Using Data to Improve Care

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Flavors of Health Information Exchange
Secure Messaging Exchange
Uses DIRECT Protocols
Meets Meaningful Use Requirements

Easy
Exchange Among Providers in One system

Somewhat Difficult but Occurring Nationally
Exchange Among Providers in Multiple Systems

More Difficult but Occurring Nationally
ONC’s Goal - Information Securely Follows Patients Whenever and Wherever They Seek Care

**QUERY-BASED EXCHANGE**
- Find patient information to support unplanned care

**DIRECTED**
- Send and receive patient information to support care coordination

**CONSUMER-MEDIATED EXCHANGE**
- Patients aggregate use and share their own information
ONC’s Approach

Interoperability is a *journey*, not a destination

Leverage *government as a platform* for innovation to create conditions of interoperability

Health information exchange is *not one-size-fits-all*

Multiple approaches will exist *side-by-side*

Build in *incremental steps* – “don’t let the perfect be the enemy of the good”
ONC’s Role - Reduce Cost and Increase Trust and Value To Mobilize Exchange

**COST**
- **Standards**: identify and urge adoption of scalable, highly adoptable standards that solve core interoperability issues for full portfolio of exchange options
- **Market**: Encourage business practices and policies that allow information to follow patients to support patient care
- **HIE Program**: Jump start needed services and policies

**VALUE**
- Payment reforms
- Meaningful Use
- Interoperability and wide-scale adoption

**TRUST**
- Identify and urge adoption of policies needed for trusted information exchange

ONC’s ROLE
Exchange Priorities in 2012 - Driving Forward on Multiple Fronts

• More rigorous exchange requirements in Stage 2 to support better care coordination

• Standards building blocks are in place, with clear priorities to address missing pieces in 2012

• NwHIN Governance increases trust and reduces the need for one-to-one negotiations among exchange organizations

• State HIE Program jump starts needed services and policies
More Rigorous Exchange Requirements in Stage Two to Support Better Care Coordination
Proposed Stage Two Meaningful Use Exchange Requirements (summary)

- Provide summary of care document for more than 65% of transitions of care and referrals with **10% sent electronically** (across vendor and provider boundaries)
- Patients can **view, download or transmit** their own health information
- **Successful ongoing submission** of information to public health agencies (immunizations, syndromic surveillance, ELR)
Standards Building Blocks are in Place, with Clear Priorities to Address Missing Pieces in 2012
ONC Made Big Strides to Enable Exchange in Stage 1

The first challenge was to make sure that information produced by every EHR was understandable by another clinician and could be incorporated into his EHR.

With the vocabularies, code sets and content structure standards in Stage 1 meaningful use every certified EHR can produce the standardized content needed:

- Produce and consume a standardized care summary
- Maintain standardized medication lists
- Consistently report quality measures and public health results
- Consume structured lab results
Next we needed a common approach to transport, allowing information to move from one point to another.

- We now have two easily adopted standards for transporting information – NwHIN Direct and the transport protocol used in NwHIN Exchange.

And it was clear that we needed more highly specified standards to support care transitions and lab results delivery.

- For the first time in our country’s history there is a single, broadly-supported electronic data standard for patient care transitions.
This Year We Will Address the Missing Components to Support Scalable Exchange

- **Directories** – standards and policies to make them consistent, reliable, findable and open to be queried

- **Certificate management and discovery** - common guidelines for establishing and managing digital certificates and making the public keys “findable”

- **Governance** - baseline set of standards and policies that will accelerate exchange by assuring trust and reducing the cost and burden of negotiations among exchange participants
Using Data to Improve Care

Center for Integrated Health Solutions (CIHS)

- The SAMHSA-HRSA CIHS is funded under a training and technical assistance cooperative agreement with SAMHSA

- Update on CIHS HIT Supplement
  - Individual Grantees
  - 5 state HIE Initiative
PBHCI Program

Program purpose:
- To improve the physical health status of people with SMI by supporting communities to coordinate and integrate primary care services into publicly funded community-based behavioral health settings

Expected outcome:
- Grantees will enter into partnerships to develop or expand their offering of primary healthcare services for people with SMI, resulting in improved health status

Population of focus:
- Those with SMI served in the public behavioral health system

Eligible applicants:
- Community behavioral health agencies, in partnership with primary care providers
Data Collection and Performance Outcomes

**Baseline Descriptive Information**
- Personal/family history of: diabetes, hypertension, cardiovascular disease; substance use; tobacco use
- Medication history/current medication list, with dosages
- Social supports

**Health Outcome Indicators (by individual)**
- Weight/Height/Body Mass Index
- Blood pressure
- Blood glucose or HbA1C
- Lipid profile

**Services Outcome Indicators**
- The number of mental health consumers receiving primary care services
- The number of mental health consumers screened for: hypertension; obesity; diabetes; co-occurring substance use disorders; and tobacco product use
Health Indicators
Consumer Baseline Information
How Would You Rate Your Overall Health Right Now?

- Excellent: 4%
- Very Good: 9%
- Good: 29%
- Fair: 38%
- Poor: 20%
Metric BMI

- Subnormal <= 18.5: 2%
- Normal 18.5 – 24.9: 22%
- At Risk 25.0 – 29.9: 14%
- High Risk 30.0+: 17%
- 30-34.99: 21%
- 25-29.99: 24%
- less than 18.5: 2%
Fasting Plasma Glucose (mg/dL)

- Normal: < 100
- At Risk: 100-125
- High Risk: 126+

99 or below: 61%
100-125: 24%
126 or above: 15%
HgbA1c

- Normal: < 5.7%
- At Risk: 5.7% - 6.4%
- High Risk: 6.4%+

Pie chart showing:
- Less than 5.7%: 47%
- 6.5% or higher: 20%
- 5.7% - 6.4%: 33%
Lipid - HDL (mg/dL)

- Less than 40: 33%
- 41-59: 45%
- 60 or above: 22%

Categories:
- Poor: < 40
- Better: 41-59
- Best: 60+
Lipid - LDL (mg/dL)

- Less than 100: 43%
- 100-129: 31%
- 130-159: 17%
- 160-189: 6%
- 190 or above: 3%

Ideal: <100
Near Ideal: 100-129
Borderline High: 130-159
High: 160-189
Very High: 190+
Lipid - Triglycerides (mg/dL)

Desirable: < 150
Borderline High: 150-199
High: 200-499
Very High: 500+
In the Last 30 Days, How Often Have You Used Tobacco Products?

- Daily or almost daily: 53%
- Never: 40%
- Once or twice: 4%
- Weekly: 3%
### Services Outcome Measures (PBHCI only)

Program(s): PBHCI  
Grant(s): All Available Grants  
Selected Period: All FFY Combined, FFY Quarter: All, Selected Interviews: From Baseline to Most Recent Interview, Grant Status: Active grants only, Data Collection Status: Assessments conducted in window only  
Data entered as of: October 11, 2012 7:08 AM EDT

<table>
<thead>
<tr>
<th>Section H Indicator</th>
<th>Number of Valid Cases</th>
<th>At-risk at Baseline</th>
<th>At-risk at Second Interview</th>
<th>Outcome Improved</th>
<th>No Longer At-risk</th>
<th>Outcome Remained At-risk</th>
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</thead>
<tbody>
<tr>
<td>Blood Pressure - Systolic</td>
<td>2522</td>
<td>37.8 %</td>
<td>33.9 %</td>
<td>17.7 %</td>
<td>10.0 %</td>
<td>21.8 %</td>
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<tr>
<td>Blood Pressure - Diastolic</td>
<td>2522</td>
<td>30.4 %</td>
<td>27.5 %</td>
<td>10.2 %</td>
<td>12.5 %</td>
<td>14.9 %</td>
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<tr>
<td>Blood Pressure - Combined</td>
<td>5555</td>
<td>45.0 %</td>
<td>43.2 %</td>
<td>18.7 %</td>
<td>17.0 %</td>
<td>20.0 %</td>
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<tr>
<td>BMI</td>
<td>5233</td>
<td>70.0 %</td>
<td>78.6 %</td>
<td>45.9 %</td>
<td>4.0 %</td>
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<tr>
<td>Waist Circumference</td>
<td>2536</td>
<td>64.9 %</td>
<td>62.9 %</td>
<td>41.0 %</td>
<td>6.9 %</td>
<td>58.0 %</td>
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<tr>
<td>Breath CO</td>
<td>821</td>
<td>44.6 %</td>
<td>40.9 %</td>
<td>30.3 %</td>
<td>10.6 %</td>
<td>34.0 %</td>
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<tr>
<td>Plasma Glucose (fasting)</td>
<td>1116</td>
<td>30.4 %</td>
<td>30.9 %</td>
<td>34.6 %</td>
<td>9.9 %</td>
<td>20.5 %</td>
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<tr>
<td>HgbA1c</td>
<td>902</td>
<td>60.3 %</td>
<td>55.3 %</td>
<td>35.1 %</td>
<td>8.6 %</td>
<td>51.7 %</td>
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<tr>
<td>HDL Cholesterol</td>
<td>3002</td>
<td>32.1 %</td>
<td>32.0 %</td>
<td>33.1 %</td>
<td>6.5 %</td>
<td>25.5 %</td>
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<tr>
<td>LDL Cholesterol</td>
<td>1854</td>
<td>27.7 %</td>
<td>24.3 %</td>
<td>38.7 %</td>
<td>10.8 %</td>
<td>16.9 %</td>
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<tr>
<td>Tri-glycerides</td>
<td>2003</td>
<td>42.3 %</td>
<td>41.0 %</td>
<td>30.0 %</td>
<td>10.3 %</td>
<td>32.0 %</td>
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</tbody>
</table>

**Notes:**
1. This report is updated once every 24 hours, and includes all data entered as of the time it was last updated. Check the date and time at the top of this report to see when it was last updated.
2. Note, only selected programs/grants that have Outcome Measure's data will be displayed.
3. The number of valid cases for the perception of care domain applies to data collected at reassessment only.
Change in Section H Indicators from Baseline to Most Recent Recording - Oct 11, 2012

- Blood Pressure - Systolic
- Blood Pressure - Diastolic
- Blood Pressure - Combined
- Waist Circumference
- BMI
- Breath CO
- Plasma Glucose (fasting)
- G hbA1c
- HDL Cholesterol
- LDL Cholesterol
- Triglycerides

Legend:
- Blue: At-risk at Baseline
- Red: Outcome Improved
- Green: No Longer At-risk
What will be Exchanged
C32, CCR/CCD, CDA

Clinical Element Data Dictionary

http://wiki.siframework.org/Transitions+of+Care+Initiative+CEDD
Acknowledgement Information
Admitting and Discharge Diagnoses
Allergies and Intolerances
Audit Event Information
Behavioral Health
Care Team Members
Clinical Research Information
Consistent Time
Consult(s) Assessment(s) and Plan(s) Recommendations
Culturally Sensitive Care
Demographics
 Diagnosis
 Diet and Nutrition
 Encounter
 Electronic Service
 Information
 Existence of Advance Directives
 Facility
 Family History
 General Results
 Goals
- Health Record
- History of Present Illness
- Immunization History
- Individual Provider Identity
- Invasive and Non-Invasive Procedures
- Medical Equipment
- Medical History
- Medication
- Medications List
- Operative Summary
- Order
- Organizational Provider Identity
- Patient Consent Directive
- Patient Contact Information
- Patient Information
- Patient Instructions
- Payer Information
- Physical Activity
- Physical Exam
- Policy
- Primary Care and Designated Providers
- Problems List
- Procedure
- Provider Address
- Provider Certification
- Provider Directory Content Profile
- Provider Directory Identification
- Provider Directory Individual Name
- Provider Directory Security Profile
- Provider Professional Degree
- Surgical/Procedural History
- System Identity
- User Access Information
- Vital Signs
- Women's Health

- Note: Psychotherapy Notes are Not Exchanged
Behavioral Health Specific Data Elements

- Confidentiality Code
- DSM Axis 1
- DSM Axis 2
- DSM Axis 3
- DSM Axis 4
- DSM Axis 5
- Environmental Factors
- GAF Score
- Homicidal Ideation
- Suicidal Ideation
- Treatment Referral

What other elements do behavioral health providers need to do our job??
What’s Missing?

Community Referral and Care Coordination Tool (CRCCT)
Care Transitions
Bopping Around the Spectrum of Care

High
Relative Cost
Low

Acuity Level

Home Care
Independent
Adult Care
ALF
PACE
SNE
Acute Care
LTAC
IRF
Hospice
Overview of HIE Activity Informing Consent Management Issues
Under the Center for Integrated Health Solutions (CIHS)

5 States Selected

- IL
- KY
- ME
- OK
- RI
HIE Supplement

- Coordination with other Federal Programs & Initiatives

- Coordinating Activities with
  - HL7 Behavioral Health CCD Workgroup
  - ONC’s Standards and Interoperability Framework Transitions of Care Workgroup
  - ONC’s Standards and Interoperability Framework Data Segmentation Workgroup
  - ONCs State Health Policy Consortium Project (RTI Initiative) for behavioral health data sharing
    - AL, FL, KY, NE, NM, MI  Plus other states

- Other states are also participating:  CO; NY; UT
Biggest Hurdle

42 CFR Part 2 Consent Management “To Whom”

This is being worked on now!!
Awareness of What is Possible Today

Planning for What Will be Possible in the Future

Recognize we are in a Transition Period

Not all 42 CFR conditions can be fully met
Predominant Challenge:

- Development of a 42 CFR Compliant Consent that is Computable in a HIE Environment
Our Approach:

- Build on What is Already Developed
- Coordinate with ONC & S&I Workgroups
- Coordinate with SAMHSA
- Ensure Legal Input
  - 3 of 5 HIEs have their legal experts regularly involved on the calls
- Identify current “Better Practices”
42 CFR Regs and SAMHSA FAQs 1 and 2 side by side as Consent developed

HIEs obtained input from their Behavioral Health Workgroups

HIEs invited their vendors to participate and comment as well

Everything in “Black” was reviewed and found acceptable by everyone

“Red” indicates problem areas not yet resolved (as of 6/29/12 still in process of determining a resolution)
A written consent to a disclosure under the Part 2 regulations must be in writing and include all of the following items (42 CFR § 2.31):

1) the specific name or general designation of the program or person permitted to make the disclosure;

2) the name or title of the individual or the name of the organization to which disclosure is to be made;

3) the name of the patient;

4) the purpose of the disclosure;

5) how much and what kind of information to be disclosed;

6) the signature of the patient and, when required for a patient who is a minor, the signature of a person authorized to give consent under § 2.14; or, when required for a patient who is incompetent or deceased, signature of a person authorized to sign under § 2.15 in lieu of the patient;

7) the date on which the consent is signed;

8) a statement that the consent is subject to revocation at any time except to the extent that the program or person which is to make the disclosure has already acted in reliance on it. Acting in reliance includes the provision of treatment services in reliance on a valid consent to disclose information to a third party payer; and

9) the date, event or condition upon which the consent will expire if not revoked before. This date, event, or condition must insure that the consent will last no longer than reasonably necessary to serve the purpose for which it is given.
PATIENT CONSENT AND AUTHORIZATION FORM FOR
DISCLOSURE OF CERTAIN HEALTH INFORMATION

***PLEASE READ THE ENTIRE FORM, BOTH PAGES, BEFORE SIGNING BELOW***

Patient (name and information of person whose health information is being disclosed):

Name (First Middle Last): __________________________ Date of Birth (mm/dd/yyyy): ________
Address: __________________________ City: ______________ State: ______ Zip: _______

You may use this form to allow your healthcare provider to access and use your health
information. Your choice on whether to sign this form will not affect your ability to get medical
treatment, payment for medical treatment, or health insurance enrollment or eligibility for
benefits.

By signing this form, I voluntarily authorize access, use and disclosure of my:

Check all of the boxes to identify the information you authorize to disclose:

☐ Drug or alcohol abuse treatment information
☐ Mental health treatment information
**FROM WHOM**: Specific name or general description of person(s) or organization(s) who I am authorizing to release my information under this form:

- All health care providers involved in my care.
- All programs in which the patient has been enrolled as an alcohol or drug abuse patient, or
- Any drug or alcohol treatment program or other health care provider, pharmacy or organization providing care coordination that is affiliated with the XYZ HIO

- Only these providers

<table>
<thead>
<tr>
<th>Person/Organization Name:</th>
<th>Phone:</th>
<th>Address:</th>
<th>Secure email address:</th>
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**SAMHSA-HRSA Center for Integrated Health Solutions**

**www.integration.samhsa.gov**

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**NATIONAL COUNCIL FOR COMMUNITY BEHAVIORAL HEALTHCARE**

**SAMHSA**

A Life in the Community for Everyone

Substance Abuse and Mental Health Services Administration
TO WHOM: Specific person(s) or organization(s) permitted to receive my information:
- To the HIE [Name]
- The HIE and any provider(s) involved in my care in the HIE as of today’s date ONLY
- The HIE and only these specific providers
- Only these specific providers
- The HIE and any current and future provider(s) involved in my care in the HIE

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<th>Organization Name:</th>
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<th>Address:</th>
<th>Secure email address:</th>
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</table>

**ONLY THESE INDIVIDUAL PROVIDERS**

Most HIEs cannot manage only specific individual providers at this point in time.
**Amount and Kind of Information:** The information to be released may include but not be limited to: Laboratory, Medications, Medical Care & HIV/Aids, Alcohol & Substance Abuse and Mental or Behavioral Health information
**PURPOSE:** The information shared will be used:

- To help with my Treatment and Care Coordination
- To assist the provider or organization to improve the way they conduct work
- To help Pay for my Treatment

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<tr>
<th></th>
<th>Treatment</th>
<th>Operations</th>
<th>Payment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ONLY USE</strong></td>
<td><strong>WHAT IS APPROPRIATE FOR THE HIE.</strong></td>
<td><strong>SOME HIEs ONLY PROVIDE EXCHANGE FOR “TREATMENT”</strong></td>
<td></td>
</tr>
</tbody>
</table>
**EFFECTIVE PERIOD:** This authorization/consent/permission form will remain in effect until (enter date, event or condition upon which this authorization/consent expires):

```
________________________________________
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**OR**

This authorization/consent/permission form will remain in effect for (X Year(s) or X Month(s)) from the date the form is signed.

**OR**

This authorization/consent/permission will remain in effect until such time as XYZ HIO ceases to exist.

**If there is no date entered the consent will be valid for one year from the date this form is signed.**

Best practice is to always ask for a date any date. Events are not computable e.g. how to tell when someone dies. HIE would never know
REVOKING MY PERMISSION: I can revoke my permission at any time by giving written notice to the person or organization named above in the “To Whom” or “From Whom” sections ”except to the extent the disclosure agreed to has been acted on.
In addition:

- I understand that an electronic copy of this form can be used to authorize the disclosure of the information described above.

- I understand that there are some circumstances in which this information may be redisclosed to other persons according to state or federal law.

- I understand that refusing to sign this form does not stop disclosure of my health information that is otherwise permitted by law without my specific authorization or permission.

- I have read all pages of this form and agree to the disclosures above from the types of sources listed.

“This HIE consent does not permit use of my protected health information in any criminal or civil investigation or proceeding against me without an express court order granting the disclosure unless otherwise permitted under state law.”
Signature of Patient or Patient’s Legal Representative
(mm/dd/yyyy)

Print Name of Legal Representative (if applicable)
Check one to describe the relationship of Legal Representative to Patient (if applicable):
☐ Parent of minor
☐ Guardian
☐ Other personal representative (explain: ________________________________
__________________________________________________________

NOTE: Under some state laws, minors must consent to the release of certain information. The law of the state from which the information is to be released determines whether a minor must consent to the release of the information.
This form is invalid if modified. You are entitled to get a copy of this form after you sign it.
Issues/Challenges:

- Some HIEs cannot process only specific providers in the “To Whom” Section
  - Is “All or Nothing”

- Is “All or Nothing” for “Type and Amount” of Data
  - Data Segmentation is not available in all systems today to support Data Segmentation

- HIEs cannot currently process “Only providers in the HIE as of the date of signing the form”
  - Barriers due to technology, cost & operational issues for HIEs and providers
Possible Solutions:

- Use DIRECT only with a Provider Locator Service provided and supported by the HIE
- Can work in an HIE that is not storing any data and just providing the “pipes” e.g. IL HIE
- Other solutions are in development
Possible Solutions:

- Bring behavioral health data into the HIE but do not “render” it to the provider until the provider has attested with a second sign on that they have a treating relationship with the patient
  - 4 of the 5 HIEs do require this attestation
  - All have audit trail capabilities to track access
- Other solutions are in development
ONC S&I Data Segmentation Workgroup

- Each Data element will be tagged at the EHR level with data describing the actual data to be delivered
  - “Metadata”

- Metadata will include attributes of the data to be shared in relation to consent e.g.
  - Is “Restricted” or “Confidential” in nature
  - Effective Date of consent
  - Termination date of consent
  - If not “all providers” which specific providers are allowed access etc.
Contact:

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MikeL@thenationalcouncil.org