

# Experiential Quality Improvement: engaging residents in clinical practice improvement through advocacy and leading change teams

Society of Teachers of Family Medicine  
Annual Spring Conference  
April 27, 2010

UCSF/SFGH Family and Community Medicine Residency Program

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# Session Objectives

- Participants will
  - consider an example of an experiential CQI curriculum
  - understand common CQI tools and their use in framing residents' CQI work
  - explore CQI as a framework for teaching about health disparities
  - discuss engagement of residents in the clinical practice through leading QI teams and working directly with clinic staff and patients

# Background

- ACGME Program Requirements for Family Medicine (2007)

Management of Health Systems: residents must receive at least 100 hours of management and leadership instruction to include both the didactic and the practical settings.

# SFGH Family Health Center

- On San Francisco General Hospital campus
- 10,500 patients served
- 47,000+ visits per year
- Teaching clinic: 39 family practice residents and many medical and nursing students
- Diverse patient population
  - 39% Latino, 27% Asian, 17% Caucasian, 13% African American
  - 48% Medi-Cal, 22% uninsured, 18% Medicare
  - 31 different languages spoken
    - 42% English, 25% Spanish, 8% Cantonese/Mandarin



# QI Infrastructure

- Monthly clinic-wide QI meeting and small group meetings (“PDSAs”)
- Clinic staff all expected to participate in QI
- Developing RN role as QI coach for PDSA teams

# Outline of the Course

- Fifty total hours
- Spread over 9 months (two 3 month blocks)
- Didactics during block one of 3<sup>rd</sup> year
- Best Practice Visit and report back using FOCUS-PDSA model
- Choice of project: refinement using FOCUS model and feedback from peers and faculty
- Development of project with team
- PDSA cycles
- New collaboration with Primary Care Internal Medicine Residency Program

# Didactic Seminar #1: Introduction to Quality Improvement and Tools

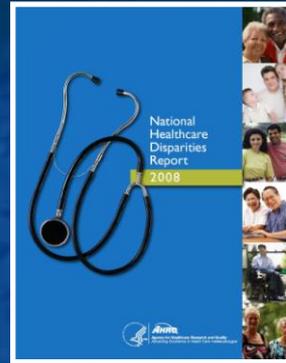
- Evolution from quality assurance to quality improvement
- Examples of use of QI in clinical practice
- Introduction to the FOCUS-PDSA cycle
- Individual patient panel reports (dashboards) as springboard to thinking about improvement
- QI tools
- Pay for performance

# Didactic Seminar #2: Measuring Improvement

- Measurement for improvement vs. measurement for research
- Where in the FOCUS-PDSA cycle data collection and measurement should happen
- How much data to collect to drive improvement process (sampling)
- Types of improvement measures
- Use of surveys, qualitative, and quantitative measures

# Didactic Seminar #3: Using Quality Improvement to Address Health Care Disparities

- Distinguish health care disparities from health disparities
- Frame HCD as a *quality* and *system* problem
  - AHRQ Natl HCD report and IOM reports
- Importance and limitations of data on race, ethnicity, and language
- QI to close HCD gaps
  - Broad or targeted approach?
- Examples of national and local interventions



# Experiential Quality Improvement: Resident-Driven Projects

- **F**= Find a process to improve: Residents each identify a problem
- **O**=Organize a team: Meet with team to fully understand problem and causes of variation
- **C**=Clarify current knowledge of the problem and  
**U**=Understand sources of variation: Present plan for collecting data to support assertion that there is a problem
- **S**=Select a process to improve: Select the process improvement strategy—based on feedback from peers and faculty
- Work through PDSA cycles

# Lesson Learned: process of feedback and designing project

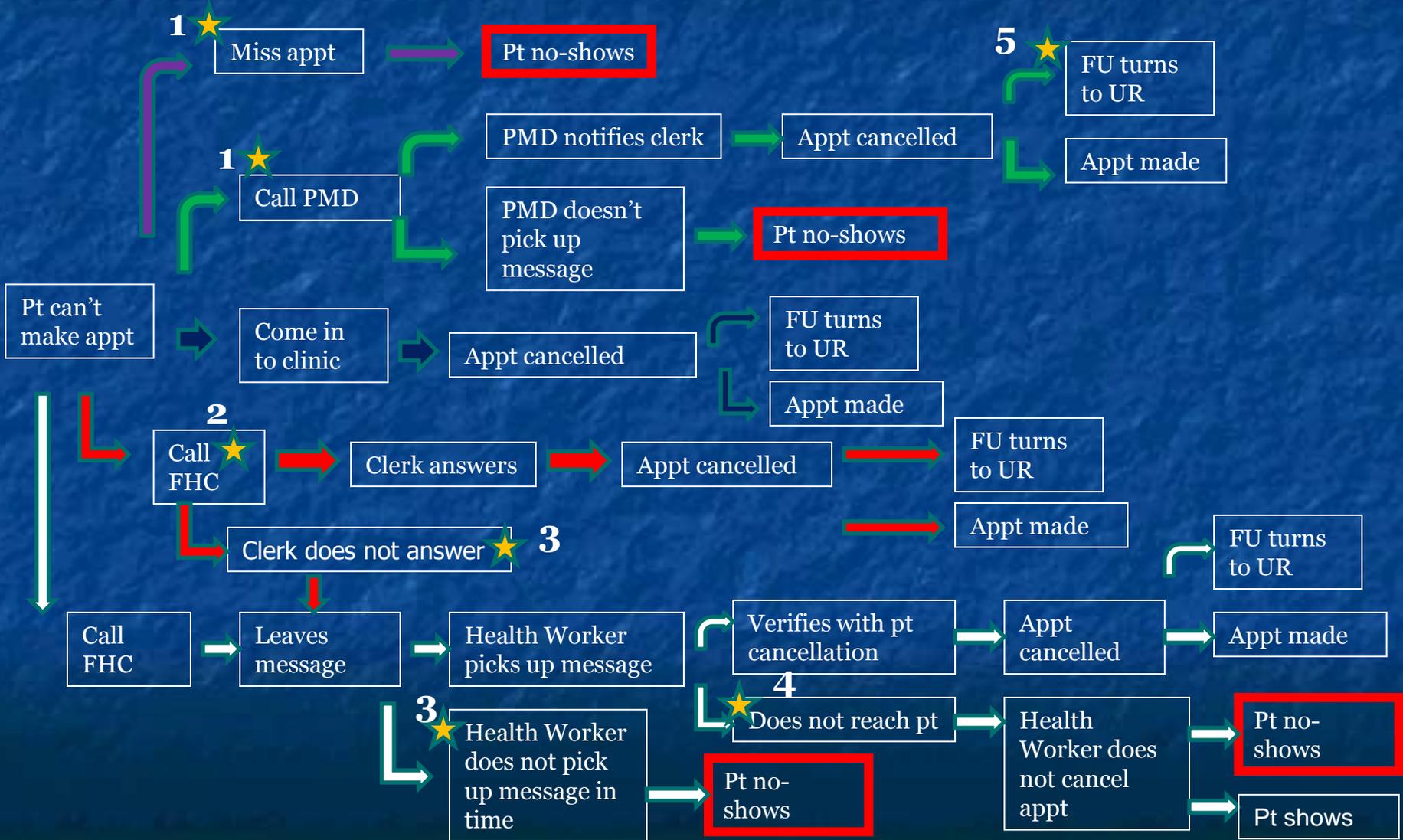
- Scope
- Avoid improvement plan which hinges only on provider education
- Data must support that there is a problem
- Use PDSA cycles to test and measure improvement

# Scope: big => small

- Residents tend to gravitate toward large, ambitious projects (i.e. CenteringPregnancy)
- Residents have approximately 18 hours to work on their projects outside of seminars, which seems like a lot of time.
- Choice of project that involves scheduling or care over time hard to "PDSA" because 18 hours only spans 2-3 months

# CQI Project: turning cancelled appts into open slots

## U: Understand Variation

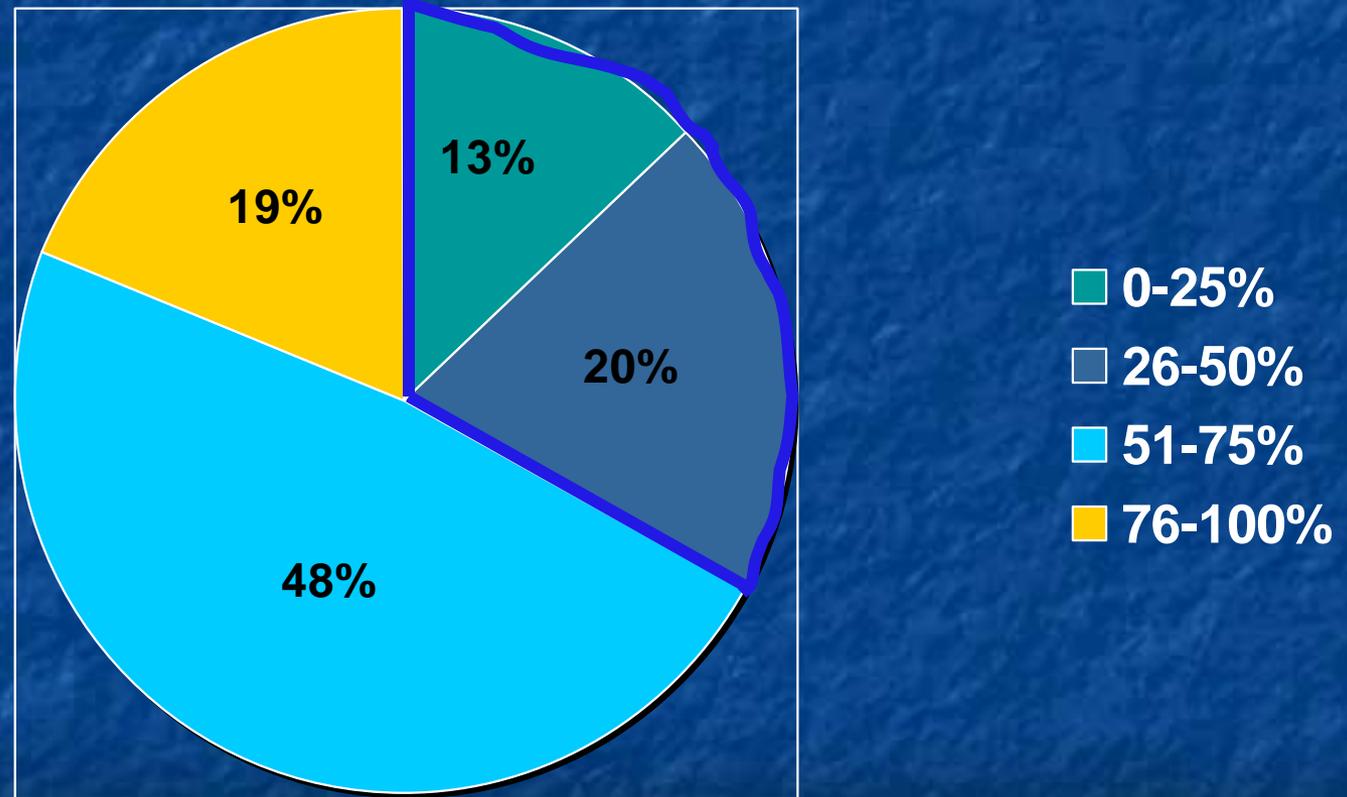


# Education ≠ Process Improvement

- Use of provider surveys (but not just to measure satisfaction)
- Provider education can be the process improvement *only* if it leads to measurable improvement in care

# CQI: Chronic Pain Management at the FHC

## How often do we feel there is a clear pain diagnosis?



Providers were asked what percentage of the time their patients had a clear diagnosis for the cause of their pain.

# Baseline data must support the problem

- Residents are energized to fix problems they've been living with for 2+ years
- Challenge: redirect energy to a measurable problem to be able to show improvement
- Distinction between process problems and provider dissatisfaction

# CQI: Improving Cycle Time for a Resident Primary Care Visit

## C: Clarify Current Knowledge of the Process

Registration	Intake	Triage	Waiting for MD	MD Visit	Discharge	Total Time	Pt Arrival vs. Appt time
13	8	3	0	20	1	43	-5
5	3	2	0	40	12	72	-25
7	1	2	17	20	1	56	-38
2	1	2	14	33	18	77	-7
3	3	3	0	30	1	46	8
4	1	4	25	26	18	83	-16
8	3	8	0	41	5	58	6
<b>Avg: 6.5</b> <b>Variation:</b> <b>2-13</b>	<b>Avg: 3.5</b> <b>Variation</b> <b>1-8</b>	<b>Avg: 3.5</b> <b>Variation</b> <b>2-8</b>	<b>Avg: 8</b> <b>Variation</b> <b>0-25</b>	<b>Avg: 30</b> <b>Variation</b> <b>20-41</b>	<b>Avg: 8</b> <b>Variation</b> <b>1-18</b>	<b>Avg: 62</b> <b>Variation</b> <b>43-83</b>	<b>Avg: -11</b> <b>Variation</b> <b>-38 +8</b>

# CQI: Improving Cycle Time for a Resident Primary Care Visit

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# Plan PDSAs to measure improvement

- Finding time to do PDSAs
- Engaging staff so they will test change
- Working with team members so that they will continue “PDSAing” when resident goes off block or graduates
- Ok to start small and measure small

# CQI: Scheduling follow-up appts at the FHC

## Plan: Process Improvement

- Decrease the internal patient demand (backlog + monthly appointment requests) by encouraging f/u appt folder review by residents
- Goal is to prevent the scheduling of patients that may not need to be seen and therefore free up appointments that are more urgent
  - Patients who might not need to be seen include multiple no shows, recently seen by PMD or other provider, has multiple dispo sheets for appointments

# Study: Impact of PDSA on Internal Demand for Current Month

Resident	A	B	C	<i>R3 avg</i>
Appt slots/month	48	48	48	
Current month + Backlog	83	44	66	<b><i>120</i></b>
Current month (before reviewing)	59	44	21	<b><i>70</i></b>
Current month (after reviewing)	48	27	16	
Dispo sheets removed	11	17	5	

# Act/Adjust: Summary

- The principal benefit from folder review seems to be reducing the backlog >> current month by discarding dispo sheets that are duplicates and recently-seen patients, etc.
- Is the folder review process effective in reducing the total number of patients awaiting appointments?
  - Would need to continue regular folder review and reassess in a few months the state of the backlog

# Advocacy and Engagement

- **Engagement with clinic staff**
- Involvement of patient in process of describing problem and in developing improvement strategy
- Advocate for improvement

# CQI: PCP Continuity for Refugee Screens

## O: Organize to Improve

- Team:
  - Newcomers Health Program (NHP) staff including coordinator Samira Causevic, Christy Diedrick, Newcomers Health Workers
  - Residents/NPs doing refugee screens
  - Grace Espinal (green team clerk)
  - Adelia Carandang (clerical supervisor)
  - Sarah Kureshi (R3)
- Mission Statement: To improve PCP continuity for initial refugee screens & screening follow-up visits

# Advocacy and Engagement

- Engagement with clinic staff
- **Involvement of patient in process of describing problem and in developing improvement strategy**
- Advocate for improvement

# CQI: Chronic Pain Medicine Refills

## C: Phone Survey of Patients

Phone survey among resident-treated chronic pain patients to determine their satisfaction with our delivery of pain management. Goal: to clarify and understand their satisfaction with chronic pain care.

7 patients surveyed

10 pt scale of satisfaction with process for getting pain meds refilled

Average 6 (range 4-10)

# Problems identified in patient interviews

- Difficulty getting refills (5)
- Doesn't want PMD to think he/she is abusing her meds (1)
- Undertreated pain (2)
- Meds have to be prescribed each month (2)
- None of the patients reported using the Pain Clinic for refills.
- One (1) patient reported problems getting pain medicine refilled at the Refill Clinic

# Advocacy and Engagement

- Engagement with clinic staff
- Involvement of patient in process of describing problem and in developing improvement strategy
- **Advocate for improvement**

# Cervical Cancer Screening Rate Improvement Project

Elizabeth Ferrenz

3<sup>rd</sup> year resident

Dept. Family & Community Medicine

# F – Find a process to improve

- Cervical cancer screening rate defined as women age 24-64 who have had a pap smear in the last 36 months (if clinically indicated)
- Family Health Center (FHC) cervical cancer screening rate doesn't meet the following goals
  - 80% goal for Community Health Network clinics
  - 77.5% Medicaid clinic 90<sup>th</sup> percentile
- 65.6% - June 2009 up-to-date rate
- 69.5% - December 2009 up-to-date rate
- Quality improvement targets for the San Francisco Health Plan
  - Pay for performance for improving 5% and 10% from baseline

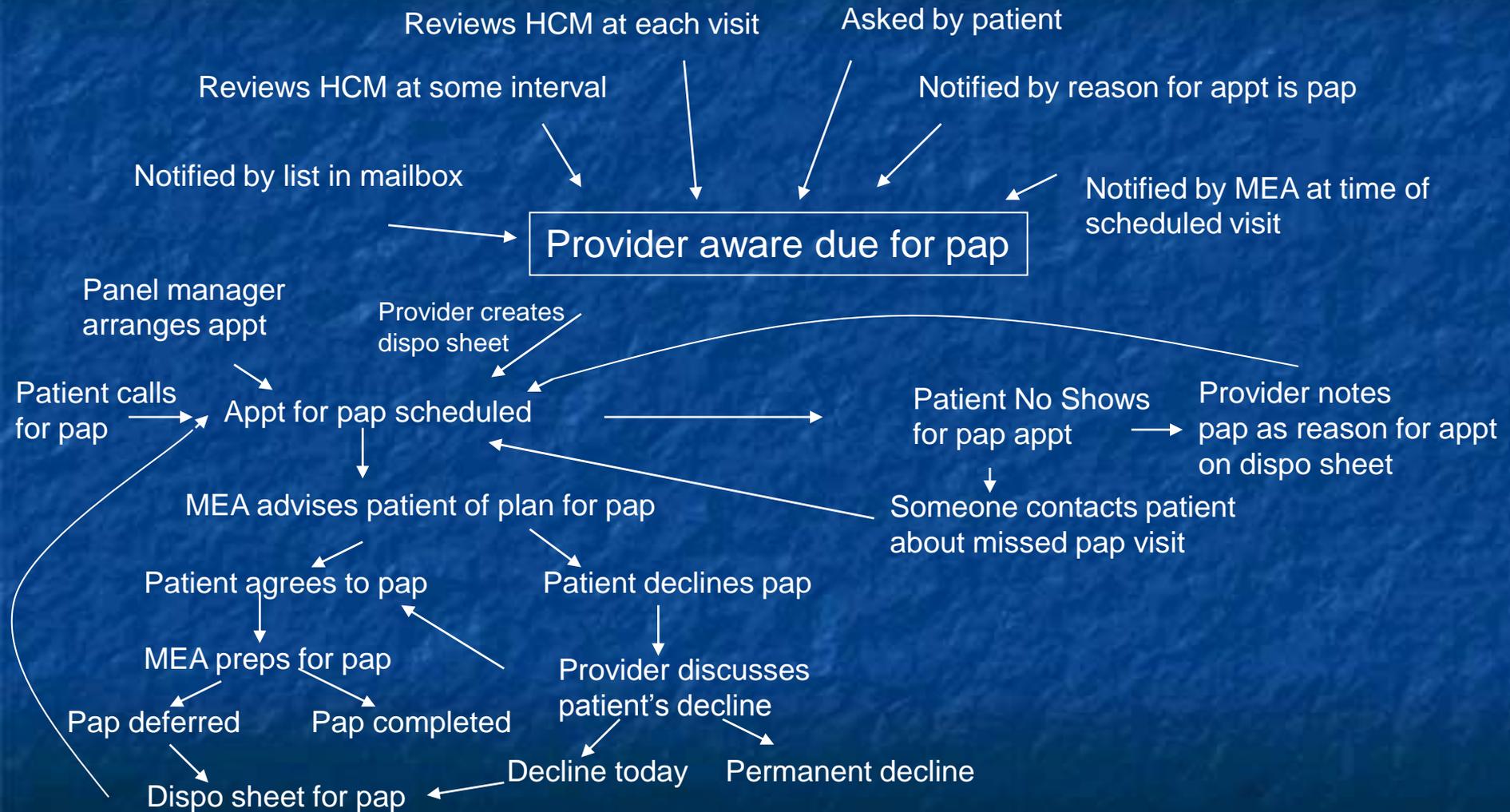
# O - Organize a team

- Originally formed in summer 2009
  - La (data analyst), MEA representative from each team
    - Cristina, Alfonso, Vanessa, Vicki, me
- Pay for Performance group
  - Hali, Ceci, Jorge
- Winter 2010 group
  - Ceci – direct patient contact, scheduling
  - MEAs – see above
  - Clerical Supervisor

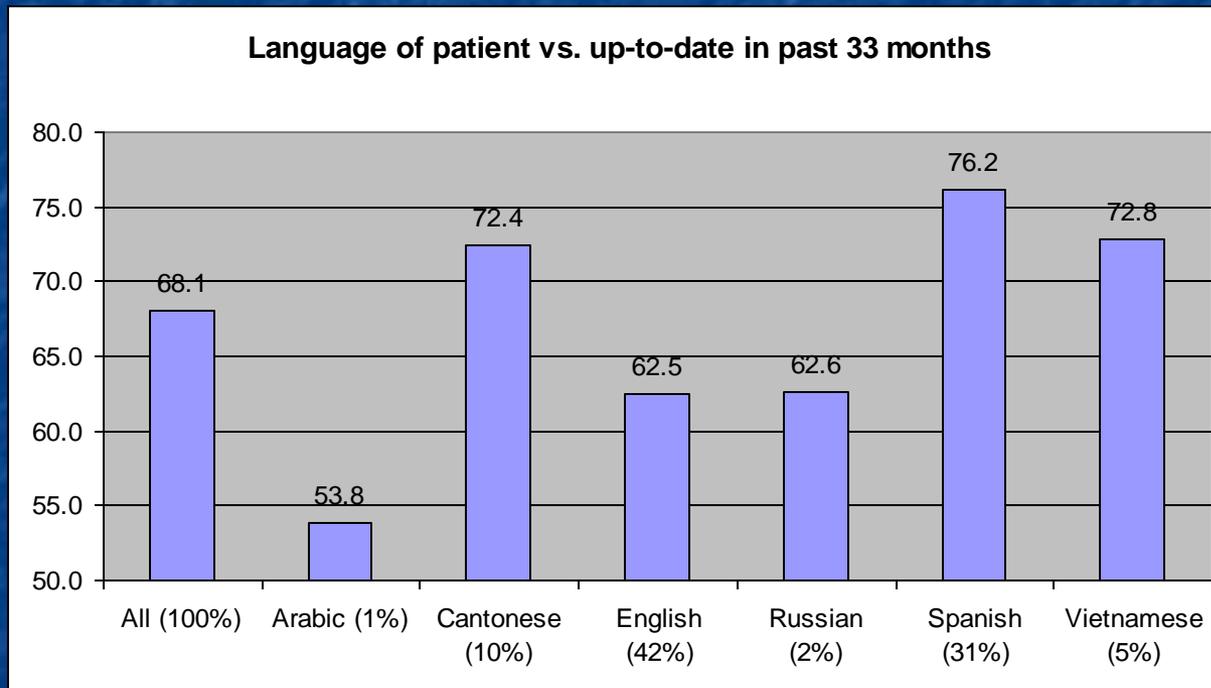
# C – Clarify current knowledge FHC initiatives since June 2009

- MEAs empowered to note if pap overdue on clinic sheet
- Ceci contacting patients by phone
- Unassigned patients who are overdue for pap test are assigned to a PCP
- Removing patients from the FHC list
- Providers given a printout of patients who are overdue for cervical cancer screening

# U – Understand Variation - Indicated paps

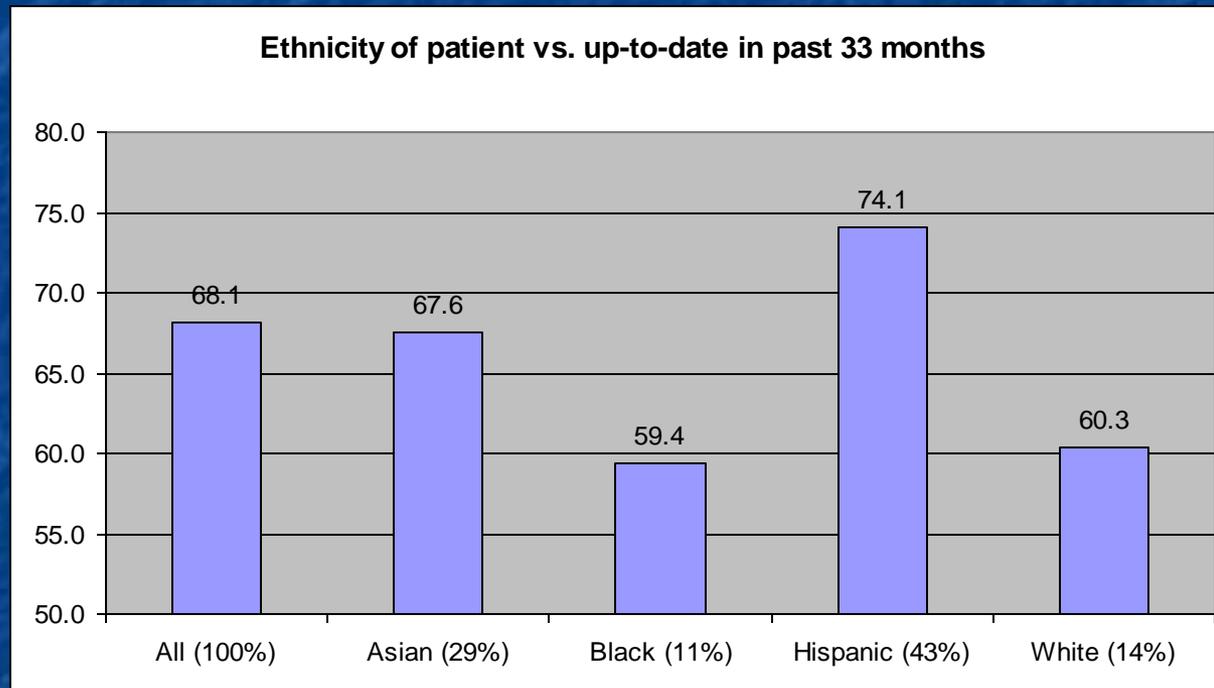


# Language of patient associated with variation in pap rate



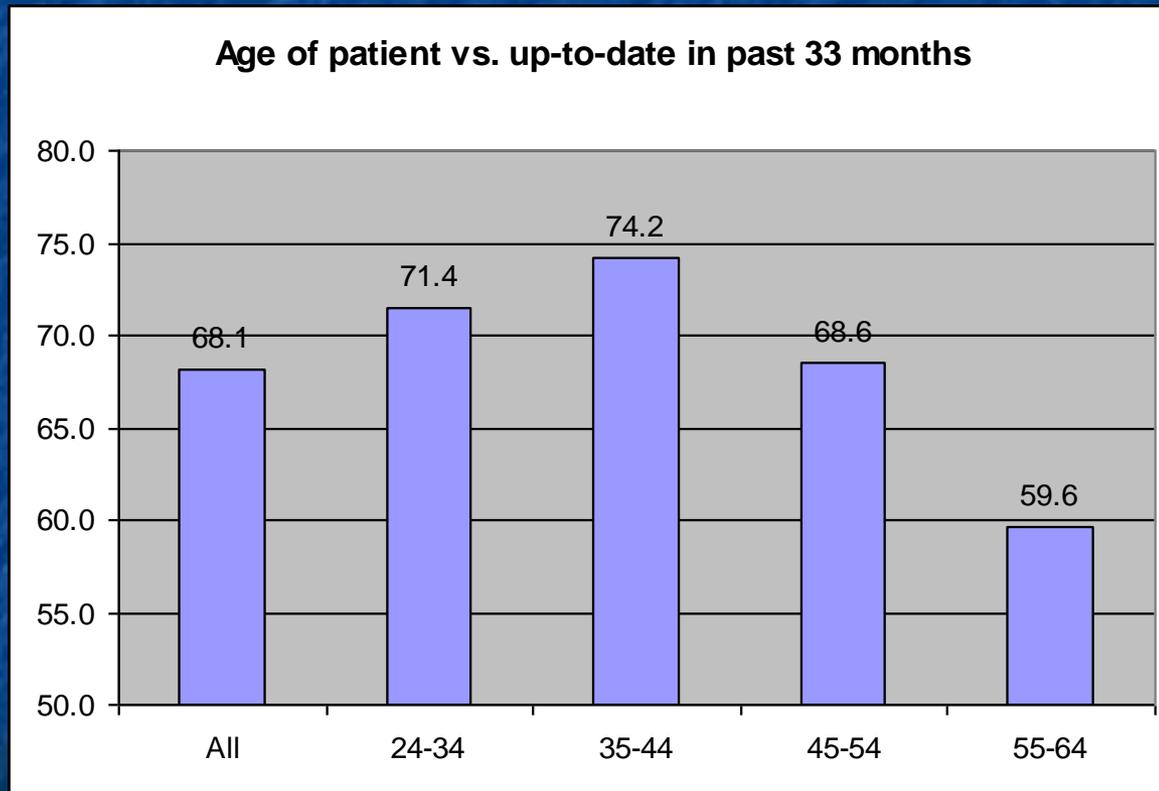
i2i data for up-to-date for past 33 months based on language  
Percentages next to language indicate percent of each language group  
in the overall group of women eligible for pap at the FHC

# Ethnicity of patient associated with variation in pap rate



i2i data for up-to-date for past 33 months based on ethnicity  
Percentages next to ethnicity indicate percent of each ethnic group  
in the overall group of women eligible for pap at the FHC

# Age of patient associated with variation in pap rate



i2i data for up-to-date for past 33 months based on age  
Older women (55-64) are less likely to be up-to-date

# S – Select a Process for Improvement

- Provider directed process improvement
  - Ceci not available at start of project
  - MEAs didn't feel their notation on the clinic list of pap was helpful
  - No La to act as panel manager
  - Providers can provide insight into patients and "not indicated" designations

# Plan

## Provider Directed Improvement

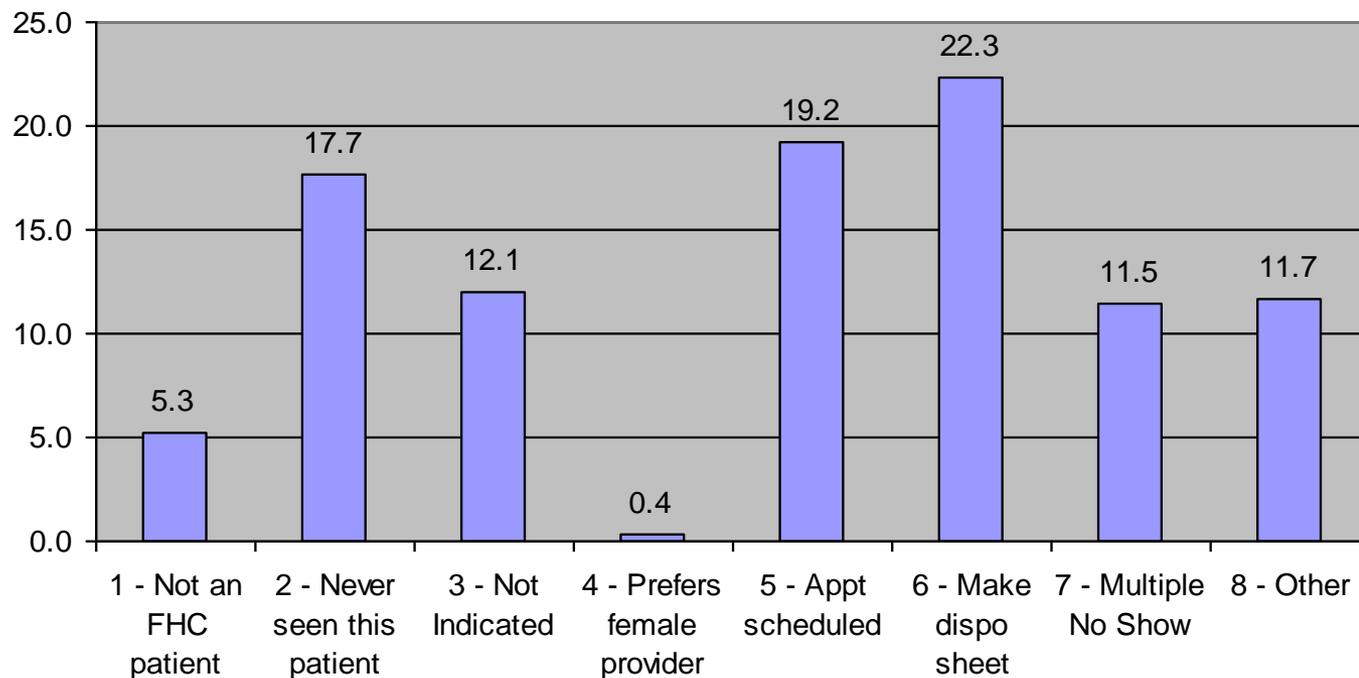
- Plan discussed in CQI meetings and presented at provider meeting
- Handout created with introduction to project and teaching about indications for cervical cancer screening
- Test run of handout & provider lists with CQI group
- Revision of provider listings, awareness that providers will need LCR access to complete

# Do

## Provider Lists & Encouragement

- Provider lists handed out to providers or placed in mailboxes
- Email to all FHC primary care providers sent
- Provider encouragement by email
  - Inter-group competition between residency classes, NPs, faculty
  - Chair of the department emailed faculty to encourage participation

**Provider coding for patients with overdue cervical cancer screening 838 patients included, 59% of providers responding**



**Patients by category**

- 1 - 44
- 2 - 148
- 3 - 101
- 4 - 3
- 5 - 161
- 6 - 187
- 7 - 96
- 8 - 98

# Study

## Up-to-date Improvement

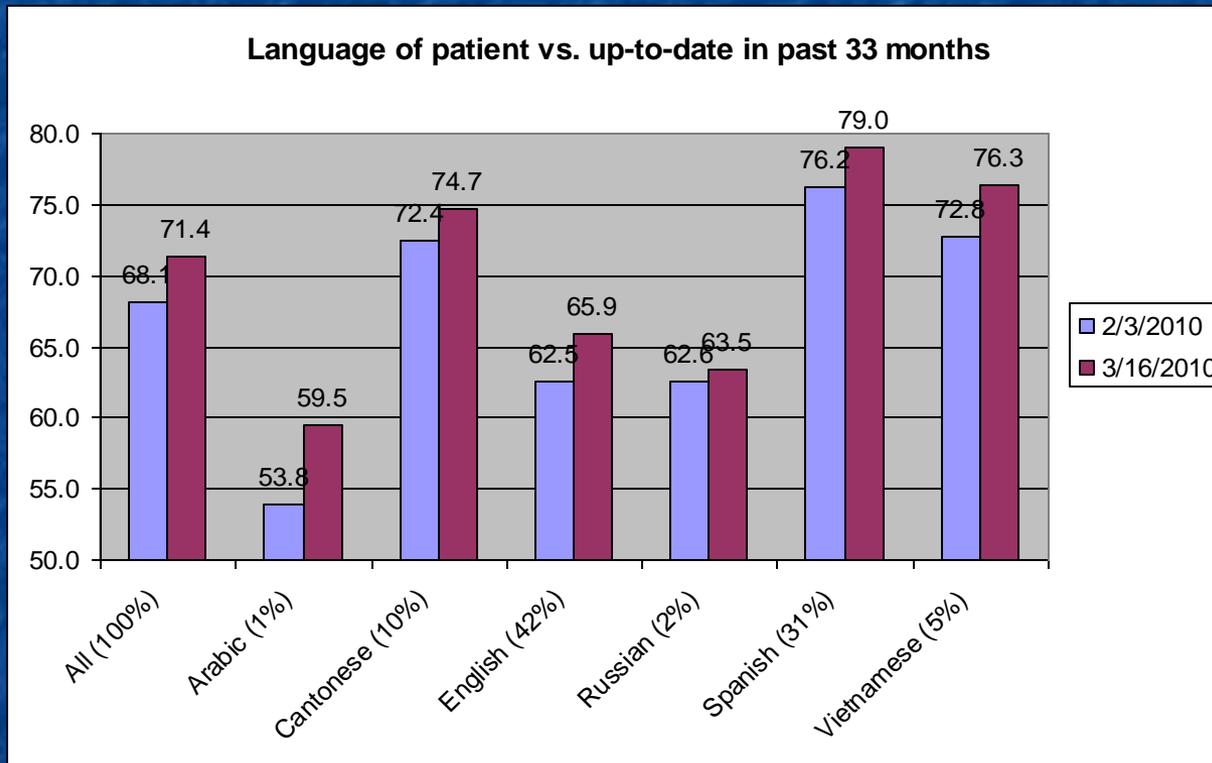
Defined as pap test in past 36 months or "not indicated"

- 65.6% - June 2009
- 69.5% - December 2009
- 73.5% - March 16, 2010 (yay!)

Multifactorial simultaneous interventions with provider lists, Ceci calling, MEAs asking patients. All the data from the providers has not yet been updated into the LCR.

# Study

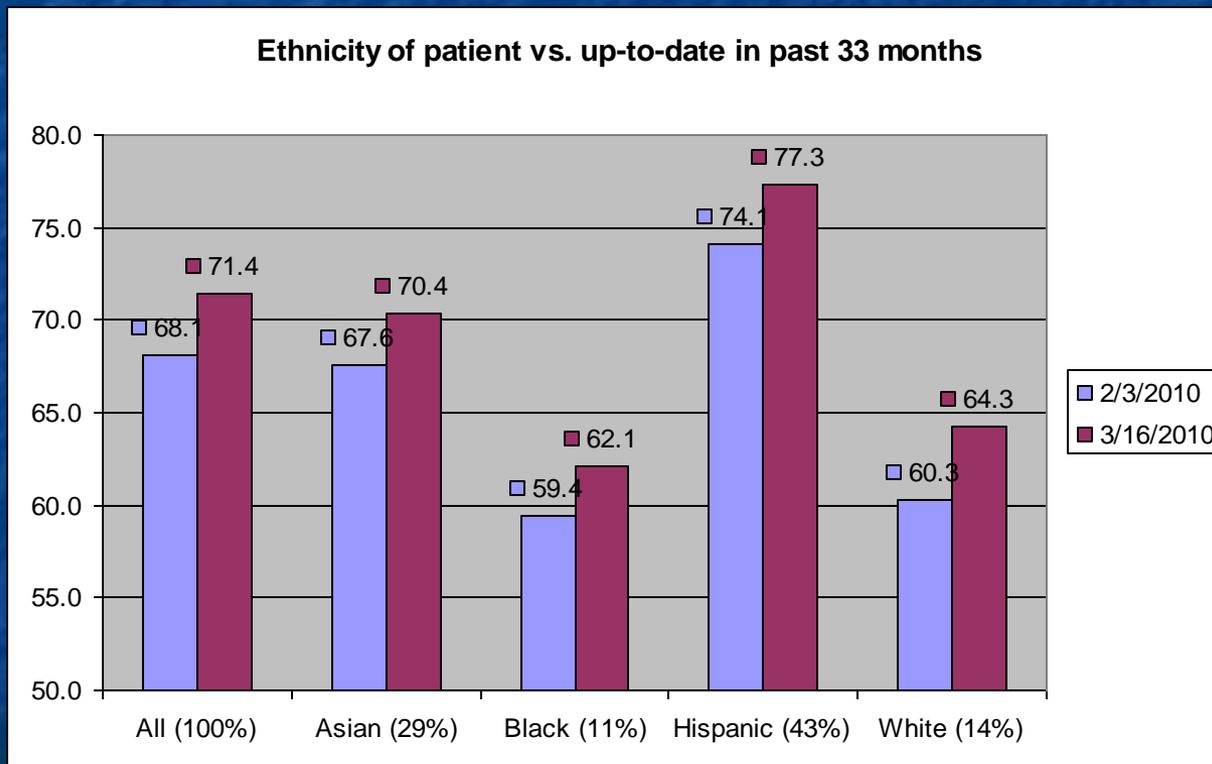
## Up-to-date rate - Language



Overall 3.3% improvement  
Arabic speakers 5.7% improvement  
Russian speakers 1.4% improvement

# Study

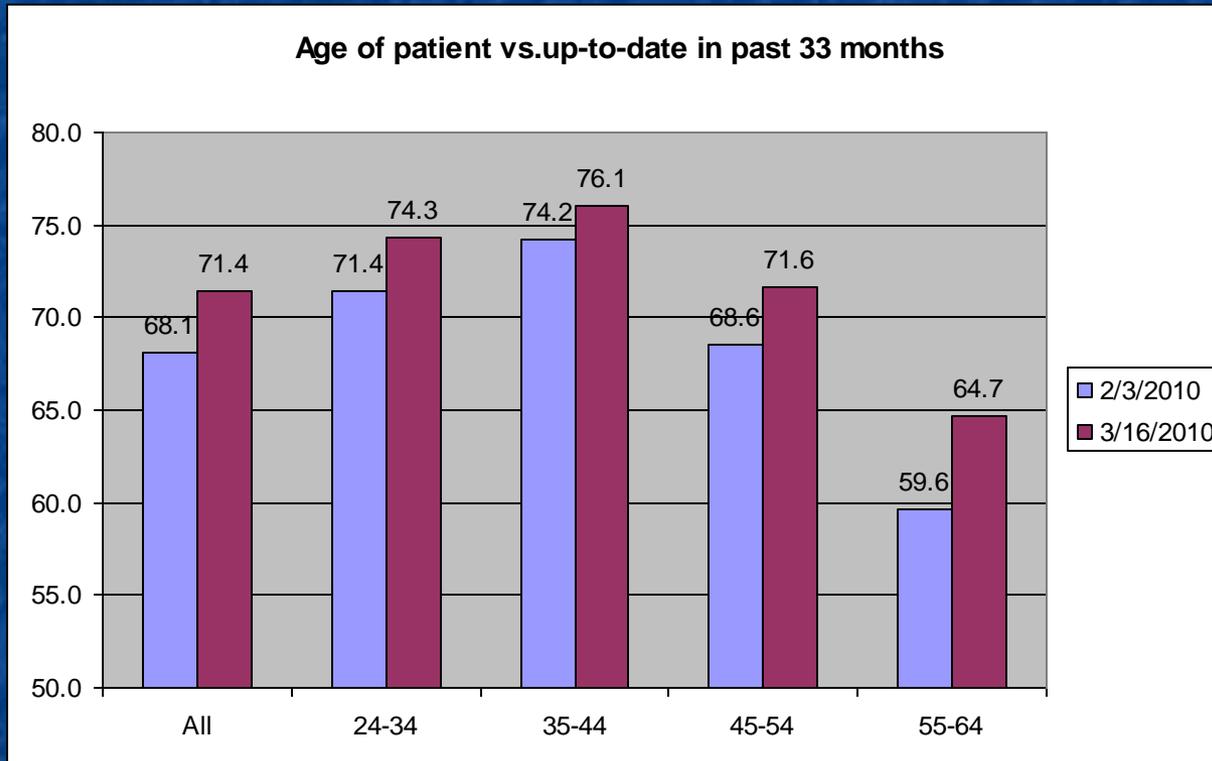
## Up-to-date rate - Ethnicity



Overall 3.3% improvement - similar amongst all ethnic groups

# Study

## Up-to-date rate - Age



Overall 3.3% improvement

Oldest group 55-64 had 4.9% improvement

This may be related to improved documentation of "not indicated"

# Act - Provider Driven

- Provider lists given out biannually in September and March
- Provider meeting announcement of project & encouragement
- Panel manager/Hali Hammer remain responsible for acting on provider designations
- NP clinic bi-annually to do pap tests after provider list review

# Presenting a CQI Project

- Complete project presentation
  - CQI group – residents & faculty
  - Departmental colloquium
  - Northern California resident CQI conference
- Targeted project presentation
  - Provider meetings
  - Staff meetings
  - Residents in primary care internal medicine

# Evaluation and Outcomes

- Resident projects
- Resident pre- / post-test
- Peer / faculty evaluation tool
- Resident perspective

# Pre- / Post-Test Used to Evaluate Course

- 15 questions – 5 point likert scale
- 3 open-ended questions
- Knowledge, self-efficacy, evaluation of course components
- Strongest areas:
  - I'm confident that if I identify a quality problem in my practice or in my own system of care in the future, I will know how to initiate an improvement project. **91% of respondents either agree or strongly agree**
  - I would like to participate in a quality improvement project in my future practice. **100% agree or strongly agree**

# Resident feedback: comments

- “Please keep this curriculum: definitely one of the most important skills I’ve learned in residency.”
- “FOCUS-PDSA was a good conceptual way of understanding a CQI project and it is good practice to do it here so I can feel confident trying this out in the future.”
- “This is important, especially since many of us will continue to work at FQHCs. Would be nice to start earlier in residency.”

# Resident feedback: areas for improvement

- “Start earlier: plant 1<sup>st</sup> info (sessions) at end of R2 year so we’re thinking of projects already during our 1<sup>st</sup> block of R3 year.”
- “Need more time to plan and do PDSA cycles.”
- “We need more explicit instructions on each step like plan for best practice visits.”

# Contact Information

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# Thank you!

- Lisa Ward, faculty colleague
- Teresa Villela, Residency Director
- George Saba, Associate Residency Director
- Family Health Center staff