Exporting and Using SDH Data from OCHIN Epic

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We hope you walk away with...

- Examples of how two organizations got the screening process started
- An understanding of how to access data in OCHIN Epic
- Basics on how to work with the data and store it
- Ideas on ways to measure progress and success
Collecting SDoH at Winding Waters CHC

Our story....
A little about Wallowa County

- Wallowa County:
  - Population of 7051
  - 95.8% white
  - 14.6% in poverty as of last census

- Winding Waters CHC
  - 8 primary care providers
  - 4206 total patients
  - 24%/28%/30% Medicare/Medicaid/Private
  - Uninsured rate now 17.5%
How did this get started?

- OHSU Rural Scholar Peter Engdall got the ball rolling
- Used the SDoH Screen in Epic
- Started with one panel
  - Peter interviewed the patients initially – too time consuming!

"We can give you all the medicine for whatever ails you, but if you don't have a home, you're not going to be healthy."
Methods

• Patient here for annual physicals – opt in
• Completed survey along with other pre-visit paperwork
• Responses reviewed by provider prior to visit
• Responses indicating an urgent need were addressed immediately by provider and CHW
Tracking needs in the community

- Urgent Concerns:
  - Food Insecurity, clothing, housing, physical and emotional abuse

- 106/202 surveys identified at least one potential barrier

- 71/202 surveys indicated an urgent concern
Looks picture perfect, doesn’t it?

Out of 202 surveys, 508 potential barriers to health care were identified.
What we learned

• Urgent concerns were identified in 71 patients and were addressed during the encounter
• Patient and provider feedback was overwhelmingly positive
• SDoH data allows for more personalized care plans
• Helped inform patients that social concerns are an important component of overall health
About Mosaic Medical, established 2002
Mosaic Medical Clinic Locations
Active Patients

24,621
Active Patients

83,585
Patient Visits in 12 Months

Services:

• Family Medicine
• Care Coordination
• Panel Management
• Behavioral Health
• Clinical Pharmacy
• Nutrition Integration
• Dental & Oral Health
• Pediatrics
• Prenatal/OB
• Wellness Education
• Substance Abuse Services
• Outreach & Enrollment
Patient Demographics - 2018

Patients By Age

- 24% Children (0-18)
- 63% Adults (19-64)
- 13% Seniors (65+)

Patients By Insurance Type

- **OHP* / Medicaid**: 55%
- **Uninsured**: 10%
- **Medicare**: 19%
- **Private Insurance**: 15%

* Oregon Health Plan
Start Small w/ CHWs existing flow

Began by asking the financial security question

3. How hard is it for you to pay for the very basics like food, housing, heating, medical care, and medications?
   - Not hard at all
   - Somewhat hard
   - Very hard

If you answered “Not hard at all” skip to question 4.
If you answered “Somewhat hard” or “Very hard,” what is it hard to pay for?

- Food
  - Yes
  - No
- Utilities
  - Yes
  - No
- Transportation
  - Yes
  - No
- Medicine or Medical Care
  - Yes
  - No
- Health Insurance
  - Yes
  - No
- Clothing
  - Yes
  - No
- Rent/Mortgage Payment
  - Yes
  - No
- Child Care
  - Yes
  - No
- Phone
  - Yes
  - No
- Other: ________________________________

If Yes responses, CHWs are encouraged to ask follow-up questions:
1. Identifying food insecurity
2. Reviewing transportation needs
3. Assessing living situation for appropriate referrals
Redmond Food Insecurity Pilot

Objective: Pilot limited proactive screening leveraging members of the care team other than the CHW

Dates: 2/2/18- 4/6/2018

Target Population: New patients

Evaluation: Doctor of Nursing Practice student or CHW conducts follow up with individuals who screened positively to assess experience and our ability to connect patients to resources
• Various Social Determinants of Health Reports available in Reporting Workbench
**DATA REPORTING EXAMPLE #1 – Reporting Workbench**

**SDH: Food Insecurity Positive Response in Last 1 Year [9107292] as of Thu 7/26/2018 9:50 AM**

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**Basic Information**
- Date of Birth
- Sex
- Race: Non-Hispanic
- Ethnicity: Non-Hispanic

**Food Insecurity**

USDA Household Food Security Module

- Food: Some people have made the following statements about their food situation. Please answer whether the statements were OFTEN.
  - Within the past 12 months, you worried that your food would run out before you got money to buy more. **Often true**
  - Within the past 12 months, the food you bought just didn’t last and you didn’t have money to get more. **Often true**

Number of positive responses to food security questions: 2
Advantages of Going the Reporting Workbench Route

- Everything is within EPIC
- Can use the report to click through to the patient chart – could be handy for clinicians
- Can use the report to generate bulk MyChart messages, letters

Disadvantages of Going the Reporting Workbench Route

- Data cannot be exported or stored
- Can’t use to create visualizations, dashboards
DATA EXTRACTION EXAMPLE #2 – Business Objects

- Social Determinants of Health Report available in Ochin Share Library published by Benton County (SA90)

- Report is called “SDoH Flowsheet Scores”

- File path: Public Folders\OCHIN share\SA90\SDoH\SDoH Flowsheet Scores

- Contact: Chris Campbell, Business Analyst, Benton County Health (chris.campbell@co.Benton.or.us)

Steps:

- Copy and paste report into your folder
- Select schedule in the menu
- Database logon: enter your user name and password
- Prompts: enter date range and service area (ex. for SA70 put 70 in service area)
- Run the report by hitting schedule button
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</table>
Data can be exported in excel or csv format and stored

Crosswalk from Question # to Flowsheet Question available in handouts

There are a couple of composite questions that indicate whether the patient indicated food or housing insecurity in any of those domains

Results are displayed as text, free text, numbers and numbers mapped to results
  - Key for some number mapped to results provided in handouts
From Table IP_FLWSHT_MEAS_VIEW, FLT_ID = ‘174’

- Responses/calculation from the following FLO_MEAS_ID (from table IP_FLO_GP_DATA):
  - '3447','2251','3434','2255','2256','2257','2258','2259','2260','2262','2263','2264','2265','2324','3489','3490','3491','3494','3495','3496','3499','3501','3502','3504','3505','3506','3507','3508','3509','3510','3511','2253','2944','3540','3539','3534','3538','2945'

- Things to consider:
  - Query structure
  - Data types for each item
  - What can be trended or not
DATA EXTRACTION EXAMPLE #4 – Mosaic Medical

Data Analysis Framework

Raw Data
(Flat files / DB connections)
- Metrix Matrix
- Pac Source
- Acuere
- OHA
- Collective Medical
- EPIC
- Finance

ETL Via Alteryx

Data Marts
(.YXDB, .TDE, .YXMB)
- Encounters
- Flowsheets
- Patients
- Clinical KPIs
- Problem List

At Time of Analysis
1. Data Cubing (joining of data marts, can be in Tableau or Alteryx)
2. Exploration and Visualization via Tableau
3. Predictive Models / Further Data Munging via Alteryx
SMALL GROUP DISCUSSION QUESTIONS

- What questions or data would be important to include/answer on your organization’s SDoH dashboard? How would you use this dashboard?

- How would SDoH data impact your organization’s workflows or how you provide patient care?

- What one change would you like to see in your EMR to make this data more clinic friendly?

- How can OPCA support this at your clinic?
Teal Team Social Determinants of Health Dashboard

Weekly Count of Patients Screened for Social Determinants of Health

Distinct Patients Screened

412

% of Patients Screened Positively for Food Insecurity

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<td>69% n=263</td>
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<tr>
<td>Unanswered</td>
<td>1% n=4</td>
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I worried whether my food would run out before I got money to buy more.

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<th>Never True</th>
<th>64% n=263</th>
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<td>Sometimes True</td>
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<td>6% n=23</td>
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<tr>
<td>Declined</td>
<td>7% n=29</td>
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The food that I bought just didn’t last, and I didn’t have money to get more.

<table>
<thead>
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<th>Never True</th>
<th>69% n=281</th>
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<td>Sometimes True</td>
<td>19% n=76</td>
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<tr>
<td>Often True</td>
<td>5% n=21</td>
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<tr>
<td>Declined</td>
<td>7% n=29</td>
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</table>
Percent of Positively Screened Patients with Documented Intervention

- Interventions include .SDHANDBOUTS, .MMCHCASENOTE, .MM.CHWSDOH, .MM.CHWFINASSIST, .MM.CHWHOMEVISIT, .MM.CHWARMHANDOFF, .SDHDECLINED, or .PROGF00D smartphrases, or care coordination, case management, or community support services referral where a CHW spoke to a patient within 3 weeks of a Positive Screen.

Numerators/Denominators of Positively Screened Patients with Documented Intervention

- Interventions include .SDHANDBOUTS, .MMCHCASENOTE, .MM.CHWSDOH, .MM.CHWFINASSIST, .MM.CHWHOMEVISIT, .MM.CHWARMHANDOFF, .SDHDECLINED, or .PROGF00D smartphrases, or care coordination, case management, or community support services referral where a CHW spoke to a patient within 3 weeks of a Positive Screen.

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Winding Waters Dashboard Demo
Thank You

Erik Carlstrom – erik@carlstromconsulting.com
Meg Bowen – meg.bowen@windingwaters.org