



HAYES

MANAGEMENT CONSULTING

Optimizing the business of healthcare



A Roadmap to Optimization



Presented to: CHUG

Presented by: Rob Wasserman, Hallmark Health System, COO
Lorie Richardson, Hayes Management Consulting, LPN

April 10th, 2013

Hallmark Health Medical Associates, Inc.

Hallmark Health Medical Associates, Inc. (HHMA) is a group of more than 70 providers in nine local communities North of Boston.

21 Clinics

111,000 Visits

Specialties:

- Primary Care
- OB/GYN
- Endocrinology
- Gastroenterology
- Hematology / Oncology
- General Surgery
- Bariatric Surgery
- Breast Surgery
- Infectious Disease



Hallmark Health System's Service Lines

- Two community hospitals with 350 beds
- Center for Orthopedics and Sports Medicine
- Joslin Diabetes Affiliate at Hallmark Health System
- Center for Wound Healing and Hyperbaric Medicine
- Hallmark Health System Cardiac & Endovascular Center
- Hallmark Health System Cancer Center
- Comprehensive Breast Center
- Center for Weight Loss and Weight Loss Surgery



HHMA- The Electronic Medical Record

In 2005 we Made a Huge Leap Forward...



Paper Charts

Countless Benefits:

- Patient Safety
- Quality
- Communication
- Health Management
- Efficiency (time and space)

EMR



HHMA Pain Points and Goals

- Pain points
 - Limited EMR training plan after on-boarding of new physicians and staff
 - Inconsistent workflows and documentation
 - HHMA practices are not truly integrated
- Goals for 2013
 - Implement patient-centered medical home
 - Standardize workflows and documentation using the Virginia Mason lean approach
 - Fully integrate the practices
 - Begin the process to grow the group by 100%

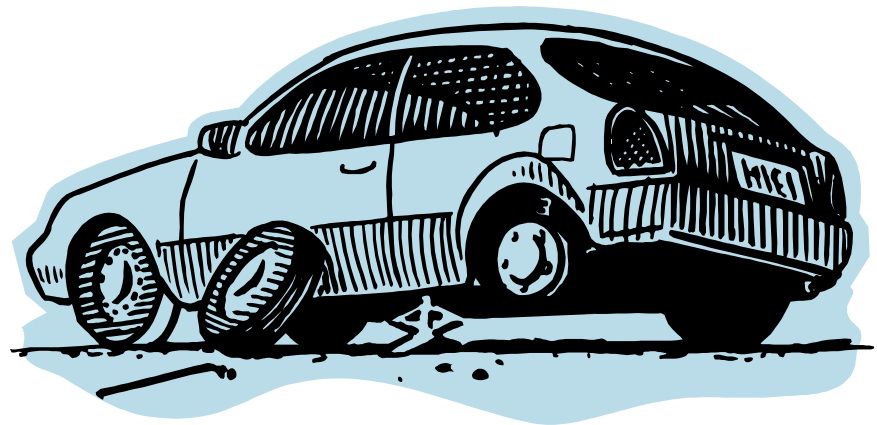


Definition

op ti mi za tion

- An act, process, or methodology of making something (as a design, system, or decision) as fully perfect, functional, or effective as possible

– Merriam-Webster.com



Why Optimize?

- Organizations, often due to time and resource limitations, implement basic functionality during initial go-live



Learner
Permit



Benefits of Optimization

- Time savings
- Quality enhancement
- Provider and staff satisfaction
- New ability for reporting and tracking
- Help with implementing Virginia Mason
- Improve safety
- Improve financial incentives



Goals for Optimization

1. To work smarter, not harder
2. To deliver a higher quality service to our patients
3. To no longer *STRESS* over the EMR or our processes



Optimization Opportunities

Using and maintaining an EMR is similar to taking care of your car



Maintenance Overdue!



Maintaining an EMR is Similar to Taking Care of Your Car....

Performance is based off of maintenance

- You only had time to learn **basic** operations
 - Just hit the gas and go!
- You are too **busy** trying to stay on the road to perform regular maintenance
 - Washing
 - Changing the oil
 - Rotating the tires
 - Addressing recalls
- You never had **time** to think about, let-alone install all of the latest gadgets



Full Service

HHMA identified three pilot clinics for Hayes to perform a rapid assessment to determine opportunities for improvement as well as a rollout plan for the remaining sites

The Shop



“The Mechanics”
Hayes Management Consulting



The Mechanics

- **Lorie Richardson, LPN**
 - **Director, account management**
 - Senior consultant



YEARS OF EXPERIENCE:

Twenty-four

SYSTEMS KNOWLEDGE:

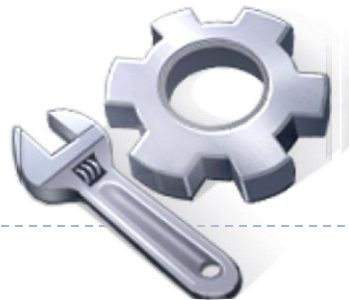
GE Centricity, GE CPS, Epic Ambulatory, Athena, Patient Keeper, eMAR, CPOE, Logician 5.6-2005, Titan and CPS2006, eRx (SureScripts, Kryqtiq), Visual Form Editor, LinkLogic and Docutrak

KEY RESPONSIBILITIES:

Implementation, system build, project management, training, testing

CERTIFICATIONS:

Epic Ambulatory, GE Centricity, PMC- in process



The Mechanics, continued...



- **Angela Hunsberger**
 - Senior healthcare consultant
 - Ambulatory services team

YEARS OF EXPERIENCE: Fifteen

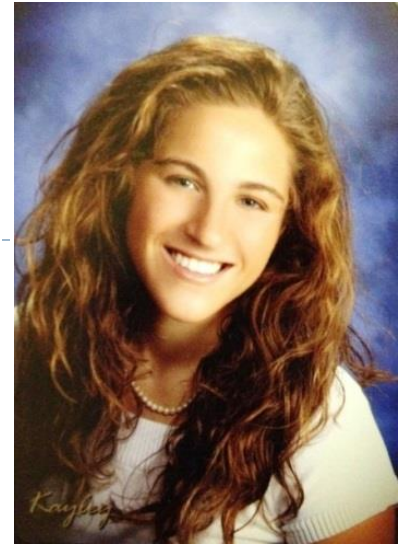
SYSTEMS KNOWLEDGE: GE Centricity Practice Management (Millbrook), EMR (Logician), Centricity Practice Solutions (CPS), Centricity Analytics, GE EDI, & McKesson Clearinghouse, Docutrak, Visual Form Editor, CCC forms, Kryptiq Secure Messaging, Patient Portal, and ePrescribe, HL7, LinkLogic, Microsoft Office, Microsoft CRM, Microsoft SharePoint. Allscripts Enterprise EHR version 11.2

KEY RESPONSIBILITIES: Implementation, system build, project management, training, testing PM/EMR system and workflow optimizations, EMR VFE forms, PM/EMR training, billing, EDI clearinghouse, revenue cycle analysis



The Mechanics, continued...

- **Kayley Wolf**
 - Consulting associate



YEARS OF EXPERIENCE:

Three

SYSTEMS KNOWLEDGE:

GE Centricity, Visual Form Editor, Microsoft SharePoint, Word, Excel, PowerPoint, Visio

KEY RESPONSIBILITIES:

Go-live support, user and software training, system build and optimization, workflow analysis and improvements



Benchmarks

Expected outcomes

- **Documented workflows** for both current and future states, including recommendations to enhance functionality and features of EMR
- Improved physician and staff workflow **efficiency and satisfaction**
- **Standardized** processes across offices
- Suggested EMR **training** for physicians/staff
- Improved **coordination** of information (clinical, such as protocols, billing information, etc.)



Bells and Whistles

Are you using all of the special features that your EMR offers?



- Quick texts
- History views
- Protocols
- Flowsheets
- Preferences



Accessories

Are you using add-ons? *What could you use?*



- Signature solutions
- Faxing solutions
- Kiosks
- Appointment reminder services
- Scanning solutions
- Patient portal



Our Approach



"Coming together is a beginning. Keeping together is progress. Working together is success."

~ Henry Ford



The EMR Diagnostic Exam

More than **60** opportunities for optimization were identified!



They range from very simple to very complex. All contribute to one or more of the following attributes:

- Time savings
- Quality enhancement
- Provider/staff satisfaction
- New ability for reporting /tracking
- Helps with implementing Virginia Mason



Optimization Tools

Which tools were used during the optimization?

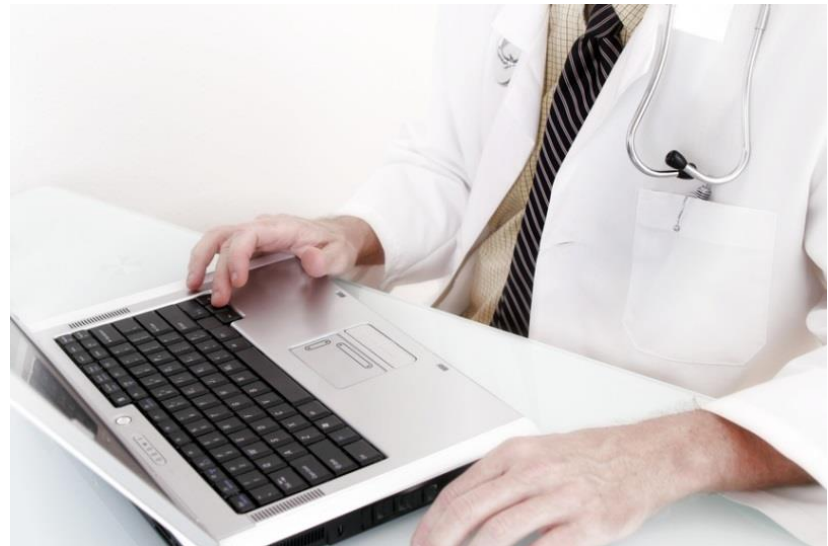
- Workflow documentation -Visio's
- Build tracker
- Issue tracker
- Tips and tricks and training materials
- Summary tool for clinical leadership
- SharePoint to share above documents



System Assessment

EMR system and administrative setup assessment

- Current system settings were evaluated
- System clean up
- Security evaluation



Site Visit

Hayes spent three full days on-site documenting findings!

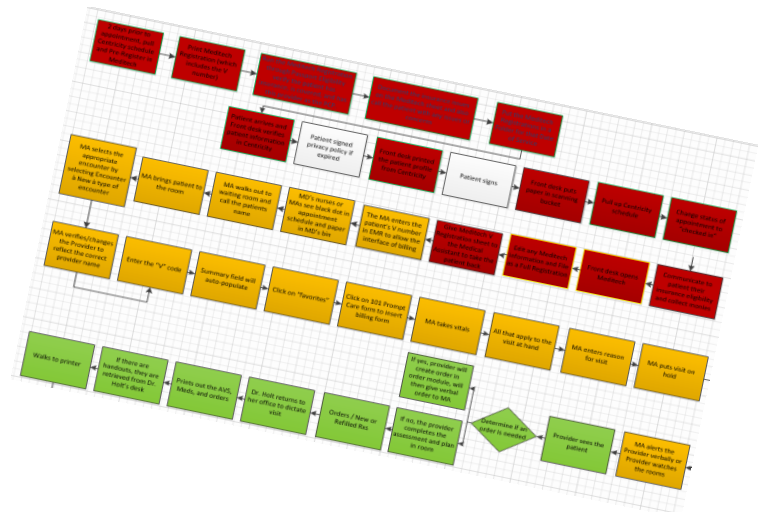
- Interviewing providers ,clinical staff and administrative staff
- Observing and documenting workflows
- Collecting/reviewing paper forms



Workflow Analysis

Current-state and future-state workflows were analyzed!

- Standardizing workflows
- Best practices
- Using staff to the highest of their licensure
- Gathering metrics



Reviewing Documentation

Documentation Collected

During Phase 1A, key documentation and information was coll been provided separately in PDF format.

List of Documentation

- Security setting documentation
 - PM Security Settings Report 8-13-12 (ran by Hayes via
 - Current clinical privileges setting
- Docutrak Document Types Map as of 8-20-12
- Encounters List
- Workflows for three pilot sites:
 - Check-in
 - Check-out
 - Appointment Reminder Letter
 - No shows
 - Interpreter request



Looking Under the Hood



Metrics

Collected pre- and post-metrics for measuring results



- Time studies
- Click counting
- Reports
- Provider surveys
- Staff surveys

Tracking your mileage



Recommendations

Documented optimization findings and recommendations for improvement

Description	Current Workflow	Recommendation	Benefits	Timeline	Metrics	Workgroup
Appointment Statuses						
Appointment status choices	Only a few appointment status choices are available which restricts the opportunity to maximize the use of this feature.	Build more and train users on how to use them to support workflows.	Detailed appointment statuses facilitate communication and provide discrete data that can be used in reports to track patient activity through the office.	Immediate with policy, setup and training. Should only take 15 mins or less to build	Future Metrics: will be able to run time studies of patient appointment activity for each visit. Current data not trackable.	Start with: Policy and Procedure Then move to Backend Build Group
Description	Current Workflow	Recommendation	Benefits	Timeline	Metrics	Workgroup
Rooming a Patient/Patient Visits						
Inconsistent workflow for rooming a patient	Currently, there is no consistency with rooming patients. MAs do not routinely assess the following documentation PRIOR to the provider seeing the patient: -Allergies, -Reviewing medications, -Reviewing PMH/PSH, -ROS, -Chief complaint	Support staff should be addressing all areas possible before the provider sees the patient. Protocols should be set to ensure that the staff are following documentation and rooming guidelines.	Any information that can be reviewed with the patient will optimize the face-to-face time that the provider spends with the patient which reduces documentation time spent by the provider. This also ensures that the organization is using the support staff to the highest of their licensure.	Immediate with training	Time Studies	Clinical Workflow
Inconsistent process for handling orders during visits	Orders during visits are handled in several ways. Some providers use white boards, others use the flag system and some use verbal orders.	Keep the white board method for now. Re-evaluate this process after more staff are trained on the Virginia Mason Model and workflows are further evaluated.	Using flags will help contain communication in the EMR, using a similar fashion. Using the whiteboard method is currently helping to improve the communication between the support staff and the provider.	Immediate with training	Time Studies	Clinical Workflow

Documentation

An example of standardization: patient rooming, training, supplies, etc.

- What are the clinical staff documenting?
- What are the providers documenting?
- Are there too many free text fields?
- Optimizing VFE forms



Categorized Recommendations

Low, medium and high effort

Definitions of each category: Low Effort, Medium Effort, and High Effort

LOW EFFORT

Low effort recommendations are items that typically do not involve in-depth content approval, will take minimal amount of resources and could be implemented in a fairly short amount of time.

MEDIUM EFFORT

Medium effort recommendations are items that may require content approval, require multiple resource involvement (LMMER, Hallmark and possibly administration). Medium effort items will be more in-depth to implement than low level and may require changes that will affect other users or departments.

HIGH EFFORT

High effort recommendations will require more intricate system changes, interface changes or possibly new interface integration. Complex changes such as these will involve in-depth planning, oversight and testing. These changes will typically involve several layers of management and administration. These types of changes will take longer to achieve.



Top 20 Recommendations

Prioritizing the recommendations

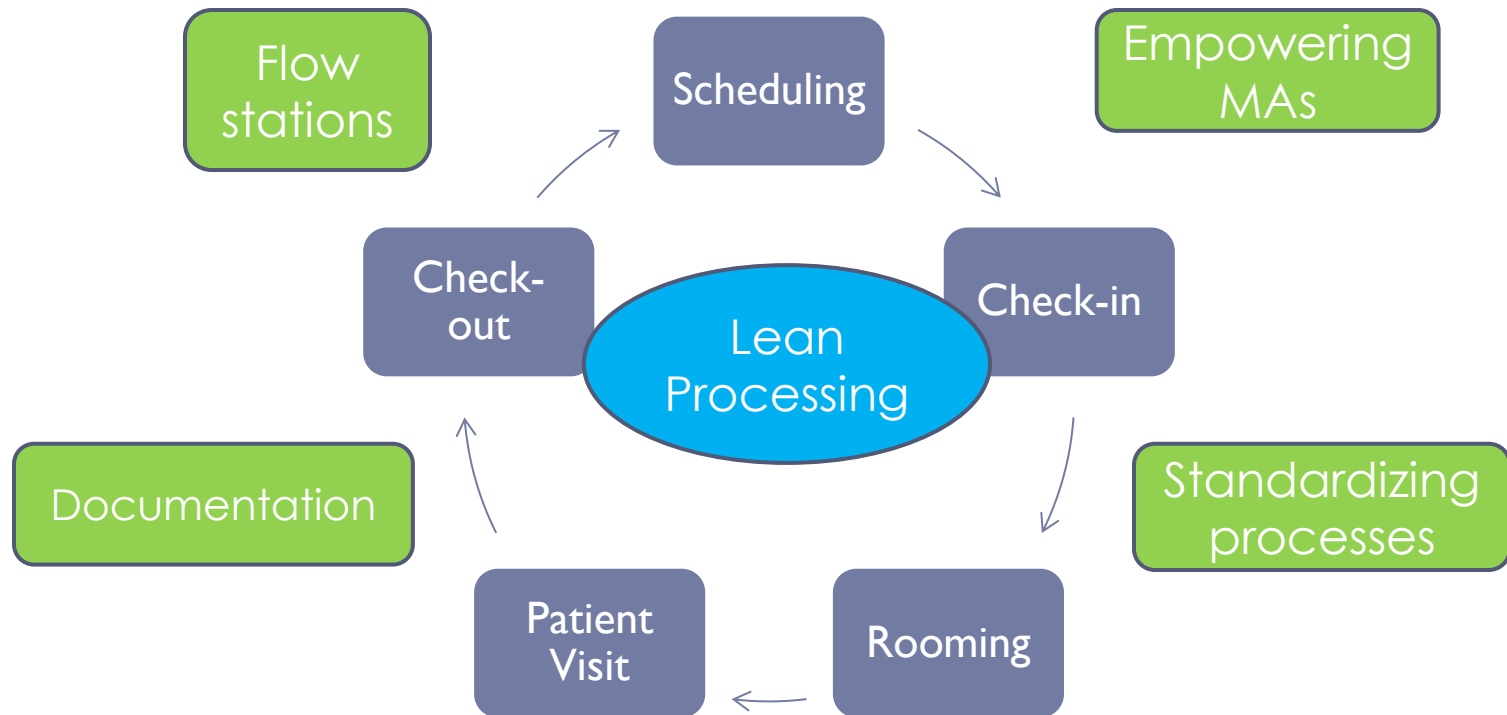
Hayes not only categorized the recommendations by level of effort, we supplied a top 20 list that we felt should be high priority or would provide the biggest impact across the board. Within the top 20, we looked for “**QUICK WINS**”.

20!



Implementing PCMH

Focused on achieving PCMH by sending our PCP provider teams to Virginia Mason training



Implementation

The quality committee decided to test recommendations across a few practices before recommending that all HHMA practices adopt them



Using pilot sites allowed HHMA to test, tweak, and address issues prior to the global roll-out



Implementation, continued...

- Creating an automated tool to create letters with signatures
- Standardizing Rx Refill and Phone Note workflows
- Implementing electronic faxing
- Reducing PM/EMR appointment types
- Reducing/rightsizing the problem lists
- Advanced training: schedule templates and appt searches
- Improving current EMR forms



Implementation, continued...

To assist and guide the pilot sites, we created a series of work groups



Quality Committee Work Groups

- Policy and procedures group
- Clinical workflow group
- Form group
- Handouts/letters group
- Back-end build group



Implementation, continued...

An example of an improved workflow: check-in

Creating a Patient Check-in Packet

- Notice of privacy practices
- Preventative services handout
- Healthcare proxy form
- Patient roles and responsibilities
- Retrieval of medical information
- EMR update form
- Urgent care flyer
- Patient satisfaction survey
- HealthGrades survey card



Training

Training was conducted at all three pilot sites

- Trained on the “bells and whistles”
- Trained on new workflows
- Trained staff and providers on new and existing forms



On-site training:

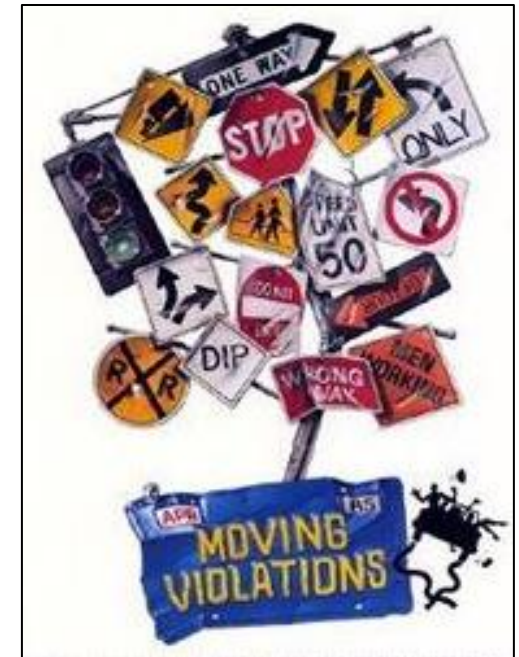
- Overview class
- Group training
- One-on-one hands on training
- Go-live support



Compliance

Training staff on new policy and procedures

- Clinical list updates
- Check-in and check-out
- Responsible provider
- Workflow compliance



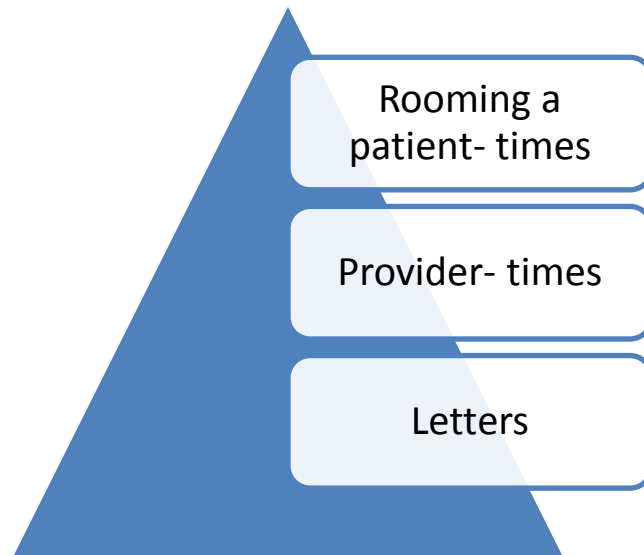
Metrics

What is the best way to measure our optimization?

Some recommendations are not measurable at the time of implementation

- 3, 6, 9 and 12 month metric reviews should be conducted

FUTURE METRICS (post-optimization)



Metric Categories

Gauging the metrics

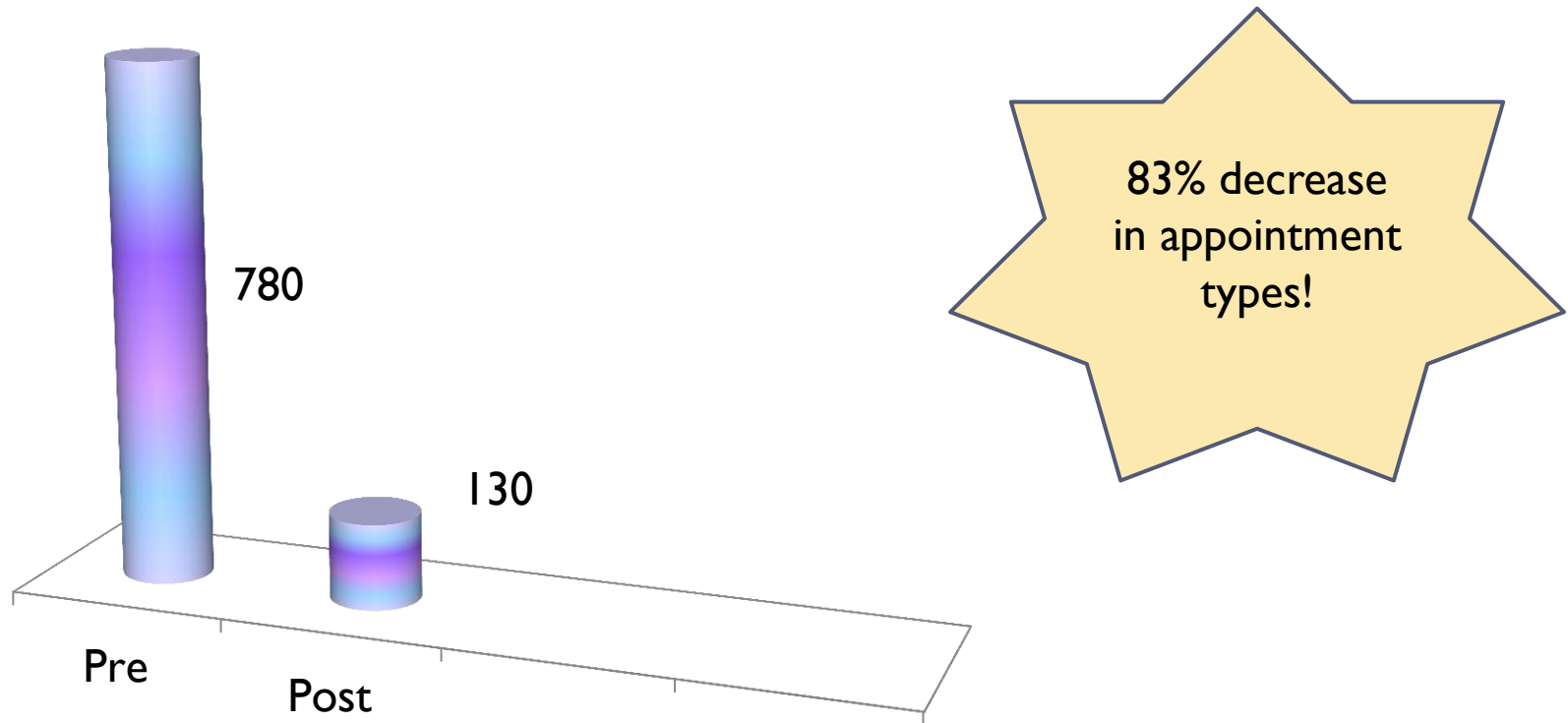
- Time savings
- Quality enhancement
- Staff satisfaction
- Reporting/tracking
- Virginia Mason



Appointment Types

Pre- optimization there were **780** appointment types

Post- optimization there are **135**



Excuse Form

Moved from seven individual letters to one

Decreased the **time** from three minutes to one minute

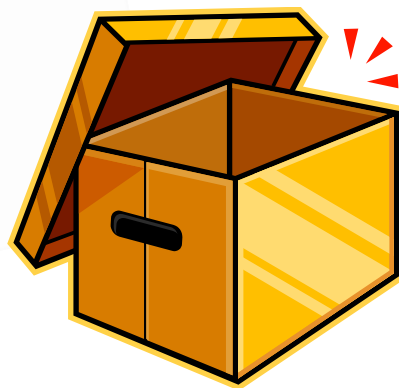
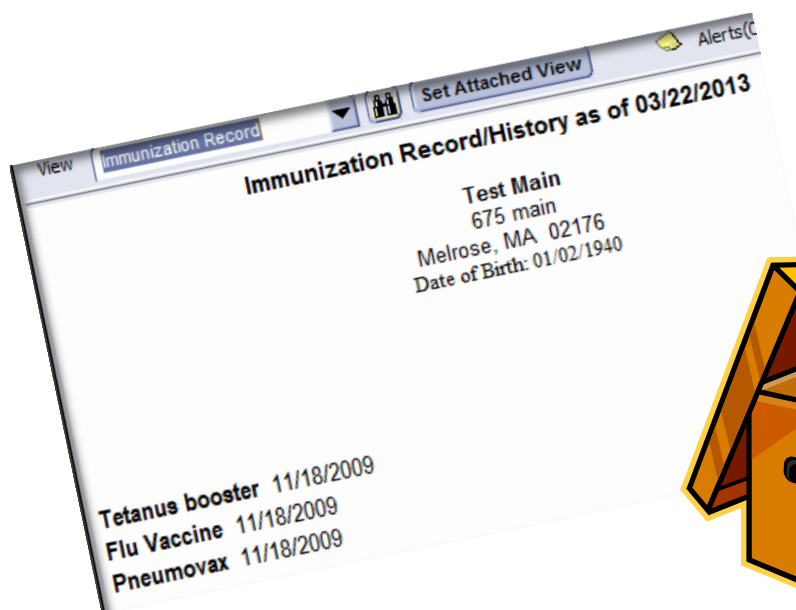
- Work
- School
- Jury duty
- PE
- Gym
- Return to
- Seen today

The screenshot shows a web-based form titled "Work/School/Jury Duty Excuse: Test Main". The form includes several sections:

- Please Choose Letter:** A dropdown menu with "214 - Internal Medicine" selected.
- Select LOC:** Radio buttons for "Excuse from" (selected) and "Return to".
- Excuse. Patient is unable to:** A section with a date field set to "03/22/2013" and a list of options: "attend work", "attend school", "participate in PE or attend the gym", and "serve Jury Duty".
- (Optional) The patient states this injury is work related:** A checkbox that is currently unchecked.
- Starting on:** A date field.
- Able to Return on:** A date field.
- Restrictions:** A dropdown menu with "WITH limitations and/or restrictions" selected.
- Choose or Type Restrictions in the box below:** A text area containing a list of restriction options: "May walk", "Seated only", "No reaching over eye level", "Lifting limited to (lbs):", "Pushing limited to (lbs):", "No repeated pivoting motion", and "No stooping or bending".

History Views

- Optimized current views
- Built new creative lists




Summary History Problems

View HHMA Physician Referral List Set Attached

SPECIALTY PHYSICIAN	TELEPHONE
ALLERGY - Asthma	
Joel Bleier, MD	781-395-2922
CARDIOLOGY	
Laurence Conway, MD	781-395-4909
David Pladziewicz, MD	781-395-4909
David Samenuk, MD	781-395-4909
Carl Turissini, MD	781-979-3440
Farouk Pirzada, MD	781-979-3440
Saliil Midha, MD	781-662-6404
DERMATOLOGY	
Donald Grande, MD	781-438-6350
David Taub, MD	781-395-0075
Robert O'Brien, MD	781-729-4878
EAR/NOSE/THROAT	
H. Gregory Ota, MD	781-874-1965
David Nash, MD	781-279-0971
Davi Bowling, MD	781-279-0971
GASTROENTEROLOGY	
Aarti Kakkar, MD	781-662-1349
Kenneth Shieh, MD	781-662-1349
COLO: Michaelson	781-306-6890

THINK OUTSIDE THE BOX!

Custom Problem List

- Reviewed the amount of custom problem lists: **300+**
 - How many of these codes are still being used? Outdated?
 - Over time, custom lists snowball and become less effective
- 
- We ran reports to determine the top 100 diagnosis codes billed for each specialty
 - Custom lists were updated using those codes



Schedule Templates

Pre: manually blocking time slots with appointment types every day

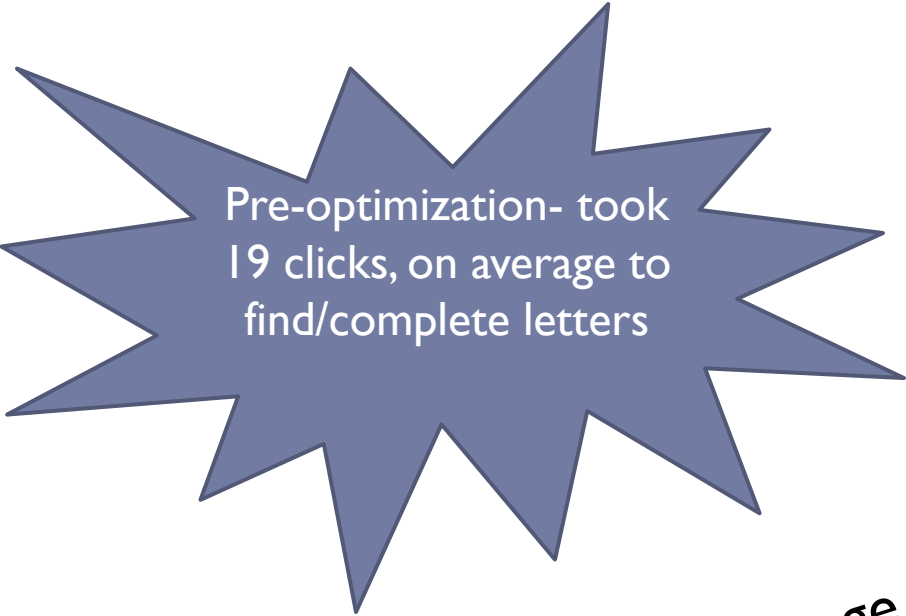
Post: trained and build strategic schedule templates with pre-defined allocated time slots & trained appointment searches

Savings of
700 hours
per YEAR!

1	1
New Prenatal - 45 <45>	Est Pt Annual Physical Exam 45 ...
Follow Up - 15 <15>	Follow Up - 15 <15>
Sick Visit 15 <15>	Sick Visit - Same Day 15 <15>
Follow Up - 15 <15>	Follow Up - 15 <15>
Well Child - 45 <45>	Hospital F/U 30 <30>
AdminTime <30>	Sick Visit - Same Day 15 <15>
Follow Up - 15 <15>	Follow Up - 15 <15>
Sick Visit - Same Day 15 <15>	AdminTime <30>
Well Child - 45 <45>	Sick Visit - Same Day 15 <15>
LUNCH <30>	Follow Up - 15 <15>
New Patient Physical 45 <45>	Well Child New Pt 45 <45>
Follow Up - 15 <15>	Follow Up - 15 <15>
Sick Visit - Same Day 15 <15>	Sick Visit - Same Day 30 <30>
Follow Up - 15 <15>	Est Pt Annual Physical Exam 45 ...
Hospital F/U 30 <30>	

Letters Form

Optimized letter workflow by using forms and text components rather than the letter module



Pre-optimization- took
19 clicks, on average to
find/complete letters

With an average of
20 letters per week



Saves an
average of
100 clicks
per week

Surgery Letter Templates: Mrs. Lorie Hayes ZTRAH

MAB

- NPV Letter (w/Surgery)
- NPV Letter (w/o Surgery)
- NPV Letter (Surg A/P)
- NPV Letter (A/P)
- EST Letter
- EST Letter (Surg A/P)
- EST Letter (A/P)

MISC LETTERS

- Bariatric Med Necessity
- Blank Letter to
- Blank Letter to Patient
- Handicap Placard
- Lab Letter
- Past Due Test Letter to Pt
- Work/School Excuse

MOC

- NPV Letter (w/Surgery)
- NPV Letter (w/o Surgery)
- NPV Letter (Surg A/P)
- NPV Letter (A/P)
- EST Letter
- EST Letter (Surg A/P)
- EST Letter (A/P)

MISC LETTERS

- Bariatric Med Necessity
- Blank Letter to
- Blank Letter to Patient
- Handicap Placard
- Lab Letter
- Past Due Test Letter to Pt
- Work/School Excuse

UP

- NPV Letter (w/Surgery)
- NPV Letter (w/o Surgery)
- NPV Letter (Surg A/P)
- NPV Letter (A/P)
- EST Letter
- EST Letter (Surg A/P)
- EST Letter (A/P)

MISC LETTERS

- Bariatric Med Necessity
- Blank Letter to
- Blank Letter to Patient
- Handicap Placard
- Lab Letter
- Past Due Test Letter to Pt
- Work/School Excuse

WFP

- NPV Letter (w/Surgery)
- NPV Letter (w/o Surgery)
- NPV Letter (Surg A/P)
- NPV Letter (A/P)
- EST Letter
- EST Letter (Surg A/P)
- EST Letter (A/P)

MISC LETTERS

- Bariatric Med Necessity
- Blank Letter to
- Blank Letter to Patient
- Handicap Placard
- Lab Letter
- Past Due Test Letter to Pt
- Work/School Excuse

UPC

- NPV Letter (Surg A/P)
- NPV Letter (A/P)
- EST Letter
- EST Letter (Surg A/P)
- EST Letter (A/P)

MISC LETTERS

- Bariatric Med Necessity
- Blank Letter to
- Blank Letter to Patient
- Handicap Placard
- Lab Letter
- Past Due Test Letter to Pt
- Work/School Excuse

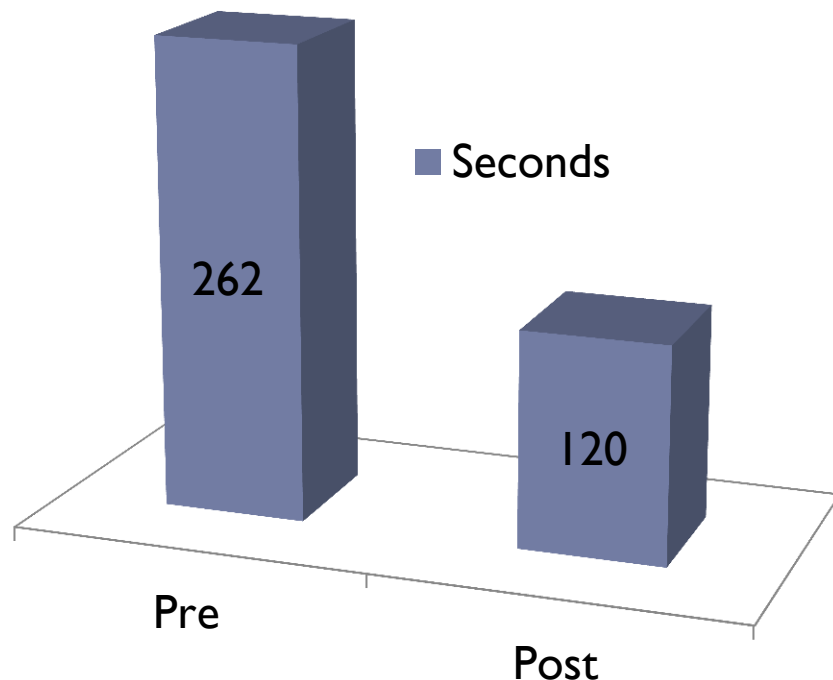
Letters:

Summary Line:

- Athota - cc
- Johannigman - cc
- BW - cc
- Bennett - cc
- Husted - cc
- Broderick - cc
- Martin-Hawver - cc
- Collins - cc
- Muskat - cc
- Davis - cc
- Petro - cc
- Fischer - cc
- Pritts - cc
- Athota
- Husted
- BW
- Bennett
- Johannigman
- Broderick
- Martin-Hawver
- Colline
- Muskat
- Davie
- Petro
- Fiecher
- Pritts

Transportation Form

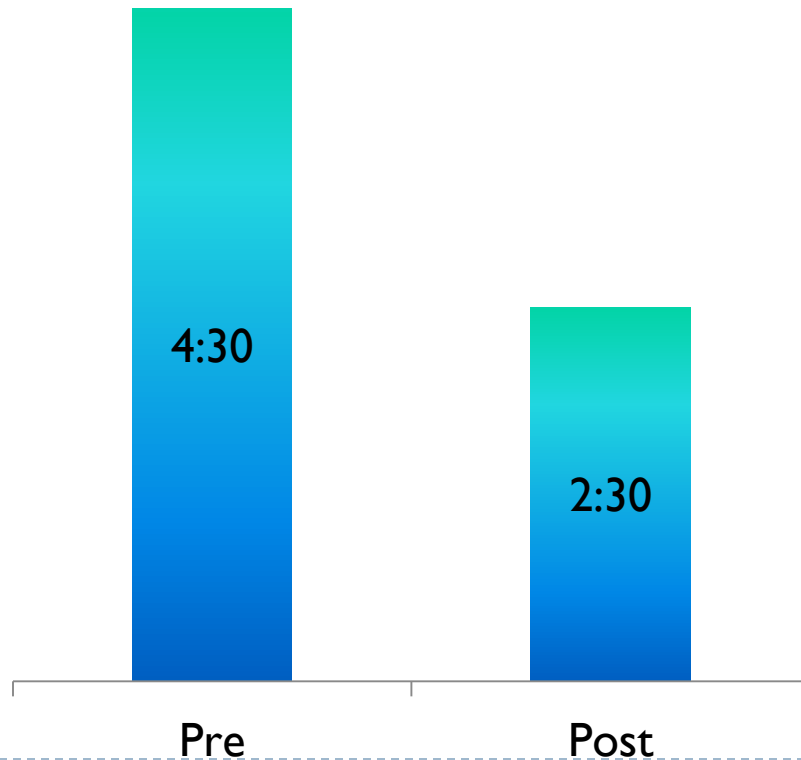
- Moved from paper to **electronic**
- Saving the manual scanning and faxing for each form
- 50 forms per month with an average of two minutes = a **50% reduction** in the amount of time to complete PT-I forms



54%
decrease
in time!

Interpreter Request Form

- Moved from paper to **electronic form**
- Defaulted values
- Pre-populated fields

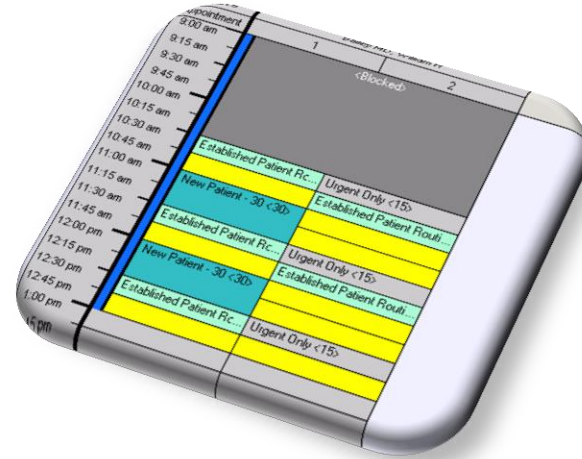


50%
decrease
in time!

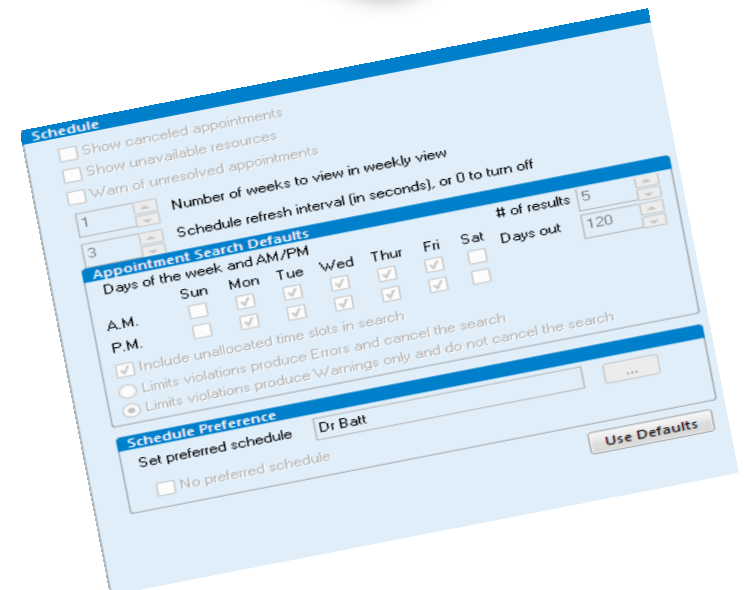
■ Pre
■ Post

Results

Savings of 64
clicks average
per user

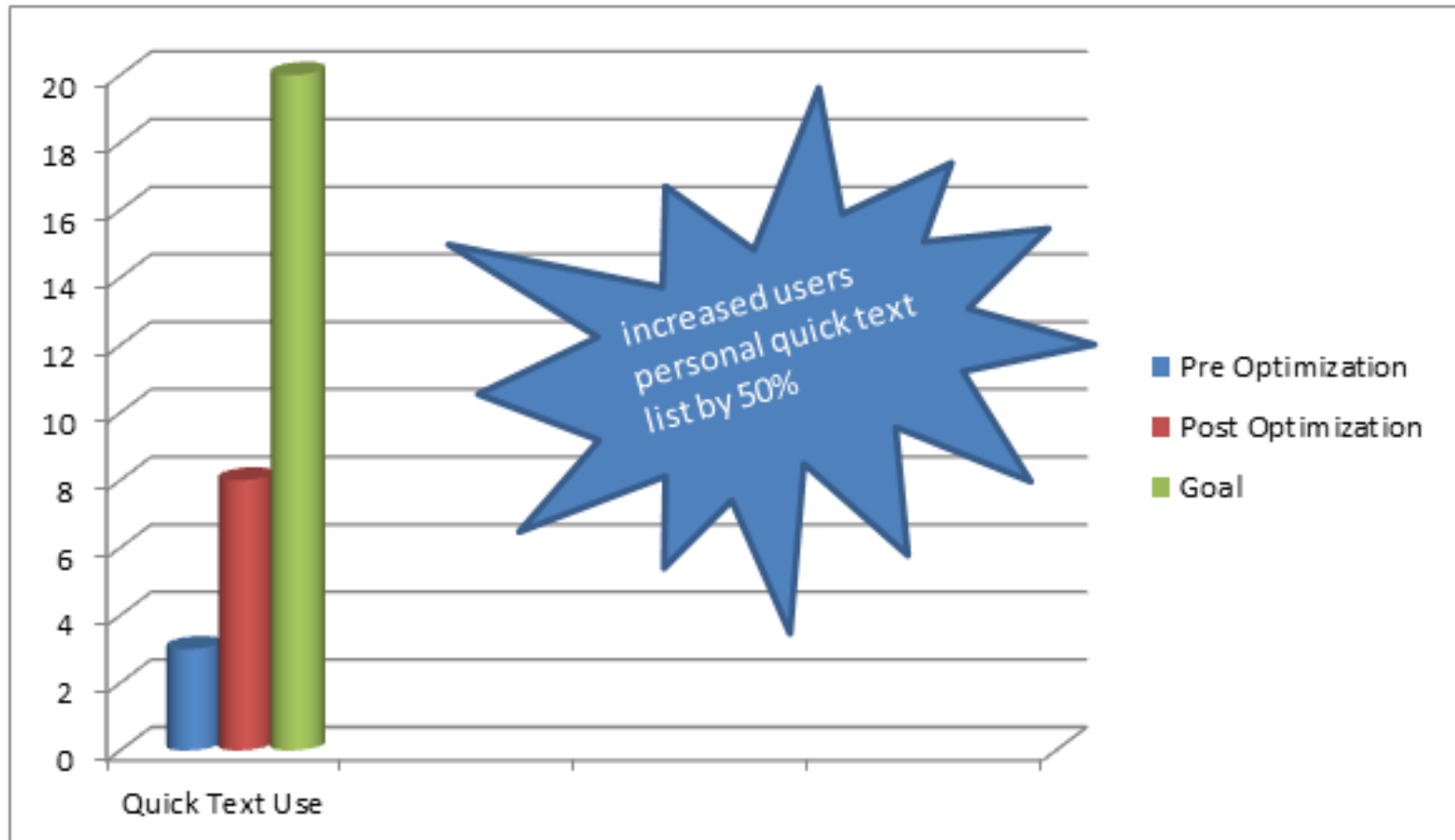


- Hayes trained the staff on how to set an automated refresh of their schedule
- Prior to the optimization, on average, a user would manually refresh the schedule **64** times per day
- Using the auto-refresh also helps prevent duplication



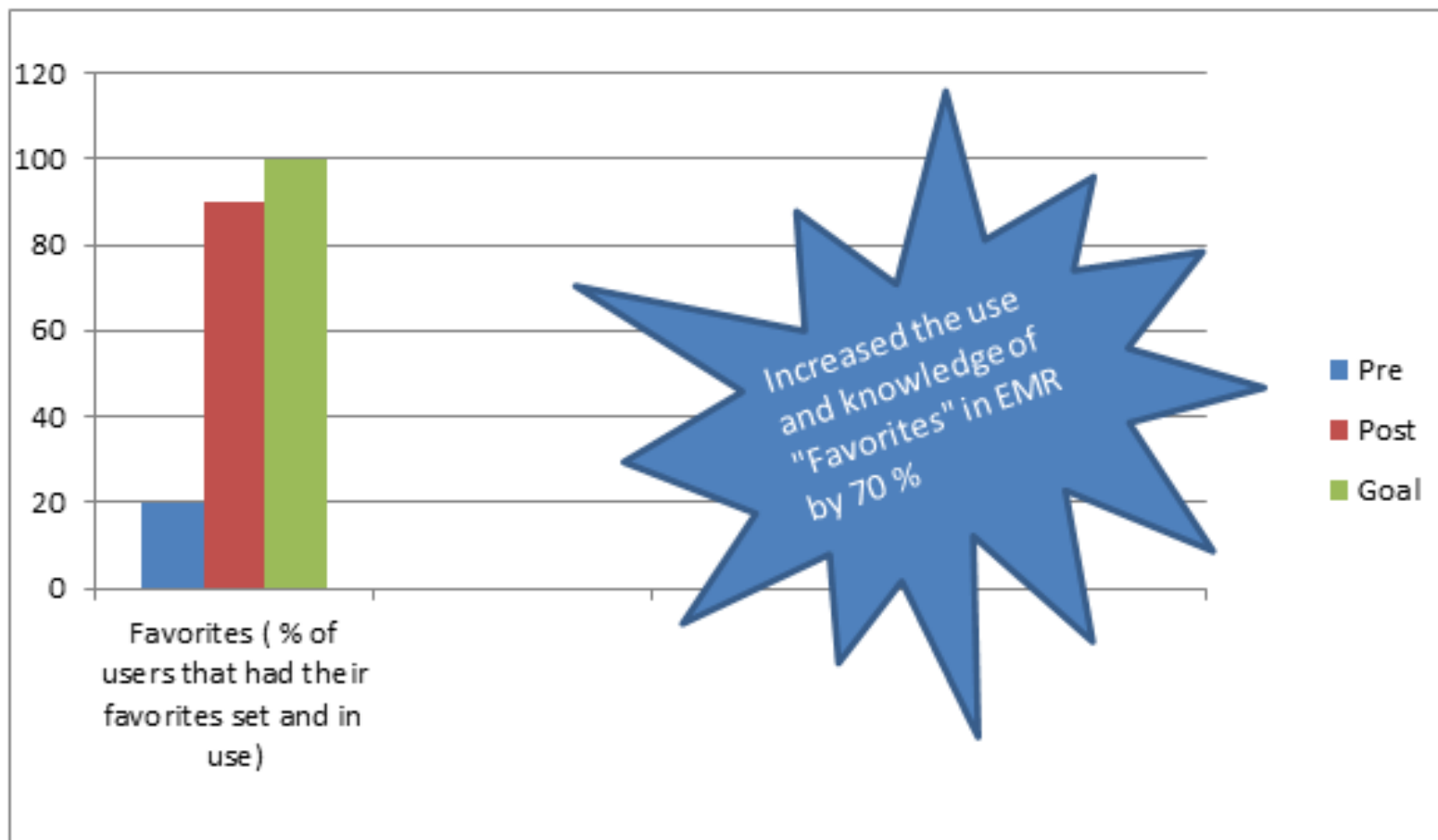
Results

Quick Text- Personal List



Results

Preferences- Favorites



Workflows

Standardizing and streamlining workflows

- How much information is added to a phone note prior to reaching the provider desktop?
- Do we have open appointments going unused because we are not escalating phone notes by assigning priority levels?
- Are we using staff to the highest of their licensure?



Staff and Provider Satisfaction

How did the staff react to the optimization process?

- Staff were open to change
- Eager to learn
- Participated in the optimization process
- Provided valuable feedback
- Welcomed additional training

**Staff TOOK
OFF!!!!**



Parking Lot

Which optimization opportunities should be put in the parking lot?

- Continued to find new opportunities during the implementation
- Staff starting looking at their EMR differently- providing feedback and ideas
- Place ideas and future changes in the “parking lot” to re-visit later



Keep Your Eyes On The Road

Don't be a distracted driver!

- Keep focused on the tasks at hand
- Don't get distracted with new opportunities
- Make a game plan to re-visit the “parking lot”



Looking Ahead

Create implementation/rollout plan for all sites!

Rollout plan for remaining sites

- Which criteria will be used to determine the clinic rollout sequencing after the initial site(s) evaluation?
- Who will make these decisions? How will these decisions be communicated to the staff in the organization?
- Which future-state workflows will be incorporated and rolled out?
- Will patient-centered medical home workflow be incorporated into future-state workflows or will some aspects of it be incorporated?



Maintenance Checklist

How do we keep optimizing the system?



- Designate staff to maintain the system
- Make a checklist of items that need reviewed or updated
 - Yearly
 - Quarterly
 - Monthly
 - Weekly
 - Daily



Challenges

Lessons Learned

- Challenges
 - Team of 3 consultants. Not familiar with the department, users or leadership
 - Some the optimization requests were delayed since there is impact for other departments and have to be approved by the clinical/operational committee



In Closing.....

Nothing stays the same; change must be embedded in expectations of an EHR

QUESTIONS?



Finish Line
Just Ahead
