Oregon Health Information Technology Oversight Council

Health Information Exchange Value Propositions

May 28, 2010

ASSUMED ENVIRONMENT

- EHR adoption will continue to increase: Nationally and regionally there is continuing widespread adoption, especially in medium to large practices; EHR technologies will evolve to support expanded functionalities including information exchange and clinical decision support.
- Health information exchange (HIE) will be widespread: HIE functionality will become a reality - locally, statewide and nationwide. Sustainable financing models will be an issue at all levels.
- Multiple converging forces are pushing EHR adoption and electronic HIE: These forces include Federal and Oregon health reform, ARRA financing (meaningful use criteria, Medicare and Medicaid Incentive Payments, state HIT and HIE planning, state HIEs, regional extension centers), purchaser and consumer expectations, payment reforms, provider economic pressures.

OREGON HIE STRATEGY

- Local and regional HIEs are under development in a number of Oregon communities as described in the Oregon Environmental Scan.
- Oregon has the opportunity to leverage local HIE activities through local health information organizations (HIOs) to accelerate the role of health information exchange in achieving Oregon's health reform and triple aim goals as well as meet meaningful use criteria.
- To support local HIO efforts, Oregon statewide HIO (OrHIE) services are being planned for deployment on a phased basis: In Phase I the statewide HIO will focus on facilitating the success of local HIOs through the development of standards and certification mechanisms of local HIOs and other support functions. In Phase 2, the statewide HIO will implement technology and other services to further enhance the success of HIE activities in Oregon, the local HIOs and address gaps in HIE coverage in Oregon. The OrHIE will likely be used as a platform for integrating and accessing State Agency HIT-related functions (e.g., public health, mental health, Medicaid).

OVERALL VALUE PROPOSITIONS

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.

Patients (continued)

- 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

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

Other Community Benefits

- Accelerate Oregon's achievement of triple aim goals.
- Improved quality and patient safety, reduced errors.
- Minimize complications caused by unavailable information.
- Maximize physician and hospital adoption and use of EHRs and HIT to benefit patients.
- Maximize 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.
- Accelerate and continuing achievement of meaningful use and incentive payments as criteria evolves.
- 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 statewide HIO 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.
- Accelerate and continuing achievement of meaningful use and incentive payments as criteria evolves.
- Support success of medical staff physicians in achieving meaningful use and incentive payments.

Hospitals (continued)

- 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 statewide HIO to minimize interface development and maintenance as well eliminate legacy system interfaces.

Safety Net Clinics (FQHCs, 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.
- Accelerate and continuing achievement of meaningful use and incentive payments as criteria evolves.
- 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 statewide HIO 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

- Maximize the 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

- Maximize the 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 reduces 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.

POTENTIAL AVOIDED SERVICE AND PRODUCTIVITY SAVINGS

The Oregon HIE planning process includes an analysis of the potential state-wide annual savings associated with the widespread use of HIE in Oregon over the next three to five years. The analysis applies national studies to the Oregon environment. Tables A and B show the range of annual savings impacts expected in three to five years with widespread adoption of HIE services across Oregon. A number of other savings opportunities were not considered in the analysis. Table A shows each of the savings components covered by the analysis.

Table A: Range of Potential Annual Savings Associated with Widespread Use of HIE Services in Oregon by Savings Category

Estimated Community-wide Savings for Widespread Use of HIE Services in Oregon by Savings Category	Oregon Total (000s)		
SMITH: Avoided Services Ambulatory Care Settings	**Low**	**Med**	**High**
Avoidable Visits Caused by Missing Information	$9,911.2	$9,911.2	$9,911.2
Avoidable Laboratory Tests due to Missing Information	$8,159.4	$8,159.4	
Avoidable Imaging Studies due to Missing Information	$23,980.5	$23,980.5	
SMITH: Avoided Emergency Room Related Services			
Avoidable Admissions Caused by Missing Information	$1,665.8	$1,665.8	$1,665.8
Avoidable Laboratory Tests due to Missing Information	$3,064.0		
Avoidable Imaging Studies due to Missing Information	$8,956.0		
CITL – HIE&I			
Savings from Avoidable Outpatient Imaging Studies			$44,302.9
RAND			
Savings from Avoidable Outpatient Laboratory Tests			$34,813.5
OVERHAGE			
Reduced Emergency Room Costs - Visits Leading to Inpatient Admissions		$12,791.3	
Reduced Emergency Room Costs - Outpatient Visits		$9,237.6	
Total Estimated Avoided Services Savings	**$55,737.0**	**$65,745.9**	**$90,693.3**
PRODUCTIVITY SAVINGS (SMITH)			
Productivity Improvements in Ambulatory Care			
Physician/Staff Productivity Loss Looking for Information	$6,745.2	$6,745.2	$6,745.2
Physician Productivity Impact - Repeated Work	$17,588.4	$17,588.4	$17,588.4
Productivity Improvements in Emergency Room			
Physician/Staff Productivity Loss Looking for Information	$2,500.6	$2,500.6	$2,500.6
Physician Productivity Impact - Repeated Work	$6,457.2	$6,457.2	$6,457.2
Total Estimated Productivity Savings	**$33,331.5**	**$33,331.5**	**$33,331.5**
Total Estimated Savings	**$89,068.5**	**$99,077.3**	**$124,024.8**

The benefits of avoided services accrue to

- health plans that would otherwise pay for services,
- patients for co-insurance and deductibles, and
- providers that provide services to uninsured patients.

Table B shows distribution of savings by major payer categories.

Table B: Estimated Annual Avoided Service Savings by Payer Category

Payer Category	Range of Savings by Payer Category (dollars in 000s)		
	Low	**Mid**	**High**
Other Plan Payers (1)	$33,263	$36,477	$54,673
Medicare	$15,711	$20,364	$24,548
Medicaid	$2,922	$4,418	$5,163
Kaiser	$263	$320	$628
Uninsured	$3,578	$4,167	$5,682
Total Estimated Annual Savings	**$55,737**	**$65,746**	**$90,693**

(1) Includes insurance plans and self-insured plans as well as VA and some other residual categories

The savings analysis did not assess other potential savings areas that may substantially increase the impact of electronic HIE services. Some notable areas in which additional savings related to electronic HIE use have been described in the literature that may be applicable include:

- The impact of medication list and history availability, overall prescription drug use, generic substitution, reductions in adverse drug events (ADEs) and reductions in overall medical errors.
- Improved efficiency in medication reconciliation processes in practices, clinics and hospitals.
- Improved management of individuals with an MRSA (or other high cost communicable disease) history or high-risk along with reduced hospital stays and collateral infections.
- Improved public health monitoring and prevention efforts from general health information sharing.

ARRA MEDICARE & MEDICAID INCENTIVE PAYMENTS

Under the American Recovery and Reinvestment Act (ARRA) and its HITECH provisions, hospitals and eligible professionals demonstrating meaningful use of a certified EHR system can receive incentive payments. Among other things, the criteria for meaningful use includes the "capability to exchange key clinical information among providers of care and patient authorized entities electronically".

Federal expectations regarding information exchange were recently highlighted in **A Message from Dr. David Blumenthal, National Coordinator for Health Information Technology, November 12, 2009** that states in part:

> A key premise: information should follow the patient, and artificial obstacles – technical, business related, bureaucratic – should not get in the way. … This means that information exchange must cross institutional and business boundaries. Because that is what patients need. Exchange within business groups will not be sufficient – the goal is to have information flow seamlessly and

effortlessly to every nook and cranny of our health system, when and where it is needed, just like the blood within our arteries and veins meets our bodies' vital needs.[1] …

The HITECH Act calls for the "*development of a nationwide health information technology infrastructure that allows for the electronic use and exchange of information and that…promotes a more effective marketplace, greater competition...[and] increased consumer choice*" among other goals. (Section 3001(b)) This means we cannot support arrangements that restrict the secure, private exchange of information required for patient care across provider or network boundaries. Some of these arrangements may improve care for those inside their walls. But ultimately, they have the potential to carve the nation up into disconnected silos of information, and thus, to undermine the vision of a secure, interoperable, nationwide health information infrastructure, which the law requires us to establish. Consumers, patients and their caretakers should never feel locked into a single health system or exchange arrangement because it does not permit or encourage the sharing of information.

Hospital Incentive Payments: Hospitals meeting the meaningful use criteria may receive incentive payments from both Medicare and Medicaid. Table C shows the estimated potential payments that Oregon hospitals would receive if they demonstrate meaningful use starting in 2011, 2012, 2013, or 2014 based on calendar year 2009 data and the Federal formulas for calculating the incentive payments.

Table C. Estimated Potential Incentive Payments for Meaningful Use Achieved in 2011, 2012, 2013, 2014 based on 2009CY Hospital Data(1) ($ millions)

Oregon Hospitals	Medicare First Year Potential Incentive Payments	Medicaid First Year Potential Incentive Payments	Potential Medicare Incentive Payments over 4 yrs (3)	Potential Medicaid Incentive Payments over 4 yrs (3)
	(millions)	(millions)	(millions)	(millions)
33 PPS Hospitals	$58,170		$145,424	
29 PPS Hospitals with >10% Medicaid patient days or discharges		$18,270		$45,675
Critical Access Hospitals (2)	Unknown	Unknown	Unknown	Unknown
Total Incentive Payments	**$51,170**	**$18,270**	**$145,424**	**$45,675**

(1) Witter & Associates analysis of 2009 calendar year DataBank files provided by the Oregon Association of Hospitals and Health Systems.
(2) For Oregon's twenty-five critical access hospitals (CAH), incentive payments are calculated on the basis of unamortized and newly incurred EHR costs. Information is not available to estimate the potential incentive payments applicable these hospitals.
(3) Sum of payments over four years at 100% of year 1 incentive, 75% during year 2, 50% during year 3 and 25% during year 4.

Achieving meaningful use in eligible Oregon PPS hospitals has the potential to realize over $190 million over four years in Medicare and Medicaid incentive payments.

Eligible Professionals Incentive Payments: Eligible professionals (physicians and some other clinicians) meeting the meaningful use criteria may receive incentive payments from either

[1] The full message is available at http://healthit.hhs.gov/portal/server.pt?open=512&objID=1406&parentname=CommunityPage&parentid=4&mode=2&in_hi_userid=10741&cached=true.

Medicare or Medicaid. Under Medicare incentive payments, eligible professionals (EPs) demonstrating meaningful use of a certified EHR system may receive up to $44,000 over four years ($18,000 in year 1) based on 75% of Medicare Part B payments for services provided. Eligibility for Medicaid incentive payments requires that 30% of a community EPs services be provided to Medicaid clients (20% for pediatricians).

An analysis of 2009 Oregon Physician Workforce Survey (OPWS) data indicates that the majority of physicians would have sufficient patient volumes of either Medicare or Medicaid patients to receive the available incentives **IF** they were using a certified EHR system and satisfied the other meaningful use criteria. Table D shows the percentages of physicians with sufficient Medicare, Medicaid or either Medicare/Medicaid to be eligible for incentive payments.

Table D. Estimated Percentage of Oregon Physicians Potentially Eligible for Incentive Payments

	% of Physicians with Sufficient Volume (1)		
	Private Clinic or Office	**Community & Public Health Clinics**	**Hospital-based Ambulatory Care Clinics**
OPWS responses (2) n=1,831	1,515	130	186
Physician Eligibility Categories			
Medicare (>10% of patients) (3)	66%	38%	72%
Medicaid (>30% of patients, other than pediatricians)	3%	49%	91%
Medicaid (>20% of patients for pediatricians)	49%	-	-
Either Medicare or Medicaid	**74%**	**97%**	**94%**

(1) Witter & Associates analysis of 2009 Oregon Physicians Workforce Survey data.
(2) Of the 3,744 OWPS responses received, 3,269 were physicians in clinical practice of which 2,425 responses had usable data on the financial sponsorship mix. 1,831 of the 2,425 practiced in the three settings.
(3) There is no minimum volume threshold related to Medicare incentive payments. 10% was used in this analysis on the presumption that a Medicare volume of 10% would likely involve sufficient Part B payments to qualify for the maximum amount of available Medicare incentive payment.

There are about 8,000 practicing physicians in Oregon. It seems likely that about 5,000 Oregon physicians have sufficient Medicare and Medicaid volumes to qualify for incentive payments **IF** they met the other meaningful use criteria including the use of a certified EHR system and engaging in health information exchange. The 2009 Oregon Ambulatory EHR Survey estimated that 65.5% of Oregon clinicians are in practices with some form of an EHR system, certified or not. If 3,000 Oregon physicians met the eligibility requirements and demonstrated meaningful use, total incentive payments over four years would be in excess of $135 million.