

Resources for Minnesota e-Health Standards and EHR Certification

2009 Edition



Minnesota Department of Health
and the
Minnesota e-Health Initiative Advisory Committee



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Table 1: Introduction to e-Health Standards

#	Topic	Resources
1	Standards 101	<ul style="list-style-type: none"> • HIMSS tutorial: Standards 101 http://www.himss.org/content/files/standards101/Standards_101.pdf • Minnesota e-Health Initiative (primer on standards) http://www.health.state.mn.us/e-health/standards/index.html • NCPDP 101 http://www.ncpdp.org/PDF/NCPDP_101.pdf • HL7 101: A Beginner's Guide http://www.radiologytoday.net/archive/rt0226200728.shtml • Standards Knowledge Library from Agency for Healthcare Research and Quality http://healthit.ahrq.gov/portal/server.pt?open=514&objID=5554&mode=2&holderDisplayURL=http://prodportallb.ahrq.gov:7087/publishedcontent/publish/communities/k_o/knowledge_library/key_topics/health_briefing_01232006100413/standards.html
2	HL7 Tutorial	<ul style="list-style-type: none"> • HL7 tutorial http://www.hl7.org/library/committees/education/Intro%20To%20HL7.zip <p>Refer to additional resources on HL7 listed in row # 6 under resources for laboratory results reporting</p>
3	Public Health Data Standards	<ul style="list-style-type: none"> • Minnesota Public Health Information Network (MN-PHIN) http://www.health.state.mn.us/e-health/mnphin/standards.pdf • Public Health Data Standards Presentation Written by MN-PHIN Steering Committee & Created by Bonnie Westra https://umconnect.umn.edu/p60923409/
4	e-Health Glossary	<ul style="list-style-type: none"> • Minnesota e-Health – Glossary of Selected Terms and Acronyms http://www.health.state.mn.us/e-health/glossary.pdf

Table 2: Certification of Electronic Health Records

#	Topic	Resources
5	List of certified products	<ul style="list-style-type: none"> • CCHIT Certified Ambulatory EHR 2008 http://www.cchit.org/choose/ambulatory/08/index.asp • CCHIT Certified Inpatient EHR 2008 http://www.cchit.org/choose/inpatient/08/index.asp • CCHIT Certified Emergency Department EHR 2008 http://www.cchit.org/choose/emergency/08/index.asp • CCHIT Certified Enterprise EHR 2008 http://www.cchit.org/choose/enterprise/08/index.asp
6	CCHIT Presentations / Tutorials / HITECH resources	<p>New paths to certification</p> <ul style="list-style-type: none"> • New paths to certification: Dialogue with open source community http://www.cchit.org/about/events/presentations/files/CCHIT%20Town%20Call%20-%20New%20Paths%20to%20Certification%20-%20Dialog%20with%20OS%20Community%20-%2006-16-09.pdf • New paths to certification http://www.cchit.org/about/events/presentations/files/CCHIT%20Town%20Call%20-%20New%20Paths%20to%20Certification%20-%2006-17-09.pdf • Concise guide to CCHIT certification criteria http://www.cchit.org/files/certification/09/guide/ConciseGuideToCCHIT_Certification_Criteria_May_29_2009.pdf • NCVHS testimony on meaningful use by CCHIT Chair http://www.cchit.org/about/events/presentations/files/2009/Panel_9_Certification_and_Meaningful_Use_EHR_Product_Certification_Mark_Leavitt_NCVHS_20090429.pdf
7	Information Resources / Tools to Facilitate EHR Decisions	<ul style="list-style-type: none"> • Physician's Guide to Certification for 08 EHRs A guide to help physicians and practice managers understand the benefits they can expect when electronic health record products have been certified by CCHIT http://www.cchit.org/files/CCHITPhysiciansGuide08.pdf • EHR Decisions Electronic Health Record (EHR) Information & News http://ehrdecisions.com/
8	Resources for vendors seeking certification	<ul style="list-style-type: none"> • Pursue product certification http://www.cchit.org/certify/index.asp

Table 3: ePrescribing (Medication Management)

#	Transactions	Standards Recommended	Resources
9	Medication Management Use Case		<ul style="list-style-type: none"> HITSP Interoperability Specifications http://www.hitsp.org/
10	Eligibility and benefits inquiries & responses between prescribers and Plan sponsors	Accredited Standards Committee (ASC) X12N 270/271 4010A	<ul style="list-style-type: none"> ASC X12 http://www.disa.org/x12org/index.cfm AUC (Administrative Uniformity Committee) http://www.health.state.mn.us/auc/index.html
11		NCPDP standards	<ul style="list-style-type: none"> NCPDP 101 http://www.ncdp.org/PDF/NCPDP_101.pdf NCPDP Standards and Process http://www.ncdp.org/standards.asp NCPDP Basic Guide to Standards http://www.ncdp.org/PDF/Basic_guide_to_standards.pdf
12	Eligibility and benefits inquiries & responses between dispensers and Plan sponsors	NCPDP Telecommunication Standard Specification, Version 5.1	<ul style="list-style-type: none"> Implementation guide Proprietary and available to members at http://www.ncdp.org
13	Transactions between prescribers and dispensers	NCPDP SCRIPT 8.1 <i>Or most recent CMS recommended version</i>	<ul style="list-style-type: none"> Implementation guide Proprietary and available to members at http://www.ncdp.org
14	Exchange of Medication History	NCPDP SCRIPT 8.1 <i>Or most recent CMS recommended version</i>	<ul style="list-style-type: none"> Implementation guide Proprietary and available to members at http://www.ncdp.org
15	Formulary & Benefit Information	NCPDP Formulary and Benefits Standards 1.0	<ul style="list-style-type: none"> Implementation guide Proprietary and available to members at http://www.ncdp.org

Table 4: Laboratory Results Reporting

#	Transactions	Standards Recommended	Resources
16	Electronic Health Records – Laboratory Results Reporting Use Case		<ul style="list-style-type: none"> HITSP Interoperability Specifications http://www.hitsp.org/
17	Laboratory results reporting between laboratory and providers	HL7 v 2.5.1	<ul style="list-style-type: none"> HL7 Standards http://www.hl7.org Implementation guide Proprietary and available to members at http://www.hl7.org HL7 tutorial http://www.hl7.org/library/committees/education/Intro%20To%20HL7.zip Introduction to HL7 standards by Tony Jullian from Mayo Clinic http://www.health.state.mn.us/e-health/stndrdshome.html HL7 101: A Beginner’s Guide http://www.radiologytoday.net/archive/rt0226200728.shtml
18	Representation of laboratory test in orders and results	LOINC (Logical Observations Identifiers, Names, Codes)	<ul style="list-style-type: none"> LOINC http://www.regenstrief.org/medinformatics/loinc/ LOINC User’s Guide http://www.regenstrief.org/medinformatics/loinc/downloads/files/LOINCManual.pdf LOINC® database in MS Access™ format and tab-delimited format for free download http://www.regenstrief.org/medinformatics/loinc/downloads
19	Representation of laboratory result contents	SNOMED CT (Systematized Nomenclature of Medicine Clinical Terms)	<ul style="list-style-type: none"> SNOMED CT http://www.ihtsdo.org/our-standards/ SNOMED CT User Guide http://www.ihtsdo.org/fileadmin/user_upload/Docs_01/Technical_Docs/snomed_ct_user_guide.pdf

Table 5: Immunization Data Exchanges

#	Transactions	Standards Recommended	Resources
20	Immunization data exchange between provider EHRs and immunization information system	HL7 v 2.5	<p>An implementation guide specific to HL7 v2.5 for immunization data transactions is expected to be released in Fall 2009</p> <p>Implementation Guide for Immunization Data Transactions using Version 2.3.1 of the HL7 Standard Protocol [Version 2.2 – latest version]. http://www.cdc.gov/vaccines/programs/iis/stds/downloads/hl7guide.pdf</p>
21	Representation of immunization data	CVX codes (Codes to represent Vaccines Administered)	<p>CVX codes http://www.cdc.gov/vaccines/programs/iis/stds/cvx.htm</p>
22	Representation of immunization data	MVX Codes (Codes to represent Vaccine Manufacturers & Distributors)	<p>MVX Codes http://www.cdc.gov/vaccines/programs/iis/stds/mvx.htm</p>
23	Representation of immunization data	CPT Codes for Vaccines (Current Procedural Terminology Codes)	<ul style="list-style-type: none"> • CPT Codes for Vaccines http://www.cdc.gov/vaccines/programs/iis/stds/cpt.htm • Current Procedural Terminology (CPT) Codes Mapped to CVX Codes http://www.cdc.gov/vaccines/programs/iis/stds/cpt.htm
24	Representation of immunization data	Vaccine Lot Number	<p>One of the data elements in the recommended Core Data Set for Immunization Information Systems http://www.cdc.gov/vaccines/programs/iis/stds/coredata.htm</p> <p>Standards on immunization data exchanges are being harmonized at the national level & details on standards related to this will be emerging in near future.</p>

Table 6: Exchange of Clinical Summaries

#	Transactions	Standards Recommended	Resources
25	Exchange of clinical summary information	<ul style="list-style-type: none"> - HL7 Clinical Document Architecture (CDA) / Continuity of Care Document (CCD) as a document structure for core content. - HITSP Summary Documents Using HL7 Continuity of Care Document (CCD) Component - HITSP/C32 (version 2.1) or the most recent version certified by CCHIT or its successor 	<p>C 32 - HITSP Summary Documents Using HL7 Continuity of Care Document (CCD) Component http://www.hitsp.org/ConstructSet_Details.aspx?&PrefixApha=4&PrefixNumeric=32</p> <p>C 83 - CDA Content Modules Component http://www.hitsp.org/ConstructSet_Details.aspx?&PrefixApha=4&PrefixNumeric=83</p> <p>HL7 Continuity of Care Document Ambassador Briefing http://health.state.mn.us/e-health/wgs0809/stndrds010809hndout.pdf</p> <p>The Continuity of Care Document and the Future of Interoperability http://health.state.mn.us/e-health/wgs0809/stndrds021109hndout.pdf</p> <p>QuickstartGuide for the CCD www.alschulerassociates.com/cda/?topic=quick-start-guides</p> <p>CDA and CCD Validators www.alschulerassociates.com/validator/ http://xreg2.nist.gov/cda-validation/index.html</p> <p>Integrating the Healthcare Enterprise www.ihe.net</p>

Table 7: Selected National Standards Activities related to Minnesota e-Health

ORGANIZATION / ACTIVITY	DESCRIPTION
<p>Federal Health Information Technology Activities</p> <ul style="list-style-type: none"> ▪ <i>Office of the National Coordinator (ONC)</i> ▪ <i>HIT Policy Committee</i> ▪ <i>HIT Standards Committee</i> <p>http://healthit.hhs.gov</p>	<ul style="list-style-type: none"> ▪ Includes information related to ARRA and HITECH Act and web site of ONC ▪ A variety of coordinated federal programs are currently underway to implement strategies to address the goals and objectives comprising the nation's Health IT agenda. ▪ ONC (Office of the National Coordinator) <ul style="list-style-type: none"> - ONC is organizationally located within the Office of the Secretary for the U.S. Department of Health and Human Services (HHS). - ONC is the principal Federal entity charged with coordination of nationwide efforts related to the implementation and use of electronic health information exchange. ▪ Stay informed. Subscribe to listserv and receive automatic updates http://healthit.hhs.gov
<p>Certification of EHRs <i>Certification Commission for Healthcare Information Technology (CCHIT)</i></p> <p>http://www.cchit.org/</p>	<ul style="list-style-type: none"> ▪ Healthcare providers procuring EHRs will know which products meet national specifications for various minimum functions. The list of minimum functions will grow over time. ▪ Utilization of CCHIT approved products will promote adoption of standards and interoperability in Minnesota. ▪ Organizations will need to follow due diligence to ensure that their selected vendor will update their products to meet new requirements.
<p>National standards for public health <i>Public Health Information Network (PHIN)</i></p> <p>http://www.cdc.gov/phin</p>	<ul style="list-style-type: none"> ▪ State and local public health information systems will need to adopt the data and functionality standards set by the Centers for Disease Control & Prevention. ▪ The PHIN Community provides a participatory environment for members to learn, share expertise, and develop informatics solutions to improve public health's capacity to use and exchange information electronically. http://www.cdc.gov/phin/communities/index.html

ORGANIZATION / ACTIVITY	DESCRIPTION
<p>Public Health Data Standards Consortium (PHDSC) http://www.phdsc.org/</p>	<ul style="list-style-type: none"> ▪ The public health data standards consortium is a non-profit membership-based organization of federal, state and local health agencies; national and local professional associations; academia, public and private sector organizations; international members, and individuals. ▪ The consortium provides an organized common voice from public health in the national healthcare standardization efforts.
<p>Standards Development Organizations (SDOs)</p> <ul style="list-style-type: none"> ▪ <i>Health Level Seven (HL7)</i> www.hl7.org ▪ <i>National Council for Prescription Drug Programs (NCPDP)</i> www.ncdp.org ▪ <i>Accredited Standards Committee (ASC) X12</i> www.x12.org 	<ul style="list-style-type: none"> ▪ HL7 <ul style="list-style-type: none"> - One of several American National Standards Institute (ANSI) -accredited Standards Developing Organizations (SDOs) operating in the healthcare arena. - Health Level Seven develops standards for interoperability and specifications, the widely used being a messaging standard that enables disparate healthcare applications to exchange keys sets of clinical and administrative data. ▪ NCPDP <ul style="list-style-type: none"> - NCPDP creates and promotes the transfer of data related to medications, supplies, and services within the healthcare system through the development of standards and industry guidance. - NCPDP also offers its members resources, including educational opportunities and database services, to better manage their businesses. ▪ X12 <ul style="list-style-type: none"> - Develops, maintains, interprets, publishes and promotes the proper use of American National and UN/EDIFACT International Electronic Data Interchange Standards. - Its main objective is to develop standards to facilitate electronic interchange relating to such business transactions as order placement and processing, shipping and receiving information, invoicing, and payment and cash data.
<p>Health data standards <i>Healthcare Information and Management Systems Society (HIMSS)</i> http://www.himss.org/ASP/index.asp</p>	<ul style="list-style-type: none"> ▪ Topics and tools section presents comprehensive information on key issues related to healthcare information and management systems, especially standards. ▪ The standards 101 series developed by the HIMSS Standards Task Force (STF) is a good educational resource that outlines the role of standards as a foundation for interoperability and the importance of standards harmonization in enabling a health information exchange.