Oregon’s Strategic Plan for Health Information Technology and Health Information Exchange (2017-2020)

Health Information Technology Oversight Council

DRAFT

August 2017
1. Executive Summary

OHA envisions a transformed health system where HIT efforts ensure that the care Oregonians receive is optimized by HIT.

In an “HIT-optimized” health care system:

- Oregonians have their core health information available where needed so their care team can deliver person-centered, coordinated care.
- Clinical and administrative data are efficiently collected and used to support quality improvement, population health management, and incentivize improved health outcomes. Aggregated data and metrics are also used by policymakers and others to monitor performance and inform policy development.
- Individuals and their families access, use and contribute their clinical information to understand and improve their health and collaborate with their providers.

Oregon’s HIT efforts are guided by overarching priorities of the Oregon Health Authority (OHA) and the Oregon Health Policy Board (OHPB) within a health care environment that is constantly shifting. The OHPB’s Action Plan for Health, created in 2010 and refreshed in 2017, sets a clear direction for advancing health in Oregon, and HIT plans a critical role in several key initiatives, including advancing the coordinated care model, integrating physical, behavioral and oral health, and moving upstream to address the social determinants of health.

<table>
<thead>
<tr>
<th>The Action Plan for Health: Foundational strategies</th>
<th>Oregon’s HIT Priorities</th>
<th>Oregon’s HIT Focus Areas (2017-2020)</th>
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The Path to Statewide Health Information Exchange (HIE)
Progress has been made in spreading HIE in Oregon through regional HIE efforts, health care organization investments, vendor-led networks, and national approaches and solutions. Significant gaps remain, however, especially in regions and settings that face resource barriers. Future work will focus on the following approaches:

1. Supporting and connecting a robust networks of HIEs
2. Providing baseline HIT services to those facing barriers
3. Offering statewide enabling infrastructure to leverage existing investments and opportunities
4. Providing access to high-value data sources
5. Coordinating stakeholders to establish a shared governance model

**New Opportunities for Public/Private Partnership: HIT Commons**

The HIT Commons is an envisioned public-private partnership to advance HIT in Oregon by convening stakeholders in a neutral setting, coordinating shared HIT efforts, and creating sustainable funding mechanisms for shared investments.

The HIT Commons builds on the success of the EDIE Utility, and will grow through a “crawl, walk, run” model. OHA and the Oregon Health Leadership Council (OHLC) will co-sponsor the HIT Commons and provide initial support, along with payers, CCOs, hospitals and provider participants. OHLC will provide fiscal and management support for an initial period, after which, a separate non-profit organization is expected to form.

Initial work will focus on continuing the successful work of the Emergency Department Information Exchange (EDIE) Utility and OHLC’s Administration Simplification committee (including single sign-on work), providing funding for statewide access to the HIT Prescription Drug Monitoring Program (PDMP) Gateway, and beginning work to coordinate the HIE network of networks.

**Oregon HIT Program Work Ahead and Key Results**

Much work is underway to support these efforts. While foundational programs support effective use of EHRs and initial HIE services, new work is being developed to provide statewide HIT infrastructure, financial support to spread HIE and coordination of a “network of networks” to ensure HIE is available and connected statewide, new programs to support alternative payment models, a focus on adoption and spread of HIT and initiatives, and new access to high-value data. Key results expected include:
HITOC’s Work Ahead

OHA remains committed to monitoring the rapidly changing landscape of technology innovation and healthcare reform, and efforts to understand the changing landscape are ongoing. To ensure strategies are linked with changes in the landscape, HITOC will review sections of this strategic plan on an annual basis to create a rolling three-year plan. This will help ensure that strategies are linked to opportunities and can account for changes in the rapidly shifting environment.

In addition, HITOC will focus on monitoring the changing landscape and developing data dashboard, milestones and measures of success that provide insights into Oregon’s progress in achieving HIT-optimized care.
2. Vision, Goals, Principles and Priorities

Vision

OHA envisions a transformed health system where HIT efforts ensure that the care Oregonians receive is optimized by HIT.

Goals

In an “HIT-optimized” health care system:
1. Oregonians have their core health information available where needed so their care team can deliver person-centered, coordinated care.
2. Clinical and administrative data are efficiently collected and used to support quality improvement, population health management, and incentivize improved health outcomes. Aggregated data and metrics are also used by policymakers and others to monitor performance and inform policy development.
3. Individuals and their families access, use and contribute their clinical information to understand and improve their health and collaborate with their providers.

Principles for Statewide HIT Efforts

The following principles guide the work towards HIT-optimized care:

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

Demonstrate incremental progress, cultivate support and establish credibility:
- Advance efforts through incrementalism: define a manageable scope, deliver, and then expand.
- Communicate frequently with measureable progress. Demonstrate optimal value for patients and providers toward the triple aim of better health, better care, and lower costs.
- Provide public transparency into development and operations of statewide resources.
- Be a good steward of limited public resources.
- Establish long-term financial, leadership, and political sustainability.
- Seek broad stakeholder involvement and support. Statewide resources cannot be developed alone.

Create services with value:
- Maximize benefits to Oregonians while considering costs. Do not disenfranchise (“do no harm”), and be inclusive of providers that face barriers to participation.
- Support provider participation in HIT-optimized health care; meet providers where they are. Recognize the challenges especially for smaller, independent providers and providers who are not eligible for federally-funded EHR incentives.
• Prioritize efforts to achieve a common good and that local entities could not do on their own.
• Cultivate and communicate about value at the individual, provider, system and state levels. Champions and personal stories can be very effective.
• Support new models of “HIT-optimized” health care that result in better quality, whole person care and improved health outcomes and lower costs for all.

Protect the health information of Oregonians:
• Ensure information sharing is private and secure and complies with HIPAA and other protections.

Overarching Aims and Objectives

<table>
<thead>
<tr>
<th>Goal 1: Aims &amp; Objectives</th>
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<tbody>
<tr>
<td>Oregonians have their core health information available where needed so their care team can deliver person-centered, coordinated care.</td>
</tr>
<tr>
<td>1. Increased adoption of standards-based technology for data capture, use, and exchange</td>
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<td>2. Improved ability to capture, produce and use interoperable standards-based data in formats that are structured to be integrated and automated within EHRs and workflows</td>
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<tr>
<td>3. Improved access to and sharing of meaningful patient information across organizational and technological boundaries</td>
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<td>4. Improved provider experience and workflows, reduced burden, and increased workforce capacity</td>
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<table>
<thead>
<tr>
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</tr>
<tr>
<td>1. Improved use of HIT tools for data collection, analytics, and reporting</td>
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<tr>
<td>2. Increased use of aggregated data, including clinical data for population management, quality improvement, and alternative payment methods</td>
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<td>3. Reduced reporting burden for data needed to support the coordinated care model across programs</td>
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<tr>
<td>Individuals and their families access, use and contribute their clinical information to understand and improve their health and collaborate with their providers.</td>
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<tr>
<td>1. Increased patient access to/use of their complete health records</td>
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2. Improved ability for individuals to provide relevant information into their health records

3. Increased use of HIT by patients to engage providers (e.g., patient portals, e-visits, messaging, remote monitoring, etc.)

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<th>Crosscutting Aims &amp; Objectives</th>
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<tr>
<td>1. Improved culture of HIT-optimized health care where providers and other stakeholders value and expect electronic access to shared information</td>
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<tr>
<td>2. Increased alignment of standards to promote interoperability</td>
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<tr>
<td>3. Improved distribution of financial burden for supporting HIT investments as payment models evolve</td>
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<tr>
<td>4. Ensured protection of privacy and security of electronic health information</td>
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Priorities and Policy Context for HIT Efforts (2017-2020)

All of OHA’s work toward HIT-optimized care is connected to and aligned with broader efforts to improve and transform healthcare delivery in Oregon. Much of the broader work is guided by the Action Plan for Health, a health system transformation roadmap established by the Oregon Health Policy Board in 2010 and revised in 2017. The Action Plan for Health identifies seven foundational strategies, which are supported by Oregon’s HIT Priorities and focus areas for 2017-2020.

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Oregon’s HIT Priorities are also influenced by the opportunities and health care stakeholder priorities
driven by policy, regulatory and financial changes. Below are a few of the major changes in the health care context and policy environment that will impact HIT work over the next few years.

<table>
<thead>
<tr>
<th>Policy Context Topic</th>
<th>Description and Impact</th>
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<tbody>
<tr>
<td>Meaningful use transitions to MACRA</td>
<td>The Medicare EHR Incentive program and affiliated Meaningful Use requirements were superseded by the MACRA legislation in 2016, which created MIPS and adjusts Medicare payment based on quality outcomes and use of HIT.</td>
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<tr>
<td>MIPS for Medicare</td>
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<tr>
<td>Comprehensive Primary Care Plus (CPC+)</td>
<td>Many Oregon CCOs and major payers, OHA and CMS/Medicare are supporting over 150 Oregon primary care clinics with this alternative payment model, which will require data aggregation and care coordination, and will rely on HIT to support the CPC+ objectives.</td>
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<tr>
<td>Primary Care Payment Reform Collaborative</td>
<td>Will transform payment for primary care and work on data aggregation and reporting necessary for care improvement and value-based payment. This legislatively authorized collaborative will include a broader group of Oregon payers and clinics and will likely align data efforts with the CPC+ group.</td>
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<tr>
<td>Health Plan Quality Metrics Committee</td>
<td>Legislatively mandated committee working to align performance metrics for CCOs and Oregon health plans, including clinical quality metrics.</td>
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<tr>
<td>Patient-Centered Primary Care Home Program</td>
<td>Oregon’s PCPCH program recognizes primary care clinics that meet statewide criteria, including expectations for the use of HIT. PCPCH tier status is tied to payment models, such that higher-tier PCPCHs have financial incentives. The program is transitioning from three tiers to five tiers to provide advanced recognition of progress.</td>
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<tr>
<td>Certified Community Behavioral Health Clinic Program (CCBHC)</td>
<td>CCBHC is a federal pilot initiative to transform payment for behavioral health providers to a value-base model, requiring the use of HIT for care improvement and metrics tracking. Oregon has about a dozen behavioral health organizations participating as CCBHCs, and has state-specific standards including expectations for use of HIT.</td>
</tr>
<tr>
<td>Behavioral Health Collaborative</td>
<td>This 2016/2017 OHA-led stakeholder group made recommendations to help transform Oregon’s behavioral health system which will be implemented over the next several years. One of the four overarching recommendations focuses on technology and data, and HITOC will play a role in overseeing HIT specific components of this work.</td>
</tr>
<tr>
<td>The future of CCOs</td>
<td>OHPB provides input to OHA and the legislature on the future of CCOs, as OHA prepares for the next phase.</td>
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</table>
To support these efforts, the following areas of focus for Oregon’s HIT efforts for 2017-2020 have been identified:

1. **Spread health information exchange and other HIT efforts**
   HIT is critical to enhancing care coordination. The vision of the coordinated care model is seamless care across providers and organizations. Thus, HIE is a key enabler for the coordinated care model, and there are significant opportunities to leverage HIT and HIE to reduce barriers and improve communication. In order to reap the full benefits of HIT, critical users need to be connected to meaningful HIE opportunities. Past work has focused on EHR adoption and building the foundation for HIE and care coordination. Future work will involve ensuring that key providers and other critical care team members are connected to robust HIE.

   HIT is also critical to promoting the integration of physical, behavioral, and oral health. A key part of that body of work is improving Oregon’s behavioral health system, and that improvement effort involves several HIT components. For instance, the Certified Community Behavioral Health Clinic Program (CCBHC) includes requirements for the use of HIT and the reporting of performance metrics. Oregon stakeholders also recently convened the Behavioral Health Collaborative, which resulted in a series of recommendations on improving behavioral health information sharing and reducing barriers to data access.

   Other key HIT efforts include increasing patient access to their health information. This includes coordinating with clinicians to share patient notes through efforts such as OpenNotes and helping to spread best practices.

2. **Implement core HIT infrastructure**
   Significant progress has already been made on the planning and development of core infrastructure to support HIT, including the common credentialing program, provider directory and an HIT gateway to the Prescription Drug Monitoring Program. Future work will focus on implementation and launch of these services, and the successful spread of their use.

3. **HIT needed to support value based care and alternative payment models**
   HIT can support the shift from fee-for-service models of payment to alternative payment models that reward value and outcomes, which is crucial for health system transformation. These new payment models create requirements to track and report outcomes, and incentivize efforts to improve care coordination and health across populations. They also create an opportunity for aligned interests and shared need between healthcare payers and providers.

4. **Develop shared governance for long-term sustainability and alignment**
   Bringing together stakeholders and creating sustainable financing for HIT investments is crucial to long-term success. A public-private partnership also has the ability to leverage significant federal support while aligning interests of providers, payers and patients.

5. **Support high-value data sources, including information related to social determinants of health**
   To support care coordination and population health efforts, new initiatives will also explore opportunities to leverage high-value data sources, such as public health registries, and non-clinical sources of data that can be useful in addressing the social determinants of health.
Oregon’s HIT Areas of Focus: Past, Current, Future

- **Past Work**
  - Focus on physical health: EHR adoption and Meaningful Use
  - Enable basic HIE: Direct secure messaging and regional efforts

- **Current Work**
  - Support for care coordination (CCOs, PCPCHs and local HIE)
  - Develop core infrastructure (e.g. Provider directory)
  - Pilots for telehealth, OpenNotes, behavioral health sharing

- **Future Work**
  - Spread health information exchange
  - Implement core HIT infrastructure
  - Support for value based care and alternative payment models
  - Develop shared governance for long-term sustainability and alignment
  - Support high-value data sources, including the social determinants of health

Oregon HIT Program and HITOC Workplan and Milestones

Several bodies of work address the priorities described above. Key programs and timelines are described in the chart below, and additional information is provided in the strategies described in chapters 5-8.
**Milestones**

Key high-level results and milestones over the next three years are described in the table below. Future work will focus on developing additional milestones and measures of success. Milestones vary depending on the stage of an effort.

<table>
<thead>
<tr>
<th>Milestones</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020+</th>
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<tbody>
<tr>
<td>Medicaid EHR Incentive Program (MEHRIP)</td>
<td></td>
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<td>Program continues until 2021</td>
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<tr>
<td>Oregon Medicaid Meaningful Use TA Program (OMMUTAP)</td>
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<td></td>
<td>Program continues until May 2019</td>
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<tr>
<td>Common Credentialing</td>
<td>Implementation and launch</td>
<td>Full operations</td>
<td></td>
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<tr>
<td>Provider Directory</td>
<td>Implementation and launch</td>
<td>Full operations</td>
<td></td>
<td></td>
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<tr>
<td>Clinical Quality Metrics Registry</td>
<td>Implementation and launch</td>
<td>Live for CCO/ MEHRIP</td>
<td>Potential expansion</td>
<td></td>
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<tr>
<td>HIE Onboarding Program</td>
<td>Development, Launch</td>
<td>Phase one provider onboarding through 2021</td>
<td>Phase two provider onboarding through 2021</td>
<td></td>
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<tr>
<td>CareAccord and Flat file directory for Direct secure messaging</td>
<td>CareAccord Operational – regular evaluation of effectiveness and value</td>
<td>FFD transitions to Provider Directory</td>
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<tr>
<td>Network of Networks for HIE</td>
<td>Planning, coordination and legal agreements</td>
<td>Explore future infrastructure needs</td>
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<tr>
<td>EDIE Utility and PreManage</td>
<td>EDIE Utility pilot ends</td>
<td>Transition to HiT Commons</td>
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<tr>
<td>OHA-sponsored Statewide Medicaid subscription to PreManage</td>
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<tr>
<td>HIT Commons</td>
<td>Planning</td>
<td>Initial start-up under OHLC</td>
<td>Transition to 501(c)(3)</td>
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<tr>
<td>HIT Commons – New Projects</td>
<td>Development</td>
<td>Focus on HIE network of networks, PDMP gateway, adoption/spread of initiatives (e.g., Open Notes, etc.)</td>
<td>Determine future priorities</td>
<td></td>
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<tr>
<td>Access to high-value data (e.g., POLST, PDMP, other public health registries)</td>
<td>Launch PDMP gateway</td>
<td>Offer gateway subscription statewide</td>
<td>Ongoing pilots and initiatives to explore expanded access to high value data</td>
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</table>

**Milestones Diagram**

The milestones diagram illustrates the progression from Initiation/Launch to Access, Adoption and Use, and finally to Value/ROI, highlighting key phases and transitions between these stages.
Key Results

2018

Cross-cutting

Creation of forum for culture and trust through an HIT Commons
Development of the "network of networks" for statewide HIE

Goal 1

Widespread use of EHRs
Widespread access and participation in robust HIE
- Care summaries
- Referrals
- Complex care coordination
- Alerting
Widespread access to outside organization data for APMs

Goal 2

Widespread access and use of HIT that supports:
- Risk stratification
- Population health measurement
- CQM reporting and use
Advance provider data alignment through provider directory and common credentialing

Goal 3

Patients access health info through a patient portal
Patients engage care team through HIT

Draft Milestones

2018

Establish HIT Commons under OHLC
Develop statewide subscription to PDMP gateway and achieve x% adoption among eligible users
Develop process and timeline for Network of networks work

2020

Establish new 501(c)(3) for HIT Commons
PDMP gateway with x% adoption
Network of Networks for HIE: statewide trust framework adopted by x% of hospitals, health systems, providers and health plans.

x% of critical providers (PCPCH, CMHP, CCBHC) have access to robust HIE
x% of hospitals and health systems are connected to robust HIE
x% of ambulatory referrals occur electronically

Statewide alerts available for x% of critical transitions of care
Availability of Social Determinants of Health data sources

CQMR, Provider Directory and Common Credentialing Program begin operation
x% of Oregon health plans/CCOs/critical clinics participate in PreManage for high-risk individuals

x% of critical care team members have access to robust HIE
x% of Oregonians have access to OpenNotes with their PCP
x% of health systems and hospitals participate in the Provider Directory
x% of Oregonians have access to OpenNotes with their PCP
x% of health systems, hospitals and providers participate in the Common Credentialing Program
x% of Oregonians engage with their care team electronically

x% of Oregonians have access to OpenNotes with their PCP
x% of Oregonians engage with their care team electronically

x% of Oregonians engage with their care team electronically

Patient portal usage for Meaningful Use/MIPS clinicians is >x%
**HITOC Role and Workplan (2017-2020)**

Oregon’s legislature charged HITOC with overseeing the Oregon HIT Program, monitoring the HIT landscape in Oregon, developing long-term strategies to advance HIT and making recommendations to the Oregon Health Policy Board (OHPB) and the Oregon Congressional delegation. HITOC reports to the OHPB, which sets HITOC priorities and membership, endorses HITOC recommendations and guides HITOC work to ensure Oregon’s health system transformation efforts are supported by the right HIT.

Key work for HITOC in 2017-2020 includes coordinating with the HIT Commons (described in Chapter VI), developing additional data-driven milestones to measure progress, updating HIT strategies and recommendations, and staying abreast of the constantly changing landscape.

### High Level HITOC Work Plan

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<th>Policy Topics</th>
<th>2017</th>
<th>2018-2020</th>
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<tbody>
<tr>
<td>Interoperability</td>
<td></td>
<td>Support for behavioral health information sharing</td>
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<tr>
<td>Behavioral Health Information</td>
<td></td>
<td>Patient access, consent, and specially protected information</td>
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<tr>
<td>Sharing</td>
<td></td>
<td>Data sharing needs related to social determinants of health (SDoH)</td>
</tr>
<tr>
<td>Other Policy Board or HITOC-</td>
<td></td>
<td>New priorities as determined by OHPB and HITOC</td>
</tr>
<tr>
<td>identified Topics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strategic Planning</td>
<td>Complete update to strategic plan</td>
<td>Review and update strategic plan annually</td>
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<tr>
<td></td>
<td>Develop behavioral health HIT workplan for the Behavioral Health</td>
<td>Development or endorsement of strategies to support network of</td>
</tr>
<tr>
<td></td>
<td>Collaborative</td>
<td>networks for HIE and HIT for Alternative Payment Methods (APMs)</td>
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<tr>
<td></td>
<td>Advance data-driven measurement and milestones for HIT oversight</td>
<td>Support HIT Commons and determine appropriate oversight and reporting roles</td>
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<tr>
<td>Oversight</td>
<td>Oregon HIT Program (e.g. Provider Directory, Common Credentialing,</td>
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<tr>
<td></td>
<td>Clinical Quality Metrics Registry, HIE Onboarding Program, etc.)</td>
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<td>HIT Environment</td>
<td>Behavioral health scan</td>
<td>Develop additional capacity for ongoing environmental scanning, with</td>
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<td>focus on new priorities (e.g., Long Term Services and Supports,</td>
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<td>SDoH, APMs, etc.)</td>
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<tr>
<td>Reporting</td>
<td>Legislative Report in Summer 2017</td>
<td>Annual reports to legislature and OHPB</td>
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<tr>
<td></td>
<td>OHPB Report in Sept 2017</td>
<td>Explore opportunities to create dashboards to measure statewide progress</td>
</tr>
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<td>Federal Policy</td>
<td>Federal Law/Policy Considerations (e.g. ACA, MACRA, 21st Century</td>
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<td>Cures Act, ONC initiatives, Meaningful Use, privacy and security</td>
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<td>requirements (42 CFR part 2, etc.))</td>
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3. Oregon HIT Landscape


Since the development of the last strategic plan (2014-1017), significant progress has been made in achieving HIT-Optimized care.

Progress on governance and accountability frameworks
- HB 2294 (2015) reset the HITOC under the leadership of the Oregon Health Policy Board, solidifying alignment of HIT efforts within health system transformation efforts. HB 2294 also created the Oregon HIT Program, which allowed OHA to provide HIT services beyond state programs, and explicitly authorized OHA to participate in partnerships and shared governance efforts to accelerate HIT-optimized care in Oregon.
- Initial planning for the HIT Commons, a public-private partnership to advance HIT, is underway. This effort, led by OHA and the Oregon Health Leadership Council (OHLC), will provide a neutral convening space to coordinate HIT activities, leverage shared funding for sustainable investments, and accelerate the spread and use of HIT.

HIE is spreading:
- Electronic health records (EHRs) are being used more throughout Oregon provider practices, improving providers’ ability to access medical records across systems.
  - Oregon providers and hospitals are in the top tier of states accessing millions of federal EHR meaningful use incentive dollars each year.
  - Many providers are using EHR-based HIE capabilities, such as Epic’s CareEverywhere and other EHR-based hub solutions, to exchange and access information.
  - Key Medicaid providers and clinics have received support and technical assistance through the Oregon Medicaid Meaningful Use Technical Assistance Program (OMMUTAP).
- Regional health information exchange organizations (HIEs) have grown throughout the state, with coverage in several regions. National efforts, such as e-Health Exchange, Commonwell, and Carequality, have an established presence in Oregon and continue to grow (see further description on next page).
- OHA supports HIE by offering no-cost access to Direct secure messaging through its CareAccord program. CareAccord allows organizations that do not have EHRs or that are facing barriers to electronic health information sharing the ability to securely exchange health information with
different care teams across care settings. CareAccord serves more than 150 organizations and 1500 users, and its transaction volume tripled in 2016. CareAccord also administers the Flat File Directory, which has grown to provide information on over 10,000 Direct secure messaging addresses from over 550 unique healthcare organizations (primary care, hospital, behavioral health, dentistry, FQHC, etc.).

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**National Interoperability Efforts and Options with Significant Presence in Oregon**

**eHealth Exchange**

The eHealth Exchange is a group of federal agencies (VA, DoD, SSA), hospital systems, medical groups, and state and regional HIEs that exchange health information in order to improve patient care, streamline disability benefit claims, and improve public health reporting. Participants operate under a comprehensive, multi-party trust agreement (the DURSA) among public and private organizations that desire to engage in electronic health information exchange. The initiative is most known for query-based, peer-to-peer document exchange, but also supports document submission and publish-subscribe exchange models.

**Carequality**

Carequality is a multi-stakeholder collaborative that formed to help providers share clinical data across multiple networks and HIT systems. Using a consensus-based, use case-driven process, Carequality has developed a common interoperability framework, including legal and technical specifications, to enable connectivity across participating networks. Many of the largest EHR vendors are members of Carequality. EHR vendors must become “implementers” of Carequality, and then their users may elect to participate. The first use case implemented is a query-based document retrieval and other use cases are in development.

- EHR vendor “implementers” with major Oregon footprint include: Epic, GE Healthcare/Centricity, NextGen, Allscripts, eClinicalWorks, athenahealth, Netsmart

**CommonWell Health Alliance**

CommonWell Health Alliance is a multi-vendor association that provides core services and infrastructure to enable the exchange of patient clinical data. These include a master patient index for patient identity and matching, records locator and retrieval, and access and consent management solutions. CommonWell members include large EHR vendors and other HIT solutions, such as personal health records.

- EHR vendor members with major Oregon footprint include: Cerner, McKesson, Meditech, Allscripts, Greenway, eClinicalWorks, athenahealth

**Vendor-specific HIE efforts**

Many vendors have developed proprietary HIE solutions that connects users of the same EHR product. Epic’s Care Everywhere, for instance, is a tool within the Epic electronic medical record that allows Epic users to securely share patient records with other health care providers that use Epic. It allows providers to query for and retrieve health information resulting from episodes of care delivered in other, non-local facilities using Epic’s EHR in document format.
OHA, in partnership with the OHLC, Oregon’s hospitals, payers and CCOs, launched the Emergency Department Information Exchange (EDIE) Utility. EDIE alerts provide emergency departments across the state with critical visit history and care coordination information for patients who experience frequent ED visits and/or have complex care needs. PreManage provides this same critical information to health plans, CCOs, primary care clinics, behavioral health providers, oral health and others, and allows them to proactively coordinate care with the EDs through entering patient care recommendations and care histories. EDIE and PreManage services seek to improve care coordination and reduce emergency department use for patients with frequent ED visits. All Oregon hospitals (except the Veteran’s Administration) are currently participating in EDIE, and PreManage has spread to include use by hundreds of clinics, 11 CCOs and several commercial health plans.

Development in core services and programs:

- Significant progress has been made on the Oregon HIT Program, detailed in the previous strategic plan, which includes operational programs, such OMMUTAP and CareAccord, and the following four core services in development. These efforts are expected to launch in 2018:
  - Oregon’s Common Credentialing Program, a legislatively mandated program and database to centralize the process of obtaining and verifying Oregon health care practitioner credentialing information. This program will provide administrative efficiencies and reduce burden for about 55,000 Oregon practitioners and more than 300 credentialing organizations.
  - A statewide Provider Directory, critical to supporting HIE, analytics and population management, accountability efforts and operational efficiencies.
  - A Clinical Quality Metrics Registry (CQMR) to capture clinical quality metrics from electronic health records, with an initial focus on required CCO EHR-based quality metric reporting and Medicaid EHR Incentive Program reporting.
  - The HIE Onboarding Program to leverage significant federal matching funds to support onboarding critical Medicaid providers to robust community HIEs.

Advancing HIT for behavioral health:

- OHA and other stakeholders have worked to improve access to the state’s Prescription Drug Monitoring Program (PDMP) specialized registry, which contains information on controlled substances/opioid prescription fills. A new HIT gateway service will allow EHRs and other HIT systems, including HIEs and EDIE, to connect directly to the PDMP database and provide actionable data within a prescriber’s workflow.

- Through federal ONC cooperative agreement funding, Reliance e-Health Exchange, has worked to address barriers to information sharing and care coordination across settings, particularly for behavioral health data, by developing a common consent model. Additional work to further convene stakeholders and disseminate learnings is underway.
Challenges

Despite progress, significant challenges with HIT remain:

The healthcare ecosystem continues to evolve rapidly, especially in regards to alternative payment models:

- Payment and quality reform efforts continue to grow: Efforts such as primary care payment reform (including CPC+ and the Primary Care Payment Reform Collaborative), CMS’s Quality Payment Program (MIPS and APMs), federal and state healthcare financing uncertainty, and evolving technology all contribute to a dynamic and uncertain future that makes planning for and investment in HIT challenging.

- Changing payment models require new technology and measurement: New payment models that promote coordinated care and incentivize health outcomes are growing, but measuring, tracking and reporting on outcomes remains a challenge. In addition, many providers are still paid, at least in part, with fee-for-service models, complicating and confusing efforts and needs.

- Myriad unaligned metrics and reporting requirements create difficulties: Providers and health systems face a daunting number of reporting requirements across health plans, Medicare, Medicaid, and pay-for-performance programs. Reporting metrics and other data often requires reporting many similar, but not identical, pieces of information. Changing and unaligned federal, state, and payer efforts mean providers are oftentimes trying to address different measures for different programs. This lack of alignment increases administrative burdens and provider frustration and reduces comparability of data.

- Aggregating and analyzing clinical data can be challenging for some CCOs, health plans and health systems: Aggregating clinical data across different EHRs is a specialized technical skill set. With varying levels of capacity for HIT and analytics work, some stakeholders have developed or purchased tools that work well for their specific needs, while others have not.

Users face very real technology burdens, which may impede new HIT efforts:

- Practices continue to face many technology challenges: Upgrading to certified EHR technology, adapting to new payment models, and meeting requirements on Meaningful Use activities are all occurring simultaneously. Multiple metrics and reporting requirements demanded by different payers and programs also create a significant administrative burden for many providers.

- Providers must adopt and use EHRs, HIT and HIE services to see the benefits: Providers will need support and technical assistance to integrate information technology into their workflow. There will also be increased demand for knowledgeable staff who can adapt to new technology and implement new workflows which maximize the benefits of HIT services. Training and retention of qualified staff is an additional concern.

- Providers face challenges with EHR usability: Small providers are constrained by the “out-of-the-box” capabilities provided in their EHRs, and have limited financial ability to customize their EHRs to produce metrics and reporting. For example, although 2015 Edition certification criteria call for EHRs to generate reports in the Quality Document Reporting Architecture (QRDA) format without subsequent developer assistance, implementation of EHRs certified to the new standards is not yet widespread enough to evaluate success. In addition, the ability to produce
high-quality, accurate data for each metric relies on the workflow and processes that ensure providers are entering appropriate data into the relevant fields of their EHR.

- **Translating data into action:** Providers are ready for information that allows them to better understand and manage their patient panels. However, the ability to translate metrics into practice improvements and/or to target patients needing care varies among providers and can depend on the utility of the reported data. Having excellent analysis of performance data, trends and benchmarking are of little use if providers are not able to take action or change practices to realize improvements. Health systems, CCOs and health plans also vary in their ability to work with practices and target their resources.

**HIE efforts remain fragmented and uneven:**

- **Health information exchange is unconnected:** HIE efforts are still limited by separate networks that are unable to share information effectively, and significant gaps remain, especially with regards to geography and access to resources. Technical barriers and a lack of standards adoption also creates difficulty in establishing connections.

- **HIT efforts must be inclusive of settings, including those focused on addressing social determinants of health:** Behavioral health, oral health, long term services and supports, corrections, supported housing and social services must all be included in HIT efforts to achieve health systems transformation, but most of these providers face significant financial and technological barriers.

- **Sustainability is challenging:** Although the benefits of HIT infrastructure are of interest to many stakeholders, many are reluctant to invest without clear demonstration of value and return on investment. At the same time, for many services, participation by a critical mass of providers is needed to realize the return on investment.

- **Risk of unintended consequences:** The addition of new HIT services, however well-intentioned, could inadvertently contribute to information overload. For example, alerts designed to call attention to important information about a patient are useful only if the provider can act on the information. “Alert fatigue” can occur when a provider is overwhelmed by the volume of messages and begins to ignore them.

- **Data ownership and challenges with sharing:** The expansion of HIT has created new tension around data ownership, responsibility, investments in data cleaning and maintenance, and organizations’ competitive advantage around information. The intersection of HIPAA with other privacy protections, such as 42 CFR Part 2, can create uncertainty about what information can be shared and how. Questions may arise regarding who owns the data and who can access the data. Protecting patient privacy and assuring security are paramount when working with patient information. Successful HIE will require addressing concerns of data blocking and ensuring information is available where needed while ensuring sustainable business models for infrastructure and exchange efforts.

**Patient access and control remains challenging:**

- Many patients still do not have access to their electronic health information, and those that do oftentimes have to access it through multiple unconnected portals. This is a particular challenge for patients with complex or chronic illnesses, and for family members and others who support patients.
The spread of HIE has particular implications for sensitive information, such as mental health, substance abuse and health data that may be connected with a particular setting (for instance, a county jail). HIE efforts should include considerations of patient choice and ability to control access to information.

Incorporation of additional sources of data, such as those connected with the social determinants of data, raises additional concerns around privacy, stigma and rules surrounding sharing between organizations.
4. Roles in Achieving HIT-Optimized Health Care

The State’s Role

The State plays a central role in coordinating efforts, leveraging funding opportunities and ensuring that all Oregonians can benefit from HIT-optimized care. The State also recognizes that local and private efforts play important roles in the adoption of HIT. In addition, the launch of the HIT Commons, as a public-private partnership, will create a period of transition as roles are developed and established. The State envisions that some of its work, where appropriate, may transition over time to the HIT Commons. (See Chapter VI for additional information.)

The State has three primary levels of involvement: coordinating, standardizing, and providing:

The State will coordinate and support community and organizational HIT efforts.
- Recognizing that HIT and HIE efforts must be in place locally to achieve a vision of HIT-optimized health care, the State can support, facilitate, inform, convene and offer guidance to providers, communities, and organizations engaged in HIT.
- The State will use stakeholder groups like HITOC, the HIE/HIT Community and Organizational Panel (HCOP), and other advisory groups, as well as ongoing environmental scan efforts, to monitor the landscape, understand changes in the environment, develop or refine strategies, and adjust efforts or make recommendations as needed.
- The State will support the onboarding of critical physical health, behavioral health and oral health providers to community HIEs to improve care coordination and help Medicaid providers meet Meaningful Use requirements.
- The State will publish and share information about the use and adoption of HIT and HIE across Oregon to promote accountability, demonstrate progress, and inform future action.

The State will align requirements and establish standards to promote statewide HIE:
- To ensure that health information can be seamlessly shared, aggregated, and used, the State is in a unique position to establish standards and align requirements around interoperability and privacy and security, relying on already established national standards where they exist.
- The State will use contracting opportunities related to CCOs to promote and support the use of HIT to advance Medicaid objectives.
- The State will promote the use and adoption of HIT through regulatory levers, such as the PCPCH standards.
- The State will work to align metrics and reporting to encourage HIT use and reduce administrative burden.
- The State will support the expansion of CQM reporting through electronic means to enable effective alternative payment models and promote population health efforts.

The State will provide a set of HIT technology and services.
- As described more fully in Chapter IV: The Path to Statewide HIE, new and existing state-level services connect and support community and organizational HIT efforts where they exist, fill gaps where do these efforts do not exist, and ensure all providers on a care team have a means to participate in basic sharing of information needed to coordinate care.
- The State will leverage governance and funding opportunities, such as co-sponsoring EDIE and PreManage and supporting the deployment of an HIT PDMP gateway.
• The Oregon HIT Program will include enabling infrastructure and services, such as the Provider Directory, CareAccord and the CQMR, provide funding for EHR adoption and HIE onboarding, and offer technical assistance and support to assist providers in adopting and using HIT.

The Role of Other Key Stakeholders

All Oregonians have a stake in achieving HIT-optimized health care, and making the vision a reality will require participation, investment and support from all of Oregon’s health care partners. Health plans, CCOs, community and organizational HIEs, health systems, providers and individuals have the following roles to play:

Health Plans and CCOs:
• Support and encourage participation in programs that call for the use of HIT tools to improve care, such as the Oregon Medicaid EHR Incentive Program, CMS’s MACRA Quality Payment Program (MIPS or Advanced APM track), and the multi-payer Comprehensive Primary Care Plus (CPC+) initiative.
• Support and facilitate provider use of EHRs and HIE opportunities.
• Align quality reporting requirements around common sets of clinical quality metrics endorsed by the Oregon Health Plan Quality Metrics Committee. Build toward use of national standards, such as the Quality Reporting Document Architecture (QRDA) EHR certification criteria.
• Invest in technology and processes to use aggregated clinical metrics data for effective population management, performance monitoring and creation of new payment models to reward outcomes rather than old models of paying for visits, and share data back to providers in usable formats.
• Work with health systems, providers, and technical assistance resources to ensure the credibility and quality of clinical data generated from EHRs.
• Encourage and empower patient/provider relationships via electronic interaction with health information, leveraging patient portals and exploring new tools.

Health Systems, Hospitals and Providers:
• Adopt and use HIT. This includes:
  o Pursuing Meaningful Use of certified EHR technology (particularly for providers eligible for EHR program incentive payments)/ Advancing Care Information (particularly for providers participating in the Merit-based Incentive Payment System (MIPS)), and incorporating the use of technology into workflows.
  o Participating in HIE across organizational and technological boundaries via Direct secure messaging and community, organizational, and statewide HIE efforts.
  o Sharing information and engaging in care coordination efforts, such as participating in regional HIEs, PreManage and EDIE.
  o Engaging with efforts to expand access to public health and other registry data, including immunization registries, the Prescription Drug Monitoring Program (PDMP), and Physician Orders for Life Sustaining Treatment (POLST).
Including all members of the care team in coordination and sharing information, including physical, behavioral health, dental, long-term care and social services partners.

- Ensure EHRs meet current certification requirements that enable EHRs to produce clinical quality metrics, generate and report on clinical metrics data, implement workflow changes that may be needed to ensure quality of data, and make practice changes and target patients for interventions based on metrics and analysis of practice performance.

- Participate in programs that leverage investments in HIT, such as CMS’s Quality Payment Program and CPC+ initiative, the Oregon PCPCH program, and CCBHC.

- Work with health plans, CCOs, and technical assistance resources to ensure the credibility and quality of clinical data generated from EHRs.

- Educate, engage and empower individuals through access to their health information as the providers have the primary relationship with individuals (and often their families).

Regional HIEs:
- Connect with other HIEs to create a network of networks that supports the exchange of information across vendor systems and organizational boundaries
- Promote the use of HIE within provider workflows
- Assist providers in extracting metrics and using data to improve care
- Connect critical providers to address gaps in HIE

Individuals:
- Expect that providers have electronic access to their patient information, inform their providers on where patient-generated information can be accessed (such as a personal health record), and seek to engage in their care and outcomes.
5. The Path to Statewide HIE Coverage

Goals for Statewide HIE

To achieve the goals of HIT-optimized care, the State will work to ensure statewide coverage of HIE. To that end, three goals specific to HIE have been developed:

1. Oregonians have their core health information available wherever they are seen statewide
2. HIE is meaningful to providers, takes into account usability and workflow, prioritizes high-value use cases
3. HIE supports the coordinated care model, patient engagement, and other alternative payment models

Principles of Statewide HIE

These goals are further guided by the following principles of HIE that will guide implementation strategies:

Democratize the data:
- Patients have a right to have their key health data available to their care team to support continuity of care, safety and quality.

Establish minimums (not maximums) and work to “raise all boats”:
- Set minimum specs for provider participation
- Avoid caps or disincentives that would hinder more robust and sophisticated uses

Set rules of the road for data sharing/use and ensure trust:
- Contributors need to clearly know how their data will be used and how decisions will be made. Organizations will want clarity on data uses and clear rules of the road to have trust and participate
- Set guard rails for uses of data that protect trust and encourage use
- Rules must ensure mechanisms for accountability and dispute resolution

Be Inclusive:
- Successful exchange will require everyone to participate—“All In”
- Particular attention is required for gaps in HIE, especially those due to resource limitations and geography

Consider provider workflow and use cases:
- Focus on high-value use cases, and incorporate solutions into workflows

A governance role is needed:
- Competition makes coordination/collaboration difficult. A neutral entity of trust is required to align efforts and ensure that data is available for appropriate use.

High Value Use Cases to Guide Efforts

Health information exchange encompasses myriad efforts and technologies, with each offering different levels of connectivity, robusticity, and complexity. To best leverage existing investments and new
opportunities, efforts will focus on identifying high-value use cases to guide strategies for statewide coverage of HIE. Several high-value use cases have already been identified, including:

- **Exchange of care summaries**: providing relevant, timely information about care a patient receives. Basic care summary exchange already occurs in a variety of ways, and future work will focus on integrating across technology systems and better integrating into provider workflow. As national HIE frameworks (such as Carequality, Commonwell, and eHealth Exchange) spread across Oregon providers, care summary exchange should significantly increase.

- **Closed loop e-referrals**: sending referral information from a coordinating provider to a specialty provider, hospital, behavioral health organization or other entity and then receiving information about the results of the visit/service to incorporate into the plan of care. Future needs may also include interfacing with social services agencies, supported housing, and other support services.

- **Complex care coordination**: providing seamless and up-to-date information about a patient across a care team, which may include physicians, care managers, specialists and other support organizations.

- **Alert notifications**: capturing information about transitions of care or service and communicating them to the right people at the right time. Alert notifications for hospitalization and ED visits are already available through the EDIE Utility and PreManage service, and these efforts could be expanded to include transitions in and out of post-acute care facilities and correctional institutions, or service information, like visits to primary care or a social services agency.

- **Data for alternative payment models**: both providers and payers have a need for increased access to the right information at the right time. This includes clinical information for care coordination purposes, clinical metrics for quality and payment purposes, and information needed for population health and practice improvement efforts.

Each of these use cases features specific and differing stakeholders, workflows, and underlying technology requirements. By focusing efforts on use cases, the right stakeholders can be brought together, and the right solutions, both technological and technical, can be developed to improve care communication and coordination.

<table>
<thead>
<tr>
<th>Use Cases</th>
<th>Main Stakeholders/ Participants</th>
<th>Types of Exchange/ Efforts</th>
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<tbody>
<tr>
<td>Referrals</td>
<td>Hospitals, Physical health providers</td>
<td>Direct secure messaging</td>
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<tr>
<td></td>
<td></td>
<td>Regional HIEs</td>
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<tr>
<td>Alerts</td>
<td>Behavioral health orgs</td>
<td>EDIE/ PreManage</td>
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<td></td>
<td>Oral health providers</td>
<td>Expanded notifications</td>
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<tr>
<td>Records request</td>
<td>CCOs</td>
<td>Vendor-led efforts (e.g., Care Everywhere)</td>
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<tr>
<td></td>
<td>Health plans</td>
<td>National efforts (e.g., Carequality, Commonwell, eHealth Exchange)</td>
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<tr>
<td>Complex care Coordination</td>
<td>Long-term services and supports</td>
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<td></td>
<td>Social services and supported housing agencies</td>
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A number of models have been considered to provide statewide HIE, including a robust HIE-led model and a robust enabling-infrastructure model. Recognizing previous and ongoing investments in technology and infrastructure by the State and healthcare stakeholders, a diversity of needs, and a desire to remain flexible amid changing delivery and payment landscapes, HITOC has determined a robust HIE model with lightweight enabling infrastructure and supported with baseline services is the
right path forward at this time.

In this model, providers, hospitals, health systems, health plans and other healthcare users connect primarily through a robust HIE network that facilitates exchange. Statewide enabling infrastructure will focus on helping these robust HIE networks share information, such as the provider directory to help locate providers and organizations. Some lightweight services are also provided to fill gaps and address barriers such as a lack of resources or incomplete access to data.

In developing this model, HITOC considered the feasibility of more robust statewide services, as well the continuation of the status quo. It was determined that robust networks of HIE, connected together, offered the right value, risk, and likelihood to provide the necessary level of HIE. HITOC will monitor the spread of robust HIE networks, as well as technology changes and evolving needs, and make recommendations or adjustments going forward.

**Approaches to Achieve Statewide HIE**

1. **Supporting and connecting robust networks of HIEs**
2. **Providing baseline services to those facing barriers**
3. **Offering statewide enabling infrastructure to leverage existing investments and opportunities**
4. **Providing access to high-value data sources**
5. **Coordinating stakeholders to establish a shared governance model**
The following approaches will guide strategies and efforts:

1. **Supporting and Connecting Robust network of HIEs**

Various local efforts have emerged to offer HIE solutions, including community health information exchange organizations (HIEs) and health system-led HIE efforts. Within each effort, there is variation in the sophistication, types and degree of information shared, and connectivity with outside sources (including national exchange efforts). There are also still significant gaps in the availability and usefulness of HIE efforts.

**HIE Onboarding Program (HOP):** The HIE Onboarding Program will support the initial costs of onboarding priority Medicaid providers to a community-based HIE that provides meaningful HIE opportunities and plays a vital role for Medicaid in that community. It may also support participating community-based HIEs in connecting to the network of networks including HIE-enabling infrastructure, statewide services, and other connections, as described in this Strategic Plan, that create value for priority Medicaid providers.

The initial phase of the program will focus on promoting integrated care. Therefore, priority Medicaid providers for that phase will be Medicaid behavioral health, oral health, and critical physical health providers including county corrections health. The program will also incentivize early onboarding of major trading partners to help create value for other priority Medicaid providers. Later phases of the program will likely include long-term services and supports, social services, and other organizations whose work focuses on the social determinants of health as priorities.

The State will also continue to convene stakeholders, such as HITOC and the HIE Organizational and Community Panel (HCOP) workgroup, to monitor and support the development of HIEs, share best practices and resolve challenges collectively. Grant funding and other support will also be sought to build additional connectivity and functionality of HIEs.

While significant progress has been made to develop and build HIE networks across the state, challenges remain, particularly in communicating across different HIE networks. A “network of networks” model envisions collaborative work around establishing common rules of the road, developing requisite technical and legal frameworks, and the development and/or adoption of enabling infrastructure to support cross network exchange.

**Key functions of the network of networks:**
- Coordinating and convening key stakeholders to develop the necessary trust framework, including legal and data use agreements, policies, and dispute resolution approaches
- Identifying and implementing needed infrastructure to facilitate exchange
- Ensuring interoperability to improve the use and value of information exchanged, while enabling seamless use of State services that rely on data and technology residing in multiple organizations
- Ensuring privacy and security practices are in place
- Providing neutral issue resolution
- Monitoring environmental, technical and regulatory changes and adapting as needed
2. Baseline services and supports to those facing barriers

The State will provide baseline services to address gaps and support providers facing barriers. These barriers could include resource limitations, a lack of adequate and effective alternate HIE methods, or geographic challenges. Baseline services already in place include:

- **CareAccord®**: CareAccord is available throughout Oregon, including in areas where no community HIEs exist. By offering CareAccord, the State provides an option for any provider, with or without an EHR, to access electronic health information through Direct secure messaging.

- **Emergency Department Information Exchange (EDIE) and PreManage**: The Emergency Department Information Exchange (EDIE) Utility is a public-private partnership that provides Oregon emergency departments key care summaries for patients who have high utilization of emergency department services and/or who have been identified to have complex care needs with care guidelines, with the goal of reducing unnecessary hospital services and improving outcomes. Statewide hospital notifications (ED and inpatient admit, discharge and transfer data), through the PreManage program, augment the work under EDIE, by notifying providers, health plans, and care coordinators when their members or patients are seen in any hospital in Oregon or Washington. EDIE and PreManage services provide critical care coordination links between hospitals, critical physical, behavioral and oral health providers, tribal clinics, long term care providers, CCOs and other payers. Organizations are also using data from the service to improve population health and analytics efforts.

3. Statewide enabling infrastructure services

Statewide enabling infrastructure services provide core services that facilitate efficient use of HIT and information exchange across organizational boundaries, providing the underlying “glue” to tie together robust networks of HIE with baseline services and other efforts. The following services are currently being developed:

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

The provider directory services will:

- Enable lookup of parties (e.g., organizations and individuals) and their associated information (e.g., name, postal address, phone number, electronic service address for HIE purposes) using identifying characteristics. The provider directory would identify key affiliations, such as individual provider affiliation to their practices, health systems, health plans, etc.
- Act as a “router,” and a single lookup point, distributing lookup requests to provider directories at community and organizational HIEs and health systems and returning aggregated responses.
- May include core provider data in a central database (e.g., static data such as name, demographics, etc.).

Common credentialing: OHA is mandated to establish a common credentialing solution that will provide credentialing organizations (hospitals, health systems, health plans, ambulatory surgical centers, etc.) access to commonly held information necessary to credential all health care practitioners in the state. The goal of this effort is to reduce the administrative burden on practitioners and reduce redundancies of the credentialing process. Common credentialing and provider directory efforts have many opportunities for synergies: for example, common credentialing will provide a trusted, robust data source for the provider directory.

Additional enabling infrastructure was envisioned in the last strategic plan (2014-2017). These efforts included expanded notifications, a master patient index, record locator service and support for query-based exchange. Due to changes in the environment and new national exchange efforts, these efforts are not being pursued at this time. However, they may still be considered for future needs. See the Appendix A: Opportunities for Future Investments for more information.

4. Provide access to high-value data

As one of the largest collectors of data, the State is uniquely positioned to support and augment HIE efforts. High-value data managed by the State includes public health reporting data, including immunizations, opioid prescription fills, emergency medical services (EMS) events and outcomes, and specialized registries like POLST (Physician Orders for Life Sustaining Treatment). Current efforts to promote data access and sharing include bi-directional interfaces between HIT systems and public health gateways and pilots to support integration between the POLST registry and POLST electronic reporting interfaces. The state is also exploring ways to share social determinants of health data to improve care coordination and upstream interventions.

PDMP Gateway: The Prescription Drug Monitoring Program is a specialized registry that contains crucial opioid prescription fill information. Previously, access to PDMP data was limited to a web portal that was burdensome to many prescribers’ workflow. OHA has worked to connect the PDMP database to a cloud-based gateway that will improve access and usability of the data. Approved prescribers will be able to access PDMP data on their patients from within their EHR system without logging into a separate portal. In addition, PDMP data will be available through EDIE alerts when certain criteria are met. Future envisioned efforts include establishing a shared funding model to improve access and lower costs.
to connecting to the PDMP gateway.

5. Coordinate stakeholders and establish shared governance model

The key enabler to statewide coverage of HIE will be coordinating various efforts and utilizing enabling infrastructure in a cohesive way. A shared public-private governance model, described next, will leverage this opportunity.
6. The HIT Commons: A Public-Private Partnership Governance Model

Background on HIT Governance Efforts

Developing a public/private partnership to govern statewide HIT efforts has been on HITOC’s strategic roadmap from the beginning. In 2010, a strategy work group convened by HITOC determined that Oregon’s governance model should take a phased approach to developing a public utility with government oversight. In the first phase, the State would support existing community and organizational HIT efforts by providing HIE policies, requirements, standards, and agreements. The work group anticipated that a financial sustainability plan and necessary legislation would allow for a second phase in which a state-designated HIT entity would be created. The entity could serve as the central contracting point for community and organizational HIT efforts and act as the accrediting body by implementing the policies developed in the first phase.

The 2014 HIT Taskforce confirmed the phased approach to developing a public-private governance model. In 2015, legislation passed that allowed OHA to participate formally in such a governance entity, and allowed the State to transition any or all of the Oregon HIT Program to the governance entity if doing so was in the best interests of the state.

In 2015, the EDIE Utility formed to provide statewide hospital event notifications. A key success of the EDIE Utility was the sponsorship of OHLC and OHA, and the participation of all Oregon hospitals, major payers, CCOs and OHA under a shared governance model. The model provided for representation, shared financing, and agreements for participation and use of the data and infrastructure.

Developing an HIT Commons

Building upon the success of the EDIE Utility, OHA and OHLC, in collaboration with other key stakeholders has begun development of a public-private governance model and business plan. Through extensive listening sessions, several key themes and opportunities for a shared governance model emerged around coordinating HIE efforts, spreading HIT progress and creating sustainable funding mechanisms for shared investments.

The HIT Commons will be established as an umbrella governance structure under OHLC initially, with a transition to a separate legal entity over time. The Commons will include decision-making based on common principles, expectations; a base funding model to support umbrella governance and a select scope of initial projects; and clear criteria for selecting future projects which would be funded and staffed as they were initiated.

Initial work of the new “HIT Commons” will focus on continuing the successful work of EDIE and OHLC’s Administration Simplification committee (including single sign-on work), providing funding for statewide access to the HIT PDMP gateway, and beginning work to coordinate the network of networks for HIE.
Organizational Model and Key Considerations

The HIT Commons will take a “crawl, walk, run” approach to launch. The initial HIT Commons entity will be based on the EDIE Governance model, with the OHLC acting as a fiscal agent and management contractor. Over 12-18 months, the entity is expected to transition to a stand-alone non-profit organization.

Glide path to more formal structure

Key guiding principles include:

- Democratize the data – common data set shared
- “Raise all Boats” - Establish Minimums (vs maximums)
- Inclusive – Work to ensure “all in” or critical mass
- Work for common or public good
- Spread HIT successes
- Rules of the Road for data sharing – set guard rails to promote trust
- Transparency – How and why decisions are made
- Identify and communicate value

Stakeholder representation on the HIT Commons will be balanced and include: OHA; health plans and CCOs; hospitals and health systems, physicians; OAHHS; behavioral and oral health providers; social services agencies.

The relationship between HITOC and the HIT Commons is still being refined and may shift over time. Currently, it is envisioned that HITOC will be responsible to set overall HIT strategy and monitor broad efforts and programs, including the progress and effectiveness of the HIT Commons. The HIT Commons, in turn, will take a primary role in implementing key strategies, and provide monitoring and accountability for its projects and initiatives. The potential HIT governance “galaxy” is described below.
A formal business plan for the HIT Commons is currently under development by an interim advisory group and is expected to be released in late Summer 2017.
7. Technology needed for Alternative Payment Models

Central to health systems transformation is the move from fee-for-service payment models to ones based on outcomes and effectiveness. This has created an opportunity for improved HIE/ HIT for several purposes:

- Quality measurement
- Care coordination and care gaps identification
- Population health management and risk stratification
- Expanded data collection, especially around social determinants of health and other critical, non-medical information

To reward value, alternative payment models (APMs) require gathering timely performance information and communicating them between providers, payers and regulatory bodies. With an increasing focus on quality measurement, measures have proliferated. For measurement to become more meaningful and less burdensome, alignment is necessary, not only on measure sets and specifications but also on measure collection.

HIT plays a key role in quality measurement. Electronic Clinical Quality Measures (eCQMs), which include process and outcomes measures used to measure the current quality of patient care and identify opportunities for improvement, are generated from providers’ electronic health records (EHRs). Ideally, the necessary data should be captured as part of the providers’ regular workflow (for example, when lab results are received or when patients’ vitals are taken), but a frustration with current measures is that often extra steps are required to capture the data.

Needs for quality data:
Health plans, CCOs, health systems and providers all need CQMs to achieve the triple aim of better health, better care, and lower costs.

Provider-level uses: Actionable CQMs, alerts and other patient-level information are needed by point-of-care providers and the care team to look across their patient panels and identify care needs. These tools allow providers to identify patients who have gaps in care (e.g., missing recommended screenings), are at risk for poor outcomes (e.g., missing follow-up visits after hospitalization or being outliers within their chronic care cohorts) or have other signs of needing additional, proactive care. Clinical quality measures can provide insight into areas of success and areas for improvement. To be most useful for providers, these data and metrics should include the ability to “drill-down” to the patient level, so patient follow-up and practice changes can occur.

Management-level uses: Health plans, CCOs, health systems and providers need CQMs and data to:

- **Ensure quality:** Identify, monitor and improve quality of care.
- **Manage populations:** Identify and manage their patients/populations effectively.
- **Pay differently:** Transform care delivery via new payment models that are based on paying for value and health outcomes rather than visits.

To be most useful for management-level users, these data and metrics should be collected frequently enough to demonstrate the impact of new delivery care models and help identify where resources and course corrections could yield better outcomes.
**Policy-level uses:** The State monitors population health, and seeks to ensure value in the health care delivery system. Data that is particularly relevant at the policy level may include provider or management-level metrics, but may also include less frequently collected indicators, such as patient satisfaction surveys.

**Efforts to advance HIT for Alternative Payment Models**

In addition to supporting HIE that can support access to critical clinical information available to payers and providers engaged in new payment models, the following five efforts support the HIT needed for these models as well. HITOC will explore these strategies and others as APMs spread across Oregon’s payers and providers in the coming years.

**Leveraging national standards and Medicaid EHR incentives:**

The State will use available levers to promote participation in the Oregon Medicaid EHR incentive programs. As programs evolve, the State will monitor and share information, for example, the EHR certification standards embedded in federal requirements for the Merit-based Incentive Payment System (MIPS) and Comprehensive Primary Care Plus (CPC+). Where relevant to Oregon’s interests, the State will advocate nationally for standards and policy that further the ability of providers to seamlessly report clinical quality metrics from their EHRs. Where appropriate, the State will provide information for EHR vendors regarding state reporting requirements and convene stakeholders to help collectively voice concerns.

**Assessing changing environments and convening stakeholders:**

The State will monitor and report on how EHR vendors adapt to new 2015 Edition certification standards (required for use in 2018 CMS programs) and how new EHRs meet clinical quality metrics/reporting needs.

**Align metrics and reporting:**

The State will use available levers to align metrics and reporting requirements across Oregon. The new Health Plan Quality Metrics Committee, created under SB 440 (2015), is charged with measure alignment.

**Clinical Quality Metrics Registry:**

The State will procure a clinical quality metrics registry (CQMR) with the ability to collect and aggregate key clinical quality data for the Medicaid program, develop benchmarks and other quality improvement reporting and calculate clinical quality metrics. Initially, the CQMR will support reporting for two needs: (1) Electronic Health Record (EHR)-based CQMs from CCOs and (2) electronic CQMs from eligible professionals in Oregon’s Medicaid EHR Incentive Program.

The CQMR will collect data that enables deeper analysis than is possible with current submissions. As providers build capacity to submit patient-level clinical quality measure data in a national standard (QRDA I), the CQMR will provide a glide path to increasingly collect data in that format. This will enable OHA to identify, understand, and target efforts to address disparities in care for Medicaid patients, for example.

Over time, the CQMR can support a “report once” approach in which providers submit single reports to the CQMR to meet multiple reporting needs. The CQMR is a step in an incremental process toward this reduction in administrative burdens of reporting. The process begins with building agreement on the data collection point. Building alignment on measure sets and reporting requirements will take time.
Although OHA does not have authority to change reporting requirements for every program, it will work toward alignment where possible and consistent with program purposes.

**Technical Assistance to Medicaid providers:**

The State has contracted for technical assistance to Medicaid providers to support EHR adoption and Meaningful Use under the Oregon Medicaid Meaningful Use Technical Assistance Program (OMMUTAP). Technical assistance can improve credibility of EHR data underlying clinical quality measures, bolstering provider confidence in metrics. Other technical assistance programs are also available, and the State has a role in helping to coordinate efforts and facilitate communication with interested parties.
8. Patient Access to Health Information

Individuals and their families or caregivers can partner with their providers when they are educated and engaged. Increasingly, patients have access to some of their health care information through patient portals and other means. Individuals can also be empowered to provide some of their own clinical data using remote monitoring devices and new applications that allow them to engage with their health care teams remotely.

With support from OHA and several healthcare organizations, Oregon has become a leader in the OpenNotes initiative, which encourages and supports providers in offering electronic access to full clinical notes to their patients. OHA has also supported efforts to improve electronic access and exchange of POLST (Physician Orders for Life Sustaining Treatment) forms between providers and the statewide POLST registry.

To reduce gaps in patient access to their health information:

- Individuals should have access to their complete health record, including provider notes, treatments, and goals in order to improve their understanding and engagement in their health care and outcomes.
- Individuals should have ways to provide important information into their health records, including clinical data and their preferences related to their care, such as end of life care and POLST forms.
- Individuals should have the capacity to facilitate care management by sharing data with their providers.
- Sufficient safeguards should be in place and be clearly communicated to patients so individuals have confidence in the privacy and security of their electronic health information.

Efforts to support improved patient engagement through HIT:

The State will support community and organizational efforts by:

Promoting EHR adoption and Meaningful Use:

The State will use levers, such as promoting the Medicaid EHR Incentive Program, to encourage providers to make protected health information available to patients. Meaningful Use Stage 3 and the Merit-Based Incentive Payment System (MIPS) require eligible clinicians to give patients secure, electronic access to their health information.

Leveraging national standards and federal EHR incentives:

To inform and support stakeholders, the State will monitor national efforts and standards, the evolving personal health record market and direct-to-consumer health care.

Providing guidance, information and technical assistance:

The State will support efforts to make patient information available electronically by informing stakeholders, supporting initiatives, and seeking to advance Meaningful Use requirements for making information available to patients.

Assessing changing environments and convening stakeholders:

The State will identify and disseminate best practices, and seek opportunities to explore promising approaches. As part of that effort, the State will engage individuals to identify opportunities, preferences and barriers around engaging in their health care via electronic interaction with their health information.
9. Conclusion

The work of creating HIT-optimized health care is not easy. Challenges are plentiful – from the burdens on providers struggling to meet multiple HIT changes in a short time, to the misaligned incentives still embedded in fee-for-service models, to the danger of unintended consequences such as “alert fatigue” resulting from an overwhelming volume of incoming information.

The benefits of achieving HIT-optimized health care, however, will be great. In many areas, these benefits are already being seen, as improved information sharing supports better care coordination and improved health outcomes. As the right HIT services become more ubiquitous and coordinated across Oregon, more Oregonians will experience the advantages of health care that is supported by timely access to patient information. Providers will find it easier to deliver coordinated care. Systems will have the clinical outcomes data to enable quality improvement, population management and incentives for health promotion. Policymakers will be able to use clinical data for transparency and policy development. Oregonians and their families will access and use their own health information to be informed and engaged in their own health care.

Providers, systems and individuals all have a stake in making this vision a reality. This report outlines steps for the State, health plans, CCOs, community and organizational HIEs, health systems, providers and individuals. With all stakeholders working together, Oregon can achieve a transformed health care system that is optimized by HIT.
Appendix A. Opportunities for Future Investments

In the 2014-2017 Strategic Plan, several efforts were envisioned as “Phase 2.0” services to be developed after the initial roll-out of baselines services and infrastructure. Over the past three years, changes in technology, healthcare policy, and stakeholder environments created a need to hold on development and reconsider the value and risk of State-led investments in these efforts.

Some efforts have been eclipsed by new technologies or efforts. Others, such as those listed below, still hold significant value, but present high risks to implementation or require resources beyond what is currently available. As technology and the environment evolves, they will continue to be evaluated for potential adoption.

**Enterprise Master Patient Index (eMPI):** Patient identity management is a challenge for many users of HIT, and the problem is exacerbated when trying to share information across organizations. Problems with patient identity can prevent the exchange of information or could cause information about a different patient to be exchanged erroneously. The purpose of a master patient index is to store demographic and other information about a person in order to correctly identify them in a care setting. A statewide eMPI could provide a single look-up location to determine patient identity and facilitate the exchange of patient records across organizations.

**Patient attribution, record locator service and query:** A patient attribution service that includes provider affiliation services is valuable for several uses: HIE, analytics, State program operations, health plan and health system operations, and others. A patient-provider attribution service would build on a master patient index and provider directory to create care team relationships and linkages.

**Notification hub:** A notifications hub could build on the success of the EDIE alert system and include notifications for care visits, specialty interactions, behavioral health referrals, development screens, long-term or post-acute care admissions or entry/ release from correctional facilities. These notifications could enhance care coordination, improve care management and help identify care gaps for key providers, care managers, Coordinated Care Organizations and payers.
Appendix B. Past Work and Contributors

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2014 HIT Task Force Members and Staff

HIT Task Force: In the fall of 2013, OHA convened the Health Information Technology Task Force (Task Force). Comprised of a wide group of Oregon’s HIT/HIE stakeholders, the 19-member Task Force met in five public meetings and a series of smaller workgroups between September and November 2013. The Task Force produced the 2014-2017 Strategic Plan, upon which the current plan is based.

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