



Improving Quality Measures Through Data Abstraction

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Agenda

- Introduction
- Background
- Overview of project and workflow
- Lessons Learned / Next Steps

Introduction

Dartmouth – Hitchcock Medical Center



Background





DATA
DATA
DATA

Introduction



Introduction – Collecting the data?

- Medical Record Abstraction is the primary mode of data collection.
- Data is used in clinical research, quality improvement, performance measurement, and disease surveillance.
- Today data collection can be a key component for reimbursement and other quality initiatives

Problem Statement

- Due to a lack of standardized processes for handling and incorporating external test results into our EMR, an opportunity existed to improve and provide reliable, timely review and interpretation by providers as well as updating of key quality reporting data.

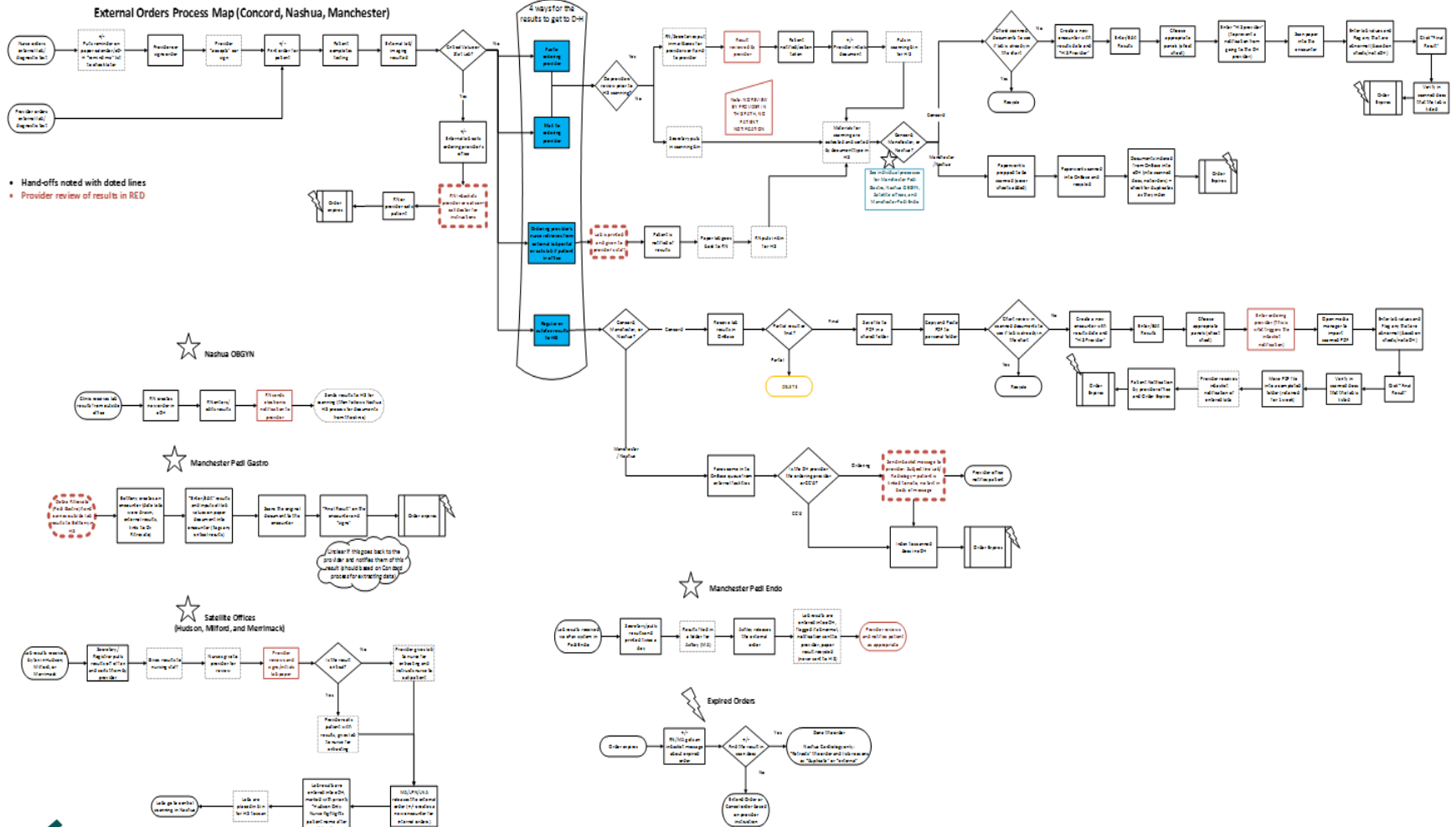
Overview of the program

- Reduce risk of patient harm
- Create a process that would facilitate *timely* provider review of *every* result
- Easier view and capturing of results
- Accurate order status
- Effectively track expired orders
- Improve efficiency in the patient portal for notification of external results

Background – Rational for Program

- External labs / testing ordered by D-H providers completed at non D-H facilities
- Scope: all outpatient ambulatory clinics whose results arrive from non D-H facilities
- Out of Scope: Main Hospital or inpatient, results completed at D-H labs, labs included in discharge summaries/transfer paperwork

Background – Rational for Program



Overview of the Project

Clinical Vs. Nonclinical; Centralized vs. Local (in department)

Clinical/Central	Non-Clinical/Central
<p>Less training systems/med Less failure modes – shorter turnaround time Consistency and reliability QA easier</p>	<p>Alignment of skills and titles – top of license Single function = fewer errors Bigger pool of resources Less equipment necessary Not distracted by patients Theoretically costs less than clinical staff Doesn't take away from billable time Job satisfaction Easier to standardize – information dissemination QA easier Know it can work Less failure modes – shorter turnaround time Consistency and reliability</p>
Clinical/Local	Non-Clinical/Local
<p>Knowledge of individual providers preference Knowledge of patients Less training systems/med Faxes go directly to the department (no forwarding necessary)</p>	<p>Faxes go directly to the department (no forwarding necessary)</p>

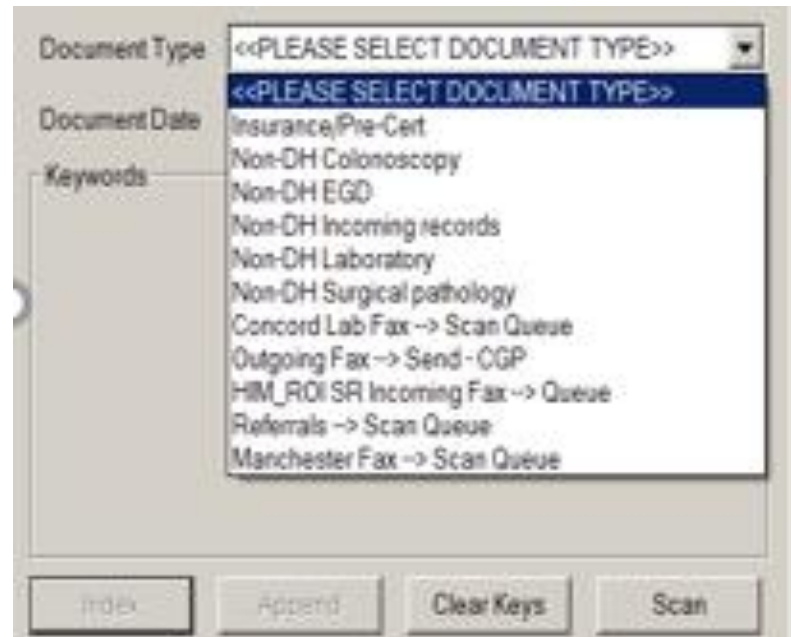


Overview of the Project

- Centralized to HIM
- HIM is now the “front door” for incoming documents.
- HIM manages the flow of where documents go and provider/staff notification

Overview of the Project

eDH - Faxes Manchester Bariatric Surg
eDH - Faxes Manchester Breast Health
eDH - Faxes Manchester Cardio
eDH - Faxes Manchester Dermatology
eDH - Faxes Manchester Endocrinology
eDH - Faxes Manchester FP
eDH - Faxes Manchester Gastroenterology
eDH - Faxes Manchester Gen Surg
eDH - Faxes Manchester GIM
eDH - Faxes Manchester MOHS
eDH - Faxes Manchester Pedi A+C
eDH - Faxes Manchester Pedi B



Overview of the project

Scan Format

Scan Mode No Index Pre-Index Full Index

Document Type

Document Date

Keywords

Order #

eDH Encounter #

Document Description

Date on Form

SMRN

Order Lookup

Select from list

O...	Visit/Admit D...	Document Description
1...	03/15/2019	Uric Acid-Rasburicase
1...	03/15/2019	Phosphorus Level
1...	03/15/2019	LDH
1...	03/15/2019	CMP
1...	03/15/2019	Magnesium Level
1...	03/15/2019	Complete Blood Count
1...	03/15/2019	Basic Metabolic Panel
1...	03/15/2019	Urea Nitrogen Level Random ...
1...	03/15/2019	Uric Acid-Rasburicase
1...	03/15/2019	Phosphorus Level
1...	03/15/2019	LDH
1...	03/15/2019	CMP
1...	03/15/2019	Magnesium Level
1...	03/15/2019	Complete Blood Count
1...	03/15/2019	T3Q

Overview of the project

Population of the Health Maintenance Module

Test, Alice 65 y.o., 08/03/1953 MRN: 60438537-7, SR 159930 Admitted: None Sp... Allergies: Cat/feline Products (C... Code: None
Female PCP: Unknown My Sticky: Health Maintenance Adv Dir: None

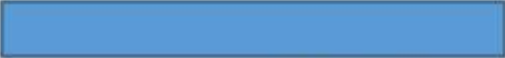

Health Maintenance

Address Topic Remove Override Document Past Immunization Edit Modifiers Report Update HM

Topic	Due Date	Frequency	Date Completed
Upcoming			
DM Ophthalmology Exam	Next due on 3/8/2020	1 year(s)	3/8/2019
Pneumo vaccine (65+) (2 of 2 - PPSV23)	Next due on 3/25/2020	Sequential	3/25/2019
Breast Cancer Screening	Next due on 3/26/2021	2 year(s)	3/26/2019
Colonoscopy	Next due on 3/27/2029	10 year(s)	3/27/2019
Inactive			
Bone Density, female 65+	Completed	Once	3/14/2019

Overview of the Project

Clinical Staff in Gastroenterology

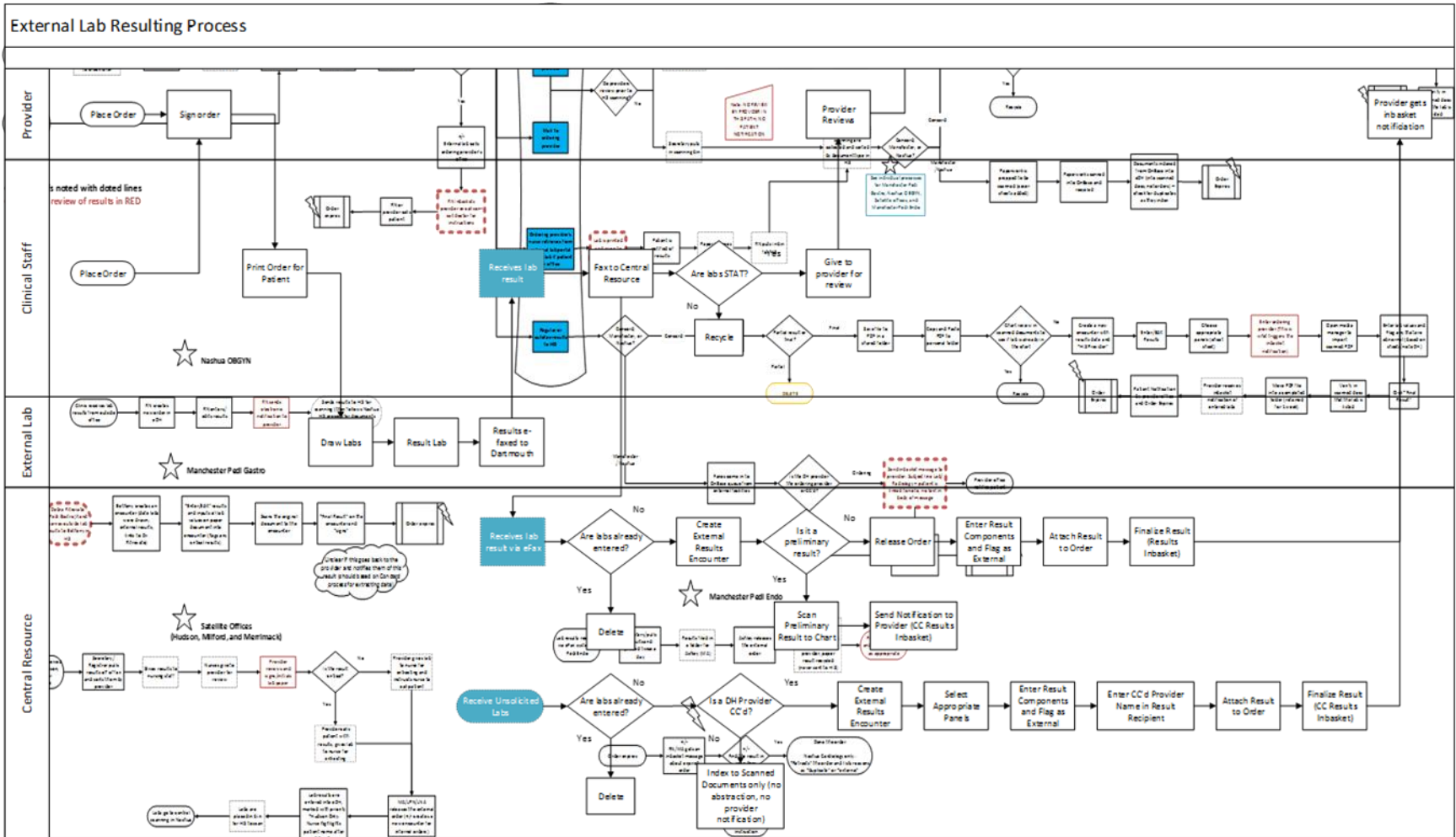
	10
Insurance/Pre-Cert	3
Non-DH Incoming records	3
Non-DH Laboratory	3
Non-DH Surgical pathology	1
	2
Non-DH Colonoscopy	1
Non-DH Laboratory	1

HIM Data Abstractor

	
Non-DH Colonoscopy	86

		1-Jul	August	September	October	November	December
Data Abstraction							
Concord	Volume	2411	1690	1590	2173	1796	1382
	Hours	180.8	126.8	119.3	163.0	134.7	103.65

Overview of the Project



Benefits of External Result Abstraction

Specimen

Type:

Collected by:

Collection date:

Collection time:

No collection information available

Resulting Lab

Lab name:

Technician:

Providers

Billing:

Resulting:

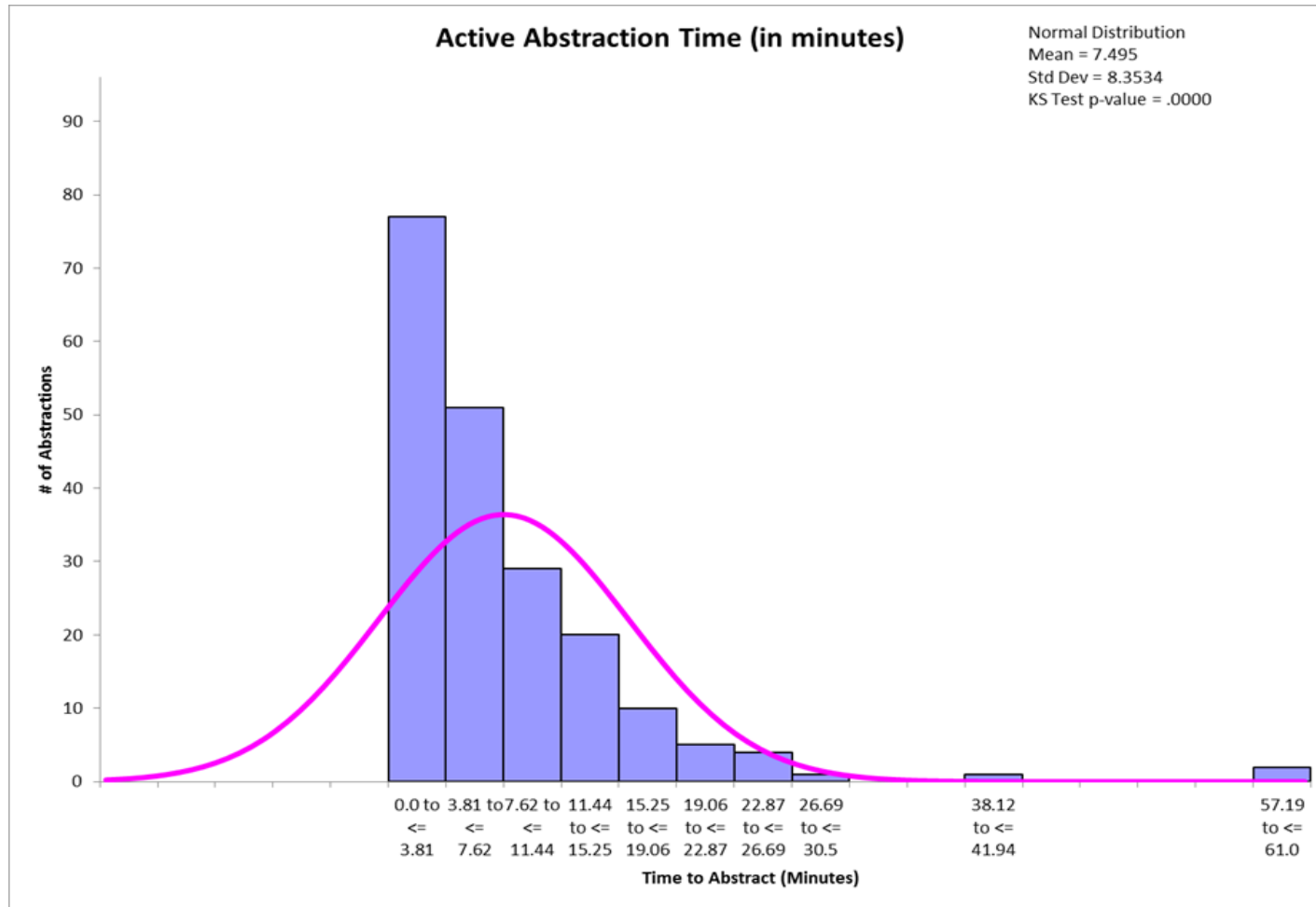
Component	Value	Flags	Low	High	Ref Range	Units	Com
WBC [58]							
RBC [1577212]			4.00	5.20			
HEMOGLOBIN [1534435]			12.0	16.0			
HEMATOCRIT [1534436]			36.0	46.0			
MCV [1576934]			82.0	108.0			
rders [1576930]							
MCHC [1576932]							

Today at 19:02	Basic Metabolic Panel (...)	
Today at 08:54	CBC (with Diff)	Edited Result - FIN...
Today at 08:54	TSH	Final result

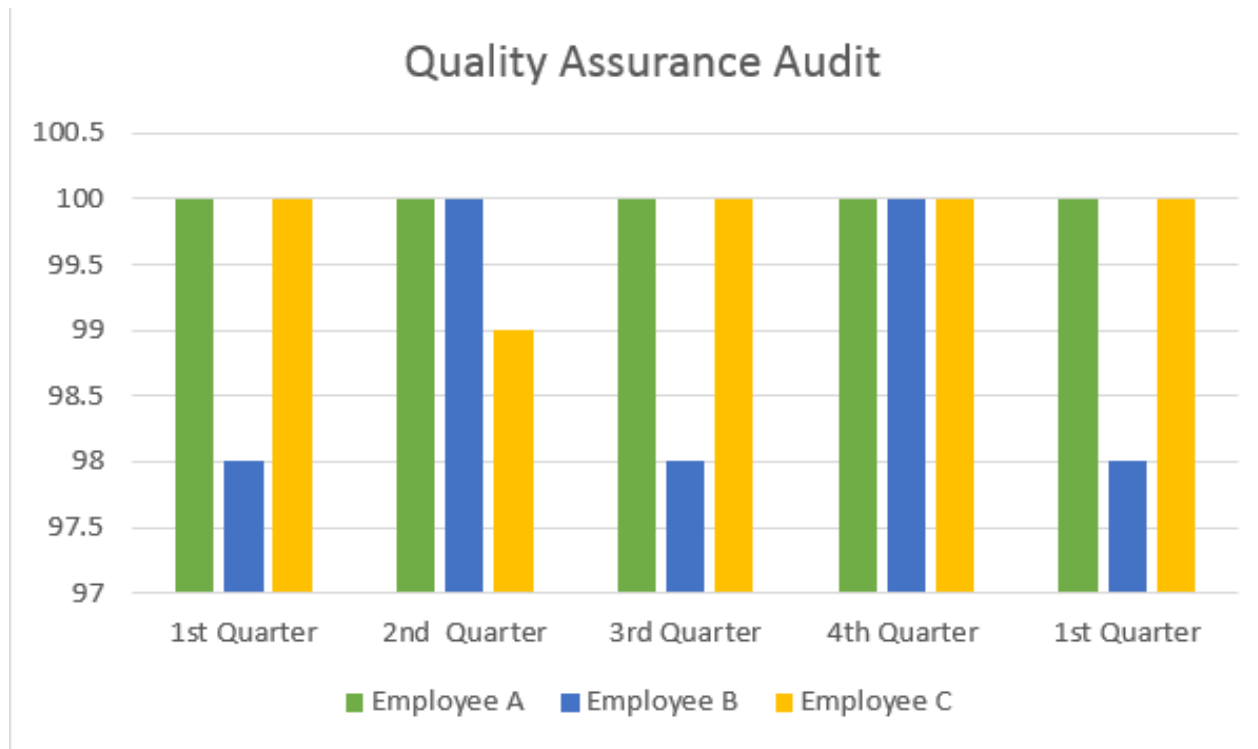


Lessons Learned - Success

Median time to abstract was 5 minutes



Lessons Learned – Success Quality



DATE: May-June- July '18	CORRECT PATIENT CHART	CORRECT ORDER	CORRECT DATE	CORRECT PANEL	CORRECT VALUES	CORRECT FLAGS	NOTIFICA TION	DOC ATTACH	ACTUAL TOTAL	POSSIBLE TOTAL	PERCENTAGE	COMMENT
Employee A	5	5	5	5	5	5	5	5	40	40	100%	
Employee B	5	5	5	5	4	5	5	5	39	40	98%	Correction of EGFR AA from 11 to 111
Employee C	5	5	5	5	5	5	5	5	40	40	100%	

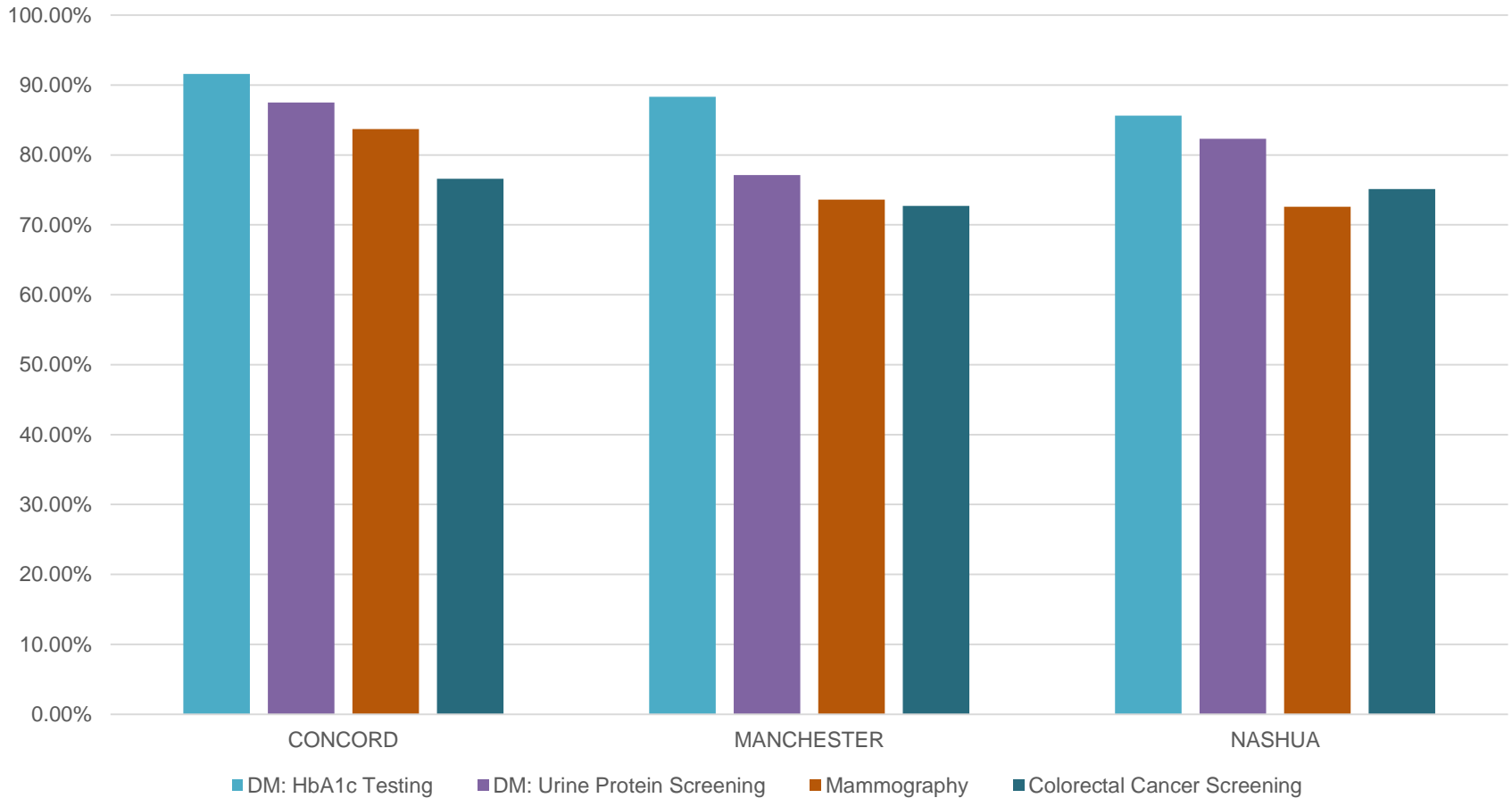


Lessons Learned – Success

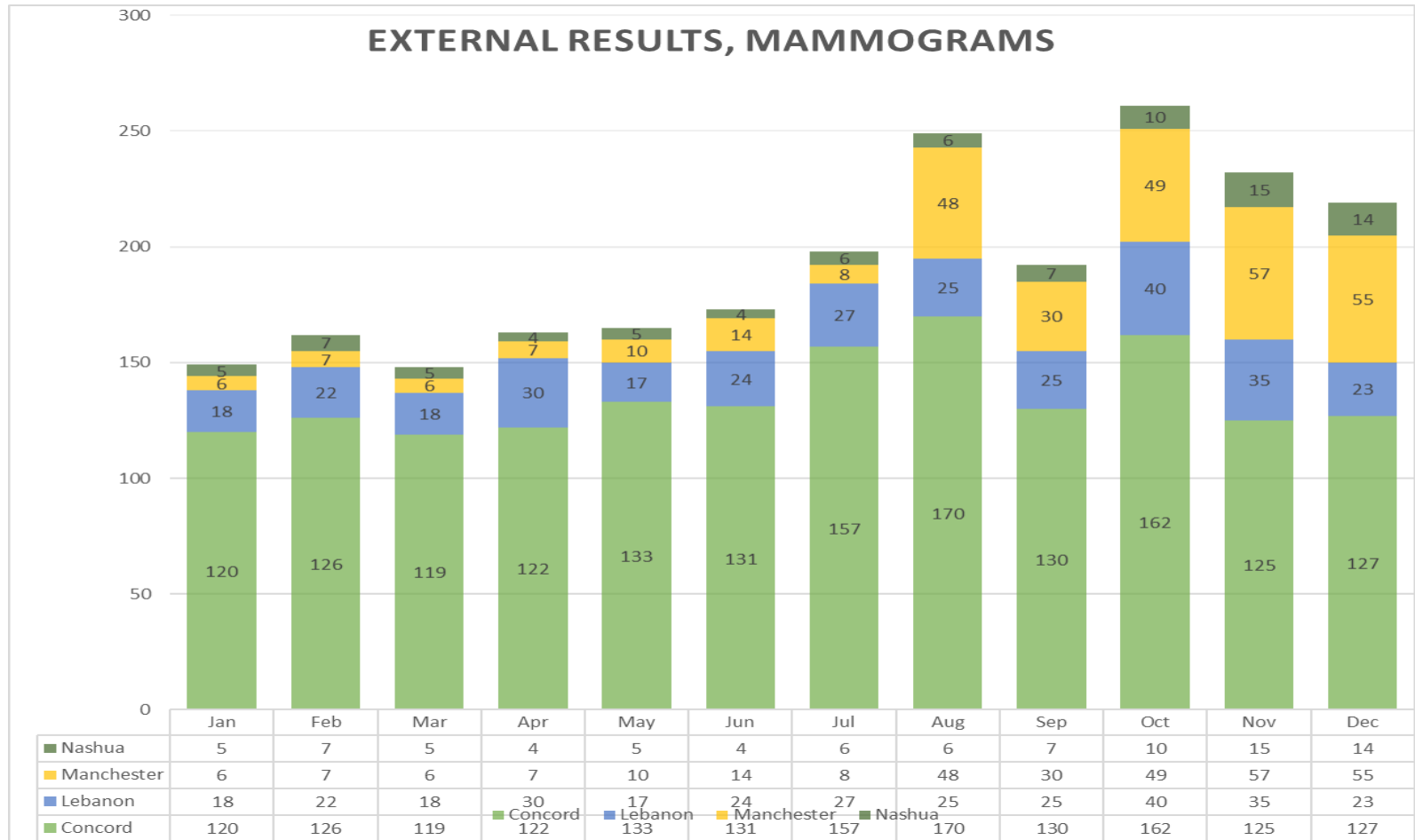
- Reduction in duplication of Services
- Community Partners with access

Lessons Learned - Success

Quality scores improving



Lessons Learned - Success





Lessons Learned – Success

I have been extremely happy with how quickly (and accurately) results are getting abstracted and indexed.

Lauren, Clinical Manager – Adult Endocrinology



Lessons Learned - Challenges

- HIS Abstraction Team Documenting in EMR
- Big Bang Centralization
- Justification for Additional 2 FTE
- Expansion of the Pilot
- New Data Elements

Next Steps

- Constant PDSA cycle (Phase 3)
- Keep asking for next laboratory vendor to be interfaced
- Next facility nearing 80% centralization
- Working with ACO and Care Managers

Questions



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