

Transforming Health and Care Through Health Information Technology— *The MN e-Health Initiative*



MN HIMSS
May 21, 2008

Topics of Discussion

- ✦ Role of HIT in health care transformation
- ✦ National landscape
- ✦ Minnesota landscape: MN e-Health Initiative
- ✦ Legislative mandate for interoperable EHRs
- ✦ Health Care Reform in MN
- ✦ MITA Update
- ✦ Roles for MN-HIMSS in advancing e-health and health care transformation

Change is Underway: Drivers of Health IT Adoption

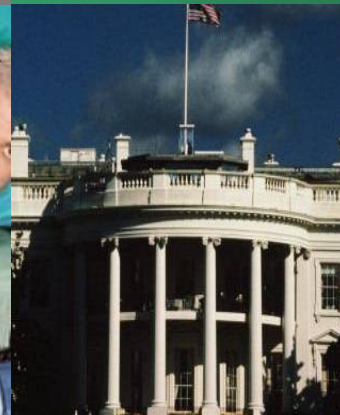
Rising Health Care Costs
and Health Information Technology as A Solution

Substantial Benefits
for Consumers and the Economy

Clinical Leadership
to Achieve Highest Quality Care

Industry Leadership
Strong Endorsement from Industry and Commercial Leaders

Political Leadership
on Health Information Technology Adoption



Drivers of Health Information Technology

National Activities to Watch

- **Office of the National Coordinator (ONC)**
 - HITSP – Standards
 - NHIN – Network & Interoperability
 - HISPC - Privacy and Security
 - CCHIT – Certification
 - AHIC – Advisory Committee to MN e-Health Initiative

- **Center for Medicare and Medicaid**
 - Incentives, Funding and Mandates

- **Agency for Health Care Quality and Research (AHRQ)**
 - Funding, Research, Best Practices

National Activities to Watch - cont.

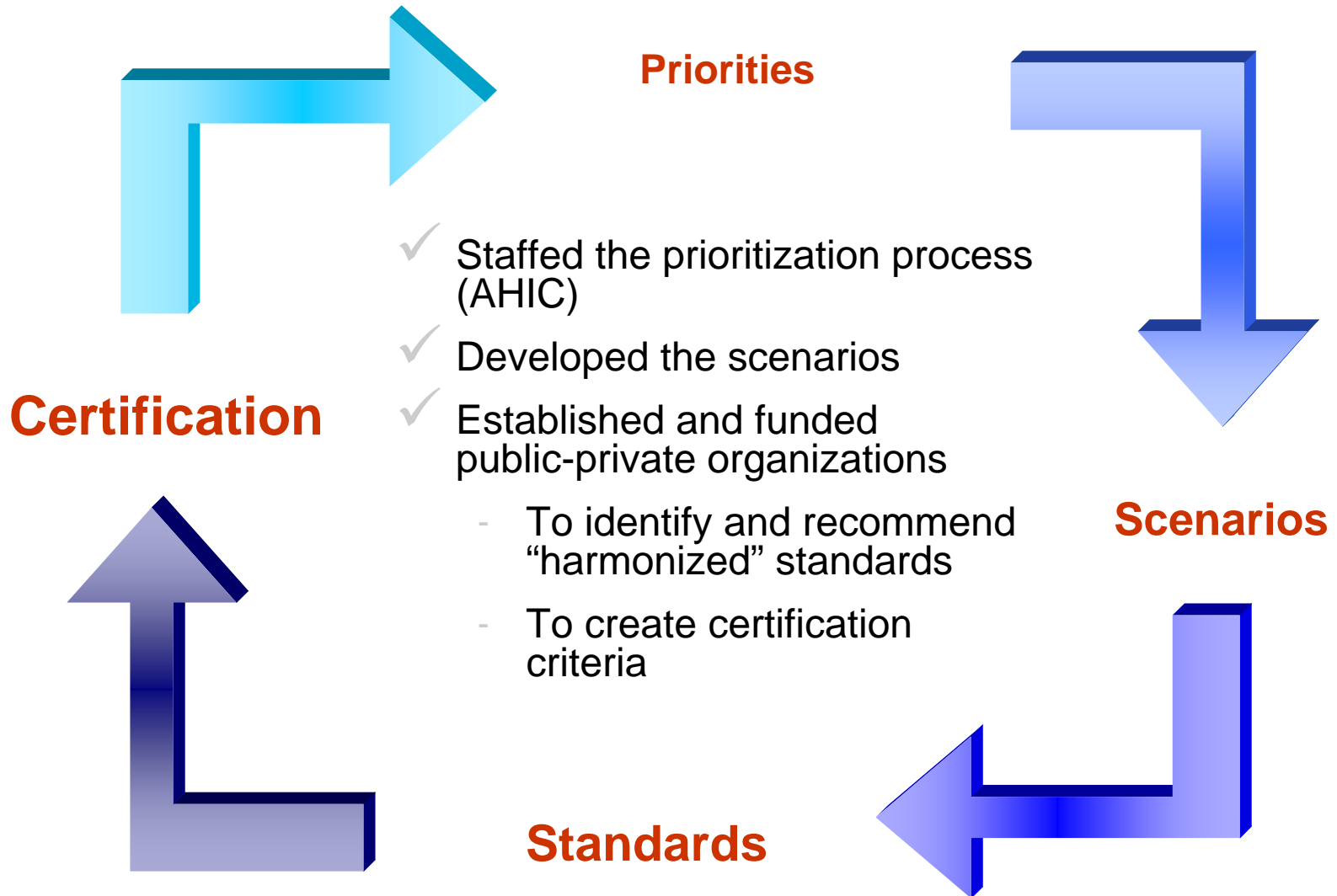
- ✦ Center for Diseases Control and Prevention (CDC)
 - Population health, Prevention, Community

- ✦ National eHealth Initiative / Connecting for Health
 - Advocacy, Exchange templates and policies

- ✦ National Associations

- ✦ Others

Standards into Products - Summary of the Cyclical Process



Priorities and Scenario (Use Case) Roadmap

2006	2007 Use Cases		2008 Use Cases	
Consumer Empowerment Use Case <ul style="list-style-type: none"> • Registration • Medication History 	Consumer Access to Clinical Information <ul style="list-style-type: none"> • Access to Clinical Data • Provider Permissions • PHR Transfer 		Remote Monitoring <ul style="list-style-type: none"> • Remote Monitoring of Vital Signs and Labs (Glucose) 	Remote Consultation <ul style="list-style-type: none"> • Structured email • Reminders • On-line Consultation
EHR Use Case <ul style="list-style-type: none"> • Laboratory Result Reporting 	Emergency Responder EHR <ul style="list-style-type: none"> • On-Site Care • Emergency Care • Definitive Care • Provider Authentication and Authorization 	Medication Management <ul style="list-style-type: none"> • Medication Reconciliation • Ambulatory Prescriptions • Contra-indications 	Consultation & Transfers of Care <ul style="list-style-type: none"> • Referrals • Problem Lists • Transfer of Care 	Personalized Healthcare <ul style="list-style-type: none"> • Laboratory Genetic / Genomic Data • Family Medical History
Biosurveillance Use Case <ul style="list-style-type: none"> • Visit • Utilization • Clinical Data • Lab and Radiology 	Quality <ul style="list-style-type: none"> • Hospital Measurement and Reporting • Clinician Measurement and Reporting • Feedback to Clinicians 		Public Health Case Reporting <ul style="list-style-type: none"> • Case Reporting • Bidirectional Communication • Labs • Adverse Events 	Immunizations & Response Management <ul style="list-style-type: none"> • Resource Identification • Vaccine • EHR Data

Priorities and Scenario (Use Case) Roadmap, *cont.*

2009 and Beyond

CE 3.0 Administrative features	Q 3.1 Clinical decision support	AHIC 15.0 Data access/data control	HITSP 2.0 Secondary uses of data
CE 3.1 Appointment scheduling	Q 5.0 Clinical decision support	AHIC 16.0 Data aggregation	HITSP 2.1 Clinical research
CE 3.2 Demographic profile	Q 6.0 Expanded inpatient quality measures	AHIC 17.0 Infrastructure areas missing	HITSP 2.2 Clinical trials
CE 3.3 Editing account profile	Q 7.0 Expanded ambulatory quality measures	AHIC 17.1 Security, network, repositories	HITSP 2.3 Population health
CE 3.4 Insurance eligibility & claims	BIO 1.2 Clinical symptomatology	AHIC 18.0 Vital measurements	HITSP 3.0 Quality/control measurements
CE 3.5 Financial recordkeeping & management	BIO 1.3 Integration with EHRs	AHIC 19.0 Text documents	HITSP 3.1 Consistency across uses
CE 4.0 Reminders (examples)	BIO 1.4 Health alerting (HA)/email alerts	AHIC 21.0 Health literacy (multilingual support)	HITSP 4.0 Clinical device data
CE 4.1 Annual check-ups	BIO 2.1 Collaborative discussions	AHIC 23.0 Advance directive/living wills	HITSP 4.1 Glucometers
CE 4.2 Cancer screening—mammograms	BIO 2.2 Web pages	AHIC 24.0 Social/family history	HITSP 4.2 Smart pump
CE 4.3 Cancer screening—colonoscopies	BIO 3.2 Chemoprophylaxis	AHIC 26.0 Medication history	HITSP 5.0 Cross use case work on security (standards)
CE 4.4 Immunizations	BIO 3.3 Treatment	AHIC 27.0 E-prescribing	HITSP 5.3 Authentication models to support chain of trust data exchanges
CE 6.0 Summaries of healthcare encounters	BIO 3.4 Isolation/quarantine	AHIC 28.0 Standardization of device interfaces	
CE 6.1 Dates of services	BIO 3.6.2 Disease registry	AHIC 29.0 Care plans/clinical flowsheets	
CE 6.3 Procedure codes	BIO 4.0 Adverse event reporting	AHIC 30.0 Provider list	
CE 7.0 Educational information	BIO 4.1 Devices, drugs, biologic	AHIC 31.0 Adverse events	
CE 7.1 Evidence based health information	BIO 5.0 Nosocomial infections	AHIC 32.0 Nosocomial infections	
CE 8.0 Decision support	BIO 5.1 Medication errors	AHIC 33.0 Clinical data storage for surveillance	
CE 8.1 Shared decision making	BIO 5.1.1 Ordering/ prescribing/ dispensing	AHIC 34.0 Case reporting	
CE 8.2 Communications preferences	BIO 5.1.2 Drug-drug, drug-allergy interaction decision support	AHIC 35.0 Bi-directional communications	
CE 9.0 Patient health outcomes	BIO 5.1.3 Linkage to FDA structured product labeling database results	AHIC 36.0 Lab results	
CE 9.1 Adverse events	BIO 10.0 Public health information network (PHIN) can be leveraged	AHIC 37.0 Anatomic pathology results	
CE 9.2 Medical errors	BIO 14.0 National notifiable disease conditions have been identified	AHIC 38.0 Radiology reports	
CE 9.3 Patient reported health outcomes	AHIC 1.0 Labs, medications, allergies, immunizations	AHIC 39.0 Social history	
CC 3.0 Glucose monitoring	AHIC 2.0 Secure messaging/online consultation	AHIC 40.0 Procedure reports	
CC 4.0 Spirometry	AHIC 3.0 Bi-directional communications	AHIC 41.0 Medications	
CC 5.0 Anticoagulation	AHIC 4.0 Adverse event reporting	AHIC 43.0 Dental	
CC 7.0 Fall/motion monitoring	AHIC 5.0 Case reporting	AHIC 44.0 Workflow integration	
CC 11.0 Lesion assessment	AHIC 6.0 Clinical decision support systems	AHIC 45.0 Int'l public health collaboration	
CC 12.0 Remote monitoring for chronic conditions	AHIC 7.0 Identification/ authentication	AHIC 46.0 Legal liability & regulatory barriers	
CC 13.0 HIT use in specific populations	AHIC 8.0 Problem lists	AHIC 47.0 Consumer consent	
CC 15.0 Product and services certification	AHIC 9.0 Clinical encounter notes	CCHIT	
CC 16.1 State licensure constraints	AHIC 10.0 Family history/social factors	CCHIT 1.0 Patient safety	
CC 18.0 Patient identification for authorization and authentication	AHIC 11.0 Vitals signs	CCHIT 2.0 Transfer of care	
EHR 5.0 Clinical/encounter notes	AHIC 12.0 Population health/ conditions	HITSP 1.1.4 Text reports	
EHR 6.0 Anatomic pathology results	AHIC 13.0 Minimum data set	HITSP 1.1.5 Numeric results	
EHR 8.0 Radiology reports	AHIC 14.0 Confidentiality, privacy, & security of patient data	HITSP 1.1.7 Images	
EHR 12.0 Machine readable and interoperable		HITSP 1.2 HIPAA covered entities	
EHR 12.1 Encounter notes		HITSP 1.2.1 X12 Claims attachment	
EHR 12.2 Radiology reports			
EHR 12.3 Lab results			

The Minnesota landscape

Interoperable Health Information Technology

- *MN e-Health Initiative*
- *MN HIE*
- *Regional Pilots/Exchanges*

Measure and Publish Quality Information

- Institute for Clinical Systems Improvement (ICSI)*
- *MN Community Measurement*

Minnesota Value-Driven Health Care

Measure and Publish Price Information

- *Plan Cost Calculators*
- *Rx Price Compare*

Promote Quality and Efficiency of Care

- *Bridges to Excellence/eValu8*
- *Q Care*

The Minnesota landscape

★ “...improve affordability, access and quality of health care, and the health status of Minnesotans.”

- Charge to the MN Health Care Transformation Task Force

“... accelerate the adoption and use of health information technology to improve healthcare quality, increase patient safety, reduce healthcare costs, and enable individuals and communities to make the best possible health decisions.”

- MN e-Health Initiative Vision Statement

The MN e-Health Initiative

- ✦ A public-private collaboration, established in 2004.
- ✦ The primary mechanism to coordinate statewide HIT-related policy and activities.
- ✦ Reflects a broad commitment to establish and act on statewide e-health priorities in a coordinated, systematic and focused way.

Legislative Action, 2007

- ✦ All health care providers and hospitals must have an interoperable EHR system by 2015.
- ✦ MDH to develop a statewide plan to meet the 2015 mandate.
- ✦ MDH to establish uniform health data standards by January 2009.
- ✦ Revised and recodified the Minnesota Health Records Act to update consent requirements for an electronic age.
 - ✦ Includes privacy requirements for a Record Locator Service.

Minnesota e-Health Initiative priorities

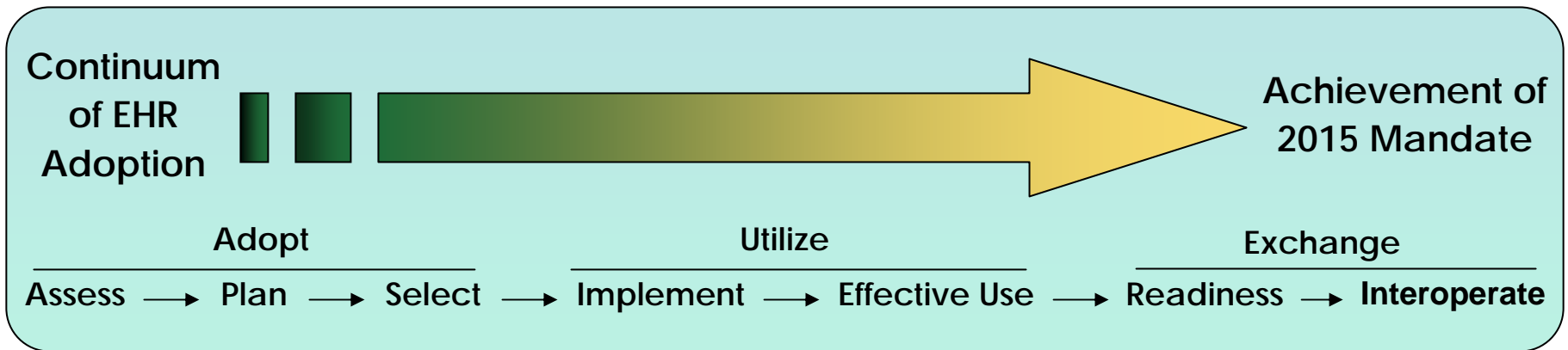
- ✦ Statewide plan for achieving the 2015 interoperable EHR mandate
- ✦ Health data standards
- ✦ Public health and population health
- ✦ Privacy and confidentiality
- ✦ Communications and education
- ✦ Annual e-Health Summit
- ✦ Grants and loans for EHR adoption

Statewide Implementation Plan for EHRs

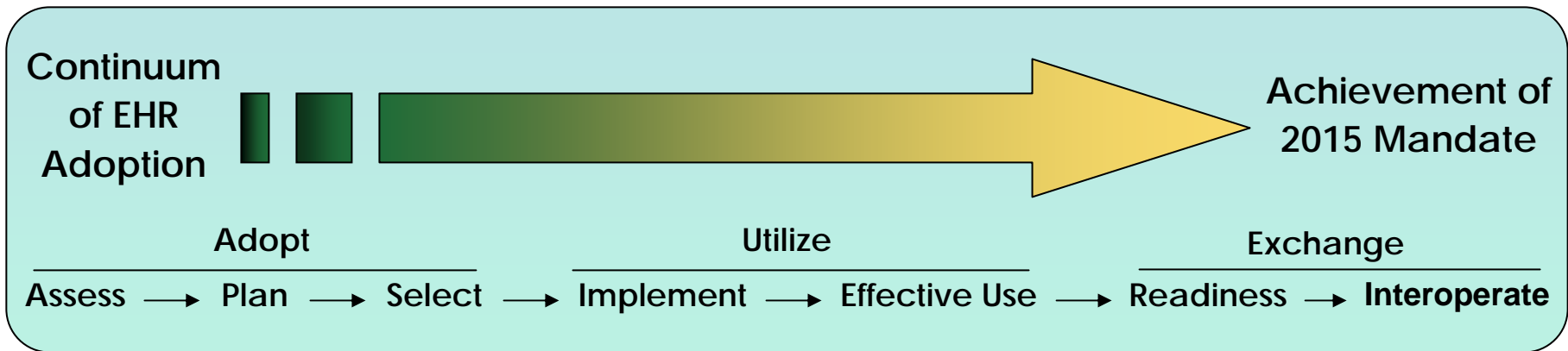
✦ Purposes:

- Accelerate adoption and effective use of HIT.
- Identify a pathway for achieving the 2015 mandate.
- Provide practical guidance on what providers can do *now* to overcome barriers to adopting HIT.

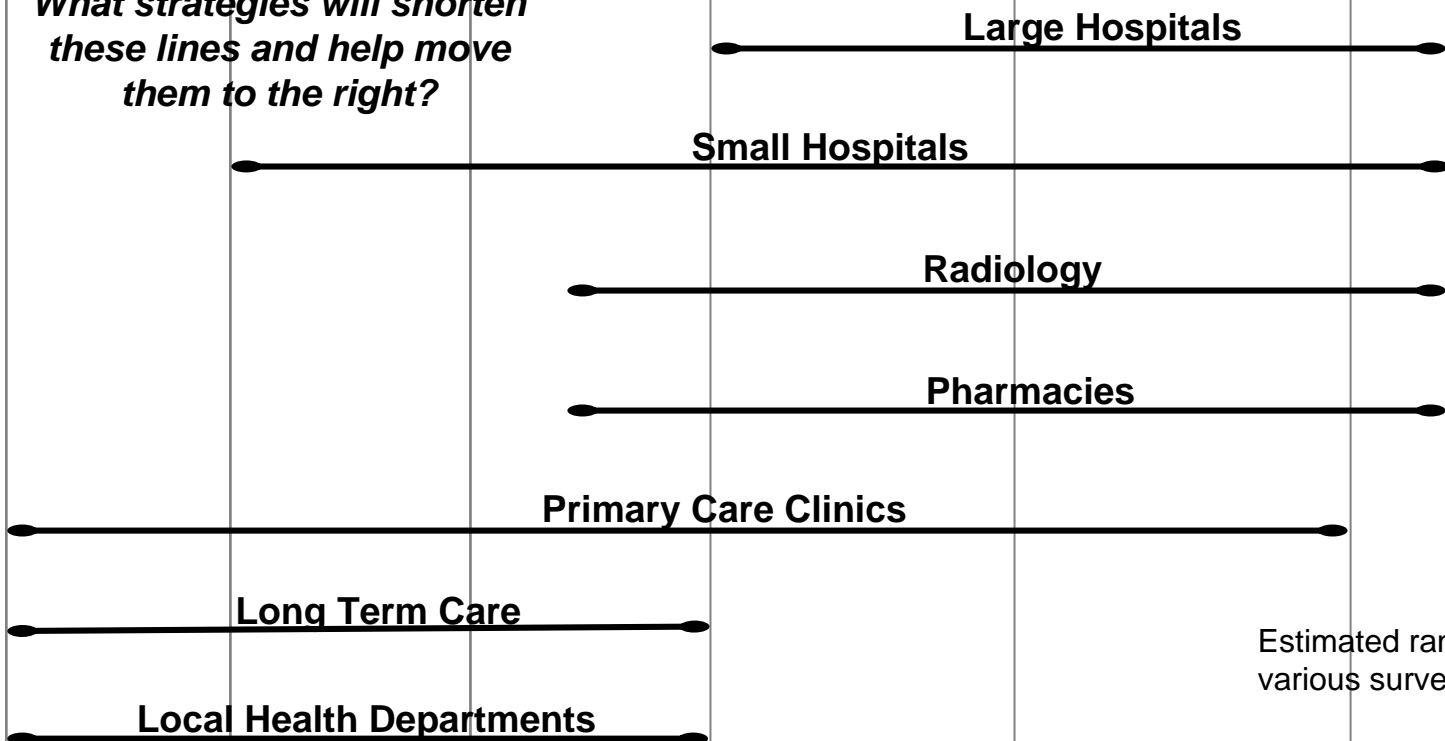
Minnesota Model for Adopting Interoperable Electronic Health Records



Adopting Interoperable Electronic Health Records



What strategies will shorten these lines and help move them to the right?



Estimated range of adoption based on various surveys and other sources

Results - EHR Rural-Urban

<u>Implementation Stage</u>	<u>All</u>		<u>Rural</u>		<u>Urban</u>	
	<u>2005</u>	<u>2007</u>	<u>2005</u>	<u>2007</u>	<u>2005</u>	<u>2007</u>
Fully implemented	17%	42%	13%	20%	20%	58%
Implementation in process	29%	20%	23%	28%	34%	13%
Implementation in next 12 months	11%	11%	13%	15%	10%	9%
Implementation in next 13-24 months	16%	13%	22%	21%	11%	8%
Implementation beyond 25 months	**%	9%	**%	11%	**%	7%
No plans for implementation	**%	5%	**%	5%	**%	4%

In 2007 next two years, 86.7% of Minnesota's primary care clinics will be fully implemented.

* 47.6% of those who have no plans for implementation have done some exploration in the possibility of using EHR.

50.0% are clinics with 1 physician, compared to 16.7% of all respondents having 1 physician.

76.2% are free standing, independent clinics, compared to 26.7% of all respondents being free standing, independent clinics.

**In 2005, "No plans for implementation in next 24 months" was 27% for All, 29% for Rural, and 25% for Urban.



A major component of the Plan

✦ *Addressing Common Barriers to EHR Adoption—A Practical Guide for Providers*

- Getting Started
- Start-Up or On-going Cost
- Clinical and Administrative Needs
- Data Standards
- Privacy and Security
- Staff Skills
- HIT Support Issues

Minnesota e-Health Summit 2008



Thursday, June 26, 2008

To register: www.health.state.mn.us/ehealth

Standards for Interoperability

62J.495, Minnesota Statutes 2007

The commissioner of health, in consultation with the [Minnesota e-Health Initiative] Advisory Committee, shall develop a statewide plan to meet this [interoperable EHR mandate], *including uniform standards to be used for the interoperable system for sharing and synchronizing patient data across systems. The standards must be compatible with federal efforts. The uniform standards must be developed by January 1, 2009*

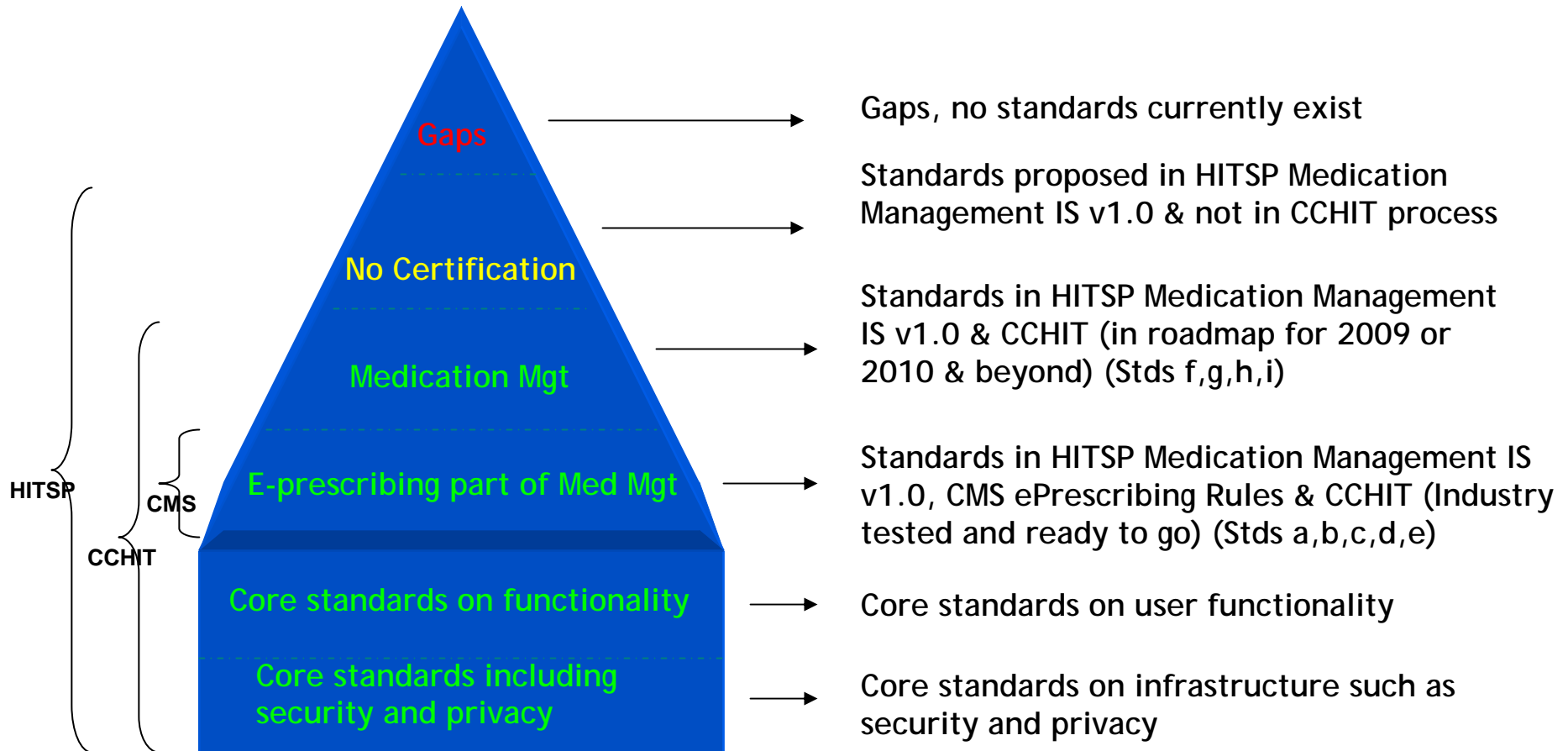
[Emphasis added]

Standards Workgroup

- ✦ Review standards harmonization efforts of HITSP and the EHR certification standards of CCHIT
- ✦ Provide statewide, coordinated input into both national processes
- ✦ Recommend standards for MN that:
 - match national recommendations
 - are of high value for MN

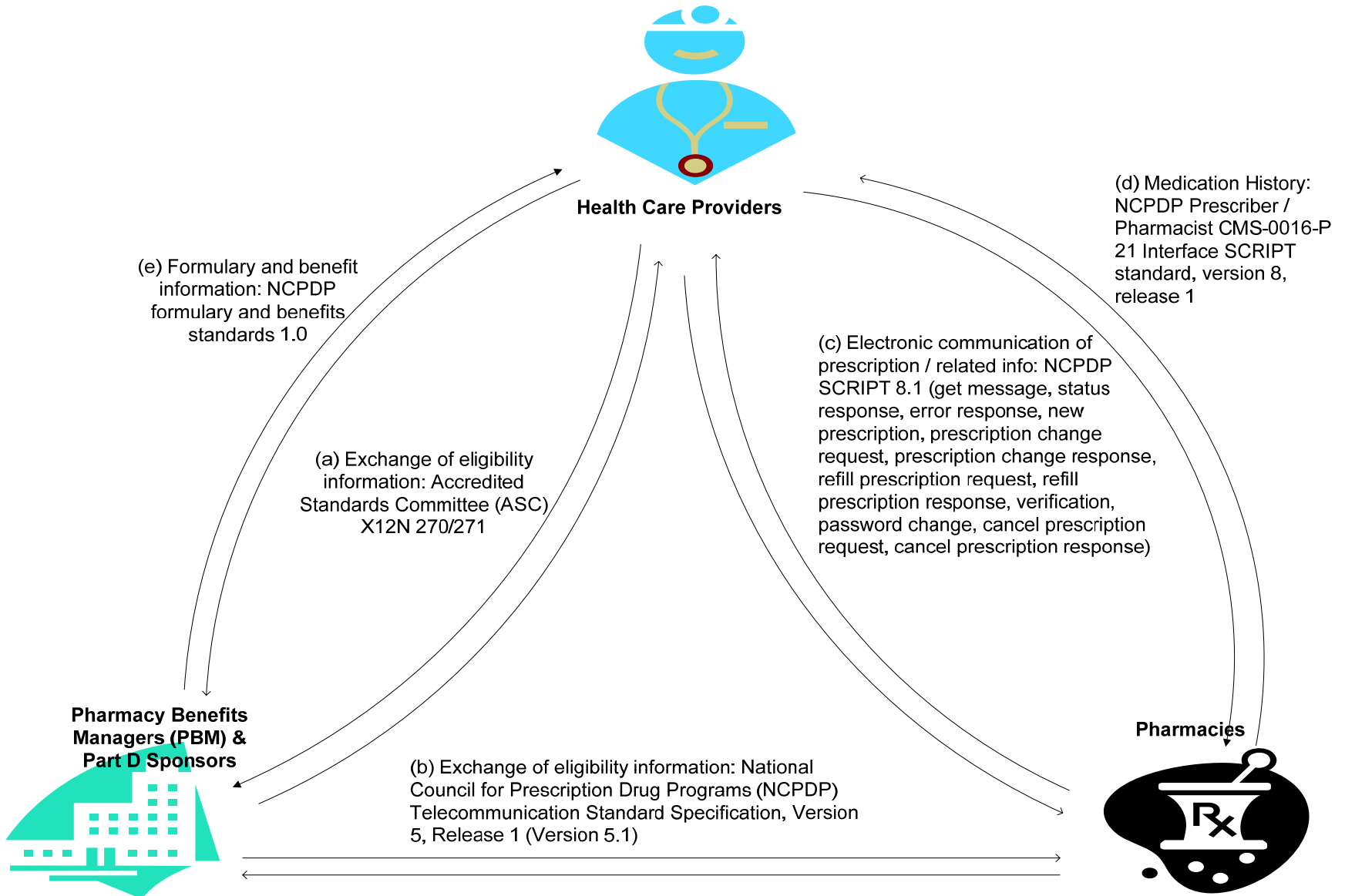
Standards on Medication Management

HITSP Interoperability specifications (IS),
CMS ePrescribing Rules and CCHIT Certification



Standards on Medication Management

HITSP Interoperability specifications v 1.0, CMS ePrescribing Rules and CCHIT Certification



Standards for Lab Results Reports

“All Minnesota health care organizations should use the following three standards for laboratory results reporting.

- For laboratory results reporting between laboratory and providers:
 - HL7 v 2.5.1 message.
- For representation of laboratory test in orders and results:
 - LOINC (Logical Observations Identifiers, Names, Codes).
- For representation of laboratory result contents:
 - SNOMED CT (Systematized Nomenclature of Medicine Clinical Terms).”

Certified EHRs

“All Minnesota health care organizations should use health information technology products that are **certified by the Certification Commission for Healthcare Information Technology (CCHIT)** or a comparable national certification process. This recommendation applies to those settings for which a certification process exists.”

2007 Revisions to Minnesota Health Records Act

- ✦ Laws of Minnesota 2007, chapter 147, article 10, sections 2-9, Minnesota Statutes § 144.291-.298:
 - Improve readability through recodification
 - Definitions and requirements for new and existing terms and concepts, such as:
 - Health record
 - Medical emergency
 - Health information exchange
 - Record locator service

Record Locator Service (RLS)

- ✦ An electronic index of patient identifying information that directs providers in a health information exchange to the location of patient health records held by providers and group purchasers. (M.S. § 144.293, subd. 8)
 - Providers or group purchasers may construct a record locator service without patient consent
 - Providers must obtain patient consent to access patients' information in a record locator service.
 - Providers must provide a mechanism for patients to completely opt-out of the RLS in the consent process.

Record Locator Service Protections

- ✦ Only providers may access RLS information
- ✦ An HIE operating an RLS must maintain an audit log of providers who accessed information
- ✦ An HIE or entity maintaining an RLS is liable for inappropriate disclosures of information
- ✦ Not a government database

Standard Consent Form to Release Health Information

- ✦ Legislature tasked MDH to develop (M.S. § 144.292, Subd.8)
- ✦ Organizations are not required to use, but if they choose they can adopt it in whole or in part
- ✦ Does not replace organizations' existing consent to release health information forms
- ✦ If properly executed, it is a legally enforceable request
- ✦ Approved by the Commissioner of Health, January, 2008

Population Health and HIT

- ✦ Ensure that effective use of HIT leads to improved health status of populations
 - Prevention indicators incorporated into EHRs/clinical decision support systems
 - Support quality reporting
 - Modernize public health information system to be interoperable with private providers
 - Ex: Disease reporting; 2-way, real-time EHR-immunization registry exchange; Child & Teen Checkup
 - MDH, DHS and local public health systems affected



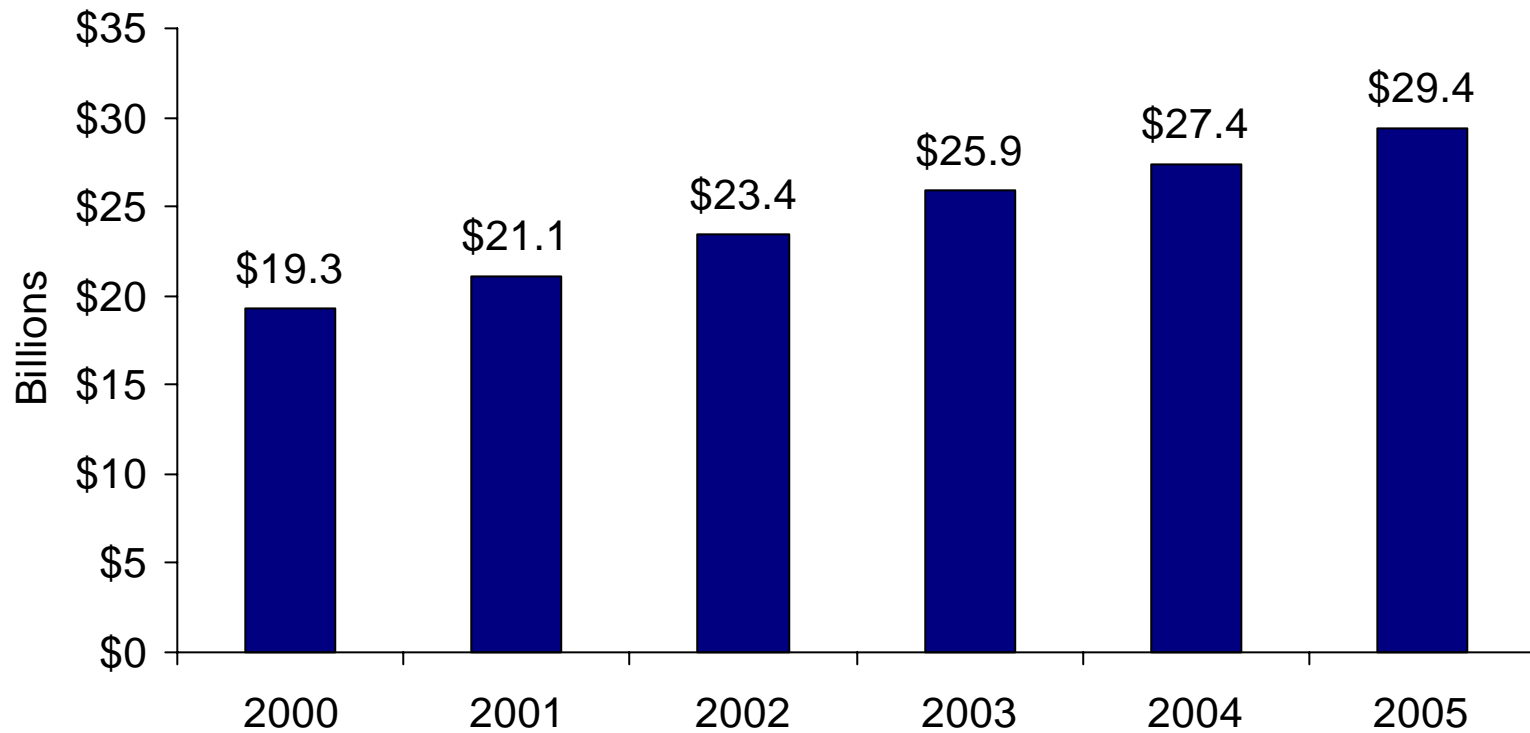
E-Health Funding Opportunities

- ✦ Legislature appropriated \$15.3 million for 2006-08 to support adoption and effective use of EHRs
- ✦ Emphasis on interoperable EHRs in rural and underserved areas
 - Community clinics, rural hospitals, rural clinics, nursing facilities
- ✦ Loans: \$3.1 million available per year, no interest, up to 6 years to re-pay
- ✦ Grants: \$3.5 million in grants awarded in 2007

Health Care Reform in MN

Rising health care costs are
unsustainable and the quality is low
relative to the amount spent.

Total Health Care Spending Growth: Minnesota



Minnesota: Poised for Reform

✦ History of collaboration

- Private sector providers and health plans
- Private sector care delivery system and the public sector

Health Care Reform Initiatives

- ✦ The Smart Buy Alliance
- ✦ Quality Care and Rewarding Excellence (QCare Program)

Elements of Health Care Reform

- ✦ Payment Reform
- ✦ Insurance Market Reform
- ✦ Prevention and Health Promotion
- ✦ Administrative Efficiency and Information Infrastructure

Medicaid Information Technology Architecture

- ✦ The MITA Initiative: A national framework to support improved systems development and health care management for the Medicaid enterprise.

MITA Goals

- ✦ Develop seamless, integrated systems
- ✦ Promote flexible, adaptable environment
- ✦ Promote an enterprise view
- ✦ Provide data that is timely, accurate, usable and easily accessible
- ✦ Provide performance measurement
- ✦ Coordinate with Public Health and other partners

MITA Maturity

As-Is	5 Years	Long Term
<p>Agency complies with State regulations to maintain an adequate provider network and pay claims promptly to encourage provider participation and ensure access to care.</p>	<p>Agency coordinates with other payers to offer one-stop shop entry points to applicants for service and provider enrollment, provider reimbursement, and coordination of benefits.</p>	<p>Agency can directly access clinical and administrative records nationally through a network of RHIOs and other interoperable hubs. Agency makes informed, automated decisions regarding most enrollment and payment interactions.</p>
<p>Many steps require manual intervention.</p>	<p>Patients make personal healthcare decisions.</p>	
<p>Data content is nonstandard.</p>		<p>Agency can assess appropriateness of care at point of service. Agency can access necessary data to compare</p>
<p>Appropriateness of care is assessed retrospectively.</p>	<p>Agency accommodates cultural, linguistic, and health needs. Agency uses national standards for data content and exchange.</p>	<p>services and outcomes across a broad spectrum of agencies and States.</p>
	<p>Coordination and collaboration across healthcare programs intrastate contributes to improved outcomes.</p>	<p>Access to and use of clinical data increases the efficiency and effectiveness of decision making.</p>

Potential Roles for MN HIMSS

- ✦ Help disseminate information on:
 - Interoperable EHR mandate
 - The statewide EHR adoption plan
 - Recommended standards
- ✦ Share best practices and lessons learned on EHR adoption
- ✦ Contribute to developing workforce competencies in health informatics

Minnesota e-Health Summit 2008



Thursday, June 26, 2008, 8:15 a.m. - 4:30 p.m.
The Northland Inn - Brooklyn Park

Pre-Summit Workshop:
Wednesday, June 25, 2008, 1:00 - 7:00 p.m.
Demystifying the EHR Planning & Selection Process

To register: www.health.state.mn.us/ehealth

Web Resources

- e-Health mandates
- Reports & recommendations
- Advisory Committee and workgroups products
- Initiatives & projects
- Links to resources
- Center for Health Informatics



Minnesota e-Health Initiative
www.health.state.mn.us/e-health