National Drug Abuse Treatment Clinical Trials Network

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Betty Tai, Ph.D.
Director, Center for the Clinical Trials Network
NIDA/NIH/DHHS
Measuring Performance to Improve the Quality of Substance Use Disorder Treatment

State of knowledge
Needed research
Potential of electronic health records
What is an EM(H)R?

“aggregated electronic record of health-related information on an individual that is created and gathered cumulatively across more than one health care organization and is managed and consulted by licensed clinicians and staff involved in the individual’s health and care”

National Alliance for Health Information Technology

**EMR vs. EHR:**
Same data elements, but varies on who owns it and where it is stored.
Federal Mandate of Adoption

2009 ARRA

- DHHS Office of National Coordinator of HIT (ONC) with $19 billion program
- Definitions on "certified EHR" & "meaningful use"
- Financial incentives to promote the adoption and meaningful use of certified EHRs
- All medical records must be digitized by 2015 for CMS reimbursement

Goal: Exchange and Use of Data

Healthcare Data Systems

Data Uses
- Patient care
- Quality Improvement
- Research
- Reimbursement
- Post Marketing Safety
- Decision Support
- Administration & Mgt.
- Population Health Reporting...

Single Source

Multiple Uses

Patient

Clinician

Researcher
Uses of Data Have Significant Overlap

- Research
- Clinical Care
- Reimbursement Management
- Population Health Reporting
- Quality & Patient Safety

Adapted from CIC B. Tai 2011
The Problem - Data Exchange

Data Collected or Generated During Patient Care

Data Used

Adapted from CIC B. Tai 2011
What Is Interoperability?

…the ability of health information systems to exchange and use healthcare information within and across organizational boundaries to advance the effective delivery of healthcare for individuals and communities.

*Health Care Information and Management Systems Societies 2006*
The Interface Battle

2 systems, 1 interface

3 systems, 3 interfaces

System A  System B

Adapted from: Jaffe 2007
The Battle Lines Are Drawn

4 systems, 6 interfaces

5 systems, 10 interfaces

Adapted from: Jaffe 2007
…And so on!

<table>
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<th>Interfaces</th>
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And the math gets **really** ugly after that!

Adapted from: Jaffe 2007
Syntax vs. Semantics

- The dog eats red meat.
- The dog eats blue trees.

- Time flies like an arrow.
- Fruit flies like a banana.

- Syntax → Structure
- Semantics → Meaning

....and then there’s Context

‘He threw his hat into the ring....’
‘He’s got a chip on his shoulder....’
Aspects of Interoperability

- Standards enable **interoperability** of healthcare information

- Three aspects of interoperability
  - Technical: Moving data from *system A* to *system B*
  - Semantic: Ensuring that *system A* and *system B* understand the data in the same way
  - Process: Enabling business processes at organizations housing *system A* and *system B* to work together
Pathways to Interoperability

• Domain Analysis Model and Common Data Elements (CDEs) – created in NCI caDSR

• eMeasure specification - coding concepts in standard vocabularies: SNOMED CT, LOINC, Rx Norm, etc.

• NQF Quality Data Model (QDM)

• ONC - Certified EHR Technology

• Certification Commission for Health Information Technology (HITSP standards)

• NHIN specifications
Electronic Health Record (EHR)

- ARRA 2009/Title XIII - HITECH Act*
- Federal Meaningful Use criteria
  - Incentive through reimbursement
  - Incorporate concepts and data elements to qualify for meaningful use
  - For example
    - Meaningful Use Stage 2 (proposed)
      - Screen for tobacco use in 80% of clinic population
      - Screen and brief intervention for alcohol use disorders
      - Screening question for illicit substance use in primary care

*American Recovery and Reinvestment Act – Health Information Technology for Economic and Clinical Health Act
Eight measures for tobacco, alcohol and drug use have just been released:

- Tobacco use screening, treatment, and treatment at or after discharge
- Alcohol use screening
- Alcohol use brief intervention
- Alcohol and drug use disorder treatment at or after discharge
Jump Start
NIDA’s Effort

1. Develop common data elements for SUD
2. Develop a work plan for screening in primary care
3. Interface with a myriad of federal agencies
NIDA CTN

62 CTPs + HCPs

AAAP
ASAM
CPDD

NIH OBSSR NLM, CDC, HIS, VA

ONDCP
CMS

NASADAD
AHRQ

SAMHSA HRSA

SUD EHR

and
YOU

B. Tai 2011
EHR Development

NIDA’s Proposed SUD EHR

Small Core Set of Questions for Primary Care Setting

Enlarged Core Set of Questions for SUD Treatment Setting
Primary Care

• Primary Care
  – How brief?
  – How to fit all practice/care settings?

• Triage Decisions:
  – Simple screen and refer
  – Simple screen, assessment and refer
  – Simple screen, assessment and treat and/or refer
Expert Key Recommendations

- **Combine** screening of tobacco, alcohol and substance use
- **Use validated** screening questions
- Develop a **standardized timeframe**
- Standardize questions or instruments
- Incorporate clinical decision support (**CDS**) and evidence-based brief interventions (**BI**)
- Consider ASAM dimensions and The Joint Commission (TJC) standards
Validated Core Questions - MU stage 2

Single question drug screen

1. Have you used drugs other than those required for medical reasons?
2. Do you abuse more than one drug at a time?
3. Are you always able to stop using drugs when you want to?
4. Have you had “blackouts” or “flashbacks” as a result of drug use?
5. Do you every feel bad or guilty about your drug use?
6. Does your spouse (or parents) ever complain about your involvement with drugs?
7. Have you neglected your family because of your use of drugs?
8. Have you engaged in illegal activities in order to obtain drugs?
9. Have you ever experienced withdrawal symptoms (felt sick) when you stopped taking drugs?
10. Have you had medical problems as a result of your drug use (e.g., memory loss, hepatitis, convulsions, bleeding, etc.?)

Moving Forward

- Obtain consensus on valid screening and assessment tools ✔
- Receive recommendations for CMS Meaningful Use ✔
  (ONC Quality Measures Workgroup & HIT Policy Committee)
- Define Clinical Quality Measures (CQMs)
- Develop associated clinical decision support (CDS) protocols (SBIRT) – in progress
- Provide/develop scientific evidence to support widespread adoption
- eMeasure specification (NQF Quality Data Model)
- NQF endorsement (9 steps)
- Inclusion of SUD screening in Health Risk Assessment for use in CMS Annual Wellness Visit
Proposed CDS for SUD

1. Screening

1-Item Screener

If score = 0

Minimal or No Risk

If score > 0

DAST-10

Low Intensity

Additional Questions

High Intensity

Adapted from G. Subramaniam, MD Sept 2011
Conclusions and Next Steps

- Consensus was reached on a core set of SUD screening and assessment questions for use in primary care
- Common Data Elements (CDEs) have been developed
- Other activities underway for
  - Adoption of specific CDEs into Meaningful Use
  - eMeasure specification
  - Incorporation into an SBIRT for pilot testing
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- **You**
  - The audience