

State Near-Term HIT/HIE Development Strategy (2013-2015)

August 2013

Oregon Health Authority (OHA) staff reviewed the foundational work of the Oregon Health Information Technology Oversight Council (HITOC) and met with key stakeholders in Spring/Summer 2013 to identify the right next steps for Health Information Technology (HIT) and Health Information Exchange (HIE) needed to support Oregon's Health System Transformation efforts. As a result of that work, OHA will pursue the next steps of development of a set of near-term HIT/HIE strategies, described in this document.

2013-2015, "Phase 1.5": HIT/HIE foundational and high-priority initial services to support Oregon's health system transformation: This phase of HIT/HIE services will build a foundation for future statewide interoperability and HIE, while supporting immediate coordination between providers seeking to exchange patient information and the incremental use of aggregated clinical data to improve the delivery of care. "Phase 1.5" includes six elements (which are underlined below, also see Appendix B):

- Building blocks of identifying to whom, by whom, and where care is delivered to facilitate exchange of patient information and analysis of aggregated data
 - State-level provider directory
 - Incremental development of a state-level patient index
- High value services that fill information gaps around expensive transitions of care
 - Statewide hospital notifications to providers, health plans, CCOs and health systems when their patients are seen in the Emergency Department, are admitted to inpatient care, or discharged from the hospital
- Electronic connectivity of all members of the care team across organizational and technological boundaries ("push" first, build towards query/"pull" in Phase 2)
 - Statewide Direct secure messaging¹ augments local capabilities to view or share information (where they exist) by bringing new members to the electronic care coordination circle, such as LTC and emergency medical services. Statewide Direct secure messaging also extends electronic communication to providers and communities with no local capabilities in place. Statewide connection of Direct secure messaging service providers (HISPs) will allow providers to meet federal requirements and connect from their EHRs to any other Direct user in the state.
- Reliable, actionable information created from aggregated clinical quality data to support quality reporting and quality improvement efforts, and enhance health plan and CCO abilities around population management, targeting of care coordination resources, and the development of new methodologies to pay for outcomes
 - Statewide clinical quality data registry to collect and aggregate key clinical quality data, develop benchmarks and other quality improvement reporting, collect and calculate CCO clinical incentive metrics and meet federal

¹ Direct secure messaging provides a HIPAA-compliant way to encrypt and send any attachment of patient information electronically, for example, shared care plans, patient histories, and more sophisticated attachments such as x-rays and echocardiograms. As EHRs evolve in 2014 to meet federal Meaningful Use requirements, Direct secure messaging will be a core service within each EHR and national standards will support interoperability between Direct secure messaging providers (HISPs).

requirements for Meaningful Use incentive payments to providers. Health plans and CCOs can leverage state infrastructure to meet reporting requirements to OHA and receive collected clinical data for their members for analytics/quality improvement.

- Technical assistance to providers to help providers meet their Meaningful Use requirements while ensuring that clinical data for metrics captured in EHRs are accurate and complete. Technical assistance can improve credibility of EHR data underlying clinical quality measures, bolstering provider confidence in metrics.

Overall approach and relationship to existing efforts:

- Create a statewide resource that supports providers, health plans and CCOs at different ends of the technology spectrum.
 - Statewide services would augment and support existing services, including local health information exchange organizations (HIOs) and community-based health records, as well as health plans and CCOs with more sophisticated HIT and analytics capabilities. Statewide services will “wrap-around” existing ones.
 - Statewide services would also serve providers, health plans and CCOs with little or no HIT/analytic capabilities with some foundational and high-value services
- Future financial sustainability and the approach to governance/operations of statewide services will be addressed by OHA’s HIT Task Force, with options such as 2015 legislation related to financial sustainability, charging subscription fees for value-added services, and moving operations of statewide HIE services to a non-State entity.
- Providers, CCOs, health plans, and health systems also need guidance on laws and policies related to sharing of health information. OHA efforts to provide clarity in this area will be important for the success of any infrastructure in improving care delivery.

2015 and beyond, “Phase 2.0”: Vision for Oregon’s HIT/HIE shared information infrastructure to support health system transformation:

In 2015 and beyond, Oregon’s statewide HIT/HIE efforts will be expanded to provide or support robust, interoperable health information exchange that supports both data “push” as well as data “query” (following the evolution of national standards) and more robust data aggregation. The OHA HIT Task Force will be charged with developing the Phase 2 business plan framework.

Vision for a shared information infrastructure:

- Reduce gaps in patient information and create an even playing field ensuring each provider has relevant, actionable information at the time of care. To reduce gaps in patient information, every provider in the state must have access to the information they need to deliver high quality, person-centered care.
- Unify data collection and transparency to assure the health system (state, health plans, CCOs, health systems, payers and providers) is paying for value and health outcomes and not visits. Leverage aggregated data (utilization, cost, clinical, etc.) to identify individuals who can be helped by better care coordination and providers, clinics, and communities who can benefit from interventions, resources, and incentives.
- Improve understanding and engagement of patients in their health care and outcomes through access to their complete health record, including treatments and goals.

Oregon HIT/HIE Priorities to Support Health System Transformation

(draft 8/13/13)

Timeline: Today
Phase 1 Current Policy and Technology: Setting the initial direction and initiating electronic communication.

* Continue: Direct Secure Messaging & Interstate efforts

Timeline: 2013-2015

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

* Foundational: provider directory, incremental development of patient index, Direct secure messaging and HIE web portal

* High priority services: statewide hospital notifications/alerts, clinical quality data registry, technical assistance to providers

Timeline: 2015 Forward

Phase 2 Policy and Technology: Goal of shared information infrastructure that supports health system transformation.

* More robust HIT/ HIE: Support query, data aggregation, analytics.

Phase 1 Governance: OHA and HITOC

Phase 1.5 Governance: OHA with Technical Advisory Group, and HITOC

Phase 2 Governance: Goal of Task Force approved model for governance

Phase 1 Financing: ONC Cooperative Agreement

Phase 1.5 Financing: Medicaid/state match, ONC Cooperative Agreement & other investors

Phase 2 Financing: Goal of Long Term Sustainability



Benefits from Proposed Phase 1.5 HIT/HIE Investments

Areas of need	Near term benefits	Longer term benefits
<i>Hospital readmissions/high utilizers</i>	<p>Statewide Hospital Notifications:</p> <ul style="list-style-type: none"> ○ Providers, health systems, CCOs and health plans and know when their patients/members have a hospital event anywhere in Oregon ○ Improve follow-up and care coordination during/immediately following acute health care events. ○ Health Plans, CCOs, health systems and providers can track high-utilizers of hospital services and divert to outpatient care when appropriate. <p>Direct Secure Messaging:</p> <ul style="list-style-type: none"> ○ Can support sending hospital notifications and other information between the state/statewide HIE and providers, health systems, CCOs and health plans <p>State-level Patient Index:</p> <ul style="list-style-type: none"> ○ Foundational for statewide hospital notifications. Would be incrementally developed from patient information submitted by providers, health systems, CCOs and health plans for notifications purposes ○ Can support health plan and CCO operations and targeting care coordination to identify providers treating specific patients 	<p>Statewide Notifications:</p> <ul style="list-style-type: none"> ○ Continue to bring hospital event information to providers and CCOs/health plans ○ Can be expanded to include other types of information, such as when individuals enter/change LTC settings, when developmental screenings occur, etc. <p>State-level Patient Index:</p> <ul style="list-style-type: none"> ○ As more patient data added for notifications, usefulness increases for local and state-level health information exchange efforts and analytics. <p>Clinical Quality Data Registry:</p> <ul style="list-style-type: none"> ○ Can support analyzing aggregated data, which allows for better targeting of high-risk, high-utilizer patients.
<i>Care coordination</i>	<p>Direct Secure Messaging:</p> <ul style="list-style-type: none"> ○ Augments local capabilities to view or share information (where they exist) by bringing new members to the electronic care coordination circle, such as LTC and emergency medical services. Statewide Direct secure messaging also extends electronic communication to providers and communities with no local capabilities in place. ○ Provides a means for adding key providers, such as LTC and emergency medical services, to the electronic care team that supports whole-person care. Provider care teams can communicate with each other and other entities (including 	<p>Direct Secure Messaging:</p> <ul style="list-style-type: none"> ○ Will be a core service within each EHR as EHRs evolve in 2014 to meet federal Meaningful Use requirements. ○ Statewide connection of Direct secure messaging providers (HISPs) will allow providers to meet federal requirements and connect from their EHRs to any other Direct user in the state.

Areas of need	Near term benefits	Longer term benefits
	<p>those without EHRs) that impact the health of their enrollees.</p> <ul style="list-style-type: none"> ○ Used to send attachments that may be consumed into a recipient’s EHR, such as shared care plans, patient histories, and more sophisticated attachments such as x-rays and echocardiograms. ○ Providers use to meet federal requirements, access federal meaningful use incentives, and accelerate Stage 2 meaningful use capabilities in EHRs. ○ Health plans, CCOs and health systems can, if needed, send protected health information to clinics for operations and care management. ○ Key method for providers, health systems, CCOs, health plans and local data intermediaries to send information to the state for state-level quality reporting (e.g., CCO clinical metrics). <p>State-level Provider Directory:</p> <ul style="list-style-type: none"> ○ Foundational for statewide Direct secure messaging and local or state-level HIE efforts. <p>Technical Assistance to Providers:</p> <ul style="list-style-type: none"> ○ Can assist providers in improving their workflow to incorporate information shared via local HIE or statewide Direct secure messaging more efficiently into their delivery of care. 	<p>State-level Provider Directory:</p> <ul style="list-style-type: none"> ○ Can be leveraged by providers for referrals, notifications and care management. ○ Necessary for local or state-level query-based health information exchange. <p>Technical Assistance to Providers:</p> <ul style="list-style-type: none"> ○ Can enable providers to use their EHRs to support efficient, coordinated care.
<p><i>Performance metrics and analytics</i></p>	<p>Clinical Quality Data Registry:</p> <ul style="list-style-type: none"> ○ Collects and aggregate key clinical quality data, develop benchmarks and other quality improvement reporting, collect and calculate clinical incentive metrics and meet federal requirements for Meaningful Use incentive payments to providers. ○ Health plans and CCOs can leverage state infrastructure to meet reporting requirements and receive collected clinical data for their members for analytics/quality improvement. ○ Enhances health plans and CCOs abilities around population management, targeting of care coordination resources, and the development of new methodologies to pay for outcomes 	<p>Clinical Quality Data Registry:</p> <ul style="list-style-type: none"> ○ Supports analyzing aggregated data, which allows for development of dashboards and benchmarks. <p>State-level Provider Directory and Patient Index:</p> <ul style="list-style-type: none"> ○ Can create efficiencies for operations, analytics, oversight and quality reporting. ○ Can support analytics that rely on attributing providers to clinics and patient outcomes to provider team.

Areas of need	Near term benefits	Longer term benefits
	<p>State-level Provider Directory and Patient Index:</p> <ul style="list-style-type: none"> ○ Foundational for state level clinical quality data registry and local/CCO/health plan analytics. ○ Can improve CCO incentive metric calculation (e.g., attributing EHR incentives to CCO providers, etc.). <p>Technical Assistance to Providers:</p> <ul style="list-style-type: none"> ○ Can improve quality and credibility of EHR data underlying clinical quality measures 	<p>Technical Assistance to Providers</p> <ul style="list-style-type: none"> ○ Can enable providers to increase confidence in correctly capturing data for performance metrics.
<p><i>Alternative payment models/ payment reform</i></p>	<p>Clinical Quality Data Registry:</p> <ul style="list-style-type: none"> ○ Health plans and CCOs can leverage state infrastructure to meet reporting requirements and receive collected clinical data for their members for analytics/quality improvement. ○ Enhances health plan and CCO abilities around population management, targeting of care coordination resources, and the development of new methodologies to pay for outcomes <p>Technical Assistance to Providers:</p> <ul style="list-style-type: none"> ○ Can assist providers improve the quality and credibility of EHR data underlying clinical quality measures. 	<p>Clinical Quality Data Registry:</p> <ul style="list-style-type: none"> ○ Supports analyzing aggregated data, which allows for ability to develop new care models and alternative payment arrangements. <p>Provider Directory:</p> <ul style="list-style-type: none"> ○ Can support development of new models of care and payment that rely on attributing patient outcomes to provider team. <p>Technical Assistance to Providers:</p> <ul style="list-style-type: none"> ○ Can support clinical outcomes data, which can become the basis for alternative payment methodologies, and ultimately replace claims and other administrative data as a measure of quality of care.
<p><i>Leveraging existing investments</i></p>	<p>Overall, statewide services “wrap-around” existing ones:</p> <ul style="list-style-type: none"> ○ Augment and support existing services, including local health information exchange organizations (HIOs) and community-based health records, as well as CCOs/health plans with more sophisticated HIT and analytics capabilities. <p>Statewide Hospital Notifications:</p> <ul style="list-style-type: none"> ○ Make information from all hospitals in the state available to 	<p>Statewide Services:</p> <ul style="list-style-type: none"> ○ Support more robust query-based HIE statewide and more robust data aggregation, continuing to provide value back to local infrastructure. <p>Technical Assistance to Providers:</p> <ul style="list-style-type: none"> ○ Can help providers maximize the

Areas of need	Near term benefits	Longer term benefits
	<p>local notification programs to disperse to their subscribers or to stand-alone providers/systems and plans where no notification programs exist.</p> <ul style="list-style-type: none"> ○ Oregon stakeholders are exploring an Emergency Department information exchange (EDIE) product, which brings critical patient information to ED providers. Statewide hospital notifications would complement this effort and complete the circle by bringing hospital information back to the community providers, health systems, CCOs and health plans. <p>Clinical Quality Data Registry:</p> <ul style="list-style-type: none"> ○ Where health plans, CCOs and local entities have current or planned investments in clinical data aggregation, local aggregators (“data intermediaries”) submit data to the statewide registry and receive data from the registry as appropriate. <p>State-level Provider Directory:</p> <ul style="list-style-type: none"> ○ OHA’s common credentialing efforts may leverage some of the statewide provider directory’s technology infrastructure, and common credentialing efforts can provide an excellent data source for the provider directory. <p>Technical Assistance to Providers:</p> <ul style="list-style-type: none"> ○ Can help providers maximize the value of their investments in EHRs, including bolstering their use of local and statewide HIE and use of clinical quality metrics to improve delivery of care. 	<p>value of their investments in EHRs, including bolstering their use of local and statewide HIE and use of clinical quality metrics to improve delivery of care.</p>

Appendix B: “Phase 1.5” HIT/HIE Elements

1. **State-level provider directory:** capturing key provider information and attributing providers to their clinics, plans, hospitals, etc.

- **Foundational:** Important for health information exchange, data aggregation and analytics including the All Payer All Claims program, quality reporting, health plan and CCO operations, etc.
- **Approach:** Develop state-level provider directory that leverages existing directories, adds key provider information such as licensing, and completes missing information in current directories (such as providers attributed to clinics). Develop program to maintain accuracy of information. Provide access to provider directory data to health plans, CCOs, health systems, providers, state programs, etc.
- **Near term uses:** Improve incentive metric calculation (e.g., attributing EHR incentives to providers, etc.). Foundational for hospital notifications (see #3), HIE including statewide Direct secure messaging (#4), clinical quality data registry (#5), etc.
- **Longer term uses:** Create efficiencies for operations, analytics, oversight, quality reporting, and supports alternative payment models. Can be leveraged by providers for referrals, notifications and care management.
- **Related efforts:** OHA’s common credentialing efforts may leverage some of the statewide provider directory’s technology infrastructure, and common credentialing efforts can provide an excellent data source for the provider directory.

2. **Incremental development of state-level patient index, attributing patients to providers**

- **Foundational:** Needed for query-based health information exchange, data aggregation and analytics, quality reporting, health plan and CCO operations, etc.
- **Approach:** Incremental development beginning with information submitted by providers, health systems, CCOs and health plans as part of their subscription to the statewide hospital notifications program (see #3). As providers, health systems, CCOs and health plans submit lists of their patients/members, the lists form a state-level patient index that identifies key patient information as well as their primary care provider or clinic and covered CCO or health plan.
- **Near term uses:** Hospital notifications (see #3), CCO and health plan operations and targeting care coordination to identify providers treating specific patients.
- **Longer term uses:** Analytics and development of new models of care and payment that rely on attributing patient outcomes to their provider team. Necessary for query-based health information exchange.

3. **Statewide notifications of emergency department visits, hospital admissions and discharges**

- **Priority, high-value service around transitions of care:** Ensuring CCOs and health plans, health systems, primary care providers, and care teams have near-real time information on hospital use so they can take action around transitions of care.

Effective notifications can reduce costs with improved hospital/ED follow up, reduced readmissions.

- **Approach:** Technology infrastructure and program staff/contract for statewide electronic notifications to subscribers (CCOs, health plans, health systems, primary care providers and health care “team”) when patients enter/leave the hospital (ED, inpatient, discharge). Gathers HL7/ADT feeds from each hospital in the state, matches patient identifying data to patient lists submitted by subscribers, and sends a notification to all subscribers affiliated with the patient seen in the hospital. Subscribers can customize their notifications to meet their preferences (frequency, content of notifications).
- **Near term uses:** Improve follow-up and care coordination during/immediately following acute health care events. Track high-utilizers of hospital services and divert to outpatient care when appropriate.
- **Longer term uses:** Notifications can be expanded to include other types of information, including when individuals enter/change LTC settings, when developmental screenings occur, etc.
- **Related efforts:**
 - In some areas, health systems, providers and health information exchange organizations have built hospital notifications programs connecting to their local hospitals and, in some cases, to OHSU. Statewide notifications would make information from all hospitals in the state available to these local notification programs to disperse to their subscribers, or to stand alone providers/systems and plans where no notification programs exist.
 - Oregon stakeholders are exploring an Emergency Department information exchange (EDIE) product, which offers ED providers access to key information on high-risk, high-utilizing patients. Statewide notifications would complement the EDIE work, by providing all types of hospital event information (ED, admit, discharge) back to the community providers, health systems, CCOs and health plans.

4. *Statewide Direct secure messaging*

- **Priority, high value service:** Electronically bringing all members of a care team together for exchanging information across organizational and technological boundaries. Statewide Direct secure messaging adds new members to the electronic care coordination circle, such as LTC and emergency medical services. Also, as EHRs evolve in 2014 to meet federal Meaningful Use requirements, Direct secure messaging will be a core service within each EHR and national standards will support interoperability between Direct secure messaging providers (HISPs). Statewide connection of Direct secure messaging service providers (HISPs) will allow providers to meet federal requirements and connect from their EHRs to any other Direct user in the state.
- **Approach:** Continue and expand state offering of Direct secure messaging for entities that need it (particularly those without EHRs, including long term care, social services, etc.). Includes contracted and state staff to establish, facilitate, and ensure

connections between Direct secure messaging vendors (including those supporting EHRs) via “Trust communities,” so messages can be sent seamlessly across the state.

- **Near term uses:**
 - Providers need Direct secure messaging to meet federal requirements.
 - Provider care teams can communicate with each other and other entities (including those without EHRs) that impact the health of their enrollees.
 - Adding key providers, such as LTC and emergency medical services, to the electronic care team supports whole-person care.
 - CCOs and health plans can also use Direct secure messaging if they need a way to send protected health information to clinics for operations and care management.
 - Direct secure messaging will be a key method for sending hospital notifications and other information between the state/statewide HIE and providers, health systems, CCOs and health plans (e.g., provider directory flat files).
 - For state-level quality reporting (e.g., CCO clinical metrics), Direct secure messaging will be a key method for providers, health systems, CCOs, health plans and local data intermediaries to send information to the state (see #5).
- **Longer term uses:** Connecting all members of a care team leads to improved quality of care through visibility into relevant patient information. As EHRs evolve to meet federal requirements, Direct secure messaging will continue to become more tightly integrated into EHRs.
- **Related efforts:** Providers implementing/upgrading EHRs to meet Stage 2 Meaningful Use requirement will be able to communicate with providers using Oregon’s statewide Direct secure messaging. Local HIEs with Direct secure messaging can communicate outside their HIE expanding their value to the community, health plans, CCOs, health systems, and providers.

5. *Statewide clinical quality data registry*

- **Foundational:** Provides transparency of health system performance, population management and targeting care coordination resources, robust analytical capabilities, and the ability to develop new methodologies to pay for outcomes by aggregating clinical data.
- **Approach:** State-level infrastructure, including system, interfaces and some analytic tools necessary to submit to the State and internally utilize aggregated clinical data (starting with the 3 EHR-based metrics of depression screening, poor diabetes A1c control, hypertension) for tracking CCO incentive metrics, provider performance, and analytic purposes.
- **Near term uses:** collection and calculation of CCO clinical incentive metrics and meeting federal requirements for Meaningful Use incentive payments to providers. CCOs and health plans can leverage state infrastructure to meet reporting requirements and access/analyze aggregated clinical data on their providers’ performance and their members’ health outcomes.

- Longer term uses: Analyzing aggregated data allows for better targeting of patients, development of dashboards and benchmarks, and ability to develop new care models and alternative payment arrangements.
- Related efforts: Some CCOs, health plans and local entities have current or planned investments in clinical data aggregation. These local aggregators (“data intermediaries”) would submit data to the statewide registry and could receive data from the registry as appropriate. Entities without local data aggregation capability would be able to have providers submit data to the registry, and receive data from the registry related to their members and providers.

6. Technical assistance to providers

- Foundational: Ensures that providers are effectively using their EHR technology and that clinical data extracted from EHRs are reliable. Unless the EHR data underlying clinical quality metrics are credible to providers, providers will be reluctant to make the investment in substantive practice changes based on their performance.
- Approach: Technical assistance through contracted consultants working with practices/clinics, for using electronic health records (EHRs) and meeting Meaningful Use requirements.
- Near term uses:
 - More providers access federal meaningful use incentives, accelerate Stage 2 meaningful use capabilities in EHRs.
 - Improve quality and credibility of EHR data underlying clinical quality measures.
 - Providers improve workflow to incorporate EHRs more efficiently into their practice.
- Longer term uses:
 - Support efficient, coordinated care and confidence in performance metrics.
 - Clinical outcomes can become the basis for alternative payment methodologies, and ultimately replace claims and other administrative data as a measure of quality of care.