Leveraging Public/Private Partnerships to Address ED Utilization in Oregon

Britteny Matero, HIE Programs Manager
Office of Health Information Technology

June 2018
EDIE: Partnering for Change

In 2013, Oregon Health Leadership Council (OHLC), Oregon Health Authority (OHA), OHLC Member Health Plans, Oregon Association of Hospitals & Health Systems (OAHHS), and Oregon Chapter of the American College of Emergency Physicians partnered together to bring the Emergency Department Information Exchange (EDIE) to Oregon.

Drivers included:

- OHA Health Information Technology (HIT) Task Force identified critical HIT infrastructure needed to support transformed health care system. All 16 Coordinated Care Organizations (CCOs) agreed OHA should leverage transformation funds to invest in state-level HIT infrastructure, including hospital notifications.
- OHLC Evidence Based Best Practice (EBBP) identified reducing ED utilization as a key strategy for Oregon
- Emergency Department (ED) utilization identified as a major health cost driver
- EDs were busy and seeing patients who would be better served in other settings
- Medicaid expansion expected to bring 400,000-500,000 additional covered lives across all payers in 2014
What is EDIE?

Emergency Department Information Exchange (EDIE)

- Built off hospital event data (emergency department (ED) and Inpatient Admit, Discharge, and Transfer (ADT) which are submitted through Application Programming Interfaces (APIs) directly from hospital electronic health records (EHRs)
- Notifies ED physicians of high utilizers and patients with complex care needs in real time as they arrive at the ED (push technology)
- Provides critical information needed by ED physicians at the point of care, including but not limited to:
  - Hospital utilization data (location, date, time) from across Oregon, Washington, northern California, and other states contracted with EDIE vendor
  - Care guidelines entered by providers outside the hospital (primary care, behavioral health, etc.)
  - Security alerts
### Notification Workflow

<table>
<thead>
<tr>
<th>Patient presents at hospital / clinic check-in</th>
<th>Hospital EHR immediately, automatically alerts CMT</th>
<th>CMT identifies patient, references visit history</th>
<th>Provider notified if visit meets specified criteria</th>
<th>Provider, others take action to influence care outcome</th>
</tr>
</thead>
</table>
| Patient checks in with hospital registration | Direct integration with hospital / clinic EHR | Cross-reference patient with all prior clinical visit history, agnostic of location | Notification sent if pre-defined criteria triggered  
- High ED utilization  
- Select diagnoses  
- Other criteria, as desired | ED provider has the information in hand before they see the patient  
Closes patient-provider information asymmetry  
providers make more informed care decisions |
| Hospital records core identification and demographic info | No additional data entry required | 99.9% positive match rate accuracy within seconds | Notifications contain concise patient info  
- Care plans, visit history, diagnoses, prescriptions, provider info, other | Care guidelines can be quickly entered (<4min) and shared outside of authoring facility |

- Direct integration with hospital / clinic EHR
- No additional data entry required
- Cross-reference patient with all prior clinical visit history, agnostic of location
- 99.9% positive match rate accuracy within seconds
- Notification sent if pre-defined criteria triggered
  - High ED utilization
  - Select diagnoses
  - Other criteria, as desired
- Notifications contain concise patient info
  - Care plans, visit history, diagnoses, prescriptions, provider info, other
- Sent within provider workflow
  - EHR integration or single sign-on via web
- ED provider has the information in hand before they see the patient
- Closes patient-provider information asymmetry
- Care guidelines can be quickly entered (<4min) and shared outside of authoring facility
EDIE ALERT 05/27/2016 05:04 AM Cruz, Oswaldo (DOB: 05/02/1993)

This patient has registered at the Henry Medical Center Emergency Department. You are being notified because this patient has recommended Care Guidelines. For more information please login to EDIE and search for this patient by name.

**Care Providers**

<table>
<thead>
<tr>
<th>Provider</th>
<th>Type</th>
<th>Phone</th>
<th>Fax</th>
<th>Service Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caroline Exposito MD</td>
<td>Primary Care</td>
<td>(206) 555-1213</td>
<td>(206) 555-1212</td>
<td>Current</td>
</tr>
<tr>
<td>Sheila Patterson MSW</td>
<td>Case Manager</td>
<td>(206) 321-3125</td>
<td>(206) 321-3126</td>
<td>Current</td>
</tr>
<tr>
<td>Lucien Fried MD</td>
<td>Psychiatry</td>
<td>(206) 782-2342</td>
<td>(206) 782-2343</td>
<td>Current</td>
</tr>
</tbody>
</table>

**EDIE Notification Triggers**

1. **High-Utilizers**
   - Standard: 5 ED visits within 12 months
2. **Traveling Patients**
   - Standard: 3 Different EDs within 90 days
3. **Patients with ED Care Guidelines entered into the network**
4. **History of Security Events entered into the network**
## EDIE: Evolution of Public/Private Partnership

<table>
<thead>
<tr>
<th>Effort</th>
<th>Governance</th>
<th>Data Included</th>
<th>Timeline</th>
<th>Payment Model</th>
<th>Who Has Access</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDIE</td>
<td>Oregon Health Authority (OHA), Oregon Health Leadership Council (OHLC), Oregon Association of Hospitals and Health Plans (OAHHS), OHLC Member Health Plans, Oregon Chapter of the American College of Emergency Physicians (OCEP)</td>
<td>Emergency Department ADT (Admit Discharge Transfer) Feed (date, location, diagnosis, meds, etc.); care guidelines</td>
<td>Agreements by end of 2013 from 100% of Oregon hospitals Implemented statewide by Nov. 2014</td>
<td>$400k year 1: Funded by OHA ($250k SIM grant), OHLC and OHLC member plans. Hospitals incurred technology implementation costs.</td>
<td>Hospitals - ED</td>
</tr>
<tr>
<td>EDIE Plus</td>
<td>Governance Committee (14): 4 hospitals/health systems, 2 commercial health plans, 2 coordinated care organizations (CCO), 1 OHLC physician, 1 OCEP physician, 1 CCO physician, 1 OAHHS, 1 OHA, 1 at-large community member</td>
<td>Adds inpatient ADT including discharge notes to EDIE</td>
<td>Additional ADT data begins 2015, implemented statewide by end of 2015</td>
<td>$750k/year for 3 years: Utility Model (costs split between hospitals and health plans/CCO). OHA covers CCO portion with Medicaid 50/50</td>
<td>Hospitals – ED and Inpatient</td>
</tr>
<tr>
<td>HIT Commons: EDIE Plus, PDMP Integration</td>
<td>Governance Committee (17-18): 4 hospitals/health systems, 2 health plans, 2 CCOs, 1 OHLC physician, 1 OCEP physician, 1 CCO physician, 1 OAHHS, 1 OHA, 1 behavioral health, 1 dental, 1 county services, 1-2 at-large</td>
<td>EDIE: ED and Inpatient ADT EDIE Plus implemented now oversight PDMP Integration: Oregon PDMP data for Schedules II-IV PDMP Integration rolling implementation beginning 2018</td>
<td>Utility Model: Hospitals and health plans/CCOs pay dues for EDIE/PMP Gateway. OHA brings significant federal funding (Medicaid 90/10) to cover 82% of PDMP Integration and covers CCO portion with Medicaid 50/50</td>
<td>EDIE: Hospitals — ED and Inpatient PDMP Integration: Authorized prescribers &amp; pharmacists</td>
<td></td>
</tr>
</tbody>
</table>
Expansion of Notifications through PreManage

What is PreManage?

- Launched in Oregon simultaneously as EDIE, but cost for subscription is not covered under EDIE public/private partnership
- PreManage brings the same data as seen in EDIE (ED & Inpatient ADT and care guidelines) to care providers outside the hospital system
- Based off an subscriber's patient, treatment, operations (TPO as defined under HIPAA) relationship with a patient
- Enables collaboration and care coordination between hospitals and care providers (primary care, behavioral health, long-term care, dental, skilled nursing facilities, CCOs, health plans & payers, etc.)
- Push notifications, which may be received in real-time
- Accessed through a web portal
State Coordinated Efforts for Medicaid

- OHA leverages enhanced federal match (75/25) to fund a (voluntary) State Medicaid Subscription for PreManage
- Subscription runs through 12/31/2019
- OHAs subscription covers:
  - Base package for key care coordinators for Medicaid members
    - Subscription currently applies to: CCOs, DCOs, unaffiliated FQHCs/tribal clinics/CMHPs, Fee-for-service (FFS) contractors, DHS/OHA programs
    - CCOs can add “PreManage Complete” at their own cost to extend a PreManage subscription to key practices
  - Medicaid EDIE data for OHA analytics purposes
  - Support for Health Policy & Analytics work related to EDIE/PreManage
    - HTPP, 2016-2018
    - CCO ED Disparity Metric, 2018 forward
EDIE/PreManage Adoption in Oregon

EDIE: 61 hospitals (excluding VA)

PreManage: More than 300 organizations, including:

- CCOs: 13/15 live with PreManage
- Health Plans/Payers: Kaiser Permanente, Humana, PacificSource, Regence-Cambia, Providence Health Plan, Moda Health, Tuality Health Alliance, Atrio
- Data Partners: Reliance eHealth Collaborative, OCHIN, Regional Health Information Collaborative (pending)
- Providers:
  - 140+ Primary Care clinics
  - 50+ Federally Qualified Health Centers (FQHC) clinic sites
- Mental/Behavioral Health:
  - GOHBI
  - 12 Assertive Community Treatment (ACT) teams
  - 30+ clinics
- Dental Care Organizations: Advantage, CareOregon, ODS, Willamette, Access, and Capital
- Medicaid Fee-for-Service Providers: KEPRO & CareOregon
- Area Agency on Aging & Aging and People with Disabilities: All districts
- Other: Specialty Care (Oncology, Rehabilitation, Dialysis); Post Acute (Skilled Nursing Facilities); Emergency Services (EMS/Fire); Pharmacy/DURM; and Urgent Care
EDIE Utility Survey

- EDIE Utility Structure - The public-private partnership, the inclusion of broad stakeholder representation and an equitable financing model were significant contributing factors to EDIEs success in Oregon.

- EDIE Utility Goals - Broad reduction in ED visits was not achieved. ED visits increased by approximately 12% between 2013-2015.**

- ED high utilizers with a care recommendation developed in EDIE/PreManage, had a subsequent 40% reduction in ED visits in initial 90 days.

- ED visits within the Medicaid payer category showed a decrease of 2.1% from May-Dec, 2015-2016 for an approximate cost savings of $5,744,249.

**Q4 2016 – Q2 2017 has shown a 6% decrease in high utilizer ED visits

User Experience and Impact

- Real-time interventions are happening on high-risk patients
- Community collaborations and sharing of best practices is reducing duplication between hospitals, health plans, primary care and behavioral health
- Communication and coordination of care has improved
- Reduced re-hospitalizations
- Physical health hospitalization information is useful to behavioral health teams who have not previously known when a patient is having a hospital event
- Unexpected use cases supported

“We had a homeless patient who had well over 100 visits in a year. Once we were able to start engaging him with outpatient support, the team working with him used the information in his care recommendation to successfully transition him into appropriate housing. The patient continues to be housed today and has had only 3-4 visits in the past 12 months”.

Drew Grabham, Social Worker
User Experience and Impact

“We had a homeless patient who had well over 100 visits in a year. Once we were able to start engaging him with outpatient support, the team working with him used the information in his care recommendation to successfully transition him into appropriate housing. The patient continues to be housed today and has had only 3-4 visits in the past 12 months”.

Drew Grabham, Social Worker
User Experience and Impact

Providence Portland Medical Center (PPMC) conducted a successful pilot program that was designed specifically to address the hospital’s most vulnerable patients. Their goal was to reduce ED utilization by focusing on finding better, more effective treatment options to meet the patient’s needs. They selected 50 of the most frequent ED utilizers, and worked extensively with each patient to develop a personalized multi-disciplinary plan. PPMC utilized EDIE as a platform for collaborating and sharing treatment information among different care providers. Over the course of the intervention they saw an overall 46% reduction in emergency department utilization.
Kaiser Permanente Northwest initially utilized EDIE to identify a group of approximately 250 “Super Utilizers” who visited the ED more than six times in six months. In 2014, an ED Intensive Case Management Core team (RN, SW, Navigator, ED MD team leader) was developed to support these individuals, better understand factors driving utilization and connect them with resources. Each identified member was assigned a main point of contact who has a comprehensive view of the member. They develop an interdisciplinary plan of care with the team (including the patient) and enter the key information into the EDIE care recommendations to communicate across settings. They cited using care recommendations has increased relationships with other people who are involved in the care of the member, created consistent messaging for the patient and allowed for more real-time coordination and communication. Over the three years of this program they have seen a 42% reduction in ED visits and 49% reduction in inpatient (IP) admissions for those individuals who have been enrolled in this program.
Data Sharing

Principles under EDIE Utility & HIT Commons:

- Success of EDIE Utility strategy depends on free flow of PHI among care providers and health plans (within definition of HIPAA)
- All data use and data sharing practices limited to sharing PHI for TPO purposed for individuals with whom provider or plan has a relationship, but within this limit providers and health plans may use and share PHI to full extent permitted by law
- Contracts and Business Associate Agreements (BAAs) among all parties (hospitals, OAHHS, Apprise, OHLC, OHA, CMT, etc.) will align.
- Appropriate use of data from EDIE/PreManage for health care operations includes reporting and analytics on performance improvement metrics for individuals with TPO. No public disclosure unless approved by govn. committee
- Research using EDIE/PreManage including 3rd party uses must further intent of EDIE Utility and follow EDIE Utility approved protocol. Data “harvesting” is not intended for marketing or propriety use
EDIE Data Requests

TPO Request Made

- Burden on Requestor
  - CMT Asses Request
    - OHLC Informed and Reviews as Necessary
      - EDIE Gov. Informed and Review as Necessary

Third-Party Research Request Made

- Limited Data Set Requested
  - Burden on Requestor
  - OHLC Receives Request and Reviews/ Packages for EDIE Gov.
    - EDIE Gov. Asses Request
      - CMT Complies With Request

Customized Data Request (identified or de-identified)

- Burden on Requestor
  - OHLC Receives Request and Reviews/ Packages for EDIE Gov.

Regulatory Request Made

- Disclosure Permitted by Law
  - Burden on Requestor
  - CMT Asses Request and Comply
    - OHLC Informed and Reviews as Necessary
      - EDIE Gov. Informed and Review as Necessary

Disclosure Required By Law

- Burden on Requestor
  - CMT Asses Request and Comply
    - OHLC Informed and Reviews as Necessary
      - EDIE Gov. Informed and Review as Necessary
Program Relationships

- CMS
- OHA
- OHLC
- CMT
- Apprise Analytics
- EDIE Governance Committee
- Medical Groups CCOs, Payors
- Hospitals

Data and Contract relationships:
- CMS to OHA
- OHLC to CMT
- CMT to Medical Groups CCOs, Payors
- CMT to Hospitals
- EDIE Governance Committee to OHLC

Donations:
- OHLC to Apprise Analytics
- CMT to Apprise Analytics
Britteny Matero
HIE Programs Manager
Britteny.J.Matero@dhsoha.state.or.us

Learn more about Oregon’s HIT/HIE developments and Subscribe to our email list!
www.HealthIT.Oregon.gov