Quality Improvement Toolkit

OPCA Quadruple Aim Spring Symposium

Portland, Oregon

Nicole Van Borkulo, MEd

Senior Consultant

April 24 & 25, 2013

Safety Net
Medical Home Initiative

Workshop Objectives

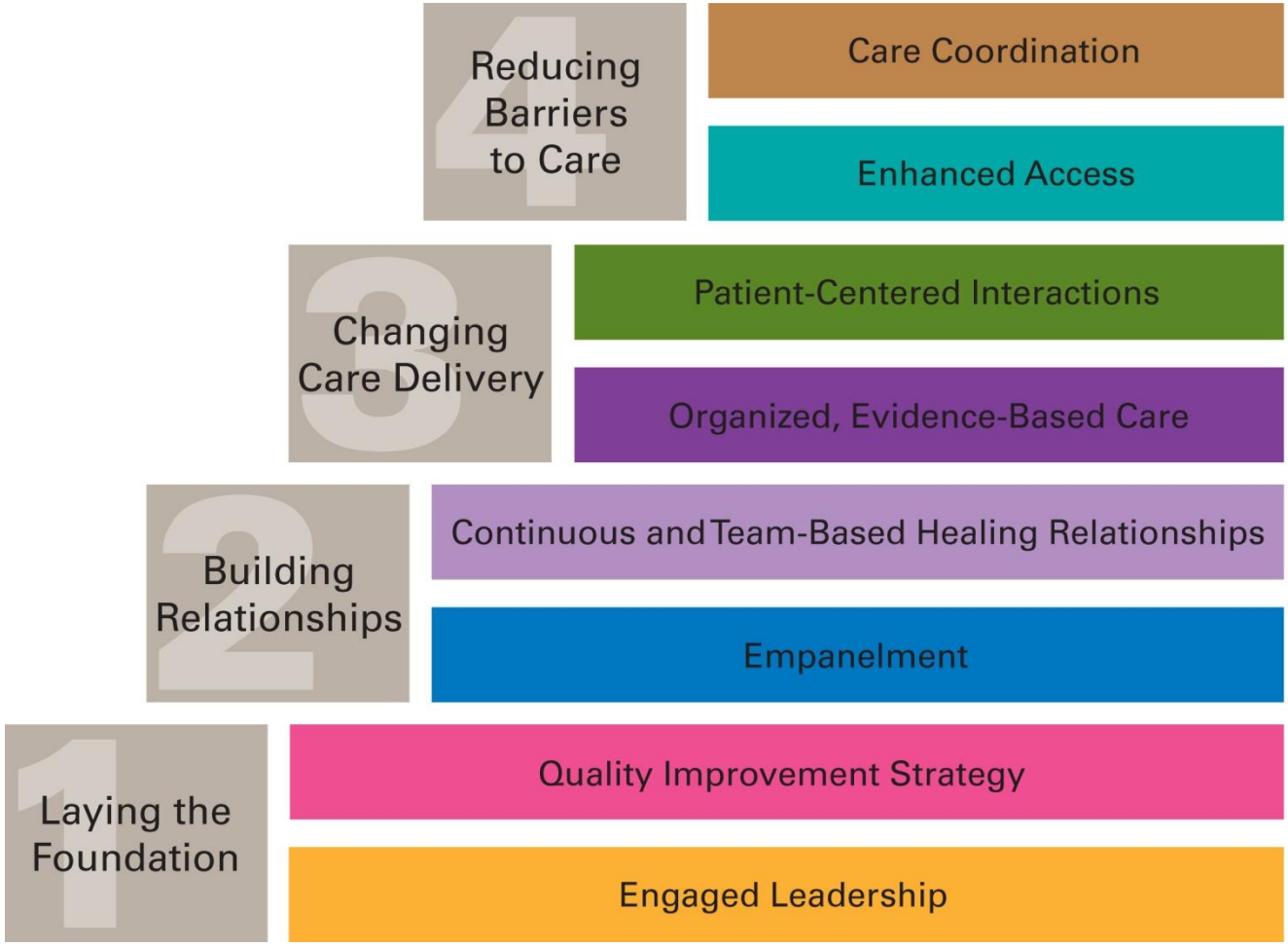
- Understand why a Quality Improvement (QI) Strategy is so important to the work of PCMH transformation
- Participate in activities and use tools that will support your QI efforts
- Emphasize the importance of data and measurement in QI

Quality Improvement

“Things alter for the worse spontaneously, if they are not altered for the better by design.”

- Sir Francis Bacon

Change Concepts for Practice Transformation



Quality Improvement Key Changes

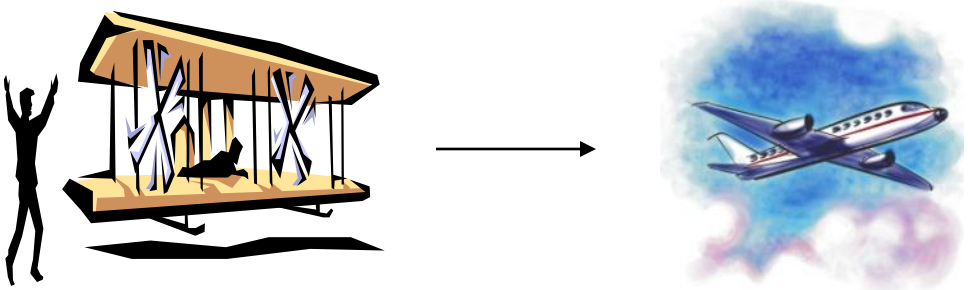
- Choose and use a formal model for quality improvement
- Establish and routinely monitor metrics to evaluate improvement efforts and outcomes and ensure that all staff members understand metrics for success
- Involve patients, families, providers and care team members in quality improvement activities
- Optimize the use of health information technology Meaningful Use criteria

Marshmallow Challenge Instructions

- **Build the Tallest *Freestanding* Structure:** The winning team is the one that has the tallest structure measured from the table top surface to the top of the marshmallow. That means the structure cannot be suspended from a higher structure, like a chair, ceiling or chandelier.
- **The *Entire* Marshmallow Must be on Top:** The entire marshmallow needs to be on the top of the structure. Cutting or eating part of the marshmallow disqualifies the team.
- **Use as Much or as Little of the Kit:** The team can use as many or as few of the 20 spaghetti sticks, as much or as little of the string or tape. The team cannot use the paper bag or envelope as part of their structure.
- **Break up the Spaghetti, String or Tape:** Teams are free to break the spaghetti, cut up the tape and string to create new structures.
- **The Challenge Lasts 18 minutes:** Teams cannot hold on to the structure when the time runs out. Those touching or supporting the structure at the end of the exercise will be disqualified.

Was this just for fun?

What did the challenge teach us?



Everything I Need to Know I Knew in Kindergarten?

http://www.ted.com/talks/tom_wujec_build_a_tower.html

Building Our Knowledge of the System

- Testing is a way to build knowledge of the system
- Jumping to implementation usually fails because we were guessing rather than being guided by knowledge and data
- Developing the knowledge is a key to effective, sustainable improvement
- Sometimes, we shouldn't "just do it"

Model for Improvement

What are we trying to accomplish?

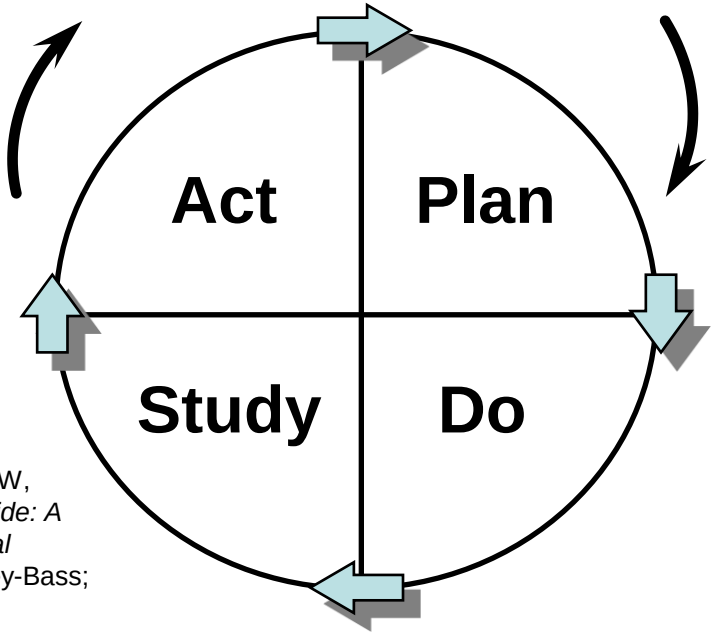
AIMS

How will we know that a change is an improvement ?

MEASURES

What change can we make that will result in improvement?

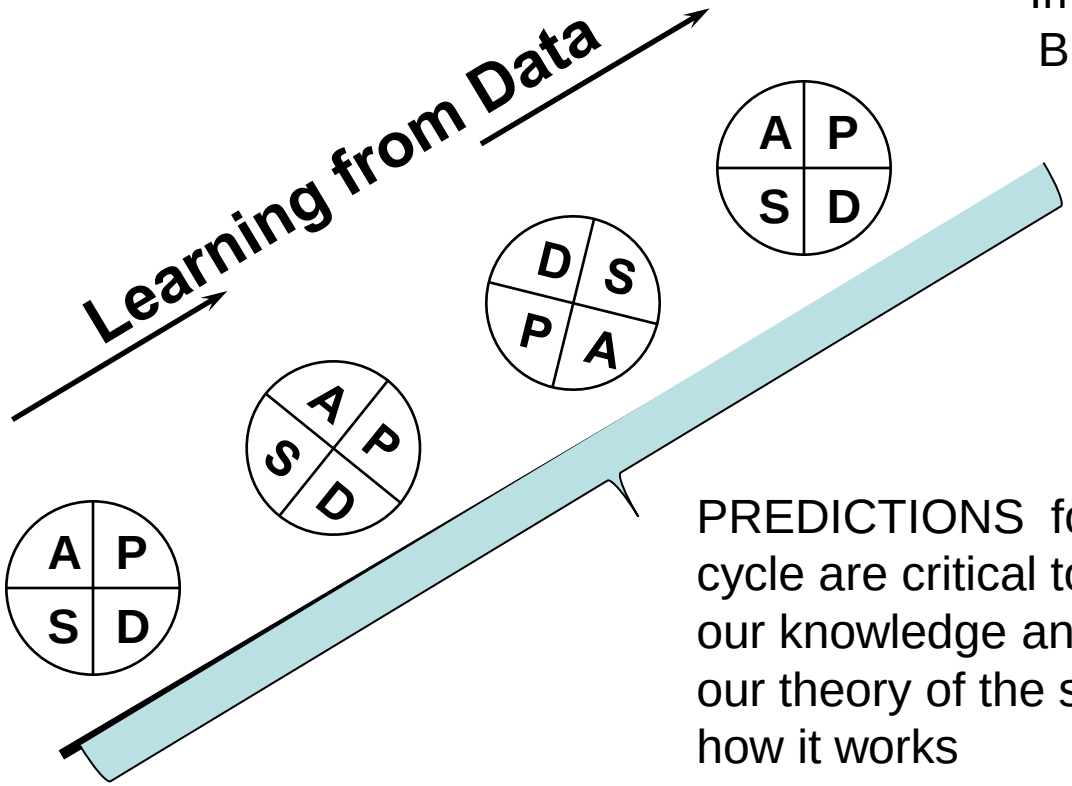
IDEAS



Adapted from Langley, GL, Nolan KM, Nolan TW, Norman CL, Provost LP, *The Improvement Guide: A Practical Approach to Enhancing Organizational Performance.* 1st ed, San Francisco, CA: Jossey-Bass; 1996.

Repeated Use of the PDSA Cycle

Changes That Result in Improvement and Build Knowledge of System



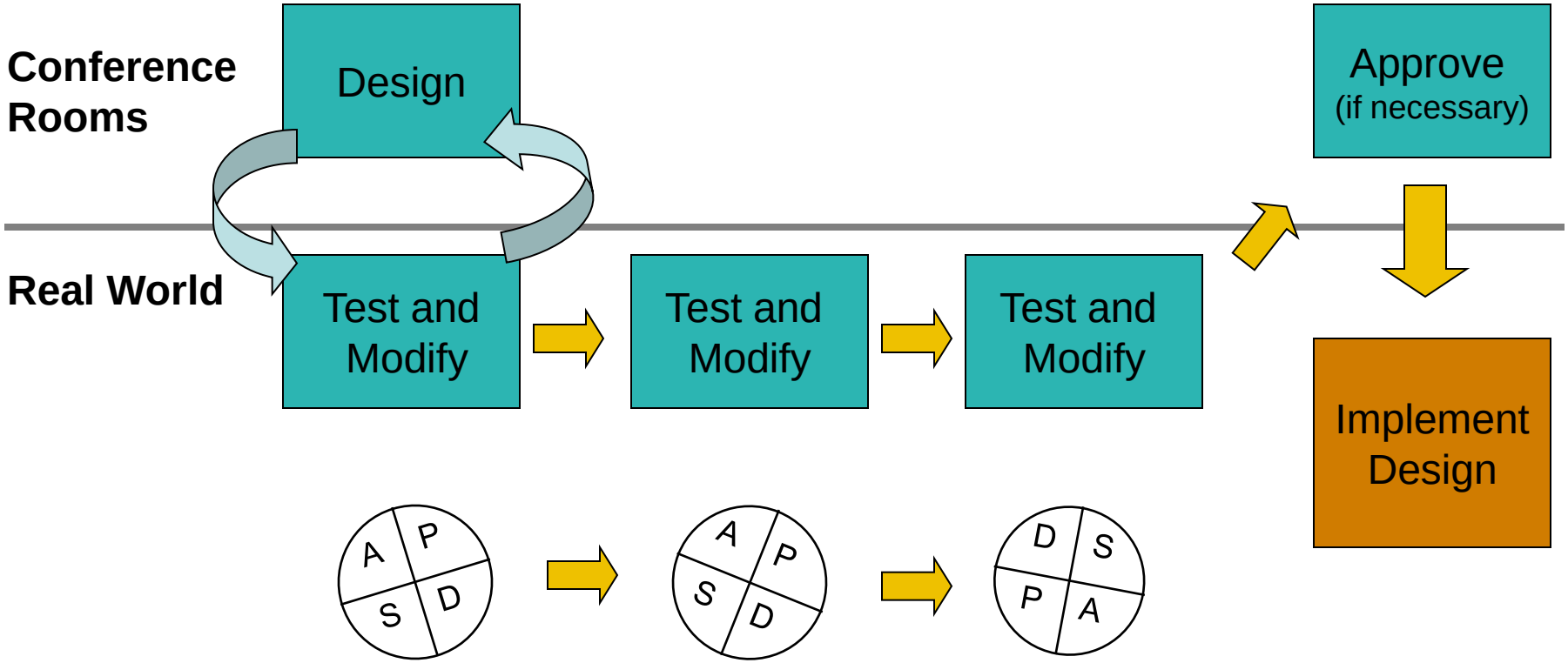
PREDICTIONS for each cycle are critical to increase our knowledge and to build our theory of the system and how it works

Proposals, Theories, Ideas AND Predictions

Adapted from Langley, GL, Nolan KM, Nolan TW, Norman CL, Provost LP, *The Improvement Guide: A Practical Approach to Enhancing Organizational Performance.* 1st ed, San Francisco, CA: Jossey-Bass; 1996.

Standardize Clinical Processes

Refine the Design for the Local Setting Using Small Tests of Change



Concept Source: Reinertsen JL, Bisognano M, Pugh MD. *Seven Leadership Leverage Points for Organization-Level Improvement in Health Care (Second Edition).* IHI Innovation Series white paper. Cambridge, MA: Institute for Healthcare Improvement; 2008. (Available on www.IHI.org)

Slide Source: C Shepherd, Clinica Family Health Services

Process Mapping
Workflow Redesign

Understanding the Process is Essential

“If you can't describe what you are doing as a process you don’t know what you’re doing.”

- W. Edwards Deming

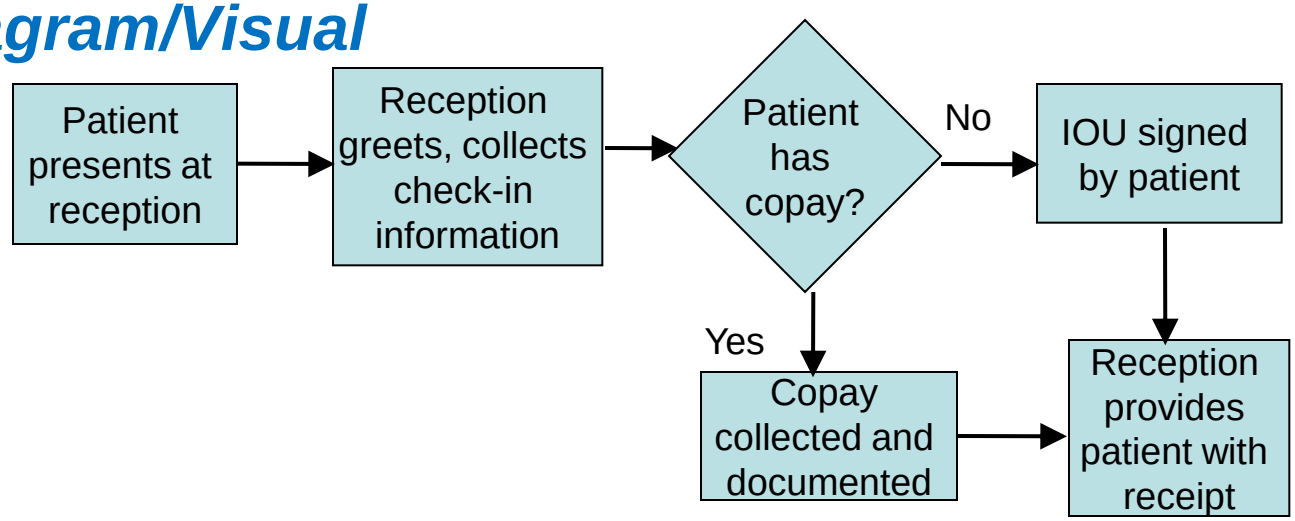
Process Mapping

Moves words to a visual representation

Words

1. Patient presents at reception
2. Reception greets, collects check-in information
3. Does the patient have the copay?
4. If yes, collect copay and document, then give the patient a receipt
5. If no, have patient sign IOU, then give the patient a receipt

Diagram/Visual



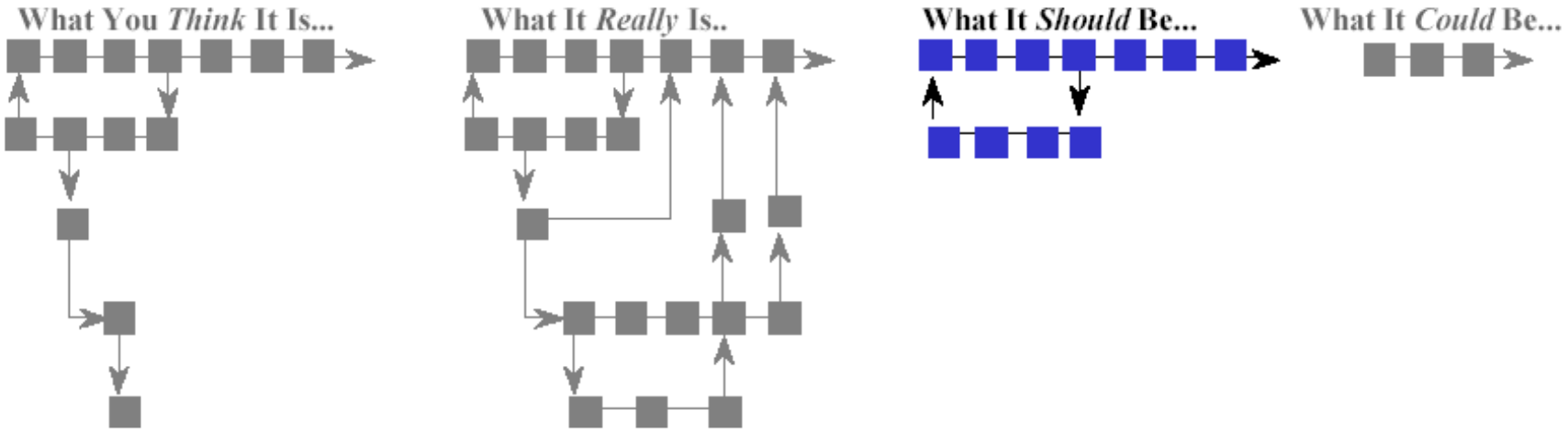
Why Process Map?

- It is a basic and simple tool for understanding how patients proceed through the care delivery system in your organization
- It allows for a diagnosis of where and what the problems are in current process
  - Constraints and bottlenecks
  - Rework (corrections for bad design)
  - Unnecessary steps, i.e., duplication, waste, error
- It gives an opportunity to understand processes from the patient perspective which is key to PCMH transformation

Process Mapping Benefits

- Focus is on the process not the people
- Provides a pictorial definition of current work process
- Creates a common understanding of work currently being done
- Gives team a neutral space to ask “why?”
- Quickly pinpoints improvement opportunities
- Clarifies unnecessary work
- Identifies the impact of change on the whole workflow

Benefits of Process Flow Mapping: Ah-ha!



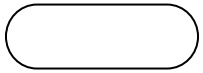
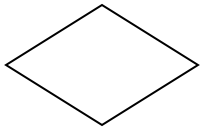
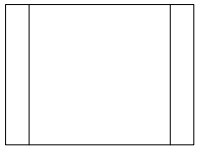
How to Map a Process

- Assemble a staff team to map the process at a high level; this is first stage in the process. Team should include every role that the process touches.
- Choose clearly defined start and end points, e.g., the point when a patient enters the health center for a visit to the point where they leave the health center. Smaller is better initially. Things to look for if you need ideas:
  - *Hand-offs:* where patient care or information is handed from one individual to another
  - *Bottlenecks*: any part of the system where patient flow is obstructed causing waits and delays.
  - *Constraints*: the actual cause of the bottleneck. Typically caused by a needed skill or a piece of equipment.
  - Common PAIN POINTS for everyone.

How to Map a Process

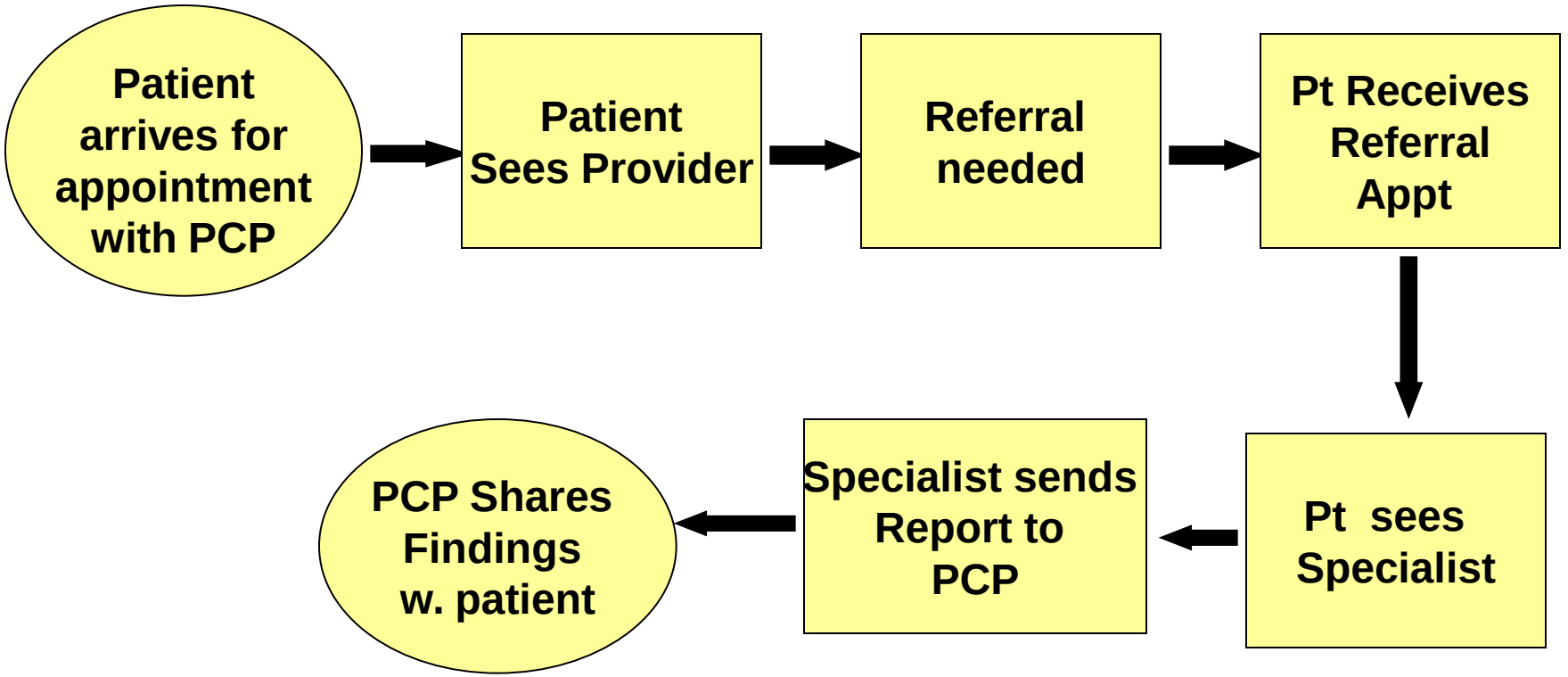
- Map the process as the team believes it usually happens
  - Walk the process and take notes
  - Observe the process by following patient(s) through the process (if the process touches patients directly). Let them know what you are doing and why. They will be delighted to help you.
  - Ask different staff members not included in the mapping team what the steps are
- Update the process map based on observations/input
- Validate with other staff members who were not involved in the mapping
- Use what you've learned from the map to inform your improvement work

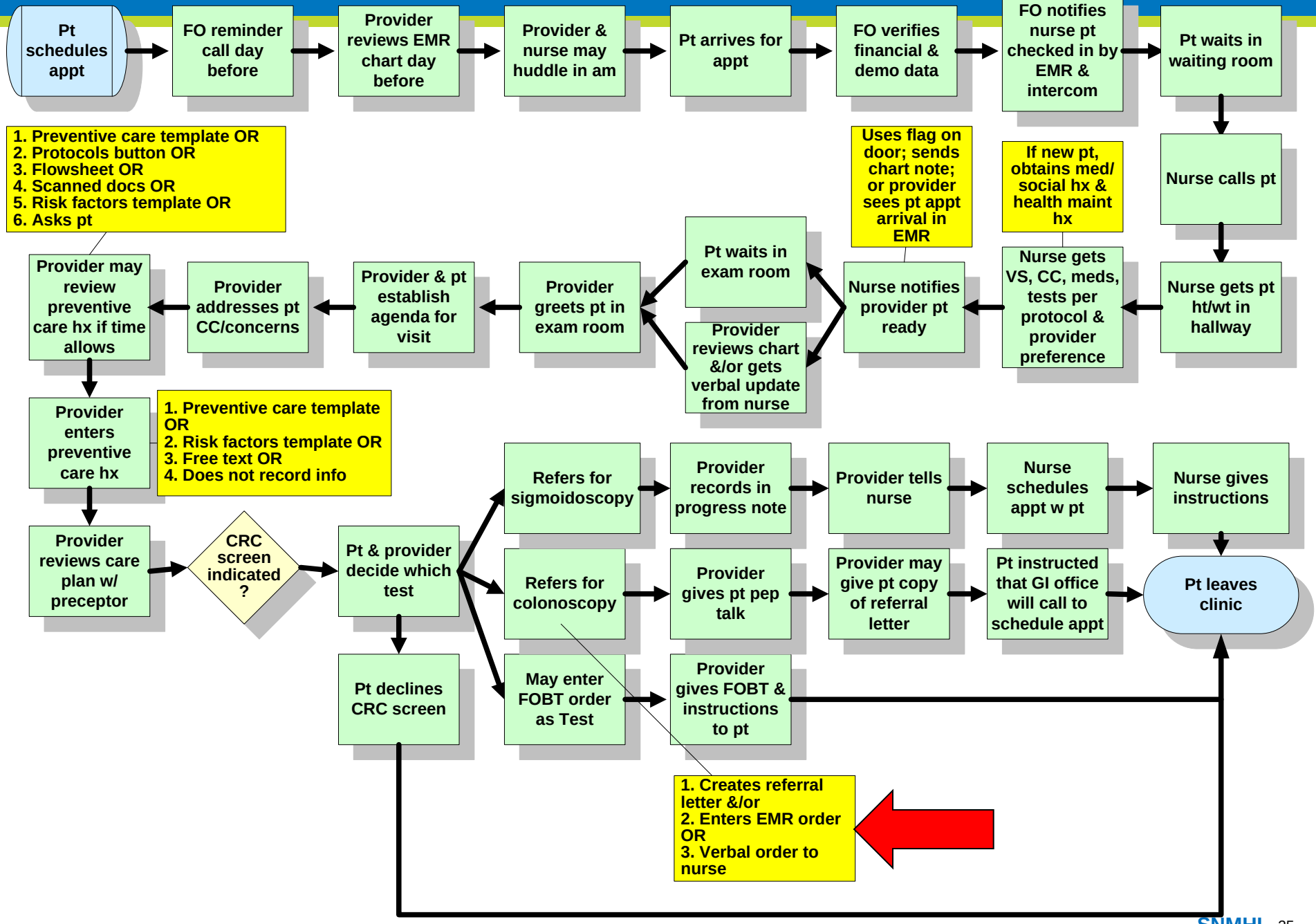
Basic Process Map Symbols

SYMBOL	DESCRIPTION
	Start & Stop of the Process
	Process Step
	Document/Form/Label Generated
	Decision
	Pre-defined, or other complete process

- Use arrows to connect the shapes

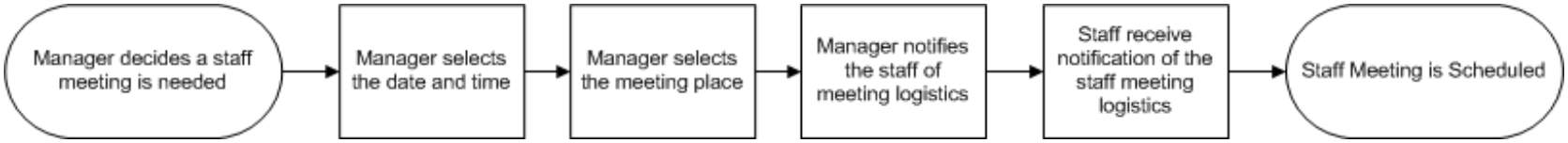
Sample Process Maps


Patient arrives for appointment with PCP
Patient Sees Provider
Referral needed
Pt Receives Referral Appt
Pt sees Specialist
Specialist sends Report to PCP
PCP Shares Findings w. patient

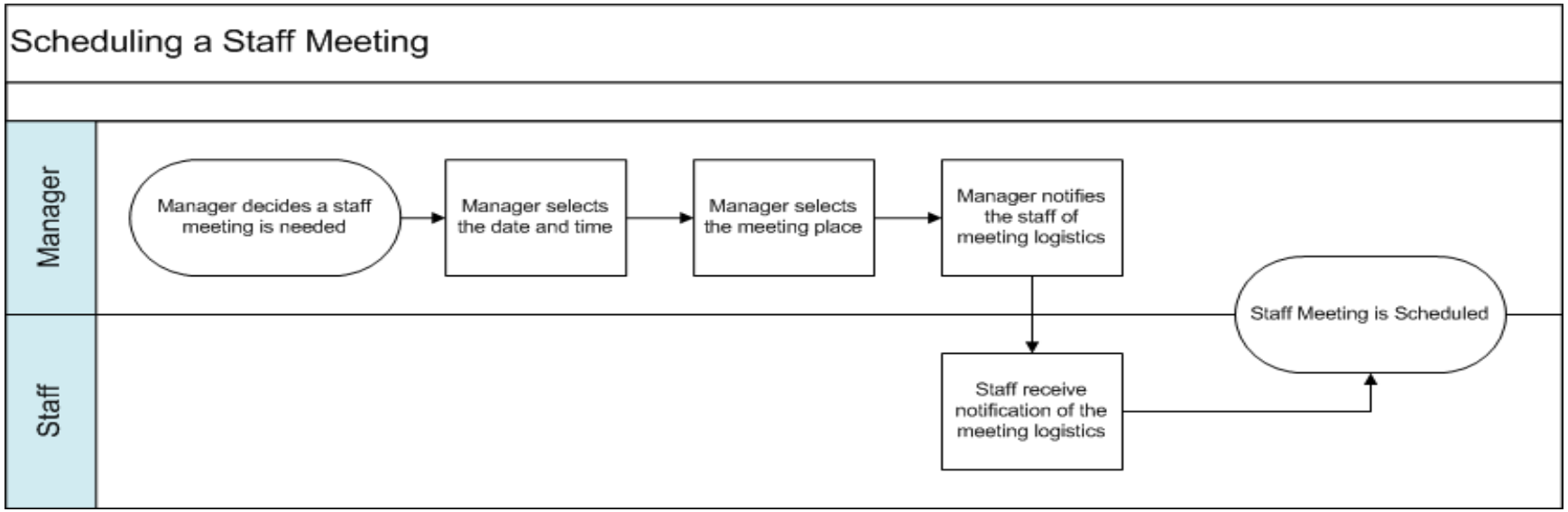

Pt schedules appt
FO reminder call day before
Provider reviews EMR chart day before
Provider & nurse may huddle in am
Pt arrives for appt
FO verifies financial & demo data
FO notifies nurse pt checked in by EMR & intercom
Pt waits in waiting room
Nurse calls pt
Nurse gets pt ht/wt in hallway
Nurse gets VS, CC, meds, tests per protocol & provider preference
If new pt, obtains med/ social hx & health maint hx
Uses flag on door; sends chart note; or provider sees pt appt arrival in EMR
Nurse notifies provider pt ready
Pt waits in exam room
Provider reviews chart &/or gets verbal update from nurse
Provider greets pt in exam room
Provider & pt establish agenda for visit
Provider addresses pt CC/concerns
Provider may review preventive care hx if time allows
1. Preventive care template OR
2. Protocols button OR
3. Flowsheet OR
4. Scanned docs OR
5. Risk factors template OR
6. Asks pt
Provider enters preventive care hx
1. Preventive care template OR
2. Risk factors template OR
3. Free text OR
4. Does not record info
Provider reviews care plan w/ preceptor
CRC screen indicated ?
Pt & provider decide which test
Refers for sigmoidoscopy
Refers for colonoscopy
May enter FOBT order as Test
Pt declines CRC screen
Provider records in progress note
Provider gives pt pep talk
Provider gives FOBT & instructions to pt
Provider tells nurse
Provider may give pt copy of referral letter
Nurse schedules appt w pt
Pt instructed that GI office will call to schedule appt
Nurse gives instructions
Pt leaves clinic
1. Creates referral letter &/or
2. Enters EMR order OR
3. Verbal order to nurse

Process Mapping

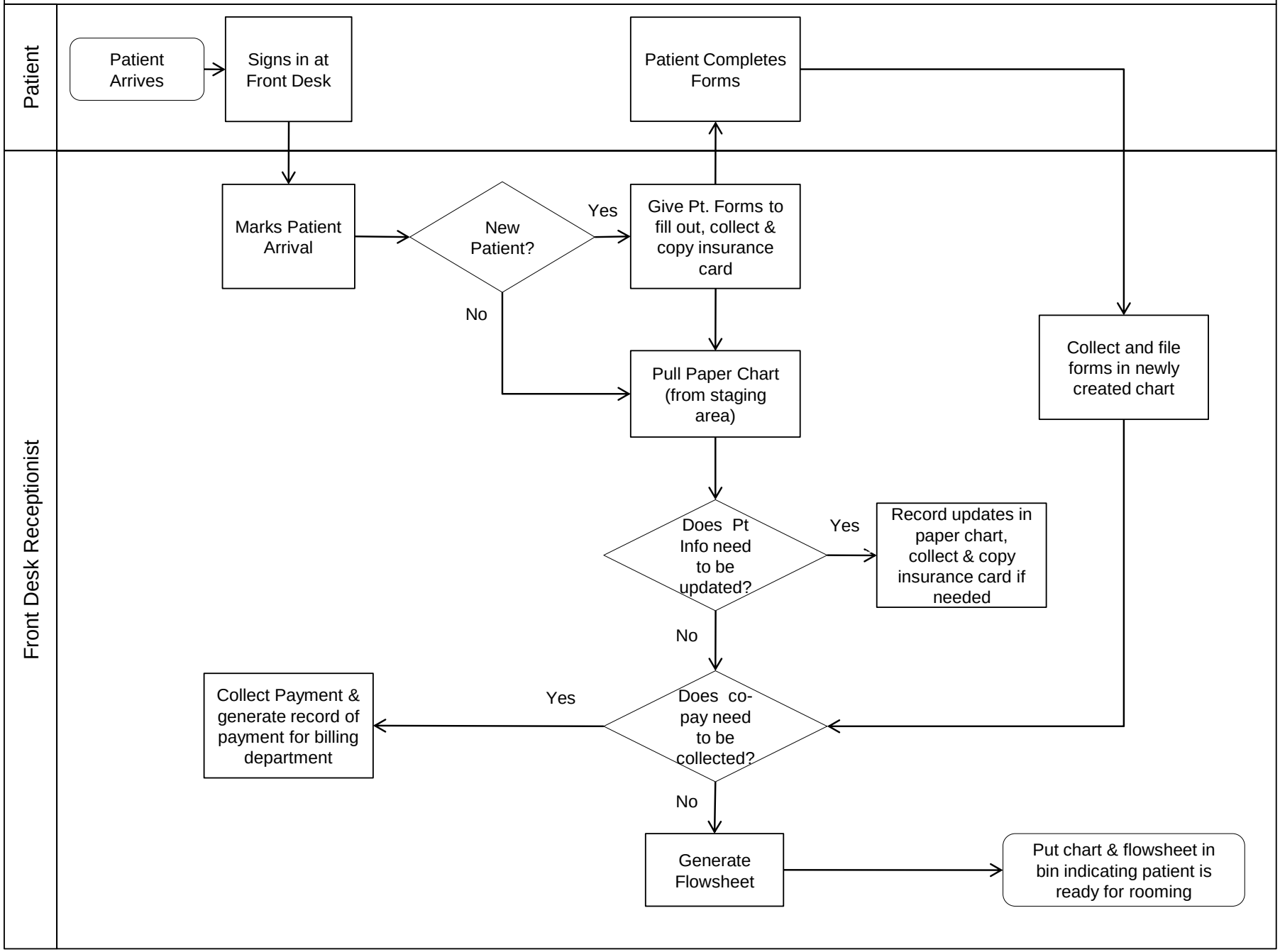
Traditional Sample



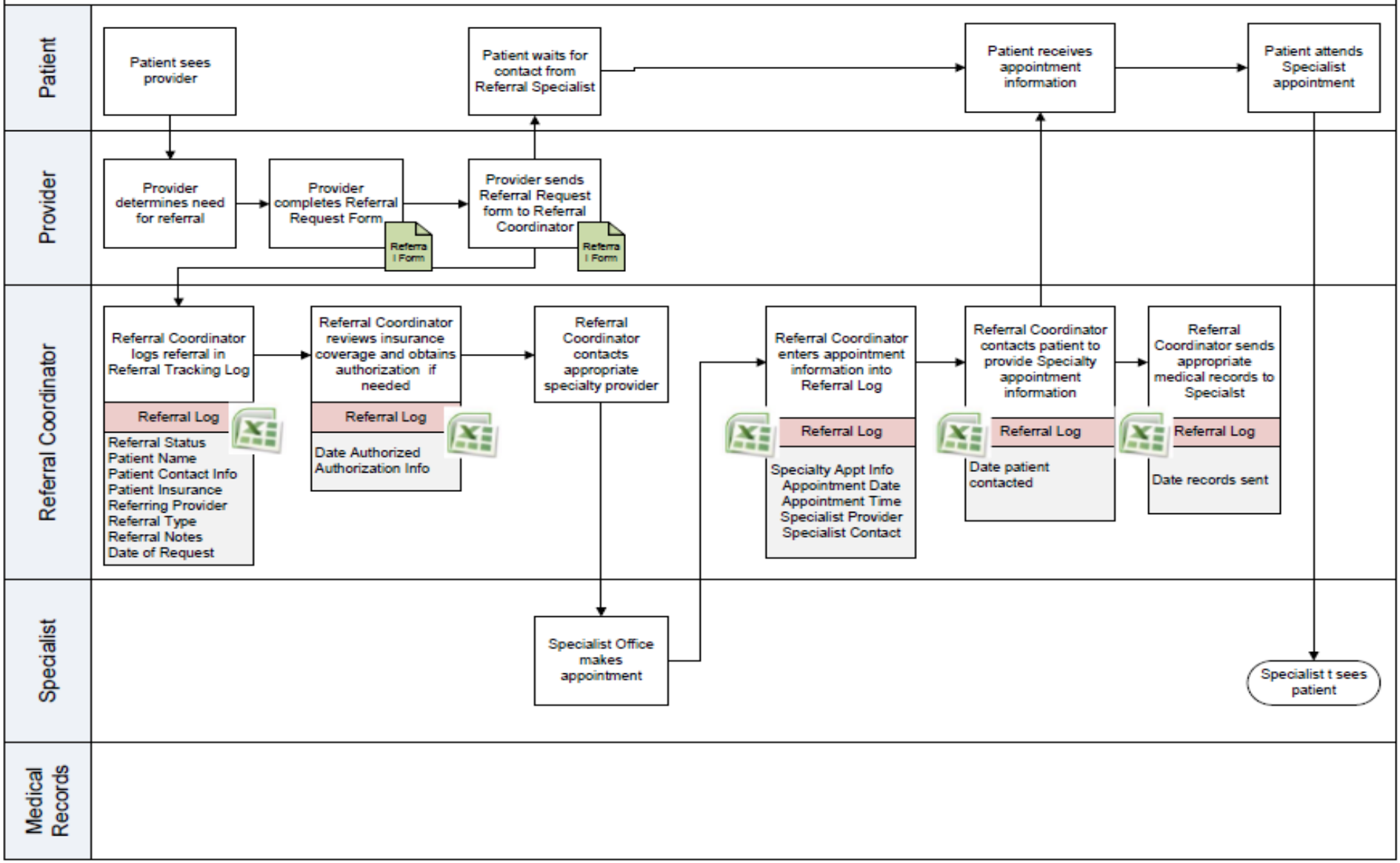
Cross-Functional Diagram Sample (Swim Lanes)



Patient Check-in Paper Process

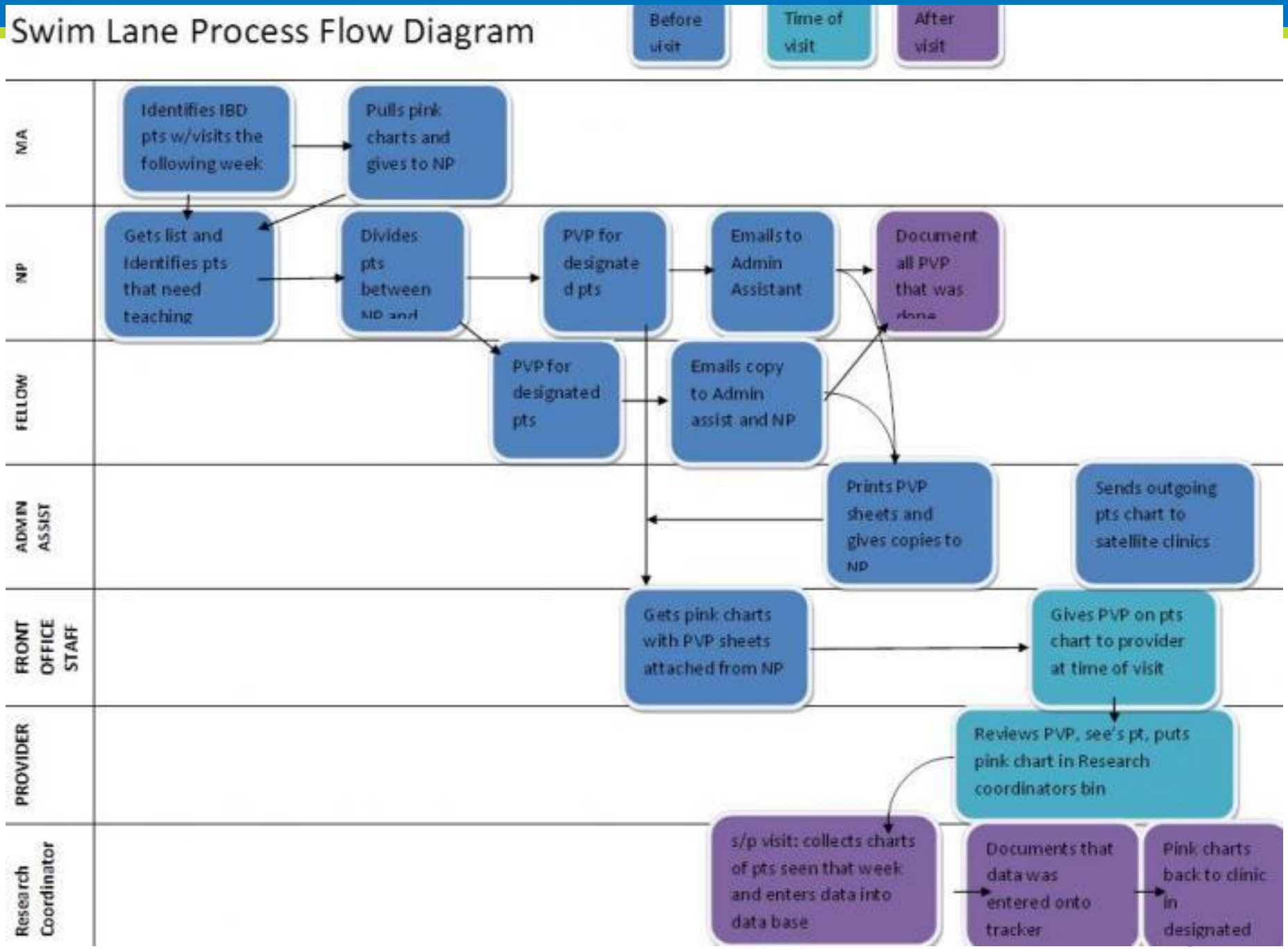


Referral Tracking – Paper Chart – Initiation of Referral Request → Completion of Specialty Appointment

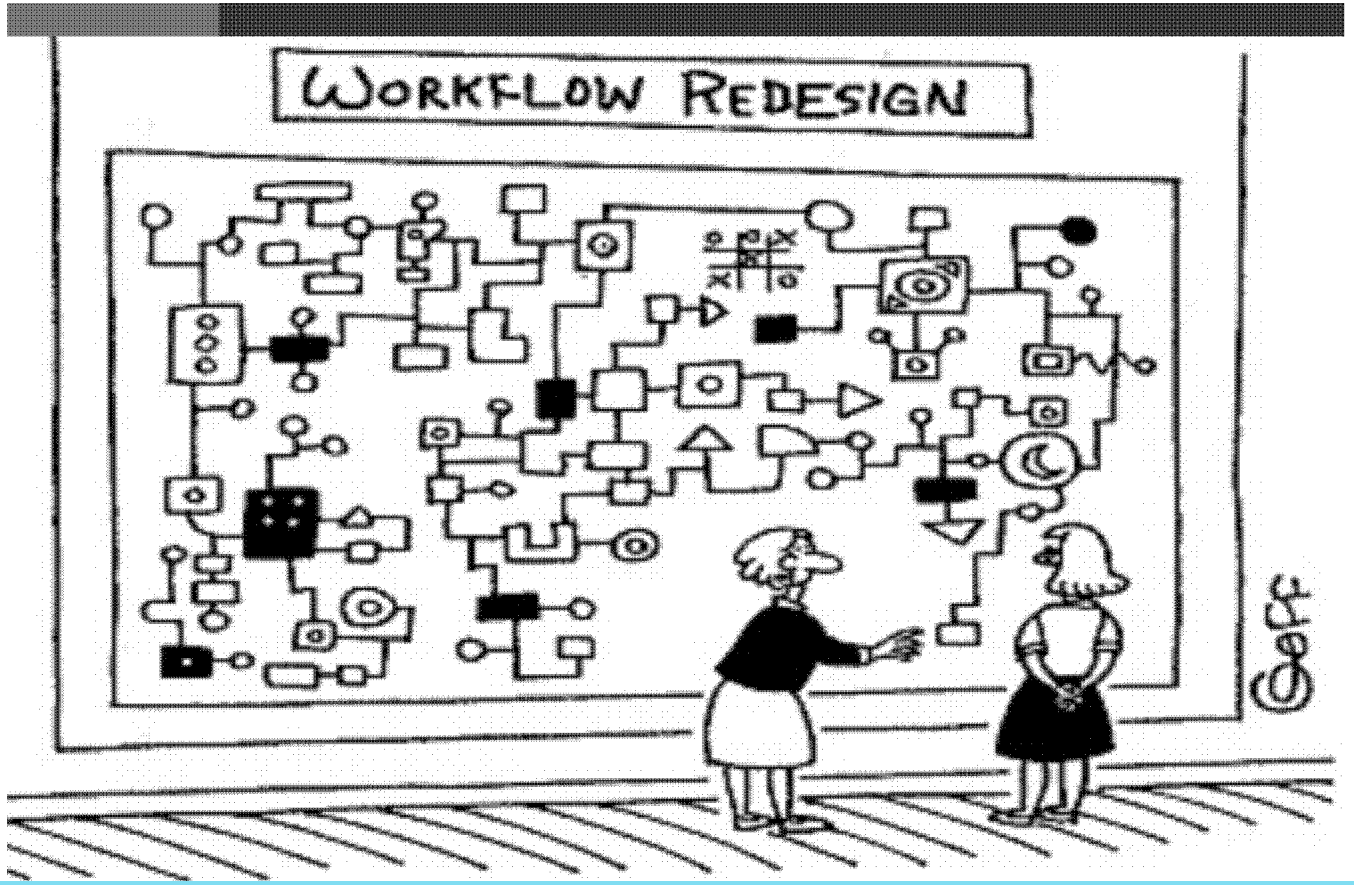


Developed by Qualis Health/Outlook Associates, LLC

Swim Lane Process Flow Diagram



Risks of Process Mapping



"And this is where our ED Workflow Redesign Team went insane."

At Your Table…

- Determine who will fulfill the following roles: facilitator who will guide the conversation, scribe who will document the steps, timekeeper, and parking lot attendant who will track items to be discussed or added later.
- Choose the start and end points of the process you will map
  - If with others from your site, choose a process you know you'd like to improve
  - If in a mixed group, choose from the handout to use
  - Will you use 'swim lanes' or color designation for your map?
- Define the process as you think it is done today (current state)
  - Rectangle sticky notes represent Action Steps
  - Use *noun-verb-noun* construct (e.g., nurse documents vital signs). NO NAMES.
  - Square sticky notes turned on their point represent Decision Points
  - Keep main flow straight
  - Use branches for alternate path or simultaneous actions
  - Draw flows/arrows after you complete the process
- Take a picture!
- Timekeeper, we have _____ minutes to complete the activity.

Seeing Things from the Patient Perspective

- Use the ‘Through the Eyes of your Patient’ activity from Dartmouth’s Greenbook

  http://www.clinicalmicrosystem.org/materials/workbooks/

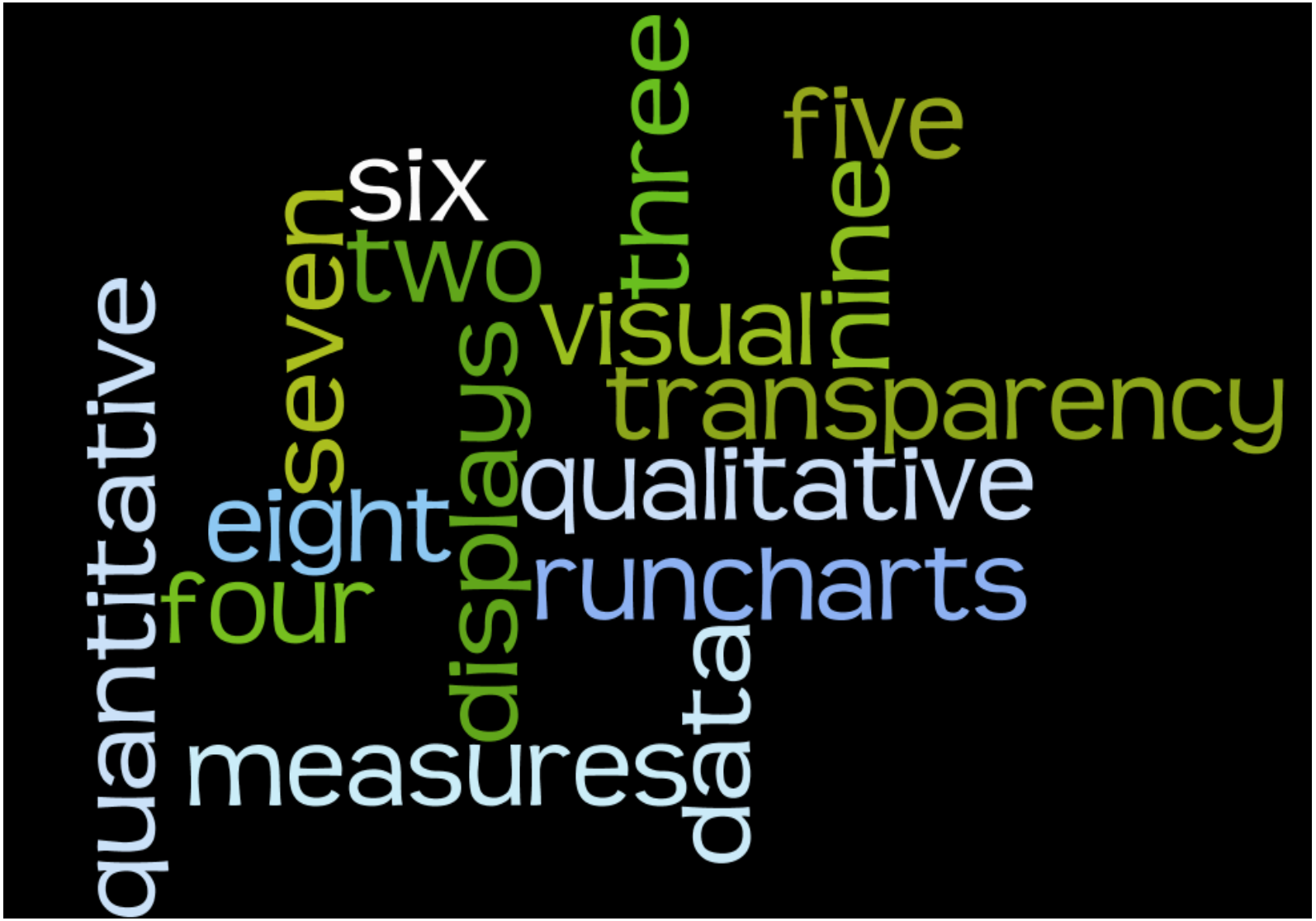
- Try a Secret Shopper call
- Ask informally and frequently – share comments with your team

Pick Something that Matters and Start

- Set priorities for action based on your observations, assessments, survey results, focus groups
- Involve staff and get patient input to set priorities
- As you set priorities ask:
  - In what areas is our performance far from ideal?
  - What improvements would patients notice most?
  - Where can we be most successful in making change?
  - Which staff are most change ready?

http://www.youtube.com/watch?v=UfA3ivLK_tE

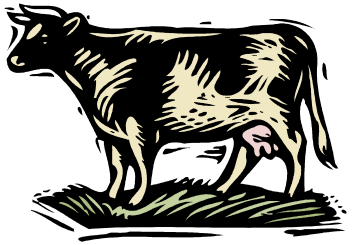
Meaningful Use of Data



We can’t improve what we don’t **measure**

“You can’t fatten a calf by weighing it.”

- Palestinian Proverb



Knowledge is Power If We Use It

For improvement, data should…

- be relevant to the improvement you want to make and/or sustain
- have clear definitions and clarity on how to measure (enhances usefulness and meaning)
- be used on a small scale (one team, one provider, for PDSA cycles), at the site level, and at the organization level
- be transparent
- used for real-time action-learning

How are you using data?

Some examples:

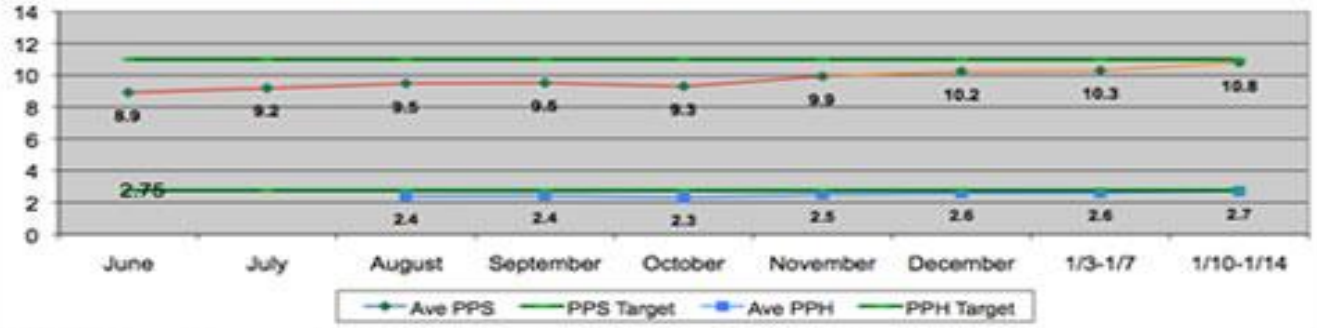
SNMHI, QI Strategy, Part 1, Implementation Guide

1/18/2011

Happy Little Clinic Dashboard

Prepared by Carlos

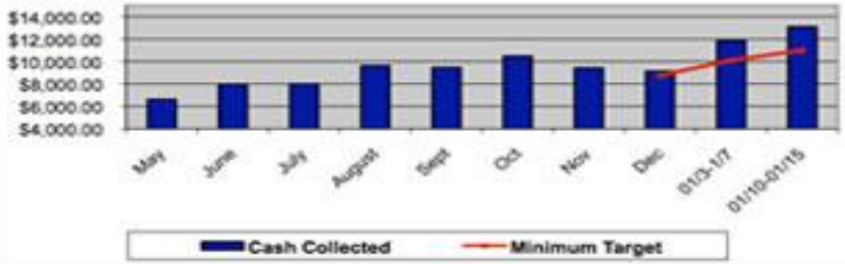
Overall Provider Productivity per Session (pps) & per Provider hour (pph)



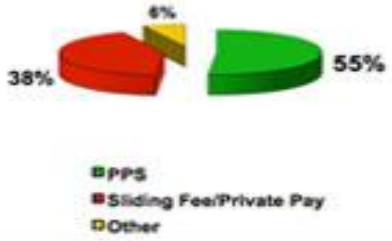
Productivity Summary	Target	Actual	Percentage	Trend
Visits Per Week	880	826	94%	↑
Clinician Shifts Per Week	80	76.25	95%	
Available Appointments	11 * Shifts	839	--	
Variance	0	- 41	-5%	
No Shows	≤5%	103	12%	↑
Missed Opportunities	0	13	1%	
Quality Measures				
Third Next Available Appointment	<5 Days	5 Days		
Average Cycle Time	≤45min	51 Minutes		
Pts w/Cycle Time > 60 min.	≤10%	212	26%	

Missed Opportunities

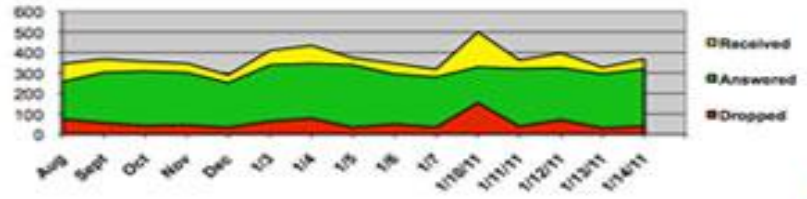
Front Office Cash Collection



Payor Mix



Phone Efficiency Data



Phone Efficiency Statistics

Month	Calls Received	Dropped %	Trend
August	5851	21%	
September	7704	15%	
October	7746	12%	
November	7281	12%	
December	6962	11%	
Last Week	7429	16%	

Target = ≤5%

Empanelment

99%

Favorable Comparison

Unfavorable Comparison

Diabetes Management

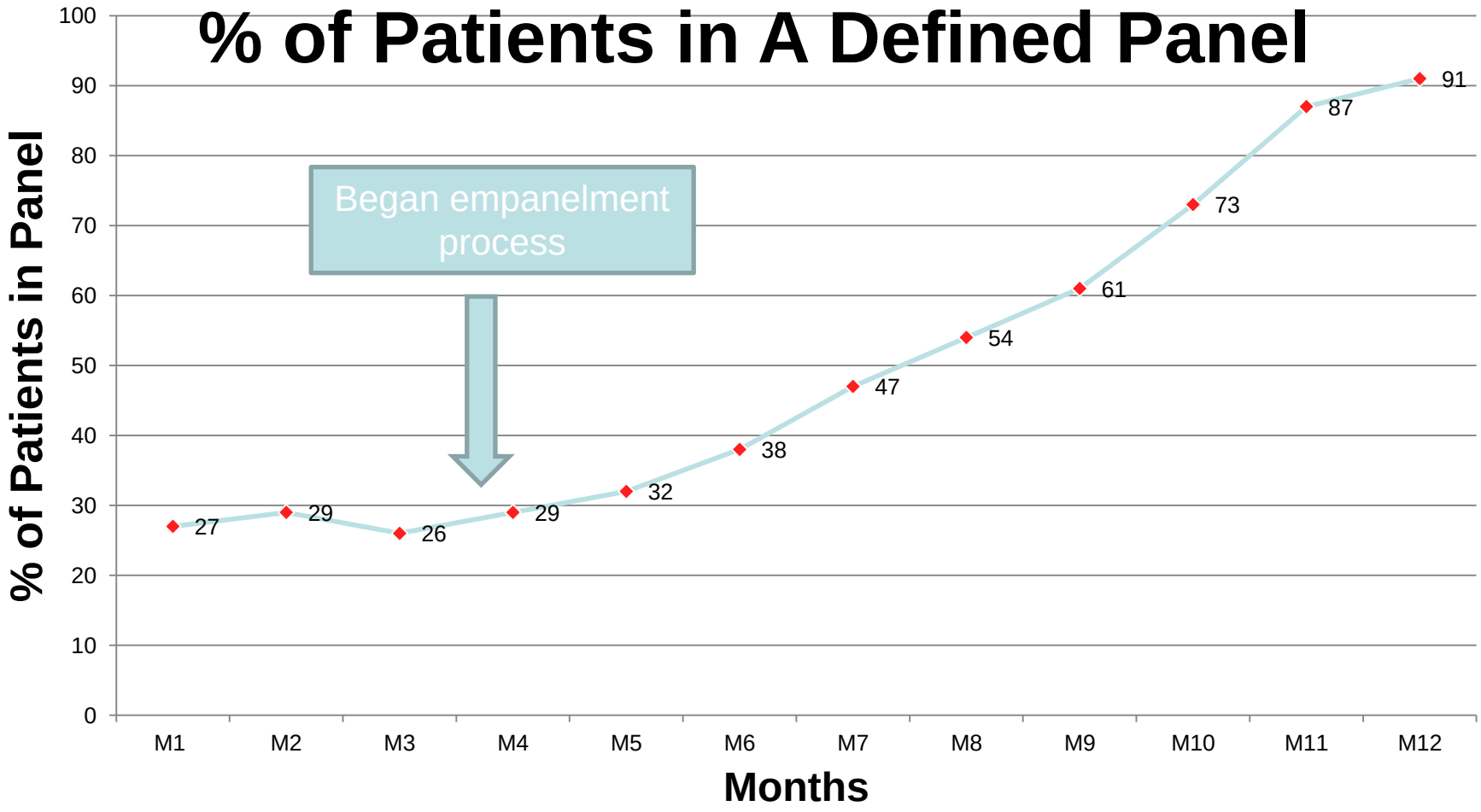
	AIM	Target	CHANGE	Sept '11	Nov '11	Jan '12	Mar '12	May '12	Jul '12
Percentage of patients with DM with HbA1c <=9.0 percent	▲	95%		81%	82%	85%	85%	85%	83%
Percentage of patients with DM age 18-75 who had one HbA1c test during the measurement year	▲	83%		97%	98%	92%	91%	92%	91%
Percentage of patients with DM age 18-75 who had two HbA1c test during the measurement year	▲	83%		43%	42%	53%	55%	54%	52%
Percentage of patients with DM with the most recent LDL-C result of <100mg/dL	▲	76%		65%	63%	60%	55%	58%	61%
Percentage of patients with DM age 18-75 who had an LDL-C screening test during the measurement year.	▲	85%		96%	97%	95%	96%	96%	96%
Percentage of DM patients with one retinal or dilated eye exam in the measurement year	▲	72%		81%	78%	80%	75%	75%	78%
A claim or encounter to indicate evidence of nephropathy, or a nephrologist visit during the measurement year, or evidence of ACE/ARB therapy during the measurement year	▲	91%		67%	71%	71%	72%	72%	72%
Percent of patients with DM whose recent BP is <130/80 during the measurement period.	▲	47%		43%	46%	45%	49%	48%	49%

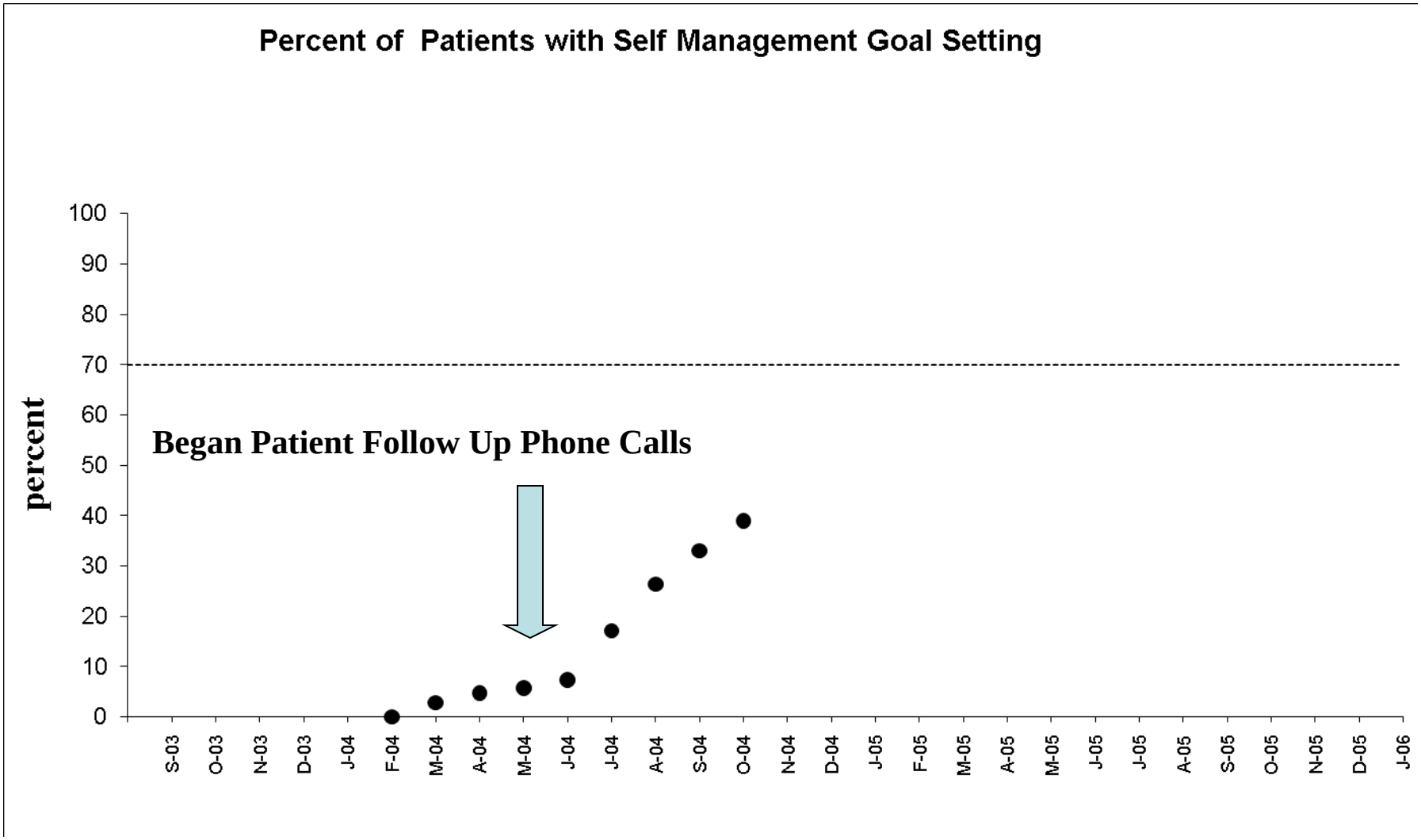
Cardiovascular Measures

	AIM	Target	CHANGE	Sept '11	Nov '11	Jan '12	Mar '12	May '12	Jul '12
The percentage of pts age 18-85 who had a dx of HTN and whose BP was adequately controlled (140/90 mm Hg) during the measurement year.	▲	72%		68%	67%	68%	72%	69%	74%

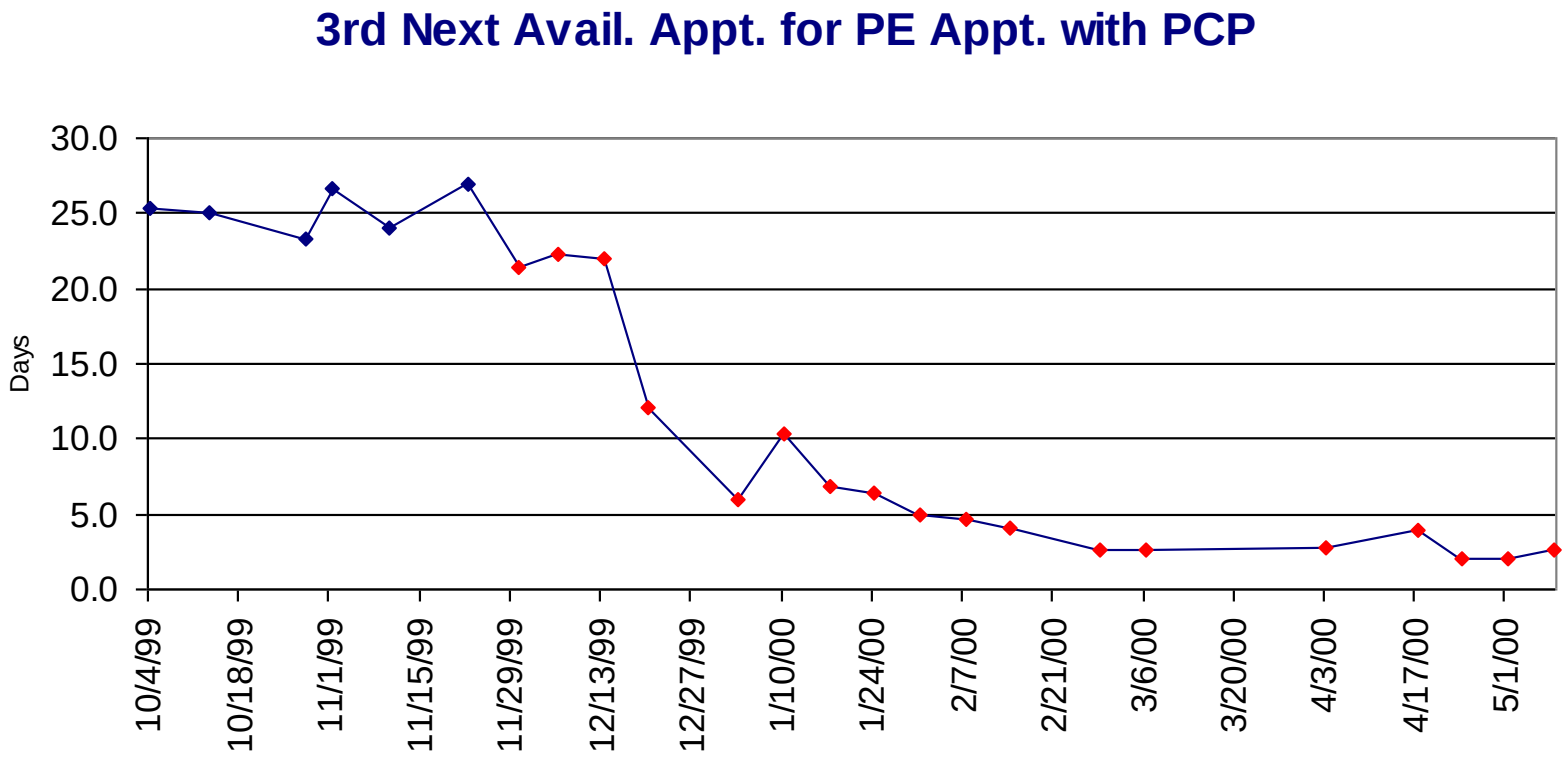
Prevention

	AIM	Target	CHANGE	Sept '11	Nov '11	Jan '12	Mar '12	May '12	Jul '12
The percentage of women age 40-69 who had a mammogram during the measurement year or the year prior to the measurement year	▲	90%		61%	68%	72%	67%	74%	79%
The percentage of patients age 50-80 who received appropriate screenings for colorectal cancer	▲	83%		75%	80%	77%	77%	78%	81%


% of Patients in A Defined Panel
% of Patients in Panel
100
90
80
70
60
50
40
30
20
10
0
Began empanelment process
27
29
26
29
32
38
47
54
61
73
87
91
M1
M2
M3
M4
M5
M6
M7
M8
M9
M10
M11
M12
Months


Percent of Patients with Self Management Goal Setting
percent
100
90
80
70
60
50
40
30
20
10
0
Began Patient Follow Up Phone Calls
S-03
O-03
N-03
D-03
J-04
F-04
M-04
A-04
M-04
J-04
J-04
A-04
S-04
O-04
N-04
D-04
J-05
F-05
M-05
A-05
M-05
J-05
J-05
A-05
S-05
O-05
N-05
D-05
J-06

Physical Exams



What new data can you begin collecting by next Tuesday?

Force Field Analysis

- Useful tool for uncovering both restraining and driving forces for a change
- Useful when planning PDSA cycles to test and implement changes
- Tool will help to organize the change effort and may uncover restraining or driving forces that had not been considered or identified before

What Drives Change and What Restrains It?

- Goal is to identify as many driving forces and restraining forces as possible in order to understand the context in which the proposed change will be made
- Then the team identifies actions that would strengthen the driving forces and those that would remove or weaken the restraining forces
- These actions become part of the implementation plan to ensure success

Driving Forces	Restraining Forces
List	List
Actions to reinforce	Actions to remove or weaken

Resources

- Improvement Guide, 2nd Edition
- Team Handbook, Oriel Press

Questions/Discussion

Thank You

Nicole Van Borkulo, MEd
Senior Consultant

nicolevb@qualishealth.org

(206) 288-2573

Safety Net Medical Home Initiative

This presentation is based on content produced for the Safety Net Medical Home Initiative, which is supported by The Commonwealth Fund, a national, private foundation based in New York City that supports independent research on health care issues and makes grants to improve health care practice policy. The views presented here are those of the author and not necessarily those of The Commonwealth Fund, its directors, officers, or staff. The Initiative also receives support from the Colorado Health Foundation, Jewish Healthcare Foundation, Northwest Health Foundation, The Boston Foundation, Blue Cross Blue Shield of Massachusetts Foundation, Partners Community Benefit Fund, Blue Cross of Idaho, and the Beth Israel Deaconess Medical Center. For more information about The Commonwealth Fund, refer to www.cmwf.org.

The objective of the Safety Net Medical Home Initiative is to develop and demonstrate a replicable and sustainable implementation model to transform primary care safety net practices into patient-centered medical homes with benchmark performance in quality, efficiency, and patient experience. The Initiative is administered by Qualis Health and conducted in partnership with the MacColl Center for Health Care Innovation at the Group Health Research Institute. Five regions were selected for participation (Colorado, Idaho, Massachusetts, Oregon and Pittsburgh), representing 65 safety net practices across the U.S. For more information about the Safety Net Medical Home Initiative, refer to www.safetynetmedicalhome.org.