HRSA Health Information Technology and Quality Webinar

"Using Data for Evidence Based Quality Improvement"

Date: 7/27/2012

US Department of Health and Human Services

Health Resources and Services Administration

Office of Health Information Technology and Quality

Additional HRSA Health IT and Quality Toolboxes and Resources including past webinars can be found at:

http://www.hrsa.gov/healthit

http://www.hrsa.gov/quality

Please visit HRSA's New Clinical Quality & Performance Measures Toolkit, located on HRSA Quality Improvement website
(http://www.hrsa.gov/quality)

Additional questions can sent to the following e-mail address:

HealthIT@hrsa.gov

- **US Department of Health and Human Services**
- **Health Resources and Services Administration**

Upcoming HRSA Health IT and Quality Announcements

- HIMSS Jobmine for Safety Net Providers (Free Job Postings for HRSA Grantees and Safety Net Providers). Email hfigge@himss.org for more information.

- Competency Exam for Health IT Professionals, vouchers available for free exams, email healthit@hrsa.gov

- Next HRSA Health IT and Quality Webinar, "Overview of Telehealth Resources for Safety Net Providers," Friday August 17th, 2 PM EST

- New HRSA Clinical Quality & Performance Measures Toolkit, located on HRSA Quality Improvement website (http://www.hrsa.gov/quality)

- NACHC Health IT Communities of Practice- Registration Open- Learn more and sign up today! And please help us spread the word within your organization and centers. http://www.nachc.com/NACHC%20COMMUNITIES%20OF%20PRACTICE%20(CoP).cfm

- Agency for Healthcare Research and Quality Health IT and Quality Measurement webinar "Overviews of New AHRQ Environmental Snapshot Report and Issuance of Non-regulatory Request for Information (RFI)," July 31, 2012, 1:30-3:00 p.m., EST

HRSA

Introduction

Presenters:

- Rebecca Steinfield-Institute for Healthcare Improvement

- Maria Casaverde Marin-Northwest Colorado Visiting Nurse Association

- Tamarah Duperval Brownlee, MD-Lone Star Circle of Care

Institute for Healthcare Improvement

Introduction to the Science of Improvement: Using Data for Learning

Rebecca Steinfield, Improvement Advisor

Institute for Healthcare Improvement

July 2012

Institute for Healthcare Improvement

We Exist Because…

"Between the health care we have and the care we could have lies not just a gap, but a chasm."

- Institute of Medicine, Crossing the Quality Chasm, 2001

This is the result of systems and processes not adequately designed for the need.

"Every system is perfectly designed to get exactly the results it gets."

-Paul Batalden, MD

INSTITUTE FOR
HEALTHCARE
IMPROVEMENT

IHI MISSION

To improve health and health care worldwide.

WHO WE ARE

We are a reliable source of energy, knowledge, and support for a never-ending campaign to improve health and health care worldwide.

WHAT WE WILL ACCOMPLISH

In the US and abroad, we will improve the lives of patients, the health of communities, and the joy of the health care workforce, and reduce health care costs. We work with health care providers and others to accelerate the measurable and continual progress of health care systems throughout the world toward safety, effectiveness, patient-centeredness, timeliness, efficiency, and equity.

WHAT WE WILL BECOME

We will be a recognized and generous leader, a trustworthy partner, and the first place to turn for expertise, help, and encouragement for anyone, anywhere who wants to change health care fundamentally for the better.

CORE STRATEGIES FOR DRIVING IMPROVEMENT

Strategy #1: Motivate

Stimulate the desire and optimism for change

Strategy #2: Innovate

Create, find, and test new models of care

Strategy #3: Get Results

Ensure spread and adoption of sound changes

Strategy #4: Raise Joy in Work

Help build a better health care workforce

Strategy #5: Stay Vital for the Long Haul

Sustain IHI's viability

IHI's Online Resources

- Subscribe to *This Week @ IHI*, IHI's free weekly e-newsletter

- Listen to WIHI, a free audio program from IHI

- Check out the great resources, tools, stories, and contacts available on **www.IHI.org**

Follow @TheIHI	IHI Fan Page	IHI Group

The Model for Improvement

What are we trying to Accomplish?

How will we know that a change is an improvement?

What change can we make that will result in improvement?

Act / Plan / Study / Do
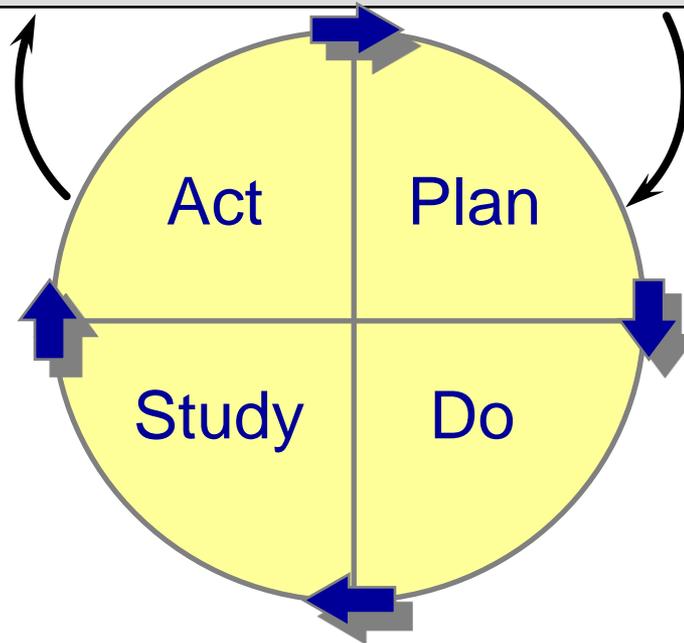
Source: The Improvement Guide, API

2ND EDITION
the
IMPROVEMENT
GUIDE

A PRACTICAL APPROACH *to* ENHANCING ORGANIZATIONAL PERFORMANCE

GERALD LANGLEY, RONALD MOEN, KEVIN NOLAN
THOMAS NOLAN, CLIFFORD NORMAN, LLOYD PROVOST,

Repeated Use of the Cycle

Model for Improvement

What are we trying to accomplish?

How will we know that a change is an improvement?

What change can we make that will result in improvement?

DATA

A P S D

A S D P

D S P A

A P S D

Changes That Result in Improvement

Hunches Theories Ideas

Source: Improvement Guide, p 10

Repeated Use of the PDSA Cycle

Model for Improvement

What are we trying to accomplish?

How will we know that a change is an improvement?

What change can we make that will result in improvement?

Reduce pt medication harm by 50%

-Med Harm rate per admission,
-% patients w/harm

Change Pkg.
-med recon
-high haz meds
-med ordering

DATA

errors on ordering terminology, staff feedback, % orders with proper use of protocols

Changes That Result in Improvement

Implementation of Change

Wide-Scale Tests of Change

Follow-up Tests

Very Small Scale Test

Hunches Theories Ideas

A | P
S | D

A | P
S | D

D | S
P | A

A | P
S | D

Resources: Free "On-Demand" Streaming Video taught by Dr. Robert Lloyd

Available on ihi.org:

- An Introduction to the Model for Improvement
  Provides a framework for organizing and guiding a team's improvement journey

- Building Skills in Data Collection and Understanding Variation
  Designed to help teams successfully manage the milestones along the quality measurement journey

- Using Run and Control Charts to Understand Variation
  Addresses the application of statistical process control (SPC) methods, with specific attention given to run and control charts

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Question #2: How do we know if a change is an improvement?

"You can't fatten a cow by weighing it"

- Palestinian Proverb


Improvement is *NOT* just about measurement!

However, without measurement you will never be able to know if a change actually leads to improvement!

How do we analyze variation for quality improvement?

Run and *Control Charts* are the best tools to determine if our improvement strategies have had the desired effect.

"What is the variation in one system over time?" Walter A. Shewhart - early 1920's, Bell Laboratories

Dynamic View UCL

Static View

time

LCL
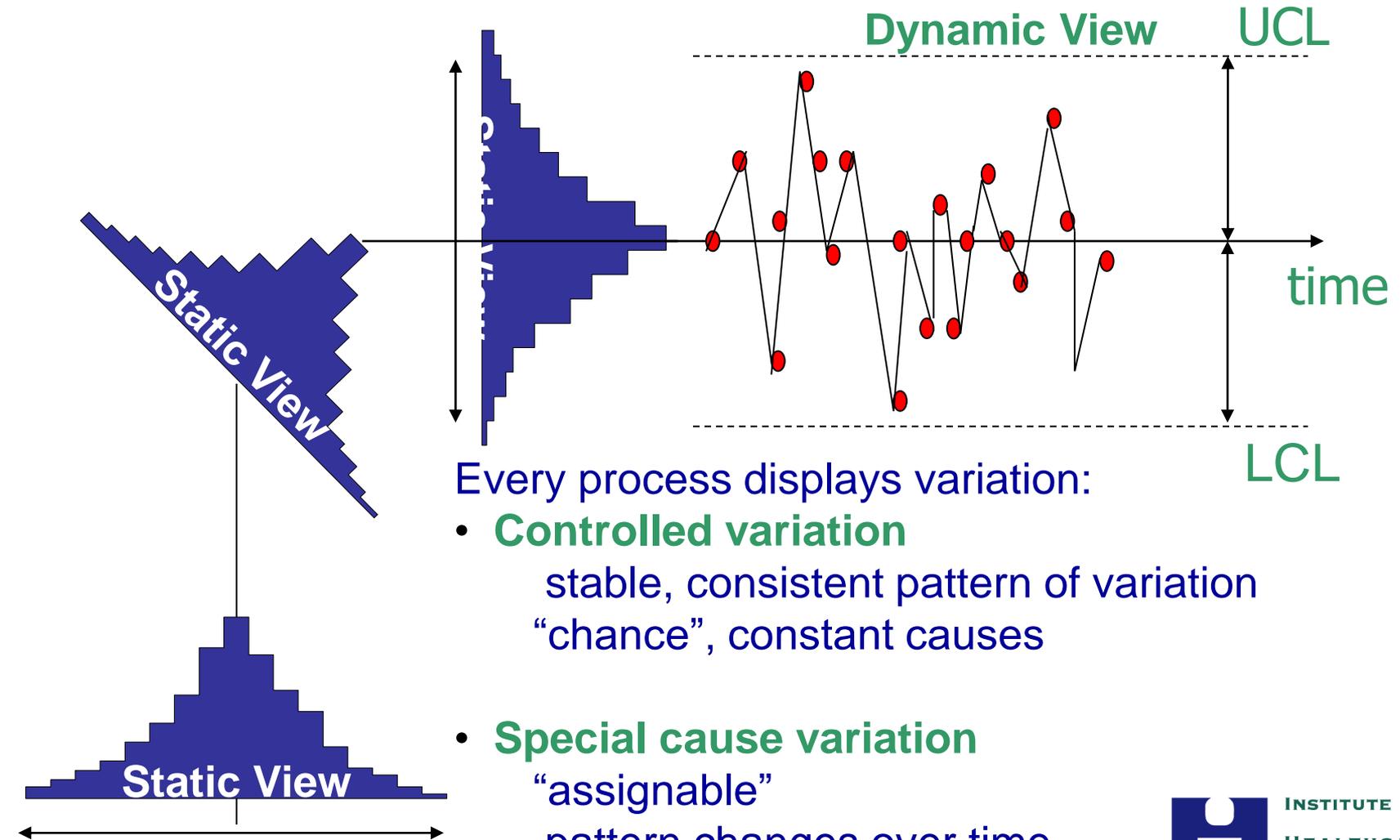
Every process displays variation:

- **Controlled variation**
  stable, consistent pattern of variation
  "chance", constant causes

- **Special cause variation**
  "assignable"
  pattern changes over time

Static View

12

Elements of a Run Chart

The centerline (CL) on a Run Chart is the Median

$\tilde{X}$ (CL)

Measure

Time ⟶ Four simple run rules are used to determine if special cause variation is present

13
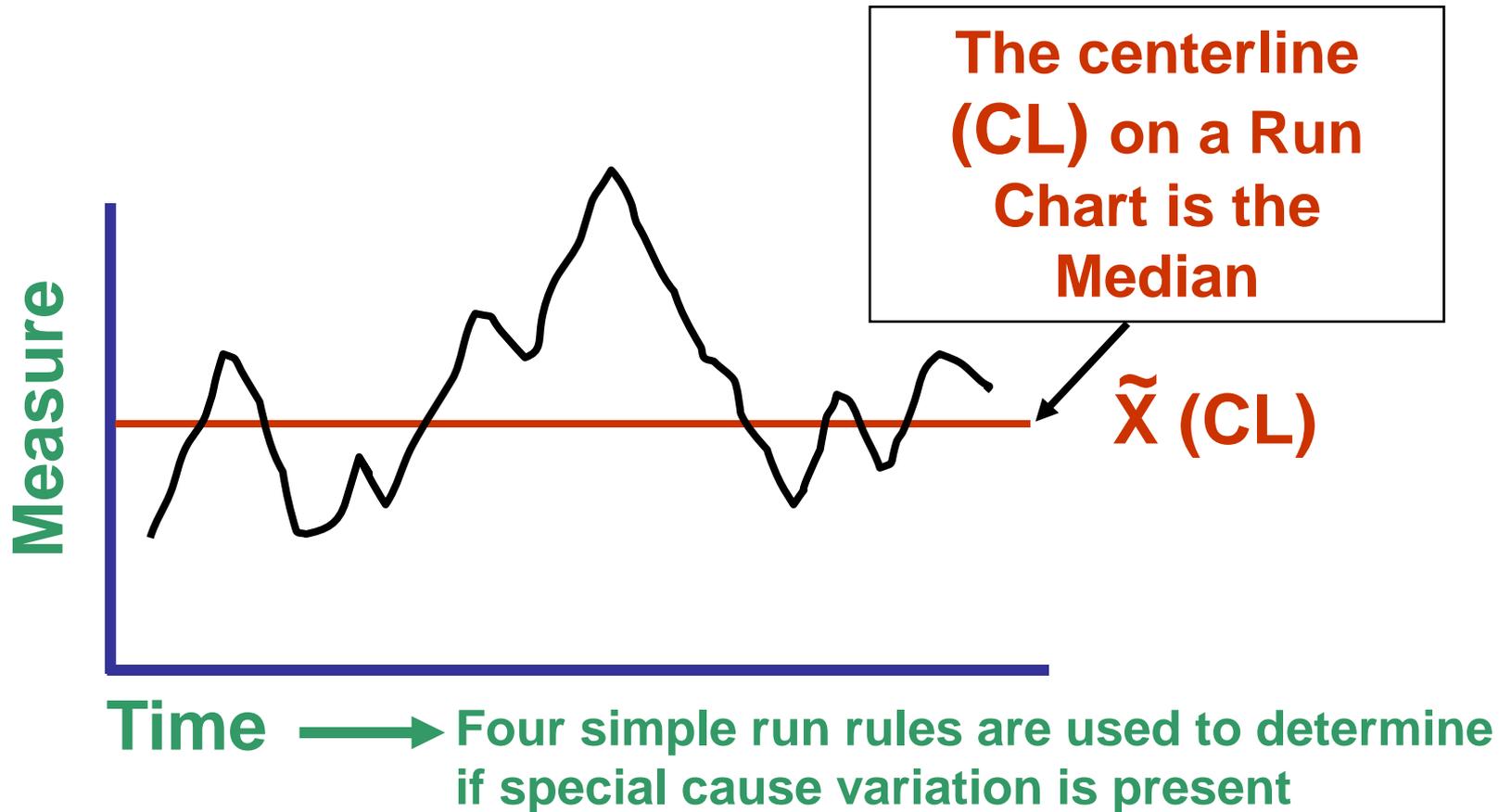
Elements of a Shewhart Chart

An indication of a special cause

UCL (Upper Control Limit)

$\overline{X}$ (CL)

LCL (Lower Control Limit)

Measure
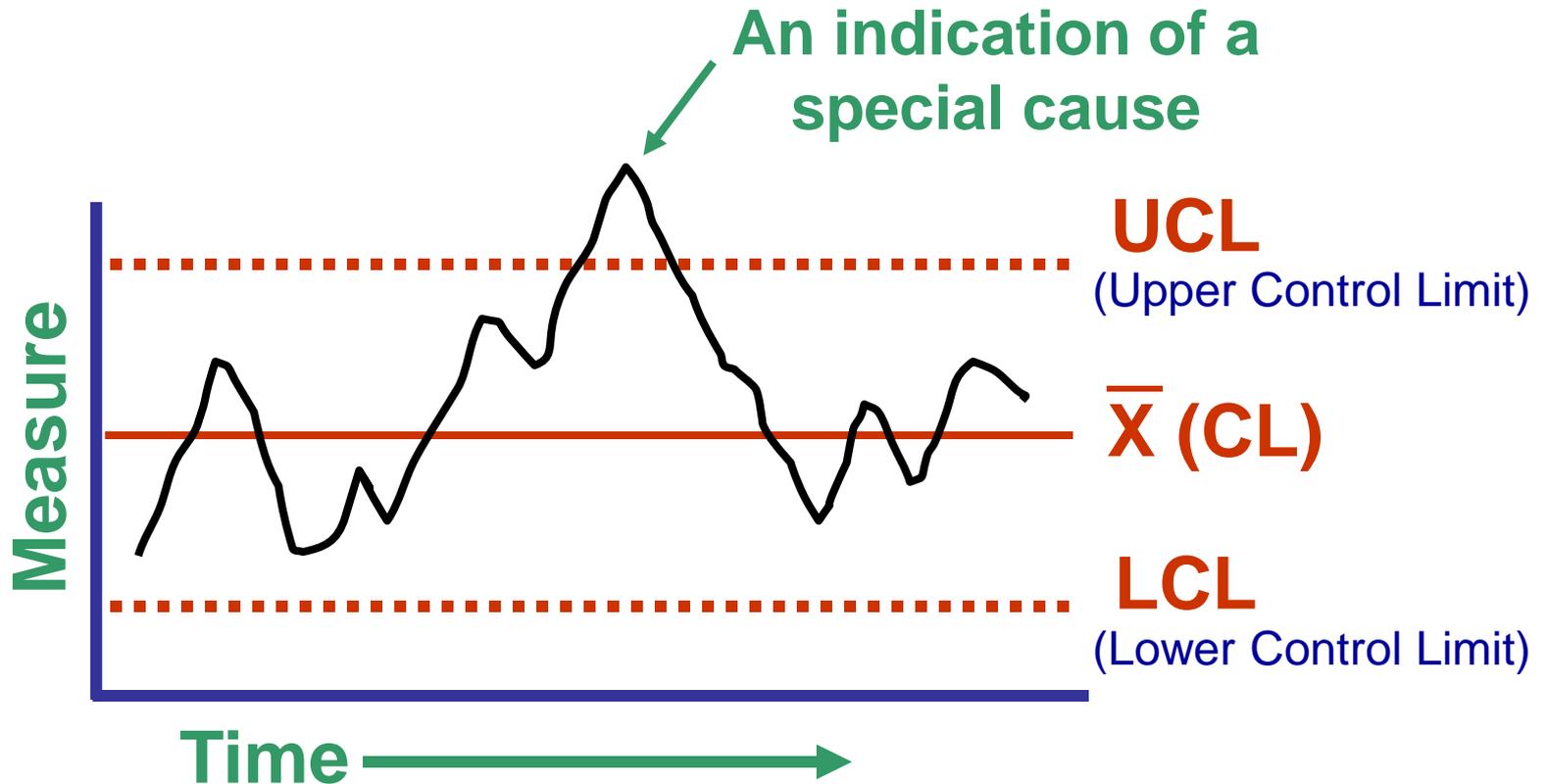
Time

Cycle Time Results for Units 1, 2 and 3
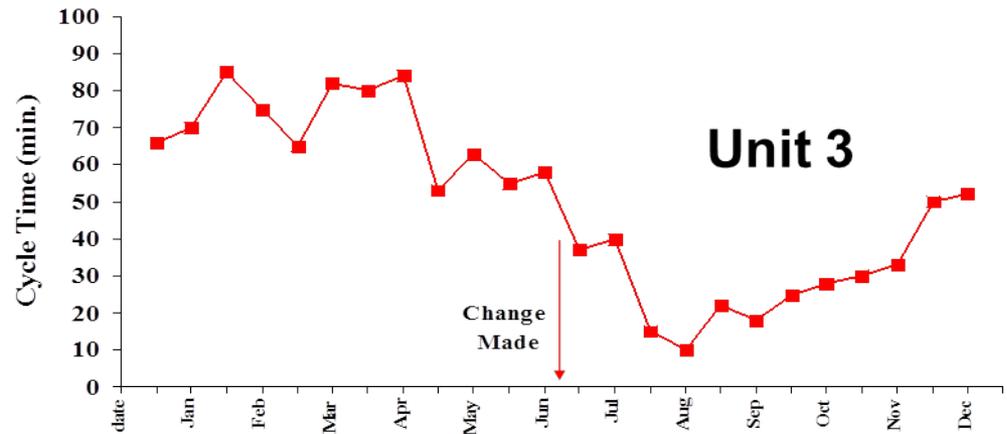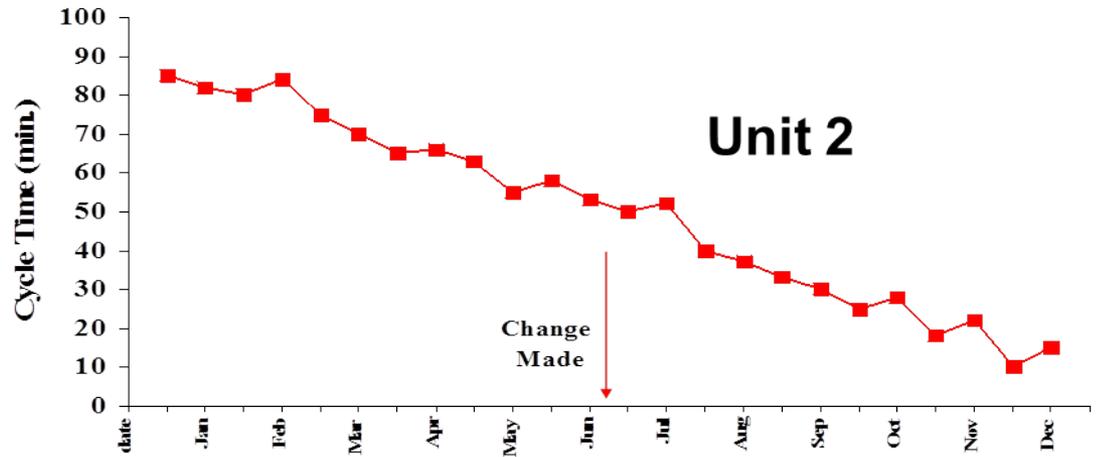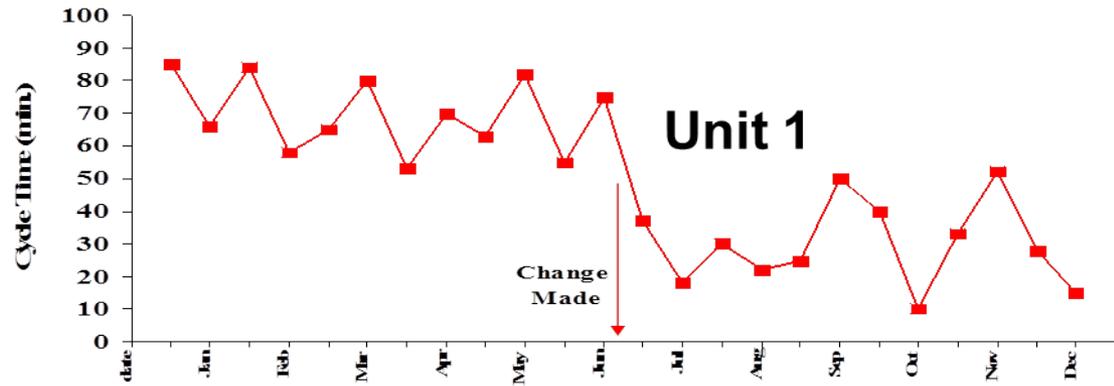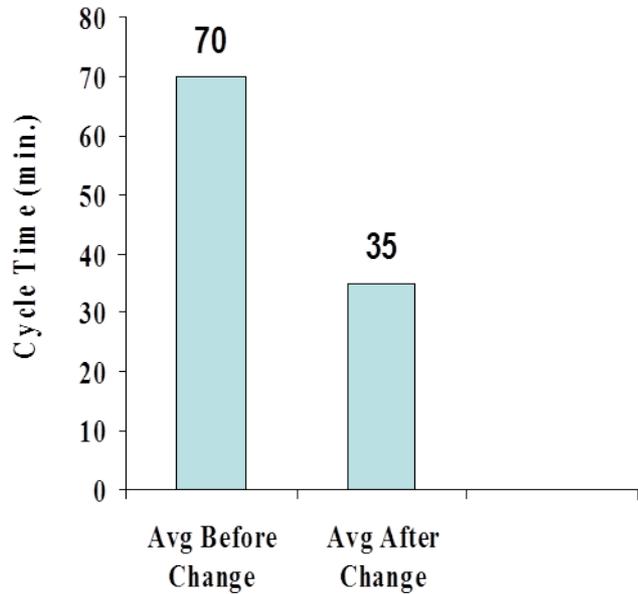
Average CABG Mortality
Before and After the Implementation of a New Protocol

WOW!
A "*significant drop*" from 5% to 4%

Percent Mortality

5.2

5.0%

4.0%

3.8

Time 1

Time 2
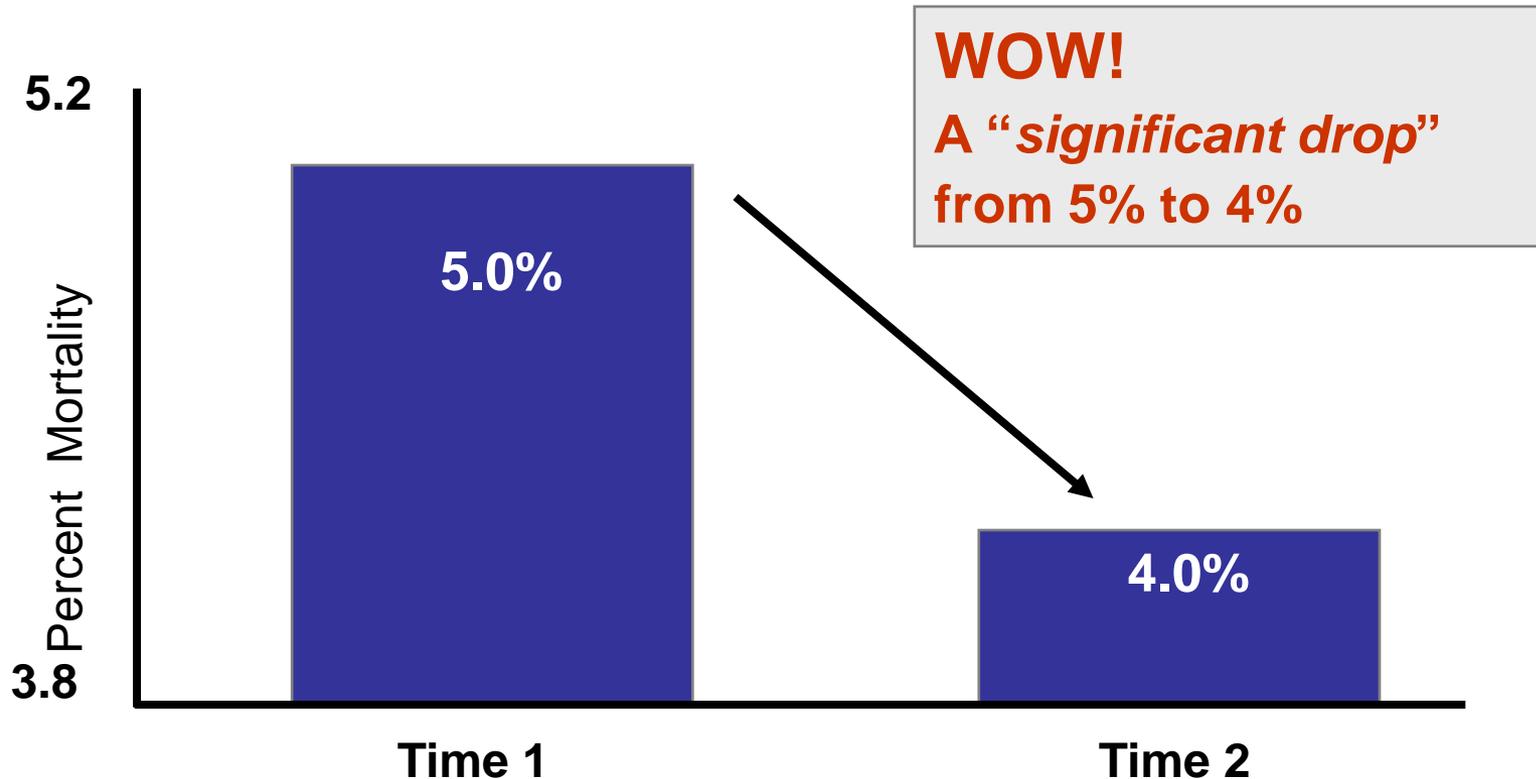
Conclusion -The protocol was a success!
A 20% drop in the average mortality!

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Average CABG Mortality

Before and After the Implementation of a New Protocol
A Second Look at the Data

Protocol implemented here

UCL = 6.0

CL = 4.0

LCL = 2.0

Percent Mortality

9.0

5.0

1.0

24 Months
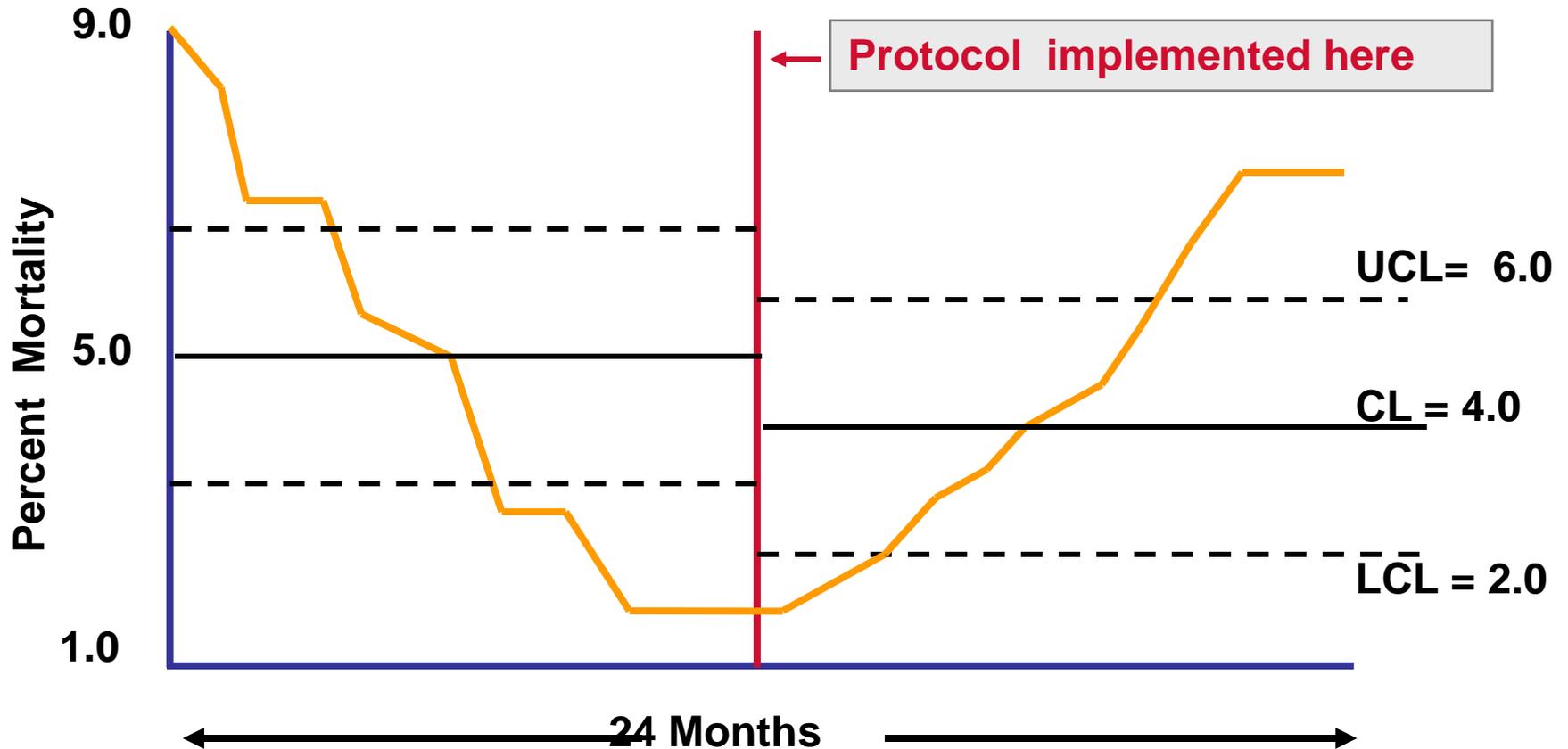
Now what do you conclude about the impact of the protocol?

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Annotated Run Chart: Telling your story

Jacob's River Hospital
30-Day All Cause Readmissions for Patients with CHF

Launch, convened CCT

Cardiology practice agreed to hold discharge appointments

baseline

Goal

Testing redesign of discharge communication

Teachback training for all staff

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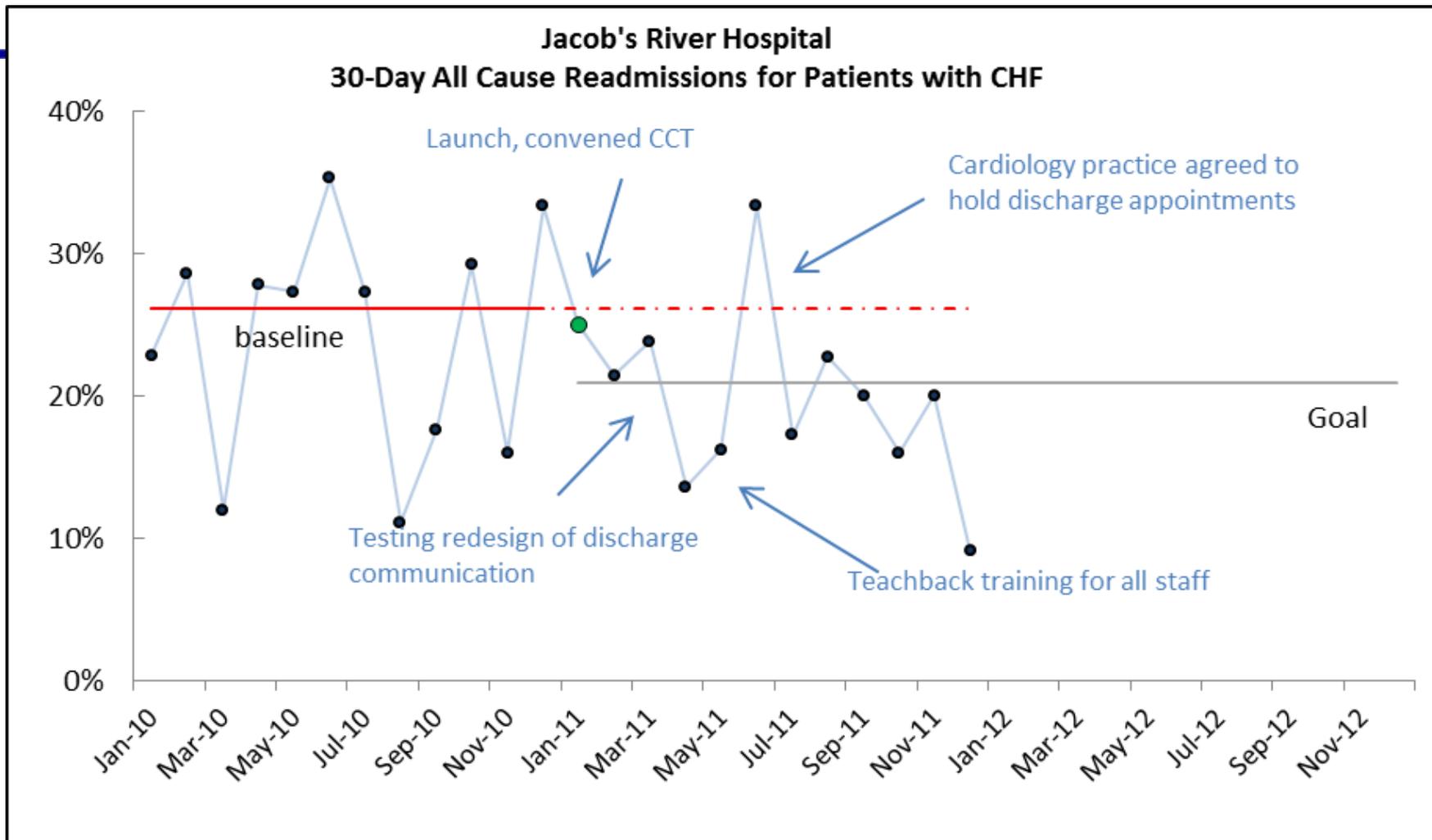
Non-Random Rules for Run Charts
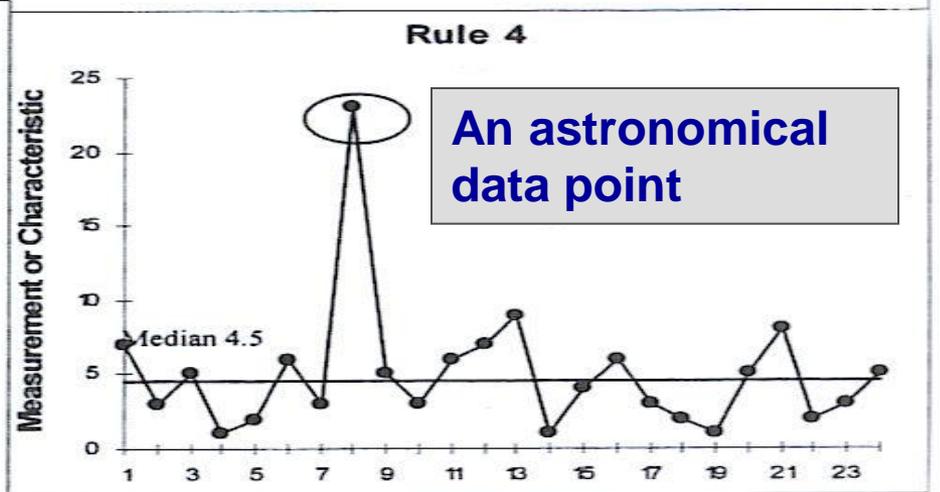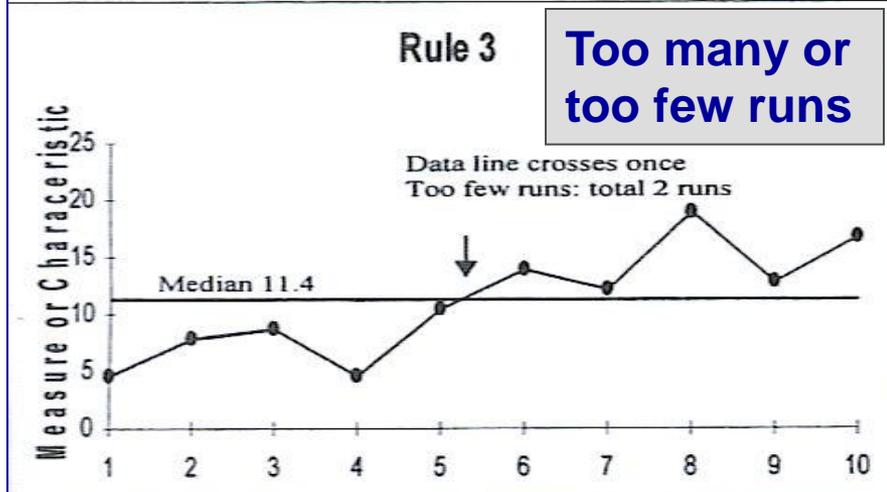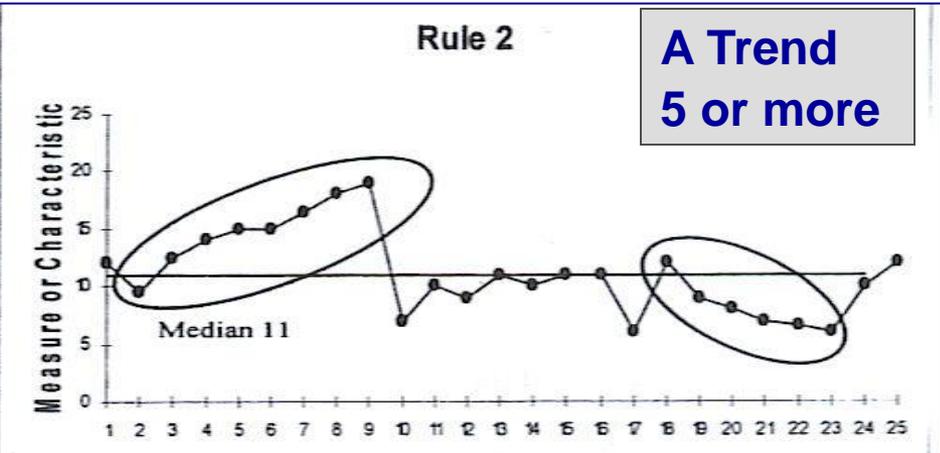
Source: The Data Guide by L. Provost and S. Murray, Jossey-Bass, 2011, p.78

Resource Article:
The run chart: a simple analytical tool for learning from variation in healthcare processes

British Medical Journal Quality and Safety, 2011, *Rocco Perla, Lloyd Provost, Sandy Murray*

Repeated Use of the Cycle

Model for Improvement

What are we trying to accomplish?

How will we know that a change is an improvement?

What change can we make that will result in improvement?

Changes That Result in Improvement

DATA

A | P
S | D

Hunches Theories Ideas

Source: Improvement Guide, p 10
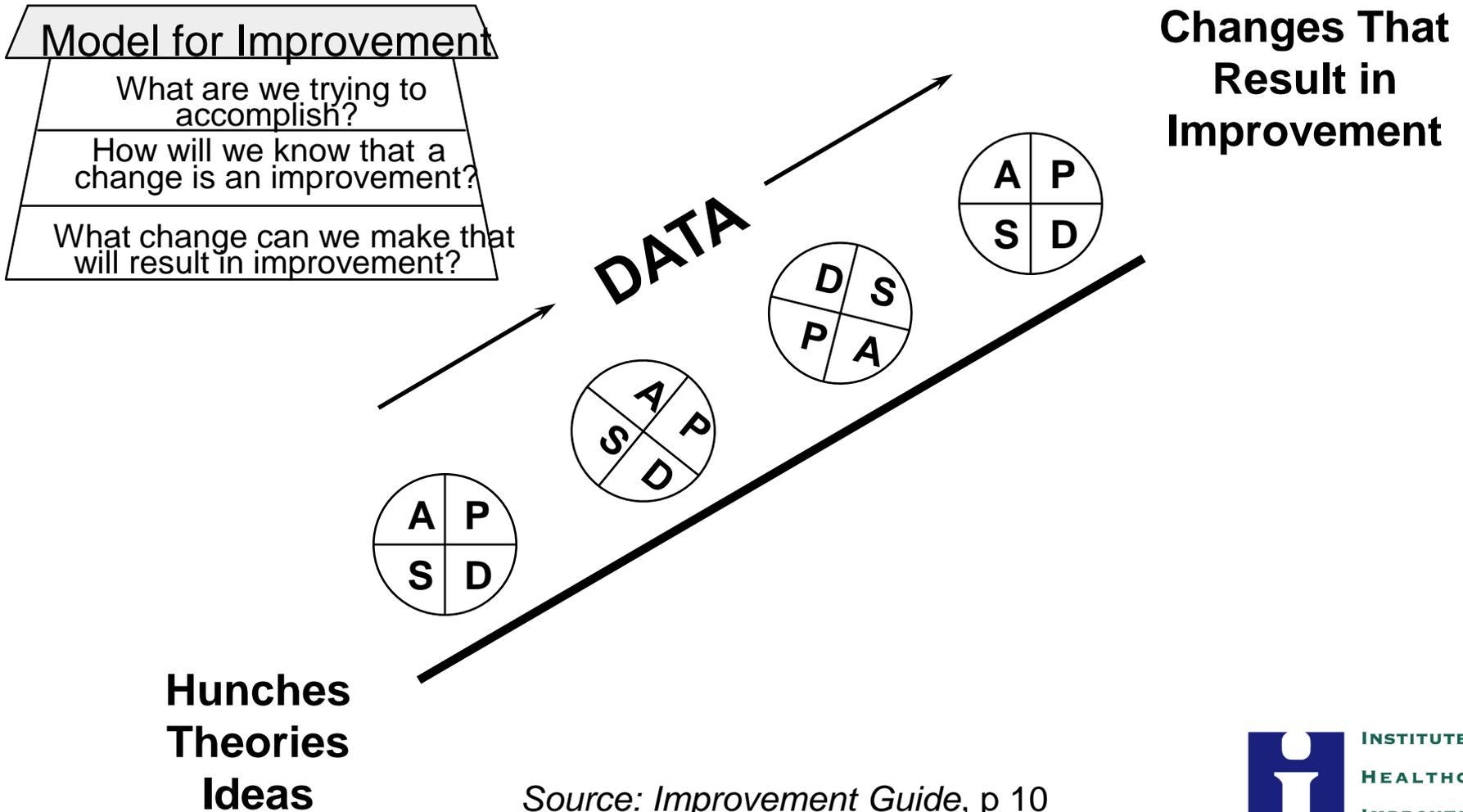
In Summary….

- Help your teams answer the three questions as you work on improving the quality and value of health care

- Use data for learning (not judgment)

- Access resources for learning more about the science of improvement

Using Data for Evidence Based Quality Improvement

Your reports are as good as the data that goes in your EHR

EHR Timeline

2009

→

TRIAL AND ERROR YEAR
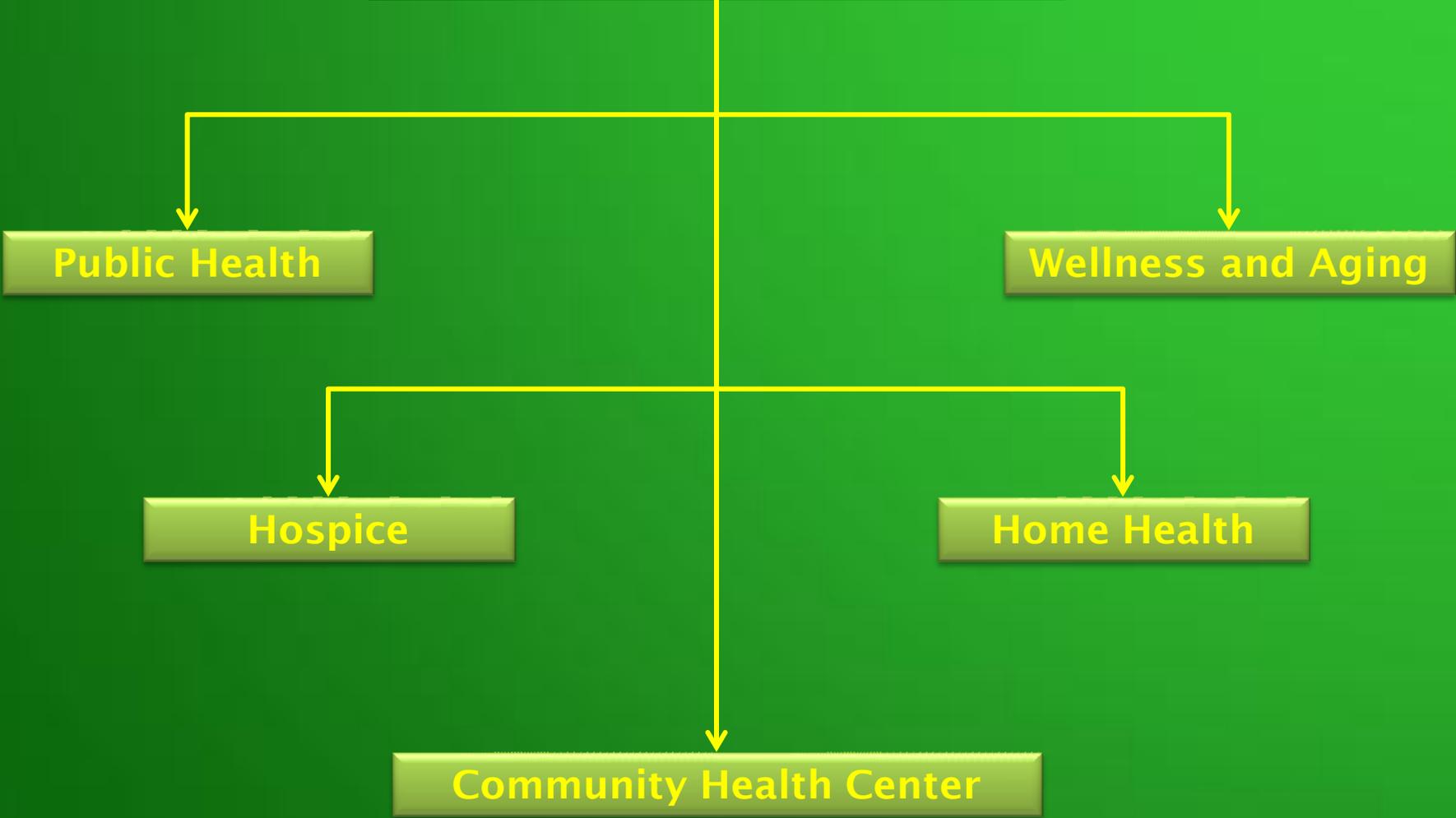
Things we are proud of:
- Researched different EHRs with the help of doctors and clinical staff
- Purchased eClinicalWorks
- Embraced the challenge to transition from paper records to electronic records
- Started producing our first reports (financial)

Things that needed some extra help:

-Even we had on-site training from our EHR vendor, there were no roles setup for who would continue the training program.

-The continuing training program was very informal. Medical staff, as we learned later, "had to learn on their own" and created their own ways to document.

How we used data - 2009

NO DATA!

As we started to use our EHR, the Director of Clinical and Quality Services started to work with the Clinical Management team deciding how we would approach our QI projects.

Before we started presenting data to the clinic, we needed to decide what measures we would needed to track.

By the end of the year we started working with Health Team Works to provide coaching on Quality Improvement initiatives

EHR Timeline
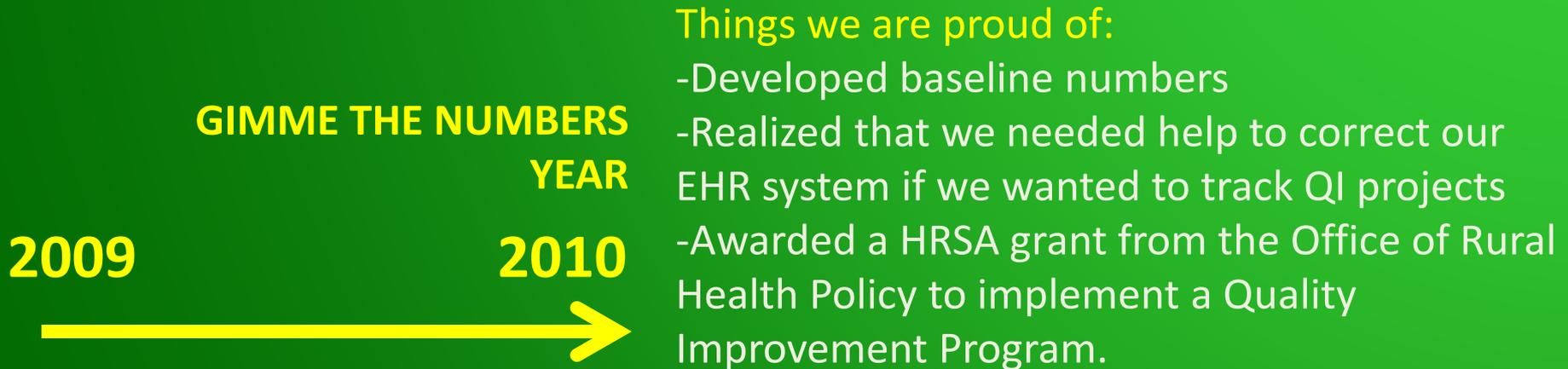
GIMME THE NUMBERS YEAR

2009 → **2010**

Things we are proud of:
-Developed baseline numbers
-Realized that we needed help to correct our EHR system if we wanted to track QI projects
-Awarded a HRSA grant from the Office of Rural Health Policy to implement a Quality Improvement Program.

- QI Project started taking shape thanks to full-time person who focused on retrieving information from our system and presenting it to our clinical staff.

Things that needed some extra help:
-Did not have one assigned person to perform changes in the system
-Every person in the clinic had their own way of working in the EHR
-Little help from our EHR vendor
-Choose a "let's do it all" approach rather than introducing one measure at the time method.

How we used data – 2010

Data provided was the clinic's average

After reviewing different measures we decided to work with DM patients. We chose to track 20 different measures. The definitions of the measures were provided by HTW. We wanted to cover all our basis!

Our first reports were an average of how the clinic is doing as a whole. We compared our results with the current national average.

Started working with PDSAs to improve measures that didn't look so great.

Northwest Colorado Visiting Nurse Association Data • Report Period: December 2010

Show data for   Dec-10 ▼

Metric	Goal	Value
Count of DM patients 18-75 yo		88
Pct of DM patients with latest BP <130/80	70	44.318
Pct of DM patients with eye exam	80	2.2727
Pct DM pts w/ medical attention for nephropathy	90	89.773
Pct of DM patients with latest BP <140/90	90	85.227
Pct of DM patients with latest LDL <130	90	85.227
Pct of DM patients with current flu vaccination	75	51.136
Pct of DM patients with SM Goal	90	76.136
Pct of DM pts with pneumo vacc	90	50
Pct of DM patients referred for eye exam	90	
Pct of DM patients with >=1 A1Cs	90	97.727

Metric	Goal	Value
Pct of DM patients with latest A1C >9	5	17.045
Pct of DM patients with latest LDL <100	70	54.545
Pct DM pts w/ smoking cessation counseling	90	96
Pct of DM patients with latest A1C <7	75	47.727
Pct of DM patients with >=1 LDLs	90	98.864
Pct of DM patients with foot exam	90	86.364
Pct of DM patients aged 40-75 on aspirin	85	46.667
Pct of DM pts 55-75 taking ACE/ARB	75	77.778
Pct of DM pts prescribed a statin	60	58.667
Pct of DM patients queried about tobacco use	90	96.591

Count of DM patients 18-75 yo

Pct of DM patients with latest A1C >9

Pct of DM patients with latest BP <130/80

Pct of DM patients with latest LDL <100

Pct of DM patients with eye exam

Pct DM pts w/ smoking cessation counseling
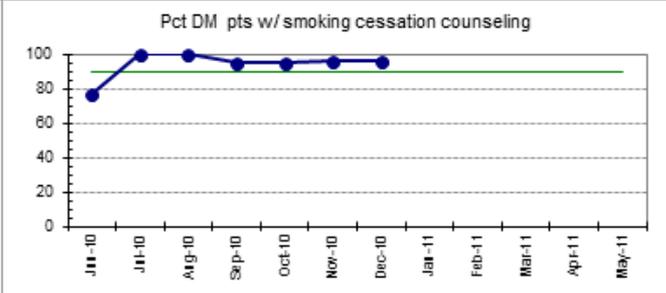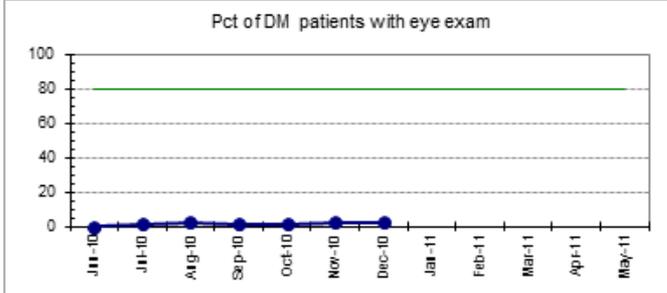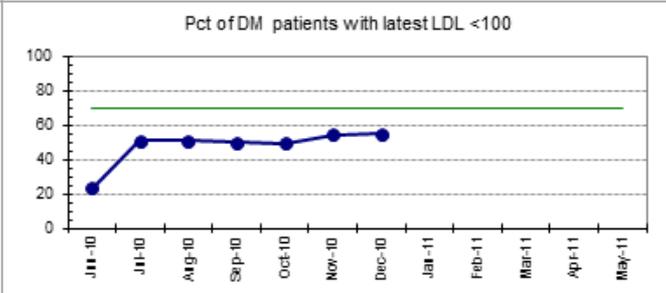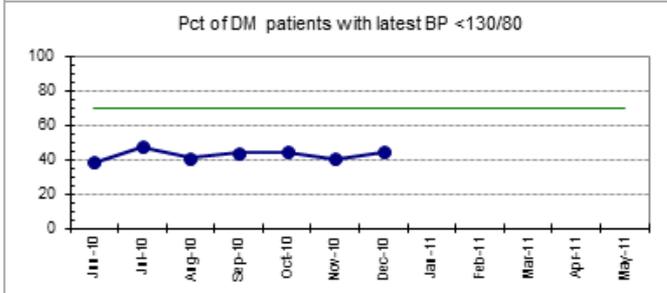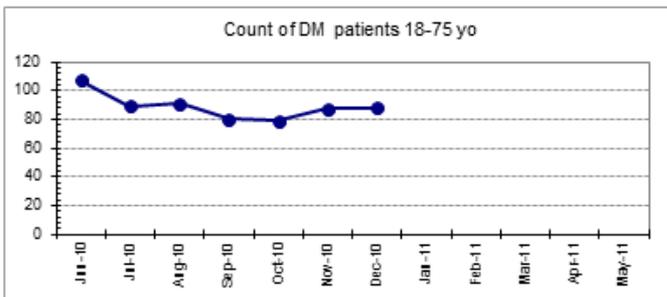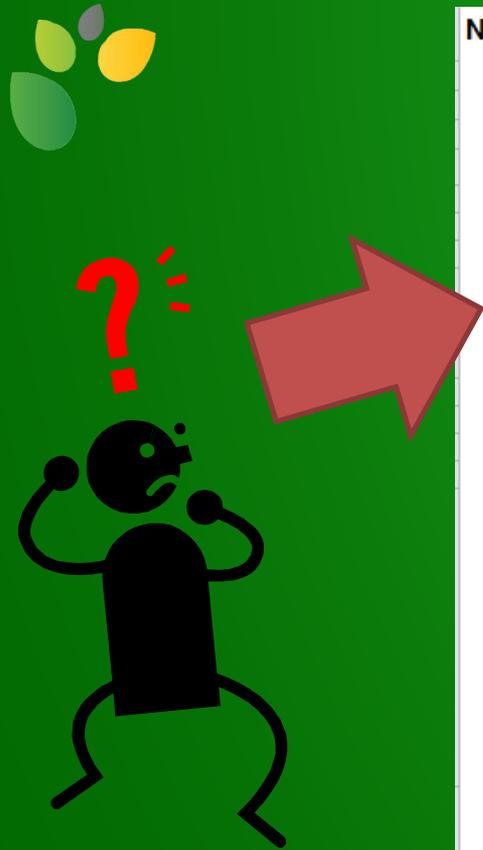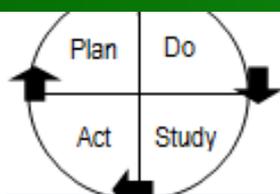
PDSA WORKSHEET

Team Name:	Date of test:	Test Completion Date:
Overall team/project aim:		
What is the objective of the test?		

PLAN:
Briefly describe the test:

How will you know that the change is an improvement?

What driver does the change impact?

What do you predict will happen?

PLAN

List the tasks necessary to complete this test (what)	Person responsible (who)	When	Where
1.			
2.			
3.			
4.			
5.			
6.			

Plan for collection of data:

DO: Test the changes.

Was the cycle carried out as planned?   Yes   No
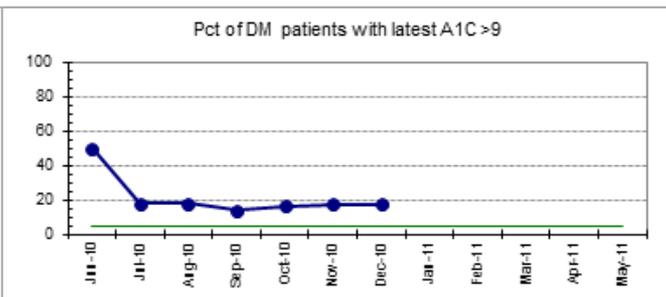
Record data and observations.

What did you observe that was not part of our plan?

STUDY:
Did the results match your predictions?   Yes   No

Compare the result of your test to your previous performance:

What did you learn?

ACT: Decide to Adopt, Adapt, or Abandon.

☐ Adapt: Improve the change and continue testing plan.
Plans/changes for next test:

☐ Adopt: Select changes to implement on a larger scale and develop an implementation plan and plan for sustainability

☐ Abandon: Discard this change idea and try a different one

PDSA WORKSHEET

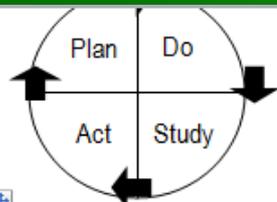| Team Name: XX team	Date of test: 11/09/2012	Test Completion Date: Ongoing
Overall team/project aim: To improve care for patients with diabetes		
What is the objective of the test? Improve the time doctors spend with patients with diabetes		

Plan / Do / Act / Study (PDSA cycle diagram)

PLAN:

Briefly describe the test:
Bring patients before their appointment with the doctor to draw labs so the doctor has lab results ready when the patient comes to see them.

How will you know that the change is an improvement?
Decrease on number of attempt phone calls to patients when they get their labs done after they see their provider.

What driver does the change impact?
Front Desk scheduling for callbacks on patients with DM. MA's for lab draws.

What do you predict will happen?
Provider will have lab results during visit with patient that will increase the effectiveness of the visit.

PLAN

List the tasks necessary to complete this test (what)	Person responsible (who)	When	Where
1. Run a list of patients that need a DM visit.	EHR System Admin		
2. Call patients that need a visit for a pre-visit to do labs with a MA	Front Desk		
3. Send a note to providers to create orders for patients who are coming	Medical Assistant		
4. Complete lab work and send note to providers of pts who come	Medical Assistant		
5. Review lab results with patients as they come for their check ups	Provider		

Plan for collection of data:
We average 1.5 phone calls we have to do if the patient comes and later gets their results through phone and any med changes.
We will count how many patients got their lab work before coming to the visit and multiply that number by 1.5. That's how many less calls we have to do thanks to the pre-visit.

DO: Test the changes.

Was the cycle carried out as planned? Yes No

Record data and observations.
Patients were called based on report. We found out that many patients had "urgent care" visits in between their diabetes visits, which skewed our report. We need to figure out a way to tag DM visits from other visits in pt's chart. Some patients came and orders were not in system yet.

What did you observe that was not part of our plan?
When the patients were in the clinic for the lab draw, one MA also completed a foot exam, provided education and talk with patient about talking with our Patient Navigator or Dietitian. We would like to include all these elements in the pre-visit template.

STUDY:

Did the results match your predictions? Yes No

Compare the result of your test to your previous performance:
Providers were pleased to have lab results during their visit. It helps them to adjust medications and provide education as needed.

What did you learn?
Some MAs were not as involved in the process as others. One MA had the initiative. Need to think how to get more MAs and providers involved. We will add the recommendations of the one MA that went above and beyond of what was requested.

ACT: Decide to Adopt, Adapt, or Abandon.

Adapt: Improve the change and continue testing plan.
Plans/changes for next test: Include suggestions of other services in pre-visit rather than labs only and try to incorporate more providers in PDSA

Adopt: Select changes to implement on a larger scale and develop an implementation plan and plan for sustainability

Abandon: Discard this change idea and try a different one

Flowsheets help you to determine what care items a patient is missing or are due. Reminders and alerts also help.

EHR Timeline

GIMME THE NUMBERS YEAR

2009   **2010**

→

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-Choose a "let's do it all" approach rather than introducing one measure at the time method.

How we used data - 2011

SH DH
FJ AL

Data was provided by Team

After realizing that 20 measures were too long, we focused on 5.

During this year we used our new reporting tool to provide us with:
-A diabetes patient panel for each provider
-A registry report for each panel
-Graphs that provide us data with trends.

Part of our QI plan was to add a QI board were we post data results and information regarding our projects.

QI Meetings – 2011

Front Desk

Medical Assistant

Medical Provider
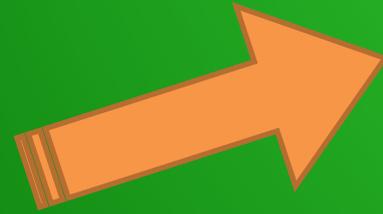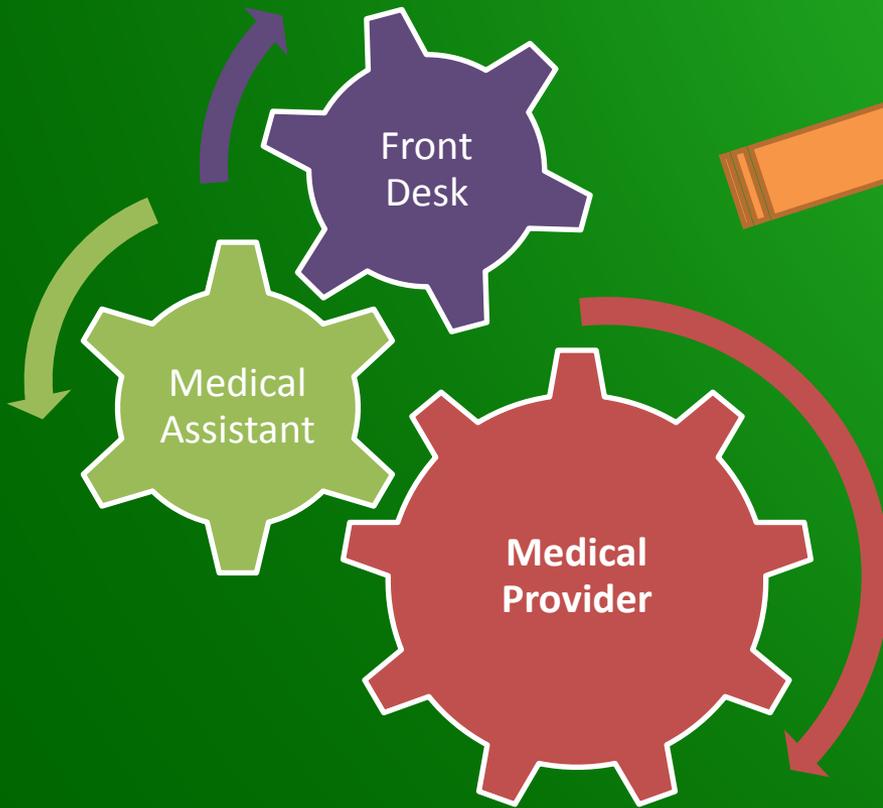
REGISTRY

Registry

Patient Name	Last visit at CHC	3rd field in Patient Demogra / PCG Provider	Patient age at last date of service / Patient Age	If patient has a Dx of HTN or not, ever / HT	If patient has a Dx of DM or not, ever / DM	Last BP reading in an appt with a medical provider. Control: <140/90		Last BMI recording in an appt Overwgt: >25, Obese: >30 / BMI	Smoking status as in last appt in Social History / Smoker	Last full SBIRT assessmt to a smoker / Smoker Counsel	Every 6 months / Last A1C Date	High: >10, At risk:>8, Lower risk: >6, Under control: <6 / A1C	Once a year / Last Lipid Panel Date	High: >100, Under Control: <100 / LDL	High: <40, At risk: <60, Under control: >60 / HDL	High: >240, At risk: >160, Under control: <160 / Total Cholest	High: >20, At risk: >10, Low: <10 / Framing. Risk	At least once / Last Pat Nav Referra
						Sys	Dias											
	6/26/2012		70	Y	Y	140	88	29.62	No		5/31/2012	7.4	5/31/2012	83	53	175	20	8/3/2011
	6/25/2012		61	Y	Y	144	60	42.77	Yes		5/30/2012	6.8	5/30/2012	110	38	193	20	6/15/2010
	6/25/2012		57	Y	Y	120	72	38.24	No		6/20/2012	12.5	6/20/2012	55	38	130	11	2/17/2011
	6/25/2012		43	Y	Y	106	70	30.41	Yes		5/14/2012	6.9	1/24/2012	127	47	222	14	6/5/2012
	6/22/2012		60	Y	Y	142	76	41.67	No		2/13/2012	7	10/21/2011	89	36	150	17	2/26/2010
	6/22/2012		36	Y	Y	132	96	40.64	No		1/23/2012	7.9	6/6/2011	85	37	172	7	12/7/2010
	6/21/2012		54	Y	Y	156	94	33.36	Yes	8/16/2010	3/23/2012	9.5	3/23/2012	99	41	176	14	5/12/2011
	6/18/2012		62	Y	Y	124	60	29.74	Yes		3/15/2012	7.7	3/15/2012	57	37	168	18	
	6/18/2012		64	Y	Y	138	88	32.28	Yes		11/16/2011	6	11/23/2011	113	50	188	14	
	6/18/2012		48	N	Y	124	80	27.25	Yes		3/8/2012	7.1	3/8/2012	74	47	139	12	9/23/2010
	6/15/2012		41	Y	Y	114	64	42.92	No		2/21/2012	7.1	8/4/2011	85	54	166	3	4/21/2010

Characteristics:
- One line per patient: it shows last lab/test results with dates
- Results are color coded according to ranges provided by the medical team.
- Dates are color coded according if their due or not
- Results in measure graphs come from registry, so we can actually analyze where are those numbers coming from

QI Board

First Appointment Roadmap

OPEN ENCOUNTER
- Introduce yourself and your role
- Confirm the reason for the visit
- State the appointment length
- Ask Permission

DOCUMENTATION
- Explain patient about our program and ask them sign the authorization of release of medical records and affidavit, for us to be able to talk directly with their Medical Providers
- Ask patient to fill self-assessment

INFORMATION EXCHANGE
Empathic ● Supportive of Self-Efficacy ● Non-judgmental ● Collaborative ● Clear and Succinct

Providing Education
- Ask permission
- Assess current knowledge
- Avoid overwhelming patient with too much information
- Check if frequently for understanding
- Ask for return demonstration

Sharing Clinical Results
- Ask permission
- Check patient's understanding of the test
- Compare results to norms
- Ask for patient's interpretation
- **Sample:** " Your test results are _____.
  The standard for this test is _____.
  What do you make of this information?

NEGOTIATE THE AGENDA
- **Offer options:** On this chart are a number of things that you can do to control better your disease _____.
- **Elicit patient choice:** Is there one are you would like to focus on today?
  Is there something you'd like to add to the chart, or something else you'd rather talk about?

EXPLORE AMBIVALANCE
- Use importance ruler: How important is this you to _____?

OR
- What are some reasons you would want things to stay the same?   AND
- What are some reasons for making a change?

OR
- What do you like about _____? AND
- What don't you like about _____?

- SUMMARIZE

ASSES READINESS
- Readiness/Confidence Scale
- Straight question: Why a 5?
- Backward question: Why a 5 and not a 2?
- Forward question: What would need to be different to move you from a 5 to a 7 or 8?
- Ready to make change: What made you decide on that particular step?
- Maintaining change: Congratulations! What is helping you?

- SUMMARIZE

TAILOR THE TRANSITION

NOT READY 0 - 3
- **Raise Awareness**
- Elicit Change Talk
- Advise & Encourage
  - What would need to happen for you to think about changing?
  - How can I help?
  - Would you be interested in knowing more about _____?
  - What might need to be different for you to consider making a change in the future?
  - SUMMARIZE as appropriate

UNSURE 4 - 6
- **Evaluate Ambivalence**
- Elicit Change Talk
- Build Readiness
  - Where does that leave you know?
  - What do you see as your next steps?
  - What are you thinking/feeling at this point?
  - Where does _____ fit into your future?
  - SUMMARIZE as appropriate

READY 7 - 10
- **Strengthen Commitment**
- Elicit Change Talk
- Negotiate a Plan
  - What are your main reasons for _____ ? / Why is this important to you?
  - What are your ideas for _____ ? / How might you do?
  - How might your life be different when you make this change?
  - What barriers might you encounter when making this change?
  - SUMMARIZE as appropriate

CLOSE THE ENCOUNTER
- Show appreciation
- Affirm positive behaviors
- Respectfully acknowledge decision
- **Offer Advice** if appropriate
- **Emphasize Choice**
- **Express confidence**

**CREATE an Action Plan with patient → Give patient a calendar
ARRANGE for follow up and refer to available resources → Use flowchart guidelines**

Fill out an Encounter Form and fax it to Medical Provider

Roadmap of how to use Motivational Interviewing during a patient's first appointment

Step by step process how to enter information in our Electronic Health Record

ENTERING HISTORICAL PAP INFORMATION IN ECW

REQUIREMENTS

1. Patient states that she has had a pap test in the past two years with a medical provider outside our clinic.
2. Patient remembers where the pap test was performed and if possible the date when the pap test was performed

** Unsubstantiated statements from patients which cannot be backed up with third party documentation should not be counted as compliant

If all above requirements have been fulfilled, then proceed to enter the information in ECW:

1. Go to Patient's HUB and click on Alerts:

2. The alerts window will open and the PAP alert will show under Generic/Dx/Rx Alerts

3. Check the UDS Pap Test Alert and click on "Last Done"

4. The "Last Done" window will appear. Enter the correct date when this lab was last done and the result of the test. The Next Due date will reset automatically.
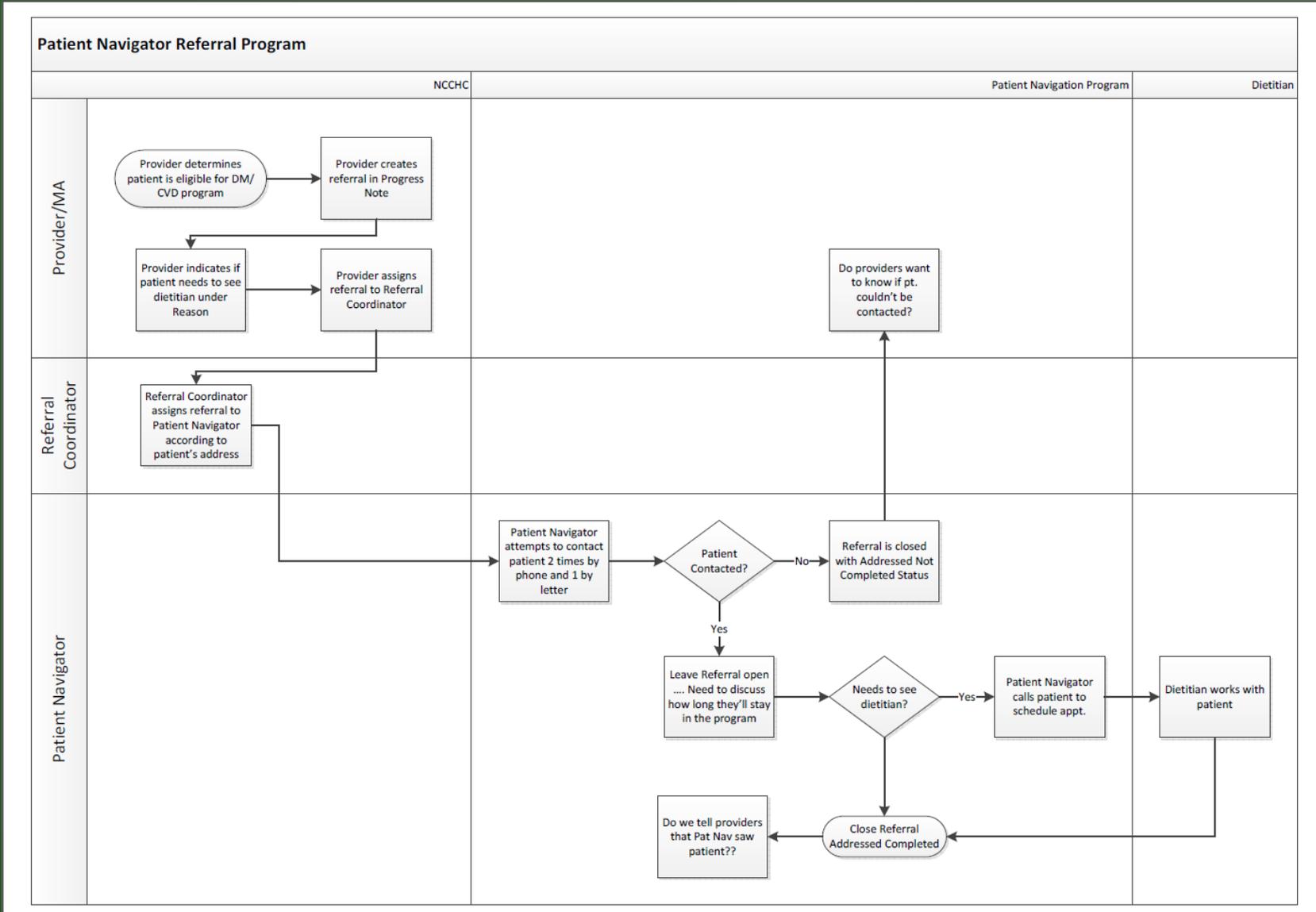
5. The alert will disappear from the Alert window. Click close and go back to the patient HUB.
6. Go to the Labs section in the patient HUB. This test is captured in eClinicalWorks as a Virtual Lab and it is automatically received and review.

VISIO Workflows

Patient Navigator Referral Program

| NCCHC | Patient Navigation Program | Dietitian |

Provider/MA
- Provider determines patient is eligible for DM/CVD program
- Provider creates referral in Progress Note
- Provider indicates if patient needs to see dietitian under Reason
- Provider assigns referral to Referral Coordinator
- Do providers want to know if pt. couldn't be contacted?

Referral Coordinator
- Referral Coordinator assigns referral to Patient Navigator according to patient's address

Patient Navigator
- Patient Navigator attempts to contact patient 2 times by phone and 1 by letter
- Patient Contacted?
- No → Referral is closed with Addressed Not Completed Status
- Yes
- Leave Referral open .... Need to discuss how long they'll stay in the program
- Needs to see dietitian?
- Yes → Patient Navigator calls patient to schedule appt.
- Dietitian works with patient
- Do we tell providers that Pat Nav saw patient??
- Close Referral Addressed Completed

EHR Timeline

EXPANSION YEAR

2009   **2010**   **2011**   **2012**

Things we are doing now:
-Expanding to include patients with CVD (adding more than 1000 patients to our current registry)
-Moving to briefer and more quality-oriented meetings. We have moved the one hour a month meeting with all staff to a half hour meeting with each team once a month. This way we are decreasing the amount of time we have with a provider so they can see more patients.

Keys to QI Success

- Put together an Improvement Team

- Assign one staff member to be the EHR's system administrator

- Budget time for training staff on using your EHR

- Keep a log of all QI activity in the clinic

- Listen before talking: many of QI activities involve changing how staff currently works. They are the experts on their job position.

- Write down all the final decisions and follow up with them.

Quotes on My Door

It is not the strongest of the species that survives, nor the most intelligent that survives. It is the one that is the most adaptable to change. *~Charles Darwin~*

A person who never made a mistake never tried anything new. *~Albert Einstein~*

Websites

- Health Team works

www.healthteamworks.org

- UDS clinical quality measures

http://bphc.hrsa.gov/healthcenterdatastatistics/nationaldata/index.html

- Healthy people 2020

http://www.healthypeople.gov/2020/topicsobjectives2020/default.aspx

- Meaningful Use Quality Measures

https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/QualityMeasures/index.html?redirect=/QualityMeasures/03_ElectronicSpecifications.asp

- SNAGIT

http://www.techsmith.com/snagit.html

- TECHSOUP

www.techsoup.org

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Lone Star Circle of Care

A Behaviorally-Enhanced, Patient Centered Health Home

Health care that revolves around you.

Using Data For Process and Quality Improvement
Tamarah Duperval-Brownlee, MD, MPH, FAAFP
Chief Executive and CMO for Clinical Services, Lone Star Circle of Care
(tdbrownlee@lscctx.org)
July 27, 2012

- **Overview of Lone Star Circle of Care**

- **EHR Integration/PCMH Strategies**

- **Quality: Data Measurement and Application towards process and care improvement**

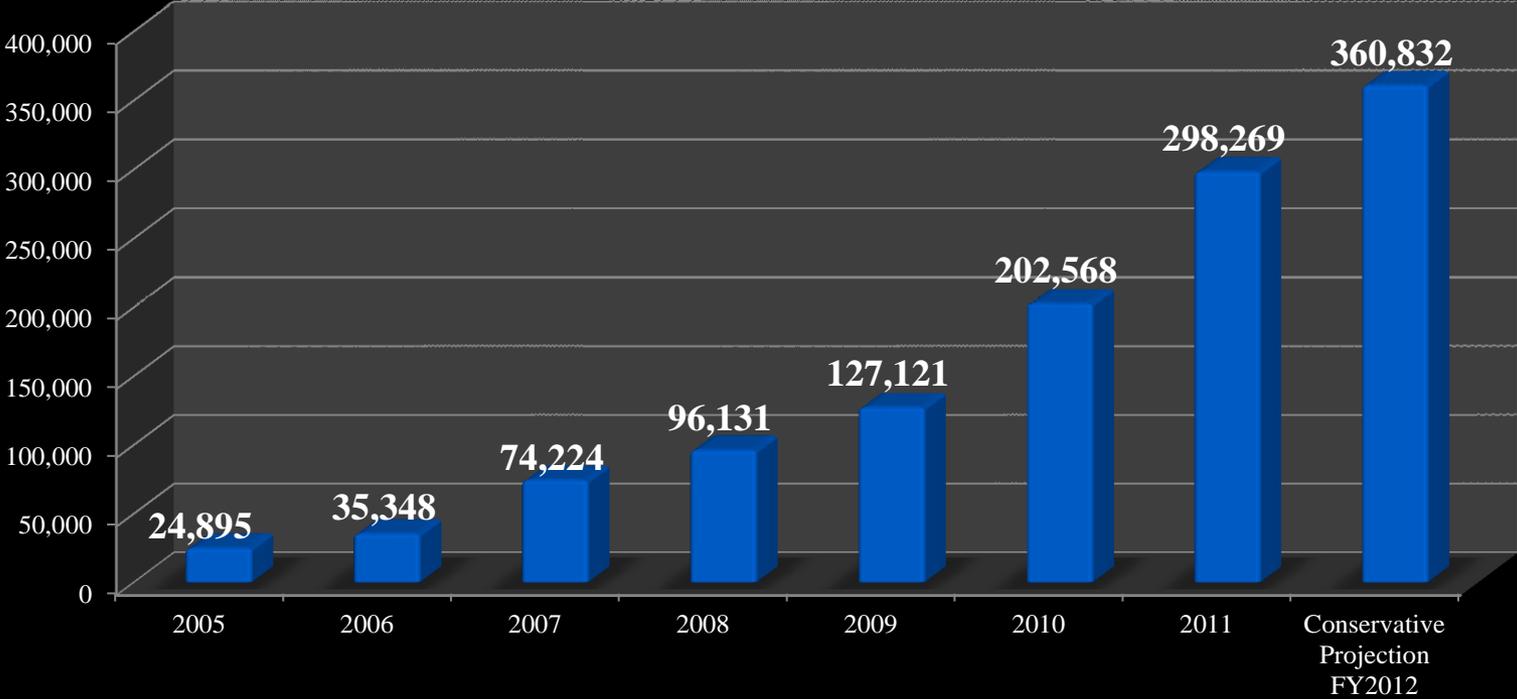- **Lessons Learned**

Lone ★ Star
Circle of Care

Overview of Lone Star Circle of Care

- A non-profit, federally qualified health center network founded in 2002

- Currently 26 clinics (16 geographic locations) spanning three Central Texas counties
  - Offer care in several service lines: Pediatrics, Family Medicine, Adolescent Medicine, OB/GYN, Senior, Dental, Optometry, Integrated Behavioral Health, and Pharmacy

- _Our Mission_: LSCC is committed to the pursuit of community-wide access to a behaviorally enhanced, patient-centered health care home that provides accountable care for all patients, focusing on the underserved

- Proud health care home to over 95,000 Central Texans

- Joint Commission-Accredited and National Committee for Quality Assurance Level 3-Designated Patient Centered Medical Home

Increasing Access

Lone Star Circle of Care Visits
FY2005 - FY2012 (Projected)

Year	Visits
2005	24,895
2006	35,348
2007	74,224
2008	96,131
2009	127,121
2010	202,568
2011	298,269
Conservative Projection FY2012	360,832

LSCC's Model

- LSCC's patient-centered health care home model provides differentiation and value in an accountable way

  - Strong clinician leadership in defining and executing health care home strategies with operational integration

  - Differentiate based on customer service, quality of services, and prioritized access

- Early investments in technology and quality initiatives position LSCC to pilot and measure results of new care delivery models and adjust the models as needed

  - Early intervention before birth and with children, their families, and healthy adults to promote wellness / disease prevention and to curb downstream costs

  - Proactive screening for behavioral health issues, and measuring the effectiveness of Integrated Behavioral Health services pre- and post-treatment

  - Identify and support at-risk populations who are in danger of developing chronic illness and those living with chronic illness to help realize improved health and quality of life while reducing costs

Lone ★ Star
Circle of Care
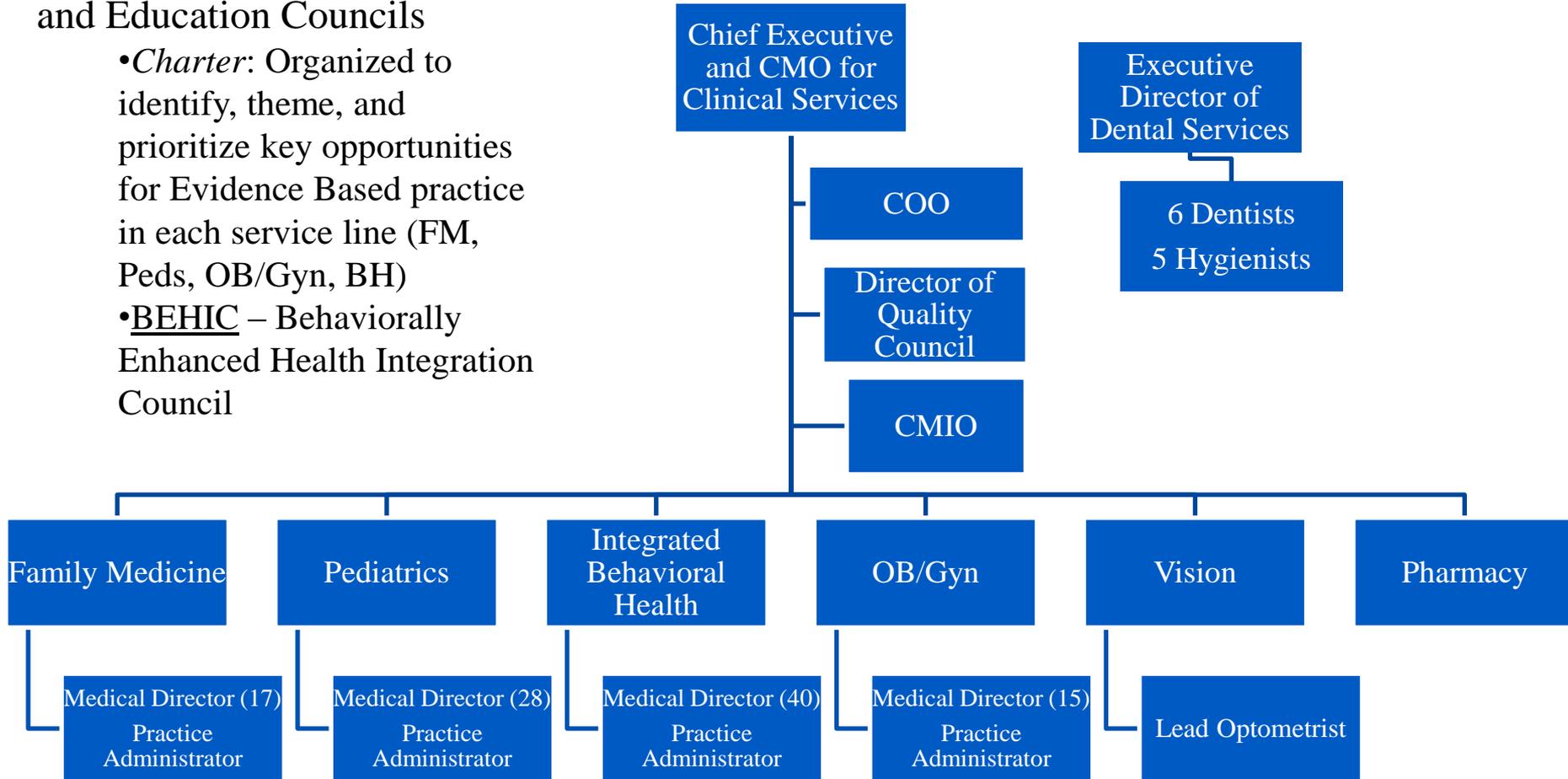
Vision aligned with PCMH Strategies

- Continuity & Access

- Empowerment & Accountability

- Technology & Data

- Quality & Evidence Based Practice

- Care Coordination

Clinical and Operational Leadership

- Multi-disciplinary Practice and Education Councils
  - *Charter*: Organized to identify, theme, and prioritize key opportunities for Evidence Based practice in each service line (FM, Peds, OB/Gyn, BH)
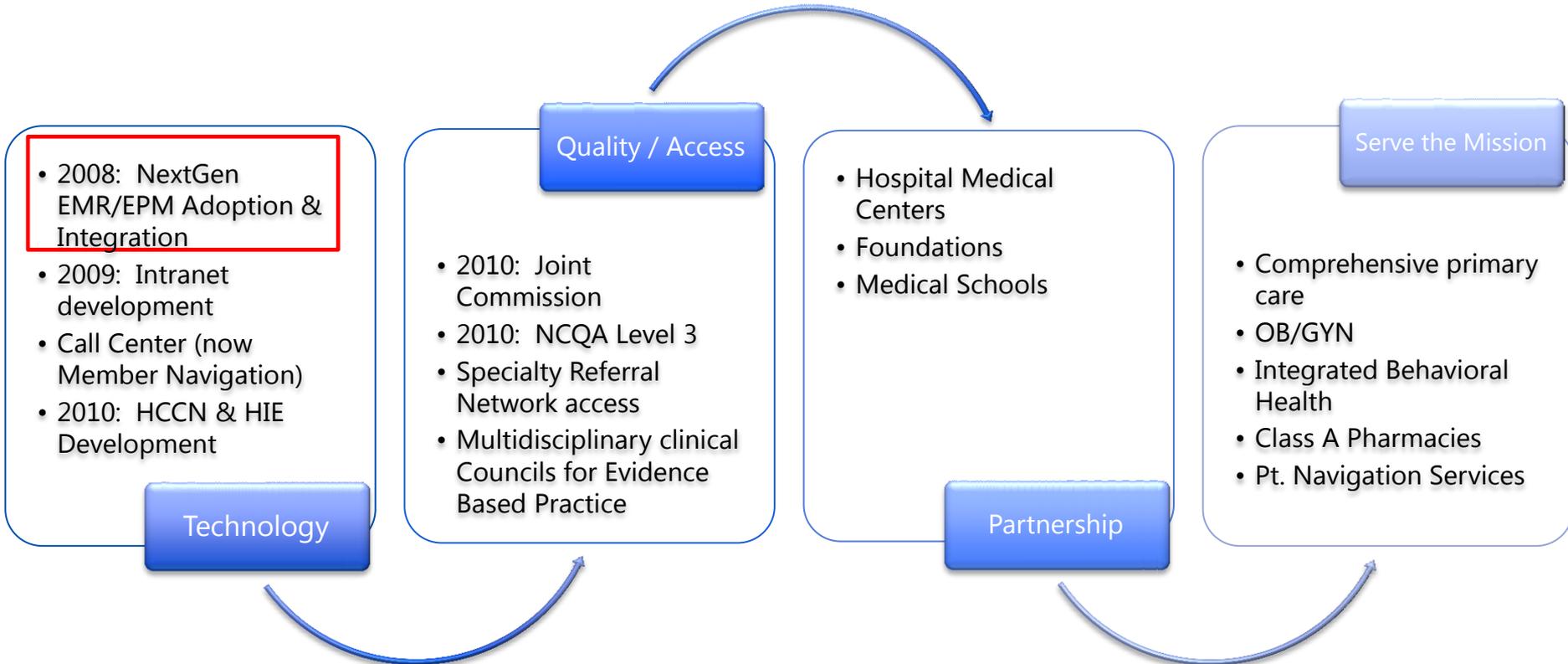 - <u>BEHIC</u> – Behaviorally Enhanced Health Integration Council

Chief Executive and CMO for Clinical Services

- COO
- Director of Quality Council
- CMIO

Executive Director of Dental Services
- 6 Dentists
  5 Hygienists

Family Medicine	Pediatrics	Integrated Behavioral Health	OB/Gyn	Vision	Pharmacy
Medical Director (17) Practice Administrator	Medical Director (28) Practice Administrator	Medical Director (40) Practice Administrator	Medical Director (15) Practice Administrator	Lead Optometrist	

EHR/Program Integration

Strategic Partnerships Plan Launched

Evidence-Based Quality Initiatives

Enhanced technology to virtually connect new sites/expanded services

Patient Centered Medical Home/ACO Evolution

Technology

- 2008: NextGen EMR/EPM Adoption & Integration
- 2009: Intranet development
- Call Center (now Member Navigation)
- 2010: HCCN & HIE Development

Quality / Access

- 2010: Joint Commission
- 2010: NCQA Level 3
- Specialty Referral Network access
- Multidisciplinary clinical Councils for Evidence Based Practice

Partnership

- Hospital Medical Centers
- Foundations
- Medical Schools

Serve the Mission

- Comprehensive primary care
- OB/GYN
- Integrated Behavioral Health
- Class A Pharmacies
- Pt. Navigation Services

Lone ★ Star
Circle of Care

EHR Integration

EHR Integration

EHR Integration – Key Points

- All existing practices fully adopted from the beginning and with subsequent expansion of services

- Dedicated support for data extraction from the EHR to the intranet and Data Integrity monitoring

- Practice and Education Councils and the Quality Council evaluate data to inform performance gaps – conducting PDSA cycles and workflow improvements (e.g. service line template customizations)

- Dedicated CMIO with the objectives of supporting providers, verifying data integrity, and using data to inform clinical and operational leadership for program and workflow improvements

Lone ★ Star
Circle of Care

Member Navigation Center

- Far beyond a traditional call center, **LSCC's Member Navigation Center** (MNC) proactively manages LSCC patients (members) using state-of-the-art technology, connecting them to every service they need throughout the healthcare continuum
  - Goal is to provide patient-centered, responsive, proactive care that focuses on improving quality and reducing costs

- The MNC's functionality is maximized via LSCC's EHR, as MNC staff can access data across LSCC's entire network versus a single clinic site
  - *Functionality will be further enhanced with HIE integration and Clinical Decision Support and Care Coordination Software*

- *Vision:* Utilize technology and highly trained, experienced teams to provide quality communication, health education, Chronic Disease management, care coordination, and overall navigation experiences throughout the community to "evolutionize" the delivery of healthcare

Member Navigation Center - Clinical Interventionists

- LSCC Clinical Interventionists - experienced Registered Nurses

  - Identify risks and proactively manage patient care continuum needs

  - Increase compliance to visits and care plans

  - Serve as part of the integrated care team with provider directed protocols

  - Hospitalization Follow Up (in-patient and ER)
    - Records
    - Medication Update
    - Orders

  - Medication Management

  - Prevention: Well Child Visits, Well Woman Care

  - Chronic Disease Management: protocol and evidence driven
    - Asthma
    - Diabetes
    - Hypertension
    - Obesity

LSCC Intranet

Intranet Reports

Web Report Status: Excellent.

| Home | Dashboard | Reports | Operations | Strategic | Finance | Billing | PNC | Appointments | Quality |

Reports Home |

Lone Star Circle of Care

Operations & Productivity

Appointment Analysis

Monthly Practice Snapshot Report

Site Manager Report

Productivity by Provider Report

Provider 12-Month Encounter Trend

Provider Average Daily Encounters By Month

Finance

Encounters by Site & Financial Class

Encounters by Provider & Financial Class

Delivery and Surgery Revenue

PPS Rate Impacts by Financial Class

PPS Rate Impacts - LSCC Overall

Today's Reporting Metrics

Tuesday's (7/24/2012) Encounters:	914
Appointments Scheduled for Today:	1,137
Appointments Kept:	347

Patient Satisfaction Survey

Patient Satisfaction Survey Results

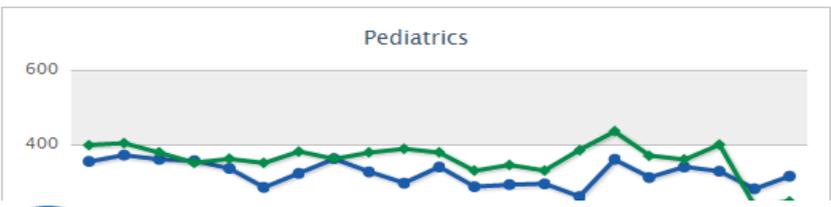### Strategic Reporting

New Patients Trend Report by Service Line

New Patients Report (12 mo Trend)

New Patients Heat Maps

New Patients Expanded Service

Unique Patients by Service and County

Mental Health

Lone ★ Star
Circle of Care

Quality – Data Transparency
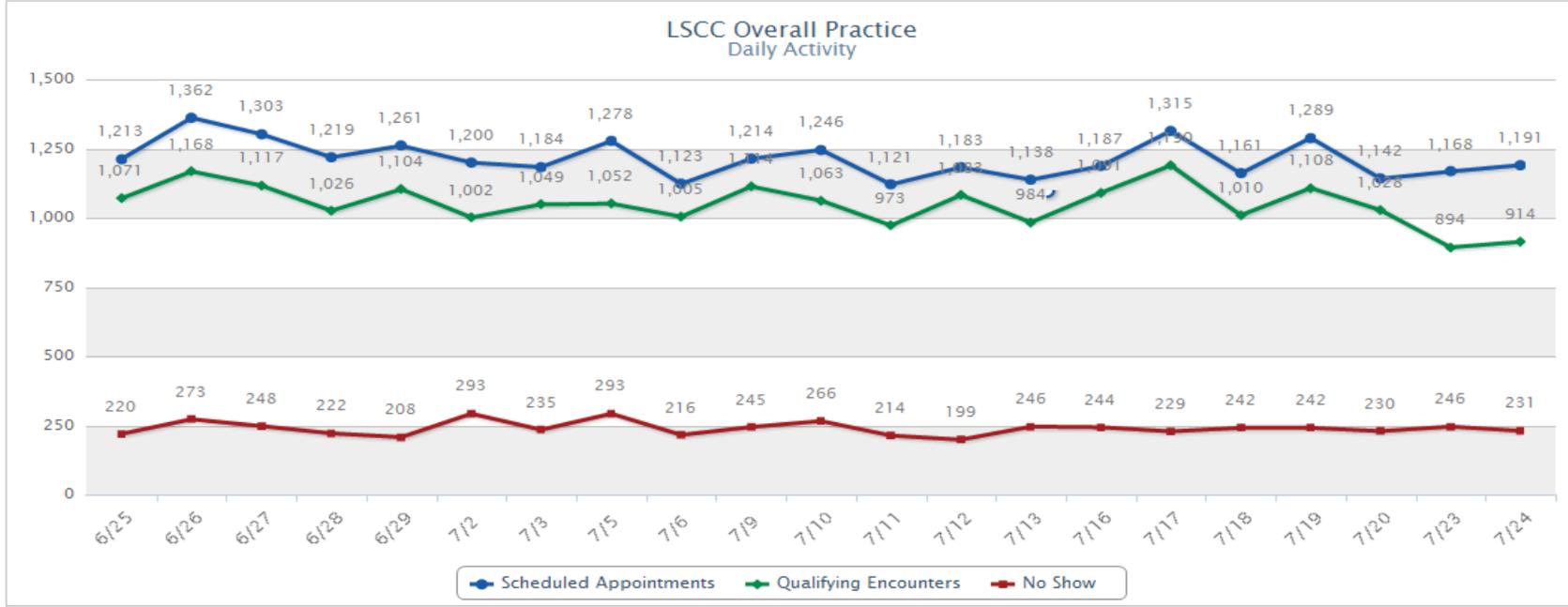
Well Child Check Kept Appointments

WCC Kept Rate (Aug 2008 to Sept 2011)
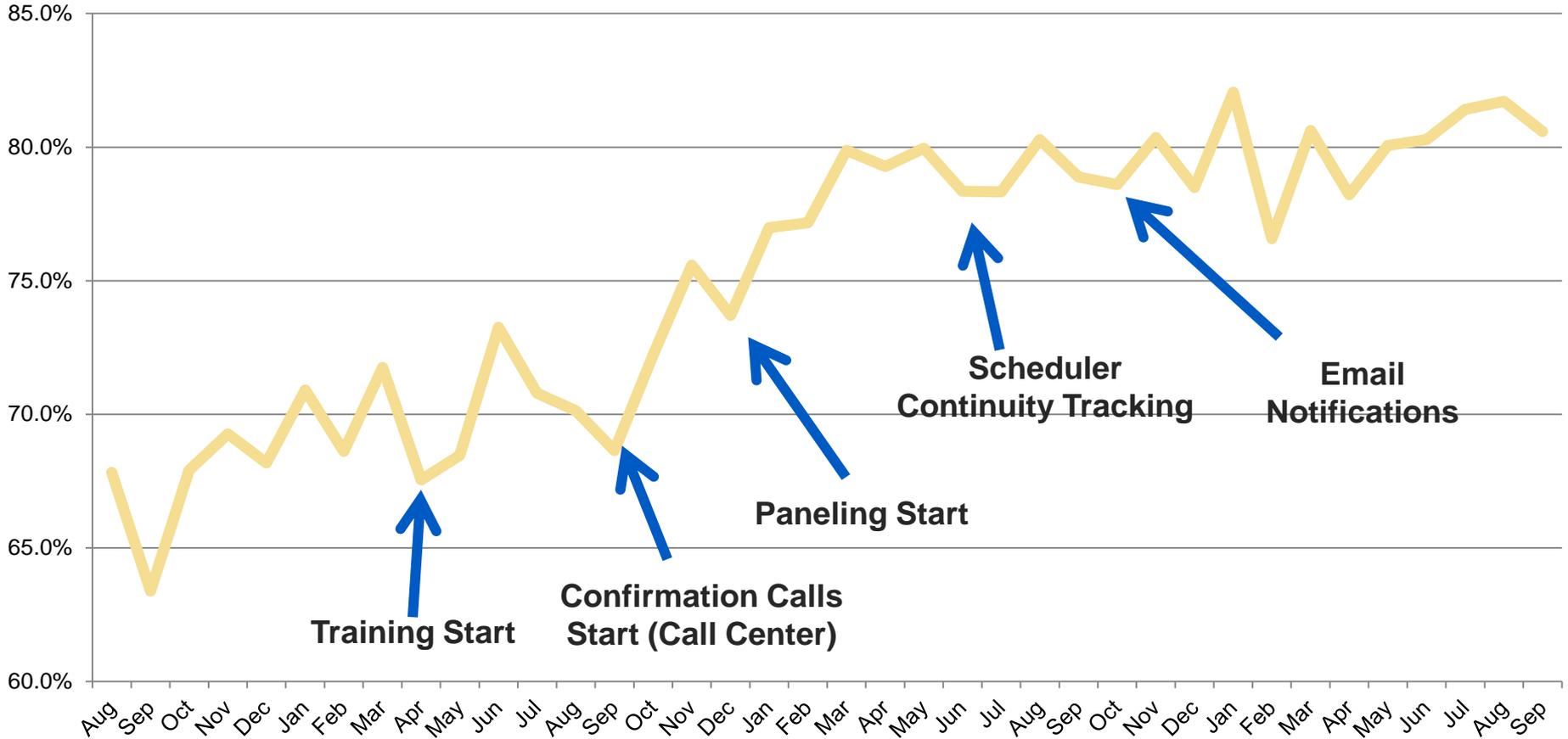
Quality – Data Transparency

Lone Star Circle of Care

Quality & Provider Scorecards	Patient Satisfaction Survey
Quality Indicators	Review Survey Results
Quality Provider Scorecards	Review Survey Comments
Nurse Visits	Contact Patient List

Meaningful Use Audits	Labs
Medications Reviewed	Lab Reconciliation

Provider Chart Audits	PCP Panels
Chart Audits	Provider Panels
Chart Audits - Results	Continuity Score/Exceptions Report
Behavioral Health Audits	
OBGYN Audits - Missing Final EDD	
OBGYN Audits - Missing Delivery Charges	
OBGYN Audits - Missing Birthweight	

Navigation tabs: Home | Dashboard | Reports | Operations | Strategic | Finance | Billing | PNC | Appointments | **Quality**

Quality – Data Transparency

LSCC Quality Provider Scorecards

Status

| Home | Dashboard | Reports | Operations | Strategic | Finance | Billing | Call Center | Appointments | **Quality** |

Lone Star Circle of Care
Provider Scorecards

Service Line: Pediatrics ▼   Date Filter: 2012-01-01 to 2012-1-31   Submit

Provider	Immunizations	Weight EDU	Pharyngitis	URI	WCC 2-6	WCC 7-18
	55.8%	65.2%	100.0%	100.0%	94.2%	90.8%
	36.4%	49.7%	80.0%	100.0%	80.7%	82.9%
	26.1%	58.8%	100.0%	100.0%	85.2%	74.3%
	22.7%	58.4%	100.0%	100.0%	87.7%	86.1%
	68.8%	57.1%	100.0%	88.9%	93.3%	90.3%
	20.0%	41.8%	63.0%	100.0%	67.8%	71.6%
	43.5%	53.5%	77.8%	92.2%	79.6%	81.4%
	50.0%	39.3%	100.0%	100.0%	92.6%	77.3%
	57.1%	56.1%	82.4%	95.7%	89.7%	80.9%
	65.4%	50.5%	83.3%	100.0%	78.2%	80.2%
	43.8%	61.0%	85.7%	97.4%	94.7%	90.6%
	32.0%	41.6%	100.0%	100.0%	83.5%	86.7%
	52.6%	54.9%	100.0%	100.0%	89.9%	90.8%
	17.6%	65.6%	50.0%	100.0%	88.1%	80.6%
	29.2%	63.1%	57.1%	100.0%	85.7%	87.9%
	36.7%	72.6%	0.0%	100.0%	89.0%	94.8%
	21.4%	26.2%	70.0%	84.6%	66.2%	64.0%
	20.0%	50.8%	100.0%	100.0%	89.5%	80.4%
	25.0%	76.9%	100.0%	88.9%	95.5%	96.2%
	0.0%	37.6%	46.2%	0.0%	67.2%	60.7%
	40.9%	62.1%	100.0%	100.0%	87.0%	92.6%

Quality - Meaningful Use

Lone Star Circle of Care
Medications Reviewed

Date Filter: 2012-5-01 to 2012-5-31   Submit

Provider	Missing Master IM Record		Reviewed Medications	Qualifying Encounters	% Reviewed Medication
	0		265	274	96.7%
	0		276	299	92.3%
	1		266	295	90.2%
	0		3	257	1.2%
	0		212	220	96.4%
	0		268	304	88.2%
	0		280	290	96.6%
	0		149	270	55.2%
	0		226	258	87.6%
	0		49	135	36.3%
	0		291	303	96.0%
	0		268	284	94.4%
	1		245	268	91.4%
	0		120	197	60.9%
	1		238	275	86.5%
	0		235	242	97.1%
	0		196	257	76.3%
Totals (17 Providers)	**3**		**3,587**	**4,428**	**81.0%**

Local intran

Quality - Meaningful Use

Service Line	Provider Name	CPOE ≥ 31%	eRx ≥ 41%	Active Med List ≥ 81%	Record Demogr ≥ 51%	Vitals ≥ 51%	Smoke Status ≥ 51%	Med Recon ≥ 51%	Allergy List ≥ 81%	Patient Plan ≥ 51%	Problem List ≥ 81%
FP		99%	88%	100%	100%	94%	94%	96%	98%	93%	100%
FP		100%	85%	100%	100%	97%	78%	100%	99%	93%	100%
FP		99%	97%	100%	100%	100%	95%	92%	100%	97%	100%
FP		99%	91%	99%	100%	100%	95%	100%	97%	97%	100%
FP		100%	83%	100%	99%	97%	70%	97%	98%	97%	100%
FP		99%	65%	100%	100%	99%	97%	97%	100%	99%	100%
FP		100%	79%	100%	100%	94%	78%	87%	95%	80%	100%
FP		99%	90%	100%	99%	98%	92%	100%	99%	99%	100%
FP		97%	87%	100%	100%	96%	93%	100%	100%	98%	100%
FP		100%	86%	100%	100%	97%	94%	100%	99%	89%	100%
FP		100%	85%	100%	100%	97%	92%	100%	100%	97%	100%
FP		100%	89%	100%	99%	99%	78%	100%	98%	100%	100%
FP		99%	78%	100%	99%	100%	97%	100%	100%	91%	100%
FP		100%	78%	100%	100%	99%	94%	100%	100%	93%	100%
FP		99%	84%	99%	99%	97%	84%	98%	98%	97%	100%
FP		98%	75%	100%	100%	99%	92%	100%	100%	93%	100%
FP		100%	81%	100%	100%	95%	91%	95%	97%	86%	100%

Summary – Lessons learned

- Early investments in technology infrastructure and its clinically integrated support, as well as a vision for quality informed and evidence based care are critical

  - Avoid the trap of collecting data for 'collecting sake'

- Strong Clinical Leadership in Quality

  - Integrated forums for data evaluation, piloting processes and care improvement

  - Utilization of real-time data through multiple dashboards

- Integration across the clinical practice team – avoid the silos

- Data transparency and testing for accuracy and integrity are critical

- Culture setting for Quality and Improvement is continuous and ever-evolving

Office of Health Information Technology and Quality

Additional HRSA Health IT and Quality Toolboxes and Resources including past webinars can be found at:

http://www.hrsa.gov/healthit

http://www.hrsa.gov/quality

Please visit HRSA's New Clinical Quality & Performance Measures Toolkit, located on HRSA Quality Improvement website
(http://www.hrsa.gov/quality)

Additional questions can sent to the following e-mail address:

HealthIT@hrsa.gov

- **US Department of Health and Human Services**
- **Health Resources and Services Administration**