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

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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





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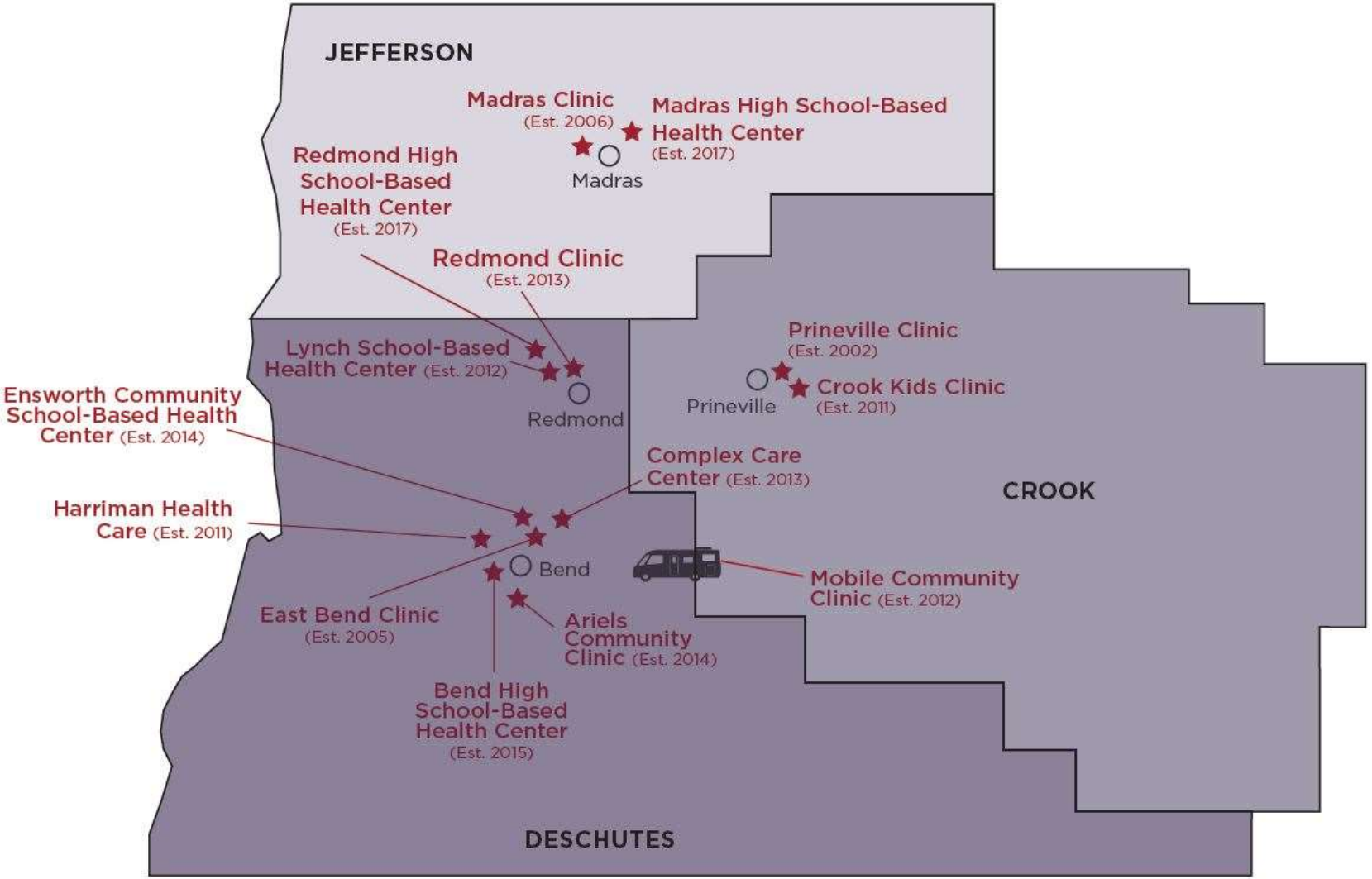
Mosaic Medical Clinic Locations



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

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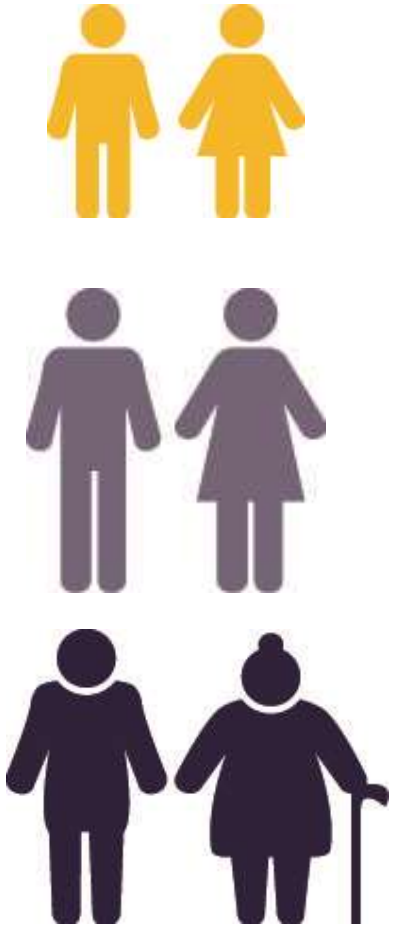
Patient Demographics -2018

Patients By Age

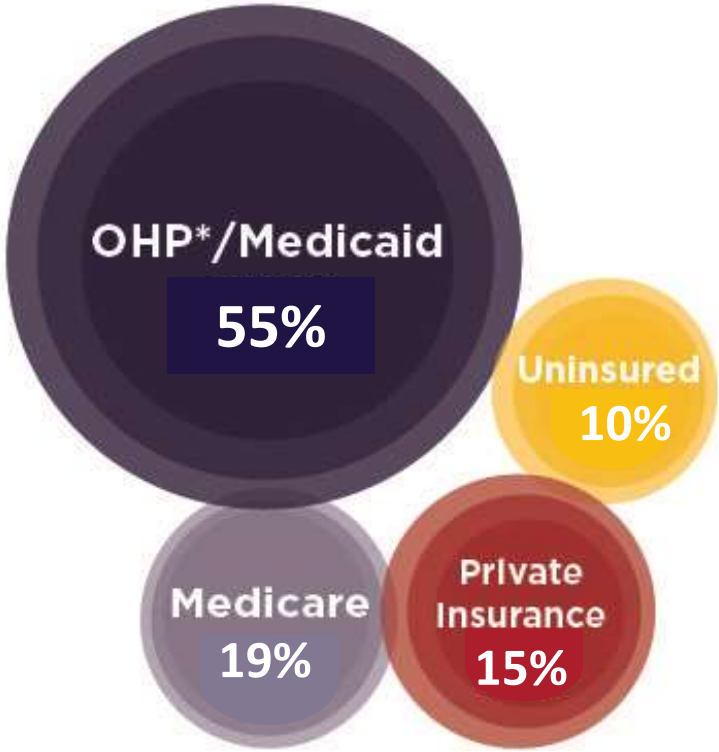


24%
Children
(0-18)

63% Adults
(19-64)

13%
Seniors
(65+)

Patients By Insurance Type



*** Oregon Health Plan**

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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

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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

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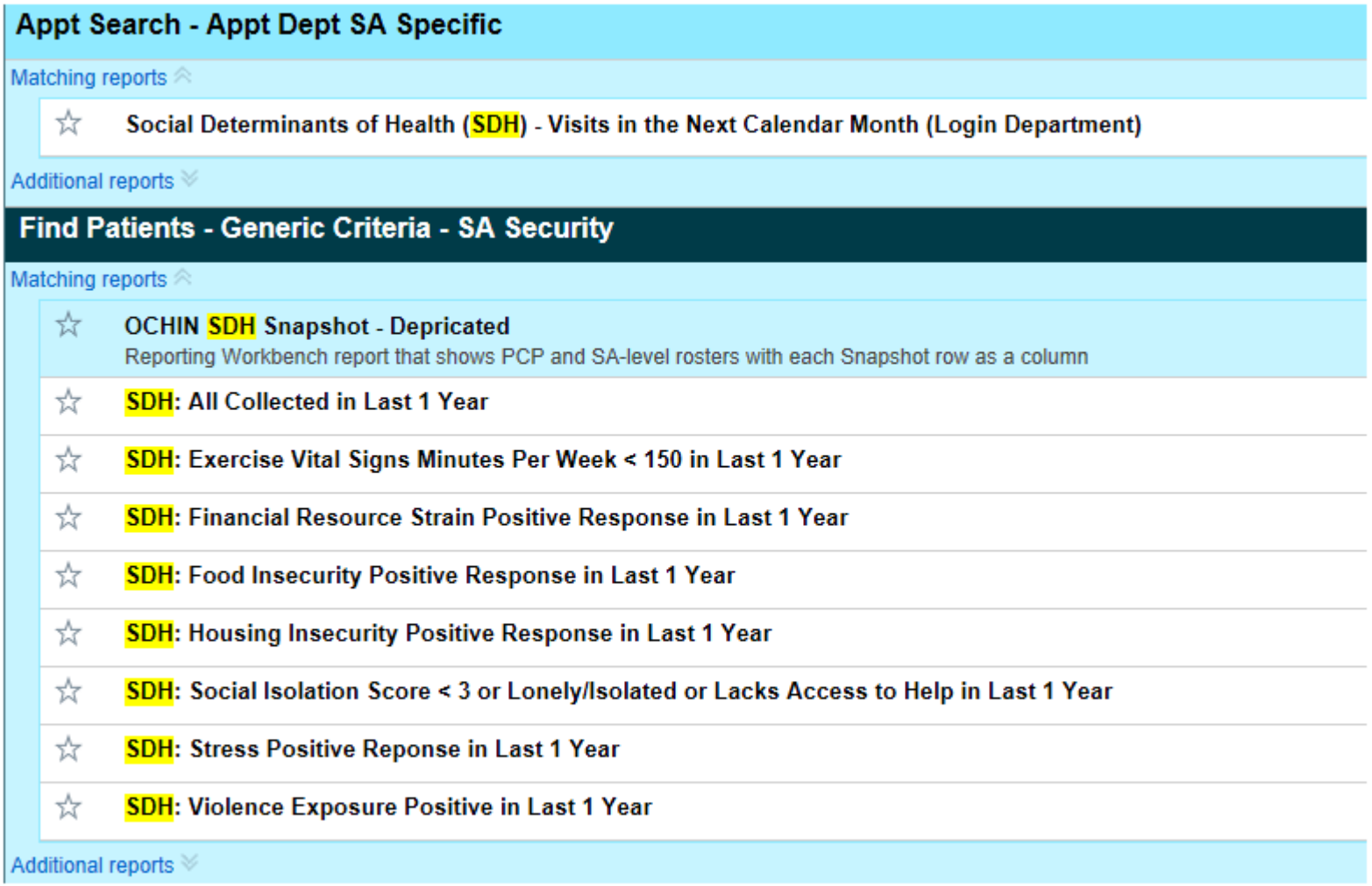
DATA REPORTING EXAMPLE #1 – Reporting Workbench

- Various Social Determinants of Health Reports available in Reporting Workbench



ss-RWB-SDHList.png

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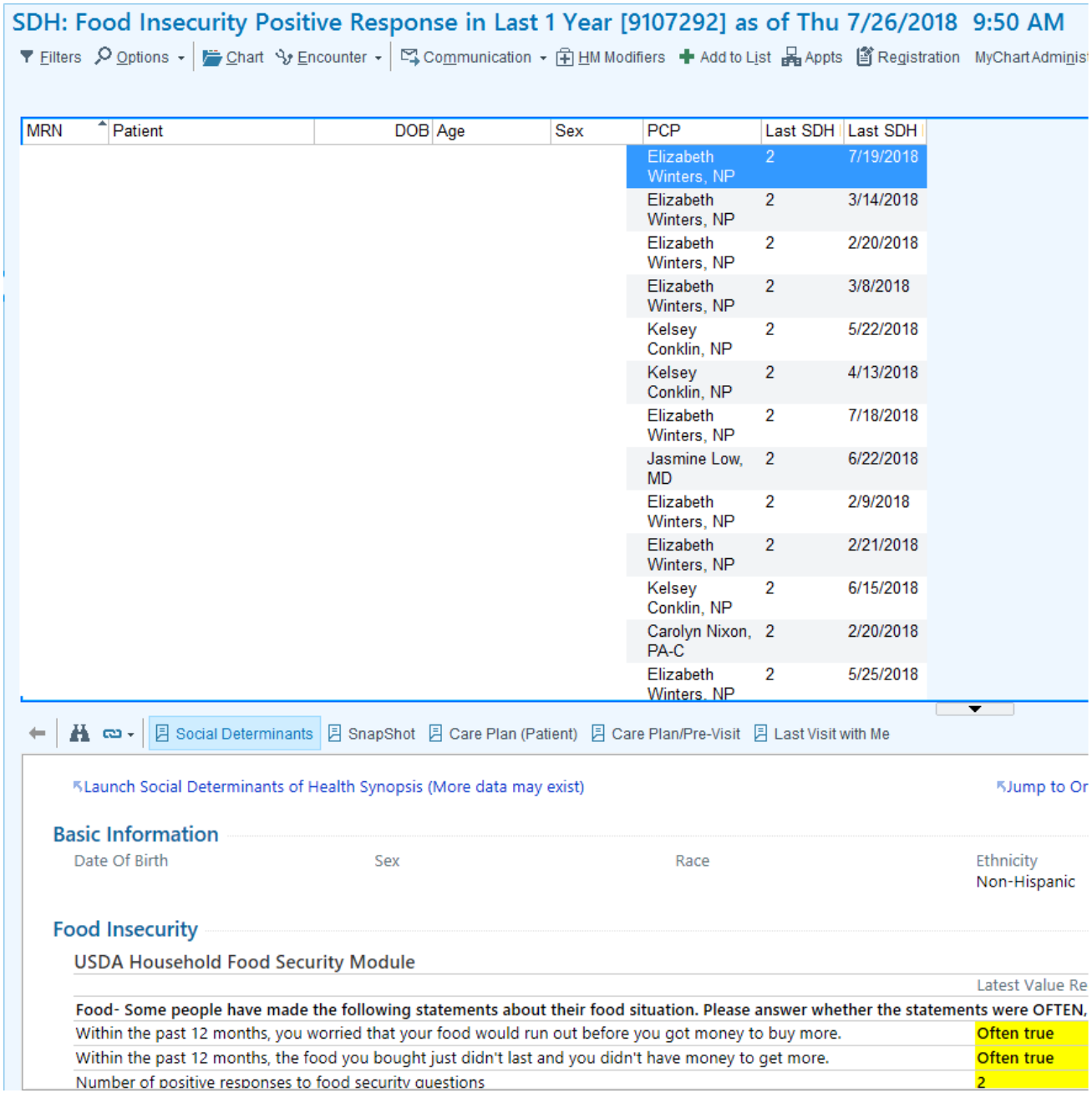
DATA REPORTING EXAMPLE #1 – Reporting Workbench



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

Filters | Options | Chart | Encounter | Communication | HM Modifiers | Add to List | Appts | Registration | MyChart Adminis

MRN	Patient	DOB	Age	Sex	PCP	Last SDH	Last SDH
					Elizabeth Winters, NP	2	7/19/2018
					Elizabeth Winters, NP	2	3/14/2018
					Elizabeth Winters, NP	2	2/20/2018
					Elizabeth Winters, NP	2	3/8/2018
					Kelsey Conklin, NP	2	5/22/2018
					Kelsey Conklin, NP	2	4/13/2018
					Elizabeth Winters, NP	2	7/18/2018
					Jasmine Low, MD	2	6/22/2018
					Elizabeth Winters, NP	2	2/9/2018
					Elizabeth Winters, NP	2	2/21/2018
					Kelsey Conklin, NP	2	6/15/2018
					Carolyn Nixon, PA-C	2	2/20/2018
					Elizabeth Winters, NP	2	5/25/2018

Social Determinants | SnapShot | Care Plan (Patient) | Care Plan/Pre-Visit | Last Visit with Me

Launch Social Determinants of Health Synopsis (More data may exist) Jump to Or

Basic Information

Date Of Birth | Sex | Race | Ethnicity: Non-Hispanic

Food Insecurity

USDA Household Food Security Module

	Latest Value Re
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

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DATA REPORTING EXAMPLE #1 – Reporting Workbench

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

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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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DATA EXTRACTION EXAMPLE #2 – Data View

SDoH Flowsh	Period:	Run Date: 07/11/2018 9:08:23AM									
Date	Dept.	MRN	Age	Sex	Question	1	2	3	4	5	6
1/1/2018	MM ARIELS	1111111	30	M				Very hard	Yes	Yes	Declined
	MM ARIELS			F				Very hard		Yes	Yes
	MM ARIELS			F				Very hard	No	No	No
	MM ARIELS			M				Very hard	No	Yes	Yes
	MM ARIELS			M				Very hard	No	No	Yes
	MM BEND PRIMARY CARE			M				Not hard a			
	MM BEND PRIMARY CARE			M				Very hard	No	Yes	Yes
	MM BEND PRIMARY CARE			F				Not hard a			
	MM BEND PRIMARY CARE			M				Somewhat	No	Yes	No
	MM BEND PRIMARY CARE			F				Very hard	No	Yes	Yes
	MM BEND PRIMARY CARE			M				Not hard a			
	MM BEND PRIMARY CARE			F				Very hard	Yes	Yes	Yes
	MM BEND PRIMARY CARE			F				Somewhat	No	Yes	Yes
	MM BEND PRIMARY CARE			F				Very hard	No	No	Yes
	MM BEND PRIMARY CARE			M				Very hard	Yes	Yes	No
	MM BEND PRIMARY CARE			M				Very hard	Yes	Yes	No
	MM BEND PRIMARY CARE			M				Not hard a			
	MM BEND PRIMARY CARE			M				Very hard	Yes	Yes	Yes
	MM BEND PRIMARY CARE			M				Not hard a			
	MM BEND PRIMARY CARE			M							
	MM BEND PRIMARY CARE			F				Very hard	Yes	Yes	No
	MM BEND PRIMARY CARE			M							
	MM BEND PRIMARY CARE			F				Somewhat	Yes	Yes	Yes
	MM BEND PRIMARY CARE			F				Somewhat	Yes	Yes	
	MM BEND PRIMARY CARE			F							
	MM BEND PRIMARY CARE			M				Somewhat	No		

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DATA EXTRACTION EXAMPLE #2 – Data Notes

- 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

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DATA EXTRACTION EXAMPLE #3 – Winding Waters

- 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','3622','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

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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

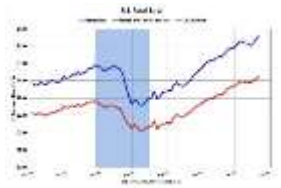
ETL Via Alteryx

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



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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 organizations 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?

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Screen Date

Last 6 months

Teal Team Social Determinants of Health Dashboard

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FINANCIAL_CLASS

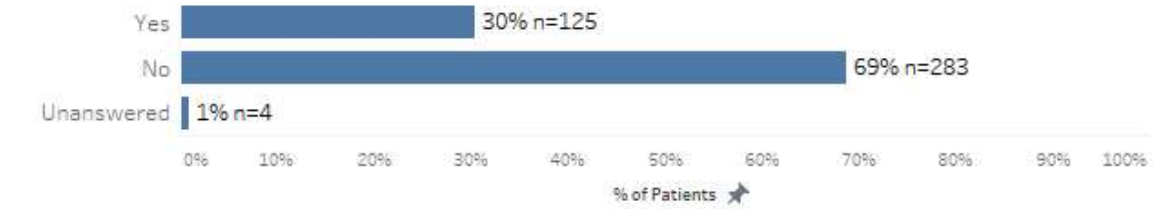
(All)

Distinct Patients Screened

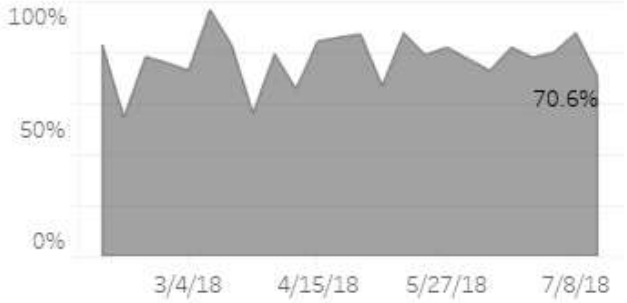
412

Weekly Count of Patients Screened for Social Determinants of Health

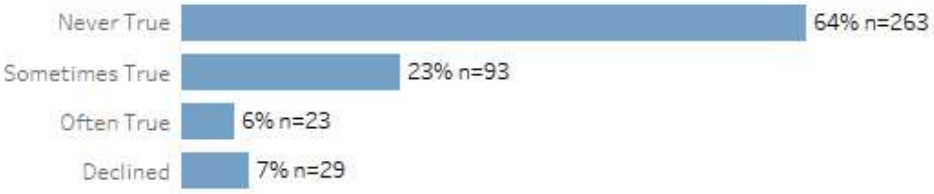
% of Patients Screened Positively for Food Insecurity



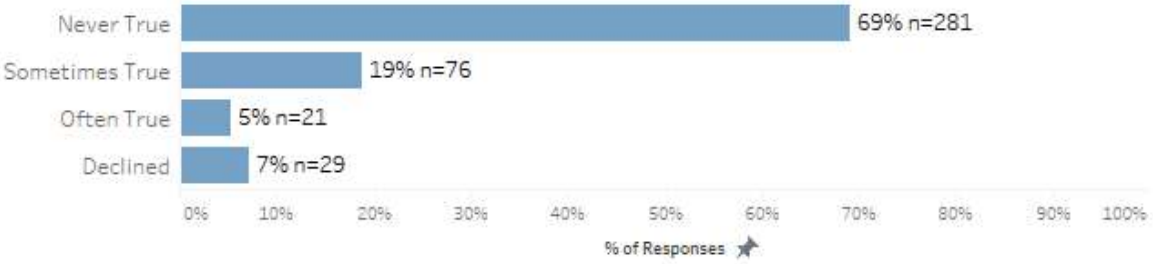
Weekly Percent of New Patients Screened



I worried whether my food would run out before I got money to buy more.



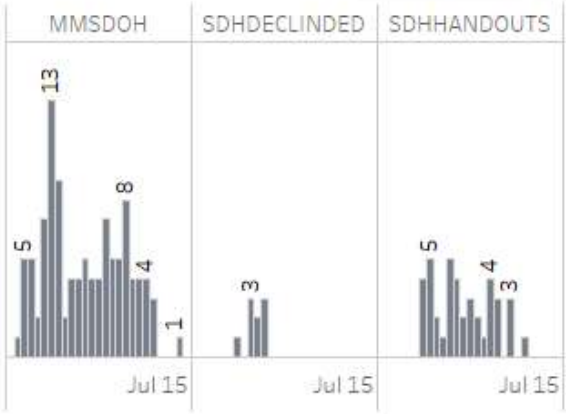
The food that I bought just didn't last, and I didn't have money to get more.



SDOH Smartphrases

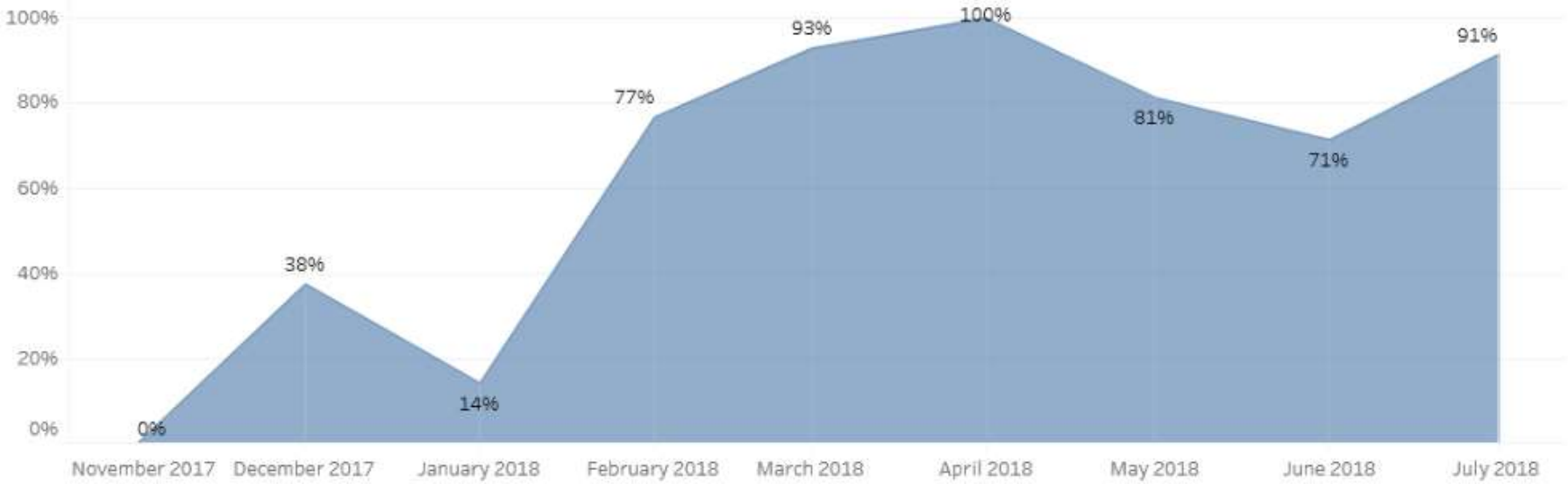
Smart Phrase Date

Last 6 months



Percent of Positively Screened Patients with Documented Intervention

-Interventions include .SDHHANDOUTS, .MMCHWCASENOTE, .MMCHWSDOH, .MMCHWFINASSIST, .MMCHWHOMEVISIT, .MMCHWWARMHANDOFF, .SDHDDECLINED, or .PROGFOOD 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



Numerator/Denominator of Positively Screened Patients with Documentated Intervention

-Interventions include .SDHHANDOUTS, .MMCHWCASENOTE, .MMCHWSDOH, .MMCHWFINASSIST, .MMCHWHOMEVISIT, .MMCHWWARMHANDOFF, .SDHDDECLINED, or .PROGFOOD 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

		2/25/18	3/4/18	3/11/18	3/18/18	3/25/18	4/1/18	4/8/18	4/15/18	4/22/18	4/29/18	5/6/18	5/13/18	5/20/18	5/27/18	6/3/18	6/10/18	6/17/18	6/24/18	7/1/18	7/8/18	7/15/18	7/22/18
AQUA TEAM	Met		1														1					0	
	Total		1														1					1	
BLUE TEAM	Met		1		1	1			1	2			0	1	1	1			1	1		3	
	Total		1		1	1			1	2			1	2	1	1			2	1		3	
ORANGE TEAM	Met			0			1						0										
	Total			1			1						1										
PURPLE TEAM / ARIELS	Met				1				1			1			1								
	Total				1				1			1			2								
RED TEAM	Met																						1
	Total																						1
TEAL TEAM	Met	4	9	12	3	2	4	5	4	5	6	3	6	9	1	6	5	1	1		1	4	2
	Total	4	9	12	3	3	4	5	4	5	7	3	8	9	1	6	7	2	2		1	5	3
YELLOW TEAM	Met		2	1		1	1		1				5	2			1	1	2	4	7	4	5
	Total		2	2		1	1		1				6	2			1	1	5	4	7	4	5

Screen Date
1d 1w 1m 3m 1y 5y

TEAM_pcp_home
TEAL TEAM

SDOH Demographics

Average Response
(Higher = More Food Insecurity)
Percent of Patients Screened

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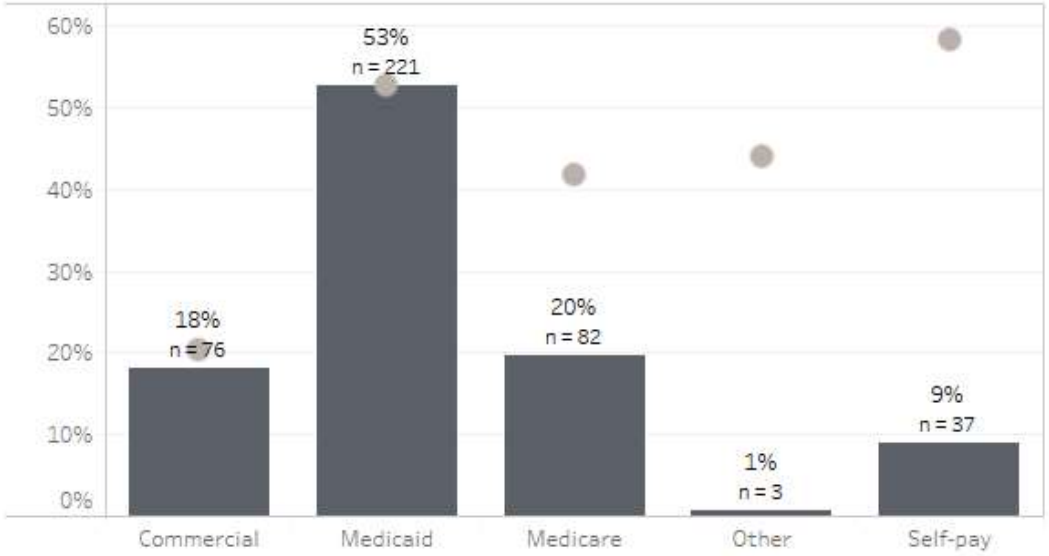
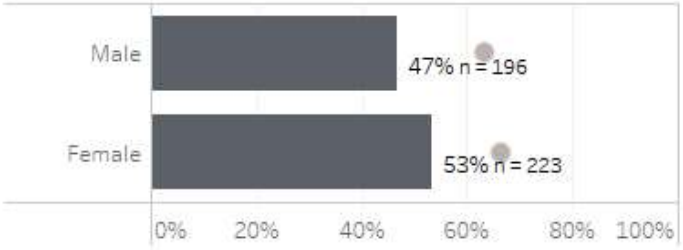
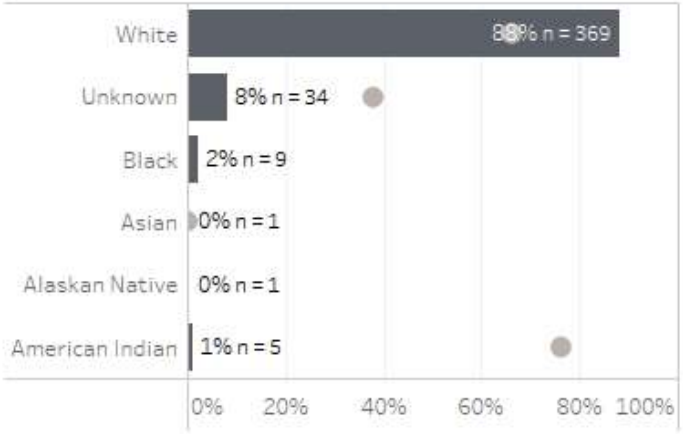
Insurance Group of Patients Screened



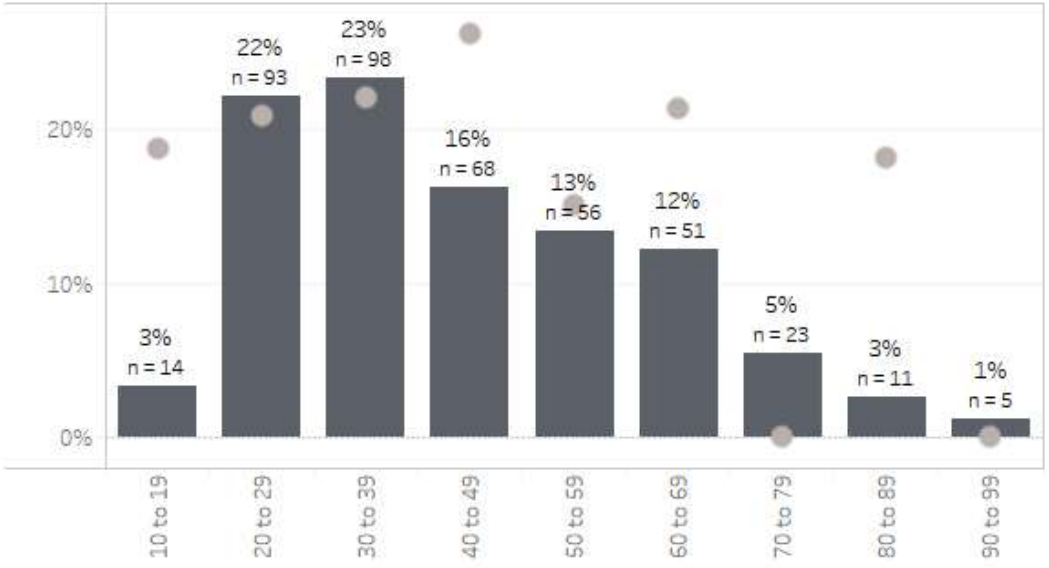
Gender of Patients Screened



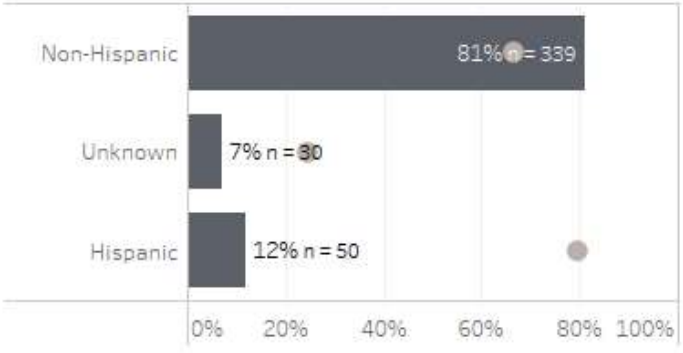
Race of Patients Screened



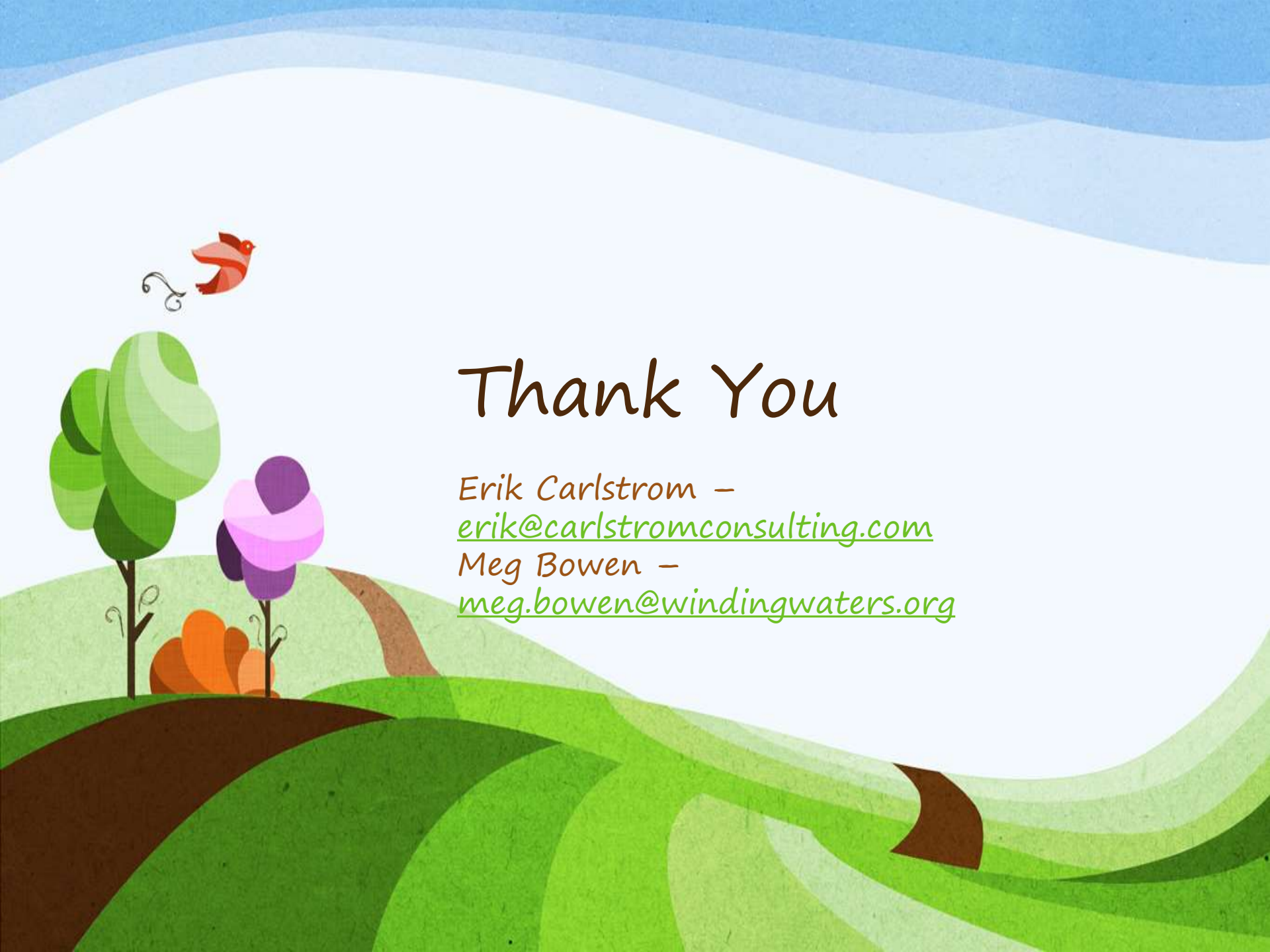
Age Distribution of Patients Screened



Ethnicity of Patients Screened



Winding Waters Dashboard Demo



Thank You

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