

Appendix A: Oregon Health Policy Board members

See <http://www.oregon.gov/OHA/OHPB/members.shtml> (list will be included in final version).

Appendix B: Health Information Technology Oversight Council members

Robert E. Brown
Consumer Advocate

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Director of State Health Policy, Intel

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Medical Director of Information Systems and Informatics, Mid-Valley Independent Physicians Association

Steve Gordon, MD, Chair
Vice President and Chief Quality Officer, Peace Health Administration

Bridget Haggerty
Vice President and Chief Information Officer, Oregon Health and Science University

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Chief Information Officer, Oregon Department of Human Services

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Vaughn Holbrook

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Executive Director, Disability Rights Oregon

Aaron Karjala

Deputy Chief Information Officer, DMAP & AMH, State of Oregon

Jeff Larson, MBA, CFRE

Executive Director, Foundation, Samaritan Health Services

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Chief Technology Officer, OCHIN, Inc.

Eric McLaughlin, MRIPA

Data Integration Engineer, Mid-Rogue eHealth Services

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Doug Ritchie, PhD

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Hongcheng Zhao

Chief Information Officer, Portland InterHospital Physicians Association

Appendix D: Matrix of Regional HIE Initiatives in Oregon

Working Table of Regional HIE Initiatives in Oregon^{1 2}

<i>HIE</i> <i>(working list)</i>	<i>Year</i> <i>Est.</i>	<i>Region</i>	<i>Org</i> <i>Type</i>	<i>Technology</i> <i>Approach</i>	<i>Operational</i> <i>(Data</i> <i>Exchanged)</i>	<i>Goals/</i> <i>Objectives</i>	<i>Participants</i> <i>(Initial/</i> <i>Planned)</i>	<i>Initial</i> <i>Financing</i>	<i>Sustainability</i> <i>Model</i>
Bay Area Community Health Agency (BACHA)	2009	Coos Bay North Bend	Non-profit	Centralized (possible future hybrid)	- Centralized - ADT (all) - Labs (all) - Radiology images & transcription (both BAH, transcription only NBMC) Transcription (BAH) - Pathology (BAH)	- Provide access to clinical data at point of care - Provide continuity of care for patient in under- served area	- Bay Area Hospital (BAH) - North Bend Medical Center (NBMC) - Bay Clinic	AHRQ Grant	Under development

¹ Table is adopted from the *Missouri Health Information Exchange Strategic Plan*, Feb. 19th, 2010, p.15.

² Table reflects information provided to HITOC as of June 13, 2010.

<i>HIE</i> <i>(working list)</i>	<i>Year</i> <i>Est.</i>	<i>Region</i>	<i>Org</i> <i>Type</i>	<i>Technology</i> <i>Approach</i>	<i>Operational</i> <i>(Data</i> <i>Exchanged)</i>	<i>Goals/</i> <i>Objectives</i>	<i>Participants</i> <i>(Initial/</i> <i>Planned)</i>	<i>Initial</i> <i>Financing</i>	<i>Sustainability</i> <i>Model</i>
St. Charles Health System	2006	Central Oregon	Non-profit Health System	Centralized working towards Hybrid-Federated	- Lab results - CCDs	200 ambulatory physicians running EMR/PM and HIE over the next 3 years	Approximately 40% regional physicians on EMR/PM. Central Oregon Healthcare Physicians, Approximately 400+ connected to an HIE to support Triple Aim goals	Hospital self-funded, pursuing a Beacon Grant to accelerate plans	Pay-per-use monthly fee with subsidies paid by hospitals to encourage adoption rates

HIE (working list)	Year Est.	Region	Org Type	Technology Approach	Operational (Data Exchanged)	Goals/ Objectives	Participants (Initial/ Planned)	Initial Financing	Sustainability Model
Douglas County Independent Practice Association (DCIPA)	2005	Douglas County	Community Health Alliance	Fiber network with centralized IT services, single EMR database provides Single Patient Chart Model	<i>Operational:</i> HIE for Douglas County health care providers w/single patient chart model - Multiple interfaces in place including four major laboratories, radiology, cardio/vascul ar dynamic procedures, EKG, EEG, and all transcribed documents from hospital <i>Planned:</i> HIE extension to adjunct healthcare systems and immunization interface w/ State of Oregon	Multiple goals and objectives	<i>Initial:</i> Health providers in Douglas County <i>Planned:</i> Adjunct health care system	DCIPA	Continue pursuing grant funding, business partnerships, governmental funding and other community based ventures to underwrite continuing costs

HIE (working list)	Year Est.	Region	Org Type	Technology Approach	Operational (Data Exchanged)	Goals/ Objectives	Participants (Initial/ Planned)	Initial Financing	Sustainability Model
Gorge Connect	2009	Hood River, Wasco, Sherman, Gilliam, & Wheeler Counties	Non-profit, 501(c)3	Federated	<i>Planned:</i> testing Q4 2010 (Labs, Medications, H&P, etc.)	Improve the consumer experience, enhance provider efficiency, and improve clinical outcomes through secure exchange of relevant clinical information	Providence Hood River Hospital, Columbia Gorge Community College, Mid- Columbia Medical Group, Columbia River Women's Clinic, Mid- Columbia Surgical Specialists, La Clinica Del Carino, North Central Public Health, Hood River Public Health	\$81,000 HRSA Grant	Continue pursuing grant funding from government and foundations while developing long-term strategy for sustainability
Jefferson HIE	2000	Southern Oregon	Asante Health System	Centralized	- Hospital reports - Lab Results - Lab order from physician offices, diagnostic images, patient demographic information	Ease of practice for physicians, improved access to clinical info		Asante Health System	Funded by participating health systems

HIE (partial list)	Year Est.	Region	Org Type	Technology Approach	Operational (Data Exchanged)	Goals/ Objectives	Participants (Initial/ Planned)	Initial Financing	Sustainability Model
Northeast Oregon Network (NEON)	2009	Eastern Oregon	Non-profit	Exploratory Phase: applying for planning funding and convening/leading the planning process					
OCHIN	2009	Multi-State	Non-profit	Federated	<p><i>Operational:</i> Live w/CCD for Epic, Testing w/CCD = PVMHIE</p> <p><i>NHIN:</i> On-Ramping for SSA (testing gateway), Pilot CHC NHIN project w/Kaiser Permanente</p>	Enable standards-based exchange of patient data with all health systems in our member regions for treatment	All Providers w/HIE capability	OCHIN funded augmented by grants	TBD
PeaceHealth	2000	Lane County & surrounding areas	Non-profit Health System	Centralized	Common EHR across inpatient & ambulatory environment; 15,000 active Oregon Users; Look Up for labs, CCDs, other diagnostic services; Integrated PACS	Enable standards-based exchange of patient data & reporting data among all community partners; integration with state wide exchange	Regional multi-stakeholder Steering Committee formed 2010	TBD	TBD

HIE (working list)	Year Est.	Region	Org Type	Technology Approach	Operational (Data Exchanged)	Goals/ Objectives	Participants (Initial/ Planned)	Initial Financing	Sustainability Model
Portland-Vancouver Metro (PVMHIE)	2009	Portland OR/ Vancouver WA Metro Area	Voluntary Collaboration	Hybrid/ Federated	<p><i>Operational:</i> OHSU = live w/CCD for Epic counterparts; Providence & Southwest WA = testing CCD</p> <p><i>Planned:</i> full exchange of CCD w/all participants of PVMHIE</p>	Enable standards-based exchange of patient data & reporting data among all partner health system providers within Portland-Vancouver metropolitan area for treatment, performance feedback, decision support, & evaluation	Providence Health & Services, OHSU), Legacy Health Systems, Kaiser Permanente NW, OCHIN, Portland Adventist, Southwest Washington Health System, Tuality Healthcare, all affiliated Providers w/HIE capability		TBD
SACHIE	2007	Marion and Polk Counties	Physicians Choice Foundation (501c3)	Federated	NA	Single point of access to community-wide patient-centric healthcare data to improve quality & efficiency -CCR/CCD summary record exchange in phase 1	<p><i>Initial:</i></p> <ul style="list-style-type: none"> - Physicians - Hospitals - Diagnostic Imaging Facilities <p><i>Planned:</i></p> <ul style="list-style-type: none"> - FQHC(s) - IHS Clinic(s) - Public Health Department(s) - Consumers - Health Plan(s) 	Physicians association supported, Private foundation supported	<ul style="list-style-type: none"> - Membership fees - User fees - Payer support

Appendix E: Oregon Phase 1 Risks & Mitigation Strategies

Potential Risks	Mitigation
Opposition, disagreement and/or confusion among participants about state and/or federal standards could also result in a potential lack of interoperability.	HITOC and Phase 1 workgroups will focus on interoperability and communication standards based on national and federal standards; assist local HIO and provider adoption of interoperability standards; monitor interoperability barriers and issues, and coordinate technical approaches within Oregon.
Lack of participation among organizations and patients.	HITOC will monitor participation by local HIOs, providers and patients in local HIOs, along with HIE services and functions with attention to barriers and issues in adoption. HITOC will work cooperatively with O-HITEC to encourage provider participation in HIE services and achievement of meaningful use.
Local HIOs are weak and or failing	HITOC will monitor the scope of local HIO services, operations, participation and financial sustainability on an ongoing basis and assist local HIOs in developing strategies for success. The governance entity may have to provide additional services to support local HIOs.
Exclusion of specially protected health information (SPHI) in the consent model proves difficult to implement.	HITOC and Phase 1 workgroups will consider further evolution of the consent model and technologies including providing support and standardization for HIPAA/ Privacy & Security approaches to facilitate exchange within and between local HIOs. The state will facilitate a consensus about what minimum data is transferred within and between HIEs, and treatment of specially-protected health information. Legislation to clarify Oregon statues may be requested.
Legal inconsistencies may prove difficult to reconcile and harmonize.	HITOC and Phase 1 workgroups will consider legal and policy issues related to widespread HIE use both interstate and intrastate, HIO organizational development. Legislation to clarify Oregon statues may be requested.

Potential Risks	Mitigation
Slow provider adoption of EHRs; general intransigence to change.	HITOC will monitor provider adoption of EHRs as well as provider achievement of meaningful use including HIE functions with attention to barriers and issues in adoption. HITOC will work cooperatively with O-HITEC to encourage EHR adoption and achievement of meaningful use. O-HITEC will assist providers with implementation and change management issues.
Insufficient technical infrastructure, such as broadband connectivity.	HITOC will monitor development of provider and local HIO technical infrastructure development issues, including broadband connectivity and other infrastructure elements. HITOC will work cooperatively with the Oregon Health Network to address broadband connectivity capabilities.
Unanticipated future policy or reform initiatives may influence HIE participation and participant connectivity.	HITOC and Phase 1 workgroups will monitor the possible impacts of federal and Oregon health reform efforts on HIE functions, services and participation. HITOC will consider adapting HIE strategies to take advantage of health reform efforts to maximize HIE participation and participant connectivity.
Reluctance to change standards or move to expected standards.	HITOC and Phase 1 workgroups will consider impacts of new standard specifications on existing systems along with implementation priorities and timeframes.

Oregon Phase 2 Risks & Mitigation Strategies

Potential Risks	Mitigation
Lack of compliance due to changing legal/regulatory landscape.	HITOC and the SDE will monitor the impacts of any compliance issues due to a changing legal/regulatory landscape and develop strategies and recommendations related to the provision of HIE services.
Tension between local HIOs and SDE as the SDE expands its service offerings	HITOC will monitor the evolution of services by local HIOs and the SDE and develop strategies to minimize the impacts of tensions.
Legal obstacles in Phase 1 may create delays in legal/policy domain issues (i.e. interstate exchange)	HITOC, the SDE and workgroups will monitor the possible impacts of delays in addressing legal and policy issues and develop strategies and recommendations for minimizing adverse impacts.
Unresolved legal and policy issue related obstacles in Phase 2.	HITOC, the SDE and workgroups will consider unresolved legal and policy issues related to widespread HIE use both interstate and intrastate along with HIO organizational development. Legislation to clarify Oregon statutes may be requested.
Inadequate financial plan for sustainable non-profit SDE.	HITOC will monitor the scope of planned and operating SDE services, actual and projected financial performance and financial sustainability on an ongoing basis. HITOC will work with the SDE to maximize the financial and programmatic success of the SDE.
Certification program lacks enforcement or systems lack resources to meet standards.	HITOC and the SDE will monitor the effectiveness of the certification program in certifying and tracking HIO compliance with certification standards including issues encountered by HIOs in meeting certification program standards. HITOC will consider strategies for maximizing the success of HIOs in achieving certification.
Early failures of HIE efforts and public support due to privacy and security breaches.	HITOC, the SDE and local HIOs are expected to make the protection of privacy and security a critical imperative in the design, implementation and operation of HIE services. The SDE and local HIOs will aggressively respond to any privacy and security breaches to maintain the trust and support of the public.

Potential Risks	Mitigation
Failure to transition from “start-up” mode to on-going operation, resulting in unreliable services and unstable standards	HITOC and the SDE will closely monitor the establishment of the SDE, initial SDE operations including implementation of planned services, technical and performance standards to assure an effective transition to ongoing operations with reliable and stable services.
Consolidation in the provider markets may create changes for HIE.	HITOC and the SDE will monitor consolidations and changes in provider organization markets for possible impacts on the scope of local HIO services, operations, participation and financial sustainability and assist local HIOs in adapting strategies for success. The SDE may have to provide additional services to support local HIOs.

Appendix F: Value Propositions for Stakeholders

The widespread adoption and use of health information exchange services provides benefits and value to all health care stakeholder segments.

Patients

- Improved coordination of care of services among multiple providers and care settings
- Improved quality of care and patient safety; reduce errors and omissions
- Improved timeliness and efficiency in receiving appropriate care, reduced delays and avoided services
- Inefficiencies and redundant services adversely impact access of patients who really need services
- Savings from services avoided due to missing (or not readily available) information at the time of service results: avoided hospitalizations, office visits, lab tests and imaging studies

Community-Wide Savings

- Reduced avoidable services caused by missing information not readily available
- Improved efficiencies in physician practices and provider organizations

Other Community Benefits

- Accelerated achievement of Oregon's triple aim goals
- Improved quality and patient safety, reduced errors
- Minimized complications caused by unavailable information
- Maximized physician and hospital adoption and use of EHRs and HIT to benefit patients
- Maximized attainment of meaningful use criteria and incentive payments to Oregon providers

Physician Practices

- Electronic access to prior medical history information from other practices and hospitals
- Improved productivity in locating and retrieving information from other practices and health systems
- Improved efficiency of patient management and decision making including making and receiving consultation referral requests and reports
- Accelerated and continuing achievement of meaningful use and incentive payments as criteria evolve
- Improved productivity and efficiency in providing clinical and administrative information to other providers and health plans
- Potential to use electronic access through local HIO and/or state designated entity (SDE) to minimize interface development and maintenance

Hospitals

- Access to prior medical history data from other sources
- Improved productivity in locating and retrieving information from physician practices, clinics and other health systems
- Improved efficiency of patient management and decision making including making and receiving consultation referral requests and reports

- Savings on uncompensated care related to unnecessary or avoidable services (avoidable admissions, lab tests and imaging studies) caused by missing (or not readily available) information
- Accelerated and continuing achievement of meaningful use and incentive payments as criteria evolve
- Success of medical staff physicians in achieving meaningful use and incentive payments
- Option to support HIE services on behalf of physicians without adverse Stark implications
- Improved productivity and efficiency in providing clinical and administrative information to other providers and health plans
- Potential to use electronic access through local HIO and/or SDE to minimize interface development and maintenance as well eliminate legacy system interfaces

Safety Net Clinics (federally qualified health centers, health departments, community clinics)

- Electronic information access and connectivity through local HIO to other community providers
- Improved productivity in locating and retrieving information from other practices and health systems
- Improved efficiency of patient management and decision making including making and receiving consultation referral requests and reports
- Accelerated and continuing achievement of meaningful use and incentive payments as criteria evolve
- Improved productivity and efficiency in providing clinical and administrative information to other providers and health plans
- Potential to use electronic access through local HIO and/or SDE to minimize interface development and maintenance

Community Imaging Networks

- Potential to integrate community PACS and imaging services through local HIO services
- Electronic access to clinical information relevant for performing of imaging studies and interpreting results
- Ability to track and confirm receipt of imaging study reports by ordering physicians

Health Plans

- Maximized quality and safety of services provided to health plan members
- Savings from services avoided due to missing (or not readily available) information at the time of service results: avoided hospitalizations, office visits, lab tests and imaging studies
- Lower operating costs with increased use of standardized electronic transactions for eligibility verification, prior approval processes, claims submission, claims tracking and payment remittance advices
- Administrative efficiencies due to improved documentation and access to standardized EHR data with CCD/CCRs

Employers and Purchasers

- Maximized quality and safety of services provided to employees and their families
- Reduced time loss related to avoided services due to missing information
- Improved continuity of care and care coordination reduces longer term health care costs

- Improved provider efficiencies reducing the escalation of health care costs and health plan premiums

Public Health Agencies (state and local)

- Improved completeness and timeliness of public health reporting by providers
- Improved accessibility by providers to relevant patient and other public health data and services
- Improved care coordination and interventions improve population health

Appendix G: Quality Improvement Initiatives in Oregon (partial list)

Organization	Type	Program/Description
Oregon Association of Hospitals and Health Systems	Association	QI Directors Committee
Oregon Medical Association	Association	Peer Review
State of Oregon-Department of Human Services	Government	Hospital use data, Health Promotion and Chronic Disease Prevention Program, Oregon Asthma Network
State of Oregon-Division of Medical Assistance Programs	Government	Quality Improvement Projects and Oregon Health Plan Medical Director Team
State of Oregon-Oregon Health Policy & Research	Government	Medical Home Program
State of Oregon-All Payer Database	Government	Claims data warehouse
Oregon ALERT	Government	Immunization registry & AFFIX
Providence Health & Services	Health Plan	Quality Improvement Grant-funded Projects
Regence Blue Cross Blue Shield of Oregon	Health Plan	Pilot Grants
CareOregon	Health Plan	Care Support and System Innovation Program; Primary Care Renewal
Bay Area Community Informatics Agency	HIO ³	
Central Oregon HIE	HIO	
Epic/Beacon/Portland	HIO	
Gorge Health Connect	HIO	
Mid-Rogue HIE	HIO	
Salem Area Community HIE	HIO	
Samaritan SHS-HIE	HIO	
South Coast HA	HIO	
Umpqua OneChart	HIO	
Adventist	IDN ⁴	Internal quality metrics
Asante	IDN	Internal quality metrics
Cascade	IDN	Internal Quality Metrics
Kaiser	IDN	Internal Quality Metrics
Legacy	IDN	Internal Quality Metrics
OHSU	IDN	Internal Quality Metrics
PeaceHealth	IDN	Internal Quality Metrics
Providence	IDN	Internal Quality Metrics

³ Health Information Organization

⁴ Integrated Delivery Network

Salem Health		Internal Quality Metrics
Samaritan	IDN	Internal Quality Metrics
Northwest Physicians Insurance Company Quality Factor Program	Insurance	peer review
Children's Health Alliance/Foundation	IPA ⁵	Asthma registry, immunization registry
Central Oregon IPA	IPA	Unknown
Portland IPA	IPA	Unknown
Mid-Valley IPA	IPA	Unknown
Douglas County IPA	IPA	Unknown
Mid-Rogue IPA	IPA	Unknown
Greenfield Clinic	Medical Group	Internal quality metrics
Portland Clinic	Medical Group	Internal quality metrics
Northwest Primary Care Foundation for Medical Excellence	Medical Group	Internal quality metrics
Acumentra	Other	Unknown
Patient Safety Commission	QI ⁶ Org	Physician Quality Reporting Initiative
Quality Corporation	QI Org	Medical Errors
Quality Corporation	QI Org	Robert Wood Johnson grants - Ambulatory and Hospital
Oregon Rural Health Quality Network	Research	Practice-based Research Network
Kaiser Center for Health System Research	Research	Internal quality metrics and research
Oregon Health & Science University, Medical Informatics, CareManager+	Research	Disease Registry
Oregon Rural Practice-based Research Network	Research	Practice-based Research Network
Our Community Health Information Network	Service	Internal quality metrics
Safety Net West	Research	PBRN
Oregon Primary Care Association	Other	Primary Care Home Quality Improvement Initiative

⁵ Independent Physician/Practice Association

⁶ Quality Improvement

Oregon Common Measures

Measures from Administrative Claims	Status
Asthma Pharmacologic Therapy for Patients with Persistent Disease	Public report, January 2010
Coronary Artery Disease Lipid Profile / Monitoring	Public report, January 2010
Diabetes HbA1C Monitoring	Public report, January 2010
Diabetes Lipid Profile / Monitoring	Public report, January 2010
Diabetes Eye Exam	Public report, January 2010
Diabetes Nephropathy Assessment	Public report, January 2010
Depression Antidepressant Medication Management: Acute Phase	Private report, January 2010 Denominator numbers may be small
Depression Antidepressant Medication Management: Continuous Phase	Private report, January 2010 Denominator numbers may be small
Prevention Breast Cancer Screening	Public report, January 2010
Prevention Cervical Cancer Screening	Public report, January 2010 3 years look back
Prevention Chlamydia Screening	Public report, January 2010
Pediatric Well Child Visit in First 15 Month of Life	Private report; January 2011
Pediatric Well Child Visit in the Third, Fourth, Fifth and Sixth Years of Life	Private report; January 2011
Pediatric/Overuse Appropriate Testing for Children with Pharyngitis	Private report; January 2011
Efficiency Generic Drug Fills (SSRIs and Statins)	Private report; January 2011
Efficiency Use of Imaging Studies for Low Back Pain	Review attribution methodology. Then consider whether to distribute results to practitioners

List of Clinical Measures	Oregon Set Type
Asthma Pharmacologic Therapy for Patients with Persistent Disease	Basic Set
Coronary Artery Disease Blood Pressure Control	Expanded Set
Coronary Artery Disease Lipid Profile / Monitoring	Basic Set
Coronary Artery Disease Lipid Control	Expanded Set
Diabetes HbA1C Monitoring	Basic Set
Diabetes HbA1C Control	Expanded Set
Diabetes Blood Pressure Control	Expanded Set
Diabetes Lipid Profile / Monitoring	Basic Set
Diabetes Lipid Control	Expanded Set
Diabetes Eye Exam	Basic Set
Diabetes Nephropathy Assessment	Basic Set
Depression Antidepressant Medication Management: Acute Phase	Basic Set
Depression Antidepressant Medication Management: Continuous Phase	Basic Set
Prevention Breast Cancer Screening	Basic Set
Prevention Cervical Cancer Screening	Basic Set
Prevention Chlamydia Screening	Basic Set
Prevention Childhood and Adolescent Immunizations	Basic Set
Tobacco Cessation Assessment and Intervention	Expanded Set

Appendix H: Oregon HIT Environment Assessment



**Office for Oregon Health Policy
and Research**

**Oregon Health Information Technology
Environment Assessment**

David M. Witter, Jr., Witter & Associates

Updated February 2010

Prepared for
Office for Oregon Health Policy and Research

Oregon Health Information Technology Environment Assessment

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INTRODUCTION

This document is intended to provide a high-level overview of Oregon's health information technology environment for the purpose of informing stakeholders and policy-makers as they contemplate development of an Oregon HIT plan to facilitate electronic health record (EHR) adoption, health information exchange and interoperability. This assessment is a compilation of information from multiple sources, surveys and interviews. Supporting documents and reports will be made available as they are completed to provide additional detailed information. This document and the environmental scan is a work in process that will evolve over time as additional information is developed. Corrections and suggestions are encouraged.

Oregon HIT Environmental Scan

The Office for Oregon Health Policy and Research on behalf of the Health Information Technology Oversight Council is undertaking the environmental scan. The scan involves a number of components including:

- Oregon 2009 Ambulatory EHR Survey
- Oregon HIT Assessment, 2009: Hospital and Health System Survey
- Oregon HIT Assessment, 2009: IPA Survey
- Oregon HIT Assessment, 2009: Health Plan Survey
- Department of Human Services HIT Environmental Scan
- Potential ARRA incentive payments to Oregon providers demonstrating meaningful use
- Tracking of e-prescribing adoption and use in Oregon
- Assess the role of two major Federal grants on Oregon HIT planning: Health Record Bank of Oregon (Medicaid Transformation Grant) and Oregon Health Network (FCC communication infrastructure).

Health Information Exchange (HIE) Activities Inventory

The second section of this document identifies HIE activities in Oregon that may be useful for HIT planning including strategies for health information exchange in Oregon that leverages existing resources and accelerates achievement of Oregon HIT goals.

Additional information will be added to both the HIT Environmental Scan and the HIE Activities Report as information is received from key HIT stakeholders located throughout Oregon.

ENVIRONMENTAL SCAN HIGHLIGHTS

Ambulatory EHR Adoption

The 2009 Oregon Ambulatory EHR Inventory updates the earlier 2006 survey and collects additional information of the functionality of EHRs in ambulatory care setting. The full report will be posted at <http://www.oregon.gov/OHPPR/docs/OR2009EHRSurvey.pdf>.

The 2006 Oregon Ambulatory EHR Inventory provides a baseline for tracking EHR adoption in Oregon ambulatory care settings. The 2006 survey report is available at <http://www.oregon.gov/OHPPR/docs/OR2006EHRSurvey.pdf>.

Domain	Scope	HIT Adoption or Role in HIT Adoption	Adoption Gap or Comments
Overall Adoption	1,168 responding practices & clinics, 7,845 clinicians	<p>2009 Survey: 65% of Oregon clinicians (physicians, nurse practitioners work in practices or clinics where EHRs are present compared to 44% nationally (CDC-2009)⁷. 38% of surveyed practices and clinics have EHRs.</p> <p>By 2011 respondents forecast that 54% of practice organizations will utilize an EHR covering 80% of clinicians</p> <p>Higher EHR adoption rates occur in health systems and affiliated practices, large practices, practices with multiple locations and multi-specialty or mixed primary care practices.</p>	2009: Oregon remains well ahead of national adoption of EHRs. Barriers to adoption remain: cost, ROI & perceived value especially in solo and small practices.

⁷ Hsaio CJ, Beatty PC, Hing ES, Woodwell DA, Rechtsteiner EA, Sisk JE. Electronic medical record/electronic health records use by office-based physicians: United States, 2008 and preliminary 2009. Health E-Stat. National Center for Health Statistics, December 2009. http://www.cdc.gov/nchs/data/hestat/emr_ehr/emr_ehr.pdf.

Overall	Level of Functionality - Basic - Full	2009 Survey: 49% of Oregon clinicians are in practices using an EHR with all “Basic” functions compared to 21% nationally (CDC-2009) using definitions reported in 2008 (NEJM-2008) ⁸ . 32% of Oregon clinicians are in practices with all “Full” functions compared to 6% nationally (CDC-2009).	Fully functional systems are concentrated in larger practices and health systems.
Overall	Level of Functionality - Near Basic - Near Full	2009 Survey: 55% of Oregon clinicians are in practices using an EHR with nearly all “basic” functions or better; 46% of Oregon clinicians are in practices with nearly all the “full” functions or better.	Meeting the Basic or Full function criteria is attainable by many practices.
Clinician Organizations - MD/DOs, PA/NP/CNMs	1,008 practices with 4,177 clinicians	2009 Survey: 38% of physician-owned/operated practices (54% of clinicians) are using an EHR, ranging from 26% for solo practices to 68% of practices with 10 or more clinicians. By 2011, respondents forecast that 53% of the clinician practices would utilize an EHR serving 72% of clinicians in clinician organizations.	Issues include EHR Adoption: - practices without an EPM - practices with EPM, no EHR - self-developed EHR apps EHRs not certified - non certified products - current EHR version not certified

⁸ DesRoches CM, Campbel EG, Rao SR, Donelan K, Ferris TG, Jha A, Kaushal R, Levy DE, Rosenbaum S, Shields AE, Blumentahl D. Electronic health records survey in ambulatory care -a national survey of physicians. NEJM, 359:1, July 3, 2008.

Oregon Health Information Technology Environmental Assessment, Feb. 2010

<p>FQHCs - Safety Net Clinics</p>	<p>25 FQHCs & other safety net clinics, 328 clinicians</p>	<p>2009 Survey: EHRs were in use by 60% of 25 responding organizations involving 65% of clinicians covered by the responses.</p> <p>By 2011, respondents forecast that 88% of the clinics would utilize an EHR serving 94% of the clinicians in FQHCs.</p>	<p>FQHC adoption enhanced by funding mechanisms for FQHCs and HRSA grant support.</p> <p>Most FQHCs without an EHR have implemented and EPM and are well positioned for EHR adoption.</p>
<p>Public and other clinics (public health, schools, mental health, tribal, college and other clinics)</p>	<p>44 clinics, 189 clinicians</p>	<p>2009 Survey: EHRs are in use by 23% of the 44 responding organizations involving 38% of clinicians covered by the responses.</p> <p>By 2011, respondents forecast that 46% of the clinics would utilize an EHR serving 62% of the clinicians in public and other clinics.</p>	<p>Major funding issues impact adoption of EPM and EHR systems in public and other clinics.</p>
<p>Hospital and health systems practices and clinics</p>	<p>50 practices, 2,616 clinicians</p>	<p>2009 Survey: 64% of practices and clinics (98% of clinicians) owned or operated by health systems are using EHRs. The larger health systems with practices and clinics (Kaiser, OHSU, PeaceHealth, Providence, Samaritan Health have comprehensive ambulatory and hospital EHR systems. Legacy will complete a comprehensive implementation in 2010 and 2011.</p>	<p>Large health systems with owned or affiliated practices have made substantial EHR commitments.</p>
<p>EHR Products and Vendors</p>		<p>2009 Survey. Approximately 81 vendors provide the EHR systems in use Oregon and 106 companies provide EPM systems. Nearly all practices use the same vendor and product for both their EPM and EHR systems. 16 vendors provide EHRs for 90% of clinicians (68% of organizations). 80% of organizations (90% of clinicians) are using EHR products from a vendor that has CCHIT certified products. There are a number of specialized EPM & EHR systems in specialty/sub-specialty practices that are not certified products.</p> <p>Not all products in use are certified (old versions) and not all product lines from a vendor with a certified product are certified.</p>	<p>A number of products are not certified and may or may not be certified in the future. Many practices may need to upgrade or change EHR products to qualify for meaningful use.</p>
<p>EPM Products</p>			

Hospital & Health System EHR Adoption

An Oregon Hospitals and Health Systems HIT Inventory is currently underway to provide information for Oregon's HIT planning process regarding EHR adoption and the functionalities of operational EHR systems.

Domain	Scope	HIT Adoption or Role in HIT Adoption	Adoption Gap or Comments
Acute Care Hospitals	58 acute care hospitals	2009 survey: Preliminary survey results indicate that the 47 of Oregon's 58 acute care hospitals have or are implementing EHRs by mid 2010. These 47 hospitals represented 95% of 2008 Oregon hospital discharges (348,883). The EHRs are provided by nine vendors that all have products certified by CCHIT. Not all currently installed products are certified products or versions. All eleven hospitals without EHRs are planning implementations: six hospitals within 1-2 years and five hospitals in 2-5 years.	Several health systems and hospitals upgrading systems. Delayed EHR implementation limits the potential for ARRA incentive payments.
Critical Access Hospitals (CAH)	25 CAH hospitals (subset of 58 acute hospitals)	2009 survey: Preliminary survey results indicate that 17 of Oregon's 25 CAHs currently have an EHR system. These 17 hospitals represent 76% of 2008 Oregon CAH discharges (29,277). EHRs at Oregon CAHs are provided by seven vendors. All the vendors offer CCHIT certified product although not all currently installed products/versions are certified. All eight CAH hospitals without EHRs are planning implementations: five hospitals within 1-2 years and three hospitals in 2-5 years.	Gap: eight of 25 CAHs are at least 1 to 2 years away from implementing hospital EHRs.
Multi-hospital Health Systems	35 hospitals in 9 systems (subset of 58 hospitals)	2009 survey: Preliminary results indicate that 30 of the 35 hospitals in the nine hospitals systems have implemented EHR systems. Five hospitals in two multi-hospital systems are planning EHR implementations: three hospitals in 1 to 2 years and two hospitals in 2 to 5 years. By early 2010 seven health systems will have robust deployments of certified EHRs covering all the hospitals in their systems (27 hospitals).	

Domain	Scope	HIT Adoption or Role in HIT Adoption	Adoption Gap or Comments
Health Systems with Hospitals and Practice Groups	Kaiser, Legacy, OHSU, Providence, Peace Health, Samaritan Health	Seven health systems in Oregon include hospital operations and an owned or operated medical group practice or employed physicians and other clinicians. All seven systems have or will shortly have (early/mid 2010) robust and certified EHR systems covering both hospital and other practice operations.	

Health Information Exchange Activities

Identification of the scope of existing and planned health information exchange functions is a major goal of the 2009 HIT environmental scan and necessary to developing a statewide HIE strategy. Responses from the 2009 Hospitals & Health System HIT Survey and IPA HIT survey provided information on Oregon HIE activities. Please see second section of this document to review the Oregon HIE Activities Report (see page 25).

Domain	Scope	HIT Adoption or Role in HIT Adoption	Comments
HIE planning		Planning efforts Portland and central Oregon occurred in 2007. Current planning efforts include Central Oregon, Mid Columbia Gorge, Portland area, Salem area and discussions among Epic users.	See the Oregon HIE Activities Report for additional information.
Health Systems		Health systems with multiple hospitals or hospitals and affiliated medical groups are functionally operating health information exchanges within their health systems. Examples include Cascade Health (four hospitals), Kaiser Permanente (hospital and multiple clinic locations), Providence Health and Service (seven hospitals, Providence medical groups), PeaceHealth (four hospitals, PeaceHealth medical groups), Samaritan Health Services (five hospitals, Samaritan medical groups).	The scope of health information exchange functionalities within each health systems varies and is evolving. See the Oregon HIE Activities Report for additional information.
Developing HIEs		Providence Health and Services will be implementing an HIE infrastructure in 2010 to integrate inpatient and outpatient EHRs and connect EHRs of affiliated medical groups.	See the Oregon HIE Activities Report for additional information.
Active HIEs		OCHIN, Umpqua OneChart HIE, Mid-Rogue HIE, Samaritan HIE, Bay Area Community Information Agency provide and are evolving information exchange services.	See the Oregon HIE Activities Report for additional information.
Imaging Collaborations		Imaging collaborations, shared PACS systems and imaging exchange mechanisms have and are evolving in Oregon communities.	See the Oregon HIE Activities Report for additional information.

IPAs and Health Plans

Surveys are currently underway of Oregon IPAs and health plans to identify their involvement in facilitating the adoption of EHR and HIT systems and provide information for Oregon’s HIT planning process.

Domain	Scope	HIT Adoption or Role in HIT Adoption	Adoption Gap or Comments
Independent Practice Associations (IPAs)		<p>Several IPAs and affiliated organizations are involved in facilitating the adoption of EHRs.</p> <ul style="list-style-type: none"> - Central Oregon EMR, an affiliate of Central Oregon IPA, offers EHR services to COIPA members (eClinicalWorks) and non-members (eClinicalWorks and Allscripts-MyWay). - Douglas County IPA and affiliated ITechSS provides EHR services Centricity in the greater Roseburg community. - Mid-Rogue e-Health Services, a subsidiary of Mid-Rogue IPA offers EHR services (Greenway) to MRIPA members and non-members. - Mid Valley IPA offers EHR services (NextGen) to its members. - Portland IPA provides it members with implementation, training and ongoing support eClinicalWorks PM and EMR installations. 	

Personal Health Record Adoption

The November 2008 HIIAC report adopted by the Oregon Health Fund Board into its health reform plan for the state, establishes a goal that “All Oregonians have access to a personal health record by 2013.” A number of efforts are underway related to the deployment of personal health record systems and patient portals. Information about PHRs is derived from the HRBO project and survey responses from hospitals and health plans.

Domain	Scope	HIT Adoption or Role in HIT Adoption	Adoption Gap or Comments
Health Record Bank of Oregon		<p>CMS Medicaid Transformation Grant for \$5.5 million was awarded in October 2007 to the Oregon Department of Human Services (DHS) to implement a health record bank (HRB) project for Medicaid clients and evaluate the project. The HRBO is unique among the 49 grants totaling \$150 million made to 34 states in 2007. Of the 26 grants awarded for health information technology (HIT) projects, the Oregon project is the only project building a personal health record (PHR) using a health record banking approach.</p> <ul style="list-style-type: none"> • Initial grant term: 18 months - October 2007 to March 2009. • CMS approved a grant extension to March 31, 2010. • An extension request through March 31, 2011 is expected. <p>An RFP was issued in March 2009 to select an HRBO vendor. The contract with the selected vendor should be in place in late August 2009. The HRBO is scheduled to go-live in early 2010.</p>	<p>The November 2008 HIIAC report to the Oregon Health Fund Board considered the HRBO as a fundamental building block in developing health information exchange in Oregon.</p> <p>Further evaluation of the HRBO in light of ARRA and other HIE efforts in Oregon will be required.</p>
Provider-based PHRs		Tethered PHRs identified to date are provided by provider organizations include Kaiser and OHSU (Epic’s MyChart), UmpquaOneChart and PeaceHealth.	Incomplete list
Health plan-based PHRs		Tethered PHRs identified to date are provided by health plans include Providence Health Plan (WebMD), Regence BS/BC, ODS (WorldDoc with synchronization through HealthVault)	Incomplete list
Other PHRs	Unknown	There are number of commercial PHR vendors offering services to individuals and employer groups.	Information not available

Electronic Eligibility and Claims Transactions

The environmental scan surveys emphasized the electronic exchange of clinical information. Oregon administrative simplification efforts are focused maximizing the use of electronic transactions and standardizing the implementation of best practices across health plans and provider organizations.

Domain	Scope	HIT Adoption or Role in HIT Adoption	Comments
Electronic eligibility transactions	Provider – Health Plan Interactions	Oregon has not surveyed the extent of provider utilization of standard HIPAA electronic eligibility transactions, health plan eligibility websites or telephone verification inquiries. The of eligibility confirmation mechanisms in Oregon are believed to be comparable to Washington State where a 2007 survey found that 63% of practices sometimes checked eligibility by web browser while only 36% sometimes did so via an electronic inquiry ⁹ . Oregon health plans indicate a large volume of telephone eligibility inquiries consistent with August 2007 data from a Washington health plan showing that 55% of all provider calls were to determine patient eligibility or benefits. ¹⁰	Providers have a high level of inefficiencies and frustrations from current eligibility verification processes. Administrative simplification efforts, best practice standardization and sign-on website access would improve efficiencies for providers and health plans.

⁹ Washington State Office of the Insurance Commissioner Health Care Administrative Expense Analysis Blue Ribbon Commission Recommendation #6 Final Report, pages 57-60 (11/26/07)

¹⁰ Washington State Office of the Insurance Commissioner. Health Care Administrative Expense Analysis Blue Ribbon Commission Recommendation #6 Final Report, page 25 (11/26/07)

Domain	Scope	HIT Adoption or Role in HIT Adoption	Comments
Electronic claims transactions	Provider – Health Plan Interactions Hospitals	<p>Oregon has not specifically surveyed the extent of electronic claims generation by physician practices, hospitals or other providers. The 2009 Ambulatory EHR Survey found that 80% of clinicians covered by the survey were in practices with an electronic practice management (EPM) system. Nearly all EPM systems have electronic claims submission capabilities. Some unknown portion of practices with and without an EPM contract with a commercial billing service or clearinghouse that generates electronic claims including customizations for specific health plans. Health plans report receiving most of their claims volume is submitted electronically.</p> <p>It is assumed that all Oregon hospitals have the patient accounting and billing systems to generate electronic claims from their internal systems or contract with a billing services provider or clearinghouse.</p>	<p>Both health plans and providers express concerns about the efficiency of existing claims transaction processes.</p> <p>Administrative simplification efforts, best practice standardization and sign-on website access would improve efficiencies for providers and health plans.</p>
Administrative Simplification Initiative	Health Care Leadership Task Force (HCLTF)	<p>In mid 2008 a number of hospitals, practice groups, health plans and associations established an Administrative Simplification Initiative under the auspices of the HCLTF (http://www.healthleadershiptaskforce.com) to simplify administrative challenges for physicians, hospitals and health plans. Over 100 individuals from physician groups, hospitals and health plans are involved in three work groups: claims, eligibility and credentialing. Specific efforts are underway on developing standards and best practices for payer websites to reduce provider-plan phone calls, developing a single authentication sign on system, standardization of insurance cards, electronic credential processing and repository.</p>	<p>The HCLTF administrative simplification initiative efforts have implications for HIE planning and interoperability as well as provider and health plan workflows and efficiencies. The roles of the administrative simplification initiatives in statewide HIT and HIE planning and need further analysis and discussion.</p>

Domain	Scope	HIT Adoption or Role in HIT Adoption	Comments
Administrative Simplification Initiative	2009 Legislative Session	<p>The 2009 Oregon legislature concluded that costs could be reduced by standardizing administrative processes. As part of the health reform legislation, HB 2009 authorized the insurance regulator, the Department of Consumer and Business Services (DCBS), to establish uniform standards for insurers including standards for eligibility verification, health care claims processing, and payment and remittance advice transactions. A work plan (http://www.oregon.gov/OHA/OHPB/meetings/2010/agenda-1001.pdf, pages 27-28) for the Administrative Simplification Initiative was presented to the Oregon Health Policy Board on January 12, 2010 indicating the recommendations to DCBS in June 2010.</p>	<p>The HB2009 administrative simplification initiative efforts have implications for HIE planning and interoperability as well as provider and health plan work flows and efficiencies. The roles of the administrative simplification initiatives in statewide HIT and HIE planning and need further analysis and discussion. The work plan identifies these issues and coordination of activities with HITOC.</p>

Electronic Clinical Laboratory Ordering and Results Distribution

Assessing the state of laboratory health information exchange services relies on several sources: ambulatory and hospital/health system EHR surveys included questions about laboratory ordering and reporting, the Department of Human Services (DHS) HIT inventory regarding the relationship between commercial and hospital laboratories to public health communicable disease reporting as well as website information and interviews with hospital and commercial laboratories.

Domain	Scope	HIT Adoption or Role in HIT Adoption	Comments
Commercial laboratories		Based on interviews with commercial laboratories, the commercial laboratories providing services to ambulatory practices are all able to receive electronic laboratory orders and provide electronic reports based on industry standards. Labs have implemented standard interfaces to/from most EHR vendor systems used by practices referring specimens. Commercial labs provide secure website access for submission of orders and retrieval of lab results that can be used by practices with and without EHRs.	Laboratories express high interest in information exchange to/from physician EHRs. The major issue is protracted EHR adoption in physician practices.
Hospital laboratories		Medical practices owned or operated by the multi-hospital health systems in Oregon have electronic ordering and results report through the health system EHRs. Many affiliated practices have comparable access. The major health system laboratories provide secure website access for submission of orders and retrieval of lab results comparable to commercial laboratories. Several hospital labs have implemented standard interfaces to/from a number of EHR systems.	
Ambulatory EHR systems:	Enter & Review Labs	2009 Survey: 75% of surveyed organizations with EHRs (87% of clinicians) are able to enter and review lab orders,	
Ambulatory EHR systems	Electronically place orders	2009 Survey: 48% of organizations with EHRs (69% of clinicians) are able to electronically place lab orders.	Less than half of organizations with EHRs have CPOE functionality
Ambulatory EHR systems	Electronic Lab Interface	2009 Survey: 72% of organizations with EHRs (91% of clinicians) have an electronic EHR – laboratory interface.	

Domain	Scope	HIT Adoption or Role in HIT Adoption	Comments
Hospital EHR systems		2009 Preliminary Results: 44 of 47 hospitals (98% of discharges) with EHRs have or by early 2010 will have electronic laboratory results included in their EHR system. 11 of 47 hospitals support laboratory CPOE. 43 of 47 hospitals (98% of discharges) with EHRs have fully or partially implemented or planning CPOE for laboratory services.	
Public health reporting from laboratories		80% of communicable disease reporting occurs electronically to local health departments from 12 clinical laboratories and the Oregon State Public Health Laboratory. These reports flow into the recently upgraded Oregon Public Health Epi-User System (Orpheus) and are the basis of reporting to the Centers for Disease Control (CDC).	

Electronic Prescribing

SureScripts prepares a State Progress Report on Electronic Prescribing. The last report as of December 31, 2008 shows that Oregon ranks favorably against national statistics. The SureScripts reports are available at <http://www.surescripts.net/e-prescribing-statistics.html>. Anecdotal information from providers and pharmacies notes that substantial numbers of physicians and providers have initiated electronic prescribing in 2009.

Domain	Scope	HIT Adoption or Role in HIT Adoption	Adoption Gap or Comments
Prescriptions routed electronically	SureScripts report 12/31/2008	For 2008 Oregon ranked 15 th nationally with 4.39% of prescription routed electronically. Growth in 2008 over 2007 was 180%.	
Visits with a prescription benefit request	SureScripts report 12/31/2008	For 2008 Oregon ranked 19 th nationally with 7.86% of patient visits with a prescription benefits request and 4.37% with a prescription benefit response. Growth in 2008 over 2007 was 300%.	
Physicians routing e-prescriptions	SureScripts report 12/31/2008	As of 12/31/2008 Oregon ranked 11 th nationally with 15.43% of physicians routing e-prescriptions (1,030 physicians). Growth in 2008 over 2007 was 170%.	
Payer coverage	SureScripts report 12/31/2008	For 2008 Oregon ranked 36 th nationally with 55.83% of patients with available prescription benefit information.	
Pharmacy participation	SureScripts report 12/31/2008	As of 12/31/2008 Oregon ranked 27 th nationally with 76.86% of community pharmacies (475) activated for e-prescribing. Growth in 2008 over 2007 was 12%.	
Clinicians registered with SureScripts	Salem area, Marion and Polk Counties	A review of SureScripts registration in Marion and Polk counties on May 27, 2008 identified 227 registered clinicians. Registration increased 29% to 292 clinicians as of October 12, 2009.	
Ambulatory EHR systems	EHR system prints prescriptions	2009 Survey: 76% of surveyed organizations with EHRs (87% of clinicians) are able to generate printed prescriptions from their EHR systems.	
Ambulatory EHR systems	Electronically transmits prescriptions	2009 Preliminary Results: 57% of surveyed organizations with EHRs (74% of clinicians) are able to electronically transmit an electronic prescription to a pharmacy.	

Other Health Care Delivery Settings

A number of other health care settings may need to be considered as Oregon HIT planning efforts move forward.

Domain	Scope	HIT Adoption or Role in HIT Adoption	Adoption Gap or Comments
Nursing Homes	Unknown	Not yet addressed	
Home Care & Home Health Agencies	Unknown	Not yet addressed	

Oregon State Government

A number of State of Oregon programs involving health and social services programs have implications for HIT planning. The Oregon Department of Human Services (DHS) is developing an inventory of programs with significant HIT components. The DHS HIT scan reviewed 64 separate program areas and identified 32 programs that have one or more technology applications for further consideration. A structured assessment is under development for eleven program areas. Addition programs may be added as the DHS HIT scan proceeds. Selected DHS HIT programs are included below. The Department of Corrections and Oregon Youth Authority provide health services in the adult and youth correctional facilities. Efforts are contemplated to include these agencies in the EHR and HIT environmental assessments.

Domain	Scope	HIT Adoption or Role in HIT Adoption	Comments
DHS - Medical Assistance Programs (DMAP)		DMAP operates the Oregon Health Plan (OHP) including the Medicaid program. The Medicaid Management Information System (MMIS) is an essential infrastructure component for administering the OHP and processing eligibility and provider claims data. The new MMIS system was activated in December 2008 to replace the 30 year old legacy system and consolidate a number of separate applications and data bases.	The MMIS conversion encountered a number of conversion and implementation issues that are being resolved. The roles of MMIS in statewide HIT and HIE planning need further analysis and discussion.
DHS- Addiction & Mental Health Division (AMH)		AMH has completed a several year process for planning a comprehensive Behavioral Health Information Project (BHIP) designed to provide an EHR, other clinical and administrative systems to support the state hospitals (OSH replacement project and Blue Mountain Recovery Center) 500 mental health and addiction services community-based programs and 13 acute care hospital programs. Responses for the BHIP system RFP were due in late July 2009.	BHIP has implications for HIE planning and interoperability of BHIP with EHRs of various provider organizations and health systems. The roles of BHIP in statewide HIT and HIE planning and need further analysis and discussion.

Domain	Scope	HIT Adoption or Role in HIT Adoption	Comments
DHS - Public Health		<p>A number of public health programs have direct involvement and linkages to providers that are being more fully described in the DHS-HIT scan including</p> <ul style="list-style-type: none"> - Immunization Information System (ALERT) - Orpheus – communicable disease reporting - Emergency medical services - OR-Kids - FamilyNet Child Health Record - Vitals Statistics OVERS - Oregon Electronic Laboratory Reporting (ELR) project - DHS-LIMS – laboratory information management system - Prescription Drug Monitoring 	The roles of the various public health programs in statewide HIT and HIE planning and need further analysis and discussion. Integration of distinct applications into an overall DHS & HIE framework will require careful planning and phasing.
Prescription Drug Monitoring Program	2009 Legislative Session	Senate Bill 355 enacted by the 2009 Legislature establishes a Prescription Drug Monitoring Program (PDMP) to address prevention of prescription drug diversion by providing a tracking system that tracks dispensing of Schedule II-IV prescription drugs.	PDMP implementation planning has important implications for HIE planning related to medication history data.
All Payer Claims Database	2009 Legislative Session	House Bill 2009 enacted by the 2009 Legislature requires the Office for Oregon Health Policy and Research to establish a health care data reporting system (i.e., all payer claims database) for purposes of improving transparency regarding health care services and costs, supporting health reform efforts and improving quality and effectiveness.	An all payer claims database has important implications for HIE planning related to the development of HIE functions for a record locator service (RLS), master patient index (MPI) and master provider index.
Dept of Corrections		The Department of Corrections (DOC) operates 15 clinics in its adult correctional facilities. DOC is exploring EHR systems for its corrections population.	
Oregon Youth Authority		The Oregon Youth Authority (OYA) operates correctional facilities for minors: seven closed facilities and four transitional facilities. OYA operates six clinics in support of the closed facilities. OYA is exploring EHR systems for its corrections population	

Telehealth and Telemedicine

During September and October 2009, the Oregon Health Network Applications Committee plans to compile an inventory of telehealth and telehealth applications in Oregon.

Domain	Scope	HIT Adoption or Role in HIT Adoption	Comments
Telehealth applications		A number of telehealth – telemedicine applications are operating in Oregon. Example projects include pediatric intensive care video consultations and monitoring (OHSU and Sacred Heart), tele-genetics counseling (OHSU, Medford, Bend, Boise) – currently suspended until payer reimbursement is activated, psychiatric video consultations (OHSU, a prison, a tribal clinic), specialty telemedicine consults (eastern Oregon and Idaho hospitals), cardiology Stemi consults and data transfers (southern Oregon hospital, EMS ambulance and emergency department), trauma consults to triage patient appropriately, pediatric and adult image interpretation and overreads (store and forward)..	OHN and the Telehealth Alliance of Oregon (TAO) will be undertaking an inventory of telehealth applications in fall 2009.
Oregon Health Network (OHN)		Oregon Health Network (OHN) has been approved by the Federal Communications Commission (FCC) to receive up to \$20.2 million in funding reimbursement under the Universal Service Fund to build a comprehensive and robust broadband infrastructure and telehealth network that will connect hospitals, clinics and community colleges throughout Oregon. The project will connect eligible health care facilities under the FCC’s Rural Health Care Pilot Program (RHCPP). Four RFPs are in various stages of solicitation and contracting for implementing the FCC grant. Additional information is available at www.oregonhealthnet.org .	Slow process to work through RFPs and contract for projects.

Other Oregon Assets to Advance HIT Adoption (partial list)

Oregon benefits from the presence of a number of organization that play unique roles supporting EHR and HIT adoption and in meeting the ARRA meaningful use requirements. An incomplete list of such organizations includes the following:

Domain	Scope	HIT Adoption or Role in HIT Adoption	Comments
Acumentra Health		Acumentra Health is Oregon’s federally-designated Medicare Quality Improvement Organization (QIO) as well as the External Quality Review Organization for Medicaid in Oregon and Washington. Acumentra Health has been involved in a number of HIT-related projects including Oregon Diabetes Collaborative (2001-2, 2003-4), Oregon Rural Collaborative (2005-7), DOQ-IT (2005-8), and EHR Preventive Care Initiative (2008-11). Acumentra Health also coordinates HIT activities of the Oregon IPA Collaborative (representing over 4,300 providers) and pharmacy project activities of the Medicare Advantage Health Plan QI Collaborative. Additional information is available at http://www.acumentra.org/	Interests include facilitating EHR adoption and optimization, HIE development, regional extension centers, quality metrics and practice-based quality improvement.
OCHIN		OCHIN is a health center controlled network (HCCN) of community health clinics and small practices serving the medically underserved with 18 members in Oregon, 9 members in California and one in Washington that operate clinics in over 200 locations. OCHIN provides a comprehensive suite of products including practice management and EHR (Epic) services, panel and population management tools to member organizations. As an Organized Health Care Arrangement (OHCA) under HIPAA with a single record per patient OCHIN also functions as an HIE among the member organizations. The OCHIN master patient index contains information on over 400,000 Oregonians and 600,000 lives across California, Oregon and Washington. OCHIN also operates SafetyNetWest, a practice-based research network that solicits proposals and coordinates research projects involving safety-net populations. Additional information is available at http://www.ochin.org/	Interests include regional extension centers, EHR adoption, HIE development, HIT-based quality improvement and collaborative research among safety net organizations, workforce development. OCHIN is the lead organization in Oregon’s Regional Extension Center proposal.

Domain	Scope	HIT Adoption or Role in HIT Adoption	Comments
OHSU-DMICE		<p>Department of Medical Informatics & Clinical Epidemiology (DMICE) is an academic and research department in the Oregon Health & Science University (OHSU) School of Medicine. DMICE blends teaching, research, and service activities in medical informatics and clinical epidemiology. The medical informatics program features a diversity of research activities on the application of information technologies in health care as well as graduate education programs available on-campus or via distance learning. The clinical epidemiology program includes the AHRQ-funded Oregon Evidence-Based Practice Center that conducts systematic reviews of medical tests and interventions, and clinical effectiveness studies. Additional information is available at http://www.ohsu.edu/ohsuedu/academic/som/dmice/</p>	<p>Interests include workforce development, regional extension centers and applied informatics.</p> <p>OHSU-DMICE is a partner organization in Oregon’s Regional Extension proposal.</p>
Oregon Health Care Quality Corp		<p>The Oregon Health Care Quality Corp’s Partner for Quality Care initiative is using pooled encounter and medications (claims) data (96 million claims, 1.6 million unique individuals) to measure and report quality metrics for 2,212 adult primary care physicians (120 medical groups with 308 clinic sites). 19 practices representing about 729 physicians are using a secure interactive web portal to access data about their patients. Metrics based on clinical EMR data are planned. This effort is part of the Robert Wood Johnson Foundation Aligning Forces for Quality program. Quality Corp is also a Federally-designated Chartered Value Exchange (CVE). Additional information is available at http://www.q-corp.org/</p>	<p>Interests include quality metrics from claims data and EHRs, HIE development, practice-based quality improvement, quality reporting metrics and consumer engagement.</p>

Health Information Exchange (HIE) Activities report

This section identifies HIE activities in Oregon that may be useful for HIT planning including strategies for health information exchange in Oregon that leverages existing resources and accelerates achievement of Oregon HIT goals. The framework below focuses on current planning efforts and implementation initiatives in Oregon around HIE, as well as existing or future planned use of HIE within in integrated health systems.

Information in this section was collected from multiple sources including the 2009 eHealth Initiative HIE Survey report, the 2009 Oregon Hospital & Health System HIT Survey, and 2009 Oregon IPA Survey. Additionally interviews were conducted with individuals involved with most of the identified HIEs activities.

HIE Terminology

Terminology was developed in 2008 through a collaborative process by the National Alliance for Health Information Technology and authorized by the Office of the National Coordinator for Health IT. www.nahit.org/images/pdfs/HITTermsFinalReport_051508.pdf.

- **Health Information Exchange (HIE)** – the electronic movement of health-related information among organizations according to nationally recognized standards.
- **Health Information Organization (HIO)** – an organization that oversees and governs the exchange of health-related information among organizations according nationally recognized standards.

HIE Planning Efforts

Central Oregon Health Information Exchange: In 2007, a number of central Oregon stakeholders explored development of an HIE to serve central and eastern Oregon. In 2009, various organizations including Cascade Healthcare, Bend Memorial Clinic, and Central Oregon Electronic Medical Records resumed active HIE planning for central Oregon. Recommendations expected late 2009.

Gorge Health Connect: - In 2009 Mid Columbia Medical Center, La Clinica del Carino Family Health Care Center and Wasco County Public Health sponsored discussions for a community-based health information exchange serving The Dalles and surrounding area. Participating organization include Columbia River Women's Clinic, Mid Columbia Surgical Specialists, Arlington Clinic, Moro Clinic and Deschutes Rim Clinic. The Consortium has submitted funding proposals to support further planning and HIE development.

Oregon Health Information Exchange Options Report: In December 2005, the Oregon Business Council's Data Exchange Group commissioned an analysis of options for initiating a pilot project for health information exchange. The May 15, 2006 report can be found at: <http://www.q-corp.org/qcorp/images/public/pdfs/OR%20HIE%20Options.pdf>.

Metro Portland Health Information Exchange (MPHIE) Mobilization Planning (2006-7): In September 2006, the Oregon Business Council's Data Exchange Group commissioned a mobilization plan to implement health information exchange in the Portland area based on

retrieval of results and reports. The May 14, 2007 MPHIE Mobilization Plan can be found at <http://www.q-corp.org/q-corp/images/public/pdfs/MPHIE%20Final%20Report%20053007.pdf>. Supporting planning documents can be found at <http://q-corp.org/default.asp?id=61>.

Portland Metropolitan Area Health Information Exchange Coalition: The eight health systems (Providence, Kaiser Permanente, Southwest Washington Medical Center, OHSU, OCHIN, Legacy, Adventist, and Tuality) in the Portland-Vancouver metropolitan area are partnering to create a federated Health Information Exchange. Building on standard XDS.b functionality being deployed in or as an adjunct to their EHR deployments, the partners have agreed on a point-of-care “pull” model for information exchange. A consent at the time of service will allow patients to “opt out” of the exchange, and the partners are working to evolve common consent language and standards, identity matching will occur at the time of initial service in the normal course of registration, and will be persistent once established (as is the standard XDS.b PIX/PDQ interchanges). Standard vendor tools will be used to incorporate interchange data into the record. Five of the partners are using the Epic EHR, and those partners will be exchanging data using Epic’s Care Everywhere product. The remaining EHRs will be interfaced to each other and to Epic through automated services being built by the coalition. This is expected to go live in phases, with the first data exchange occurring between the Epic customers; by the end of 2010, exchange will Providence’s HIE (and potentially others) will be live.

Salem Area Community Health Information Exchange (SACHIE): A group of Marion-Polk County community stakeholders began discussing formation of an HIE in September 2007. In 2009 grant funding was obtained to develop a technology strategy and business plan. A SACHIE Development Committee is actively engaged in the planning process under the auspices of the Physician’s Choice Foundation. The technology roadmap and business plan framework are due in early 2010.

South Coast Health Alliance: Five hospitals on the southern Oregon coast (Bay Area, Coquille Valley, Curry General, Lower Umpqua and Southern Coos) are discussing health information technology strategies for the area including the use of two local efforts to leverage health information exchange among the five hospitals and local physician practices.

Integrated Health Systems

There are a number of health systems in Oregon that have multiple operating components that may include one or more hospitals, system-owned medical groups, affiliated medical groups, home health agency, skilled nursing facilities and/or others units. These health systems strive to use a core set of HIT applications across the various settings in which they operate and work to improve the interoperability and exchange of information between their HIT applications, care settings and medical groups interacting with the health systems.

Asante Health System operates two hospitals in Jackson and Josephine Counties.

Cascade Healthcare Community operates four hospitals in central Oregon.

Kaiser Permanente operates one hospital in Portland and clinics the Portland metro area, Salem and southwest Washington.

Legacy Health System operates four hospitals in the Portland metro area, one hospital in Clark County Washington and clinics in the Portland metro area, Woodburn and southwest Washington.

PeaceHealth operates four hospitals and medical group practices in Lane County.

Providence Health and Services operates eight hospitals across the state of Oregon and medical groups in the Portland area, north coast and southern Oregon.

Salem Health operates two hospitals in Marion and Polk Counties.

Samaritan Health Services operates five hospitals and medical group practices in Linn, Benton and Lincoln Counties.

Operational & Soon to be Operational HIEs

Bay Area Community Informatics Agency (BACIA): BACIA represents a consortium of rural Oregon Coast healthcare organizations focused on health information technology. BACIA is supported by a \$174,190 AHRQ grant in 2004 to implement a local HIE between community providers. Starting in late 2009, the Medicity ProAccess information exchange application will support connectivity between partner organizations: Bay Area Hospital, North Bend Medical Center, Bay Clinic and Southwest Oregon IPA. Plans include expanding the Medicity ProAccess application to the South Coast Health Alliance hospitals, tribal clinics, Waterfall Clinic, Bay Eye Clinic and other clinics.

Epic CareEverywhere - CareEpic: Epic Systems has developed a process for information exchange between providers using Epic EHR systems known as CareEpic. Epic EHRs are in use at Kaiser, OCHIN, OHSU, and Salem Health (Salem Hospital and West Valley Hospital). Legacy Health System is in the process of implementing Epic. Epic users in Oregon have begun informal discussions about health information exchange using CareEpic.

Jefferson Health Information Exchange (formerly Mid-Rogue HIE): Mid Rogue eHealth Services has partnered with Asante Health System and is collaborating with Providence Medford Medical Center and other entities in Jackson and Josephine Counties to exchange patient data. Initial information exchange interfaces started in winter 2008. In late 2009, Medicity Systems was selected to expand HIE functionality with a master patient index, record locator service and connectivity. Mid Rogue eHealth Services implemented Greenway PrimeSuite, an interoperable 2009 CCHIT certified EHR, and has active interfaces with four Laboratory Information Systems (LIS), one HIS and the Oregon ALERT Immunization Registry.

OCHIN: OCHIN is a health center controlled network (HCCN) of community health clinics and small practices serving the medically underserved with seventeen members in Oregon, eight members in California and one in Washington. OCHIN provides practice management and EHR (Epic) services to member organizations. As an Organized Health Care Arrangement (OHCA) under HIPAA with a single record per patient OCHIN also functions as an HIE among the member organizations. The OCHIN master patient index contains information on 400,000 Oregonians and 600,000 lives across California, Oregon and Washington. OCHIN has signed an agreement to participate in Epic CareEverywhere

Lane/PeaceHealth Community Health Record The PeaceHealth system (7 hospitals and 5 medical groups in Oregon, Washington and Alaska) utilizes a system-wide, integrated (inpatient/outpatient/practice groups) electronic health record system (GE Centricity Enterprise) implemented in a manner to support the broader goal of a Community Health Record (CHR). The goal of CHR is to provide all community clinicians secure access to a patient's inpatient and outpatient comprehensive medical history at any time from any place. The CHR includes the PeaceHealth EHR, clinical data repository and data warehouse. Over 23,000 PeaceHealth and community clinicians are registered to access information including over 3,000 physicians, approximately 55% are in the Lane County region. About two-thirds of users are community clinicians. Community clinicians can also upload information about their patients from other EHRs. In January 2010, a broad-based group of PeaceHealth and community stakeholders formed a Steering Committee to explore the further development of health information exchange connectivity and functions in Lane County including governance and technology development.

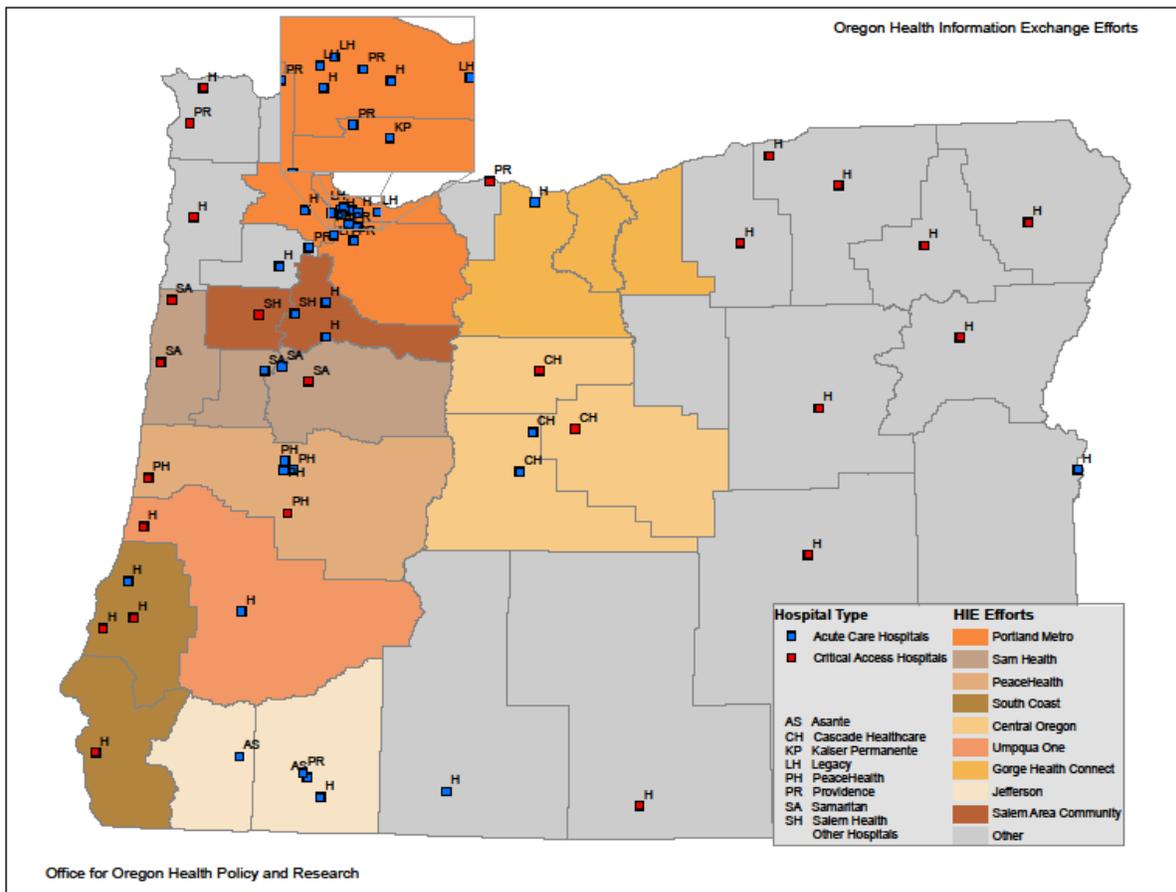
Providence Health & Services – Oregon Health Information Exchange: Providence is implementing a standards-based HIE to connect their inpatient EMR (McKesson), the outpatient EMR for their employed physicians GE Centricity), other clinical systems (Picis EDIS and others), and the EMRs of their affiliated physicians (Centricity EMR and others). Production publication to the HIE is expected to begin in February 2010. Providence's HIE is ultimately expected to contain data for over 2 million patients that Providence has been in various health care settings. Providence's vendors have provided functionality that incorporates coded data into their EMRs automatically, an industry "first." This end-to-end data sharing will be live in February 2010. Providence will also be using their HIE to manage order/result workflow for their internal and external laboratory and imaging customers. This functionality is expected to enter production in March 2010. Providence is actively involved in the Portland Metro HIE planning discussions

Samaritan Health Services - Health Information Exchange (SHS-HIE): In August 2009 Samaritan Health Services partnered with Medicity Systems to establish an HIE. The system allows Samaritan's 5 hospitals and affiliated practices in Linn, Benton and Lincoln counties to

deliver patient data securely and efficiently. Clinics' within Samaritan's service area will be able to join the exchange and data will flow to their disparate EMR systems. SHS-HIE initially will feed information to the Benton County Health (Epic EMR) and The Corvallis Clinic (Allscripts EMR). Subsequent phases involve reciprocal information exchange and adding other clinical practices in the area.

Umpqua OneChart Health Information Exchange (Roseburg, Douglas County and surrounding area): Starting in 2005, the community-based HIE now supports a community enterprise master patient index supporting about 150 different practice management systems. These systems provide the foundation for a common EHR system (Centricity) throughout the community, leveraging single chart patient technology in a centralized data repository, including comprehensive interfaces to the Mercy Medical Center Meditech HIS, local ambulatory and cancer treatment facilities and related systems. Umpqua OneChart provides a personal health record (PHR) system compatible with both Microsoft HealthVault and Google Health. Read-only access (with appropriate privacy and security controls) is offered to authorized Roseburg VA representatives, as well as first responder summary information (face sheet form) to local EMS (ambulance, fire, police) personnel. The HIE now contains information on about 220,000 lives.

Figure 1: Regional Coverage of Oregon HIE Efforts



PACS – Imaging Collaborations and Exchange

Picture archiving and communication systems (PACS) are computers, commonly servers, dedicated to the storage, retrieval, distribution and presentation of images. A number of hospital and imaging centers are collaborating to facilitate the availability and electronic exchange of medical images.

Asante Health System PACS Collaboration: Asante provides PACS services (Fuji PACS) for its hospitals in Grants Pass and Medford, and Oregon Advanced Imaging (Medford). Other Fuji PACS system users include Grants Pass Imaging and Medford Medical Clinic, which have their own PACS systems but can access the Asante PACS system with appropriate security.

Cascade Medical Imaging (CMI): A joint venture, between Central Oregon Radiology and Cascade Healthcare Community that provides imaging and PACS services for central and eastern Oregon, covering 33,000 square miles and serving just over 300,000 people. CMI and the Bend Memorial Clinic are able to access and exchange images. The CMI PACS network currently serves 16 physical locations (hospitals and clinics) in Deschutes, Jefferson, Crook, Harney, Grant, Lake, Wallowa and Wheeler counties. The network serves 3,208 referring physicians with 2,304 users actively using the system.

Oregon Community Imaging (Salem): A cooperative arrangement among community healthcare organization to facilitate the access and exchange of medical images with an imaging repository for participating practices. Current participants include Salem Hospital, Salem Radiology Consultants, West Valley Hospital (Dallas) and Mission Medical Imaging. The network has established virtual private network (VPN) connections with OHSU, Legacy Health Systems, Silverton Hospital and Salem Clinic to support the transfer of images between facilities. Imaging access and exchange for Salem area NextGen EMR users is under development.

Samaritan Health PACS: A system used as a common imaging repository by the five Samaritan Health hospitals and their affiliate practices and clinics located in Linn, Benton, and Lincoln counties. The Corvallis Clinic utilizes the Samaritan Health PACS system under an ASP arrangement with its own dedicated imaging database. Images can be exchanged as appropriate.

South Coast: A community PACS is based at Lower Umpqua Hospital (Reedsport) also serves Coquille Valley Hospital (Coquille) and Southern Coos Hospital (Bando

Appendix A: Abbreviations:

AMH: Addiction and Mental Health Division
CAH: critical access hospital
COEMR: Central Oregon EMR
COIPA: Central Oregon IPA
CVE: chartered value exchange
DCBS: Department of Consumer and Business Services
DHS: Department of Human Services
DMAP: Division of Medical Assistance Programs
DMICE: OHSU Department of Medical Informatics & Clinical Epidemiology
EHR: electronic health record
EMR: electronic medical record
EPM: electronic practice management system
FCHP: fully capitated health plan
FQHC: federally qualified health center
HIIAC: Health Information Infrastructure Advisory Committee
HIE: health information exchange
HIO: health information organization
HIT: health information technologies
HITOC: Health Information Technology Oversight Council
HRB: health record bank
HRBO: Health Record Bank of Oregon
IPA: independent practice association
MPI: master patient index
OAHHS: Oregon Association of Hospitals and Health Systems
OHA: Oregon Health Authority
OHP: Oregon Health Plan
OHPB: Oregon Health Policy Board
OHPR: Office for Oregon Health Policy and Research
PHR: personal health record
QIO: quality improvement organization
RHC: rural health center
RHIO: regional health information organization
RLS: record locator service
SBHC: school-based health center

Appendix I: Oregon Medicaid HIT P-APD

**State of Oregon
Department of Human Services**

**Medicaid Health Information Technology (HIT)
Planning Project**

**Oregon Medicaid HIT Planning
Advance Planning Document
(HIT P-APD)**

Submitted to the

Centers for Medicare and Medicaid Services

February 1st, 2010

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Introduction and Background

I. Introduction

The delivery of health and human services in Oregon is in the midst of a major structural, conceptual, and information technology (IT) transformation. In the summer of 2009 the Oregon state legislature passed historic legislation to promote comprehensive health care reform, including a major Medicaid expansion and health care delivery system reforms intended to expand access, promote quality, and contain costs. Many of these reforms rely on the secure exchange of health data to be effective. These laws also change the structure of Oregon's state health and human services department by creating two state agencies; the Oregon Health Authority and the new Department of Human Services. The Oregon Health Authority (OHA) contains all the health-related programs and is overseen by the newly created Health Policy Board and the Department of Human Services (DHS) is comprised of human services programs. Both entities will share administrative, support, and information technology (IT) services. Oregon's transformation sets the stage for a new vision of shared services supported by a client-centered, integrated DHS/OHA services information system.

Oregon's DHS/OHA leaders have a vision for integrating service IT systems, which will largely impact the Medicaid program given that Medicaid clients in Oregon are the largest consumers of nearly all other DHS/OHA services, including mental health; self sufficiency; aged and physically disabled services; Women, Infants & Children (WIC); child welfare; and food stamps. See Appendices B and C for a graphical representation of the overlap of program services for DHS/OHA clients. In addition to services, DHS/OHA requires Medicaid providers to participate in public health surveillance reporting.

Current IT systems fall short of the DHS/OHA vision of integrated and coordinated services information. In particular, Medicaid consumers lack access to their health records. Providers are frustrated by the lack of access to client-specific public health data to ensure appropriate care, reduce duplicative services, and monitor the health of their patients. DHS/OHA workers in each program are frustrated by the lack of access to relevant data on their clients regarding services or health information gathered by another DHS/OHA program. Integration of DHS/OHA IT systems will reengineer this fractured system, save costs for the state, improve health care and human services delivery, and improve the health of Oregonians served by Medicaid and other DHS/OHA programs.

Oregon's Medicaid providers are ready for health information exchange. Oregon has six operational or soon-to-be operational local health information exchanges (HIEs), several more in the planning stages, and eight major integrated health systems with exchange capability between hospitals and affiliated clinics. Of Oregon's 58 hospitals, 47 have implemented Electronic Health Records (EHRs), and the rest plan to implement EHRs in the next few years. Oregon's clinicians have adopted EHRs at a higher rate than those in other states: 66.6% of Oregon office-based physicians are using any EHRs compared to 43.9% nationally, and 29% of Oregon physicians use a fully functional EHR, compared to 6.3% nationally.¹¹

Oregon is uniquely positioned to maximize the opportunity presented by the federal Centers for Medicare and Medicaid Services (CMS) to engage in the development of a comprehensive, coordinated State Medicaid Health Information Technology (HIT) Plan that recognizes the HIT needs of Oregon's Medicaid clients, providers, and DHS/OHA programs. As part of the Medicaid HIT plan, Oregon will seek to focus on improving quality by building a health information technology infrastructure and exchange capability that supports the meaningful use of healthcare information technology by both providers and consumers. CMS approval of this Medicaid HIT Planning Advance Planning Document (HIT P-APD) will secure 90 percent enhanced federal financial participation (FFP) for Oregon's planning activities that will lead to the development of Oregon's State Medicaid HIT Plan (SMHP) that is also inclusive of meaningful use and quality plans. The SMHP will be a key

¹¹ Preliminary results from Oregon's 2009 EHR provider survey (soon to be published) compared to CDC results from: Hsaio CJ, Beatty PC, Hing E, Woodwell D, Rechtsteiner E, Sisk JE. Electronic Medical Record/Electronic Health Record Use by Office-based Physicians: United States, 2008 and Preliminary 2009. Health E-Stat, December 2008. http://www.cdc.gov/nchs/data/hestat/emr_ehr/emr_ehr.pdf.

component of the overall State HIE Strategic and Operational Plans developed by Oregon's Health Information Technology Oversight Council (HITOC) as part of the federal Office of the National Coordinator (ONC) State HIE Cooperative Agreement Program.

Oregon acknowledges that we are making a significant planning investment in terms of both personnel and contract expertise to create our SMHP. This supports our philosophy that the planning aspects for a successful HIT infrastructure as well as a functional HIE is a very important part of establishing a successful ongoing HIT program.

DHS/OHA projects that Oregon's Medicaid HIT Planning Project will cost \$3,922,418 and **requests ninety percent (90%) in FFP, estimated to be \$3,530,176** with the State's share estimated at **\$392,242**.

II. Background

DHS/OHA is currently engaged in a number of key initiatives that will need to be aligned with the Medicaid HIT Planning Project. DHS/OHA understands the importance of aligning the Medicaid HIT Planning Project with these initiatives to promote a coordinated planning strategy and the efficient use of funding made available through CMS and the ONC.

A. Medicaid HIT Efforts

- **MMIS Certification:** DHS/OHA implemented a new Medicaid Management Information System (MMIS), in December 2008. Oregon is using the legacy certification review process, but has also created a bridge to the current MITA-based process. The intended approach allows Oregon to leverage Certification activities to progress components of the MITA State Self Assessment.
- **MITA State Self Assessment (SS-A):** The MITA (Medicaid Information Technology Architecture) SS-A project is in process with a current planned completion date of 10/1/2010. The project will be coordinated with planning efforts associated with the Medicaid HIT Planning Project.
- **5010 / ICD-10 Planning.** DHS/OHA is creating a P-APD to remediate the MMIS to support the 10th revision of the International Classification of Diseases (ICD-10) as well as the 5010 version of the X12 HIPAA transactions. The changes associated with 5010/ICD-10 will be considered and coordinated as part of the MITA SS-A project as well as the Medicaid HIT Planning Project.
- **Health Record Bank of Oregon (Medicaid Transformation Grant):** The Health Records Bank of Oregon (HRBO) is a project funded under a Medicaid Transformation Grant to develop and build a personal health record bank that will electronically store Medicaid clients' health information and make it available on a secure Web site. HRBO will be an online, standardized, widely available and secure means by which Medicaid beneficiaries can access recent and historical laboratory results, imaging reports, dictated reports, and other patient data, and share this information in clinical situations in which it is not currently available.

B. ONC funded HIT efforts:

- **HITOC State HIE Planning and Development:** Oregon's Health Information Technology Oversight Council (HITOC) was legislatively created in July 2009 as part of Oregon's comprehensive health reform (see section C below). The HITOC will lead Oregon's efforts to develop and implement a statewide health information exchange (HIE). This project is currently underway and will result in State HIE Strategic and Operational Plans as required by the Office of the National Coordinator (ONC) of HIT, State HIE Cooperative Agreement Program Funding Opportunity Announcement (FOA). The State HIE planning and the State Medicaid HIT Planning projects will run along similar timelines, with a state HIE strategic and operational plans due to the ONC during the summer of 2010 and SMHP due to CMS in early fall 2010. The Medicaid HIT Planning project team will interact regularly with the HITOC team throughout the development of the State Medicaid HIT Plan to ensure a coordinated planning strategy,

synchronize contractor resources, prevent duplicative efforts, and develop a consistent and coordinated approach to provider communications and outreach.

- **Health Information Technology Regional Extension Center (HIT REC):** The Oregon REC will be responsible for assisting Medicaid providers with the selection, implementation and meaningful use of EHRs. The Medicaid HIT Planning project team and the HITOC team will work closely with the REC around provider outreach and education efforts.
- **Broadband Expansion:** Oregon Health Network (OHN) is the designated state entity for the Federal Communications Commission (FCC) communication infrastructure funding to expand broadband to rural and underserved areas.

C. Transformation of State Health and Human Services and Comprehensive Health Reform Initiatives: As mentioned earlier, the Oregon legislature passed historic health reform legislation in June 2009. These laws change the structure of Oregon's state health and human services department, expand Oregon's Medicaid program, and implement initiatives to transform Oregon's health care delivery system intended to expand access, promote quality, and contain costs.

- **Transformation of State Shared Services and IT Architecture:** Rick Howard, DHS/OHA's Chief Information Officer, has proposed a vision of rational, service-based architecture for state information technology systems including eligibility determination systems. Oregon will seek opportunities to pilot test this vision over the next several years. Oregon sees the State Medicaid HIT planning effort as a major driver towards achieving the Oregon vision of a seamless Health and Human Services delivery model and Enterprise Architecture. The DHS/OHA Transformation team is in the process of implementing the transformation of Oregon's health and human services agencies, which will include a shared office of information technology within a shared administrative services unit.
- **All-Payer, All Claims Database (APAC):** Oregon is in the process of implementing an all-payer, all claims database (APAC). Throughout the development of the State Medicaid HIT Plan we will look for opportunities to use the APAC to advance provider adoption of EHRs. This may include tracking EHR adoption and capturing data to support planning components pertaining to meaningful use. Medicaid data will be synchronized between MMIS and the APAC so as to be included in the APAC for Oregon's analysis of cost and quality trends.
- **Other DHS/OHA HIT Efforts:** In addition to providing medical care to Oregonians through the Medicaid program, DHS/OHA provides public health, behavioral health, long-term care and home health services, child welfare, self sufficiency and other services to Oregonians who participate in Medicaid. Information systems for these services and programs typically do not connect to one another, resulting in fragmented, inefficient care. In addition to developing a vision of shared services (described above), DHS/OHA programs seek enhancements within their systems to connect providers and hospitals to program data that will ultimately benefit Oregonians.

Ultimately, through the combined efforts of these initiatives, Oregon envisions a strong, integrated HIT and HIE to support meaningful use of EHRs within the provider community, thereby improving quality and health care outcomes and reducing overall health care costs.

Section 1: Statement of Need and Objectives

I. Purpose

Create a State Medicaid Health Information Technology (HIT) Plan (SMHP) that serves as the strategic vision to enable the State to achieve its future vision by moving from the current “As-Is” HIT Landscape to the desired “To-Be” HIT Landscape, including a comprehensive HIT Road Map and strategic plan to be implemented by the year 2014.

II. Objectives

The planning effort will result in a comprehensive SMHP that meets the following objectives:

- Describes the current Medicaid HIT landscape, defines a vision for the future HIT landscape, identifies the gap between the two, and defines a business and technical roadmap for achieving that vision;
- Describes the administration of the incentive program including:
 - Administration of payments, including identification of eligible providers, systems modification necessary to pay providers, and monitoring mechanisms;
 - Meaningful use criteria development and reporting mechanisms; and
 - Meaningful oversight, including routine tracking of meaningful use and reporting mechanisms;
- Pursues initiatives to encourage adoption of certified Electronic Health Record (EHR) technology to promote health care quality and the exchange of health care information under Medicaid, while ensuring privacy and security of data provided to its data exchange partners; and
- Demonstrates how Medicaid HIT will integrate:
 - With the Medicaid Information Technology Architecture (MITA) To-Be Roadmap;
 - Within the larger state Health Information Exchange (HIE) strategic and operational plan; and
 - Within Oregon’s vision for comprehensive health reform and transformation of Oregon’s public service delivery to a shared services integrated IT architecture.

Section 2: Project Management Plan

I. Planning Activities

Oregon Medicaid will work in close coordination with the Health Policy Board and the Oregon Health Authority Transformation team, the Health Information Technology Oversight Council (HITOC) and Oregon statewide Health Information Exchange (ORHIE) project, the HIT Regional Extension Center (REC), Medicaid Management Information System (MMIS) Certification, Medicaid Information Technology Architecture State Self-Assessment (MITA SS-A), 5010/ICD-10, All Payer All Claims Database, Broadband, Behavioral Health, Public Health, Long Term Care, and Health Records Bank of Oregon (HRBO) project teams throughout the planning effort to encourage a coordinated planning strategy and to prevent duplication of efforts.

The Medicaid HIT Planning Core Team will report to a project manager who ultimately reports to the Medicaid Director. The team will consist of project coordinators to align strategic objectives, conduct information sharing sessions, synchronize contractor resources where appropriate, coordinate provider outreach, include subject matter experts in work group sessions and distribute deliverables for review and feedback for the purpose of creating the SMHP. Federal Participation Dollars requested in this P-APD will only be used for planning activities directly related to Medicaid Services. The project manager will closely monitor all team activities and allocate costs not related to direct Medicaid Services to other funding sources. Oregon seeks make to a significant planning investment in terms of both personnel and contract expertise to create our SMHP. This supports our philosophy that the planning aspects for a successful HIT infrastructure as well as a functional HIE is a very important part of establishing a successful ongoing HIT program.

See Appendix A for a project organizational chart and Appendix D for a matrix of staff and contractor roles related to the following planning activities.

Project Start Up

- HIT P-APD: Deliver HIT P-APD to CMS, Review/update HIT P-APD with CMS as needed
- Convene staff and contractors: Determine and assign roles and responsibilities; convene project teams and select workgroup members. Convene and coordinate with State Medicaid HIT Plan (SMHP) Steering Committee. Hire HIT project staff: develop and post job announcements, conduct interviews, process hiring paperwork, configure work spaces; Hire Contractors: develop and release RFPs jointly with HITOC/ORHIE project, evaluate RFP submissions, sign contracts;
- Develop project structures: develop goals, objectives and guiding principles for the project; develop project work plan detailing tasks and timelines; Create a project collaboration environment and document control policies
- Establish administrative structures: refine budget and set up budget codes and reporting, develop process for travel planning and assistance

Communication and Coordination (ongoing)

- Stakeholder education/communication: Identify key stakeholders, meet with key stakeholders to kickoff the planning effort and communicate goals and objectives, recruit stakeholder volunteers to participate in workgroups where appropriate, establish a website related to Medicaid HIT planning
- Coordination: Establish lead contacts with Regional Extension Centers, HITOC, and other related ONC-funded and internal DHS/OHA projects; participate in HITOC meetings; coordinate contracting with HITOC where appropriate; convene joint team meetings monthly

Conduct Current HIT Landscape Assessment

- Assess/update current information: collect information that was recently gathered by the HITOC and assess its applicability to the State Medicaid HIT Plan; update assessment of projected ARRA incentives to identify providers that qualify and the estimated incentive amounts

- Gather new information: contractor to develop, field, and analyze Medicaid provider survey, to include Behavioral Health, Public Health, and Long Term Care components; assessment of Medicaid Managed Care Organizations' capacities; assessment of the scope and status of specific initiatives underway, including the Health Records Bank of Oregon; All-Payer, All Claims Database; Behavioral Health Integration Project; public health reporting; etc.
- Draft document: Draft current HIT landscape section of State Medicaid HIT Plan

Develop Vision of the HIT Future

- Background: research innovative State and National HIT/HIE initiatives
- Develop vision: convene internal state workgroup and/or Medicaid HIT stakeholder discussion groups; convene external workgroup and/or Medicaid HIT stakeholder discussion groups: Providers, consumers, advocates, others
- Draft document: Draft vision of Medicaid HIT landscape for State Medicaid HIT Plan

Perform a Gap Analysis

- Perform a policy gap analysis that compares the As-Is Environment with the To-Be Environment and identifies the specific areas that do not meet DHS/OHA' future vision
- Perform a technical gap analysis that compares the As-Is Environment with the To-Be Environment and identifies the specific areas in the As-Is Environment that do not meet DHS/OHA' future vision
- Draft document: Draft document with results of gap analyses

Define Specific Actions to Implement the Incentive Program and track Meaningful Use

- Incentives program business roadmap: Convene workgroup, develop criteria to identify eligible professionals and hospitals, define action steps for calculating and processing payments, solicit input on draft criteria and action steps, finalize
- Track and monitor meaningful use: Convene workgroup and contract for data and quality consultant, identify options for tracking meaningful use, develop draft meaningful use criteria and recommendations for tracking mechanism, solicit internal and external feedback, finalize criteria and tracking recommendations
- Incentives program technical roadmap: Convene workgroup, develop technical specifications required to implement the incentives program, allow reporting of and tracking of meaningful use criteria
- Incentives program technical roadmap: Convene workgroup, identify steps needed to prevent erroneous payments, develop oversight policies and procedures, identify penalties and enforcement mechanisms, solicit input on draft steps and policies, finalize
- Workgroups will also identify system and process changes that will be needed for the successful implementation of the program

Define Specific Actions to Implement EHR Adoption Initiatives

- Provider outreach, education, and communications: Convene a team to be responsible for coordinating and developing all provider outreach, education and communications. These resources will work closely with the HITOC and the REC teams to share contractor resources, avoid duplication of effort, and support a coordinated approach to provider communications and outreach. Contractor to conduct provider focus groups, develop communication strategy and messaging, and develop communication materials
- Privacy and Security planning: Convene a team to work with legal consultants and a stakeholder workgroup to evaluate and propose privacy and security policies, building off the work of Oregon's Health Information Security and Privacy Collaborative (HISPC) efforts. Deliverables will include data use agreements and other legal documents, and a privacy and security plan for inclusion in the SMHP, as well as policies and recommending changes to existing state laws, regulations and policies
- Provider EHR loan program: The HITOC and State Medicaid HIT Planning team will work with the REC to identify mechanisms to promote EHR adoption across all Medicaid providers in Oregon. Oregon

will explore whether a provider EHR loan program would be a meaningful and feasible mechanism to address barriers faced by Oregon providers who current lack EHR systems. Oregon will use a contractor to assess needs and analyze the feasibility of a provider EHR loan program for providers who lack the resources to purchase EHR systems.

- Community Behavioral Health HIT planning: The Community Behavioral Health HIT Plan, to be included in Oregon's SMHP, will focus on activities to promote EHR adoption for community addictions and mental health providers delivering Medicaid services. Activities include an environmental scan of behavioral health providers' use of EHR, planning for the release of a public option Community-Electronic Behavioral Health Record, linking community providers to the Behavioral Health Integration Project within the Oregon mental health state hospital system, working with the HITOC to develop a behavioral health component to the state HIE strategic and operational plan, and working with the HITOC around standards definitions for data transfer.
- Public Health HIT planning: The Public Health HIT plan, to be included in Oregon's SMHP, will focus on promoting and enhancing Medicaid provider use of EHRs to exchange public health data effectively and easily through Oregon's HIE, thus improving health outcomes and reducing costs. In particular, Oregon will plan for systems upgrades, interfaces, and new systems to address four areas: enhancing mandated disease reporting systems, providing a read/write module for immunization registry, developing a Family Health Profile quality tracking and follow-up alert system as an extension of the Medicaid EPSDT data, and sharing public health registry data with providers via Oregon's health information exchange.
- Long Term Care HIT Planning: The Long-Term Care HIT plan, to be included in Oregon's SMHP, will focus on interoperability of health and social service delivery records that will enhance the quality and efficiency of long-term care services for Medicaid clients.

Define Specific Actions to Implement Initiatives to Promote Electronic Data-Sharing to Improve Outcomes

- Organizational HIT Capacity: Convene a team to develop an HIT Organizational Capacity and Implementation Plan component of Oregon's SMHP, to assess the organizational needs and develop an HIT Program Office. This plan will include a technical assessment of DHS/OHA HIT systems and propose a plan to build a shared IT architecture that will support a transformed health and social service delivery system in Oregon. Specific tasks include: contracting for an organizational capability assessment, to include HIT Office Planning, HIT staffing capacities and gaps, and development of state staff training on quality standards reporting and EHR adoption
- ORHIE Statewide HIE Planning: As mentioned throughout this document, the Medicaid HIT planning project will work closely to align and synchronize resources with the HITOC's statewide HIE planning process. Medicaid HIT Planning team members and Medicaid subject matter experts will participate in the development of Medicaid portion of the state HIE plan. Further, the state HIE will support Medicaid providers and will connect DHS/OHA programs to providers to allow for the exchange of health-related data. Due to the direct benefits of the state HIE on Oregon's Medicaid HIT plans, Oregon is requesting P-APD funding to include the Medicaid portion of Oregon's state HIE planning process. This proportion is estimated at 39% of state HIE planning costs, based on Oregon's FFP for health planning activities used by the Office of Oregon Health Policy and Research (OHPR). OHPR is the DHS/OHA office that staffs the HITOC as well as the health reform efforts and other health policy and planning efforts.
- Local HIE Planning Development Grants: These competitive grants for Oregon's local HIE planning efforts will include 3 awards of \$35,000 each for HIEs to complete planning needed to become operational, and 5 awards of \$10,000 each for operational HIEs to plan interface applications that would enable linking to Medicaid reporting systems and/or to incorporate Medicaid providers into the HIE. Specific tasks include: developing and releasing a notice of grant opportunity, convening a grant review panel, reviewing applications, awarding grants, and monitoring funds and grant activities
- Health Records Bank of Oregon (HRBO): As described in the background section of this document, the HRBO will provide personal health records bank for Medicaid clients in Oregon through a Medicaid

Transformation Grant. Oregon is requesting P-APD funding to supplement the HRBO planning project with an assessment for sustainability options that will incorporate the new environment in which the HRBO exists today and identify options for sustaining this project after its current funding ends.

- National Exchange of Health Information: As part of the planning process, Oregon will incorporate services such as Nationwide Health Information Network (NHIN) CONNECT gateway exchange health information with other national health systems (such as those administered by the Veteran's Administration) through standards, protocols, legal agreements, specifications, and services that enables the secure exchange of health information over the internet.

Prepare Medicaid HIT Roadmap

- Develop content: identify and prioritize areas that will need to be addressed in a State Medicaid HIT Roadmap; identify key milestones, identify interdependencies and risks; define the roles of the Medicaid and other DHS/OHA agencies; develop measureable benchmarks and oversight plan; coordinate with HITOC to ensure that the Medicaid HIT Roadmap is aligned with the State Strategic and Operational plan for statewide HIE
- Draft document: Draft Medicaid HIT roadmap for State Medicaid HIT Plan

Prepare State Medicaid HIT Plan (SMHP) and Implementation Advance Planning Document (IAPD) Documents

- Develop content: Develop an implementation budget based on the Medicaid HIT Roadmap
- Draft the State Medicaid HIT Plan (SMHP) that includes 6 sections: the environmental assessment; vision of the future; steps to implement the incentives program; steps to implement the provider EHR adoption initiatives; and steps to coordinate with and implement the Medicaid-integrated HIT/HIE projects; and a Medicaid HIT Roadmap
- Draft the Implementation Advance Planning Document (IAPD) that requests 90% FFP to implement the State Medicaid HIT Plan
- Finalize and submit documents: Obtain consensus and finalize the SMHP and IAPD, submit to CMS

II. Project Organization

This section describes the Medicaid HIT Planning Project Organization that will support the planning activities and successful development of the State Medicaid HIT Plan. The project organization includes State executives and knowledge experts throughout the Department of Human Services as well as contracted resources.

See Appendix A for a project organization chart that depicts the organizational structure for the Medicaid HIT Planning Project as integrated within the Statewide HIT planning structures, and Appendix D for a matrix of staffing and contractor roles by project activity. The Project organizational structure and key personnel for the Medicaid HIT Planning Project will include:

Project Sponsors – Project sponsors will be responsible for providing overall direction for the planning project and approving the State Medicaid HIT Plan. Sponsors include:

- Judy Mohr Peterson (Medicaid Director)
- Rick Howard (Chief Information Officer, DHS/OHA)

State Medicaid HIT Plan (SMHP) Steering Committee – Members of the advisory committee will meet regularly to advise and provide input into the Medicaid HIT planning process, and ensure coordination with other HIT planning and implementation efforts underway. Advisors may also participate in work group sessions to support the development of the State Medicaid HIT Plan. Advisor participation will be essential to achieving a unified approach to HIT/HIE and help promote efficiency. The Advisory Committee will include representatives

from MMIS, HITOC, MITA, Behavioral Health, Public Health, and Long Term Care. The State-Designated Medicaid HIT Point of Contact will participate in SMHP Advisory Committee meetings.

State-Designated Medicaid HIT Point of Contact

Aaron Karjala (Deputy Chief Information Officer, DHS/OHA)

Contact information: 503-559-3022, aaron.karjala@state.or.us.

Medicaid HIT Planning Team – The Medicaid HIT planning team will work closely with program and policy subject matter experts and advisory committee members to carry out all aspects of the State Medicaid HIT Planning project. In particular, the Medicaid HIT planning team will work closely with the HITOC and ORHIE statewide HIE planning team. For specific breakdown of planning team roles, see Appendix D.

- Medicaid HIT Planning Project Manager –The Medicaid HIT planning project manager will be selected upon approval of this PAPD and will report ultimately to the Oregon Medicaid Director. The HIT planning project manager will be responsible for all project management related activities including work planning, communication planning, issue management, and project status reporting. The HIT project manager will also have overall responsibility for coordinating the development of the State Medicaid HIT Plan and serve as the liaison with the SMHP Steering Committee and Project Sponsors. To ensure the Medicaid HIT Planning project begins as early as possible, DHS/OHA anticipates hiring a temporary contractor to fill this position initially.
- Core Medicaid HIT Planning Staff – In addition to the Project Manager, DHS/OHA will recruit and/or hire a core team of eight staff to carry out and facilitate the planning activities, staff workgroup meetings, develop requirements for contractors, conduct research and develop materials, work closely with contractors and committees to develop content, prepare deliverables, and coordinate amongst the public and private EHR and HIE initiatives that relate to the SMHP development. These staff will include a mix of HIT systems analysts and business systems analysts.
- Subject Matter Experts –Subject matter experts will participate in work group sessions to support the development of the State Medicaid HIT Plan. Policy experts will provide relevant input regarding current programs and policies and how those policies will be impacted by the new program and future vision.
- Contractors – To inform and facilitate the planning process, DHS/OHA anticipates hiring contractors for the following purposes: advise on HIT strategy, facilitate stakeholder and workgroup processes, conduct financial assessments and environmental scan activities (provider survey, landscape assessment, gap analysis, EHR adoption initiatives assessments), conduct data and quality metrics analysis, conduct technology architecture assessments, analyze organizational HIT capacity, advise on privacy and security plan and develop legal documents, and conduct market research and develop provider education strategies and messaging.

Incentive Program Development: DHS/OHA anticipates using workgroups and strategy teams around the following specific projects.

- Assessing the Current Medicaid HIT Environment and Gap Analysis Team – This group will work with a contractor to research and describe current environment of Medicaid HIT. After the vision is developed, this group will return to the environmental analysis and analyze the gap between the current and future landscapes.
- Developing the Vision of the Future Medicaid HIT Landscape – This workgroup will develop a robust vision of Medicaid HIT in the next five years.
- Incentive Program Business Development – This workgroup will define actions steps to identify eligible professionals and hospitals, establish the policy and business processes to process payments and prevent duplicate payments, and identify system and process changes that will be needed for successfully implementing the program.
- Meaningful Use: Data and Quality - Data and quality analysts will provide input into the new incentive payment program as it relates to quality and the tracking and reporting of meaningful use.

- Incentive Program Technical Development – This workgroup will define the technical systems architecture specifications and requirements for implementation of the incentive program and the reporting of meaningful use.
- Incentive Program Oversight Mechanisms Development – This workgroup will define the oversight mechanisms to ensure that the incentive program only provides incentives to providers who achieve meaningful use.

Provider EHR Adoption Initiatives: DHS/OHA anticipates using workgroups and strategy teams around the following specific projects, defined under the Planning Activities section of this document.

- Provider Outreach and Communications
- Privacy and Security Plan Development
- Provider EHR Loan Program
- Community Behavioral Health HIT Planning
- Public Health HIT Planning
- Long-Term Care HIT Planning

Initiatives to Promote Electronic Data-Sharing to Improve Outcomes: DHS/OHA anticipates using workgroups and strategy teams around the following specific projects, defined under the Planning Activities section of this document..

- DHS/OHA Transition and Organizational Capacity HIT Planning
- Local HIE Plan Development Grants
- HITOC and ORHIE Planning
- Health Records Bank of Oregon (HRBO) Planning

III. Project Schedule

This section describes the schedule and milestones for the completion of key events as well as DHS/OHA' vision of CMS' role throughout the planning process. **Oregon expects that a State Medicaid HIT Plan and an Implementation Advance Planning Document would be ready for CMS review no later than October 30, 2010.**

Key Events / Deliverables	Target Completion Date	CMS Role
Submit the Medicaid HIT P-APD to CMS (Deliverable)	2/1/2010	
Obtain CMS Approval of the Medicaid HIT P-APD	2/15/2010	Approval
Project Start-Up	4/01/2009	
Conduct Current HIT Landscape Assessment – As-Is Environment	4/15/2010	
Develop Vision of the HIT Future – To-Be Environment	5/15/2010	
Perform a Gap Analysis	6/15/2010	
Define Specific Actions to Implement the Incentive Program	8/01/2010	
Define Specific Actions to Implement the Provider EHR Adoption Initiatives	8/01/2010	
Define Specific Actions to Implement the Medicaid-Integrated HIT/HIE Projects	8/01/2010	
Prepare Medicaid HIT Roadmap	8/28/2010	
Submit State Medicaid HIT Plan (Deliverable)	9/28/2010	
Obtain CMS Approval of State Medicaid HIT Plan	10/15/2010	Approval
Submit HIT Implementation Advance Planning Document (IAPD) (Deliverable)	10/15/2010	
Obtain CMS Approval of HIT IAPD	10/30/2010	Approval

Section 3: Proposed Project Budget

I. Resource Needs

a. State Resources

Personnel: State resource costs are based on the effort that state staff will be required to provide to manage and participate in the planning activities. This estimate is based on the projected timelines and resources that will be required to complete the State Medicaid HIT Plan deliverable within the timeframe provided in the P-APD. DHS/OHA is projecting an estimate of \$1,212,952 in state resource costs for planning activities. These costs include salary and fringe benefits.

Supplies and Services for New FTE: DHS/OHA anticipates hiring up to 14.5 FTE to conduct the planning activities proposed in this P-APD. Budget estimates for supplies and services for new FTE include one-time purchases such as computers and furniture, and monthly costs such as supplies and services associated with equipping new staff. DHS/OHA anticipates a total of \$247,656 for these new staff.

Other state resources: DHS/OHA anticipates \$20,000 in supplies, meeting costs, and printing costs.

b. Contractor Costs

DHS/OHA will engage contractors to support the project throughout the planning and phases since it does not have enough staff with the knowledge and expertise to execute a project of this complexity and importance. DHS/OHA estimates this cost to be \$2,357,810 for all of the Medicaid HIT planning activities.

c. State Travel Costs

DHS/OHA staff will travel within state to attend meetings with providers and other HIT/HIE stakeholder groups as the State Medicaid HIT Plan is being developed. State staff also expect to attend Medicaid HIT/HIE and related national conferences. Travel costs are estimated to be \$27,000.

d. Multi-State Collaboration Participation

DHS/OHA would like to participate in the National Association of State Medicaid Director's multi-state collaborative. DHS/OHA believes the information, trainings and workgroups that will be provided by the collaborative will provide DHS/OHA with many benefits, such as lessons learned, as we develop our State Medicaid HIT Plan. Collaboration dues are \$8,000.

The Oregon Department of Human Services certifies that it has available its share of the funds required to complete the activities described in this HIT P-APD. The State requests approval to proceed with federal funding at the above levels.

II. Estimated Budget for Planning Activities

The following table provides a breakout of the estimated costs by budget category and planning activity. This table also presents the percentage of FFP being requested and the projected Federal and State allocations.

Medicaid HIT Planning Project Estimated Budget

	Estimated State Costs	Estimated Contractor Costs	Total Costs	% of FFP	State Share	Federal Share
<u>DHS/OHA Staffing*</u>						
• Medicaid (DMAP)	\$799,774		\$799,774	90	\$79,977	\$719,796
• Behavioral Health (AMH)	\$105,994		\$105,994	90	\$10,599	\$95,395
• Public Health (PHD)	\$230,366		\$230,366	90	\$23,037	\$207,329
• Long Term Care (SPD)	\$76,818		\$76,818	90	\$7,682	\$69,136
• New FTE services & supplies	\$247,656		\$247,656	90	\$24,766	\$222,890
<i>Subtotal staffing:</i>	<i>\$1,460,608</i>	<i>\$0</i>	<i>\$1,460,608</i>	<i>90</i>	<i>\$146,061</i>	<i>\$1,314,547</i>
<u>Incentives Program</u>						
• Contractors		\$702,800	\$702,800	90	\$70,280	\$632,520
<i>Subtotal Incentives Program:</i>		<i>\$702,800</i>	<i>\$702,800</i>	<i>90</i>	<i>\$70,280</i>	<i>\$632,520</i>
<u>Provider Adoption of EHR Initiatives: Contractors</u>						
• Provider outreach and communications planning		\$170,000	\$170,000	90	\$17,000	\$153,000
• Privacy and security planning		\$150,000	\$150,000	90	\$15,000	\$135,000
• Provider EHR loan program planning		\$50,000	\$50,000	90	\$5,000	\$45,000
• Behavioral Health		\$150,000	\$150,000	90	\$15,000	\$135,000
• Public Health		\$60,000	\$60,000	90	\$6,000	\$54,000
• Long Term Care		\$30,000	\$30,000	90	\$3,000	\$27,000
<i>Subtotal EHR Adoption Initiatives:</i>		<i>\$610,000</i>	<i>\$610,000</i>	<i>90</i>	<i>\$61,000</i>	<i>\$549,000</i>
<u>Medicaid-Integrated HIT/HIE Projects: Contractors</u>						
• OHA/DHS Shared-services IT architecture planning		\$350,000	\$350,000	90	\$35,000	\$315,000
• Statewide HIE (ORHIE) planning		\$472,788	\$472,788	90	\$47,279	\$425,510
• Local HIE planning development grants		\$172,222	\$172,222	90	\$17,222	\$155,000
• Health Records Bank of Oregon sustainability planning		\$50,000	\$50,000	90	\$5,000	\$45,000
<i>Subtotal Medicaid HIT Projects:</i>		<i>\$1,045,010</i>	<i>\$1,045,010</i>	<i>90</i>	<i>\$104,501</i>	<i>\$940,509</i>
<u>Other Costs:</u>						
• Misc (meeting costs, printing)	\$20,000		\$20,000	90	\$2,000	\$18,000
• State Travel Costs	\$27,000		\$27,000	90	\$2,700	\$24,300
• Multi-State Collaboration	\$8,000		\$8,000	90	\$800	\$7,200
<i>Subtotal Other Costs:</i>	<i>\$49,000</i>	<i>\$0</i>	<i>\$49,000</i>	<i>90</i>	<i>\$4,900</i>	<i>\$44,100</i>
Total	\$1,564,608	\$2,357,810	\$3,922,418	90	\$392,242	\$3,530,176

*Note, All proposed staff are within or detailed to the Oregon Medicaid Program

Section 4: Assurances

The State of Oregon assures that the proposed State Medicaid HIT Planning Project will meet all applicable state and federal regulations including:

- Yes No 1) Procurement Standards (Competition/Sole Source) 45 CFR Part 95.613
- Yes No 2) Security/HIPAA Compliance 45 CFR Part 164
- Yes No 3) Software Ownership, Federal Licenses and Information Safeguarding 45 CFR 95.617
- Yes No 4) Information safeguarding/Access to Records 42 CFR Part 431.300

Appendix J: Endorsement Letters
(to come later)

Appendix K: Glossary

(in process)

American Recovery and Reinvestment Act (ARRA)

ARRA refers to the American Recovery and Reinvestment Act, also known as the 'stimulus bill' that was signed into law on February 17, 2009. It includes \$787 billion in economic stimulus for the United States economy.

Centers for Medicare and Medicaid Services (CMS)

As one of the major operating components of the Department of Health and Human Services, CMS' mission is to ensure effective, up-to-date health care coverage and to promote quality care for beneficiaries.

Certification Commission for Healthcare Information Technology (CCHITSM)

Three leading HIT industry associations – the American Health Information Management Association, the Healthcare Information and Management Systems Society and The National Alliance for Health Information Technology formed CCHIT as a voluntary, private-sector organization to certify HIT products. The Department of Health and Human Services (HHS) has designated the Certification Commission for Healthcare Information Technology (CCHITSM) as a Recognized Certification Body (RCB). CCHIT develops and evaluates certification criteria and creates an inspection process for HIT in three areas:

- Ambulatory electronic health records for the office-based physician or provider
- Inpatient EHRs for hospitals and health systems
- The network components through which they interoperate and share information

<http://www.cchit.org/>

Department of Human Services (Oregon DHS)

The Oregon Department of Human Services is the state's health and human services agency. It delivers cash assistance and self-sufficiency, child welfare, Oregon Health Plan, addiction (alcohol, drug, gambling) and vocational rehabilitation services, and services for seniors and people with disabilities. DHS contracts with county governments for many mental health and public health services. Its mission: Helping people to become independent, healthy and safe.

Electronic Health Record (EHR)

An electronic record of health-related information on an individual that conforms to nationally recognized interoperability standards and that can be created, managed, and consulted by authorized clinicians and staff across more than one health care organization.

Governance entity

HITECH Act

The Health Information Technology for Economic and Clinical Health (HITECH) Act is a subset of ARRA that is an 'act within the act' embedded in the ARRA legislation -- about \$34 billion in funding -- which is specifically aimed at helping health care providers obtain meaningful use of health information technology (HIT), including electronic health records and care coordination through health information exchange (HIE).

Health Information Exchange (HIE)

The movement of health care information electronically across organizations within a region or community. HIE provides the capability to electronically move clinical information between disparate health care information systems while maintaining the meaning of the information being exchanged. The goal of HIE is to facilitate access to and retrieval of clinical data to provide safe, timely, efficient, effective, equitable, patient-centered care.” is used to mean the electronic movement of health-related information among organizations according to nationally recognized standards.

Health Information Infrastructure Advisory Committee (HIIAC)HIIAC was established in May 2008 by Executive Order 08-09. HIIAC concluded its work in August 2009. It was tasked with making policy recommendations to: reduce barriers to health information exchange, while maintaining privacy and security of individuals' health information; establish an appropriate role for the state in maintaining and building health information infrastructure; facilitate the adoption of infrastructure standards and interoperability requirements; facilitate collaboration between statewide partners; and develop evaluation metrics to measure the implementation of health information technology and the efficiency of health information exchange in Oregon.

Health Information Organization (HIO)

Health Insurance Portability and Accountability Act of 1996 (HIPAA)

The law Congress passed in 1996 to make sure that health insurance would not stop when he or she changed employers. It also requires that health information be kept private and secure.

Health Information Security and Privacy Collaborative (HISPC)

HISPC was a national project to assess privacy and security laws and business practices with regard to the exchange of electronic health information that began in 2006 and ended July 2009. Oregon was one of the original 34 states and territories participating in this collaboration.

Health Information Technology (HIT)

Certified EHRs and other technology and connectivity required to meaningfully use and exchange electronic health information.

Health Information Technology Oversight Council (HITOC)

The Health Information Technology Oversight Council is a statutory body of governor-appointed, senate-confirmed citizens, tasked with setting goals and developing a strategic health information technology plan for the state, as well as monitoring progress in achieving those goals and providing oversight for the implementation of the plan. HITOC is currently coordinating Oregon's public and private statewide efforts in electronic health records adoption and the eventual development of a statewide system for electronic health information exchange. HITOC will help Oregon meet federal requirements so that providers may be eligible for millions of federal health information technology stimulus dollars. HITOC builds on the past work of the Health Information Infrastructure Advisory Committee (HIIAC) and the Health Information Security & Privacy Collaborative (HISPC).

House Bill 2009 (HB2009)

Master Patient Index (MPI)

A central index of patient records used for the purpose of matching records from different sources and accurately relating that data to the same patient. An MPI usually does not have medical data contained within it, and may or may not point to medical data found elsewhere. usually does not have medical data contained within it, and may or may not point to medical data found elsewhere (see Record Locator Service).

Medicaid MIS

Nationwide Health Information Network (NHIN)

Describes the technologies, standards, laws, policies, programs and practices that enable health information to be shared among health decision makers, including consumers and patients, to promote improvements in health and healthcare. The development of a vision for the began more than a decade ago with publication of an Institute of Medicine report, 'The Computer-Based Patient Record.' The path to a national network of healthcare information is through the successful establishment of regional and local HIOs.

NHIN Direct

Oregon Health Authority

The Oregon Health Authority (OHA) is a new state agency created by [House Bill 2009](#). By July 2011, most [health-related programs](#) in the state will be joined together to form the Health Authority. Although the state is in the planning stages for organizing the new agency, work to change the health care system has already begun. The OHA is overseen by a nine-member, citizen-led board called the [Oregon Health Policy Board](#). Members are appointed by the Governor and confirmed by the Senate.

Oregon Health Fund Board

The Oregon Health Fund Board, a seven-member, citizen board was established in June 2007 by the passage of the Senate Bill 329, the Healthy Oregon Act. The board was chartered with developing a comprehensive plan to ensure access to health care for Oregonians, contain health care costs, and address issues of quality in health care. The board was supported in its efforts by hundreds of volunteers serving on six committees and two workgroups. In November 2008, the board submitted a comprehensive action plan, "Aim High: Building a Healthy Oregon," to Governor Kulongoski and the Oregon Legislature, providing a blueprint for reforming Oregon's health care system.

In June 2009, the Oregon legislature passed historic health reform legislation based on the recommendations of the Oregon Health Fund Board. In particular, HB 2009 created an Oregon Health Authority, responsible for streamlining and aligning state health purchasers and programs to maximize efficiency, organize state health policy and health services, and for implementing the health reform policies and programs also created in HB 2009. HB 2009 also concluded the work of the Oregon Health Fund Board.

Oregon Health Policy Board

The nine-member citizen Board serves as the policy-making and oversight body for the Oregon Health Authority. It is responsible for improving access, cost and quality of the health care delivery system, and the health of all Oregonians. OHPB was established through House Bill 2009.

Office of the National Coordinator for Health Information Technology (ONC)

Provides leadership for the development and nationwide implementation of an interoperable health information technology infrastructure to improve the quality and efficiency of health care and the ability of consumers to manage their care and safety. The National Coordinator also serves at the Secretary of Department of Health and Human Services (HHS) advisor on the development, application and use of Health Information Technology (HIT) and coordinates the departments HIT programs.

<http://www.os.dhhs.gov/healthit/>

Personal Health Record (PHR)

Electronic record of health-related information on an individual that conforms to nationally recognized interoperability standards and that can be drawn from multiple sources while being managed, shared, and controlled by the individual.

Planning Advance Planning Document (P-APD)

One type of federally required document that is used by states to inform federal agencies of their intentions related to federally funded programs, and request approval and funding to accomplish their needs and objectives. The term APD refers to a Planning APD, Implementation APD, or to an Advance Planning Document Update.

Record Locator Service (RLS)

An index containing patient demographic information and the location of a patient's medical records. It typically contains no clinical information. Participating entities decide whether or not to put record locations into the RLS. Designed to take a query in the form of demographic details and return only the location of matching records.

Regional Extension Center (REC):

State Designated Entity

A not-for-profit organization with broad stakeholder representation on its governing board designated by the state as eligible to receive awards under the Office of the National Coordinator for Health IT Cooperative Agreement.

U.S. Department of Health and Human Services (HHS):

The agency directed by law to administer programs involving health care, Medicare, Medicaid, family and children's services, financial self-sufficiency programs, and other human service programs of the Federal government. The federal government department that has overall responsibility for implementing HIPAA.