
Health Information Technology Oversight Council

December 12, 2013



Agenda

- 1:00- **Welcome, Opening, Minutes** - Greg Fraser
- 1:10- **Updates** - Karen Hale, Sharon Wentz,
Lisa Parker
- 2:00- **HIT Task Force Update** - Susan Otter
- 3:00- **Next Steps for HITOC** - Susan Otter,
Sean Kolmer
- 3:30- **Public Comment**
- 3:35- **Closing Comments** - Greg Fraser

Meeting Objectives

- Updates on EHR Incentive Programs and CareAccord
- Discuss Health IT Task Force
- Discuss next steps for HITOC

Medicare & Medicaid EHR Incentive Program Updates

December 12, 2013



Oregon EHR Incentive Payments

- Total ***Medicaid*** EHR incentives paid in Oregon as of 12/3/13: **\$86.4 million**
- Total ***Medicare*** EHR incentives paid in Oregon as of 10/31/13*: **\$118 million**
- Total paid to Oregon providers: **\$204.4 million**

Medicare has paid approximately 3200 providers and 29 hospitals
Medicaid has paid approximately 1700 providers and 50 hospitals

* <http://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/DataAndReports.html>, October Payments by States by Program & http://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/Downloads/EH_ProvidersPaidByEHRProgram_Sep2013_FINAL.zip

Hospital EHR Incentive Payments

- **Medicaid:** hospitals participating in Oregon's Medicaid EHR Incentive Program may receive payments over 3 years
- **Medicare:** hospitals may receive payments over 4 years**

Medicaid EHR Incentive Program				
	2011	2012	2013*	Total
1	30	19	1	50
2		10	12	22
3				0
Total	30	29	13	72

Medicare EHR Incentive Program				
	2011	2012	2013*	Total
1	9	12	8	29
2		7		7
3				0
Total	9	19	8	36

*Still processing applications for 2013

** 3 years if first payment occurred in 2014

Eligible Professional (EP) EHR Incentive Payments

- **Medicaid:** EPs participating in Oregon's Medicaid EHR Incentive Program may receive payments over 6 years
- **Medicare:** EPs may receive payments for up to 5 years

Medicaid EHR Incentive Program				
	2011	2012	2013*	Total
1	912	588	178	1678
2		486	71	557
3				0
Total	912	1074	249	2235

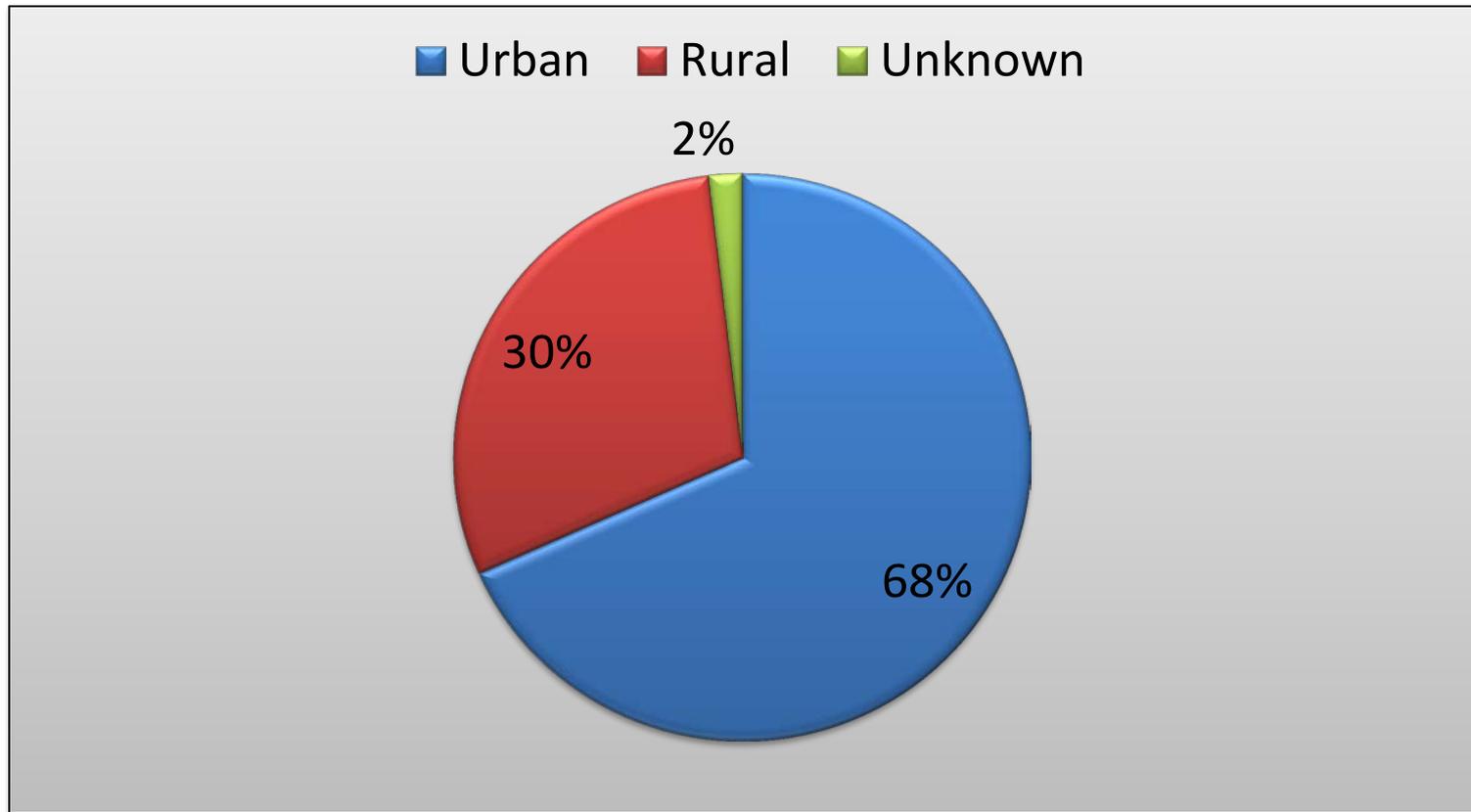
Medicare EHR Incentive Program				
	2011	2012	2013*	Total
1	1194	1979	45	3218
2		993		993
3				
Total	1194	2972	45	4211

*Still accepting applications for 2013

Medicaid EHR Incentive Payments - EPs

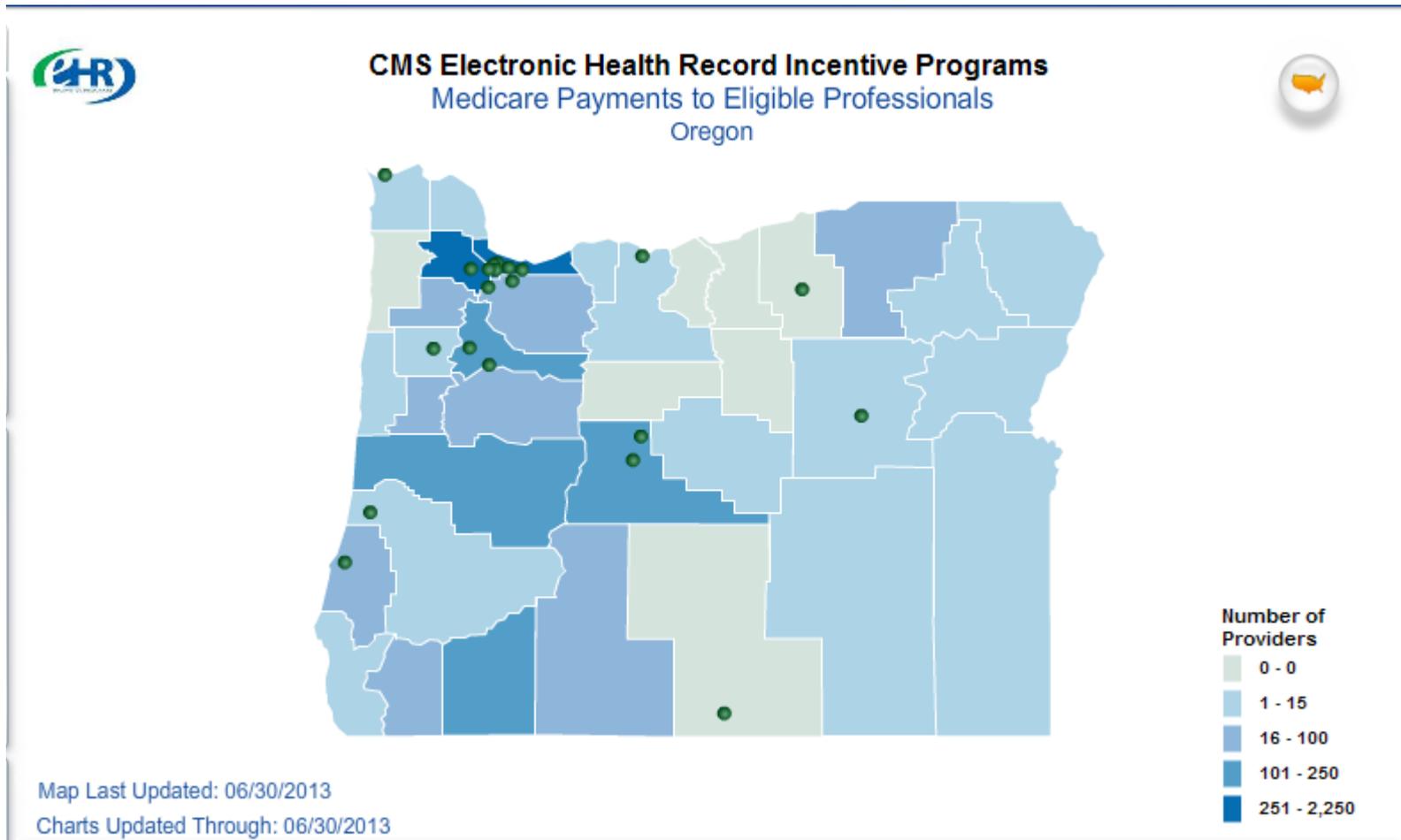
Urban vs. Rural

Oct 2011 – Dec 2013



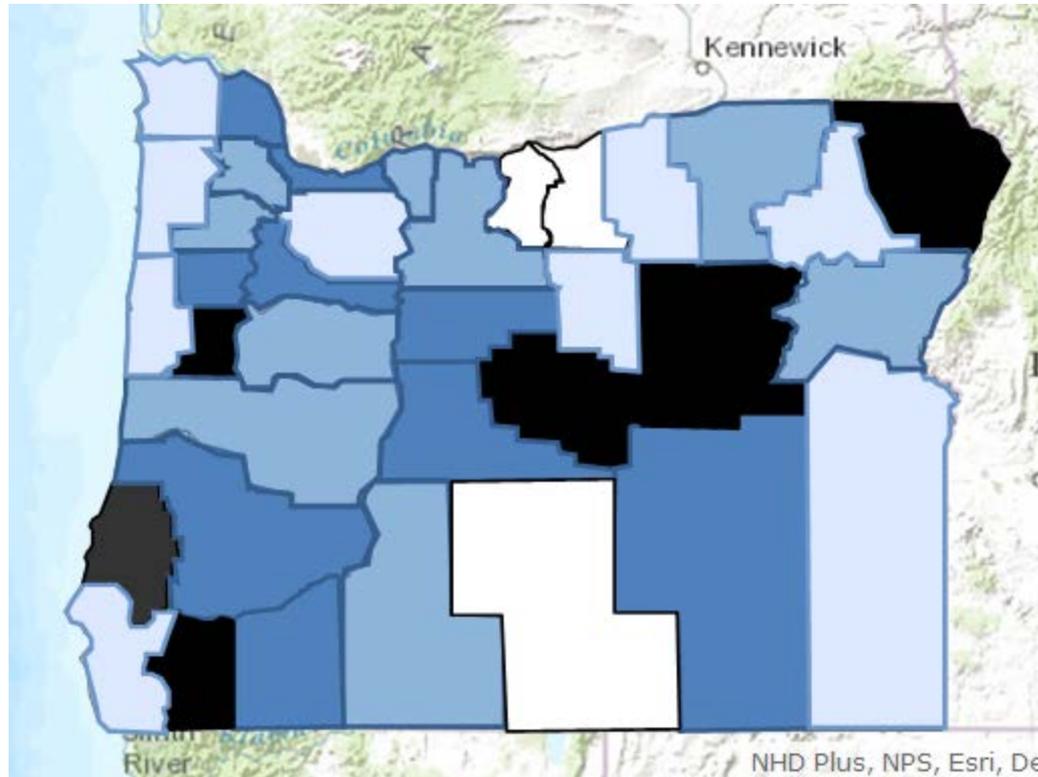
Medicare EHR Incentive Payments for Oregon EPs

Traditional look at payment numbers



EP EHR Incentive Payments

County perspective weighted by licensed physicians, nurse practitioners, and physician assistants

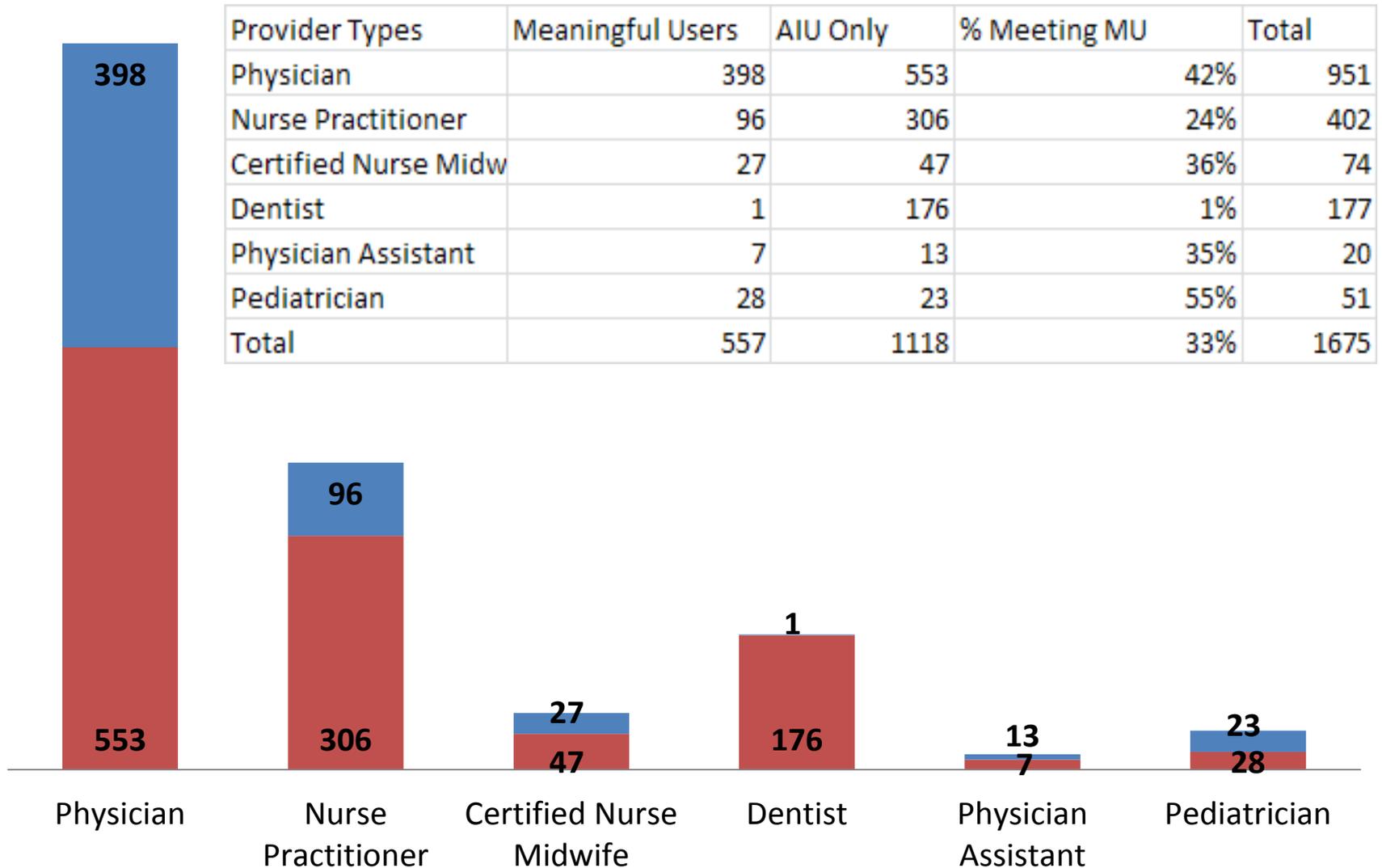


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Light Blue	1-20%
Medium Blue	21-30%
Dark Blue	31-40%
Black	>40%

- <http://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/DataAndReports.html>, October Payments by States by Program & http://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/Downloads/EH_ProvidersPaidByEHRProgram_Sep2013_FINAL.zip; Oregon Medicaid EHR Incentive Program Payment data, MAPIR; https://mail.dhs.oregon.gov/owa/redir.aspx?C=5yYXD0VeS0C3n17wiKsAI7mGVsYnytAlaNxdmWGHxhmDVQnToKC62PP6N9rpO_RkfH116u0Imfg.&URL=http%3a%2f%2fwww.oregon.gov%2foha%2fohpr%2ffco%2ffinal_2010_oregon_health_profession_profiles.pdf

Oregon EHR Incentive Payments by provider types

■ AIU Only ■ Meaningful Users



2014 Certified EHR technology and Stage 2 MU

- ✓ As of October 2013, there were 38 EHR systems certified for 2014 that also were certified for CQMs -
 - ✓ 6 were certified for 9 CQMS, the minimum
 - ✓ 25 were certified for 12-30 CQMs
 - ✓ 7 were certified for all 64 (one was Athena, used in Oregon)
- ✓ CMS announced Stage 3 will start in 2017, rather than 2016

2011-2013 EHRs for Oregon Medicaid EHR incentive payment recipients/vendors certified for 2014

	AIU	MU	Total
Allscripts	45	24	69
AthenaClinicals	1	3	4
eclinicalWorks	22	0	22
EPIC	403	336	739
Greenway (Primesuite)	35	46	81
NextGen	128	53	181
SuccessEHS	1	0	1
Total	635	462	1097

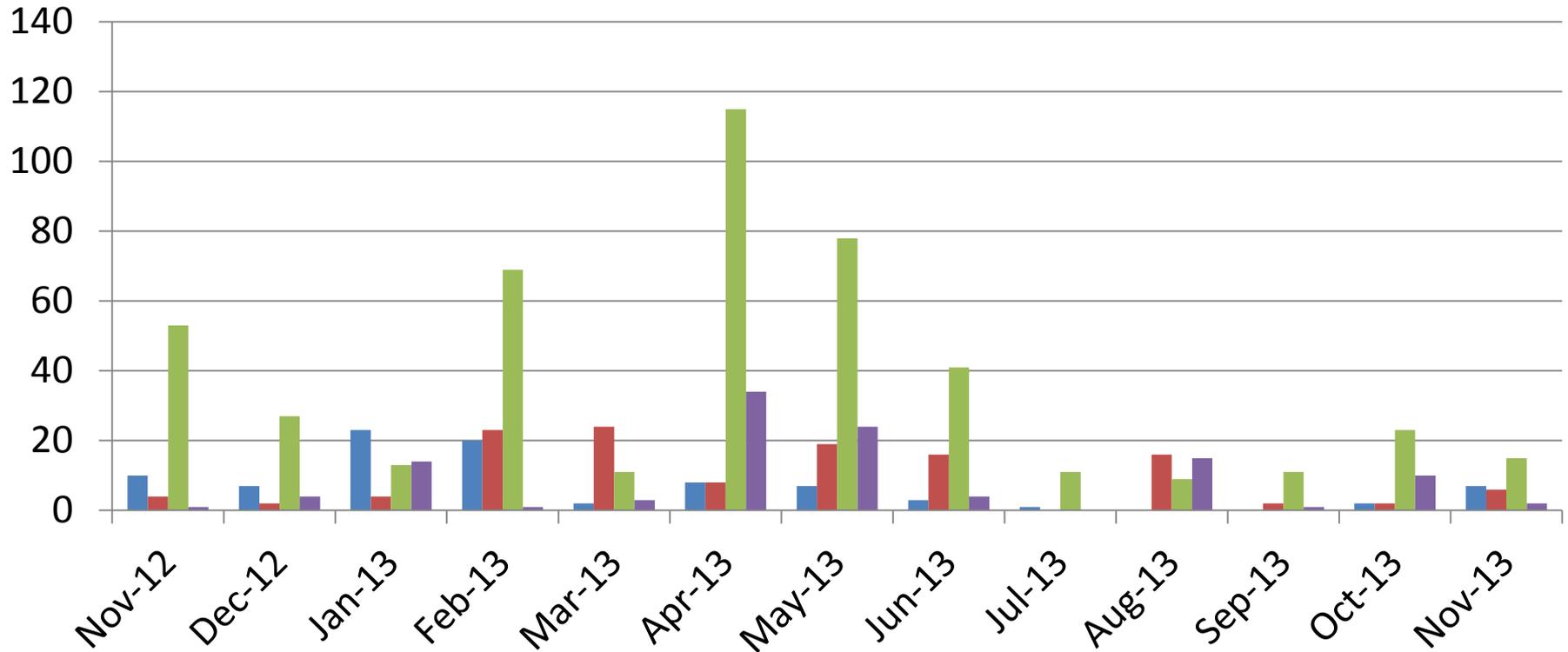
CareAccord Update

December 12, 2013



CareAccord Registered Users

Users per Month



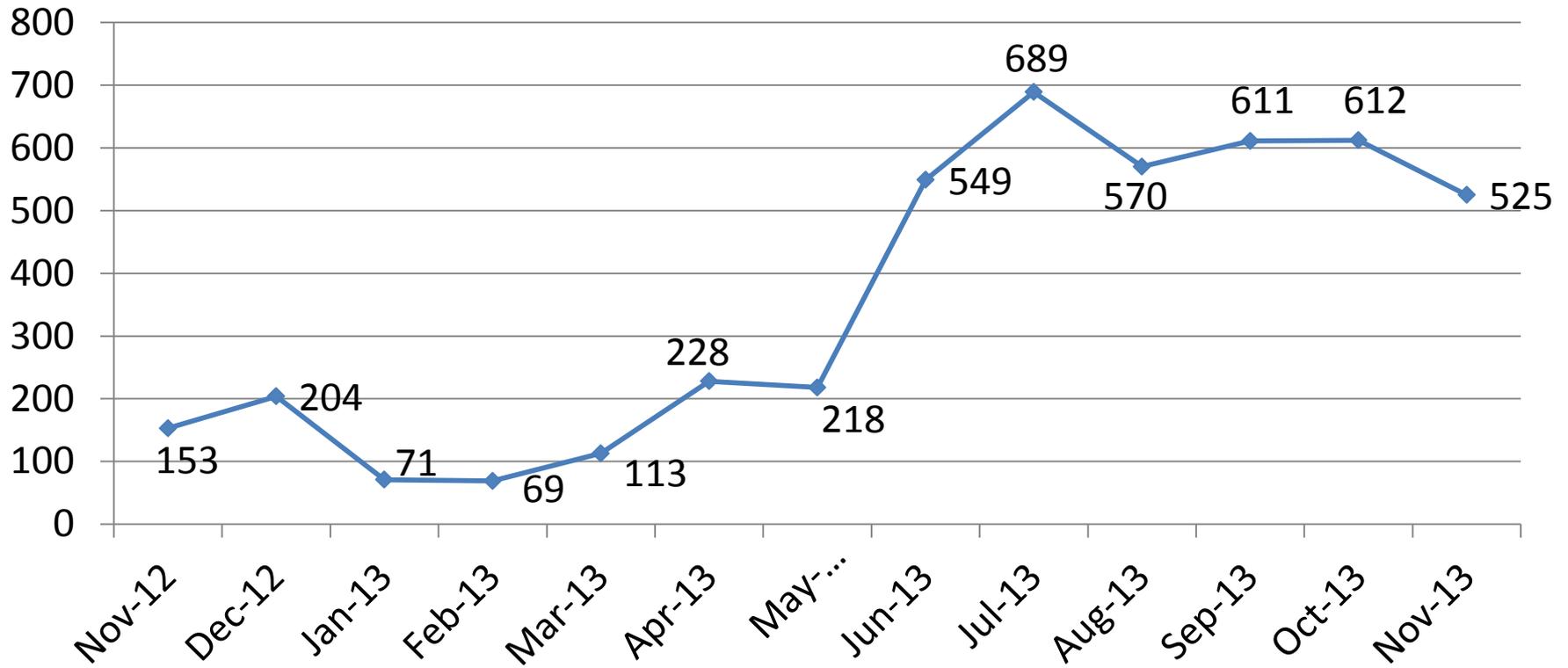
- 114 Organizations
- 131 Sub Organizations
- 540 Individuals
- 125 Delegates

Total 910



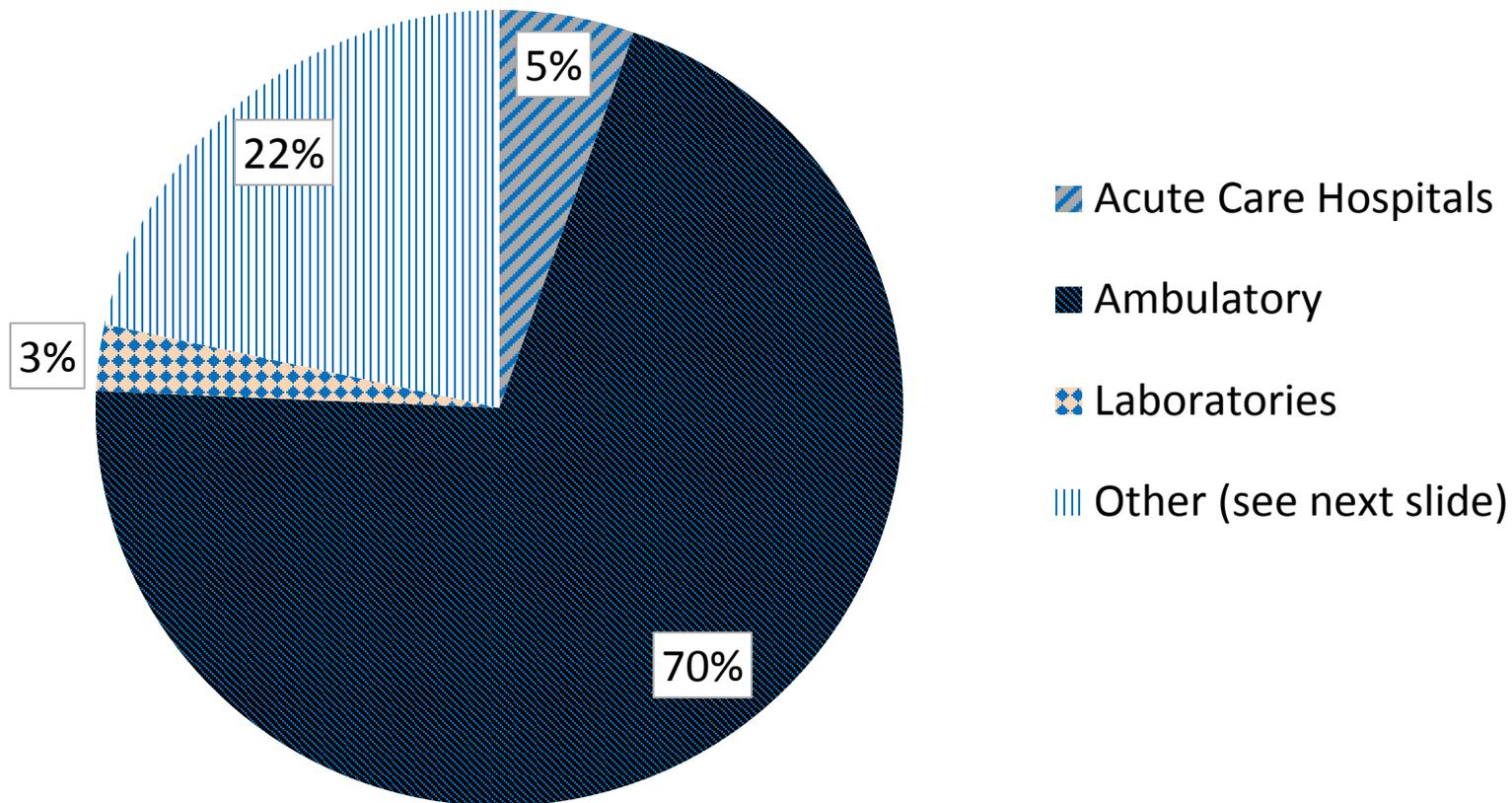
CareAccord Direct Secure Messages

Transactions by Month

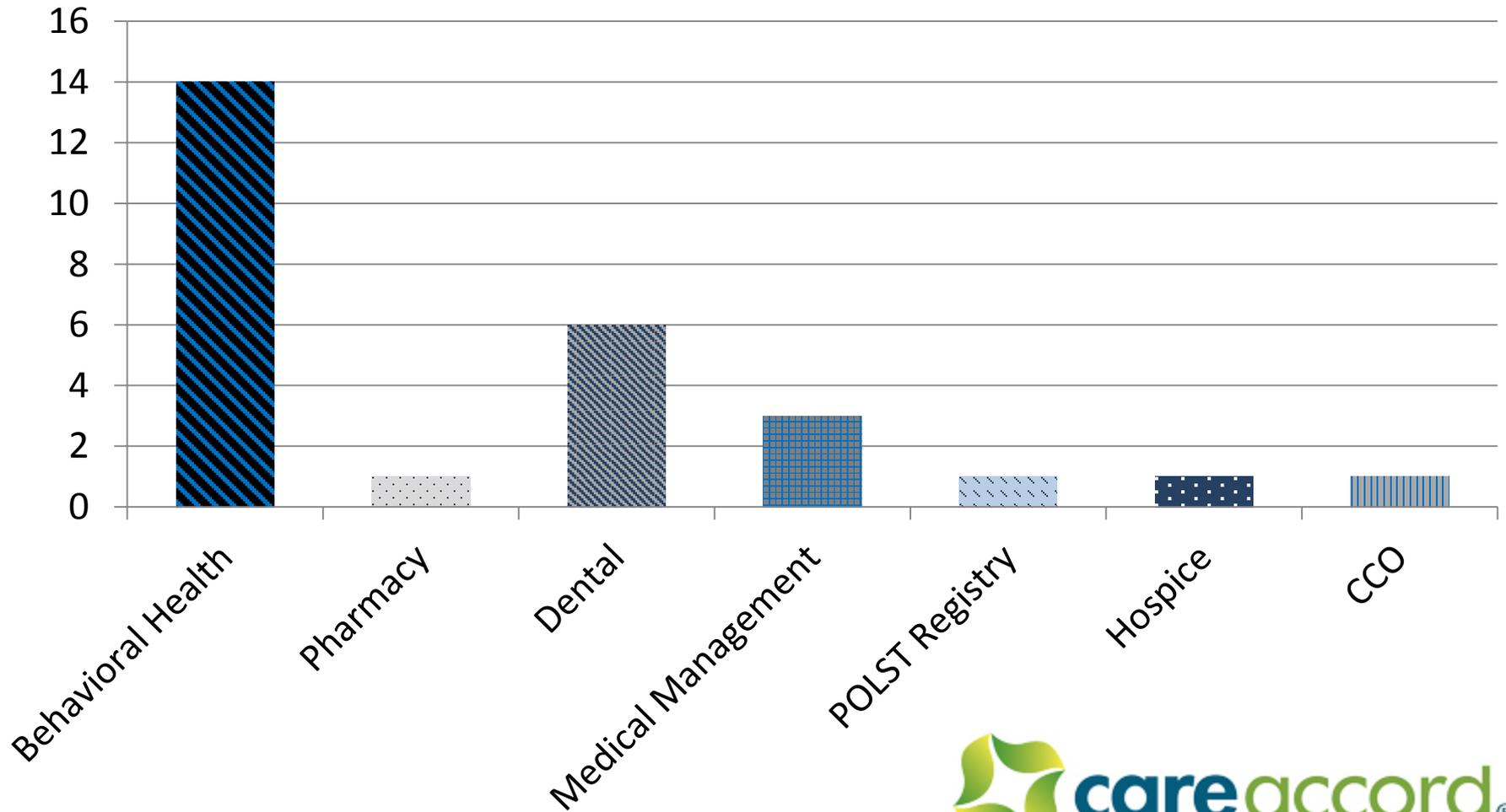


Organization Types

November 2013



“Other” Organization Types November 2013



Direct Trusted Agent Accreditation Program (DTAAP)



October 2013: Oregon's CareAccord is the first State HIE in the nation to achieve this recognition

Direct Trusted Agent Accreditation Program (DTAAP)

- Direct Trust and EHNAC collaborative agreement for accreditation
- Recognizes excellence in health data transactions; ensures compliance with industry-established standards, HIPAA regulations and the Direct Project
- Evaluated areas of privacy, security, confidentiality, technical performance, business practices, and organizational resources, processes for managing/transferring PHI
- Direct Trust Community Value- Common set of policy requirements, trust bundle certificates avoid one off agreements and support scalable federated trust



EHNAC-DTAAP Accredited Organizations

DirectTrust
EHNAC
ACCREDITED
DTAAP CA

DirectTrust
EHNAC
ACCREDITED
DTAAP RA

DirectTrust
EHNAC
ACCREDITED
DTAAP HISP



EHNAC-DTAAP Candidate Organizations

 
CANDIDATE DTAAP CA
 
CANDIDATE DTAAP RA
 
CANDIDATE DTAAP HISP



NATE Personal Health Record Pilot

- **Piloting provider to patient health information exchange**
 - NATE participating states (Alaska, California, Oregon)
 - Patients
 - Personal health record companies
 - ONC
- **Oregon's Pilot**
 - Provider to patient & patient to provider exchange of *structured* and *unstructured* clinical health data using Direct secure messaging
 - **CareAccord:**
 - Childhood Health Associates of Salem (CHAOS) - Dr. Carlson & Elizabeth Peasley, RN
 - **Microsoft's HealthVault** personal health record:
 - two parents of chronically ill children
- Hope to learn and give feedback to ONC→ leading to policies around patient mediated exchange

ONC HIE Cooperative Agreement Program Evaluation

- Conduct December 2013 – January 2014
- Labs, Pharmacies, Quality, CareAccord
- Final report – March 2014
- *Surveys*
 - ❖ Laboratories – (PSU)
 - ❖ Pharmacies – (PSU)
 - ❖ CareAccord users – (Krysora)
- *Focus Groups*
 - ❖ Laboratories – (PSU)
 - ❖ Pharmacies – (PSU)
- *Structured Interviews*
 - ❖ CareAccord users – (PSU)

ONC HIE Cooperative Agreement & CMS Funding

- Oregon's ONC HIE Cooperative Agreement ends February 7, 2014
- New CMS MMIS funding started November 2013
 - DMAP Prior Authorizations & Appeals



Provider Directories

- Existing, individualized provider directories
- 2014 certified EHR technology & Direct secure messaging
- Evolving provider directory standards –
 - ❖ HPD+ 1.1
 - ❖ HPD 6.0.4
- Interoperability allows sharing across disparate systems
- Challenge

Draft Business Plan Framework

December 12, 2013



“HIT-optimized” health care system

The vision for the State is a transformed health system where statewide HIT/HIE efforts ensures that all Oregonians have access to “HIT-optimized” health care. “HIT-optimized” health care is more than the replacement of paper with electronic or mobile technology. It includes changes in workflow to assure providers fully benefit from timely access to clinical and other data that will allow them to provide individual/family centric care.

Vision of an “HIT-optimized” health care system

- Individuals have meaningful and timely access to their personal health information and are encouraged and empowered to engage in achieving positive health outcomes.
- Providers coordinate and deliver “whole person” care informed by meaningful, reliable, actionable patient information.
- Systems (health systems, health plans, CCOs) use comprehensive aggregated data to inform the management, quality, and effectiveness of health care.
- Policymakers leverage and utilize aggregated data to inform policy development and operations.
- All realize the Triple-Aim of better health outcomes, better quality care, and lower costs.

Goals for State HIT/HIE Efforts

- Support and facilitate provider adoption and meaningful use of certified EHRs
 - ensure all providers have a means to use key patient information, including behavioral health and long term care.
- Ensure all providers can access meaningful, reliable, actionable patient information
 - shared across organizations and differing technologies
 - through local and/or statewide health information exchange.
 - Protect the security and privacy of shared patient information through appropriate security

Goals for State HIT/HIE Efforts (cont.)

- Support health plans, CCOs, health systems and providers in using aggregated data
 - for quality improvement, population management, and incentivize value and health outcomes.
- Facilitate person and family or caregiver engagement through access to, and interaction with, their health information.

3 Principles

1. Leverage existing resources and national standards, while anticipating changes
2. Progress, support, credibility and financial political and leadership sustainability are critical
3. Protect the health information of Oregonians; ensure information sharing is private and secure and in compliance with HIPAA and other protections

Principles

- Leverage existing resources and national standards, while anticipating changes
 - Consider investments and resources already in place
 - Leverage Meaningful Use and national standards; anticipate standards as they evolve
 - Monitor and adapt to changing federal, state and local environments.

Principles (continued)

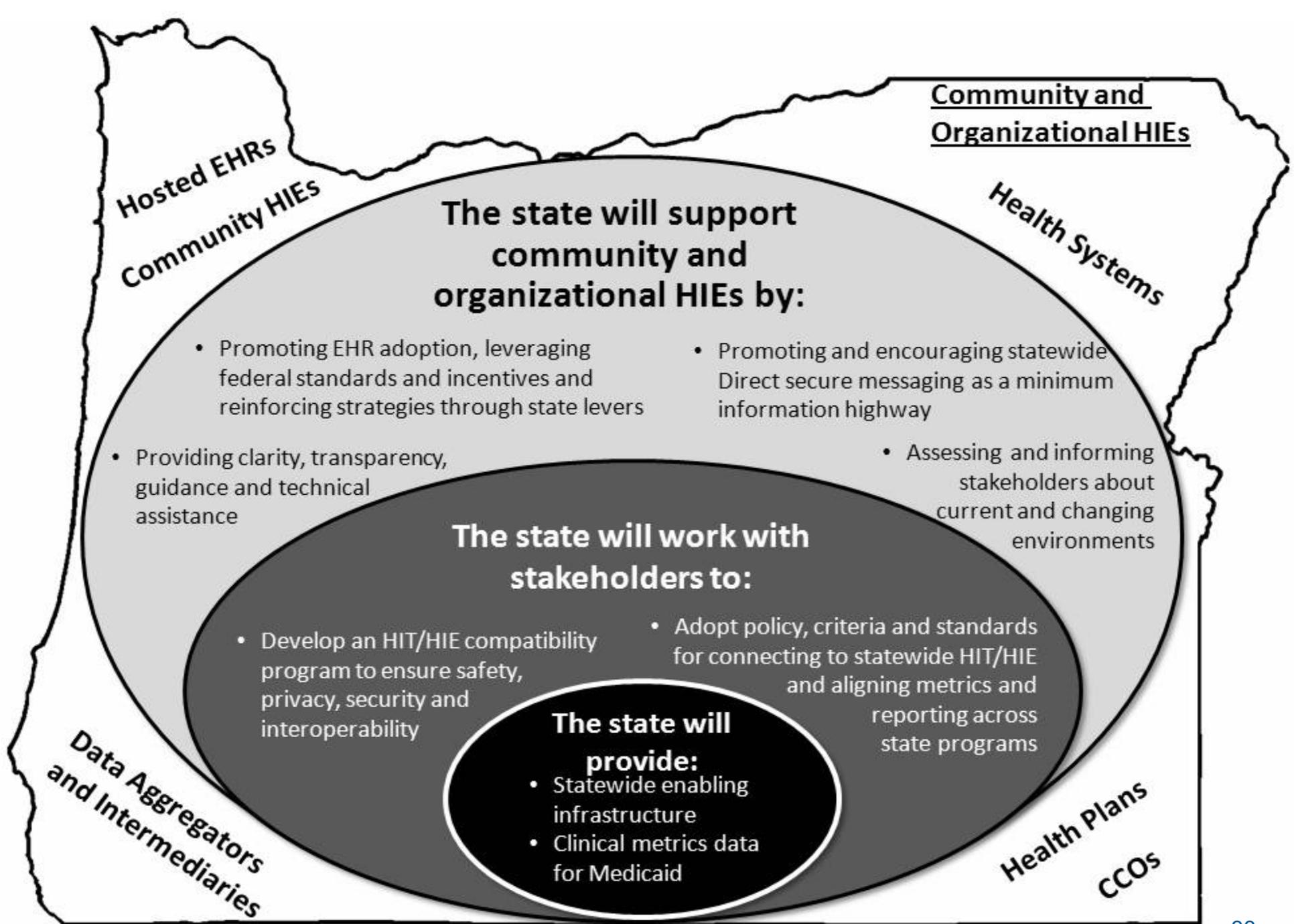
- Support, credibility and sustainability are critical, including financial, political and leadership sustainability
 - Relentless incrementalism: define manageable scope, deliver, and then expand
 - Maximize benefits to Oregonians while considering costs
 - Public transparency into development and operations of statewide resources are provided
 - Achieve common good. Demonstrate optimal value for patients and providers toward the Triple Aim

Principles (continued)

- Achieve common good. Demonstrate optimal value for patients and providers toward the Triple Aim.
- Steward of the resources.
- Support provider participation in HIT-optimized health care; meet providers where they are.
- Support new models of care that result in better quality, whole person care and health outcomes and lower costs for all.
- Protect the health information of Oregonians; ensure information sharing is private and secure and in compliance with HIPAA and other protections.

Challenges

- Providers face very real technology burdens, which may impede new HIT/HIE efforts
- HIT efforts must be inclusive. Behavioral health and long term care, along with care that impacts health, such as housing, must be included in HIT/HIE efforts
- Without getting providers and patients adopting and using EHRs and HIT services, the benefits of EHRs and HIT/HIE services will not be realized
- Providers face challenges navigating the EHR vendor arena



Technology

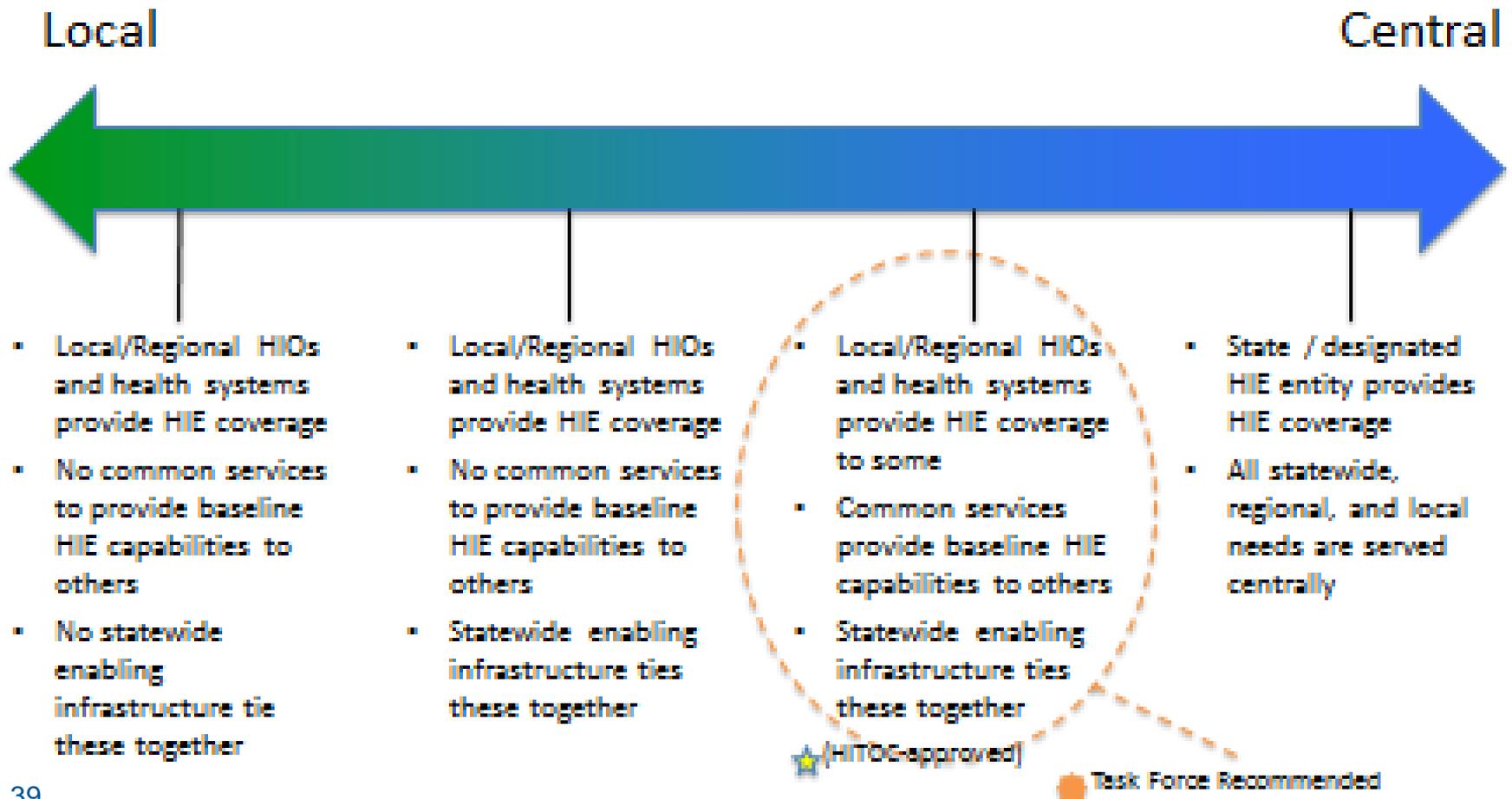
Statewide HIT/HIE coverage relies on the following 5 elements:

- Community and organizational HIEs and health systems provide HIT and HIE services to some providers.
- Statewide Direct secure messaging provides a foundation for sharing information across organizations and differing technologies.
- CareAccord, of which Direct secure messaging is one service, provides common services as baseline HIE capabilities to those without access to community or organizational HIEs and access to the enabling infrastructure services.

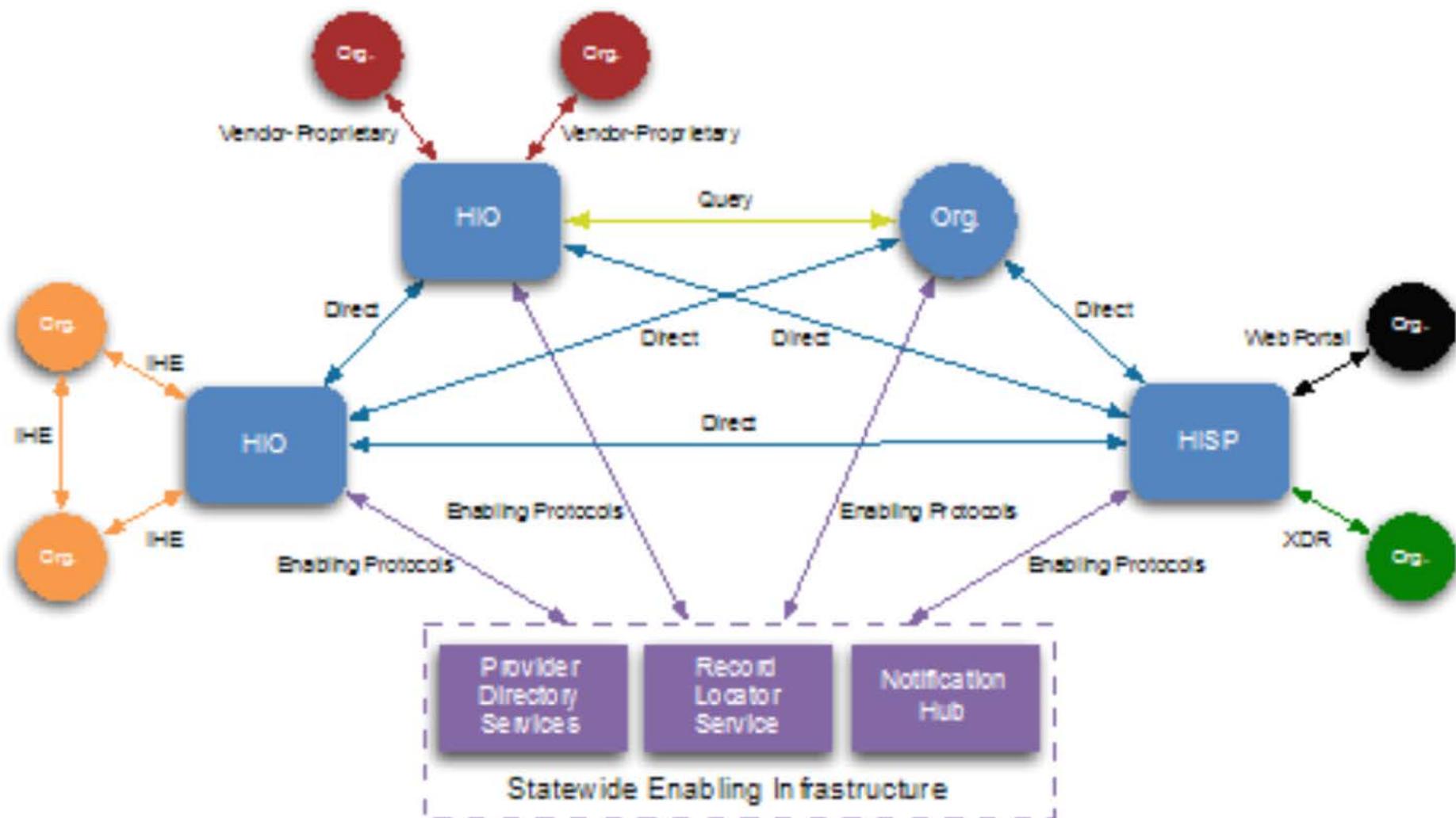
Technology (continued)

- Statewide enabling infrastructure services ties local efforts together where they exist, and provide baseline common services, enabling exchange and HIT functions (such as identifying providers or locating patient records) across community and organizational HIEs, health systems and providers.
- State aggregation of core clinical data for Medicaid purposes, with a focus on a small set of Meaningful Use clinical quality measures.

Approaches to Statewide HIE Coverage



Oregon's Long-Term HIT/HIE Landscape



Governance, Policy and Operations

- The state will provide:
 - oversight, transparency, policy and legal guidance, and accountability for statewide HIT/HIE services
- External HIT Designated Entity
 - Operate statewide HIT/HIE services
- New HIT/HIE “compatibility” program will
 - ensure interoperability and
 - security of information exchanged through statewide services and protect privacy,
 - Be a condition of participation in state HIT/HIE services

Governance Principles and Characteristics

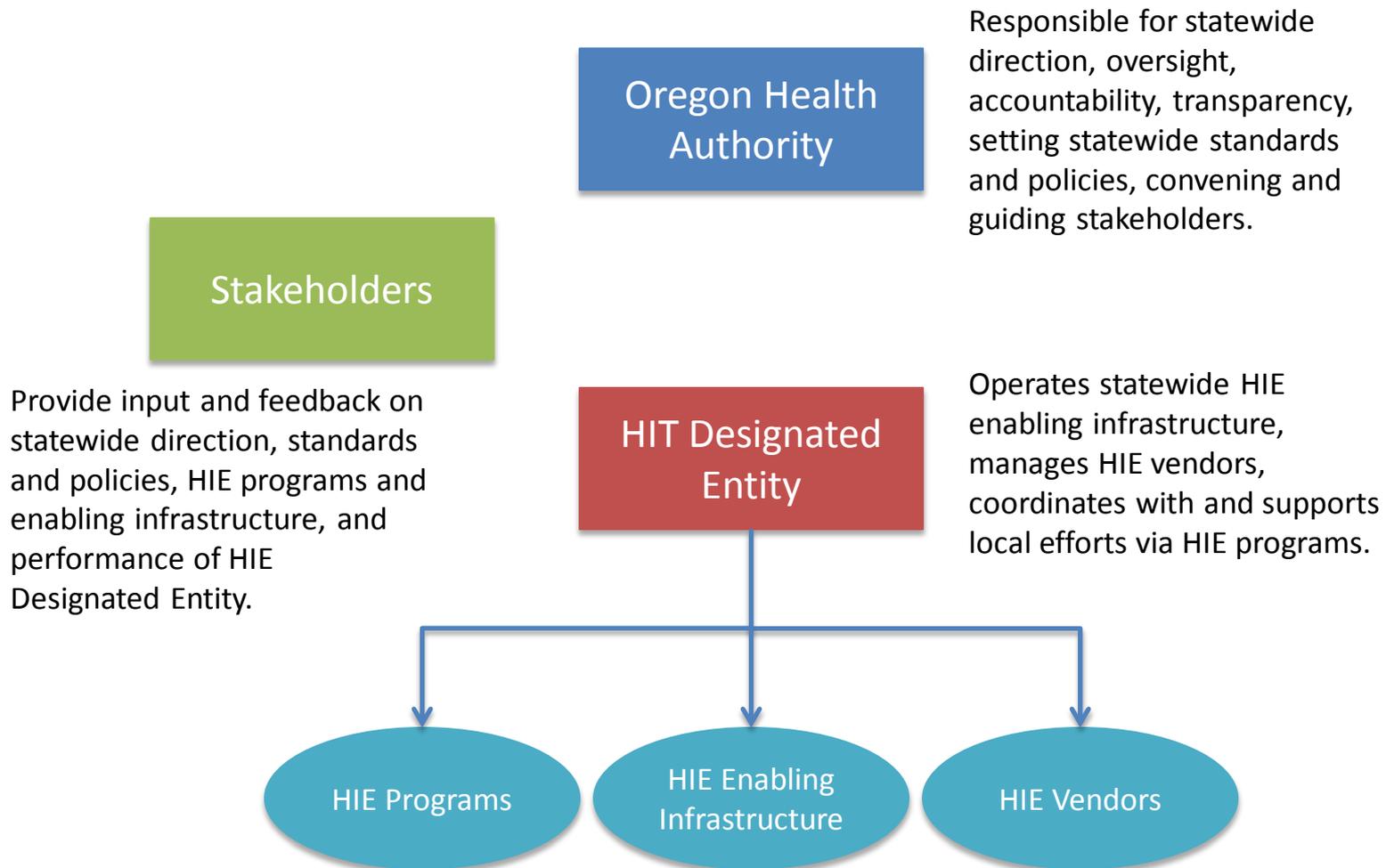
The HIT Task Force identified certain principles and characteristics that the Oregon governance structure must incorporate, no matter what organizational structure it takes.

- Participation and representation
- Transparency and openness
- Effectiveness
- Flexibility and accountability
- Well-defined and bounded mission

Characteristics/principles for the HIT designated entity:

- Mission focused on statewide HIT/HIE objectives, without conflicting business objectives
- Trusted, objective
- Responsive, stable leadership and financing
- Transparent and accountable to State oversight
- Has previous experience

Roles in Governance, Oversight and Accountability



Finance

State efforts should address financial sustainability through development and implementation of a broad-based, equitable financing model.

OHA should seek fee-setting and collecting authority for HIT/HIE services.

Oregon HIT/HIE Priorities to Support Health System Transformation

Timeline: 2015 Forward

Timeline: Today

Phase I Current Policy and Technology: Setting the initial direction and initiating electronic communication.

* Core Baseline: CareAccord Direct Secure Messaging & Interstate efforts

Phase I Governance: Oregon Health Authority and HIT Oversight Council

Phase I Financing: Office of the National Coordinator Cooperative Agreement

Timeline: 2014-2015

Phase 1.5 Policy and Technology: Services, standards, policies, guidance and technical assistance to initially focus on CCOs and their providers' needs to support local care coordination, clinical quality reporting, and aggregation for performance metrics and analytics.

*Core Baseline: CareAccord Direct secure messaging

*Statewide Enabling Services: provider directory, incremental development of patient index, hospital notifications/alerts, clinical quality metrics registry(ies), and technical assistance to Medicaid providers .

Phase 1.5 Governance: Oregon Health Authority with Technical Advisory Group and HIT Oversight Council plus planning for the HIT Designated Entity and "Compatibility" Program

Phase 1.5 Financing: Medicaid/state match, Office of the National Coordinator Cooperative Agreement and other investors plus planning for the broad-based, equitable model

Phase 2 Policy and Technology: Advanced HIT/HIE, policies, guidance and technical assistance to support health system transformation and evolving needs.

* Advanced HIT/ HIE: Enhanced statewide enabling services and record location supporting query and analytics.

Phase 2 Governance: Oregon Health Authority contract with HIT State Designated Entity and "Compatibility" Program

Phase 2 Financing: Stability through broad-based, equitable model

Next Steps for HITOC

December 12, 2013



Public Comment

December 12, 2013



Next Meeting:

February 6, 1-4:30 PM

Location TBD

Salem, OR

Certified EHR Systems for 2014 – CQM analysis October 2013

Number of Systems Certified per CQM (n=38)				
CMS#	NQF#	Measure Title	Count of 2014 CEHRT systems	CCO Measure
CMS117	NQF 0038	Childhood Immunization Status	22	
CMS122	NQF 0059	Diabetes: Hemoglobin A1c Poor Control	25	X
CMS123	NQF 0056	Diabetes: Foot Exam	11	
CMS124	NQF 0032	Cervical Cancer Screening	19	
CMS125	NQF 0031	Breast Cancer Screening	20	
CMS126	NQF 0036	Use of Appropriate Medications for Asthma	23	
CMS127	NQF 0043	Pneumonia Vaccination Status for Older Adults	24	
CMS128	NQF 0105	Anti-depressant Medication Management	7	
CMS129	NQF 0389	Prostate Cancer: Avoidance of Overuse of Bone Scan for Staging Low Risk Prostate Cancer Patients	8	
CMS130	NQF 0034	Colorectal Cancer Screening	18	
CMS131	NQF 0055	Diabetes: Eye Exam	10	
CMS132	NQF 0564	Cataracts: Complications within 30 Days Following Cataract Surgery Requiring Additional Surgical Procedures	8	
CMS133	NQF 0565	Cataracts: 20/40 or Better Visual Acuity within 90 Days Following Cataract Surgery	8	
CMS134	NQF 0062	Diabetes: Urine Protein Screening	9	
CMS135	NQF 0081	Heart Failure (HF): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy for Left Ventricular Systolic Dysfunction (LVSD)	7	
CMS136	NQF 0108	ADHD: Follow-Up Care for Children Prescribed Attention-Deficit/Hyperactivity Disorder (ADHD) Medication	11	
CMS137	NQF 0004	Initiation and Engagement of Alcohol and Other Drug Dependence Treatment	7	
CMS138	NQF 0028	Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention	34	
CMS139	NQF 0101	Falls: Screening for Future Fall Risk	8	
CMS140	NQF 0387	Breast Cancer: Hormonal Therapy for Stage IC-IIIC Estrogen Receptor/ Progesterone Receptor (ER/PR) Positive Breast Cancer	8	
CMS141	NQF 0385	Colon Cancer: Chemotherapy for AJCC Stage III Colon Cancer Patients	7	
CMS142	NQF 0089	Diabetic Retinopathy: Communication with the Physician Managing Ongoing Diabetes Care	11	
CMS143	NQF 0086	Primary Open Angle Glaucoma (POAG): Optic Nerve Evaluation	8	
CMS144	NQF 0083	Heart Failure (HF): Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction (LVSD)	7	
CMS145	NQF 0070	Coronary Artery Disease (CAD): Beta-Blocker Therapy— Prior Myocardial Infarction (MI) or Left Ventricular Systolic Dysfunction (LVEF <40%)	7	
CMS146	NQF 0002	Appropriate Testing for Children with Pharyngitis	25	
CMS147	NQF 0041	Preventive Care and Screening: Influenza Immunization	20	
CMS148	NQF 0060	Hemoglobin A1c Test for Pediatric Patients	14	
CMS149	TBD	Dementia: Cognitive Assessment	8	

Certified EHR Systems for 2014 – CQM analysis October 2013

CMS153	NQF 0033	Chlamydia Screening for Women	29	
CMS154	NQF 0069	Appropriate Treatment for Children with Upper Respiratory Infection (URI)	23	
CMS155	NQF 0024	Weight Assessment and Counseling for Nutrition and Physical Activity for Children and Adolescents	28	
CMS156	NQF 0022	Use of High-Risk Medications in the Elderly	29	
CMS157	NQF 0384	Oncology: Medical and Radiation – Pain Intensity Quantified	8	
CMS158	NQF 0608	Pregnant women that had HBsAg testing	10	
CMS159	NQF 0710	Depression Remission at Twelve Months	7	
CMS160	NQF 0712	Depression Utilization of the PHQ-9 Tool	10	
CMS161	NQF 0104	Major Depressive Disorder (MDD): Suicide Risk Assessment	7	
CMS163	NQF 0064	Diabetes: Low Density Lipoprotein (LDL) Management	18	
CMS164	NQF 0068	Ischemic Vascular Disease (IVD): Use of Aspirin or Another Antithrombotic	14	
CMS165	NQF 0018	Controlling High Blood Pressure	37	X
CMS166	NQF 0052	Use of Imaging Studies for Low Back Pain	29	
CMS167 Diabetic Retinopathy: Document	NQF 0088	Diabetic Retinopathy: Documentation of Presence or Absence of Macular Edema and Level of Severity of Retinopathy	8	
CMS169	NQF 0110	Bipolar Disorder and Major Depression: Appraisal for alcohol or chemical substance use	7	
CMS177	NQF 1365	Child and Adolescent Major Depressive Disorder: Suicide Risk Assessment	8	
CMS179	TBD	ADE Prevention and Monitoring: Warfarin Time in Therapeutic Range	7	
CMS182	NQF 0075	Ischemic Vascular Disease (IVD): Complete Lipid Panel and LDL Control	8	
CMS2	NQF 0418	Preventive Care and Screening: Screening for Clinical Depression and Follow-Up Plan	16	X
CMS22	TBD	Preventive Care and Screening: Screening for High Blood Pressure and Follow-Up Documented	9	
CMS50	TBD	Closing the referral loop: receipt of specialist report	22	
CMS52	NQF 0405	HIV/AIDS: Pneumocystis jiroveci pneumonia (PCP) Prophylaxis	9	
CMS56	TBD	Functional status assessment for hip replacement	7	
CMS61	TBD	Preventive Care and Screening: Cholesterol – Fasting Low Density Lipoprotein (LDL-C) Test Performed	10	
CMS62	NQF 0403	HIV/AIDS: Medical Visit	12	
CMS64	TBD	Preventive Care and Screening: Risk-Stratified Cholesterol – Fasting Low Density Lipoprotein (LDL-C)	7	
CMS65	TBD	Hypertension: Improvement in blood pressure	11	
CMS66	TBD	Functional status assessment for knee replacement	7	
CMS68	NQF 0419	Documentation of Current Medications in the Medical Record	18	
CMS69	NQF 0421	Preventive Care and Screening: Body Mass Index (BMI) Screening and Follow-Up	30	
CMS74	TBD	Primary Caries Prevention Intervention as Offered by Primary Care Providers, including Dentists	13	
CMS75	TBD	Children who have dental decay or cavities	23	

Certified EHR Systems for 2014 – CQM analysis October 2013

CMS77	NQF 0407	HIV/AIDS: RNA control for Patients with HIV	11	
CMS82	NQF 1401	Maternal depression screening	9	
CMS90	TBD	Functional status assessment for complex chronic conditions	14	

Certified EHR Systems for 2014 – CQM analysis October 2013

Count of CQMS by Certified System				
Product	Vendor	Product Classification	# Certified CQMs	CCO CQMs
Agastha Enterprise Healthcare Software	Agastha, Inc.	Complete EHR	14	NQF 0018; NQF 0059
Allscripts Enterprise EHR	Allscripts	Modular EHR	12	NQF 0018; NQF 0059
Allscripts Enterprise EHR	Allscripts	Complete EHR	12	NQF 0018; NQF 0059
Allscripts Enterprise EHR	Allscripts	Complete EHR	12	NQF 0018; NQF 0059
Allscripts Professional EHR	Allscripts	Complete EHR	13	NQF 0018; NQF 0059
Allscripts Professional EHR	Allscripts	Complete EHR	13	NQF 0018; NQF 0059
Allscripts Professional EHR	Allscripts	Modular EHR	13	NQF 0018; NQF 0059
AmkaiCharts	AmkaiSolutions LLC	Complete EHR	9	NQF 0018
athenaClinicals	athenahealth, Inc	Complete EHR	64	NQF 0018; NQF 0059; NQF 0418
athenaClinicals	athenahealth, Inc	Complete EHR	64	NQF 0018; NQF 0059; NQF 0418
athenaClinicals	athenahealth, Inc	Complete EHR	64	NQF 0018; NQF 0059; NQF 0418
athenaClinicals	athenahealth, Inc	Complete EHR	64	NQF 0018; NQF 0059; NQF 0418
eClinicalWorks	eClinicalWorks LLC	Complete EHR	9	NQF 0018; NQF 0418
EpicCare Ambulatory 2014 Certified EHR Suite	Epic Systems Corporation	Modular EHR	17	NQF 0018; NQF 0059; NQF 0418
EpicCare Ambulatory 2014 Certified EHR Suite	Epic Systems Corporation	Complete EHR	17	NQF 0018; NQF 0059; NQF 0418
EpicCare Ambulatory 2014 Certified EHR Suite	Epic Systems Corporation	Complete EHR	17	NQF 0018; NQF 0059; NQF 0418
GlanceEMR	Glenwood Systems LLC	Complete EHR	64	NQF 0018; NQF 0059; NQF 0418
Greenway PrimeSUITE	Greenway Medical Technologies, Inc.	Modular EHR	9	NQF 0018
Greenway PrimeSUITE	Greenway Medical Technologies, Inc.	Modular EHR	9	NQF 0018
Greenway PrimeSUITE	Greenway Medical Technologies, Inc.	Complete EHR	9	NQF 0018
Horizon Ambulatory Care?	McKesson	Complete EHR	14	
Medflow EHR	Medflow, Inc.	Complete EHR	16	NQF 0018; NQF 0059
MediaDent	SuccessEHS, Inc., a Division of Vitera Healthcare Solutions	Complete EHR	30	NQF 0018; NQF 0059
Medical and Practice Management (MPM)	LSS Data Systems	Complete EHR	16	NQF 0018; NQF 0059
Medical and Practice Management (MPM) Client/Server	LSS Data Systems	Complete EHR	16	NQF 0018; NQF 0059
Medical and Practice Management (MPM) Client/Server	LSS Data Systems	Complete EHR	64	NQF 0018; NQF 0059; NQF 0418

Certified EHR Systems for 2014 – CQM analysis October 2013

Medical and Practice Management (MPM) MAGIC	LSS Data Systems	Complete EHR	16	NQF 0018; NQF 0059
Medical and Practice Management (MPM) MAGIC	LSS Data Systems	Complete EHR	64	NQF 0018; NQF 0059; NQF 0418
MediTouch	HealthFusion	Complete EHR	17	NQF 0018; NQF 0418
NextGen Ambulatory EHR	NextGen Healthcare	Complete EHR	15	NQF 0018; NQF 0418
NextGen EDR	NextGen Healthcare	Complete EHR	15	NQF 0018; NQF 0418
ONCOCHART	Bogardus Medical Systems, Inc.	Complete EHR	13	NQF 0018
PRM 2014	Aprima Medical Software, Inc.	Complete EHR	16	NQF 0018
Pulse Complete EHR	Pulse Systems	Complete EHR	9	NQF 0018; NQF 0418
Quality Data Center	Massachusetts eHealth Collaborative (MAeHC)	Modular EHR	26	NQF 0018; NQF 0059
SuccessEHS	SuccessEHS, Inc., a Division of Vitera Healthcare Solutions	Modular EHR	13	NQF 0018
SuccessEHS	SuccessEHS, Inc., a Division of Vitera Healthcare Solutions	Complete EHR	30	NQF 0018; NQF 0059
Sunrise Ambulatory Care	Allscripts	Complete EHR	12	NQF 0018; NQF 0059



DRAFT FOR REVIEW

**Oregon's Business Plan Framework for Health Information
Technology and Health Information Exchange
Health Information Technology Task Force Recommendations
Oregon Health Authority
November 15, 2013**



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Executive Summary and Roadmap

In Oregon, the state, health plans, Medicaid Coordinated Care Organizations (CCOs), health systems, providers and other stakeholders are seeking to transform the health care system to improve health, provide better care and lower costs. This health system transformation is multifaceted, relying on new models of care coordination, wellness, incentives and alternative payment models. These key features of transformation are dependent on and demand improvements in the exchange of actionable health information, which is dependent on sufficient health information technology (HIT), which is further dependent on adequate technical infrastructure, appropriate policies and legal authority, sufficient and sustainable financing, and governance of the exchange of information as well as the health information exchange (HIE) technology.

The vision for the State is a transformed health system where statewide HIT/HIE efforts ensure that all Oregonians have access to “HIT-optimized” health care. “HIT-optimized” health care is more than the replacement of paper with electronic or mobile technology. It includes changes in workflow to assure providers fully benefit from timely access to clinical and other data that will allow them to provide individual/family centric care. In a “HIT-optimized” health care system:

- Providers coordinate and deliver care informed by meaningful, reliable, actionable patient information.
- Systems (health systems, health plans, CCOs) use aggregated data to inform the management, quality, and effectiveness of health care.
- Individuals have meaningful and timely access to their personal health information and are encouraged and empowered to engage in achieving positive health outcomes.
- All realize the Triple-Aim of better health outcomes, better quality care, and lower costs through HIT-optimized health care.

To create an “HIT-optimized” individual-centric health ecosystem, the state has a role, as do CCOs, health plans, health systems, local health information exchange efforts, providers and individuals. The central relationship between providers and their patients is often supported by technology locally: at the practice level, health system level, health plan and/or CCO level. To support what’s happening locally, state efforts can provide the right level of statewide technology, policies and operational guidance to ensure privacy, security and accountability, while also ensuring appropriate and sustainable financing and governance.

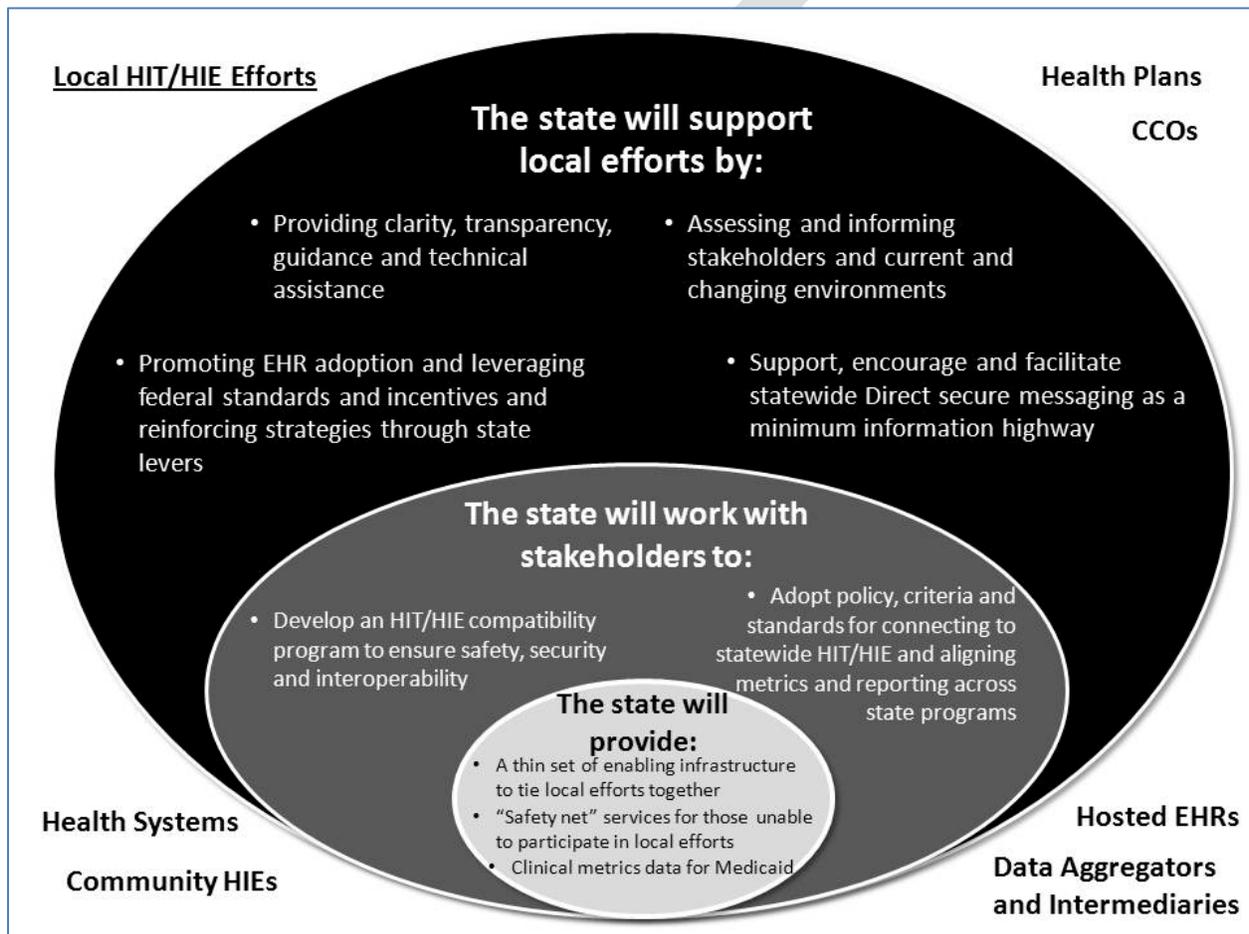
To support Oregon’s “HIT-optimized” health system transformation, the Oregon Health Authority (OHA) set out to establish a multi-year state HIT/HIE business plan framework. To do so, OHA sought broad stakeholder input regarding key questions (see box) through listening sessions and forming a Health Information Technology (HIT) Task Force. The HIT Task Force took into consideration the earlier, extensive work of Oregon’s HIT Oversight Council (HITOC), the current environment, and output gathered from stakeholder listening sessions. This document reflects the resulting recommendations of the HIT Task Force, and sets a direction forward for Oregon.

Key Questions

- *What is the right role for the State including policy, standards, guidance?*
- *Which services or infrastructure should be offered statewide?*
- *How should any statewide services be governed and operated?*
- *How can the State best partner with stakeholder organizations financially to build and support longer term needs?*

Goals for State HIT/HIE Efforts: In particular, the HIT Task Force set forth recommendations for state efforts that achieve the following goals. State efforts should:

1. Support and facilitate provider adoption and meaningful use of certified EHRs, and ensure all providers have a means to use key patient information, including behavioral health and long term care.
2. Ensure all providers can access meaningful, reliable, actionable patient information shared across organizations and differing technologies through local and/or statewide health information exchange. Protect the security and privacy of shared patient information.
3. Support health plans, CCOs, health systems and providers in using aggregated data for quality improvement, population management, and incentivize value and health outcomes.
4. Facilitate person and family engagement through access to their health information.



To support these goals, specific state efforts are described above. The following summarizes the technology, governance and policy, and finance approaches described in this document:

Technology: The overall approach to Statewide HIT/HIE coverage relies on 5 elements:

1. Local HIEs, health systems, and other entities provide HIT and HIE services to some providers
2. Statewide Direct secure messaging provides a foundation for sharing information across organizations and differing technologies
3. CareAccord provides common services as baseline HIE capabilities to those without access to local or health system HIEs, specifically offering Direct secure messaging capabilities and access

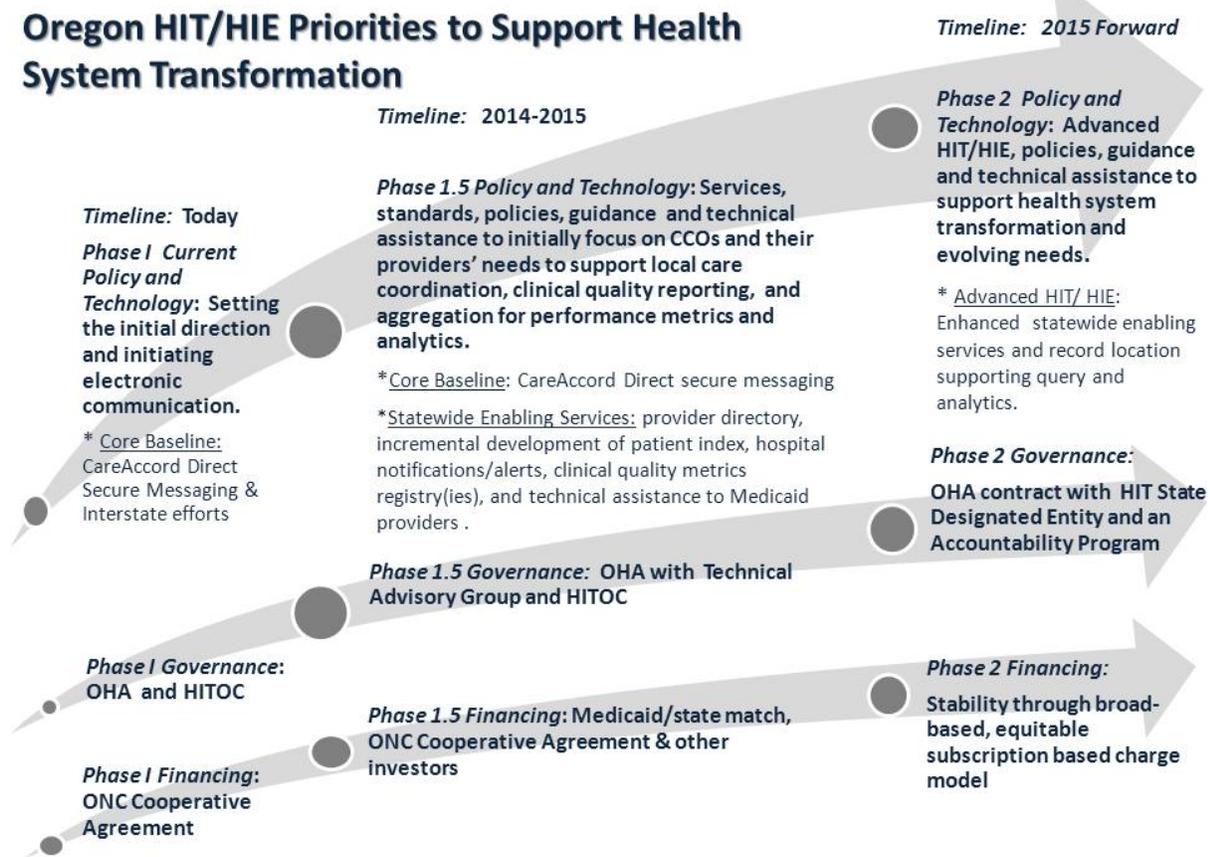
- to the enabling infrastructure
- 4. Statewide enabling infrastructure ties local efforts together, enabling exchange and HIT functions (such as identifying providers or locating patient records) across local HIEs, health systems and other entities
- 5. State aggregation of core clinical data for Medicaid purposes, with a focus on a small set of Meaningful Use clinical quality measures

Governance, Policy, and Operations: The state will provide oversight, transparency, policy-setting, and accountability over statewide HIT/HIE services, and seek to contract with an external HIT Designated Entity to operate statewide services. To ensure interoperability and security of information exchanged through statewide services and protect privacy, OHA will establish a new HIT/HIE “compatibility” program. Any entities seeking to participate in state enabling infrastructure services would need to meet compatibility program expectations.

Finance: State efforts should address financial sustainability through development and implementation of a broad-based, equitable financing model. OHA should seek fee-setting and collecting authority for HIT/HIE services.

Roadmap

The path forward for Oregon is phased. See roadmap below:



I. Objective, Methodology and Scope

Objective: Support health system transformation with the right level of HIT/HIE in Oregon

In Oregon, the state, health plans, Medicaid Coordinated Care Organizations (CCOs), health systems, providers and other stakeholders are seeking to transform the health care system within the state to improve health outcomes, provide better care and lower costs. To support Oregon's health system transformation, the Oregon Health Authority (OHA) set out to establish a multi-year state HIT/HIE business plan framework. To do so, OHA sought recommendations from a broad group of stakeholders by forming a Health Information Technology (HIT) Task Force. The HIT Task Force, in developing their recommendations, identified and prioritized policy, technical, governance and financial elements needed in order to meet the demands of CCOs for the Medicaid program as a foundation for transformation of health care services. The resulting recommendations are summarized in this document.

Key Questions

- *What is the right role for the State including policy, standards, guidance, etc.?*
- *Which services or infrastructure should be offered statewide?*
- *How should any statewide services be governed and operated?*
- *How can the State best partner with stakeholder organizations financially to build and support longer term needs?*

The framework, seeks to address the key questions listed in the box above. The chapters of this document follow the key questions and include recommendations focused on the longer-term strategy related to each of the areas.

- Chapter III: Role of the State and Statewide Efforts Recommendations
- Chapter IV: Technology Recommendations
- Chapter V: Governance, Policy, and Operations Recommendations
- Chapter VI: Financing Recommendations
- Chapter VII: Recommendations Recap

Methodology and Scope

Oregon's approach to developing this HIT/HIE Business Plan framework was to reflect on prior work (largely conducted under the HITOC), and work closely with stakeholders via listening sessions and an HIT Task Force.

Listening sessions: During spring 2013, the State Coordinator for HIT and Oregon's HIE consultant developed a structured interview tool and embarked on a series of individual meetings with critical stakeholders, including CCOs, health plans, State leadership, and representatives of statewide and regional healthcare groups. Appendix B lists organizations participating in these sessions.

The listening sessions helped identify:

- What HIT/HIE elements are needed to support health system transformation?
- What can be uniquely provided in state level foundational services?
- What's happening locally that can be connected?
- Where are the gaps?

Appendix C provides a summary of the listening session responses.

HIT Task Force: The OHA's staff and consultant team used the information from the structured interviews and other informal discussions to develop straw models for HIT/HIE for consideration by the HIT Task Force. OHA convened the 19-member Task Force in September-November, for five public meetings, as well as convening subsets of members on a volunteer basis for a number of ad hoc meetings to advise staff on staff work preparing for meetings. See Appendix B for a list of members and charter.

The Task Force used the straw models, along with the results of the listening sessions and prior recommendations of Oregon's Health Information Technology Oversight Council (HITOC) as a starting point for constructing their recommendations. The Task Force recommendations consider current and anticipated needs of Oregon's HIT/HIE stakeholders. The resulting framework provides a foundational document for OHA's efforts, as well as helps set the basis for a work plan for the ongoing oversight and policy work of the state.

Scope of this document: As noted through this document, statewide HIT/HIE infrastructure is expected to be developed in phases. Current efforts (Phase 1) include CareAccord Direct secure messaging web-portal based services. In 2013-2015, Oregon has state funding in place to leverage federal funding and develop six elements ("Phase 1.5") described below. The HIT Task Force was asked to assume Phase 1.5 elements and consider what additional efforts would be needed to meet the goals and solve the problems identified for Oregon, with particular focus on 2015 and beyond ("Phase 2.0). This document describes the complete picture of statewide HIT/HIE, considering all phases and noting phasing where relevant.

Listening sessions found consistent messages that HIT/HIE was needed to support:

- *Care coordination across all members of a care team*
- *Data aggregation and analytics incorporating clinical data*

Listening sessions also uncovered variations:

- *Varying levels of technical capacity across Oregon's health care communities,*
- *Differing opinions on the best role of the state and statewide services.*

II. Vision, Goals, Principles, Challenges

Vision

Statewide HIT/HIE efforts ensure that all Oregonians have access to “HIT-optimized” health care that results in better health, better care and lower costs.

Goals

“HIT-optimized” health care is more than the replacement of paper with electronic or mobile technology. It includes changes in workflow to assure providers fully benefit from timely access to clinical and other data that will allow them to provide individual/family centric care. In a “HIT-optimized” health care system where:

- Providers coordinate and deliver care informed by meaningful, reliable, actionable patient information.
- Systems (health systems, health plans, CCOs) use aggregated data to inform the management, quality, and effectiveness of health care.
- Individuals have meaningful and timely access to their personal health information and are encouraged and empowered to engage in achieving positive health outcomes.
- All realize the Triple-Aim of better health outcomes, better quality care, and lower costs through HIT-optimized health care.

ONC Vision for HIE:

“All patients, their families, and providers should expect consistent and timely access to standardized health information that can be securely shared between primary care providers, specialists, hospitals, behavioral health, Long Term Post-Acute Care, home and community-based services, other support and enabling services providers, care and case managers and coordinators, and other authorized individuals and institutions.”

Principles for Statewide HIT/HIE Efforts

The HIT Task Force established principles for thinking differently, determining statewide health information needs, and identifying where a state role is appropriate and needed.

- Leverage existing resources and national standards, while anticipating changes
 - Consider investments and resources already in place
 - Leverage Meaningful Use and national standards; anticipate standards as they evolve
 - Monitor and adapt to changing federal, state and local environments.
- Support, credibility and sustainability are critical, including financial, political and leadership sustainability
 - Relentless incrementalism: define manageable scope and deliver, and then expand
 - Apply the 80/20 rule: Maximize benefits to Oregonians while considering costs
 - Provide public transparency into development and operations of statewide resources
- Achieve a public good
 - Support new models of care that result in better quality, whole-person care and health outcomes and lower costs for all

- Ensure providers aren't disenfranchised from participating in HIT-optimized health care due to a "digital divide"
- Protect the health information of Oregonians; ensure information sharing is private and secure and in compliance with HIPAA and other protections

Challenges

In order to create and implement a roadmap that can feasibly be implemented, the Task Force identified a number of important factors for consideration when proceeding with HIT/HIE efforts.

Providers face very real technology burdens, which may impede new HIT/HIE efforts. Practices face many large HIT changes in the near term, including ICD-10, EHR upgrades and practice changes to meet Meaningful Use Stage 2 requirements. There are also increased operational demands pertaining to new models of health care and accountability, including multiple metrics and reporting requirements demanded by different payers and programs. Adding new HIT/HIE expectations on providers is likely to be very challenging in this environment. Providers want to see value and benefits from their considerable investments in EHRs and HIT/HIE, and many are frustrated that their EHRs do not give them back useful information at a patient panel level.

Non-traditional health care settings are important to include in HIT/HIE efforts, but often come with their own challenges. Patients receive care outside traditional health care settings requiring expanded connectivity and coordination. Long-term care and most behavioral health providers don't benefit from the current federal Medicare and Medicaid EHR incentives.

Without workflow changes at the practice level, the benefits of EHRs and HIT/HIE services will not be realized. Providers will need support and technical assistance to integrate information technology into their workflow.

Providers face challenges navigating the EHR vendor arena. Small providers are constrained by the "out-of-the-box" capabilities provided in their EHRs, and have limited financial ability to pay their EHR vendor to customize their EHRs to produce metrics and reporting. Their ability to meet changing demands is limited. Providers seeking to move from a paper-based environment to an EHR face challenges in selecting the best EHR for their workflow. For example, a behavioral health practice hired a consultant to help them understand what they need in an EHR.

Meaningful Use

Meaningful Use is the set of objectives and measures defined by the Centers for Medicare and Medicaid Services (CMS) that governs the use of electronic health records. Eligible providers and hospitals who meet Meaningful Use requirements can receive federal EHR incentive payments. Generally, the requirements for meeting Meaningful Use increase as a provider progresses through the three stages.

ONC sets certification criteria for EHRs in line with Meaningful Use.

III. Role of the State and Statewide Efforts Recommendations

What is the right role for the State, including policy, standards, guidance and technology, within the context of the statewide HIT/HIE needs to support health system transformation?

The Task Force started by discussing the critical HIT/HIE elements needed to support health system transformation. Then within those needs, the Task Force identified which elements should be uniquely provided at the state level and which could be provided locally, considering the variability of expertise, technology and knowledge of communities, health plans, CCOs, health systems and providers.

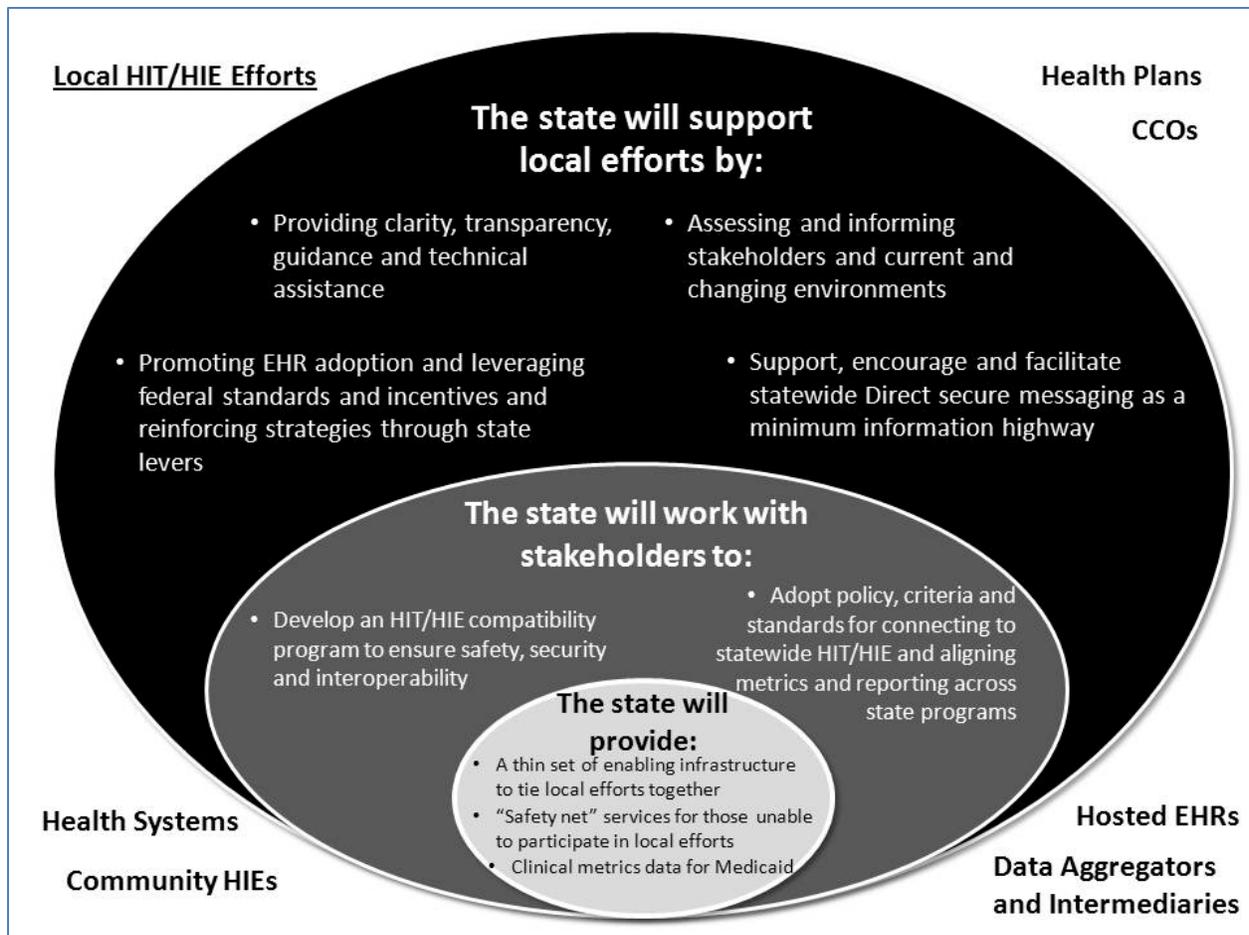
To assure relevancy in their deliberations, the HIT Task Force identified three problems that needed to be addressed for successfully supporting health system transformation.

- Meaningful, timely, relevant, actionable patient information are not universally available to the care team at the point of care.
- There are technological disparities in systems' ability to effectively and efficiently collect and use actionable aggregated data (including clinical information).
- Individuals and their families do not universally have access to their clinical information

The HIT Task Force approached each problem statement from three potential categories of state involvement:

- What role should the state play in coordinating and aligning and supporting HIT/HIE efforts?
- What role should the state play in establishing standards for HIT/HIE efforts?
- What role should the state play in providing HIT/HIE technology?

As illustrated below, a significant portion of the recommendations for the right state role relates to the coordination and alignment of efficient and effective local efforts of community exchanges, organizational exchanges, CCOs, health plans, health systems and providers. However, there is also an expectation that the state establishes standards to ensure local and statewide policies and operations result in the needed and anticipated statewide infrastructure to support health system transformation. As described more fully in the technology chapter, a basic set of statewide services will tie together local efforts, limit unnecessary duplication and related costs, and assure consistency and transparency.



Problem 1: Gaps in meaningful, timely, actionable patient information for care team at all points of care; “islands of information”

The state, CCOs, health plans and providers are facing gaps in meaningful, timely, actionable patient information for the care team at all points of care. The state is made up of “islands of information” where the information providers have access to depends on where they live, whether the care is delivered within an integrated health system network, and whether other local systems are in place. For example, primary care physicians don’t necessarily know which drugs have been prescribed by the patient’s psychiatrist. Hospitals and providers within a care system may have access to each other’s information, but providers outside the care system do not necessarily have access to the same information. While many physical health care providers have federal Meaningful Use incentives to exchange information and use information in a meaningful way, behavioral health and long term care providers do not have the same incentive structure.

The result is in an uneven playing field where all providers do not have relevant, actionable information at the time of care so they can deliver high quality, person-centered care.

- Fragmented, uncoordinated care undermines the quality of care and patient outcomes. High cost and high risk populations lack “whole person” coordinated care that includes sharing information across physical, behavioral, dental and other care settings. Critical pieces of the care management puzzle, including information from long term care, social services, education, and other sectors, are not currently connected.
- Poor communication across transitions of care leads to wasteful spending and poor patient experiences and outcomes.
- Providers often rely on a patient’s memory to inform their care
- Inefficiencies and redundancies result from the gaps in information in the current system
- Providers lack a common understanding of which information is meaningful for different care coordination scenarios, leading to information overload

Examples from behavioral health
Behavioral healthcare clinicians often don't know if their clients are admitted to the hospital. In some cases, for individuals with severe mental illness booked in a jail facility there is often no notification to the care team. The result is a traumatic stay for the client without proper access to their medication. If mental and physical health care providers are not communicating about a patient then a medication prescribed by either side may result in medication reactions or complications.

To address the problems outlined above, access and use of information is critical:

- Access to the right patient information at the point of care, including information from non-health providers when relevant. This requires the sharing of information between unaffiliated providers across organizational and technological boundaries. This also requires the ability to produce and ingest information in formats that are ideally integrated and automated within EHRs and workflows.
- Provider capacity, interest and demand to use the information requires providers having the right technology (EHRs or other technology), as well as providers believing that having shared information is valuable and should be expected as part of their EHR/technology investment.
- Care team process and workflow to use the information and organize around whole person care. This could include practice changes to participate in “virtual care teams” around complex patients, and may be facilitated by technology tools such as shared care plans and virtual care team collaboration spaces.

VALUE
Giving providers access to meaningful, relevant and actionable information reduces costly redundancy, ensures accuracy and increases the likelihood of better outcomes. This means more efficient care, better workflows and better outcomes, all of which will reduce costs.

Solving Problem 1: Vision and Recommendations

The vision is for “full interconnectivity and interoperability” to have health information that is patient-centered, accessible across systems and providers, and meaningful, relevant, and actionable to the care team at all points of care, supporting the ability to deliver coordinated, whole-person care which leads to better health outcomes and lower costs.

1. State efforts should support and facilitate provider adoption and meaningful use of certified EHRs, and ensure all providers have a means to use key patient information, including behavioral health and long term care.

- Promote and leverage federal meaningful use certification standards and incentives, using state levers to drive EHR adoption and meaningful use (e.g., state contracts, PCPCH standards, etc.)
- Ensure providers can access EHR incentive payments, including providing technical assistance to Medicaid providers
- Promote and facilitate full use of certified EHR technology, including:
 - Aligning state requirements with meaningful use requirements to further incentivize (e.g., leverage clinical metrics that are based on data that is built in to EHRs for meaningful use)
 - Leveraging automated capabilities within EHRs, such as CCDA/QRDA formats for clinical metric reporting
- Monitor and assess rates of certified EHR adoption, meaningful use, and other technology in use.
- Ensure participation in information sharing and meaningful care coordination by behavioral health and long term care providers, by examining barriers to participating in care teams, highlighting promising approaches, and using state Medicaid levers where applicable

2. State efforts should ensure all providers can access meaningful, reliable, actionable patient information shared across organizations and differing technologies through local and/or statewide health information exchange, and protect the security and privacy of shared patient information.

- Provide enabling infrastructure to connect local efforts where they exist, and provide baseline common services to ensure all providers can share information (see technology chapter for more details):
 - Provide state-level enabling infrastructure that can facilitate both “push” and “query” capabilities to facilitate local efforts to exchange information
 - Provide an option for any provider to access electronic health information with or without an EHR, through Direct secure messaging
- Protect the security and privacy of shared patient information
 - Promote policies and practices to protect patient information
 - Ensure any statewide services or processes follow HIPAA and other federal and state requirements
- Develop state policy to support interoperability (see governance chapter for more details):
 - Establish a state compatibility program that includes national standards and sets baseline expectations for local, regional and organizational HIT/HIE efforts to ensure interoperability, privacy and security, and facilitate sharing of information
 - Advocate nationally around standards and policy where relevant to Oregon’s interests
- Educate, outreach, communicate to provide clarity, guidance and transparency on federal and statewide efforts and implications or expectations for local efforts
 - Continue to promote statewide Direct secure messaging as a HIPAA-compliant onramp to HIE across organizational and technological boundaries

- Provide clarity where possible on HIPAA and other legal restrictions on information sharing, particularly around behavioral health
- Communication and outreach are important. State efforts can include assessing and informing stakeholders about current and changing environments; convening to share best practices, and providing guidance and technical assistance on key areas.
- Facilitate and encourage local efforts to develop where there is no cross-organizational connectivity.

Additional considerations from some Task Force members:

- Consider workforce and physician development and awareness of the value and uses for HIT/HIE to create demand and skillsets.
- Consider assisting local HIE efforts with standard consent processes or guidelines

Problem 2: Gaps in ability to effectively and efficiently collect and use actionable aggregated data (including clinical information)

Currently there are technology disparities in the access that providers, health systems, health plans and CCOs have to information to understand the value, quality and outcomes achieved by the health care delivery system. Access to clinical data for quality improvement and oversight has historically been extremely expensive and burdensome to providers. Medical chart audit reviews for accreditation and regulatory requirements can become outdated as electronic access to information becomes more viable. Time gaps between collection, review and ability to make change will decrease, which making the information more valuable to providers, health systems, CCOs, health plans and the State,

Different metrics and data are needed for different purposes:

<p>Provider-level uses:</p>	<p>Actionable metrics, alerts, and other patient-level information are needed by point of care providers and the care team to look across their patient panels and identify care needs.</p> <p>Metrics that are particularly relevant allow providers to look across their patient panels to identify patients that have gaps in care (e.g., missing recommended screenings), are at risk for poor outcomes (e.g., missing follow up visits after hospitalization, or are outliers within their chronic care cohorts), or have other signs of needing additional, proactive care.</p>
<p>Management-level uses:</p>	<p>CCOs, health plans and health systems entities may lack the information needed to</p> <ul style="list-style-type: none"> ● <u>Ensure quality</u>: identify, monitor and improve quality of care ● <u>Manage populations</u>: identify and manage their patients/populations effectively ● <u>Pay differently</u>: transform care delivery via new payment models that are based on paying for value and health outcomes rather than visits <p>Metrics that are particularly relevant are collected regularly enough to demonstrate the impact of new delivery care models and help identify where resources and course corrections could yield better outcomes.</p>
<p>Policy-level uses:</p>	<p>State government seeks to monitor the health at a broader population level, and ensure value in the health care delivery system across programs and across the</p>

	entire state or regional populations. Metrics that are particularly relevant at the policy level may only be collected every year or two (such as patient satisfaction surveys).
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The HIT Task Force described several aspects of the problems outlined above:

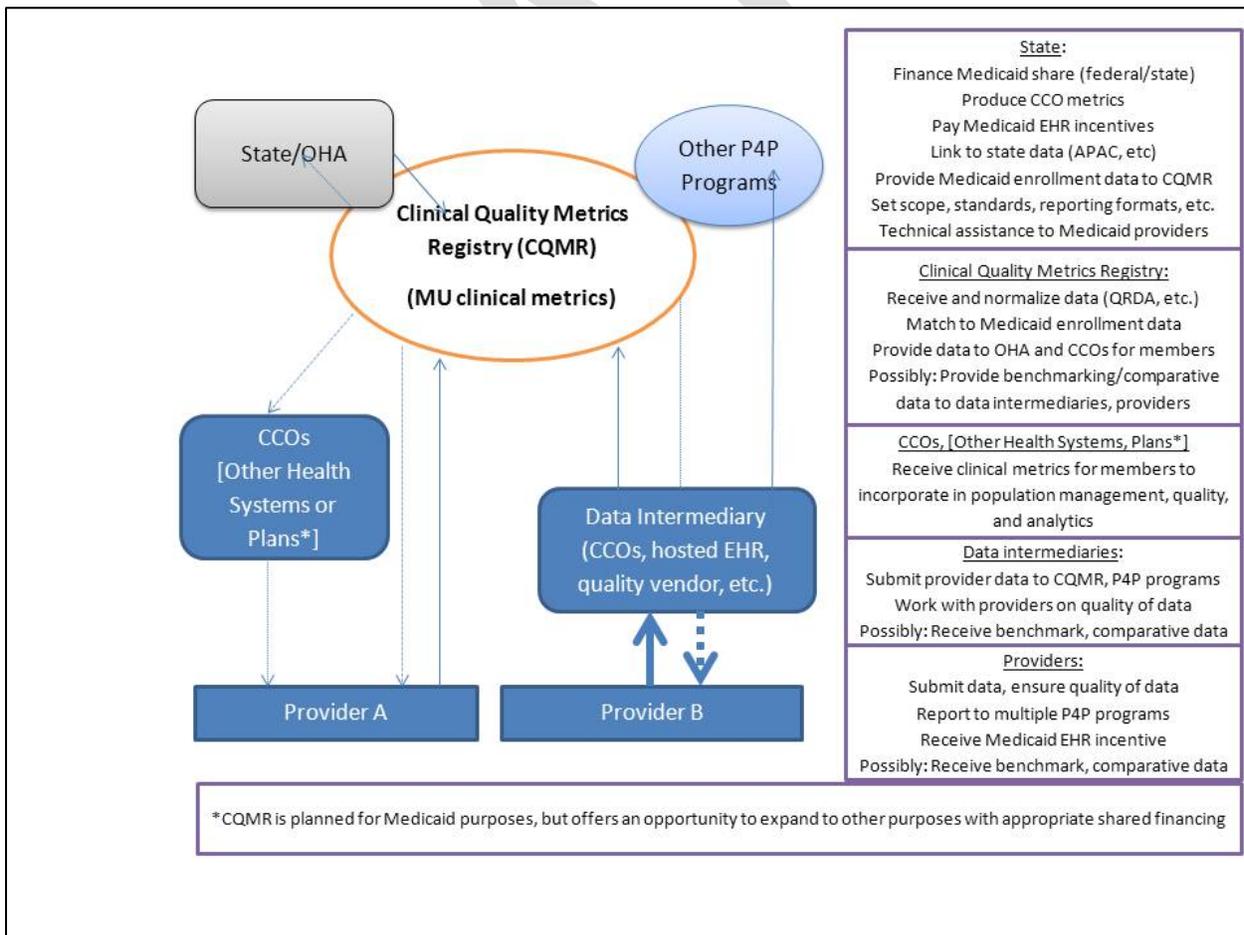
- Myriad metrics and reporting requirements: Providers and health systems face a daunting number of reporting requirements across health plans, Medicare, Medicaid, and pay for performance programs. Reporting requirements often include similar but not aligned metrics, which increases the amount of effort, decreases the comparability, and creates competing efforts for providers.
- Collecting and reporting clinical data for aggregation and metrics can be burdensome for providers:
 - Provider and health system ability to collect and report clinical data can be technically challenging particularly given major HIT changes hitting providers in 2014 (including ICD-10, changes to meet Meaningful Use Stage 2 for some providers, and 2014 EHR upgrades to be eligible for EHR incentives).
 - Certified EHRs vary in terms of ability to generate and report meaningful use clinical quality metrics. For example, although ONC has established 64 electronic Meaningful use clinical quality metrics, to be certified, an EHR must only certify nine as pre-programmed into the EHR for automated reporting capabilities. While EHR vendors may “switch on” additional metrics for a cost, this means that smaller providers may not be able to absorb additional technology costs.
- Credibility of clinical quality metrics depends on provider workflow: Even for the meaningful use clinical quality metrics that are pre-programmed into EHRs, the ability to produce quality, accurate data for each metric relies on the workflow and processes that ensure providers are entering data into the relevant fields in the EHRs.
- Aggregating and analyzing clinical data can be challenging for some CCOs, health plans, and health systems:
 - Aggregating clinical data across different EHRs is a specialized skillset. While some CCOs, health plans and health systems have the capabilities or obtain them through community HIEs and other “data intermediaries” access to these services is not statewide.
 - Some health plans and CCOs may be able to access provider or clinic-level clinical metrics data, but find it particularly challenging to access individual level clinical data, which allows the greatest flexibility in analytics, including the ability to drill down to the patient level to identify patients in greatest need of follow up. One HIT Task Force member said, showing providers their performance results can illicit reactions of denial, unless you can show them the specific list of patients where they are not meeting the performance target. Further, the ability to attribute patients to their clinics is particularly challenging, and limits the usefulness of individual-level data.
- Translating data into action: Providers are ready for information that allows them to better understand and manage their patient panels. However, the ability to translate performance

metrics into practice improvements and/or target patients needing care varies amongst providers and can depend on the utility of the reported data. Having excellent analysis of performance data, trends, and benchmarking are of little use, if ultimately providers are not able to take action or change practices to realize improvements. Health systems, CCOs and health plans also vary in their ability to work with practices and target their resources.

- **Governance and ownership of data:** Although much patient data used in data aggregation is covered under HIPAA for health plan or provider treatment, payment, or operations purposes, there may arise questions of who owns the data and who can access the data. Protecting patient privacy and security are paramount when working with aggregated data.

Oregon’s Medicaid Clinical Quality Metrics and Technical Assistance

OHA is planning to develop the ability to aggregate key clinical quality data for the Medicaid program, develop benchmarks and other quality improvement reporting, and calculate clinical quality metrics for paying quality incentives to CCOs and Medicaid EHR incentive payments to providers. Particular focus is on the three clinical CCO incentive metrics that are also Meaningful Use metrics: diabetes poor A1c control, hypertension, and depression screening. CCOs can leverage state infrastructure to meet reporting requirements to OHA and receive collected clinical data for their members for analytics/quality improvement.



OHA will also seek Medicaid funding to provide technical assistance to Medicaid providers to help them meet Meaningful Use requirements while ensuring that clinical data for metrics captured in EHRs are accurate and complete. Technical assistance contracts are anticipated to be in place in 2014, contingent upon CMS funding and approval.

Solving Problem 2: Vision and Recommendations

The vision is for providers, health systems, health plans, CCOs and the state to effectively and efficiently utilize aggregate clinical metrics data within HIPAA and other privacy protections, to manage populations, monitor and improve the quality of care, and incentivize improvements in care delivery leading to better health outcomes and lower costs.

3. State efforts should support health plans, CCOs, health systems and providers in using aggregated data for quality improvement, population management, and incentivize value and health outcomes.

- Use state levers to align metrics and reporting requirements across Oregon where possible. In particular, align all clinical metric specification and reporting requirements with meaningful use standards. Consider ways to facilitate a “report once” model, where providers can report to one source and have the data count for multiple pay for performance programs.
- Use state levers to promote meaningful use and EHR adoption, as Stage 2 meaningful use requirements provide better access to automated clinical quality metrics, leveraging the QRDA formats. Educate, communicate and outreach to encourage providers to meet Stage 2 meaningful use requirements including raising awareness of QRDA functionality for reporting.
- Advocate nationally around standards and policy where relevant to Oregon’s interests
- Produce quality metrics results at the policy level to provide transparency into statewide, regional, and local performance. Provide comparative, benchmarking data on utilization, cost, and clinical quality metrics based on state data sources, including clinical quality metrics data from the registries.
- As the state-level clinical quality metrics registries evolve, consider value for non-Medicaid pay for performance programs and the potential for collecting Meaningful Use-based clinical quality metrics for multiple programs, providing economies of scale, reducing reporting burden for providers, and increasing the value of benchmarking and comparative data produced from the registries as more populations and providers contribute data.

VALUE

Aggregated data informs evidence-based treatment, provides a basis for new payment models focused on delivering health and allows health plans, CCOs and providers to create identify customized solutions for specific populations. This means better solutions built on promoting health and, ultimately, reducing costs.

Additional considerations raised by some HIT Task Force members:

- Although many feel that clinical metrics are better measures of outcomes, other types of metrics will still be relevant, such as HEDIS measures.

- Some felt that the state should play a significant role in mandating that all pay for performance programs must align around a common set of metrics.
- Meaningful use specifications are limited and QRDA formats are still largely untested; therefore, the state should not assume that 2014 certification standards for EHRs will align with all clinical quality metrics/reporting needs.

Overall, the HIT Task Force felt that the state approach to the clinical quality metrics registries held value (particularly in providing benchmarking and comparative data) and was feasible but should be scoped small to start with to establish trust and clear value. Also, to be successful, the effort will need clear, transparent methodologies and processes, and appropriate governance and data use agreements.

Privacy and security protections including ensuring appropriate access restrictions in alignment with HIPAA privacy provisions for treatment, payment and operations will be critical. For broader analytics such as benchmarking and policy-level analysis (statewide, regional, etc.), data should be de-identified before used by analytics staff.

Problem 3: Gaps in person and family access to his/her clinical information

In today's environment, individuals and their families lack the information they need in order to be engaged in improving their health. Individuals and their families can partner with their providers when they are educated and engaged; however, many individuals and their families or caregivers don't have access to and ownership of their complete health records, including treatments and goals, to more effectively engage in their health care. Further, individuals have concerns about the privacy and security of their personal information.

Individuals can, also, play a key role in providing clinical data for their health, using remote monitoring devices and new applications that allow individuals to engage with their health care teams from their home. For example, new chronic pain management applications on an iPad have patients estimate their pain levels on a regular basis, sending the patient-entered information to the care team for monitoring and immediate intervention when needed.

To reduce gaps in patient access to their health information:

- Individuals must have access to their complete health record, including treatments and goals in order to improve their understanding and engagement in their health care and outcomes.
- Individuals should have the capacity to facilitate management through helping to enable the sharing of data with their providers
- Individuals should have trust in the privacy and security of their electronic health information

Solving Problem 3: Vision and Recommendations

The vision is for individuals (and their families) to be engaged in improving their health with greater access and interaction with their health information and security that their personal information is protected.

4. State efforts should facilitate person and family engagement through access to, and interaction with, their health information.

- Use levers, such as promoting meaningful use to encourage providers to make personal health information available to patients. Meaningful Use Stage 2 requires eligible providers to use secure electronic messaging to communicate with patients on relevant health information and provide patients the ability to view online, download and/or transmit their health information within four business days of the information being available to the eligible provider. Eligible hospitals must provide patients the ability to view online, download and/or transmit their health information within 36 hours after discharge from the hospital.
- Monitor national efforts and standards and the evolving personal health record market, and:
 - Engage individuals to identify opportunities, preferences, and barriers around engaging in their health care via electronic interaction with their health information
 - Identify and disseminate best practices; and seek opportunities to explore promising approaches
 - Engage in national discussions around extending Direct secure messaging to patients

VALUE
People with access to their personal health information are more empowered to engage in their care and well-being. This means better outcomes and lower costs.

“HIT-Optimized” System Partners

In addition to a defined State role, “HIT-optimized” health care includes investment, participation, and support from providers, health systems, health plans, CCOs, local HIEs and individuals. As indicated earlier, a transformed health system is dependent on “HIT-optimization” of all the system partners. Three key areas of focus for these partners are as follows:

Investment, participation and support in EHR adoption and HIE:

- “HIT-optimized” health plans and CCOs support and encourage provider meaningful use of EHRs and participation in HIE, and can align reporting requirements with meaningful use metrics to further incentivize meaningful use participation.
- “HIT-optimized” health systems and providers have the technology capabilities and practices to participate in care coordination, including:
 - Being meaningful users of certified EHR technology (particularly for providers eligible for federal incentives), and incorporating the use of technology into workflows
 - Participating in HIE across organizational and technological boundaries via Direct secure messaging, local HIE efforts and/or HIE capabilities offered by common vendor platforms
 - Sharing information and engaging in care coordination efforts
- “HIT-optimized” individuals and their families or caregivers expect that providers have electronic access to their patient information, inform their providers on where information can be accessed, and seek to engage in their care and outcomes

Investment, participation, and support in leveraging aggregated clinical data

- “HIT-optimized” CCOs and health plans:

- Align quality reporting requirements with a core common set of metrics, in particular, relying on Meaningful Use metrics and specifications for clinical quality metrics.
- Invest in technology and processes to use aggregated clinical metrics data for effective population management, performance monitoring and creation of new payment models to reward outcomes rather than old models of paying for visits.
- Work with providers and health systems to ensure the credibility and quality of clinical data generated from EHRs.
- “HIT-optimized” health systems and providers:
 - Upgrade to meet 2014 meaningful use certification requirements and enable EHRs to produce clinical quality metrics,
 - Generate and report on clinical metrics data (using CCD/QRDA formats where possible)
 - Consider workflow changes that may be needed to ensure quality of data, and make practice changes and target patients for interventions based on metrics and analysis of practice performance.

Facilitate provider/patient relationships via electronic interaction with health information

- “HIT-optimized” health plans, CCOs, and local HIEs encourage and empower patient/provider relationships via electronic interaction with health information
- “HIT-optimized” health systems and providers educate, engage and empower individuals through access to their health information as they have the primary relationship with the individual (and often their family).

IV. Technology Recommendations

- *Statewide service facilitate sharing information across organizational boundaries to connect local HIEs, health systems and others, but offering 1) enabling infrastructure and 2) baseline services*
- *Local HIEs and health systems providing HIT and HIE services are connected to each other through statewide enabling infrastructure*
- *Providers and other entities outside of HIEs/health system coverage have access to baseline capabilities through CareAccord including Direct secure messaging*

Staging of HIT/HIE Technology

This chapter describes the complete approach to HIT/HIE technology in Oregon. As described throughout this document, Oregon plans to implement state-level HIT/HIE services in phases:

- Phase 1 (current): current services include CareAccord Direct secure messaging
- Phase 1.5 (2013-2015): new foundational services will be implemented, including expanding Direct secure messaging, statewide hospital notifications, and the incremental development of a patient/provider affiliation service. See the section at the end of this chapter for more information on phasing.
- Phase 2.0 (2015 and beyond): expansion of Phase 1.5 services and new services that allow for more robust HIT/HIE capabilities.

Health System Transformation and 2015 HIT/HIE Environment

The HIT Task Force identified and considered the health system transformations that would be undertaken prior to 2015 and would affect the health care information needs of the CCOs, health systems, providers and individuals. Some of the more significant elements are as follows:

- Care teams will integrate across health care fields and increasingly including long term care, social services and other sectors.
- Adoption and meaningful use of certified EHRs will have grown and Meaningful Use Stage 2 standards will create more standardization and requirements related to engagement of patients and their families, capacity of EHRs, etc.
- Local HIT/HIE capacity will have evolved

Principles and Considerations

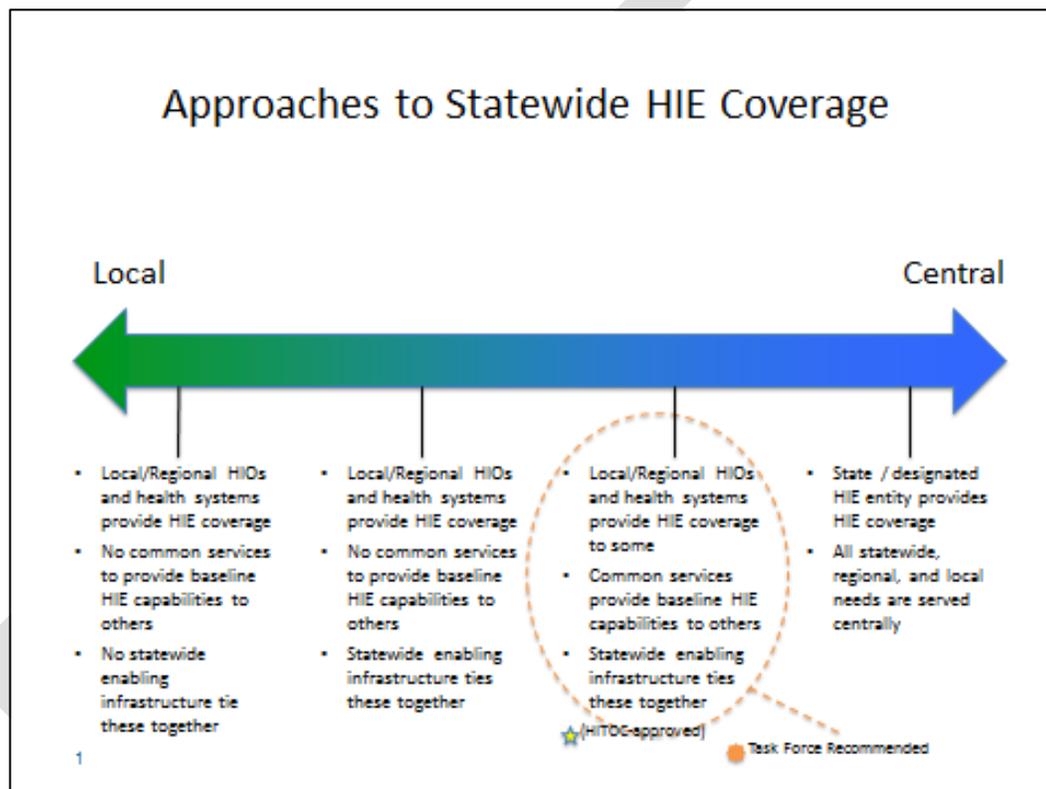
The Task Force offered several principles and considerations related to technology:

- Interoperability leverage nationwide standards and initiatives, anticipate where national standards are evolving to be prepared for the future
- When pursuing solutions, don't let "perfect" be the enemy of "good"
- Dental, behavioral, long term care, and social professionals should be included
- Communication and outreach will be important to ensure providers understand the approach and participate in HIE services in meaningful ways

- Need to ensure any state-level services have sufficient technical support to effectively implement and support delivery of services
- The level of integration of technology services including Direct secure messaging and enabling infrastructure directly relates to the use and value of those services, and can greatly impact the business case for funding these services.

Overall Approach to Statewide Coverage

The Task Force considered several options for statewide HIE coverage, and ultimately built upon the approach previously approved by HITOC.



The overall approach to statewide HIT/HIE coverage relies on 5 elements:

1. Local HIEs, health systems, and other entities provide HIT services and HIE coverage to some providers
2. Statewide Direct secure messaging provides a foundation for sharing information across organizations and differing technologies
3. CareAccord provides common services as baseline HIE capabilities to those without access to local or health system HIEs, specifically offering Direct secure messaging capabilities and access to the enabling infrastructure
4. Statewide enabling infrastructure ties local efforts together, enabling exchange and HIT functions (such as identifying providers or locating patient records) across local HIEs, health systems and other entities
5. State aggregation of core clinical data for Medicaid purposes, with a focus on a small set of Meaningful Use clinical quality measures

1. Local HIE Efforts and Cross-Organizational HIE

Various local efforts have emerged to create HIE solutions. See Appendix A for more background on the HIT/HIE context in Oregon.

- Oregon has four community health information exchange organizations (HIOs) and many larger health systems have commercial HIE capabilities. These HIOs and health system HIEs may use various standards to connect their members internally, ranging from industry standards like those from Integrating the Healthcare Enterprise (IHE), to those that are proprietary to vendor offerings.
- In 2014, providers seeking to meet Meaningful Use requirements will need to upgrade their EHRs and install Direct secure messaging services (see below for more information). Direct Health Information Service Providers (HISPs) can offer numerous ways for their members to interact with their services, including Web Portals and integrated into EHRs.
- Organizations like practices, hospitals, health systems, plans, and others may directly participate in HIE without going through an HIO or HISP if they have the right technology.

2. Statewide Direct Secure Messaging

Many Oregon providers will soon have the ability to share key health information electronically across organizational and technological boundaries, with the increased use of Direct secure messaging. As Oregon providers increasingly work together to coordinate care for Oregonians, there is an increased need to simply send the right patient information to the right place in time to make a difference in care.

Direct secure messaging provides a HIPAA-compliant way to encrypt and send any attachment of patient information electronically, for example, shared care plans, patient histories, and more sophisticated attachments such as x-rays and echocardiograms. As electronic health records (EHRs) evolve in 2014 to meet federal Meaningful Use requirements, Direct secure messaging will be a core service within each EHR and national standards will support interoperability between Direct secure messaging providers (Health Information Service Providers, or HISPs).

- *Provider directories:* Direct secure messaging assumes that the person sending a message has the Direct secure email address of the person they are sending to. In many cases, that is not the case. To facilitate statewide Direct secure messaging, providers will need to look up or query to find the email addresses of the entities and providers they wish to send information to. Some EHRs and HISPs are adding interoperable, standards-based internal provider listings that greatly facilitate this provider look up capability.
- *HISPs and Trust communities:* Although each EHR may have Direct secure messaging available in 2014, it will be critical for health systems, hospitals and providers to ensure that their HISPs meet national standards and are interoperable with other HISPs. Selecting a HISP that is a member in applicable trust communities (the two national trust communities are NATE and DirectTrust) will enable parties to more easily exchange with their partners and broader nationwide networks without having to negotiate distinct relationships.

For example, Direct Trust accreditation is a gateway to allow Oregon providers to expand the number of providers they can share with in a trusted and secure community that is not

restricted by organizational or geographical boundaries. There are currently 8 members in the trust community, and about a dozen working toward accreditation, several of whom will soon provide Direct secure messaging (HISP) services to Oregon hospitals and health systems. (See <http://www.directtrust.org/accreditation-status/> for the full list of HISPs.)

3. CareAccord: Common Baseline Services for Those without Other HIE Access

The vision for CareAccord is to provide access to statewide HIE for key Medicaid providers and those providers and entities without other avenues to participate in HIE. Providers participating in local or health system-developed health information exchange efforts, and providers who have Direct secure messaging (HISP) services integrated within their 2014 certified EHRs can engage in statewide HIE through accessing enabling infrastructure that connects their local HIE or HISP to others in the state.

For other providers, such as providers in regions with no local HIE and those who have not upgraded to 2014 certified EHR technology, and others unlikely to use 2014 certified EHRs such as long term care, behavioral health, social service providers, care coordinators, CareAccord can offer Direct secure messaging and other common baseline services. This ensures no key member of a care team is disenfranchised and prevented from participating in electronic care coordination and exchange.

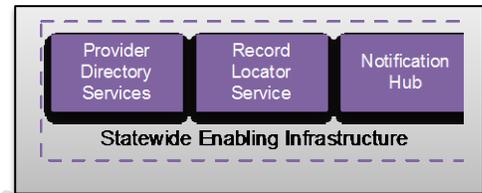
CareAccord's common services include:

- Direct secure messaging (HISP) currently via a web portal. Additional services for CareAccord subscribers without EHRs or other technology include:
 - Fillable forms or data entry templates to support common use cases (e.g., transition of care records from long term care facilities). These templates or forms can facilitate the ability of providers receiving the information to ingest the data into the patient record in the provider's EHR.
 - Translation for computer-generated attachments to make them human-readable.
 - Additional considerations from the HIT Task Force: web-portal services may not be sufficient for providers without EHRs; consider integration of Direct secure messaging into other systems in use by providers (such as social services case management systems).
- Access to CareAccord participant directory and statewide enabling infrastructure to facilitate exchange outside of CareAccord.
- Potential query capabilities in Phase 2.0, depending on Meaningful Use Stage 3 and evolving national standards.

In terms of trust communities, CareAccord is the first state health information exchange in the nation to receive Direct Trusted Agent Accreditation. Direct Trusted Agent Accreditation Program measures privacy, security, confidentiality and best practices with Direct protocol, and enables CareAccord subscribers to securely send Direct secure emails to any subscriber in the trust community. CareAccord is also a member of NATE (National Association of Trusted Exchange), which currently enables exchange between CareAccord subscribers and providers in California and Alaska.

4. Statewide Enabling Infrastructure to Connect Local Efforts

A statewide enabling infrastructure provides core services that facilitate information exchange across organizational boundaries. Ensuring appropriate funding and governance and participation in statewide enabling infrastructure will be critical for the success of these efforts. See chapters on financing and governance for further recommendations in these areas. Following are further details on the technical services included in the enabling infrastructure.



Provider Directory Services

Provider directory services are critical for several uses: health information exchange, analytics, state program operations, health plan and health system operations, statewide common credentialing efforts underway at OHA, public health program operations, and others. Oregon's provider directory would be developed in phases, starting with key use cases (health information exchange, common credentialing, etc.) and expanding over time to serve other use cases. The provider directory should include all types of providers and organizations that participate in these use cases, not just physical health providers and hospitals.

Technically, the provider directory services:

- Enable lookup of parties (e.g., organizations and individuals) and their associated information (e.g., name, postal address, phone number, electronic service address for HIE purposes) using identifying characteristics. Identifies key affiliations – individual provider affiliation to their practices, health systems, health plans, etc.
- Act as a “router”, acting as a single lookup point, distributing lookup requests to provider directories at local/regional HIOs, systems, and others existing around the state and returning aggregated responses.
- May include core provider data in a central database (e.g., static data such as name, demographics, etc.).
- Introduced in Phase 1.5, enhanced in Phase 2.0 as needed to support emerging query standards and the evolution of provider directory standards.

Common Credentialing: OHA is mandated to establish a common credentialing database and program by January 2016, which will provide credentialing organizations (hospitals, health systems, health plans, etc.) access to commonly held information necessary to credential all health care practitioners in the state. Common credentialing and provider directory efforts have many opportunities for synergies and staff are working to ensure the two efforts align where possible. For example, common credentialing may leverage some of the statewide provider directory's technology infrastructure, and common credentialing efforts can provide an excellent data source for the provider directory.

Additional considerations from the HIT Task Force: Provider directory services are integral to many functions beyond HIE. Keeping the provider information up to date is important and challenging. Strategies that align providers' self-interest to keep the information updated would be ideal, such as leveraging common credentialing processes.

Patient/Provider Affiliation and Record Locator Service and Query

Like provider directory services, patient/provider affiliation services are critical for several uses: health information exchange, analytics, state program operations, health plan and health system operations, and others. Oregon's patient/provider affiliation services would be developed in phases, starting with key use cases (e.g., notifications) and expanding over time to serve other use cases.

Patient/provider affiliation provides base level data that can be used for record location when matching patient records from different data sources. Record location services would not include the development of a universal patient identifier, but rely on the state-of-the-art matching algorithms to match patient records from different data sources based on key demographic information.

Technically, these services offer the following:

- When given demographics and information related to a patient, returns potential sources of information for that patient along with each source's relationship to that patient (if known).
- Phase 1.5's Notification Hub has the (internal) ability to attribute patients to providers via information supplied by notification subscribers. This source data provides an incrementally developed patient/provider affiliation, which can be leveraged for health information exchange and analytics purposes.
- For Phase 2.0, facilitating statewide query capabilities will be important. Before investing in more robust statewide infrastructure, it will be critical to account for evolving national standards around query, including Meaningful Use Stage 3.
- Contingent upon the evolving federal standards, Oregon's enabling infrastructure may need to include a Record Locator Service in Phase 2.0. This service would build on and decouple the patient/provider affiliation function from the Notification Hub while also providing data location capabilities to facilitate push and query-based exchange.

Additional considerations from the HIT Task Force: Although patient matching algorithms have come a long way, often a human decision is needed to make a sufficient match. This work can be complex and will likely evolve over time. OHA should explore leveraging other potential sources of patient/provider affiliation data.

Notification Hub

Technically, the notifications hub includes the following:

- Accepts notifications and alerts and relays them to applicable parties statewide. For example, the hub receives daily information feeds from a hospital and sends notifications to the clinic or health plan affiliated with each individual seen in the hospital.
- Initially developed in Phase 1.5, incrementally enhanced in 2.0 as needed to support emerging notification standards and statewide alerting needs.
- Beyond those related to hospital admission / discharge, potential notifications and alerts to consider for Phase 2.0:
 - Notifications to care teams when individuals transition into/between long term care settings. Skilled nursing facilities could notify hospital discharge staff when beds become available.
 - Alerting to pediatricians and/or early education services providers when developmental screenings have occurred.

- Notifications to health plans, CCOs, or care teams when releasing individuals from jails

Emergency Department Information Exchange (EDIE): OHA is participating in a public/private collaboration to bring the Emergency Department Information Exchange (EDIE) technology to all hospitals in Oregon in 2014. As of November 1, 2013, 56 of the 59 hospitals in Oregon have agreed to implement EDIE in the next 12 months. The EDIE project will provide emergency departments with key care summaries for patients who have high-utilization of emergency department services, with the goal of reducing unnecessary hospital services and improving outcomes. Statewide hospital notifications augment the work under EDIE, by notifying providers, health plans, and care coordinators when their members or patients are seen in any hospital in the state.

Additional considerations from HIT Task Force:

- Need to carefully plan how statewide notifications services would interact with local notifications efforts currently underway, with a focus on supporting locally developed notifications by adding new data sources (e.g., hospital notifications from other regions), and paying close attention to the provider/user's experience: working to avoid "alert fatigue" and avoiding redundant alerts.
- Consider how best to leverage the work underway with the EDIE project, as EDIE will be implemented in nearly all hospitals in the state. For example, EDIE may be extensible to link to or provide further notifications services, which could minimize burden on hospitals in reworking interfaces for inpatient notifications. Also, it will be important to ensure that EDIE interfaces with CareAccord and the statewide enabling infrastructure.

5. State aggregation of clinical quality metrics for Medicaid purposes

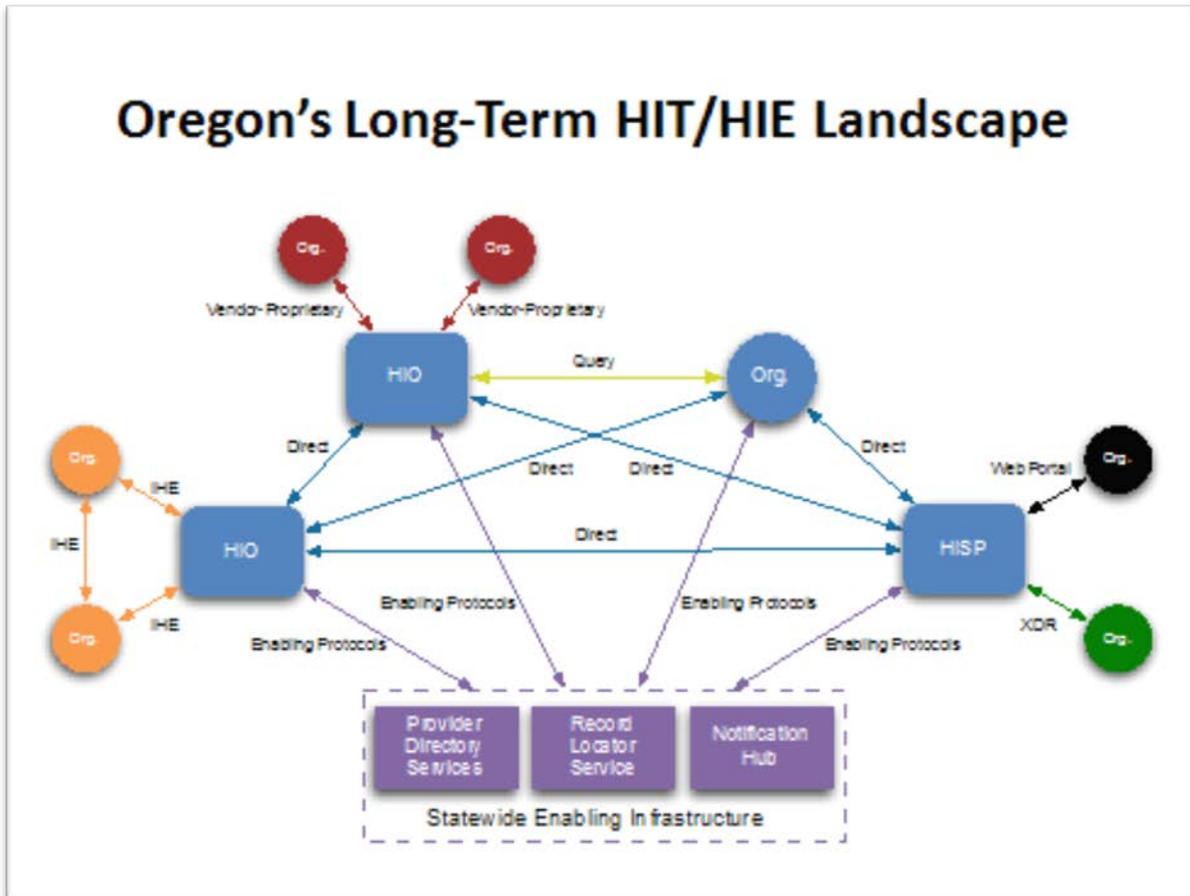
As described in Chapter III, OHA is planning to develop the ability to aggregate key clinical quality data, develop benchmarks and other quality improvement reporting, and calculate clinical quality metrics for paying quality incentives to CCOs and Medicaid EHR incentive payments to providers. Particular focus is on the three clinical CCO incentive metrics that are also Meaningful Use metrics: diabetes poor A1c control, hypertension, and depression screening. Health plans and CCOs can leverage state infrastructure to meet reporting requirements to OHA and receive collected clinical data for their members for analytics/quality improvement.

Oregon's Long-Term HIT/HIE Landscape: Putting the elements together

The diagram below attempts to illustrate the conceptual HIT/HIE landscape, incorporating four of the elements described above:

1. Local HIEs, health systems, and other entities provide HIT services and HIE coverage to some providers
2. Statewide Direct secure messaging provides a foundation for sharing information across organizations and differing technologies. HISPs allow practices and hospitals to participate in Directed exchange from their EHRs. Note that HISP participation in common trust communities are key to this interoperability, and are not reflected in the diagram below.
3. CareAccord provides common services as baseline HIE capabilities to those without access to local or health system HIEs, specifically providing Direct secure messaging for those without access to the HIE landscape (in the diagram below, CareAccord is represented as a HISP)

- Statewide enabling infrastructure ties local efforts together, enabling exchange and HIT functions (such as identifying providers or locating patient records) across local HIEs, health systems and other entities (note: “Enabling Protocols” is a convenient way to refer to the set of mechanisms supported by each piece of enabling infrastructure for interactions.)



Phasing: Near-Term Development (Phase 1.5) and Longer Term (Phase 2.0)

As noted in the sections above, statewide HIT/HIE infrastructure is expected to be developed in phases. Current efforts (Phase 1) include CareAccord Direct secure messaging web-portal based services. In 2013-2015, Oregon has state funding in place to leverage federal funding and develop six elements (“Phase 1.5”) described below. In 2015 and beyond, Oregon will seek additional funding for expansion of Phase 1.5 elements and potential addition of a record locator service (“Phase 2.0”).

The Near-Term (Phase 1.5) Statewide HIT/HIE Priority Elements

In collaboration with and support of all 16 CCOS, OHA is accelerating development of foundational

- Phase 1.5 (2013-2015)*
1. *State-level provider directory*
 2. *Incremental development of a state-level patient/provider affiliation service*
 3. *Statewide hospital notifications*
 4. *Statewide Direct secure messaging*
 5. *Statewide clinical metrics registries*
 6. *Technical assistance to providers*

and high-value services in 2013-2015 (“Phase 1.5”). The near-term statewide HIT/HIE priority elements were identified through the stakeholder process, including the listening sessions, conversations with the HITOC, and discussions with CCOs, health plans, providers and interested parties. The HIT Task Force incorporated Phase 1.5 efforts into their technology recommendations.

State-level provider directory and **incremental development of a state-level patient/provider affiliation service** are building blocks to facilitate the exchange of information and analytics.

Statewide hospital notifications provide alerts to providers, health plans, CCOs and health systems when their patients are seen in ED/inpatient as a high value services around expensive transitions of care.

Statewide Direct secure messaging to augment local capabilities, add new members of the health care team, and support statewide connections between providers from within their EHR to provide electronic connectivity of all members of the care team across organizational and technological boundaries:

Statewide clinical metrics registries focusing on three areas: diabetes, hypertension, and depression screening for Medicaid populations to support quality reporting and quality improvement efforts and enhance existing capabilities (population management, analytics, targeting of care coordination resources). See Chapter III, problem #2 for more discussion of the registries.

Technical assistance to Medicaid providers to help providers meet Meaningful Use requirements, use the information in a meaningful way, and ensure the quality of the clinical metrics data captured by providers in their EHRs are complete and credible.

The Longer-Term (Phase 2.0) Statewide HIT/HIE technology efforts

- Expanding Provider Directory and Notification hub functionality
- Supporting query in line with national standards, potentially requiring a Record Locator Service
- Supporting statewide Direct secure messaging

V. Governance, Policy and Operations Recommendations

- *The state will provide oversight, transparency, policy-setting, and accountability over statewide HIT/HIE services*
- *The state will seek to contract with an external HIT Designated Entity to operate statewide services*
- *To ensure interoperability and security of information exchanged through statewide services and protect privacy, OHA will establish a new HIT/HIE “compatibility” program. Any entities seeking to participate in state enabling infrastructure services would need to meet compatibility program expectations.*

Current Governance, Policy and Operations

Currently OHA is responsible for the following roles:

- Providing public accountability and transparency into state efforts, including the CareAccord program and the Medicaid EHR Incentive Program, through the stakeholder council, HITOC.
- Operating the CareAccord program in part directly and partly through a contracted vendor. OHA chose this approach to fully utilize the American Recovery and Reinvestment Act (ARRA), Health Information Technology for Economic and Clinical Health (HITECH) State Cooperative Agreement funding through ONC, maximize the potential of Medicaid funding (OHA is the Medicaid Agency for Oregon), and enhance the likelihood of coordination between the HIE efforts and the Medicaid EHR Incentive Payment programs.
- Convening a CCO stakeholder HIT advisory group to guide the use of state Transformation funds in the implementation of Phase 1.5 services (started in October 2013).
- Establishing, documenting and operationalizing state policies related to HIT/HIE within federal and state parameters, including HIPAA and other federal regulatory requirements, such as 42 CFR Part 2.
- Managing the federal relationship with ONC for the ONC State HIE Cooperative Agreement and CMS for the EHR Incentive Program, as well as assuring federal compliance.

Considerations

As the HIT Task Force reviewed the options for the most appropriate option for the State as it moves forward to its next phase, multiple options related to HIT/HIE governance and financing were considered. As a starting point, Oregon looked to other states for models. States have chosen various models for governance, including the state establishing statewide HIT/HIE policy through a current or new state agency and operating the infrastructure, the state setting policy and a non-profit operating the infrastructure, the state in a public-private partnership setting policy and operating the infrastructure, and various combinations of the previously mentioned models.

Principles and Characteristics

The HIT Task Force identified certain principles and characteristics that the Oregon governance structure must incorporate, no matter what organizational structure it takes.

- Participation and representation
- Transparency and openness
- Effectiveness
- Flexibility and accountability
- Well-defined and bounded mission

State and Stakeholder Roles in Governance, Policy and Operations

The proposed governance structure retains the following roles for OHA. Through OHA, the State is responsible for:

- Statewide direction
- Oversight
- Accountability
- Transparency
- Setting statewide standards and policies
- Policy implementation, including compliance with federal requirements (Medicaid, HIPAA, etc.)
- Meaningful ongoing engagement with stakeholders, including convening and guiding stakeholders and technical assistance.

The state would contract with a HIT Designated Entity to:

- Operate the statewide HIE enabling infrastructure and existing and planned (Phase 1.5) and new Phase 2.0 services
- Contract with technology vendors to deliver services
- Coordinate with and support local efforts via the HIE program.

To assure sustainability of the operations if the state chose to contract with another entity as the HIT designated entity, provisions would exist to allow the state to retain the relationship with the HIE vendors involved in the infrastructure and support.

Stakeholders would continue to provide input and feedback on the statewide direction, standards and policies, HIE programs and enabling infrastructure, and the



performance of the HIE designated entity.

HIT Designated Entity Role

In Phase 2.0, OHA will create or contract with an HIT designated entity which would implement policies and requirements developed by the state. The entity would:

- Become the central contracting point for data use and business associate agreements with regional and local HIOs and data providers
- Contract with technology vendors to implement and operate statewide HIE/HIT enabling infrastructure
- Coordinate with and supporting local efforts via HIE programs

Options for the type of HIT designated entity include:

- Contracted non-profit entity, under the governance of a steering committee or Board of directors
- Public corporation, established in legislation, with Board of directors (example: CoverOregon)
- Semi-independent entity (example: Patient safety commission)
- Special purpose non-profit (example: SAIF)

Characteristics/principles for the HIT designated entity:

- Mission focused on statewide HIT/HIE objectives, without conflicting business objectives
- Trusted, objective
- Nimble
- Stable leadership and financing
- Transparent and accountable to state oversight

Additional considerations from the HIT Task Force: Although these recommendations set direction for moving state-operated services into an external entity, more definition is needed. In the unlikely event that the HIT Designated Entity would fail to meet its mission related to statewide HIT/HIE, OHA would need to retain the ability to take some action to ensure that statewide services are appropriately operated and the public interest is met.

State HIT/HIE Compatibility Program

The ultimate responsibility for accountability for statewide HIE/HIT resides with the state. To ensure interoperability and security of information exchanged through statewide services and protect privacy, OHA will establish a new HIT/HIE “compatibility” program. Any entities seeking to participate in state enabling infrastructure services would need to meet compatibility program expectations. Local HIE efforts who meet the criteria have increased credibility in their communities and may be able to attract providers and health system participants.

The purpose of an HIT/HIE compatibility program is to build public trust, accountability and transparency in statewide services, by:

- Ensuring interoperability to ensure use and value of information exchanged and enable seamless use of state services that rely on data and technology residing in multiple organizations

- Ensuring privacy and security practices are in place
- Providing quality assurance and recourse

Key features of a state HIE/HIT compatibility program include:

- Meeting core criteria and standards are a condition of participation in statewide services. Entities could operate HIE services in the state without meeting the criteria, but would not be able to participate in statewide services. Thus, the criteria are not a mandate across the state, but a voluntary condition of participation. As such criteria may be required through participation agreements, although OHA may choose to use other more formal mechanisms to specify criteria (law, regulation).
- Any entity that participates directly in statewide services would need to meet compatibility criteria. Entities could include community exchanges, private exchanges, hosted EHRs, CCOs, health plans, HISPs, CareAccord, etc. Entities that participate in statewide services indirectly would need to meet the participation criteria of the community or private exchange, but not necessarily the state level criteria.
- The compatibility program could be carried out in a number of different ways: the program could require documentation and site visits to “accredit” entities or entities could attest to meeting standards and the state could reserve the right to validate the accuracy of the information attested. OHA could delegate the program to an external neutral entity, or could retain the program in-house.
- In addition, the state may use other accountability levers to drive toward compliance. For example, using state contracts with providers, CCOs or health plans, the state may encourage or require participation in statewide services.
- The compatibility criteria and program would be developed in 2014-2015 so they are in place when initial enabling infrastructure services are implemented.
- The compatibility program would reflect federal standards for privacy and security of personal health information.

HIPAA Privacy Rule

The HIPAA Privacy Rule protects personal health information while still allowing the flow of health information people need to achieve the triple aims of better care, better health and lower costs. Providers and other entities who access health information can only share information as outlined in the rule, or with the written permission of the person.

Additional considerations from the HIT Task Force:

- When establishing compatibility criteria, state standards should point to national standards where they exist, and proceed cautiously when setting up new state-specific standards that may add burden.

VI. Finance Recommendations

- *Address financial sustainability through development and implementation of a broad-based, equitable financing model.*
- *Pursue fee-setting and fee-collecting authority for state HIT/HIE services.*

Current Financing for CareAccord

Statewide HIT/HIE infrastructure is essential for supporting health care transformation efforts, and requires significant financial investment and ongoing financial sustainability. Current CareAccord services are financed using federal funding from the Office of the National Coordinator HIE Cooperative Agreement through February 2014, and Medicaid federal funding with state match. There are no private funds used or fees charged for CareAccord. OHA would need legislative authority to charge fees.

Federal Funding Opportunities

One potential funding source for some HIT/HIE infrastructure is the Medicaid program. For HIT/HIE infrastructure that is built and used by Medicaid providers for Medicaid purposes,, the state can receive 90% federal Medicaid funds to match 10% state funds. These funds can only be used to cover proportion of the costs of the build and operations if the infrastructure is used by other funders. Private use of the system cannot be funded through Medicaid. The funding sources for the 10% state funds must also meet specified federal Medicaid requirements, as well as federal Medicaid procurement requirements and the “Seven Conditions and Standards” for Medicaid funding.¹

There are two different funding streams through Medicaid and each provides different opportunities and limitations for federal match funding.

- **Medicaid Management Information System (MMIS) Funding:** Most often thought about in terms of the funding for the state’s Medicaid claims processing system, MMIS dollars can also provide a 90% federal to 10% state matching for the initial build of IT infrastructure for the administration of the program and 75% federal to 25% state matching for ongoing operations. MMIS-funded projects must be built for state Medicaid purposes, meaning the projects will be used for the ongoing operations of OHA as the Medicaid Agency and be under the control of OHA. When the project provides structural support for other state programs and private entities beyond Medicaid, then costs must be allocated for non-Medicaid users.
- **Medicaid HIT/HIE (ARRA-HITECH) Funding:** Enacted as part of the American Recovery and Reinvestment Act (ARRA) of 2009, the Health Information technology for Economic and Clinical Health (HITECH) Act provides Medicaid dollars at 90% federal to 10% state matching dollars for technology, people and processes for the initial build of certain Medicaid projects not eligible

¹ More information on the Seven Conditions and Standards is available from CMS <http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Data-and-Systems/Downloads/EFR-Seven-Conditions-and-Standards.pdf>

for MMIS funding. There is no ARRA-HITECH federal funding for ongoing operations and funding for design, development and implementation ends 2021. The funding is for projects focused on the EHR/HIE promotion initiatives, including technology, people and processes that are necessary to encourage the adoption of certified EHR technology. These projects cannot otherwise be funded by MMIS funds, and all non-Medicaid users must pay their “fair share” for use of the project.

Financing for Phase 1.5 Development and EDIE Implementation

Financing for state HIE ongoing operations and near-term developments come primarily from federal Medicaid matching dollars and state general fund investment. OHA has had some initial success partnering with private investors; these kinds of partnerships will be essential to create a consistent, long-term financing model.

CareAccord (statewide Direct Secure Messaging): While CareAccord has been entirely funded to date through the ONC HIE Cooperative Agreement funding, it is expected that federal MMIS dollars (75% federal to 25% state matching) will be available for ongoing Medicaid-related costs. Any non-Medicaid costs are currently covered by state funds.

Phase 1.5 Near Term Services: Initial investment is anticipated to come from federal Medicaid MMIS or HIT/HIE ARRA HITECH dollars (90% federal to 10% state matching) with the state portion coming from a \$3 million OHA allocation. OHA is currently seeking other partners to cover fair share financing to extend services beyond Medicaid.

Emergency Department Information Exchange (EDIE): OHA partnered with the Oregon Health Leadership Council (OHLC) to make a one-time, non-Medicaid investment in the privately-led EDIE initiative. 56 of Oregon’s 59 hospitals have agreed to implement EDIE by November, 2014, and will receive funding for the first year of the subscription service.

Principles

The Task Force reviewed financing models from several states and past HITOC work, and compiled the following principles which should inform Oregon’s financing model.

- Ongoing sustainable financing for statewide services is dependent on broad-based support.
- Those who benefit from the statewide services should participate in funding.
- Services that support interoperability and provide key infrastructure should receive priority.
- Fee models should encourage use and maximize user value.

Challenges

- Value of HIT/HIE services does not always accrue immediately. HIT/HIE services must either deliver value to the stakeholder users for the price point either directly or there must be a promise of value later.
- HIE efforts in other states have failed due to unsustainable financing, especially when federal dollars dried up. In some cases, private financing partners, such as health plans, have not seen

much return on their investments in statewide HIT/HIE solutions. Financial commitments and support are paramount for the success of statewide HIT/HIE efforts, as well as leadership and political sustainability.

- Local community HIEs face long-term financial uncertainty.
- Assuring recurring income sources are sufficient to sustain ongoing operations, which requires revenue projections to align closely with demand and there must be sufficient users to generate adequate operating income.

Recommendations

- Leverage federal Medicaid funding where possible to jump start development and implementation
- Public/private financing models should evolve as stakeholders are engaged and see value. Oregon should remain open to potential financing partnerships and strategies. Consider financing models where those who benefit participate financially, including:
 - A proportional funding model where some or all of the costs are split between stakeholders, including health plans, CCOs, community HIEs, private HIEs, health systems and the state.
 - A subscription based financing model where entities who participate in statewide services pay a subscription fee. Based on the HIT/HIE enabling infrastructure technology model (see the Technology chapter), the entities participating directly in statewide services are local HIEs, health systems, hospitals, health plans, HISPs, and other entities. Individual providers that are connected to a local system or HIE would not directly pay into the state services. Subscription fees in other states are often proportional to the size of the organization (e.g., PMPM for health plans, number of beds for hospitals, etc.).
- OHA should seek legislative authority to set and charge fees for HIE services.
- Transaction or per-use fees would not be used. Transaction and per-use fees could discourage utilization of state HIT/HIE resources and reduce user value.
- State agencies using HIE services should participate in funding their cost allocations.

VII. Recommendations Recap

Role	Detail
<p><u>Support Providers:</u> Support and facilitate provider adoption and meaningful use of certified EHRs, and ensure all providers have a means to use key patient information, including behavioral health and long term care.</p>	<ul style="list-style-type: none"> • Promote and leverage federal meaningful use certification standards and incentives, using state levers to drive EHR adoption and meaningful use (e.g., state contracts, PCPCH standards, etc.) • Ensure providers can access EHR incentive payments, including providing technical assistance to Medicaid providers • Promote and facilitate full use of certified EHR technology, including: <ul style="list-style-type: none"> ○ Aligning state requirements with meaningful use requirements to further incentivize (e.g., leverage clinical metrics that are based on data that is built in to EHRs for meaningful use). ○ Leveraging automated capabilities within EHRs, such as CCD/QRDA formats for clinical metric reporting • Monitor and assess rates of certified EHR adoption, meaningful use, and other technology in use. • Ensure participation in information sharing and meaningful care coordination by behavioral health and long term care providers, by examining barriers to participating in care teams, highlighting promising approaches, and using state Medicaid levers where applicable • Ensure patient information is safe and secure.
<p><u>Support care coordination by enabling exchange and protecting health information.</u> Ensure all providers can access meaningful, reliable, actionable patient information shared across organizations and differing technologies through local and/or statewide health information exchange. Protect the security and privacy of shared patient information.</p>	<ul style="list-style-type: none"> ○ Provide enabling infrastructure to connect local efforts where they exist, and provide baseline common services to ensure all providers can share information (see technology chapter for more details): ○ Provide state-level enabling infrastructure that can facilitate both “push” and “query” capabilities to facilitate local efforts to exchange information ○ Provide an option for any provider to access electronic health information with or without an EHR, through Direct secure messaging ○ Develop state policy to support interoperability (see governance chapter for more details): ○ Establish a state accountability program that includes national standards and sets baseline expectations for local, regional and organizational HIT/HIE efforts to ensure interoperability, privacy and security, and facilitate sharing of information ○ Advocate nationally around standards and policy where relevant to Oregon’s interests ○ Educate, outreach, communicate to provide clarity, guidance and transparency on federal and statewide efforts and implications or expectations for local efforts ○ Continue to promote statewide Direct secure messaging as a HIPAA-compliant onramp to HIE across organizational and technological boundaries ○ Provide clarity where possible on HIPAA and other legal restrictions on information sharing, particularly around behavioral health

Role	Detail
	<ul style="list-style-type: none"> ○ Communication and outreach are important. State efforts can include assessing and informing stakeholders about current and changing environments; convening to share best practices, and providing guidance and technical assistance on key areas. ○ Facilitate and encourage local efforts to develop where there is no cross-organizational connectivity. ○ Consider workforce and physician development and awareness of the value and uses for HIT/HIE to create demand and skillsets
<p><u>Support the systems:</u> support health plans, CCOs, health systems and providers in using aggregated data for quality improvement, population management, and incentivize value and health outcomes.</p>	<ul style="list-style-type: none"> ● Use state levers to align metrics and reporting requirements across Oregon where possible. Align clinical metric specification and reporting requirements with meaningful use standards. Consider ways to facilitate a “report once” model, where providers report to one source and the data counts for multiple pay for performance programs. ● Use state levers to promote meaningful use, EHR adoption and the QRDA formats. ● Advocate nationally around standards and policy where relevant. ● Produce quality metrics results at the policy level to provide transparency into statewide, regional, and local performance. Provide comparative, benchmarking data on utilization, cost, and clinical quality metrics based on state data sources, including clinical quality metrics. data from the registries. ● As the state-level clinical quality metrics registries evolve, consider value for non-Medicaid pay for performance programs and the potential for collecting Meaningful Use-based clinical quality metrics for multiple programs.
<p><u>Support the individual:</u> Facilitate person and family engagement through access to their health information.</p>	<ul style="list-style-type: none"> ● Use levers, such as meaningful use, to encourage providers to make personal health information available to patients. ● Monitor national efforts and standards and the evolving personal health record market, and: <ul style="list-style-type: none"> ○ Engage individuals in forums to identify opportunities, preferences, and barriers around engaging in their health care via electronic interaction with their health information ○ Identify and disseminate best practices; and seek opportunities to explore promising approaches ○ Engage in national discussions around extending Direct secure messaging to patient.
<p><u>Technology:</u> Support local efforts with statewide enabling infrastructure and common baseline technology</p>	<p>The overall approach to Statewide HIT/HIE coverage relies on 5 elements:</p> <ol style="list-style-type: none"> 1. Local HIEs, health systems, and other entities provide HIT and HIE services to some providers 2. Statewide Direct secure messaging provides a foundation for sharing information across organizations and differing technologies 3. CareAccord provides common services as baseline HIE capabilities to those without access to local or health system HIEs, specifically offering Direct secure messaging capabilities and access to the enabling infrastructure 4. Statewide enabling infrastructure ties local efforts together, enabling

Role	Detail
	<p>exchange and HIT functions (such as identifying providers or locating patient records) across local HIEs, health systems and other entities</p> <p>5. State aggregation of core clinical data for Medicaid purposes, with a focus on a small set of Meaningful Use clinical quality measures</p>
<p><u>Governance, Policy, and Operations:</u> Ensure proper governance, operations, and policies support HIT/HIE efforts</p>	<ul style="list-style-type: none"> • The state will provide oversight, transparency, policy-setting, and accountability over statewide HIT/HIE services • The state will seek to contract with an external HIT Designated Entity to operate statewide services • To ensure interoperability and security of information exchanged through statewide services and protect privacy, OHA will establish a new HIT/HIE “compatibility” program. Any entities seeking to participate in state enabling infrastructure services would need to meet compatibility program expectations.
<p><u>Finance:</u> Develop public/private partnerships and ensure financial sustainability</p>	<ul style="list-style-type: none"> • State efforts should address financial sustainability through development and implementation of a broad-based, equitable financing model. • OHA should seek fee-setting and collecting authority for HIT/HIE services.

Appendix A. Background

Oregon's Health System Transformation and Coordinated Care Organizations (CCOs)

Oregon is a national leader and undergoing a multi-dimensional effort to bring the "Triple Aim" to Oregonians. In particular, Oregon has implemented new Medicaid coordinated care organizations (CCOs) under an unprecedented 1115 waiver and significant federal financial support including \$1.9 billion Centers for Medicare & Medicaid Services (CMS) investment over five years, and a CMS Center for Medicare & Medicaid Innovation (CMMI) State Innovation Model (SIM) grant. In particular, through the SIM grant, Oregon will work to accelerate and spread the coordinated care model beyond the Medicaid population to public employees, Medicare, and private payers.

The coordinated care model encompasses the following principles and attributes. Many of these principles rely on access to the right patient information at the right time, which can be supported by HIT/HIE infrastructure and efforts.

Utilization of best practices to manage and coordinate care

- Creating a single point of accountability
- Providing patient and family-centered care
- Using team-based care across appropriate disciplines
- Managing the care for the 20 percent of the population driving 80 percent of the costs
- Addressing prevention and wellness, including disparities among population served
- Broad adoption and use of electronic health records (EHRs)

6 Principles of Health Systems Transformation

1. *Utilization of best practices to manage and coordinate care*
2. *Shared responsibility for health*
3. *Measured performance*
4. *Payment based on outcomes and health*
5. *Information Provided*
6. *Sustainable rate of growth*

Shared responsibility for health

- Shared decision-making for care among patients and providers
- Consumer / patient education and accountability strategies
- Consumer / patient responsibility for personal health behaviors

Measured performance

- Demonstrated understanding of population served
- Quality, cost and access metrics
- Strategies for targets and improvement

Payment based on outcomes and health

- Payments aligned to outcomes not volume
- Incentives for prevention and improved care of chronic illness

Information Provided

- Readily available, accurate, reliable and understandable cost and quality data

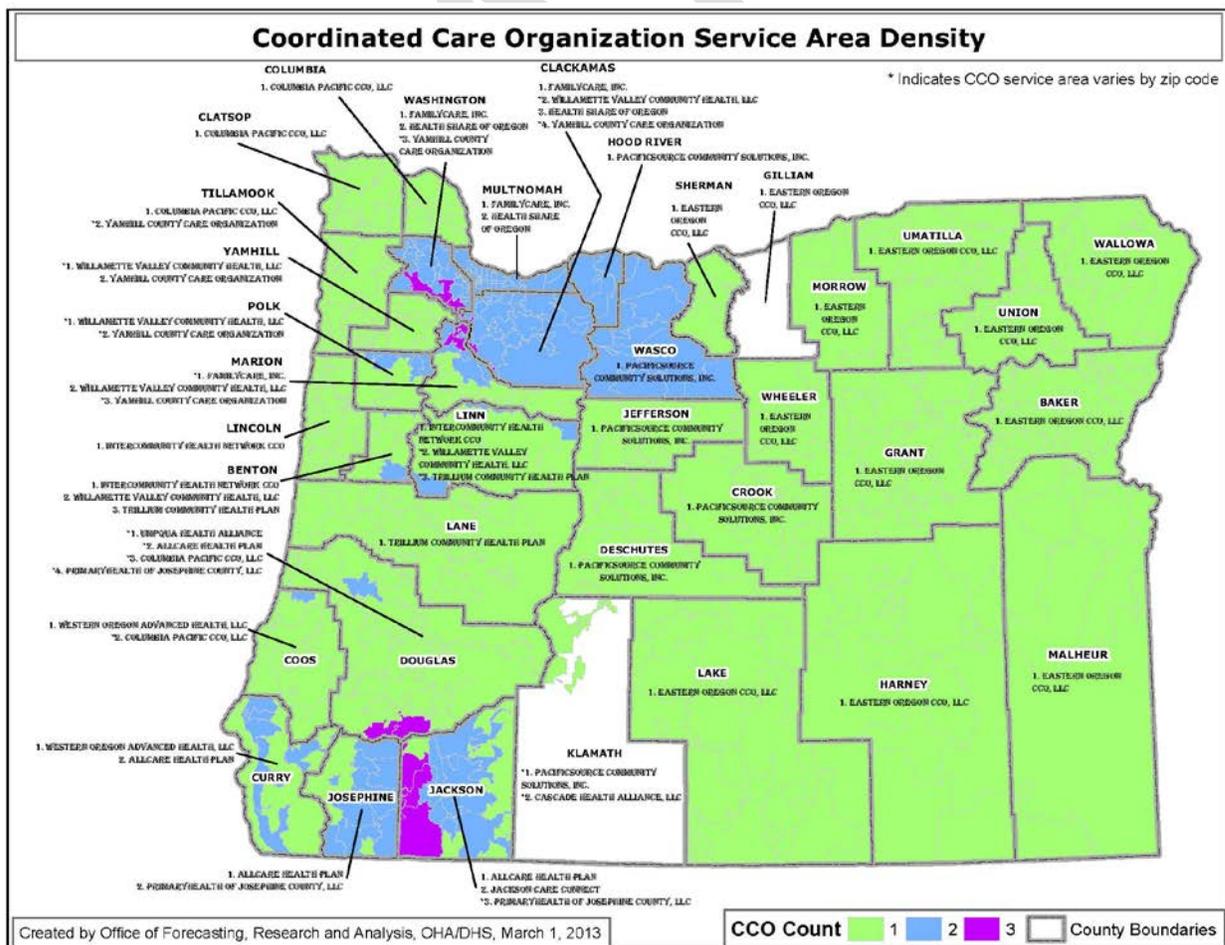
- Price and value for payers, providers and patients

Sustainable rate of growth

- Focused on preventing cost shift to employers, individuals and families
- Reduced utilization and cost trend

Nearly all of Oregon’s Medicaid population is now enrolled in 16 community-based CCOs, which cover all regions of the state. While there are similarities between CCOs and Medicare Accountable Care Organizations (ACOs), Oregon’s CCOs are:

- Full risk-bearing entities operating within a global budget designed to move to payment based on outcomes.
- Responsible for physical, behavioral, and oral health care for CCO members
- The single point of accountability for health quality and outcomes in the population they serve and emphasize a community responding to its unique health needs.
- Rewarded for performance, via quality incentive payments based on performance on 17 key metrics, including 3 clinical quality metrics found in electronic health records (EHRs)
- Provided the flexibility, within model parameters, to institute their own payment and delivery reforms that achieve the best possible outcomes for their membership.



Oregon is working to expand the coordinated care model beyond Medicaid to public employees covered through the Public Employees Benefit Board (PEBB), Medicare for individuals who are dually eligible for Medicaid and Medicare, and commercial payers purchasing plans in Cover Oregon, the state health insurance exchange

Oregon State Innovation Model (SIM) Grant

In 2013, Oregon was one of six states to be awarded a SIM grant from the CMS Centers for Medicare and Medicaid Innovation (CMMI) for up to \$45 million for three and a half years. The SIM grant, which provides funding for testing innovative approaches to improving health and lowering costs across the health care system, including Medicaid, Medicare, and the private sector, will support the state's ongoing health system transformation and provide opportunities for Oregon to share what it learns with other states.

The SIM grant funds a number of efforts, including a new Transformation Center within OHA, which:

- Provides resources and technical assistance to Oregon's CCOs
- Facilitates learning collaborative, rapid improvement cycles
- Promotes health equity across sectors and payers Evaluates methods of integration and coordination between primary, specialty, behavioral health and oral health
- Improves community health through promotion and prevention activities
- Supports CCOs collaborations with long-term care, community health and social services
- Tests new payment models

ONC Cooperative Agreement for HIE and Oregon's Health Information Technology Oversight Committee (HITOC)

In 2009, Oregon's HITOC was legislatively created to set goals, monitor progress in achieving those goals, and provide oversight of HIT development and operations. Shortly after HITOC was established, Oregon applied for the 4 year federal cooperative agreement for HIE from the Office of the National Coordinator for HIT (ONC). To meet the terms of the cooperative agreement, OHA used HITOC to engage in an intensive strategic planning effort, involving more than 100 Oregonians through eight workgroups, subcommittees, and ad hoc groups, to develop Oregon's HIE Cooperative Agreement Strategic and Operational Plans in 2010. HITOC updated the initial direction for state HIE efforts in its State HIT Strategic Plan in 2012. HITOC also provides ongoing oversight and input for the Medicaid EHR incentive program and the CareAccord HIE program.

Currently, the State Coordinator for HIT serves as the Director of HITOC. The State Medicaid director and a state public health representative serve as ex-officio members of HITOC. In addition, Oregon's HIE and Medicaid HIT planning teams are essentially merged under the auspices of the OHA Office of Health Information Technology (OHIT). OHIT staff collaborate with partners from programs in OHA and the Department of Human Services on such issues as physician outreach and communications, long-term care, behavioral health provider concerns, public health HIE/HIT initiatives, amongst others.

EHR Adoption, Medicaid/Medicare EHR Incentive Programs and Meaningful Use

The Medicare and Medicaid EHR Incentive Programs provide financial incentives for the “meaningful use” of ONC certified EHR technology to improve patient care. To receive an EHR incentive payment, providers have to show that they are meaningfully using their EHRs by meeting thresholds for a number of objectives. The Medicaid program provides incentive payments to eligible professionals and hospitals who meet certain Medicaid patient volume requirements as they adopt, implement, upgrade to ONC certified EHR technology and/or demonstrate that they meet meaningful use requirements. The Medicare EHR Incentive Program provides incentive payments only for demonstration of meeting meaningful use requirements. Eligible professionals can receive up to \$44,000 through the Medicare EHR Incentive Program and up to \$63,750 through the Medicaid EHR Incentive Program.²

Between January 2011 and September 2013, Oregon providers received \$109 million in Medicare EHR incentive payments. During the same period, Medicaid paid \$80.4 million to 2,145 providers for a total of \$189.4 million paid to 6,402 Oregon providers through the EHR Incentive Programs.³

Analyzing the data on EHR incentives paid provides a view into EHR adoption rates in Oregon. Oregon is in the top tier for incentive payments at 42% of all US physicians (MDs), physician assistants, and nurse practitioners receiving a payment from either program. Oregon’s EHR vendor landscape is varied (see below), with Epic dominating some regions and the hospital environment.

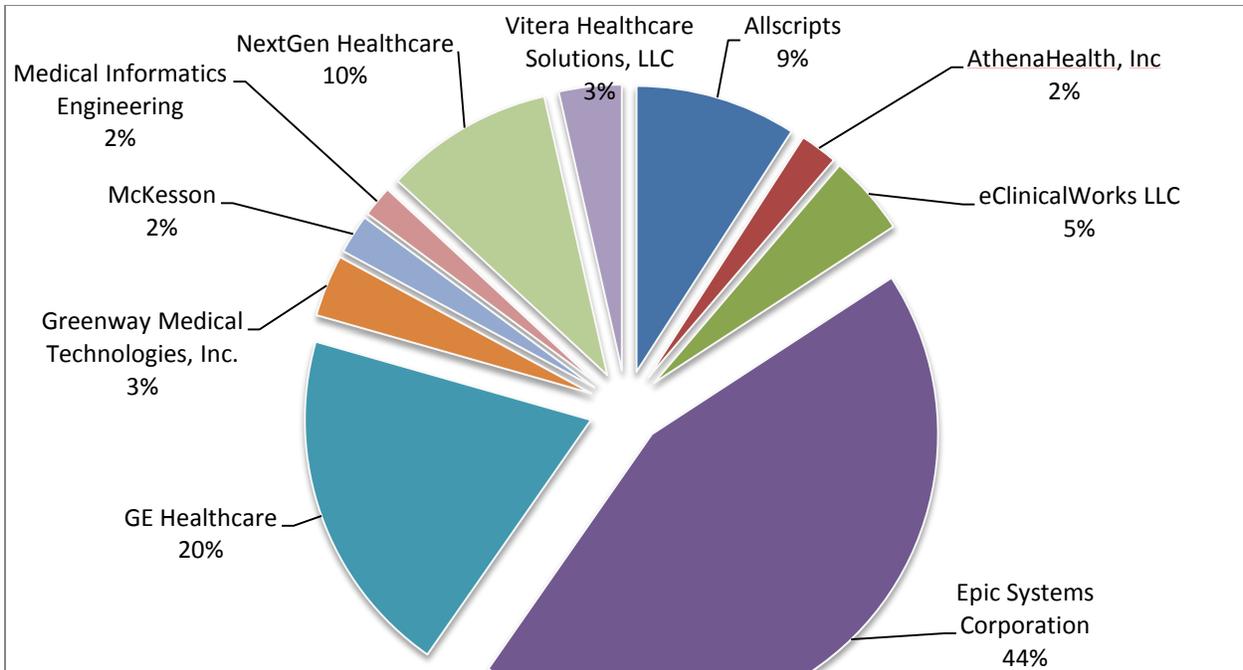
Meaningful Use

Meaningful Use is the set of objectives and measures defined by the Centers for Medicare and Medicaid Services (CMS) that governs the use of electronic health records. Eligible providers and hospitals who meet Meaningful Use requirements can receive federal EHR incentive payments. Generally, the requirements for meeting Meaningful Use increase as a provider progresses through the three stages.

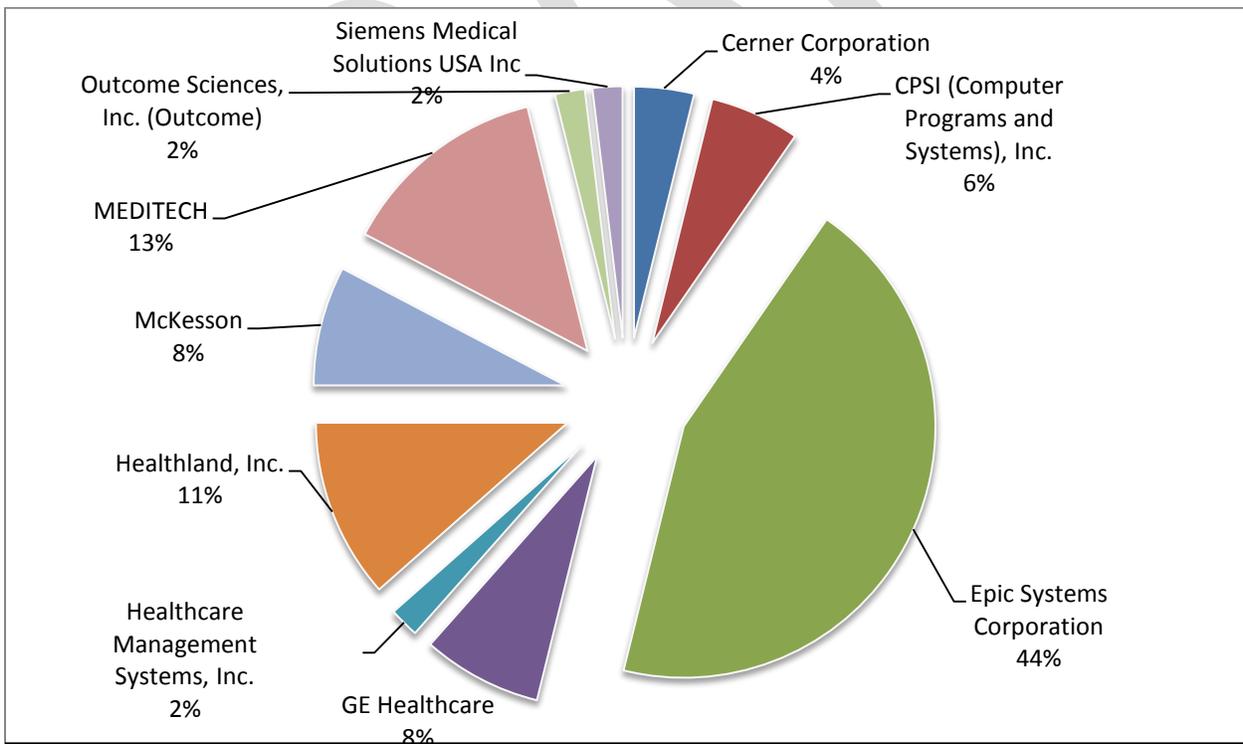
Consumer engagement and health information exchange (from a provider to another provider, their patients, pharmacies, labs and public health) are a key focus in Stage 2, and 2014 EHR certification criteria is supportive of those enhanced EHR functions. For example, to meet the Stage 2 Transitions of Care Objective, 2014 EHR technology must be able to electronically send and receive transition of care/referral summaries by creating a Consolidated CDA and transmit in accordance with the Direct standard. Starting in 2014, all providers must adopt currently-approved EHR technology, regardless of their individual meaningful use stage.

² <http://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/index.html>

³ http://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/Downloads/September2013_PaymentsbyStatebyProgram.pdf



Top 10 EHR vendors in use by Oregon providers receiving either the Medicare or Medicaid EHR Incentive payment (2011–Aug 2013). About 83% of providers used one of these 10 vendors. There were 97 EHR vendors represented across all providers receiving an incentive.



EHR Vendors in use by Oregon hospitals receiving EHR Incentives (2011-2013). Includes 52 out of 59 hospitals

Statewide and Local HIE Environment

In response to local connectivity needs, local HIEs have developed across the state to facilitate exchange of patient information between providers. Some are organizational centric and some are community based. Significant “white space” exists due to geographic and/or service gaps. Oregon’s current HIE environment includes the following. [NOTE: HIGHLIGHTED AREAS TO BE UPDATED BY LOCAL HIEs]

- CareAccord
 - Operated by OHA, serving providers statewide
 - Participants include ambulatory providers, long term care, behavioral health, a CCO, and OHA Medicaid and public health programs. As of October 31, 2013, CareAccord had 880 registered accounts from 107 organizations.
 - Vendor: Harris (systems integrator) and MirthMail
 - Services: Direct secure messaging, connecting to other HISPs through Direct Trust accreditation and connecting to California and Alaska providers through NATE membership
- Bay Area Community Informatics Agency (BACIA):
 - Based out of Coos Bay, serving the rural Oregon coast
 - Participants include: XYZ, (number of participants?)
 - Vendor: Medicity
 - Services: Community health record
- Central Oregon Health Information Exchange:
 - Based out of Bend, serving Central Oregon
 - Participants include: XYZ, (number of participants?)
 - Vendor: Relay Health
 - Services: Community health record
- Gorge Health Connect:
 - Based out of The Dalles, serving the greater Mid-Columbia River Gorge region, and supplying Jefferson HIE subscribers with Direct secure messaging services
 - Participants include: XYZ, (number of participants?)
 - Vendor: Medicity
 - Services: Direct secure messaging
- Jefferson Health Information Exchange:
 - Based out of Medford, serving Southern Oregon
 - Participants include investments from all four CCOs in the region, XYZ, (number of participants?)
 - Vendor: Medicity
 - Services: Closed-loop referrals, Phase 2 services in development
- Organization HIEs:
 - A number of the larger health systems in Oregon have built organizational HIEs. These solutions are often driven by business needs to establish laboratory or other referrals with community partners.
- EHR and HISPs for Direct secure messaging:
 - Oregon health systems, hospitals and providers seeking to meet meaningful use requirements are working now and over the next year or two to establish Direct secure messaging functionality within their EHRs by procuring HISP services. For a more complete discussion on Direct secure messaging, see the Technology chapter.

Oregon Health Information Technology Extension Center (O-HITEC)

As Oregon' Regional Extension Center, O-HITEC has worked with stakeholders throughout the state to provide education, outreach, and technical assistance, to help providers select, implement, and meaningfully use certified EHR technology to improve the quality and value of health care and meet the federal requirements for the Medicaid and Medicare EHR Incentive payments. O-HITEC received the federal ONC Regional Extension Center contract for Oregon. As of September 2013, O-HITEC had helped 2,674 eligible physicians and clinicians "go live" on approved EHRs, with 1,621 of those providers and clinicians achieving Stage 1 meaningful use requirements.

Oregon Broadband through the Oregon Health Network (OHN)

Oregon Health Network is a non-profit, membership-based organization that was created in 2007 after the organization was awarded a \$20.2 million federal subsidy through the Federal Communications Commission (FCC) Rural Health Care Pilot Program. As of October 2013, OHN had more than 229 provider participants, including 46 hospitals. OHN federal FCC subsidy is for deploying middle and final mile connectivity to infrastructures across Oregon, focusing on rural areas.

Appendix B: 2013 Stakeholder Listening Sessions and HIT Task Force

Listening Sessions

In Spring/Summer of 2013, OHA staff met with CCOs and other key stakeholders to identify HIT/HIE needs to support health system transformation efforts. These listening sessions included input on the appropriate role for the state and for statewide services in meeting the HIT/HIE needs.

Health Plans	Hospitals/Health systems/Providers
<ul style="list-style-type: none"> • CareOregon • Kaiser Permanente • MODA (ODS) 	<ul style="list-style-type: none"> • PacificSource • Providence • Regence
	<ul style="list-style-type: none"> • Asante Health System • Health Futures CIO Council (Independent Hospitals) • Independent Providers
	<ul style="list-style-type: none"> • OHSU • Providence • Tuality • Salem Health
Medicaid Coordinated Care Organizations	Local/Community Health Information Exchanges:
<ul style="list-style-type: none"> • AllCare • Columbia Pacific CCO • Eastern Oregon CCO • FamilyCare • Health Share of Oregon • Intercommunity Health Network CCO • Jackson Care Connect • PacificSource Community Solutions CCO, Central Oregon Region 	<ul style="list-style-type: none"> • PacificSource Community Solutions CCO, Columbia Gorge Region • Primary Health of Josephine County • Trillium Community Health Plan • Umpqua Health Alliance • Western Oregon Advanced Health • Willamette Valley Community Health • Yamhill County Care Organization
	<ul style="list-style-type: none"> • Bay Area Community Informatics Agency (BACIA) • Central Oregon HIE
	<ul style="list-style-type: none"> • Gorge Health Connect • Jefferson HIE
	Other Key Partners
	<ul style="list-style-type: none"> • Cover Oregon • OCHIN • Oregon Health Leadership Council (OHLC) • Oregon Public Employees Benefit Board (PEBB)
	<ul style="list-style-type: none"> • Oregon’s HIT Oversight Council (HITOC) • Oregon Health Care Quality Corporation
	Associations
	<ul style="list-style-type: none"> • Association of Oregon Community Mental Health Programs • Oregon Association of Hospitals and Health Systems • Oregon Medical Association • Oregon Primary Care Association

Health Information Technology Task Force

In July and August of 2013, the Oregon Health Authority sought nominations for the Health Information Technology Task Force. The Authority sought a diversity of stakeholders, including (but not limited to): health plans/payers, health systems, hospitals, providers, local HIE efforts, public sector, advocates/consumers and HITOC. The Task Force met five times between September and November 2013, with some members participating on a voluntary basis in additional ad hoc meetings to inform staff work.

Appendix C: Listening Session Results

Below is a summary of the stakeholder listening sessions.⁴

Business Information Need	Information Highway Technology		Guidance, Standards, Policies and Technical Assistance (TA) Ensure Trust and Public Needs Met
	1.5: Now-2014	2: 2015 Forward	
<i>Patient-centered, integrated, “whole person,” care coordination</i>	<p>Create key foundational components (building blocks) and high value services for a trusted, supported statewide information highway, including:</p> <ul style="list-style-type: none"> • Electronic connectivity through continuation of secure messaging. • Capacity for automated alerts/notifications when patients are admitted, discharged or transferred (ADT) to the emergency department or hospital to help providers with follow-up and the facilitation of critical transitions. • Provide a state level provider Directory and patient index. 	<p>Trusted and supported information technology to support the electronic exchange of health information that allows for the sharing of a care plan that addresses prevention, transitions of care, and follow-up amongst all members of a care team.</p> <p>Provide an information highway that is a hub for regional HIEs and HISPs for exchange when entities are known (Direct) and when entities are not known (query).</p> <p>Consumer mediated exchange: “eventually record really needs to belong to patient.”</p>	<p>Convene and provide TA to support providers in using health information in a meaningful way, including workflow re-engineering to integrate EHR/shared information, make data actionable and useable.</p> <p>Remove or clarify policy/legal barriers and “rules of engagement” to sharing information, including privacy, security, and consent policy for the exchange of health information</p> <p>Establish state standards using national standards where exist; Industry standards or best practices where national standards are maturing</p> <p>Convene for collaboration and economies of scale in areas of major concern.</p> <p>Provide guidance and “Guide Rails” to facilitate best practices.</p> <p>Ensure HIE/HIT infrastructure is properly operated and meets public need.</p> <p>Convene stakeholders to define the core elements of a shared care plan tool (data elements, definitions, specifications, etc.)</p>
<i>Quality improvement, quality reporting, accountability and</i>	<p>Technology to support collection, aggregation, analysis, use and dissemination of clinical data to create actionable information.</p>	<p>Technology to support collection, aggregation, analysis, use and dissemination of clinical data linked with payment and</p>	<p>Provide TA to ensure quality/completeness of clinical data and attribution of patients to the CCOs and health plans.</p> <p>Provide TA to providers to help providers meet their Meaningful Use requirements.</p> <p>Longer term, aggregation of clinical,</p>

⁴ The full listening session report is available at http://healthit.oregon.gov/Initiatives/Documents/Stakeholder_ListeningSession_Summary_2013-08-25.pdf

Business Information Need	Information Highway Technology		Guidance, Standards, Policies and Technical Assistance (TA) Ensure Trust and Public Needs Met
	1.5: Now-2014	2: 2015 Forward	
<i>alternative payment model use</i>	Technology to provide access to state data that can be useful to the CCOs and providers such as public health, foster care and prescription drug monitoring program information	administrative data.	administrative and claims data. Supporting the development of a data dictionary, linkage of mother and newborn, and utilization of vital statistics information.
<i>Public health and population health</i>	Leverage data and information infrastructure used for management and oversight to support <ul style="list-style-type: none"> • Requirements for public health reporting, • Meeting public health meaningful use objectives • Public health efforts to exchange information with and alert providers, etc. 	Create a statewide resource that supports providers, health plans and CCOs at different ends of the technology spectrum. Capacity to collect and aggregate screening-related performance metrics, such as screening registries for SBIRT, depression, developmental screening, etc.	TA and guidance to promote activities at the individual and population levels that move towards a community rather than medical approach. Improve understanding and engagement of patients in their health care and outcomes through access to their complete health record, including treatments and goals. Guidance regarding and access to data for secondary public/population health purposes.
<i>Clarity on the Path toward Transformation</i>			Provide clarity and information on the state strategy and roadmap, federal requirements and standards as they evolve, and evolving technology and promising approaches (e.g., mobile devices).
<i>Financial capacity and governance structure to sustain the electronic exchange of health information to support health system transformation.</i>			Financing plans must be equitable and use available federal/state dollars in conjunction with financial participation by stakeholders. Minimize expenses and maximize benefit through economies of scale.

Category	Task Force	Listening Session
<i>“Whole Person” Care Coordination</i>	Change care. Get better care. Avoid the avoidable and intervene where appropriate. Integration of behavioral health – oral health – long term care- jails - other social services. “Closed loop” for referral coordination of care.	Support patient-centered, integrated, “whole person,” care coordination. Support patient information sharing within the physical health care system (labs, radiology, problem lists/allergies, medication lists, referrals, etc.) and across care teams (long term care, behavioral health, social services, criminal justice, etc.) for <ul style="list-style-type: none"> • Care coordination • To avoid duplication of services.
<i>Alternative Payment Mechanisms</i>	Validate the care given. “Doesn’t make you have better care but allows you to document and demonstrate that you are doing better care”. Avoid duplication cost driver	Ability for purchasers, providers and health care systems to fully benefit from alternative payment mechanisms.
<i>Clinical Quality</i>	Quality metrics	Quality improvement, quality reporting, accountability and alternative payment through aggregation of clinical data and linkages with payment and administrative data.
<i>Public Health/ Population Health</i>	Balance of information for care management and information for population management.	Meeting public health and population health objectives met through leveraging data and information used for management and oversight

Appendix D: Acronyms and Glossary

[NOTE: Need to go through this glossary and ensure we have clear, user-friendly definitions. Need to go thru the entire document to identify acronyms and spell/define and add to the glossary, including: HIO, HIE, HIT, HISP, OHN, O-HITEC, EHR, Care Accord, Direct, Meaningful use]

Consolidated CDA Document:

- Markup standard for the structure and semantics of an exchanged “clinical document”
- A defined and complete information object that can exist outside of a message; it can include text, images, sounds, and other multimedia content.
- Encoded in Extensible Markup Language (XML).

Cross Document Reliable Interchange (XDR) – A secure, Web Services-based mechanism specified by Integrating the Healthcare Enterprise (IHE) that enables a document source to “push” documents and metadata to a recipient. XDR can be used as part of an IHE-based HIE and also as a standard way to connect EHR systems to Direct Health Information Service Providers (HISPs).

Direct – A secure, standards-based transport mechanism specified by Direct Project that enables participants to send encrypted information Directly to one or more known, trusted recipients. The primary specification for Direct is the [Applicability Statement for Secure Health Transport](#).

Direct Project – A project to create the standards and services that, with a policy framework, enable simple, secure, Directed, routed, scalable transport of health information over the Internet (i.e., Direct). Direct Project maintains and advances the specifications and associated implementation guides for Direct, develops and offers open source software implementations of Direct, and supports adoption and implementation efforts through its workgroups.

Direct Secure Messaging (DSM) – Secure email-like functions and capabilities using Direct.

Enabling Infrastructure – Services that facilitate or Directly enable information exchange across HIO and organizational boundaries (ex: Provider Directory, Record Locator Service).

Enabling Protocols – A term of convenience that refers to the various mechanisms for interaction supported by Enabling Infrastructure components.

Health Information Service Provider (HISP) – A third-party that offers Direct and supporting services to members. HISPs may offer their members various ways to communicate using Direct, including web portals and EHR integration, and may or may not store data on behalf of their members.

Integrating the Healthcare Enterprise (IHE) – A not-for-profit organization focused on promoting the adoption and use of IHE and other standards, tools, and services for interoperability.

Patient Index – A database used to store patient identifying information. A Patient Index is often used within an organization to enable consistent representation of patients across the organization’s software systems. A Patient Index also can play a similar role in support of certain HIE models.

Quality Document Reporting Architecture (QRDA): A specification of Health Level Seven (HL7) CDA-based standard for reporting the healthcare quality measure data a specification of Health Level Seven (HL7) CDA for reporting quality measure data out of an EHR out of an EHR

- QRDA Category I (Single-patient Report): Individual patient-level report with the full clinical data defined in the measure. Clinical quality measure data import, export, and electronic submission
 - Each report contains quality data for one patient for one or more quality measures, where the data elements in the report are defined by the particular measure(s) being reported on. The report contains raw applicable patient data. When pooled and analyzed in a report, this quality data is used to calculate population measure metrics.
 - MU 2014 Clinical Quality Measures (CQMs) require use of QRDA Category I are: (1) CQM Capture and Export and (2) CQM Import and Calculate (All providers are still required to report on CQMs in order to demonstrate MU)
 - QDM-based QRDA standard is written to tightly align with Health Quality Measures Format (HQMF).
- QRDA Category II (Patient List Report): Multi-patient level quality report across a defined population that may or may not identify individual patient data within the summary. Each report contains quality data for a set of patients for one or more quality measures, where the data elements in the report are defined by the particular measure(s) being reported on. It is not an HL7 standard or MU2.
- QRDA Category III (Calculated Report): De-identified, aggregate quality report with a result for a given population and period of time. Clinical quality measure aggregate electronic submission report contains calculated summary data for one or more measures for a specified population of patients within a particular health system over a specific period of time.
 - MU 2014 Clinical Quality Measures (CQMs) require use of QRDA Category III: CQM Electronic Submission