Integrating Data to Build Healthy Communities

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Rhonda Aubrey
COO, Community Health Center Network
raubrey@chcnetwork.org
Objectives

• Understand the opportunities of integrating health plan/payer data to support value-based payment environment, building healthy communities.

• Identify use cases for data integration.

• Map a plan for action
Alameda Health Consortium

Health Center Organizations

- Asian Health Services
- La Clínica
- LifeLong Medical Care
- Native American Health Center
- Tri-City Health Center
- Community Health Center Network

248,481 Patients
8 Federally Qualified Health Centers
85+ Locations
CMS + CA = Medi-Cal $$

Medi-Cal Managed Care Health Plans
- Alameda Alliance for Health (Alameda County)
- Anthem (Alameda and Contra Costa Counties)

CHCN is responsible for providing all medically necessary delegated services for 140,000 assigned members
CHCN Services

• Fiscal agent on behalf of health centers for managed care business.
• Contract with Health Plans – Full Professional Risk
• Reconcile and maintain member eligibility data (rosters)
• FQHCs provide all primary care
• Contract with community specialists
• Provide care coordination
• Pay claims, primary and specialty care
Where is the Data?
(The Treasure Hunt)
Data Aggregation Use Cases

“Most of the world will make decisions by either guessing or using their gut. They will be either lucky or wrong.” - Suhail Doshi

• Hypertension management
• Opioid epidemic
• Improving preventive and chronic disease care rates (Nationally recognized, clinical quality measures)
• Case Management of high risk, high cost members
PHASE-Hypertension Management

**PHASE** is a Kaiser Permanente Northern California funded grant program to reduce heart attacks and strokes in the safety net.

**Key Elements:**
- Comprehensive patient registry (DM, HTN, ASCVD)
- Evidence-based clinical guidelines
- Team based care
- Patient engagement and addressing lifestyle risk factors
- Development and sharing of performance metrics

**Data Elements**
- Internal-BP measurements, Rx Prescribed (nightly updates)
- External-Rx filled, Benchmarking (monthly updates)
PHASE
Blood Pressure Control Rate among Hypertensive Patients
For Selected Clinic, Site, and PCP

Date Updated: 10/15/2017 9:39:30 AM
Selected Health Center

Date Updated: 10/15/2017 9:39:30 AM
Selected Site

Date Updated: 10/15/2017 9:39:30 AM
Selected PCP

Clinic User
LMC

Site
Lifelong Ashby Health Cent.

PCP
Multiple values

Measure Names
- Avg. Bp Ctrl
- Avg. BP Test
- Number of Records

Community Health Center Network
PHASE
Hypertensive Patients whose Blood Pressure are not under Control

Dispense information in Pharmacy File is only Available for CHCN Managed Care Members
Patient with None or Low Member Month (MLM) or Medi-Medi Patient (Dual Member, Medi-Cal only) is lack of complete Dispense Information
Source: NextGen & Pharmacy Claim
Author: Xiao Chen.

Updated on: 10/15/2017 9:39:38 AM
Patients Detail for LMC,

<table>
<thead>
<tr>
<th>Clinic Name</th>
<th>Location</th>
<th>Pop</th>
<th>Med Rec Nbr</th>
<th>Last Name</th>
<th>First Name</th>
<th>Age</th>
<th>MM</th>
<th>Lob</th>
<th>Appt Date</th>
<th>Rend Prov</th>
<th>Event</th>
<th>Ng Dbp</th>
<th>Ng Sbp</th>
<th>Avg. Filler Y</th>
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<tbody>
<tr>
<td>LMC</td>
<td>LifeLong west Be. Caygill-Walsh NP</td>
<td>Duck</td>
<td>Daisy</td>
<td>60</td>
<td>13</td>
<td>Mod- Cal Expansion</td>
<td>10-10-09</td>
<td>Kell LCSW, James</td>
<td>Behavioral Sh.</td>
<td>96</td>
<td>146</td>
<td>80%</td>
<td></td>
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Patients Historic BP Values in the Past Year

<table>
<thead>
<tr>
<th>SBP</th>
<th>DBP</th>
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<tbody>
<tr>
<td>November, 2016</td>
<td>154</td>
</tr>
<tr>
<td>December, 2016</td>
<td>152</td>
</tr>
<tr>
<td>January, 2017</td>
<td>123</td>
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<tr>
<td>February, 2017</td>
<td>115</td>
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<td>March, 2017</td>
<td>150</td>
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<td>April, 2017</td>
<td>137</td>
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<td>May, 2017</td>
<td>146</td>
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<tr>
<td>June, 2017</td>
<td>96</td>
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<tr>
<td>July, 2017</td>
<td>81</td>
</tr>
<tr>
<td>August, 2017</td>
<td>81</td>
</tr>
<tr>
<td>September, 2017</td>
<td>96</td>
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What % of Prescribed Hypertensive Medication is Dispensed from Pharmacy (Adherence Rate) by Medication Category and by Month in the Past Year
(Adherence Rate = # of days supply of medication dispensed / # of days supply of medication prescribed -- assume patient take 1 pill per medication per day)

What % of Prescribed Hypertensive Medication is Dispensed from Pharmacy by Medication Category in the Past Year

<table>
<thead>
<tr>
<th>Med Rec Nbr</th>
<th>Membid</th>
<th>Hic3</th>
<th>Hic3 Desc</th>
<th>Prescribe D</th>
<th>Fill D</th>
<th>Filler_Aggregate</th>
<th>MM</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASA</td>
<td>CALCIUM CHANNEL BLOCKING AGENTS</td>
<td>396</td>
<td>383</td>
<td>92%</td>
<td>13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R1F</td>
<td>THIAZIDE AND RELATED DIURETICS</td>
<td>396</td>
<td>270</td>
<td>88%</td>
<td>13</td>
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</table>
PHASE outcomes and learnings

- Outcomes
  - Care team transformation efforts across network
  - 41,500 patients with hypertension, diabetes and cardiovascular disease reached.
  - 61% of patients with BP controlled at start of grant cycle in 2015 – 71% controlled by end of grant cycle at end 2016.

- Data Learnings
  - Need to develop cross-walk between patient and member records; there are no unique, common identifiers
  - Medication cross-walk between EHR and pharmacy claims file challenging
  - Timeliness of pharmacy claims file monthly at best
  - Medication adherence analysis limited to managed care patients only
Opioids- High Risk Patients

High risk patient identification and reduction of opioid use incorporated into health centers’ county contracts as improvement measure.

Key Elements
- Population Identification
- Improvement Plans
- Quarterly trending

Data Elements
- Internal-Patient demographics, Rx prescribed (nightly updates)
- External- Rx filled, Benchmarking (monthly updates)
The Opioid Epidemic

Quarterly Trend of Patients with Risky Opioid Utilization

- **Reporting Period:** One Year
- **Benzod and Opioid User:** Patients having Benzod and Opioid Prescription / Dispense the same time for 1+ days overlap during the Reporting Period
- **High Dose, No Benzo User:** Patients having > 100 MGD Opioid daily for 10+ days during the Reporting Period but no Benzo at the same time
- **High Risk User:** Patients who are both Benzo and Opioid same time User and High Opioid User during the Reporting Period

Data Source: NexGen Prescription File, CMHR Pharmacy Dispense File
Author: Yidan Yang

COMMUNITY HEALTH CENTER NETWORK
Opioids and Low Back Pain Connection

Low Back Pain Provider Dashboard PCP Level

Patient Last Office Visits Summary
- Patients diagnosed with LBP in the last 18 months based on primary dx and have opioid prescription in the last 18 months.

Opioid Use in Patients with LBP
- Patients in Provider's Panel with LBP in 18m based on primary dx and had opioid in the past quarter by day.

Opioid Use in Patients with LBP
- Supply days: 1-10 days, 11-30 days, 31-60 days, 61-92 days, No prescription

Community Health Center Network
Patients with high risk opioid utilization outcomes and learnings

Outcomes

Most health centers have downward trends on the number of patients with high risk utilization. All health centers have providers certified in buprenorphine induction and patient management. Alternative treatments for pain identified with increased utilization, chiropractic, acupuncture, talk therapy, physical therapy.

Data Learnings

Need to develop cross-walk between patient and member records; there are no unique, common identifiers. Data analysis is complex and requires an agreed upon definition of “high risk” and an understanding of the analysis. Calculating daily dose and converting to Morphine Equivalent is challenging. Manipulating data in a free text field for analysis is technically challenging.
HEDIS—Health Plan Quality Measures

Set of 17 clinical measures of preventive and chronic disease management, incorporated into pay for performance health plan incentive programs.

Key Elements
- Gap in Care reports, patient level
- Rapid Improvement Plans (clinical, operations, quality triad in health centers)
- Trending compliance rates

Data Elements
- Internal-Patient demographics, EPM encounters, EHR clinical, scanned document descriptors (nightly updates)
- External-Specialty claims, member eligibility history (nightly updates)
- Benchmarking, lab values (monthly updates)
- HEDIS methodology calculations (annual updates)
Trending HEDIS Outcomes

HEDIS Measures Trend, Clinic
Author: Xiao Chen

**HEDIS Trend by Year, AHS** (Denominator for one year is the same as the current year denominator. Numerator looks back full measurement period.)

**HEDIS 1year Trend by Month, AHS** (Denominator is based on the information in the current year. Numerator looks back full measurement period)
HEDIS outcomes and learnings

Outcomes

Health Plan HEDIS Incentives Report to the CHCN Board

- “CHCN’s rates meet or exceed the HEDIS High Performance Level (HPL) which is the 90th percentile for each measure. This is the state’s benchmark for the highest performers.”
- “CHCN health centers fared well in both improvement rates compared to prior year and overall performance. Our immunization rates for two year olds were the best in the state.”

Data Learnings

- Need to develop cross-walk between patient and member records; there are no unique, common identifiers
- Not all clinical information in the EHR can be cleanly extracted per HEDIS specifications (e.g., scanned documents, elements in problem list)
- Timeliness of the data is one of keys to improvement
- HEDIS improvement is two-pronged, data collection improvements, and service delivery improvements
- Best practice to identify “actionable” opportunities (e.g., Immunizations given after second birthday, prenatal visits past HEDIS timeframe, don’t count for HEDIS credit)
- Analysis specific to managed care patients only
Care Neighborhood

An innovative, intense, outpatient case management program for high risk, high cost managed care members that focuses on patients’ goals, and social determinants of health in addition to medical determinants

Key Elements
- Algorithm to identify eligible patients
- Embedded clinic-based community health workers
- Best Practice Tools / Analytics / Workflows
- Connect patient to community resources and support

Data Elements
- Internal-Patient demographics, assessment scores, patient schedules, Case Manager Notes/Assessments
- External-CHCN Claims data (utilization and diagnostic data, updated nightly), CHCN Inpatient Authorizations (real-time, in-patient admission notification, updated every 3 hours)
- Total Cost of Care (from Health Plans, updated monthly)
Metrics and Outcomes

Care Neighborhood CHW Report

* Eligible patients

Update: 12/29/2017 9:37:25 AM

Newly enrolled CN and CN Full Member Trend

<table>
<thead>
<tr>
<th>Prior</th>
<th>2017-04</th>
<th>2017-05</th>
<th>2017-06</th>
<th>2017-07</th>
<th>2017-08</th>
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<th>2017-10</th>
<th>2017-11</th>
<th>Grand Total</th>
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<tr>
<td>TVC-H</td>
<td>CN</td>
<td>9</td>
<td>8</td>
<td>8</td>
<td>17</td>
<td>21</td>
<td>11</td>
<td>2</td>
<td>7</td>
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<tr>
<td></td>
<td>CN Full</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>2</td>
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<td></td>
<td>Grand Total</td>
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Interaction Summary

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<tr>
<th>Months</th>
<th>Call</th>
<th>Clinic visit</th>
<th>CM call</th>
<th>general</th>
<th>Home visit</th>
<th>Hospital visit</th>
<th>Pre outreach</th>
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<tr>
<td>October 2017</td>
<td>30</td>
<td>11</td>
<td>26</td>
<td>16</td>
<td>1</td>
<td>1</td>
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<td>December 2017</td>
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<td>14</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>16</td>
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</table>

All Goals by Determinant

<table>
<thead>
<tr>
<th>BEHAVIORAL</th>
<th>FINANCIAL</th>
<th>FOOD</th>
<th>HOUSING</th>
<th>LEGAL</th>
<th>MEDICAL</th>
<th>PERSONAL</th>
<th>TRANSPORTATION</th>
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<tr>
<td>22</td>
<td>23</td>
<td>55</td>
<td>7</td>
<td>9</td>
<td>90</td>
<td>17</td>
<td>59</td>
</tr>
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</table>

Active Goals Aging in Days

<table>
<thead>
<tr>
<th>0-30</th>
<th>31-60</th>
<th>61-90</th>
<th>91-120</th>
<th>120+</th>
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<tbody>
<tr>
<td>2</td>
<td>8</td>
<td>17</td>
<td>4</td>
<td>15</td>
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Outcomes

43% reduction in in-patient admissions from pre-pot evaluation
15% reduction in emergency department visits from pre-post evaluation
Reduction in total cost of care of enrolled members. Calculation of PMPM annualized over members served:

- $2706 – $1762 = $944 PMPM
- $944 X 12 months = $11,328 PMPY*

Data Learnings

Need to develop cross-walk between patient and member records; there are no unique, common identifiers
Timeliness of the data is one of keys to patient engagement and improvement
Complex data integration takes longer than you expect. Relentless incrementalism versus big bang
The most important elements of data are relationships and communication!
Invest in analysts and data stewards
Now it’s your turn - Journey Mapping

- Identify specific goal for data integration program, what, how much, by when.

- Develop workflow for goal and include:
  - Required data/frequency
  - Program workflow
  - Resources
    - Available
    - Needed

- Annotate areas of perceived strengths and concerns

- Identify specific, take-home, next steps to achieve goal