Deeper Dive Session Electronic Medical Records and Health System Change

PRESENTERS

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Learning Objectives

- **Review current provider and health system perspectives on EHRs**
- **Discuss practical tips for collaborating with health systems to make cancer screening focused modifications**
- **Provide tips and best practices for sustaining the integration of EHR systems and Evidenced Based Interventions (EBIs) in support of health system change.**
- **Discuss how EHR systems can be used to support the implementation of the BCCEDP/CRCCP EBIs.**
- **Apply EHR concepts to a real-world health system scenario**

Overview

- **EHR Basics: Background and landscape of EHRs: 20 minutes**
- **EHRs and Health System Improvements for Cancer: 20 minutes**
- **Exercise: Think like a health system: 40 minutes**

EHR Basics

WHAT DO PROVIDERS THINK?

What should you consider when engaging a health system around their EHR?

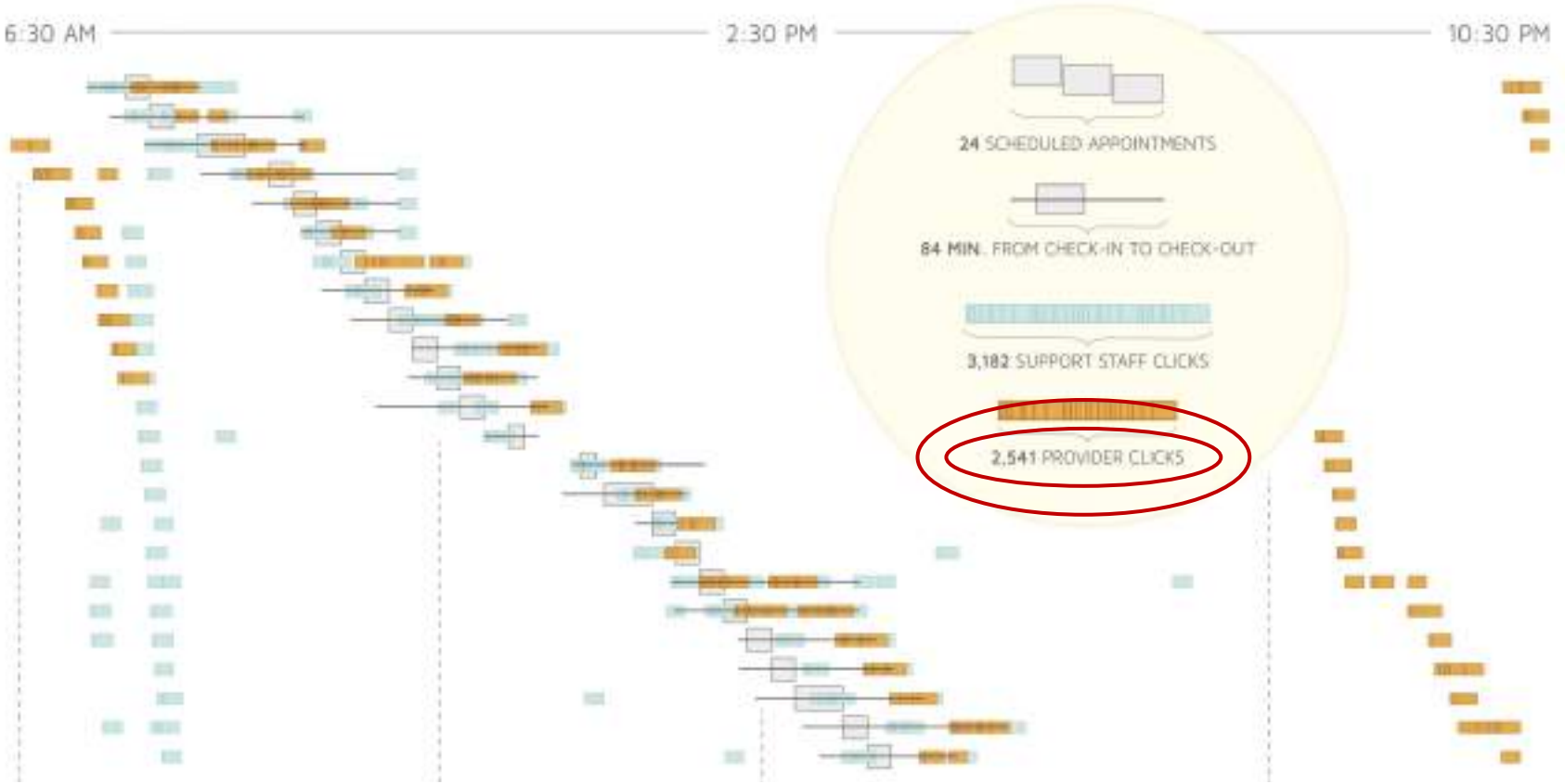
A 2018 national provider survey found that:

- **Doctors see value in EHRs, but want substantial improvements**
- **EHRs are not seen as powerful clinical tools**

Nearly half of PCPs (44%) say the primary value of their EHR is digital storage, while less than one in 10 (8%) cite key clinically related items such as disease prevention/management (3%), clinical decision support (3%), and patient engagement (2%).

https://med.stanford.edu/content/dam/sm/ehr/documents/EHR-Poll-Presentation.pdf

24 VISITS / 16 HRS / 2,541 CLICKS

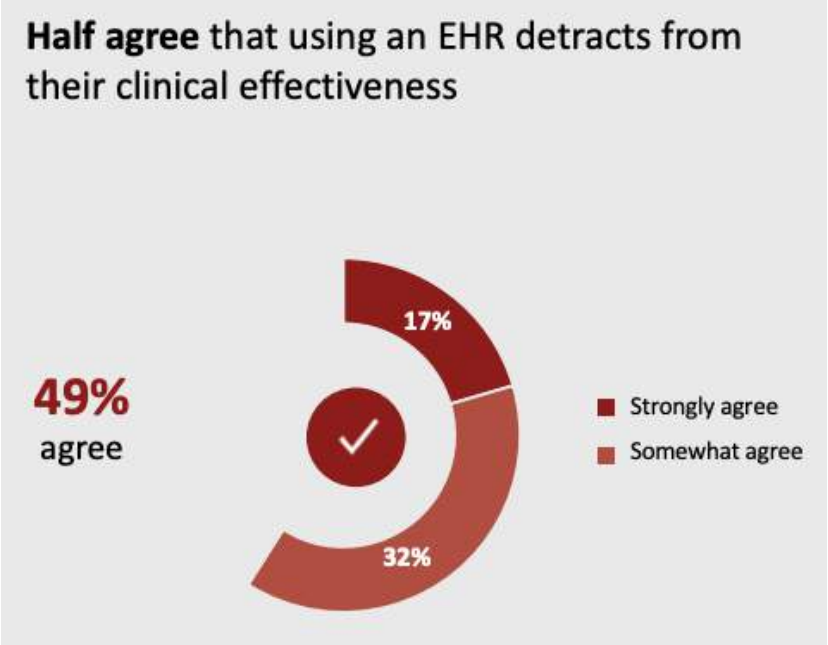


https://www.healthcareitnews.com/infographic/infographic-one-docs-clicks-day

What provider perspectives an impact your work?

Physicians agree on what needs to be fixed:

- **Fix Now: Better User Interface**
- **Fix Soon: Interoperability**
- **Fix Soon: Predictive Analytics**



https://med.stanford.edu/content/dam/sm/ehr/documents/EHR-Poll-Presentation.pdf

What does the EHR store?

Everything the providers and support staff do!

- Key Strokes
- Clicks
- Structured data
- Clinical Observations
- Unstructured text (notes)
- Outgoing messages
- Orders

Everything the EHR does!

- What business rules are triggered (+timestamps)
- What screens the provider sees
- What alerts pop up and the outcome (audit)
- What data was received from external organizations

What EHR functionality can advance cancer prevention?

Clinical Decision Support

Referral

Reporting

What is CDS?

CDS is the tools to enhance decision-making in the clinical workflow by providing clinicians, staff, or patients with knowledge and specific information, intelligently filtered or presented at appropriate times, to enhance health and health care.

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CDS is the tools to enhance decision-making in the clinical workflow by providing clinicians, staff, or patients with knowledge and specific information, intelligently filtered or presented at appropriate times, to enhance health and health care. CDS includes alerts and reminders; clinical guidelines; condition-specific order sets; focused patient data reports and summaries; documentation templates; diagnostic support, and contextually relevant reference information.

What is CDS?

What are the Benefits of CDS?

- Reduce errors
- Improve data quality
- Remind providers about the correct action to take
- Suggest proactive steps for patient care

Clinical Decision Support Decreases Sepsis Mortality in AL

As part of an electronic surveillance program, clinical decision support helped reduce sepsis mortality by 53 percent.

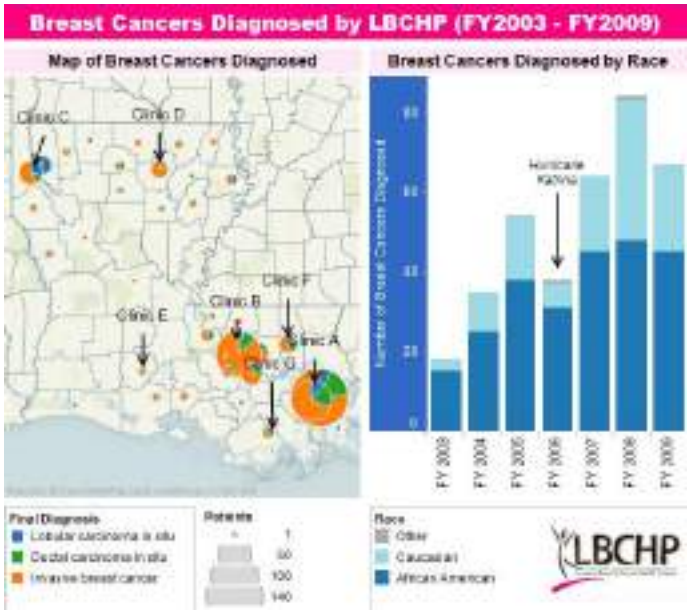
The three pillars for realizing the promise of CDS.

Osheroff J A et al. J Am Med Inform Assoc 2007;14:141-145

What is Referral?

- **Electronic referrals (e-Referrals) transmit a structure message from a healthcare organization to another healthcare entity or community organization**
- **Compared to a fax or phone call, e-Referrals are faster, have higher quality information, and are less prone to error or loss to follow up**

What is Reporting?



- Aggregating, analyzing, and visualizing data from the EHR to track clinical or population health indicators
- Use business rules to:
  - identify target populations such as screening eligible
  - Assess outcomes such as “Was a screening test ordered” or “Did screening occur”

How do health systems and providers make changes or additions to their EHR?

Scenario 1: Large integrated health system

- **Large systems will have**
  - **A robust infrastructure for evaluating and implementing requested changes (defined processing)**
  - **Lots of requested changes (long line)**
  - **A high performing system for implementing changes (powerful engine)**
- **What you can expect: Lots of up front work to get to 'Yes!' and then a bit of a wait. Once your request is at the front of the line, it will get done.**
- **Tips: identify a provider champion so the request feels internal, do not try and cut the line, do your homework, and provide detailed provider workflow information.**

Scenario 2: Small outpatient clinic

- **Small systems will have**
  - **An informal approach for evaluating and implementing requests**
  - **Less requested changes (short line)**
  - **Two approaches to implementing changes: sole resource who can make changes (IT guy) vs. contract with the EHR vendor for optimizations**
- **What you can expect: Easy to get to 'Yes!' and then an unclear process and timeline for implementation. Communication with the implementation lead.**
- **Tips: identify a provider champion so the request feels internal, clarify the process for implementation and information sharing, use project management, identify milestones to mark progress, and advocate for dedicated resources.**

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ADVANCING RESOURCES TO CHANGE HEALTHCARE

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ELECTRONIC MEDICAL RECORDS AND HEALTH SYSTEM IMPROVEMENT

PRESENTED BY: JORDON SCHAGRIN, MHCI, PCMH CCE | JUNE 6, 2019

I was taught the way of progress is neither swift nor easy. – Marie Curie

CHANGE V. TRANSFORMATION

Change

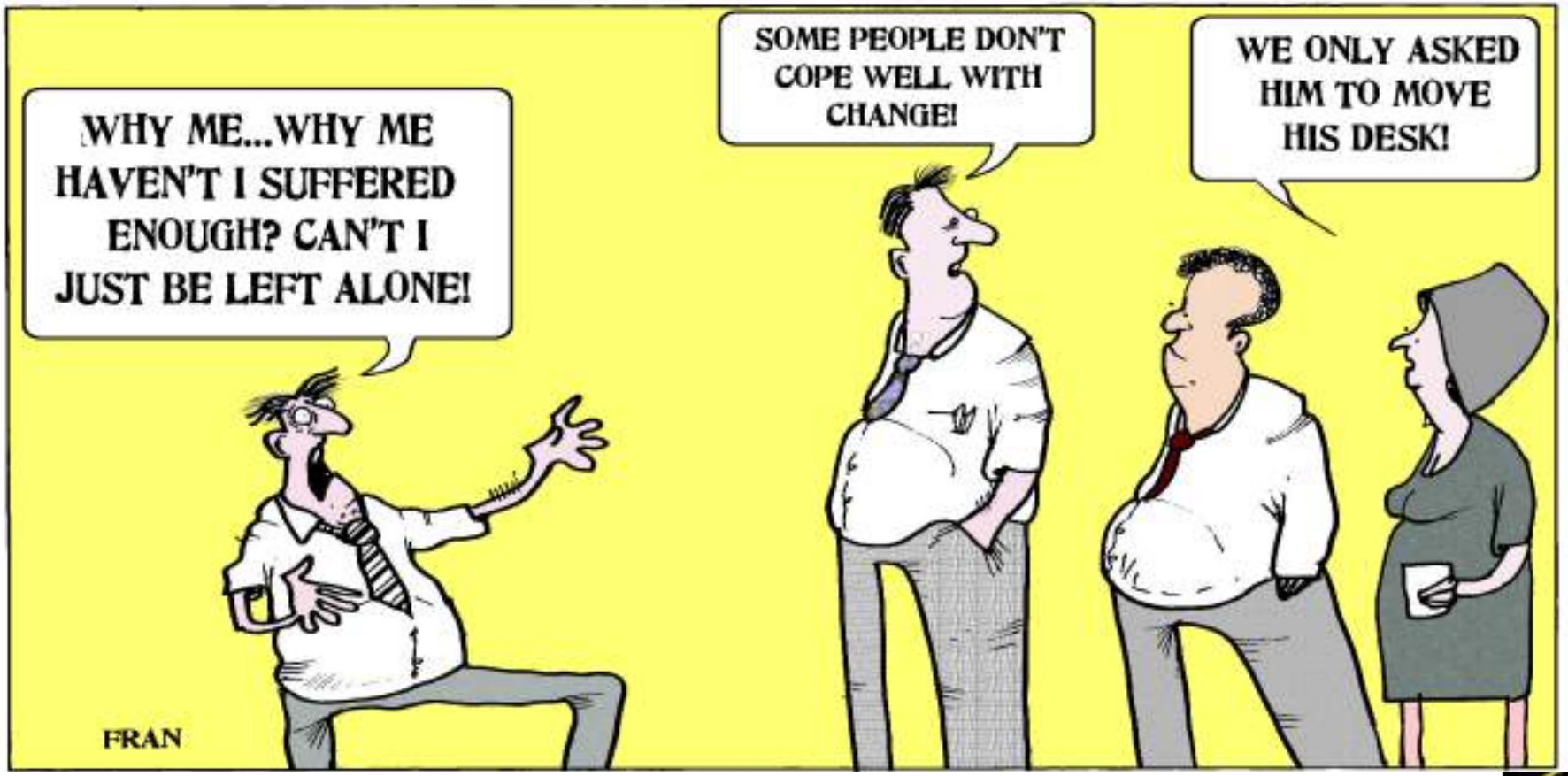
- Generally:
  - Small scale
  - Easily adopted

Transformation

- Requires:
  - Planning
  - Data
  - Paradigm shift
  - Sustainability

Video: Transformation v. Change: IHI President - Derek Feeley

CHANGE IS TOUGH



TRANSFORMATION = CULTURE OF CHANGE

TRANSFORMATION = SUSTAINABILITY

Sustainability:

- Engage leadership
- Test small changes
- Use data to validate efforts
- Scale up slowly
- Success drives momentum and spread

ROADMAP FOR SUSTAINABLE HEALTHCARE

TIPS FOR TRANSFORMATION

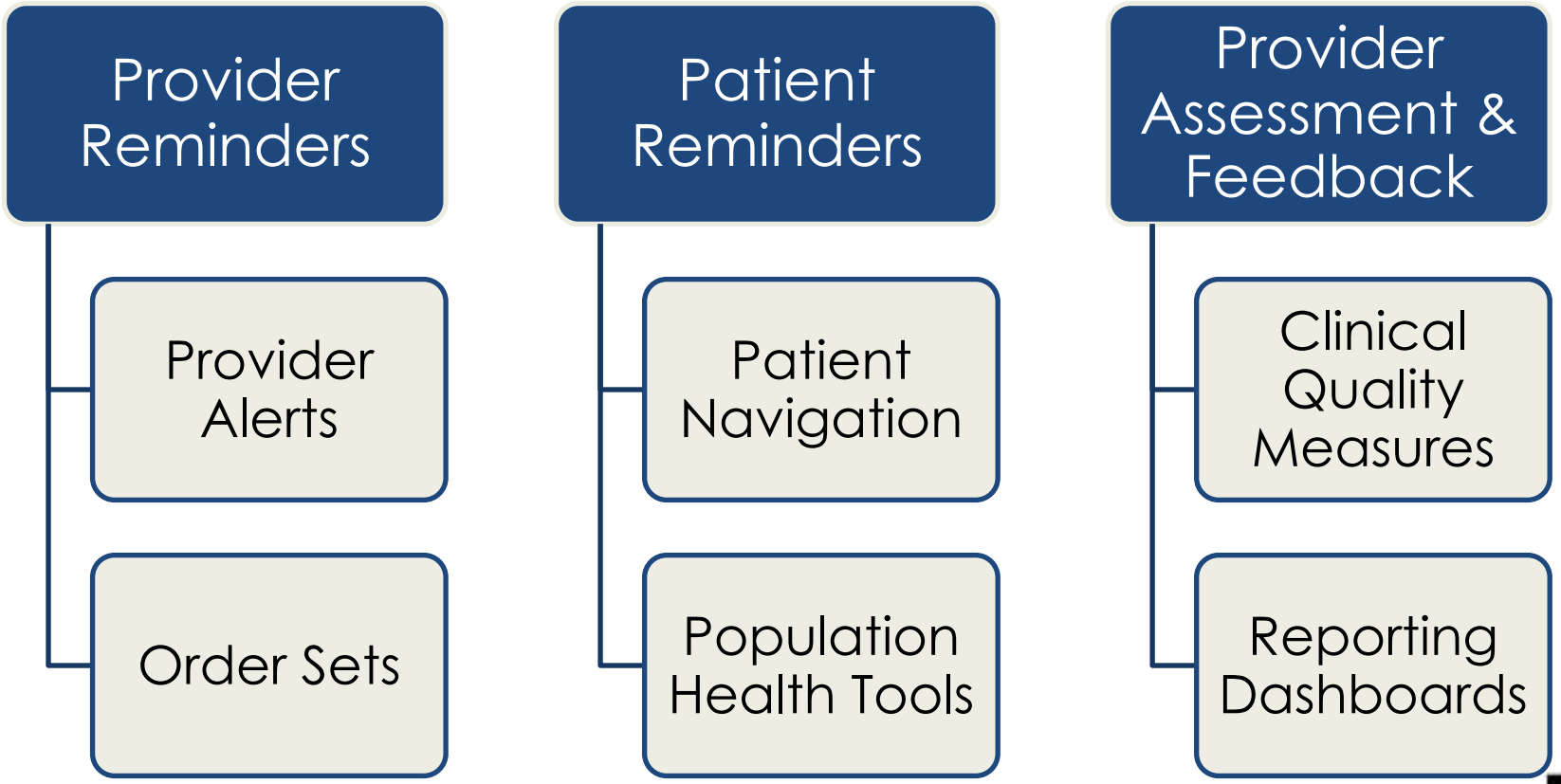
- Champion of Change
- Education on the value of the changes
- Use formal QI methods:
  - Model for Improvement
- Sustainability Planner
  - Health Quality Ontario
- Process mapping:
  - Current state v future state
  - Start with the end goal

CRCCP & BCCEDP

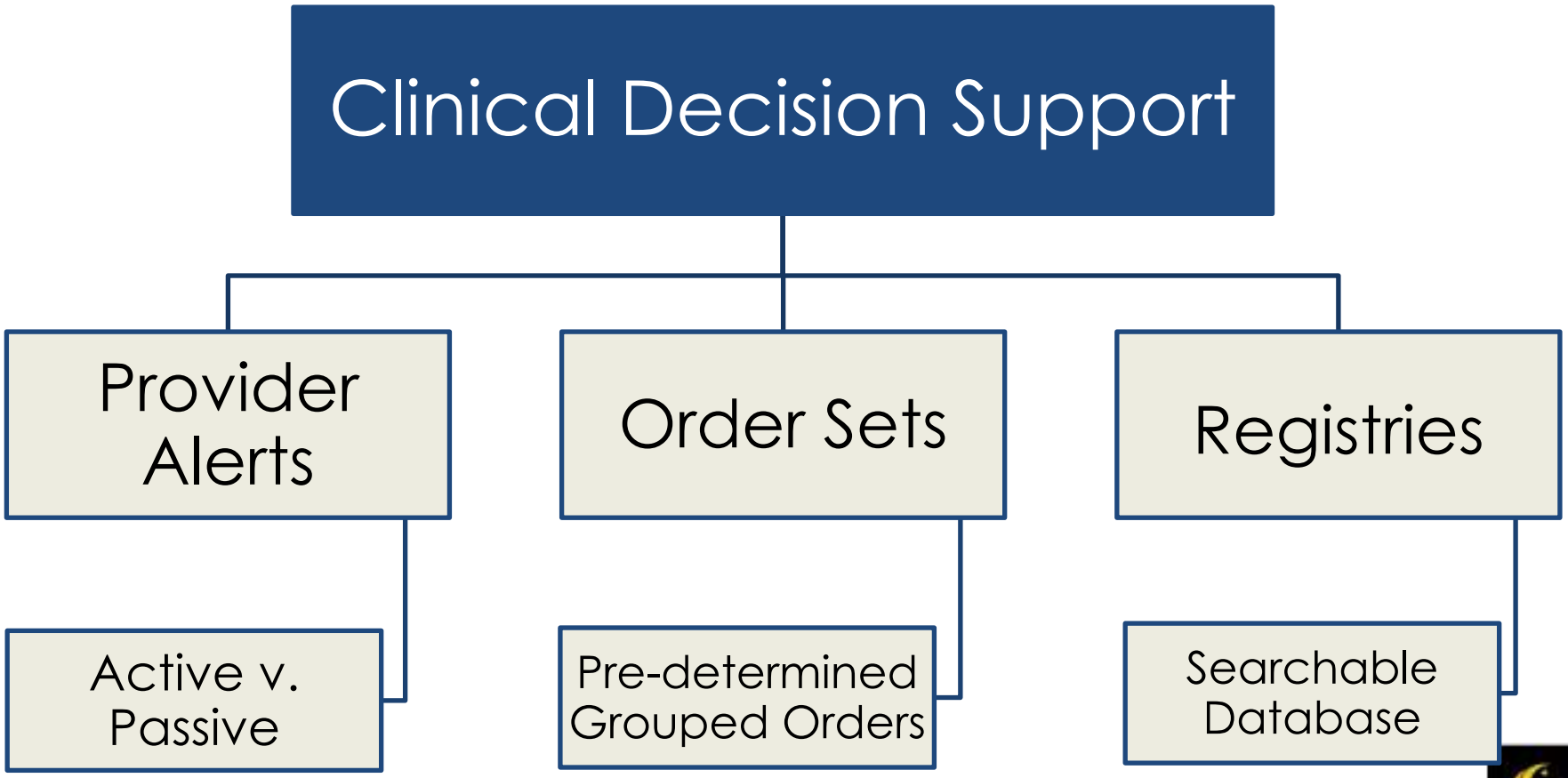
EVIDENCED BASED INTERVENTIONS AND EMR SYSTEMS

"There are no EMR systems out there that people are universally happy with."
- Unknown

EVIDENCE BASED INTERVENTIONS



PROVIDER REMINDERS – CLINICAL DECISION SUPPORT

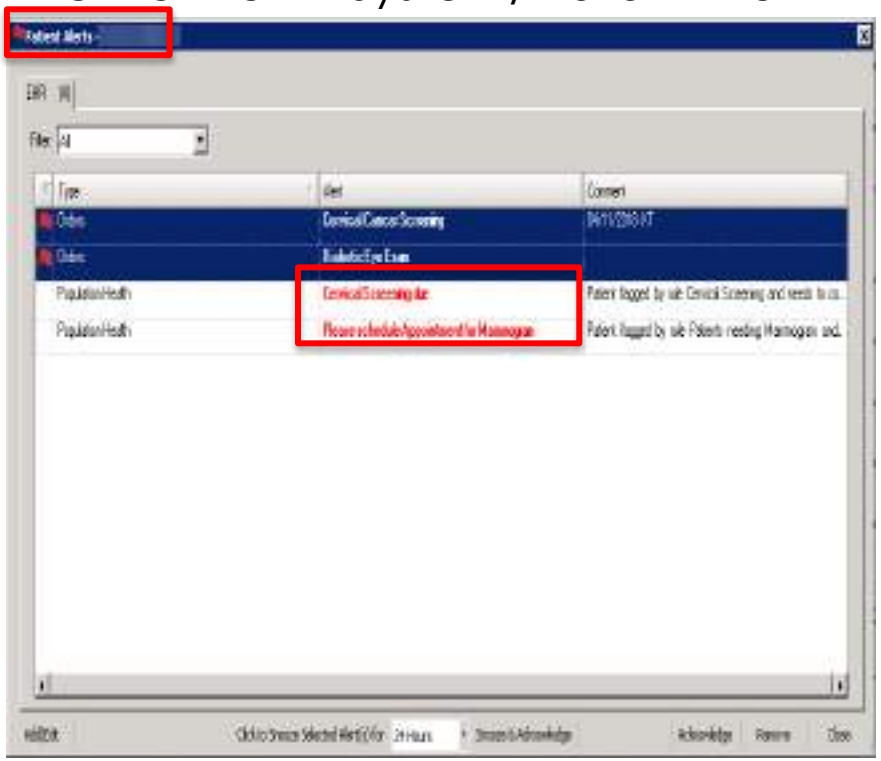


PROVIDER REMINDERS: CHALLENGES

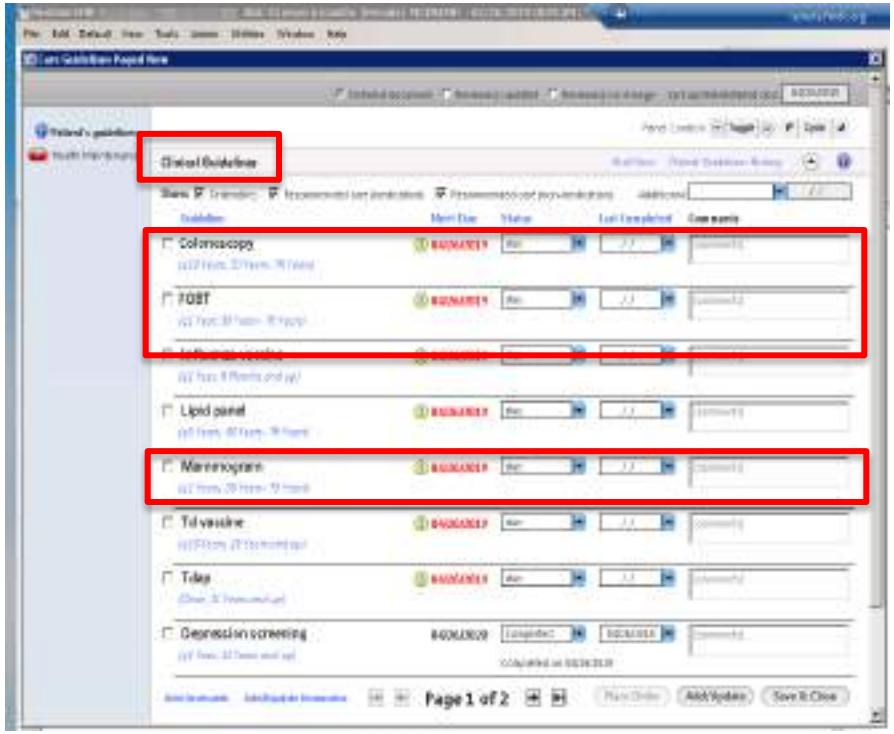
- Provider/Staff use of CDS alerts
- Accuracy of CDS alerts
- Screening Variance Frequency
- Family History- very under utilized and inconsistently collected
- Documentation of test results

PROVIDER REMINDERS: CDS ALERT EXAMPLES

Active Alert – System/Data Driven



On Demand Alert – User Driven



CDS ALERT – HOW ARE THEY GENERATED

Numerator: Colonoscopy

- Within 9 years of measurement period
- Looks at either the Record Service or Problem list/Assessment & Plan
- Record Service: CPT Codes
  - Codes: 44388, 44389, 44390, 44391, 44392, 44393, 44394, 44397, 45355, 45378, 45379, 45380, 45381, 45382, 45383, 45384, 45385, 45386, 45387, 45391, 45392, G0105,
- Problem List: SNOMED
  - Codes: 12350003, 174158000, 174184006, 235150006, 235151005, 25732003, 303587008, 310634005, 34264006, 367535003, 418714002, 427459009, 443998000, 444783004, 446521004, 446745002, 447021001,

Numerator: FIT/FOBT

- Within measurement period
- Looks at lab results table
- Lab results table: LOINC Codes:

  12503-9, 12504-7, 14563-1, 14564-9, 14565-6,

  2335-8, 27396-1, 27401-9, 27925-7, 27926-5,

  29771-3, 56490-6, 56491-4, 57905-2, 58453-2

CDS ALERT – HOW ARE THEY GENERATED

Denominator: encounter codes

- Looks in Record Service module or Problem List/Assessment & Plan
  - Record Services encounter CPT codes:
    - Office Visit: 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215
    - Home Healthcare Services: 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350
    - Preventive Care Services/Initial Office Visit/18 and Up: 99385, 99386, 99387,
    - Preventive Care Services/Established Office Visit/18 and Up: 99395, 99396, 99397
    - Annual Wellness: G0438, G0439
  - Problem List/Assessment & Plan SNOMED codes:
    - 12843005, 18170008, 185349003, 185463005, 185465003, 19681004, 207195004, 270427003, 270430005, 308335008, 390906007, 406547006, 439708006, 87790002, 90526000

PATIENT REMINDERS

Patient Navigation

- Documentation of PN efforts
  - Telephone encounter
  - Custom codes

Population Health Tool

- Reminders
  - Text
  - Email
  - Phone call

PATIENT REMINDERS: CHALLENGES

- Incorrect contact information
- Desire to document within the EHR, rather than using an external tool
- Care team/providers up to date on communications between PN and patient
- Documentation & reporting of patient navigation services
- Access to test results

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PATIENT REMINDERS: PN DOCUMENTATION

Custom Service Codes:

- CRC-Contact Attempted
- CRC-Contact Made
- CRC-Message Left
- CRC-Sent Post Card
- CRC-Call Me Letter (CML)
- CRC-Client Contact - Declined
- CRC Client Responded – Call
- CRC-Client Responded – Post Card
- CRC Client Responded – CML

Services Report

Report is sorted by Site Locn There are 9 recorded servic

Site : Locn Description	Client Name DOB	Date MRN	Svc Prv Bill Prv	Unit
MAIN SITE ALACHUA CHD :				
CRC-CALL ME LETTER(CML)	TEST,LAB L 01/01/1976	03/01/2019 222203	A BARNES	1
CRC-CLIENT CONTACT-DECLIN	TEST,LAB L 01/01/1976	03/01/2019 222203	A BARNES	1
CRC-CLIENT RESPONDED-CALI	TEST,LAB L 01/01/1976	03/01/2019 222203	A BARNES	1
CRC-CLIENT RESPONDED-CALI	TEST,LAB L 01/01/1976	03/01/2019 222203	A BARNES	1
CRC-CLIENT RESPONDED-POST	TEST,LAB L 01/01/1976	03/01/2019 222203	A BARNES	1
CRC-CONTACT ATTEMPTED	TEST,LAB L 01/01/1976	03/01/2019 222203	A BARNES	1
CRC-CONTACT MADE	TEST,LAB L 01/01/1976	03/01/2019 222203	A BARNES	1
CRC-MESSAGE LEFT	TEST,LAB L 01/01/1976	03/01/2019 222203	A BARNES	1
CRC-SENT-POST CARD(PC)	TEST,LAB L 01/01/1976	03/01/2019 222203	A BARNES	1

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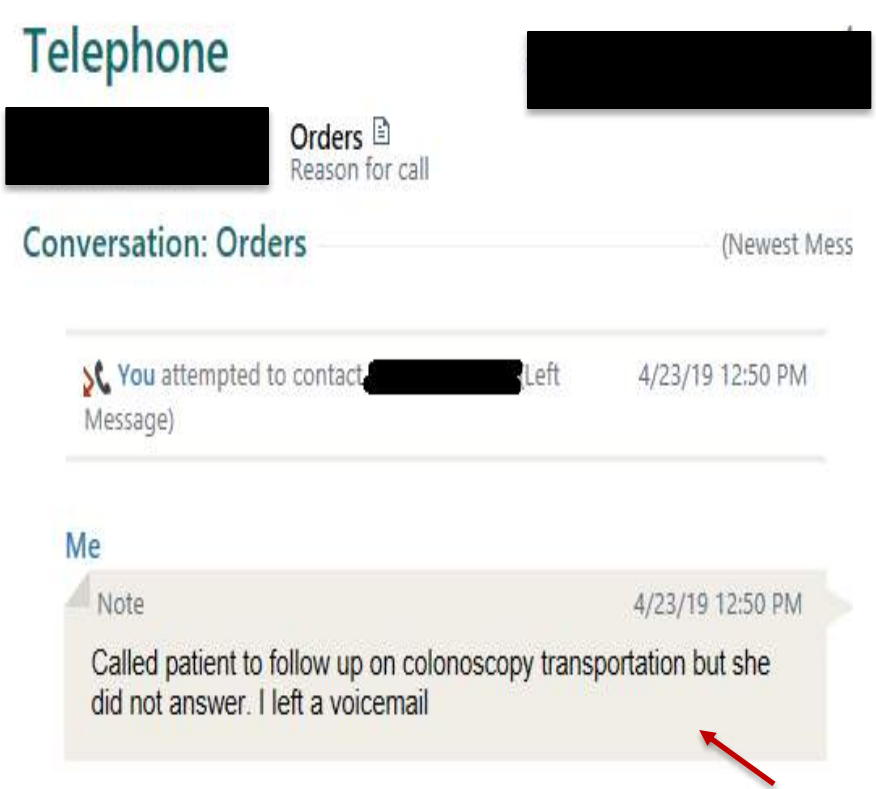
PATIENT REMINDERS: TELEPHONE ENCOUNTER



Both telephone encounters are accessible in the patient record.

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PATIENT REMINDERS: POP HEALTH TOOL EXAMPLES

Dear

To help you enjoy the best possible health and well-being, we are collaborating with your health plan to let you know about important preventive screenings and health services you may need. According to our records, you have been approved for the following service(s): FBCCEDP

- ☐ Mammogram (Breast Cancer Screening)
- ☐ Pap Smear (Cervical Cancer Screening)

Together we can keep you in the best possible health! Please call us at your first opportunity to schedule or discuss these health care services. Thank you!

Sincerely,

Text message received by patient

Reminder

Sent	Reminder Type	Contact Method	Sender	Comments
03/09/2018	Care Outreach Reminder	Other: Texting	CO Admin	Patients needing Mammogram - Texting
03/09/2018	Care Outreach Reminder	Other: Texting	CO Admin	Patients needing Mammogram - Texting
03/09/2018	Care Outreach Reminder	Other: Texting	CO Admin	Patients needing Mammogram - Texting
03/09/2018	Care Outreach Reminder	Other: Texting	CO Admin	Patients needing Mammogram - Texting
03/09/2018	Care Outreach Reminder	Other: Texting	CO Admin	Patients needing Mammogram - Texting
03/09/2018	Care Outreach Reminder	Other: Texting	CO Admin	Patients needing Mammogram - Texting
03/09/2018	Care Outreach Reminder	Other: Texting	CO Admin	Patients needing Mammogram - Texting
03/09/2018	Care Outreach Reminder	Other: Texting	CO Admin	Patients needing Mammogram - Texting
03/09/2018	Care Outreach Reminder	Other: Texting	CO Admin	Patients needing Mammogram - Texting
03/09/2018	Care Outreach Reminder	Other: Texting	CO Admin	Patients needing Mammogram - Texting
03/09/2018	Care Outreach Reminder	Other: Texting	CO Admin	Patients needing Mammogram - Texting
03/09/2018	Care Outreach Reminder	Other: Texting	CO Admin	Patients needing Mammogram - Texting

Pop health tool: Outreach report

PROVIDER ASSESSMENT & FEEDBACK

- How are you measure your health systems performance?
- Are providers aware of how they are being measured?

PROVIDER ASSESSMENT & FEEDBACK: CHALLENGES

- Access to reportable data
- Provider & care team's trust of data
- Timeframe to report performance
- Tools to report performance
- EMR systems may not have pre-established reports for selected measures

REPORTING METHODS

- Excel Spreadsheet
  - Not scalable
- Internal EMR Features
  - Not robust
  - Requires configuration
- Analytic Data Tools
  - Complex reporting tools for database analysis; costly
  - Results may be canned reports
- Custom QI/Population Health product
  - Agile reporting features designed for QI end-user
  - Often provided as a “service "or add on to EHR system

PROVIDER ASSESSMENT & FEEDBACK: MEASURES

Screening Rate Calculations

- Current/Standard Measures:
  - Screening Rate: 12 month (annual/most recent)
  - Monthly Screening Rate – should be reported per organizations policies
- Other measures to consider
  - Screening Rate v. Order Rate
  - Colonoscopy referral to completion time
  - Number of referrals for colonoscopy, following a positive FIT
  - Number of eligible patients referred to the BCCEDP

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SCREENING RATE DASHBOARD: EXAMPLE

Month	2018-03	2018-04	2018-05	2018-06	2018-07	2018-08	2018-09	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	Average
FITIFOBT/CG	28	28	37	24	25	28	25	36	23	28	5	5	7	23
Perform	384	384	494	386	383	348	320	383	340	314	381	304	297	354
Patients	549	570	722	603	583	523	466	560	508	462	502	424	428	538
Rates	70%	68%	68%	64%	67%	72%	74%	71%	71%	74%	74%	73%	71%	71%

Rolling 13M Rates
70%
FPSC 2015 Benchmark
69%

* Rolling 13M Best Practice = UF Health Family Medicine - Springhill 2	72%

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CLINICAL QUALITY MEASURE: EXAMPLE

County: Alachua | Service Site: MAIN SITE ALACHUA CHD | Provider: All Providers | Start Date: 2019-04-01 | End Date: 2019-04-30 | Show UDS | Submit | Current

Statewide Cache: 2019-04-01 to 2019-04-30

Program: 2 selected | SubPgm: All Sub Programs

CQM 0018 CQM 0024 CQM 0028 CQM 0031 CQM 0032 CQM 0034 CQM 0036 CQM 0038 CQM 0059 CQM 0421 Statin

NQF0034 - CMS130 v3 - Colorectal Cancer Screening
From 2019-04-01 to 2019-04-30

Show Detail | Show Specs | Export Excel | Export PDF | Export Detail

Numerator 138 / Denominator 221 — Denominator Exclusions 49 — Rescreen Rate 138 — Compliance Rate 2 / 138

Service Site Summary

Page 1 of 1

Service Site	Numerator	Denominator	Exclusions	Rescreened Clients	Compliant Clients
ALACHUA					
MAIN SITE ALACHUA CHD	138	221	0	49	2

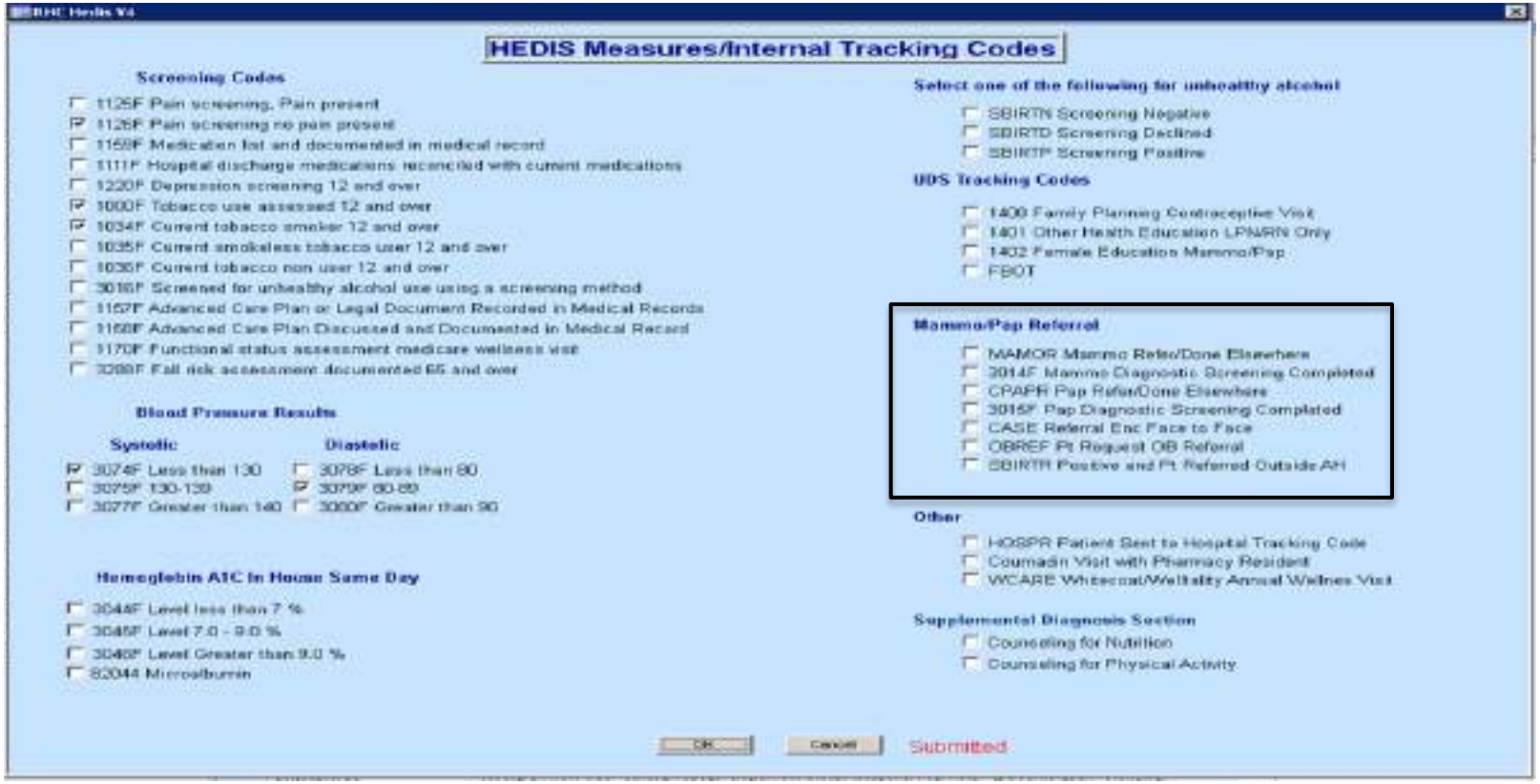
Provider Summary

Page 1 of 1

Service Provider Name	Service Provider NPI	Numerator	Denominator	Exclusions	Rescreened Clients	Compliant Clients
ALACHUA						
ACOSTA,ANA M	1811368301	2	3	0	1	0
COLON-MORALES,JOHN D	1477665339	1	3	0	1	0
GILL,ISAAC S	1942603444	2	2	0	1	0
HIMMELBERGER,JESSICA A	1942760319	5	6	0	3	0
NICHOLAS,MOLLY A	1629097555	37	58	0	13	1
PINERO,JOSE M	1457458887	44	79	0	14	0
SEITZ,STEPHEN W	1154890879	47	70	0	16	1

OTHER THINGS TO CONSIDER

- Structured v free text
- Prior screening documentation
  - Historic
  - Self-Reported
- Coding: recording orders/services/results
  - Order v Results
- Family History:
  - Limited structure data captured
  - Age at diagnosis
  - Cannot link ICD-10 codes
  - Does not link to problem list


HEDIS Measures/Internal Tracking Codes
Screening Codes
1125F Pain screening, Pain present
1126F Pain screening no pain present
1159F Medication list and documented in medical record
1111F Hospital discharge medications reconciled with current medications
1220F Depression screening 12 and over
1000F Tobacco use assessed 12 and over
1034F Current tobacco smoker 12 and over
1035F Current smokeless tobacco user 12 and over
1036F Current tobacco non user 12 and over
3016F Screened for unhealthy alcohol use using a screening method
1157F Advanced Care Plan or Legal Document Recorded in Medical Records
1158F Advanced Care Plan Discussed and Documented in Medical Record
1170F Functional status assessment medicare wellness visit
3288F Fall risk assessment documented 65 and over
Blood Pressure Results
Systolic
3074F Less than 130
3075F 130-139
3077F Greater than 140
Diastolic
3078F Less than 80
3079F 80-89
3080F Greater than 90
Hemoglobin A1C In House Same Day
3044F Level less than 7 %
3045F Level 7.0 - 9.0 %
3046F Level Greater than 9.0 %
82044 Microalbumin
Select one of the following for unhealthy alcohol
SBIRTN Screening Negative
SBIRTD Screening Declined
SBIRTP Screening Positive
UDS Tracking Codes
1400 Family Planning Contraceptive Visit
1401 Other Health Education LPN/RN Only
1402 Female Education Mammo/Pap
FBOT
Mammo/Pap Referral
MAMOR Mammo Refer/Done Elsewhere
3014F Mammo Diagnostic Screening Completed
CPAPR Pap Refer/Done Elsewhere
3015F Pap Diagnostic Screening Completed
CASE Referral Enc Face to Face
OBREF Pt Request OB Referral
SBIRTR Positive and Pt Referred Outside AH
Other
HOSPR Patient Sent to Hospital Tracking Code
Coumadin Visit with Pharmacy Resident
WCARE Whitecoat/Wellfully Annual Wellnes Visit
Supplemental Diagnosis Section
Counseling for Nutrition
Counseling for Physical Activity
OK
Cancel
Submitted

QUESTIONS

TIME TO PRACTICE: THINK LIKE A HEALTH SYSTEM

Each table will:

- Develop a process/workflow diagram that incorporates the use of EMRs/HIT to satisfy the problem presented in the scenario.
- Use flip chart to draw your diagrams
- Consider the situation and your solution as if you were in the ideal setting (functioning HIT, amply resources...etc.)
- Use instruction guides, sample diagrams and each others knowledge as resources to guide you
- Be prepared to share your diagram and discuss how and why you chose to incorporate the HIT into the process