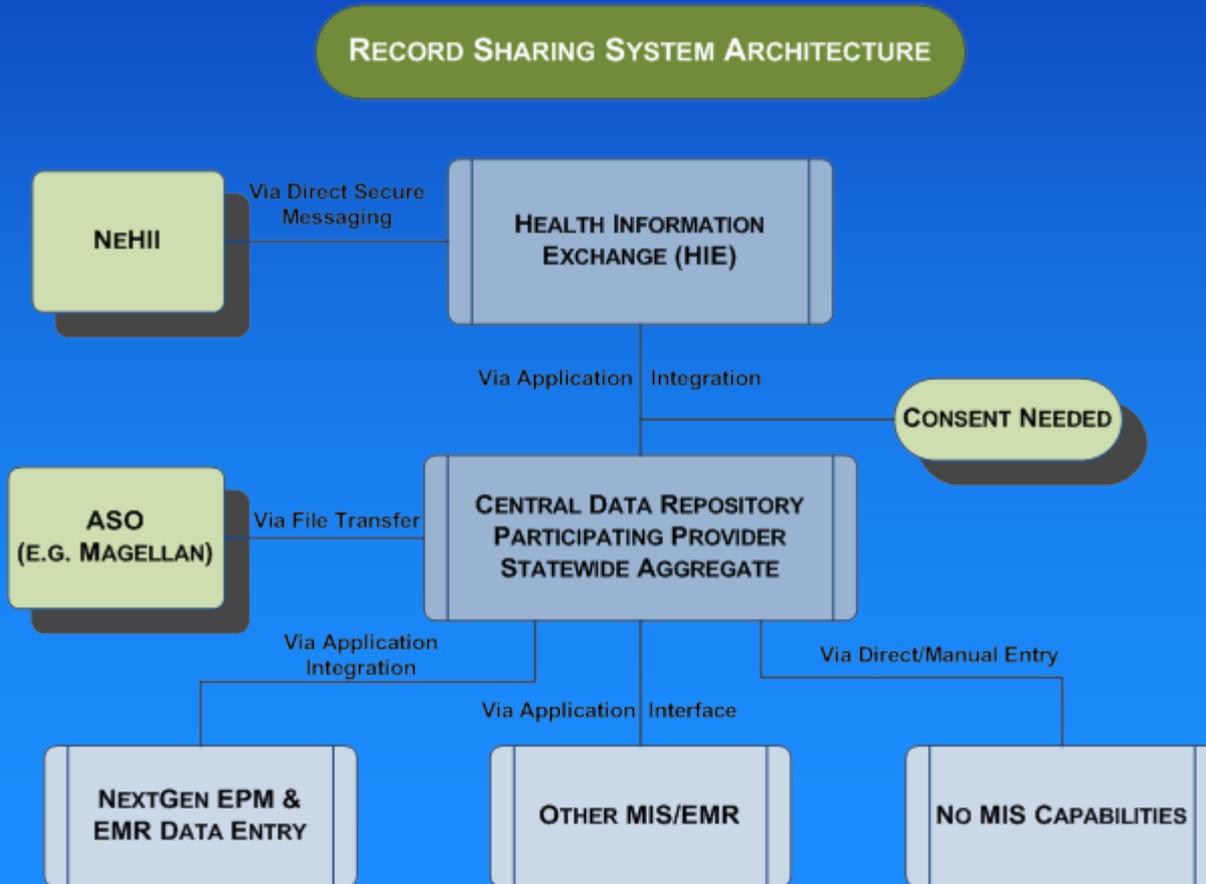


Second Challenge – Privacy and Security of Sensitive Data

- Federal Regulation (42 CFR Part 2) addresses compliance in two ways:
 - Technical Infrastructure
 - Organizational Policies and Procedures

Technical Infrastructure

■ System Architecture





System Functionality

Health Information Exchange:

- Shared Record Exchange across Treatment Settings
- Longitudinal Patient Records
- Closed Loop Referrals
- Wait List Management & Interim Services Tracking
- Medication Reconciliation
- Aggregate Reporting at Provider, Region, and State Levels from Centralized Data Repository



Prohibition on Redisclosure

NextGen EHR: Consent Test MRN: 000000000459 NICKNAME: AGE: 28 years 5 months OTHER: - [Ebhin Redisclosure Notice]

File Edit Default View Tools Admin Utilities Window Help

Logout Save Clear Delete St Monicas 24th St St Monicas, . Patient History Inbox EPM ICS Close

Redisclosure Notice

eBHIN on behalf of other participating alcohol and drug abuse programs covered under 42 CFR part 2 is disclosing protected health information to you from the master patient index and the standard behavioral health data base pursuant to signed written consent of the patient. On behalf of the disclosing providers, eBHIN is required to provide you with the following written statement:

"This information has been disclosed to you from records protected by Federal confidentiality rules (42 CFR part 2). The Federal rules prohibit you from making any further disclosure of this information unless further disclosure is expressly permitted by the written consent of the person to whom it pertains or is otherwise permitted by 42 CFR part 2. A general authorization for the release of medical or other information is NOT sufficient for this purpose. The Federal rules restrict any use of the information to currently investigate or prosecute any alcohol or drug abuse patient."

The patient (or patient's representative) has authorized you to access this record and to download the information into your own agency medical record for purposes of providing treatment services to the patient. If you do download this information into your medical record, you are required to safeguard the confidential information consistent with the HIPAA and federal alcohol and drug abuse privacy rules that apply to your agency and your records. Before you redisclose this information, you are required to obtain your own agency authorization for such disclosure from the patient or the patient's representative."

Close



Prohibition on Redisclosure

Cornhusker Place		the bridge at Cornhusker Place <small>Safe passage from addiction to sober living</small>
Redisclosure Notice		
<p><i>This information has been disclosed to you from records protected by Federal confidentiality rules (42 CFR part 2). The Federal rules prohibit you from making any further disclosure of this information unless further disclosure is expressly permitted by the written consent of the person to whom it pertains or is otherwise permitted by 42 CFR part 2. A general authorization for the release of medical or other information is NOT sufficient for this purpose. The Federal rules restrict any use of the information to currently investigate or prosecute any alcohol or drug abuse patient.</i></p>		
DISCHARGE DOCUMENT		
Agency Assigned ID # : Type of Service: Voluntary Medical Detoxification	Admission Date: 11/23/2012 Region: Region V	
DEMOGRAPHIC INFORMATION:		
Patient Name: Consent Test Address: 8437 Prairie Lane Lincoln, NE 68508-	Home Phone: Day Phone: (402)434-9851	Primary Phone: day Phone Type: Unknown
DISCHARGE INFORMATION:		
Date of Discharge: 11/25/2012 Discharge Status: Treatment Completed Mental Health Board Disposition: No MHB Commitment Destination at Discharge: SA Short Term Residential Employment Status at Time of Discharge: Unemployed (Laid Off/Looking) Living Situation at Time of Discharge: Residential Treatment Education: The patient has completed 12th grade or GED Social Supports at Time of Discharge: 8-15 times in past month (2 or 3 times per week) Discharge Referral: SA Residential	Date of Last Contact: 11/25/2012	



Opt-In Template

NextGen EHR: Consent Test MRN: 000000004531 NICKNAME: AGE: 28 years 5 months OTHER: - [CHSParticipationSettings]

File Edit Default View Tools Admin Utilities Window Help

Logout Save Clear Delete St Monicas 24th St St Monicas, . Patient History Inbox EPM ICS Close

CHS Participation Settings

Patient Name: Portal Passport:

Date of Birth: SSN:

Controlling Options

Patient Opt-in On Patient will be automatically Opted Out On:

Patient Opt-out Date:

Comments



Organizational Policies and Procedures

Participation Agreements include:

- Standard Qualified Service Organization Agreement (QSOA) or Business Associate Agreement (BAA)
- Operations Manual
- Privacy Policies
- Security Policies
- Standard Forms:
 - Consent to Release
 - Revocation of Consent
 - Amendment of Record

Consent Requirements

CONSENT TO DISCLOSE CONFIDENTIAL PROTECTED HEALTH INFORMATION EXPLANATION PAGE

_____ participates in an electronic health information exchange with other health care providers, known as "eBHIN" (Electronic Behavioral Health Information Network). We and the other participating health care providers are referred to as "Participants". With your permission, our participation in eBHIN does two things:

- It provides the electronic method for us to disclose our confidential health information about you to other Participants who are treating you and request your information; and
- It allows other Participants to electronically disclose their confidential health information about you to us if we request your information for our treatment of you.

The purpose of this Consent is to obtain your permission for the sharing of a *limited summary of your behavioral health record* between Participants belonging to eBHIN who are involved with your treatment.

The *limited summary of your behavioral health record* will include (as applicable) the following components:

Demographic Information including name, date of birth, and Social Security Number	Emergency Contact Information	Substance Abuse History Summary
Diagnosis Information	Insurance Information	Trauma History Summary
Current Medications and Allergies	Employment Information	Mental Health Board Disposition
Living Situation and Social Supports	Billing Information	By an LGH Emergency Dept. Chart

eBHIN works as follows. With your consent we, as a Participant, will furnish the limited summary of your behavioral health record to eBHIN, which will store it electronically. eBHIN's record about you will be updated as we and other Participants, always with your consent, send additional information from later visits. Then, when you visit a Participant, the Participant with your consent can obtain the updated summary of your behavioral health record from eBHIN.

There are rules each Participant must follow to participate in eBHIN

- Participants may only request your information in order to treat you. Treatment begins with registering and admitting you for care with a Participant. Much of the information shared through eBHIN is for this registration and admission process. Treatment also means evaluating your condition, reaching a diagnosis, prescribing and providing health care services to address your diagnosis, and coordinating your care with other Participants.
- Participants may only share your information without your consent for emergency treatment of you.
- Participants all agree to request through eBHIN only the *limited summary of my behavioral health record (listed above)*.
- Your health information is private and confidential and is protected by state and federal law. These laws relate to your health information generally, as well as mental and behavioral health information and alcohol and drug abuse treatment information. These laws are commonly referred to as HIPAA and 42 CFR Part 2. All Participants and eBHIN have signed agreements promising to protect your information as required by these laws.

CONSENT TO DISCLOSE CONFIDENTIAL PROTECTED HEALTH INFORMATION

Patient Name: _____ Other Name Used: _____

Soc. Sec./4 digits _____ Date of Birth: _____

I consent to the disclosure of a *limited summary of my behavioral health record* which includes:

Demographic Information including name, date of birth, and Social Security Number	Emergency Contact Information	Substance Abuse History Summary
Diagnosis Information	Insurance Information	Trauma History Summary
Current Medications and Allergies	Employment Information	Mental Health Board Disposition
Living Situation and Social Supports	Billing Information	By an LGH Emergency Dept. Chart

I consent to the following actions:

- _____ ("Agency") may disclose a *limited summary of my behavioral health record* through eBHIN to any other eBHIN Participant which requests such information in order to treat me and has my consent.
- Any other Participant with confidential health information about me may disclose a limited summary of my behavioral health record through eBHIN to Agency for its use in treating me.
- Agency may incorporate the limited summary of my behavioral health record it receives through eBHIN into Agency's own clinical record. From then on Agency may further disclose such information only in accordance with the rules that apply to it as a covered provider under HIPAA and 42 CFR Part 2.

I understand the limited summary may indicate the presence of a communicable or sexually transmitted disease, such as, hepatitis, syphilis, gonorrhea, tuberculosis, and the human immunodeficiency virus (HIV), also known as Acquired Immune Deficiency Syndrome (AIDS). I expressly consent to the release of the limited summary through eBHIN, even when it indicates the presence of such a disease or condition.

Prohibition on Re-disclosure – Whenever a Participant requests records of an alcohol and drug abuse program through eBHIN, the disclosure will include a notice to the Participant that receives my information that re-disclosure is prohibited under federal law, except as permitted with my consent or when required by law. However, when the Participant incorporates alcohol and drug treatment information into its own clinical record about me, the prohibition may not apply. In such case the recipient will be governed by the state and federal rules applicable to that Participant.

Rights: I understand that the law gives me the following rights:

- I may refuse to sign this Consent. I understand that my refusal to sign this Consent will not prevent me from receiving care from Agency or another Participant.
- I may revoke this Consent. I understand that I may revoke this Consent in writing at any time except to the extent that Agency or a Participant has already relied on this form.
- I may inspect or copy my records. I understand that in almost all cases I have the right to inspect or copy the specific health information I have authorized to be disclosed by this Consent form.

Expiration Date – I understand that unless revoked sooner, this Consent expires in one year from the date I signed it or upon the following event: _____, whichever is sooner. Expiration or revocation means Agency will not provide any new confidential protected health information about you to eBHIN where it can be accessed by other Participants, unless and until you sign a new Consent form.

I acknowledge that I have received a copy of the document entitled, "What is the Consent to Release Health Information to eBHIN about?" and had an opportunity to ask questions. By signing this Consent form, I confirm that it accurately reflects my wishes.

Signature of Patient or Legal Representative _____ Date _____

Print Name _____

DOC#1018500.7



Third Challenge – Provider Adoption

Organizational development:

- Consistent concerns expressed regarding privacy and security
- Communication, communication, communication!
 - Stakeholder involvement in policies and procedures development
 - Bottom to top training with messaging specific to role – i.e., end user vs. administrator
 - Influence leader engagement to develop broader acceptance



Provider Adoption

Technical development:

- Serve stakeholder interests
 - Attention to streamlined workflow and single point of data entry
 - Stakeholder involvement in reports development – serve their interests!
 - Demonstrate ROI wherever possible



Outcomes

- Enhanced care coordination across treatment settings
- Economies of scale in equipment, network operations, and applications – acquisition and administration
- Workflow efficiencies and service delivery standardization
- Enhanced data integrity and meaningful reporting
- Integration with physical healthcare to improve access
- Data analytics for performance improvement and quality assurance
- ***Improved patient outcomes!***



Published Study Citations

- **Shank, N.** (2012). Behavioral health providers' beliefs about health information exchange: A statewide survey. *Journal of the American Medical Informatics Association*, 19(4), 562-569. doi: 10.1136/amiajnl-2011-000374

- **Shank, N., Willborn, E., PytlikZillig, L., & Noel, H.** (2012). Electronic health records: Eliciting behavioral health providers' beliefs. *Community Mental Health Journal*, 48(2), 249-254. doi: 10.1007/s10597-011-9409-6



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Q & A

Please submit your questions by using the Q&A box to the lower right of the screen.



CME/CNE Credits

To obtain CME or CNE credits:

Participants will earn 1.5 contact credit hours for their participation if they attended the entire Web conference.

Participants must complete an online evaluation in order to obtain a CE certificate.

A link to the online evaluation system will be sent to participants who attend the Web Conference within 48 hours after the event.