HIE Overview Session for HITOC

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Oregon Health Authority

Today's Presenter

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Agenda

Definitions and Categories

Federal Landscape

State Landscape

Local and regional Landscape

Take Home Points

A system that is working for patients

We have a client that can escalate in the emergency department if he is not treated in a certain way and so we shared his preferences and concerns in a [care plan] within Collective Medical. He ended up going to an emergency department many miles away and was very surprised as how well he was treated. There was no escalation, we were able to contact him right away because we knew about his visit at the same time.

ACT Team, Eastern Oregon

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Key definitions

Health Information Exchange (HIE) – the electronic transfer of health-related information between two or more health IT systems

Interoperability – the ability of different health IT systems to communicate and exchange data between them, and make use of that data, without significant human intervention

From HIMSS

The term HIE is generally used as either a verb or a noun:

Verb: The electronic sharing of health-related data between two or more organizations facilitated by applied standards for use by a variety of stakeholders to inform health and care.

Noun: Organizations within the United States that provide health information exchange technology and services at a state, regional or national level and often work directly with communities to promote secure sharing of health data.

HIPAA and HIE

Health information exchange can function based on the explicit consent of patients, but protected health information (PHI) is also regularly exchanged between systems without explicit patient consent under permitted HIPAA uses, including:

(1) For **a treatment, payment, or health care operations purpose.** Health care operations includes care coordination

(2) For **public health** purposes, including to public health entities and health care oversight entities.

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Common Components of an HIE

An electronic master patient index (or "EMPI") to help with matching patient information from disparate places

A repository for data, often called a clinical data repository, which may be centralized, or federated ("network of networks"), or both

A record locater service ("RLS"), particularly for federated models (query-based exchange)

An integration engine, to move data around

Processes for normalizing and assessing the quality of data

A community record, which aggregates all of the data on a given patient into a community-wide view of that person's health (e.g. a "face sheet")
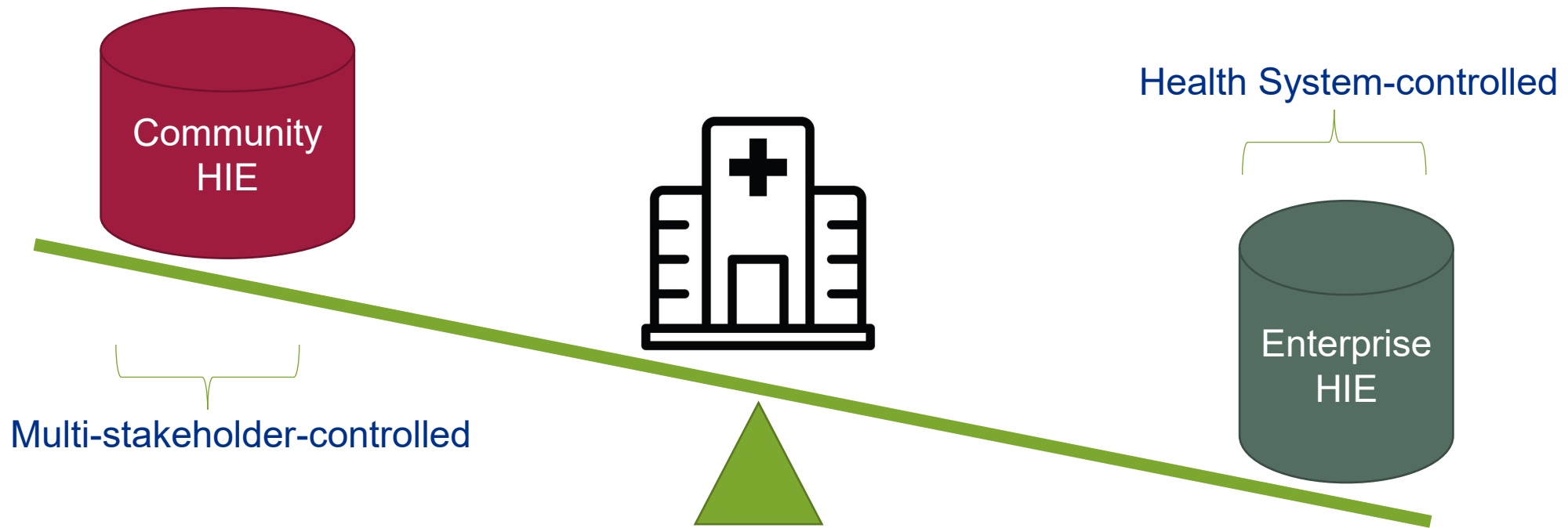
Source: Rim Cothren

For purposes of this discussion:

Two primary approaches to HIE strategy:

1. **Community HIE**: facilitates information sharing for a broad group of stakeholders at a regional or state level. Benefits are more dispersed across a larger number of parties, and they often take on the characteristics of a public good. Can struggle with governance.

2. **Enterprise HIE**: facilitates information sharing within a health system and its partnering entities. The "friends and family" option. Typically controlled by one entity with one goal of integrating a network (e.g. to manage shared metrics, etc.). Can lead to gaps.

Health systems have finite technology resources, where should they spend them?

Community HIE

Health System-controlled

Enterprise HIE

Multi-stakeholder-controlled

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Other Categories of HIE (small sample)

DIRECT: HIPAA-compliant secure email. Transactional in nature. Certified EHR Technologies have DIRECT built in. The "no frills" solution.

Point-to-point interfaces (SFTP, VPN, etc.) – used today for many kinds of data sharing, difficult to scale

       E.g. dropping flat files to a public health endpoint for reporting

EHR-driven HIE: information sharing characterized by having a common EHR product with other customers (e.g. Epic CareEverywhere, etc.)

Third-party applications also provide a network HIE strategy, for example Collective Medical functions as a lightweight HIE by driving information sharing based on real-time notifications

National trust networks…

A Quick Note on EHR-driven HIE

Vendor-driven HIE is particularly relevant in Oregon as virtually every major health system operating within the state is on Epic. This may allow them to utilize CareEverywhere (Epic's HIE framework) if they choose, in addition to some national HIE networks
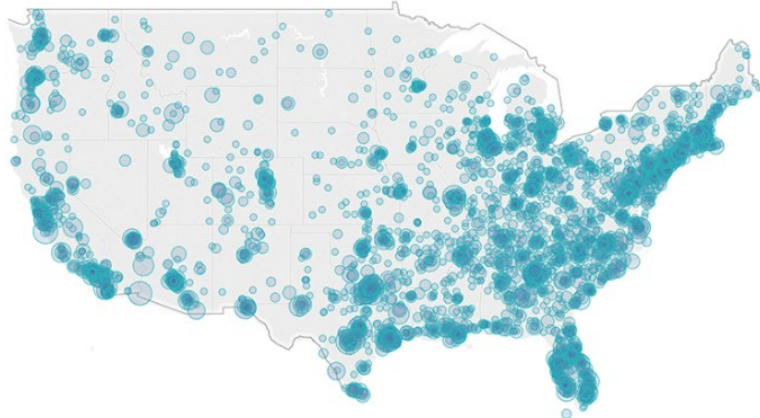
Federal Landscape

Agencies of Note

Center for Medicare/Medicaid Services (CMS) impacts health information exchange policy, as they can tie HIE-related requirements to Medicare and/or Medicaid reimbursement

Office of the National Coordinator for HIT (ONC) sets requirements for technology (e.g. CEHRT) and regulates some of the more technical requirements at a national level for HIE to function

Other agencies like the **Substance Abuse & Mental Health Services Administration** (SAMHSA), **Health Resources and Services Administration** (HRSA), etc. have specific privacy, security, quality and other administrative functions that impact HIE and information sharing and reporting
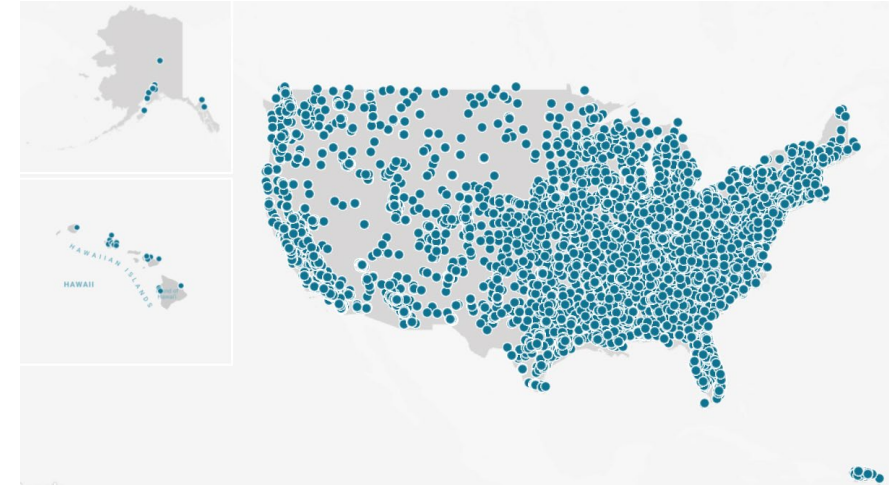
National Networks

CareQuality: a national data-sharing framework for partners who exchange information on individual patients

Follows national standards for core use cases (query-based exchange; FHIR-based exchange, eCR); follows a common agreement for exchange

Notable EMRs: Epic, NetSmart, PointClickCare

You have to know where to look (record locator service or "RLS")

CommonWell Health Alliance: *another* national query-based network of data-sharing partners who exchange information on individual patients. More of a centralized model

- Follows national standards for core use cases

- Notable EMRs: Cerner, Meditech, Brightree

- Has a record locator service and eMPI that helps with identifying information broadly on the same patient

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National Networks cont.

eHealth Exchange: *yet another* national query-based network of data-sharing partners who exchange information on individual patients! Not as vendor-driven as CareQuality/Commonwell

Follows national standards for core use cases

Notable Contributors: The VA and other federal agencies, community HIEs, health systems

* Some limited interoperability exists between these entities, but it is not seamless

Trusted Exchange Framework & Common Agreement (TEFCA)

Qualified Health Information Networks (QHINs) and the future of national exchange:

- The Trusted Exchange Framework & Common Agreement (TEFCA) will begin implementation in Q1 2022, unclear when the first QHINs would go live

- The creation of QHINs is likely to favor national exchange entities like those we've discussed (some entities have publicly announced their intent to apply to be QHINs)

- Unclear at this time is how TEFCA will impact state and local HIE (beyond leveraging the national QHINs)

21st Century CURES Act

Information Blocking

Gives teeth to the reluctant joiner problem – address critical mass concerns by requiring all organizations to share USCDI v1 at a minimum

Symbolism around who "owns" the data – the patient vs. the provider

Creates incentives for payers and health systems to select vendors that are better set up for interoperability

Patient Access and Interoperability

Previous administration's emphasis on consumer access and control of their own information

Health plans are currently implementing new APIs to give patients access to their own information and allows them to request that their plan share information with other health plans

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Standards

Health Level Seven International (HL7) incubates many of the standards that become broadly adopted, some examples:

- Admit Discharge Transfer (ADT) feeds – real time demographic and utilization data

- Consolidated - Clinical Document Architecture (C-CDA) standardized summary of care

- Fast Healthcare Interoperability Resources (FHIR) – architecture that allows third-party applications to quickly find information they need (application program interfaces, or APIs)

Other notable current efforts:

- CMS Blue Button – API for accessing Medicare data

- Gravity Project – working on an emerging standard around social determinants of health

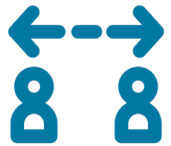Codified standards, like USCDI, borrow from these standards

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Oregon Landscape

Health IT goals from the 2017 Plan

Vision: a transformed health system where health IT efforts ensure that care Oregonians receive is optimized by health IT

1. **Share patient information across care team**

2. **Use data for system improvement**

3. **Patients can access their own health information and collaborate in their care**

Expect to add: **Health IT supports social determinants of health and health equity**

HITOC 2017 Strategic Plan for HIT/HIE: Approaches to Achieve Statewide HIE

Supporting and connecting robust network of HIEs
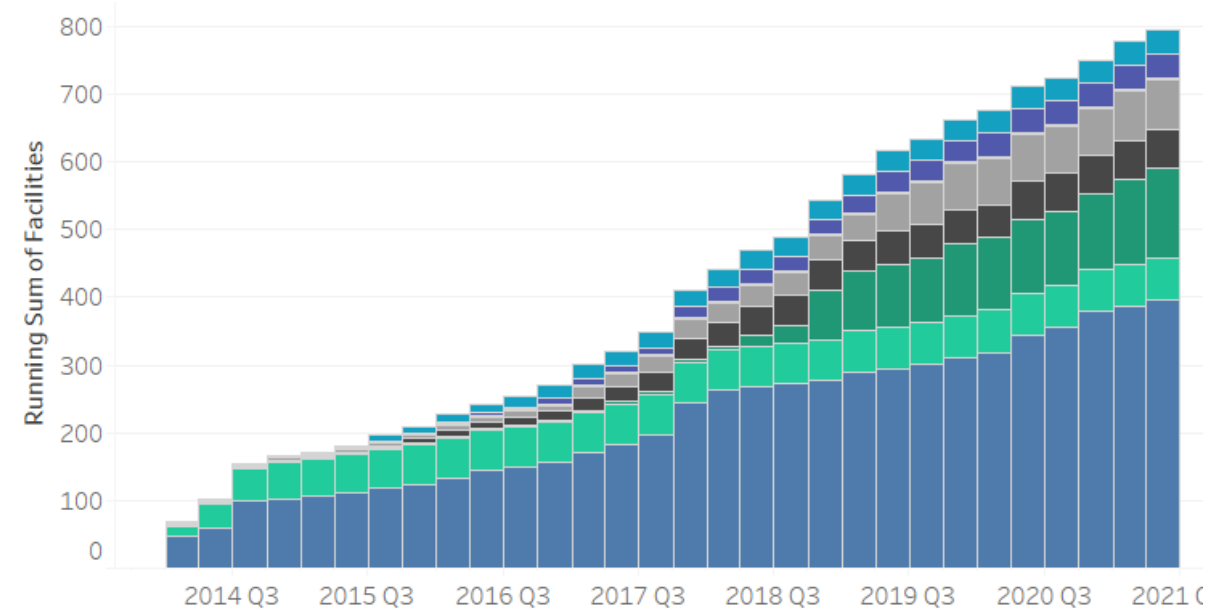
Providing baseline services to those facing barriers

Offering statewide enabling infrastructure to leverage existing investments and opportunities

Providing access to high-value data sources

Coordinating stakeholders to establish a shared governance model

Collective Medical – Statewide Hospital Event Notifications (aka EDIE/PreManage)

- Hospital access funded via contributions from Medicaid (OHA), Health systems, and health plans – a utility model

- CCO access subsidized by OHA

- Clinics and post acute providers typically gain access at no cost

- Statewide initiative supported by a steering committee and staffed by HIT Commons

- Initially adopted to address the focused use case of high ED utilization, now leveraged as a real-time care coordination platform for high risk patient populations:

  - Connected to the PDMP for EDs on Epic;
  - Sharing data on COVID-19 positive labs and vaccines
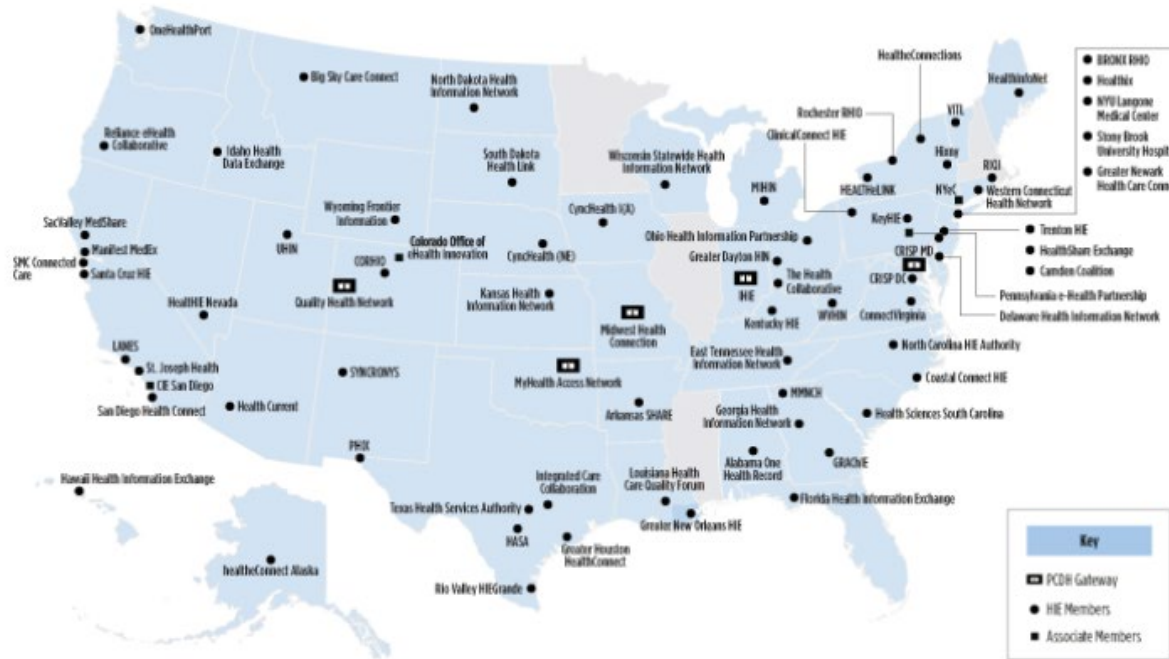 - Allows plans/CCOs to coordinate more closely with their provider partners

Adoption of Collective Medical platform in Oregon over time

What is the typical state approach to community HIE?

Source: SHIEC, https://strategichie.com/

State approach to community HIE typically falls into three buckets:

- State-led HIEs are fully owned and operated by a state agency
- State-designated entities are private entities that are contracted to operate the statewide HIE
- Other state approaches vary (e.g. purely private HIEs, multi-state HIE strategies; use-case driven strategies, etc.)

Statewide Community HIE Playbook

Historically many HIEs focused on the aggregation of deep clinical data, particularly summaries of care (C-CDA), labs, prescriptions, transcription feeds, and other sources of data from disparate EMRs

Tension around resources between community and enterprise HIE initiatives led to financial issues for several community HIEs

Community HIEs began shifting to key value-add use cases. Some of the more popular use cases that you will see HIEs across the country offering to their user base:
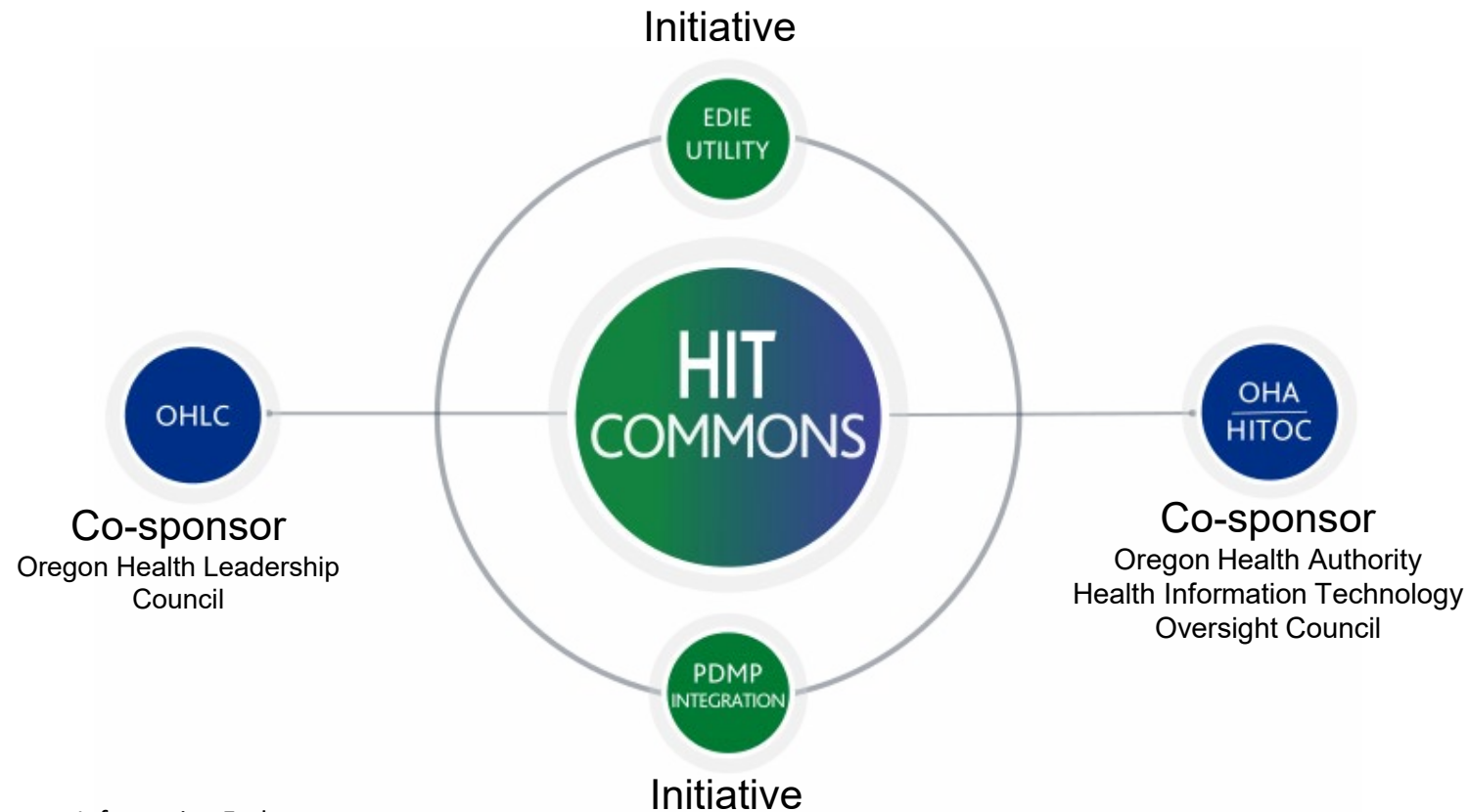
- Closed loop referrals
- Real-time notifications
- Prescription drug monitoring program/narcotics data
- Provider portals (typically to view a community health record)
- Metrics/population health analytics functionality
- Emerging: social determinants of health

Steps OHA has taken towards statewide HIE governance

- Regular stakeholder consensus-building and qualitative data analysis around HIE needs

- 2015 legislation to allow OHA to enter into partnerships and agreements to facilitate statewide HIT/HIE

- Formation in 2015 of the EDIE Utility, in partnership with the Oregon Health Leadership Council

- Development of the HIT Commons, a separate single member LLC supported as a public-private partnership to operate key statewide HIT/HIE initiatives
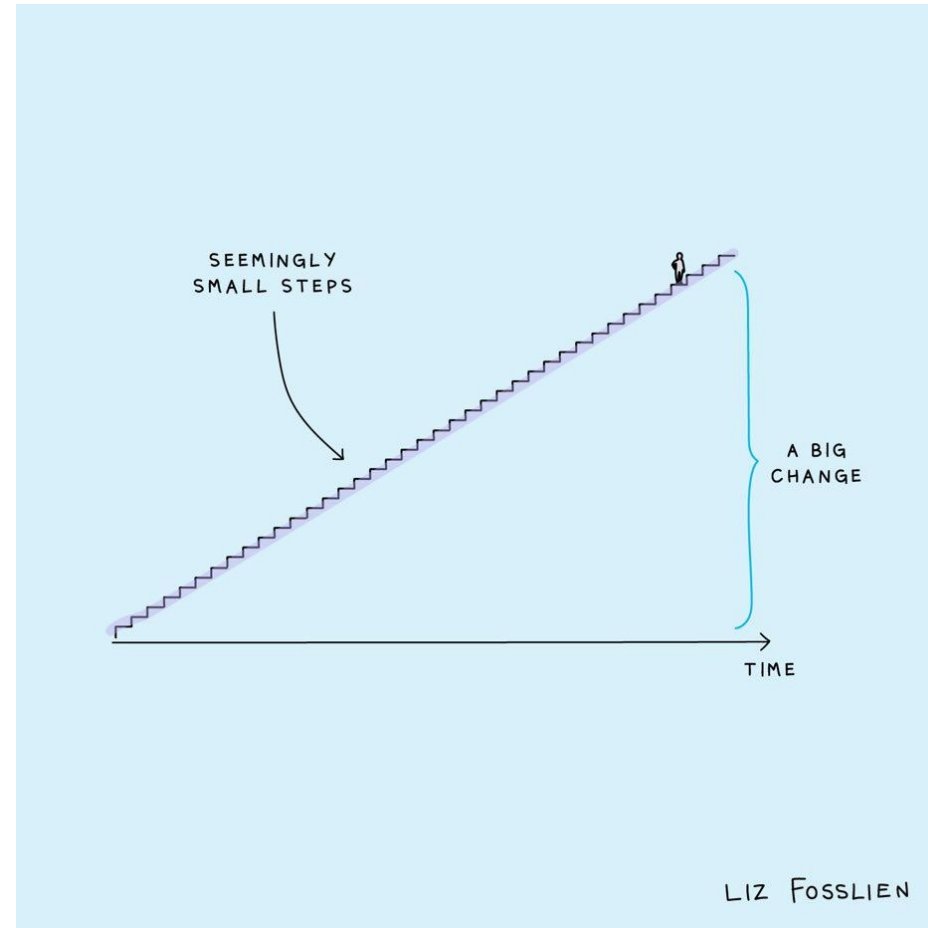
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HIT Commons

A shared public/private governance collaboration to accelerate and advance health information technology in Oregon

EDie: Emergency Department Information Exchange
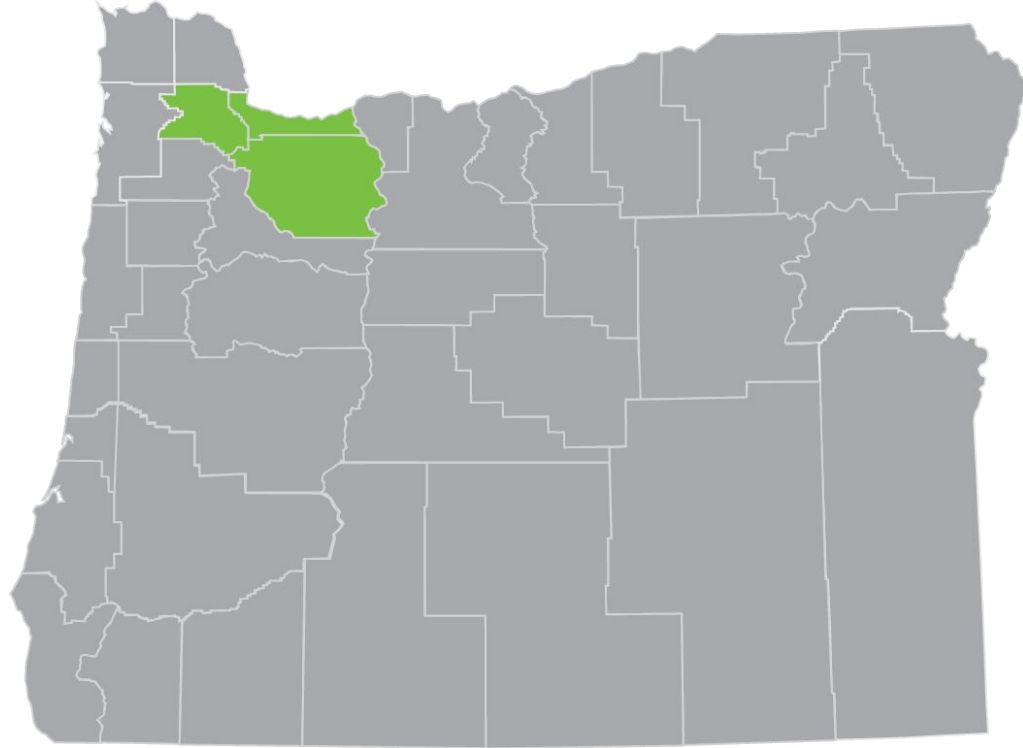PDMP: Prescription Drug Monitoring Program

The impact of incremental action

Regional and Local Landscape

Portland Metro Current State

Characterized by a large number of health systems in a relatively small geographic area. Many patients (particularly high risk, complex patients) are seeking care from multiple organizations

Epic CareEverywhere is relied upon heavily as the main HIE strategy among providers

Collective Medical is a popular solution to maintain visibility on high risk patients and/or coordinate with behavioral health and others
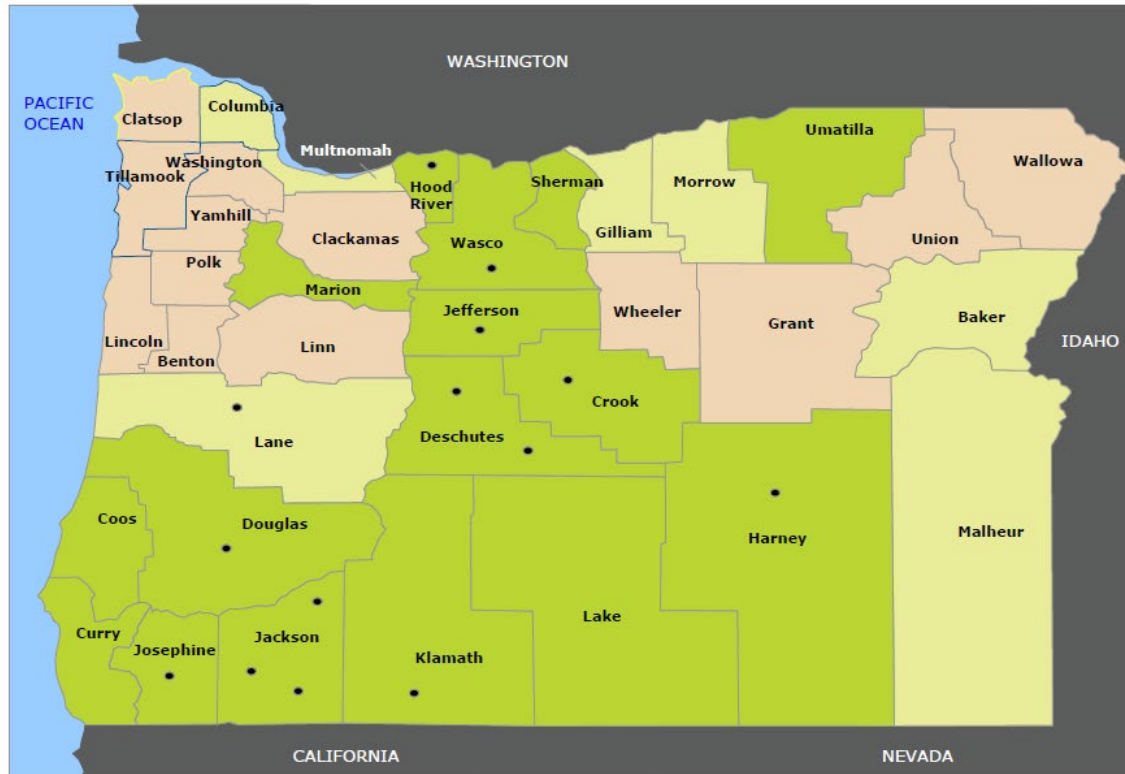
Need for ongoing focus on use cases in the behavioral health and social determinants of health space

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Regional Health Information Exchange

Reliance eHEALTH COLLABORATIVE

Oregon Health Data Exchange
Date: May 2021

Legend: Participating | Some Interest in Participating | Currently No Activity

Reliance eHealth Collaborative is a community HIE that provides HIE services including:

- Community health record

- Closed-loop referrals

- Event Notifications

- Lab reporting

Non-profit organization based in Southern Oregon

More detail at the next session!

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Acknowledging Community Information Exchange

Community Information Exchange (CIE): *CIE is a network of healthcare and human/social service partners using a technology platform with functions such as a shared resource directory, "closed loop" referrals, reporting, social needs screening, and other features to electronically connect people to social services and supports.*

Community efforts across the state are focused on this activity

Given the CIE workgroup under HITOC, or discussion will focus more on clinical-data HIE, acknowledging opportunities for future alignment and/or integration

Take Home Points (TL:DR)

HIE happens in a lot of different ways, and the understanding of what is included in the "HIE" umbrella is flexible

- Public / private;
- Community / enterprise;
- National / state / local;
- Clinical data / other data sources

Two workstreams happening in parallel: the HIE "noun" (governance, agreements, structural approach) & the HIE "verb," characterized by use cases that drive software development, workflow change, and outcomes/value!

Take Home Points cont.

Predominance of Epic and CareEverywhere/Carequality among large systems and others (e.g. OCHIN, Community Connect sites) addresses many HIE needs

> What about providers on non-dominant EHRs? A digital divide remains

Oregon has taken a responsive, consensus-driven approach to solve concrete problems through HIE infrastructure:

> Community-led HIEs, namely Reliance eHealth Collaborative, working with several communities in Oregon today

> Collective Medical, a statewide event notification system that solves some, but not all, problems for a wide network of providers and payers

Thanks!

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