

NIATx bhEMR Learning Collaborative

Fond Du Lac Green Bay Kenosha Madison Manitowoc Menomonie Milwaukee Racine Siren Wis. Rapids

**Knowing Federal
bhEMR Policy...
Today & Tomorrow**



February 24, 2010



Guest Speaker

- Richard Thoreson
 - Public Health Analyst
 - SAMHSA/CSAT
 - Areas of Research & Interest
 - Standards
 - Systems Integration
 - “The Open-Source Guy”
- SAMHSA/CSAT
 - Center for Substance Abuse Treatment (csat.samhsa.gov)
 - Substance Abuse & Mental Health Administration (www.samhsa.gov)



Agenda

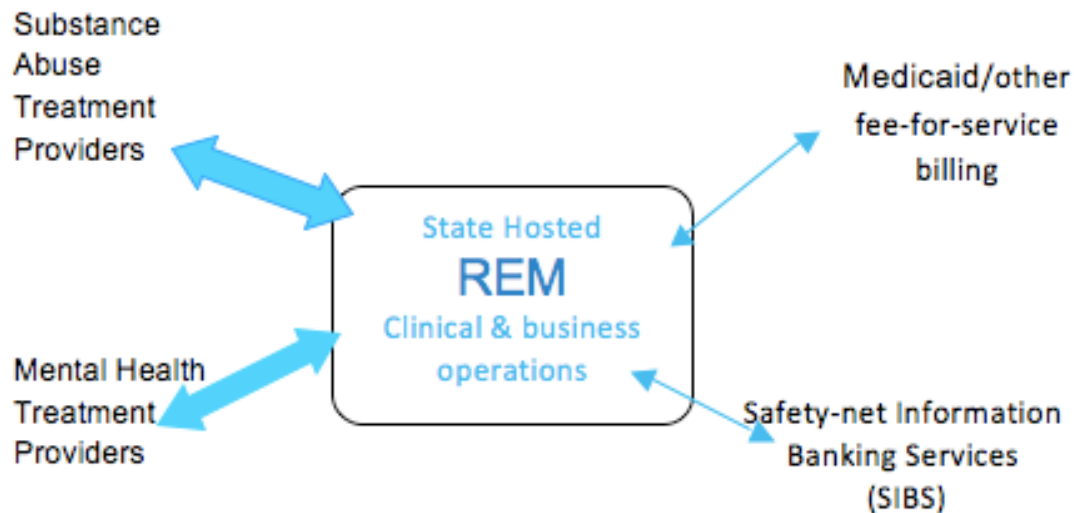
- Introduction
- A “New” Safety Net Vision
- Open Source Technology
- ARRA
- Standards
- Resources
- Q & A



A “New” Safety Net Vision

The Reference Electronic Behavioral Health Record System Model

Level 1 Interoperability: Behavioral Health Treatment



The REM:

- Integrates mental health and substance abuse treatment services
- Upgrades clinical records
- Eliminates paper records
- Builds on systems hosted by 17 States & 5 counties

“Open Source” means:

- Build once, re-use many times, for free



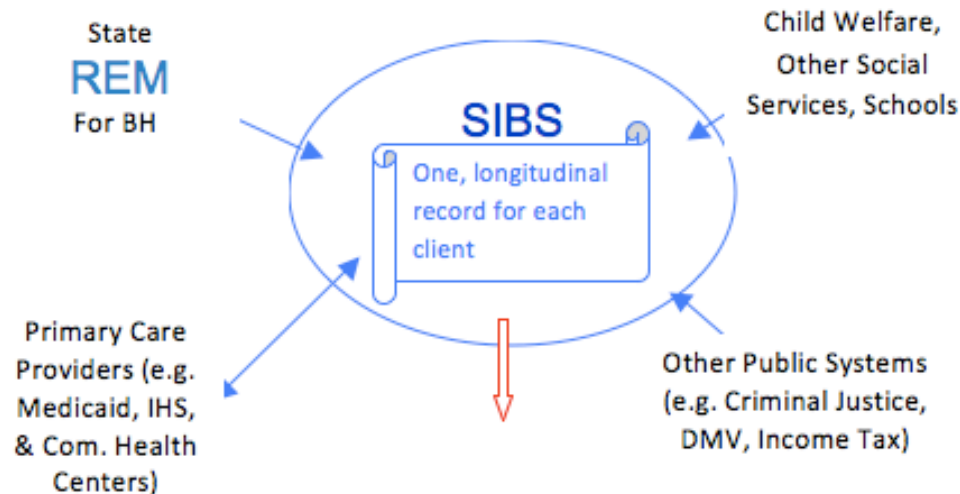
Notes:

- 1) A model under consideration
- 2) Goal to obtain objective performance information

A “New” Safety Net Vision

State-hosted, Safety Net Information Banking Services (SIBS)

Level 2 Interoperability: State Agencies



Behavioral Health (BH) business case:

- Coordinate all safety net services
- Cross system coordination based on “need to know” & client consent
- Upstream BH services reduce downstream medical costs
- Longitudinal records assembled at virtually no cost, once data are digital

Privacy Protection Issues

- Will States centralize information?
- Will Feds and States protect personal information?
 - HL7/HITSP Consent Directives
 - Restrictive “need to know” definitions without client consent

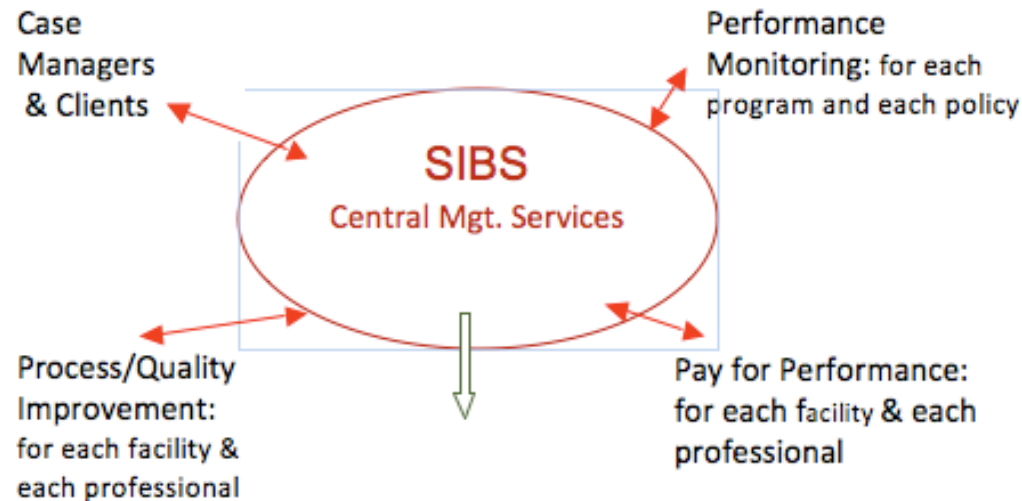
Notes:

- 1) Obtain longitudinal patient record accessible to providers

A “New” Safety Net Vision

Safety Net Information Banking Services (SIBS)

Level 3 Interoperability: Performance Management



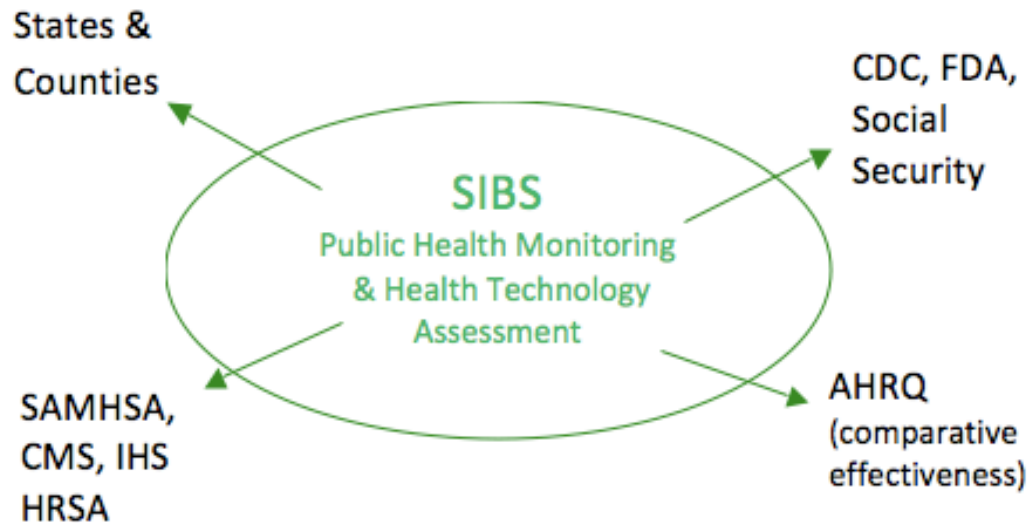
More on SIBS business case & privacy:

- Client & Case Manager (CM)
 - Only one CM needed per client
 - Both get bird's eye view of all services before, during, & after each encounter
 - No one else should see identified records for this client
- Public authorities get 'birds' eye views:
 - all de-identified clients, with complete problem & service history for each
 - all providers, all services delivered, and all charges paid
- Once client/provider records become digital, & once open-source SIBS are built, central mgt. services cost virtually nothing!

A “New” Safety Net Vision

Safety Net Information Banking Services (SIBS)

Level 4 Interoperability: Monitoring Public Health & System Effectiveness



Still more SIBS business case:

- Reuse of SIBS client & provider history files costs virtually nothing
- If State & county systems use standard vocabulary and service definitions, then consolidation across States costs virtually nothing
- For large populations, no sampling error, and less measurement error compared to survey-based self-reporting

Major privacy caveat for all SIBS:

Security & privacy protections must be rock solid

Medicaid

An area of potential solutions...

- Medicaid Information Technology Architecture (MITA)
- Medicaid Management Information Systems (MMIS)
- www.cms.hhs.gov/MedicaidInfoTechArch/



Free Open Source Software

- Definition...
 - Software design, development, distribution (source code accessibility)
 - Valdes, 2008, Free and Open Source Software in Healthcare 1.0
 - www.amia.org/files/Final-OS-WG%20White%20Paper_11_19_08.pdf



ARRA: “Network of Networks”

- Nationwide Health Information Network (NHIN)...
 - Provide a secure, nationwide, interoperable HIT infrastructure
 - Focusing on...
 - ▶ Data exchange capabilities
 - ▶ Care information coordination
 - ▶ Protecting consumers’ health information
 - ▶ Empowering consumers with managing PHR & accessing EHR
 - ▶ Reducing medical error risks
 - ▶ Delivery of evidence-based medical care
 - ▶ Lowering healthcare costs
 - Strategy...
 - ▶ Phase 1: Prototype architectures
 - ▶ Phase 2: Trial implementations
 - ▶ Phase 3: Limited production



ARRA: Adoption



Doesn't cover behavioral and mental healthcare providers...currently.

ARRA: Funding

What sources of public funding exist for you?

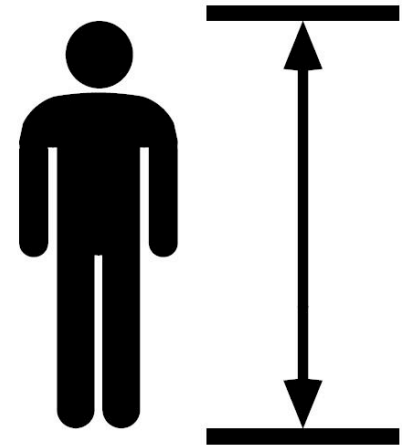
- Medicare/Medicaid Incentives: \$20 bil (HHS)
- State Health Information Exchange (HIE) Grants: \$9.4 mil (WI DHS)
- Regional Extension Centers (REC): \$0 (WI DHS)



Standards

Some standards your bhEMR should appease...

- Interoperability – HITSP, HL7
- Privacy – CFR 42, HIPAA
- Terminology – SNOMED-CT, MeSH, LOINC



Notes:

- 1) Data security was not covered during the webinar

Standards: Interoperability

- Healthcare Information Technology Standards Panel (HITSP)...
 - Established in 2005
 - Standards to support interoperability among HIT software applications
 - Funded by U.S. HHS
 - Sponsored by ANSI, in cooperation with...
 - HIMSS, Booz Allen Hamilton, Advanced Technology Institute
 - Works cooperatively with HL7 (no formal relationship)
 - www.hitsp.org



Standards: Interoperability

- Health Level 7
 - Founded in 1987
 - Not-for-profit, ANSI-accredited standards developing organization
 - Standards for exchange, integration, sharing, and retrieval of electronic health information that supports...
 - ▶ Clinical practice
 - ▶ Management, delivery, evaluation of health services
 - Level 7 (applications) of ISO Open Systems Interconnection (OSI)
 - HL7 offers both ISO and ANSI approved standards
 - 2,300+ members, ~500 corporate members (90% vendor market)
 - www.hl7.org



Standards: Interoperability

- International Organization for Standardization (ISO)...
 - Works with international Standards Development Organizations (SDO)
 - www.iso.org
- American Society for Testing & Materials (ASTM)
 - Source for technical standards: materials, products, systems, services
 - www.astm.org
- American National Standards Institute (ANSI)
 - Works with national Standards Development Organizations (SDO)
 - Sponsors HITSP
 - www.ansi.org



Standards: Interoperability

- National Institute of Standards & Technology (NIST)...
 - Founded in 1901
 - Non-regulatory federal agency within U.S. Department of Commerce
 - To promote U.S. innovation & industrial competitiveness by advancing measurement science, standards, & technology in ways that enhance economic security and improve our quality of life
 - Provided \$610 million by ARRA
 - \$220 million laboratory research, measurements, & other services
 - HHS transferred \$20 million
 - EMR security & interoperability standards research
 - www.nist.gov

The NIST logo consists of the letters "NIST" in a bold, black, sans-serif font. The letters are closely spaced and have a slightly irregular, blocky appearance.

Standards: Terminology

- Systemized Nomenclature of Medicine-Clinical Terms (SNOMED-CT)
 - Healthcare terminology attached to concept codes
 - Multiple terms per code structured logic-based meanings
 - Most comprehensive, multilingual clinical healthcare terminology
 - ▶ 283,000 active codes
 - ▶ 732,000 active terms
 - ▶ 923,000 active relationships
 - Provides core general terminology for EHR
 - Author(s):
 - ▶ College of American Pathologists (CAP) (original)
 - ▶ Int. Health Terminology Standards Development Org. (IHTSDO)
 - Current Version(s): -
 - www.ihtsdo.org, www.nlm.nih.gov



International Health Terminology Standards Development Organization (IHTSDO). Retrieved from www.ihtsdo.org. September 1, 2009.

National Library of Medicine (NLM). Retrieved from www.nlm.nih.gov. September 1, 2009.

Shōrtliffe E., Cimino J. Biomedical Informatics: Computer Applications in Health Care and Biomedicine. 3rd Edition. 2006.

Standards: Terminology

- Logical Observation Identifiers Names & Codes (LOINC)...
 - U.S. non-profit medical research organization
 - Founded in 1994 by Regenstrief Institute
 - Database for coding medical lab observations...
 - ▶ Medical lab, nursing diagnosis, nursing interventions, outcomes classification, patient care data set, clinical observations, research
 - ▶ Universal code names & identifiers to EHR medical terminology
 - ▶ Assist in electronic exchange & gathering of clinical results
 - Endorsed by...
 - ▶ American Clinical Laboratory Association
 - ▶ College of American Pathologist
 - www.ioinc.org



Standards: Terminology

- Medical Subject Headings (MeSH)...
 - Terminology indexed by world medical literature
 - Not generally used as direct coding scheme
 - Descriptor structure both alphabetic and a hierarchical
 - 25,186 descriptors (2009 MeSH), 160,000+ entry terms
 - 180,000+ “Supplementary Concept Records”, separate thesaurus
 - Plays primary role in the Universal Medical Language System (UMLS)
 - MeSH thesaurus used by NLM for indexing articles from world's leading biomedical journals for the MEDLINE/PubMED
 - Author(s): National Library of Medicine (NLM)
 - Current Version(s): 2009
 - www.nlm.nih.gov/mesh/meshhome.html



Resources

Where should you go for information...

- healthit.hhs.gov
 - Federal funding, standards, certification (Interim Final Rule)
- dhs.wi.gov
 - State funding, policy, planning...



Q & A



NIATx bhEMR LC Schedule

What can you anticipate?

- Product Functions & Features (NextGen) March 5
- Improving Technology Readiness March
- Trust & Relationships April
- Cognizant Technology Use April
- Workflow Standardization May
- Business Case May
- Customization & Training (WAAODA) May 11
- Technology Implementation Overview (NIATx Summit) July 11