

# Creating an Ecosystem for Patient Engagement

Albert S. Chan, MD, MS

AMGA Annual Conference Pre-conference

Thursday March 14, 2013

Patient Engagement Strategies in the New World of ACOs

# Perspectives:

- Patient
- Family
- Provider
- Chief Medical Information Officer, PAFMG
- Medical Director, My Health Online, Sutter Health
- Medical Director, David Druker Center for Health Systems Innovation



# Palo Alto Medical Foundation



- Affiliate of Sutter Health
- Two physician groups (n<1200 MDs)
  - Palo Alto Foundation Medical Group (PAFMG)
  - Peninsula Medical Clinic
- >9,000 office visits / day
- ~800, 000 patients annually
- EpicCare Ambulatory since 1999
- My Health Online (aka PAMFOnline) since January 2001



# First, a patient (and doctor) story

# Remind physicians what this about...



**Mike Cooper**  
*Redwood City*

0:10 / 1:55

360p

Like Add to Share

Uploaded by [sutterhealth](#) on Jun 4, 2010

After suffering a stroke, Mike Cooper—a patient of Sutter Health-affiliated Palo Alto Medical Foundation—turned to managing his health online. He's able to send secure e-mail to his doctor's office, make appointment requests, view lab and test results, and renew prescriptions from the comfort of his own home or anywhere he has internet access.

1 likes, 0 dislikes

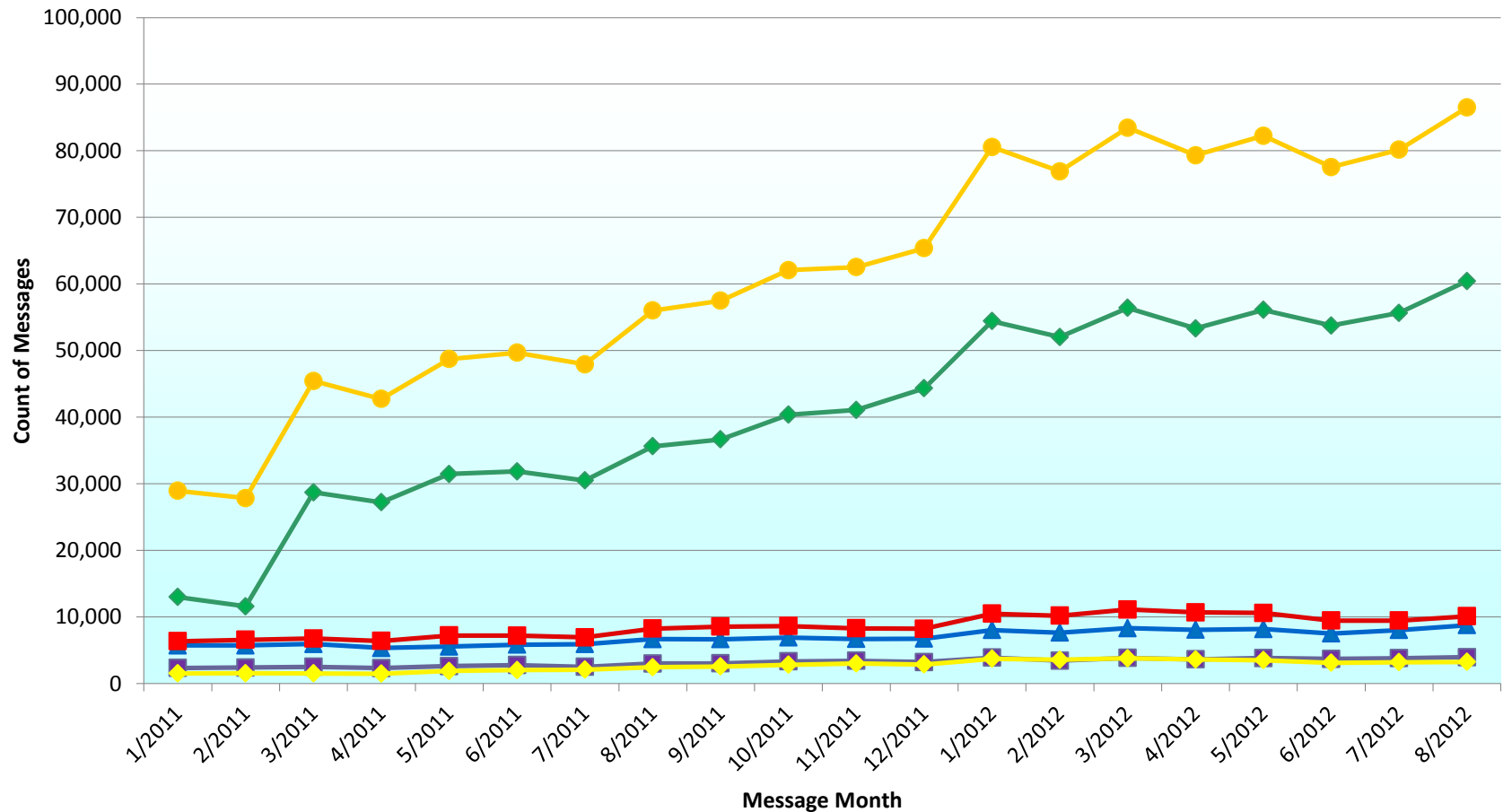


# Ecosystem

- An ecosystem is a biological environment consisting of all the living organisms or biotic component, in a particular area, and the nonliving, or abiotic component, with which the organisms interact, such as air, soil, water and sunlight. (Wikipedia, accessed 2/27/2012)



# Why is an ecosystem important?



# Same Technologies, Differential Adoption

(In other words, it's not as  
simple as installation...)

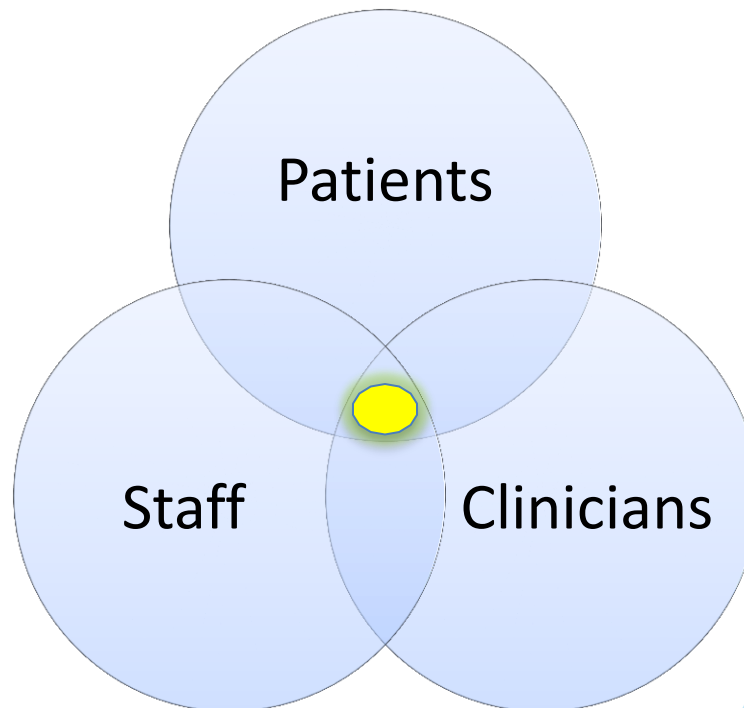


# Finding the value for all stakeholders

My Health Online

RX Renewal

Pediatric  
Well Child  
Questionnaires



Extending HM with Auto  
Ordering/Notification



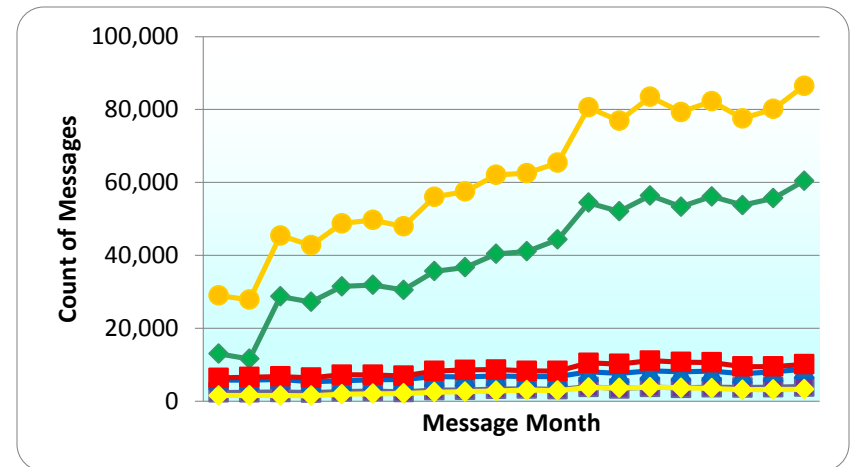
**DrukerCenter**  
health systems innovation

# Five Step Action Plan

# Step 1: Engage leadership

# Why leadership is important

- “Turn to your left and right, we are all leaders”
- True organizational commitment
  - It is not as simple as turning on a EHR/PHR feature
- Alignment of all stakeholders
  - Patients
  - Doctors
  - Clinical staff
  - Clinical operations
  - Community



# The Stakes Are Now Increased

## Dark Green Dollars

# The Impact of Meaningful Use Stage 2 (2014+)

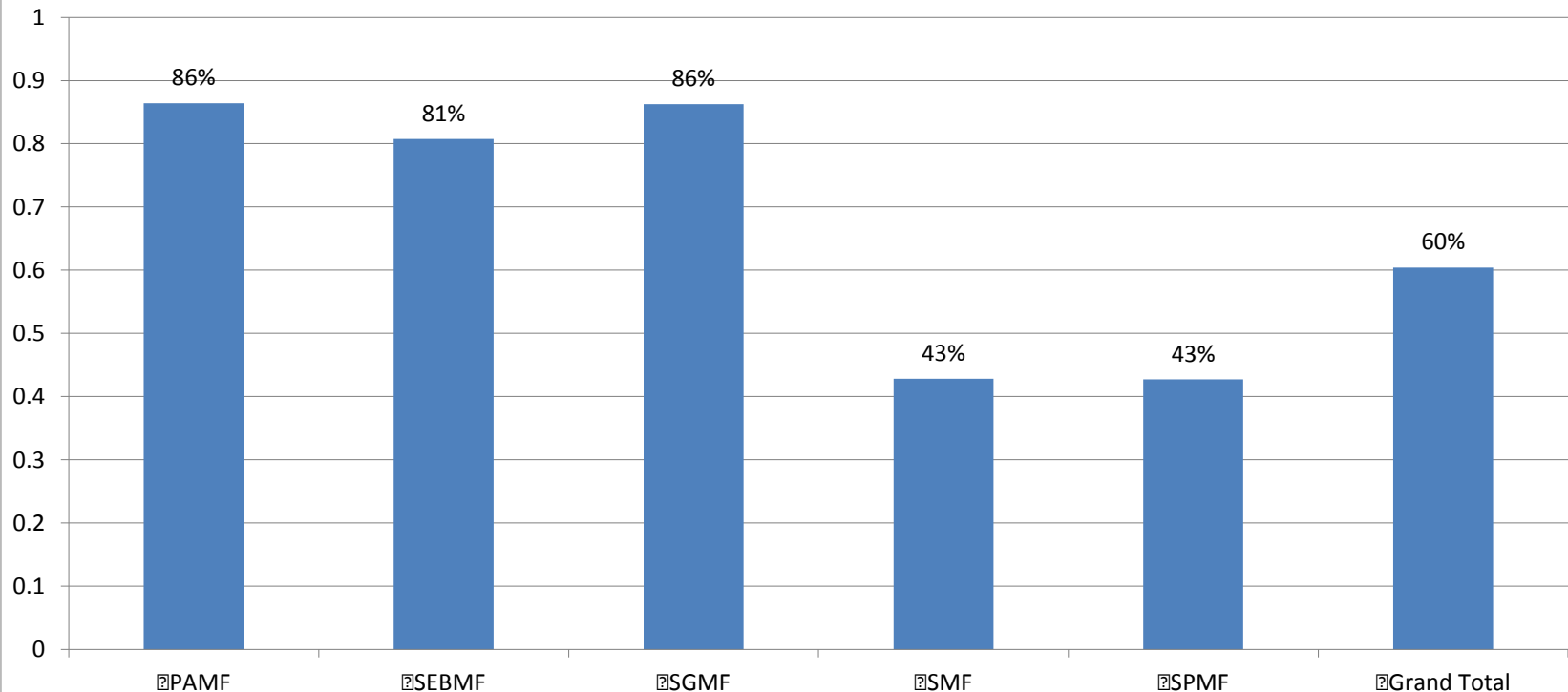
A secure message was sent using the electronic messaging function of certified EHR technology (CEHRT) by more than 5 percent of unique patients (or their authorized representatives) seen by the EP during the EHR reporting period

If an EP fails on this Core Measure,  
ZERO Meaningful Use incentive dollars



# % of Providers Who Met 5% Unique Patient Threshold

**% of Providers That Met Messaging Standard,  
October 5, 2011 - October 4, 2012**



# Step 2:

## Truly recognize the impact on the doctors

# What Health IT can feel like to doctors



# Remind physicians what this about...



<http://bit.ly/MikeCooper>

What we would we want for our families?

- A doctor who uses modern tools to connect to patients
- A doctor who wants to remove barriers to care
- Just as I would not walk in without my stethoscope, I would not practice medicine in 2013 without an electronic health record and personal health record that empowers patients and families



# Immediate Value for Physicians

- Results release: Who wants to write a letter?
- *While I have you on the phone...*
- Workflow efficiency
- Safer, better care...



# Personalizing the wall chart

Zztest, Cat

MRN

DOB

Age

Sex

Allergies

PCP

16645319

9/16/1973

36 yea

F

Penicillins

CHAN, ALB

SnapShot

Chart Review

Demographics

Results Review

Flowsheets

Graphs

Growth Chart

Synopsis

Problem List

History

Health Maintena...

Letters

Allergies

Medications

Imms/Injections

Health Maintenance

Verify

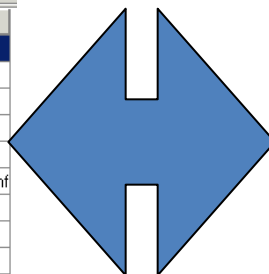
Cancel

Edit

Modifiers

Report

	Due Date	Procedure	Date Satisfied
<div><div></div><div></div></div>	09/16/1993	COLONOSCOPY	
<div><div></div><div></div></div>	09/16/1974	DIABETIC EYE EXAM	
<div><div></div><div></div></div>	09/16/1975	GLYCOHEMOGLOBIN	
<div><div></div><div></div></div>	09/16/1973	LIPID SCREENING	
<div><div></div><div></div></div>	09/16/1975	MICROALBUMIN	
<div><div></div><div></div></div>	12/11/2008	PAP SMEAR	09/11/2008-ExtConf
<div><div></div><div></div></div>	09/16/1975	PNEUMOCOCCAL VACCINE (PNEUMOVAX)	
<div><div></div><div></div></div>	09/16/1986	UNIVERSAL HIV SCREENING DISCUSSION	
	06/01/2010	DIABETIC FOOT EXAM	06/01/2009-Done
	10/01/2010	INFLUENZA VACCINE	
	09/15/2019	TETANUS AND DIPHTHERIA VACCINE	09/15/2009



Health Reminders			
If inaccurate information appears below, please <a href="#">click here</a> to advise us.			
Name	Due Date	Status	Back to Top Last Done
<a href="#">Lipid Screening</a>	> 5 years ago	Overdue	
<a href="#">Diabetic Eye Exam</a>	> 5 years ago	Overdue	
<a href="#">Pneumococcal Vaccine (Pneumovax)</a>	> 5 years ago	Overdue	
<a href="#">Glycohemoglobin</a>	> 5 years ago	Overdue	
<a href="#">Universal Hiv Screening Discussion</a>	> 5 years ago	Overdue	
<a href="#">Colonoscopy</a>	> 5 years ago	Overdue	
<a href="#">Pap Smear</a>	12/11/2008	Overdue	<a href="#">09/11/2008</a>
<a href="#">Diabetic Foot Exam</a>	06/01/2010		<a href="#">06/01/2009</a>
<a href="#">Influenza Vaccine</a>	10/01/2010		
<a href="#">Tetanus And Diphtheria Vaccine</a>	09/15/2019		<a href="#">09/15/2009</a>

- Shared Decision Making
- Personalized for the patient...
- Focus on USPSTF recommendations – level A / B
- P4P Measures

## HM Reminder



[Next Message](#)

To: Cat Zztest  
From: Albert Chan, MD  
Received: 09/07/2011 4:18 PM

From: My Health Online [30080649]

10/25/2010

Dear Wing Liu,

Your PAMF Electronic Health Record indicates that you are due for the following:

----- Glycohemoglobin, a test for your blood sugar

Please have them done at one of these PAMF labs at your earliest convenience. No appointment is necessary. For lab locations and hours of operation, click [here](#).

[Reply](#) | [Delete](#)

[Next Message](#)

Lab Locations  
[Alameda County](#)  
[San Mateo County](#)  
[Santa Clara County](#)  
[Santa Cruz County](#)

### Santa Clara County Laboratory Locations



**Los Altos Center Laboratory**  
370 Distel Circle  
Los Altos, CA 94022  
Laboratory phone: 650-254-5255  
[Los Altos Center Google Map](#)

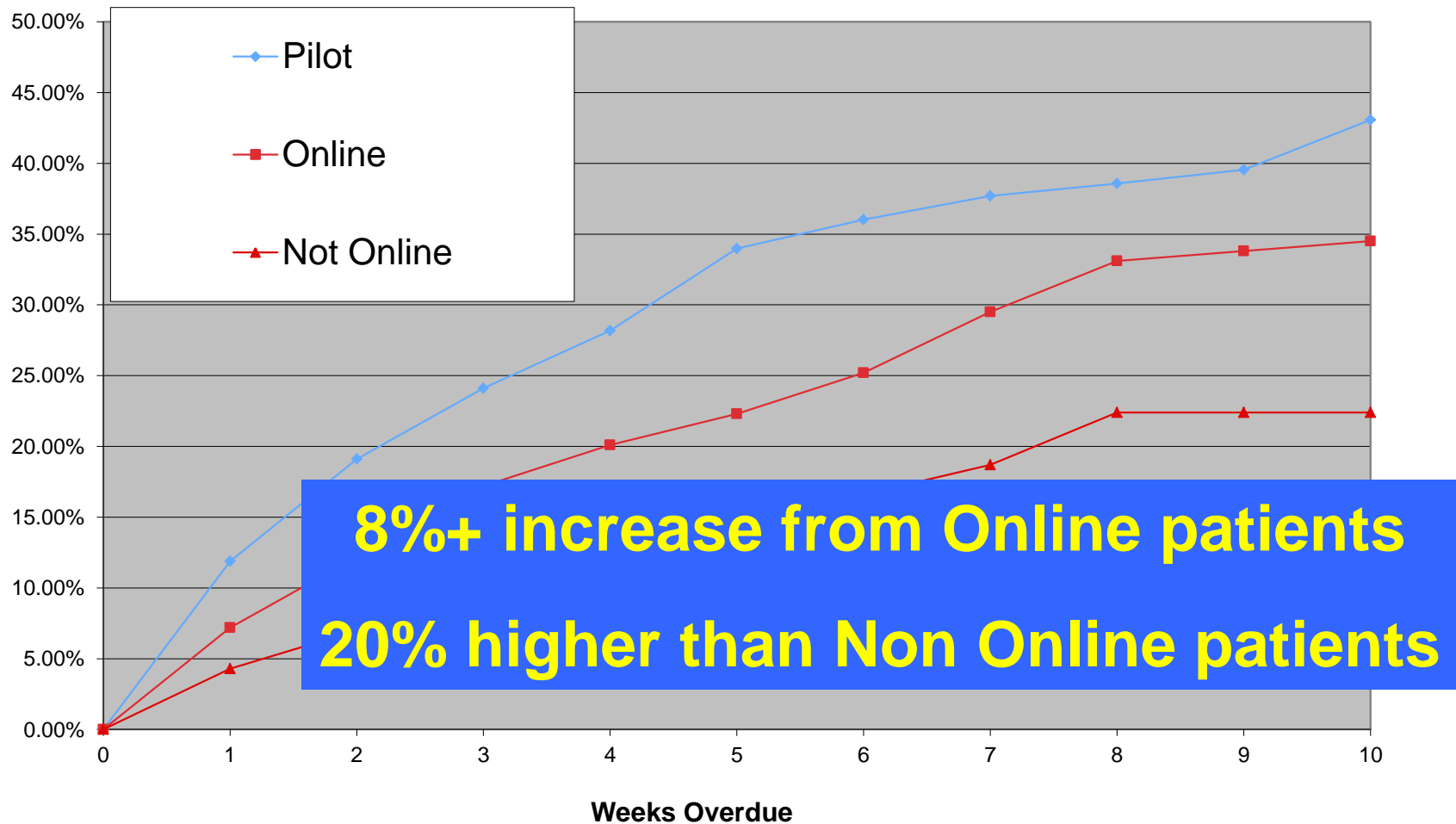


Laboratory hours: Monday through Friday, 7:30 a.m. to 5:30 p.m.  
Saturday, 8 a.m. to noon

- [Patient Instruction Sheets for Lab Tests](#)

**Mountain View Center Laboratory**  
701 E. El Camino Real  
Floor 2  
Mountain View, CA 94040  
Laboratory phone: 650-934-7333, for appointments: 650-934-7345

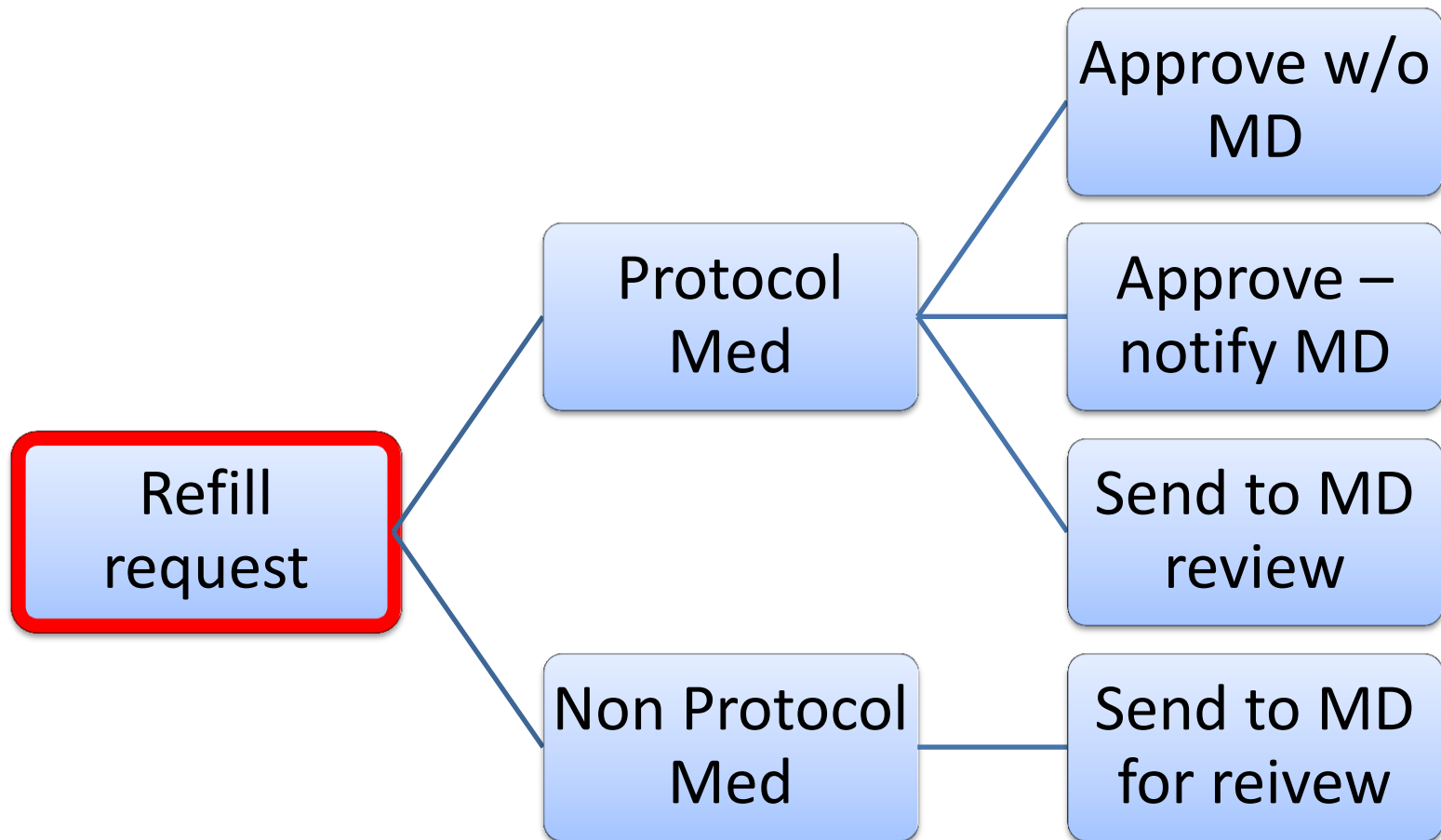
- Personalized outreach messages to patients based on HM
- Orders placed with Epic



# Are refill encounters just about renewing prescriptions?

- Patient Safety
  - Dose mismatches from introduction of manual errors
  - Drug-drug interaction checking
  - Potential change in therapeutic monitoring parameters (e.g. increasing AST/ALT)
- Medication Therapy Management
  - Titrate medications with detection of out of range biometric values
- Health Maintenance
- Overdue clinician interactions

# Refill Schema



# Leveraging RNs

>> PA RN Rx Renewal by Protocol: Mon Aug 29, 2011 1:24 PM



Please use the flowsheet indicated below to determine whether this request meets the PAMF RN Rx renewal protocol criteria. If the request does not meet criteria, please forward to authorizing provider Francis J Lastufka, MD[LASTUFF]

lisinopril (PRINIVIL, ZESTRIL) 20mg Tab  
Rx Renewal HTN-2 PA Last:6/23/10

> 6/30/11 visit to PMPA FAMLYMED LOS ALTOS

> 7/5/11 Creatinine Value: 0.9 0.8-1.3

> 7/5/11 Potassium Value: 4.9 3.5-5.1

> 6/30/11 BP 110/60

> 3/23/11 BP 107/60

>

> LISINOPRIL 20 MG PO TABS -- Last: 6/23/10 Disp: 90 Refl: 3

> Sig : Take 1 Tab by mouth daily. (Unchanged)

## RN options:

- Approve the medication
- Approve the med and cc for review
- Defer to MD



# What would the clinician want to know before refilling the med?

## Medication Renewal Request

### Pending

	Disp	Refills	Start
<b>amiodarone (CORDARONE, PACERONE) 400mg Tab</b>	30 Tab	0	8/29/2011
Sig - Route: Take 1 Tab by mouth daily. - Oral			
Class: Auto			

### Documentation

Programmatic User 8/29/11 01:43 PM Signed

- >
- > AMIODARONE HCL 400 MG PO TABS -- Last: 3/30/10 Disp: 30 Refl: 0
- > Sig : Take 1 Tab by mouth daily. (Unchanged)
- >
- > Last Visit with Albert Chan in RSFM on 4/19/10
- > No Future Appt in RSFM
- >
- > TSH: 2.87 uIU/mL (05/04/2011)
- > 1.05 uIU/mL (03/15/2011)
- > AST: 31 U/L (05/19/2011)
- > ALT: 34 U/L (05/19/2011)

Automated Sig  
Verification

Follow up visit  
Verification

Clinically  
relevant labs

# MyChart Questionnaires

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[Return to My Record](#) | [Log Out](#) | [Help/FAQ](#) | [Home](#)

**Tuesday, November 23, 2010 - Welcome, Magenta Zztestcmg**

Expand all | [Collapse all](#)

**You are accessing the record of: Magenta Zztestcmg.**

**WELL CHILD VISIT 4 YEARS**

Please confirm your responses. If you are satisfied with your responses, you can submit the questionnaire.

Question	Answer	
What is the Language of your choice?	English	
Can your child hop on one foot?	Yes	
Can your child dress herself (including buttons)?	No	
Can your child draw a person with 3 body parts?	No	
Can your child use scissors?	No	
Does your child know at least 4 colors?	No	
Does your child recognize most letters?	No	
Does your child know her first and last name?	No	
Does your child play cooperatively with other kids?	No	
Does your child engage in make-believe play?	No	
Can strangers understand your child's speech?	No	
What kind of milk does your child drink?	LowFat	
How many ounces (oz) of milk does your child drink in 24 hours?	12	
How many ounces (oz) of juice does your child drink in 24 hours?	10	
Does your child eat meat (such as fish, chicken, beef, or pork)?	No	
On a typical day, does your child have less than	No	

# What they have on paper

## Well Child Check: 1 Month Visit

Your Child's Name: \_\_\_\_\_

**Please answer the following questions. It will help your doctor spend more time discussing those specific issues that concern you.**

Does your child lift the head when lying on the tummy?

Does your child move arms equally and legs equally?

Does your child coo (make "ooh", "aah" sounds)?

Does your child smile?

Does your child seem to look at faces?

Does your child follow objects with his or her eyes?

<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Unsure
<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Unsure
<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Unsure
<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Unsure
<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Unsure
Yes	<input checked="" type="radio"/> No	<input type="radio"/> Unsure

# What they have on paper

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**Please answer the following questions. It will help your doctor spend more time discussing those specific issues that concern you.**

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Does your child move arms equally and legs equally?

Does your child coo (make "ooh", "aah" sounds)?

Does your child smile?

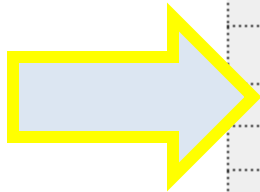
Does your child seem to look at faces?

Does your child follow objects with his or her eyes?

<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Unsure
<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Unsure
<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Unsure
<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Unsure
<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Unsure
<input type="radio"/> Yes	<input checked="" type="radio"/> No	<input type="radio"/> Unsure

**Abnormals are in red** and returned with a (\*\*\*) [F2] for quick navigation & documentation

	WELL CHILD VISIT 3 YEARS
English	What is the Language of your choice?
Yes	Does your child pedal a tricycle?
Yes	Can your child throw a ball overhand?
Yes	Can your child get dressed with your help (or on own)?
Yes	Can your child copy a circle?
Yes	Are at least three-fourths of the words your child uses understandable to most people?
Yes	Does your child know his or her name, age and sex?
Yes	Does your child join other children in play?
Yes	Does your child count to three or more?
<b>No</b>	Does your child ask questions? {Counseled/Reassured:124036::"Counseled"}
LowFat	What kind of milk does your child drink?
<b>12</b>	How many ounces (oz) of milk does your child drink in 24 hours?
<b>12</b>	How many ounces (oz) of juice does your child drink in 24 hours?
Yes	Is your child completely weaned from the bottle?
Yes	Does your child eat meat (such as fish, chicken, beef, or pork)?
<b>No</b>	Is your child toilet trained during the daytime? {Counseled/Reassured:124036::"Counseled"}
<b>Unsure</b>	Do you and your child read together daily? {Counseled/Reassured:124036::"Counseled"}



Pal  
Foundation

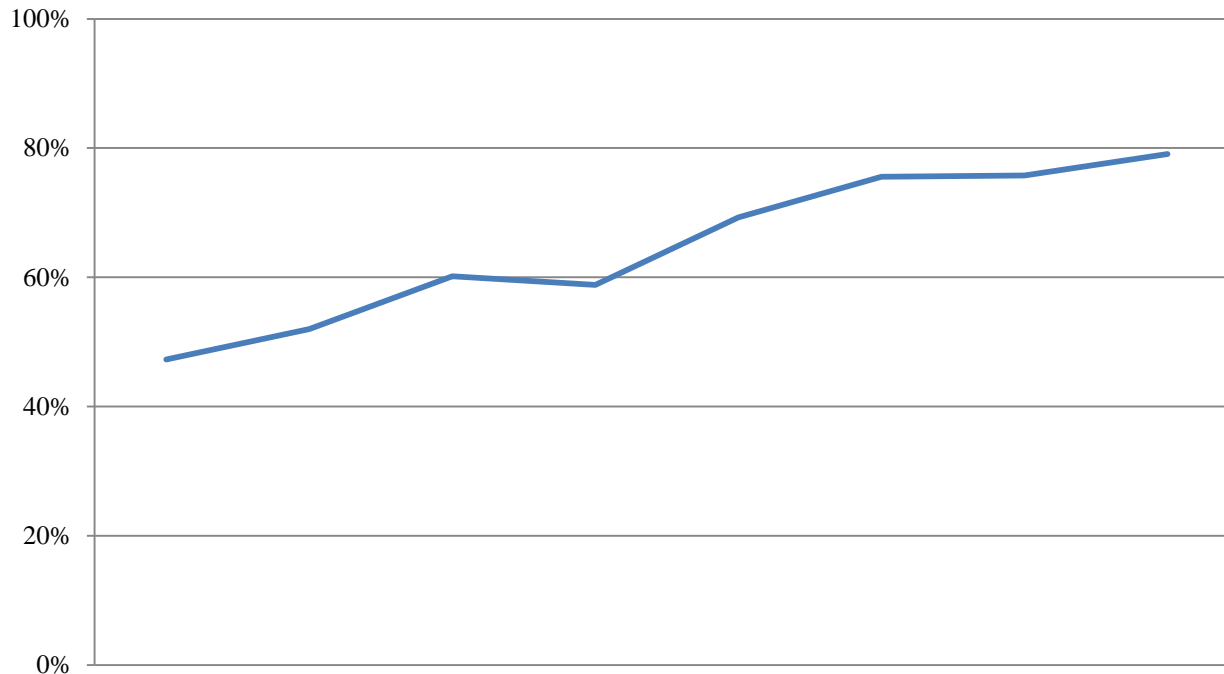
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er

# Currently 80% of questionnaires are answered





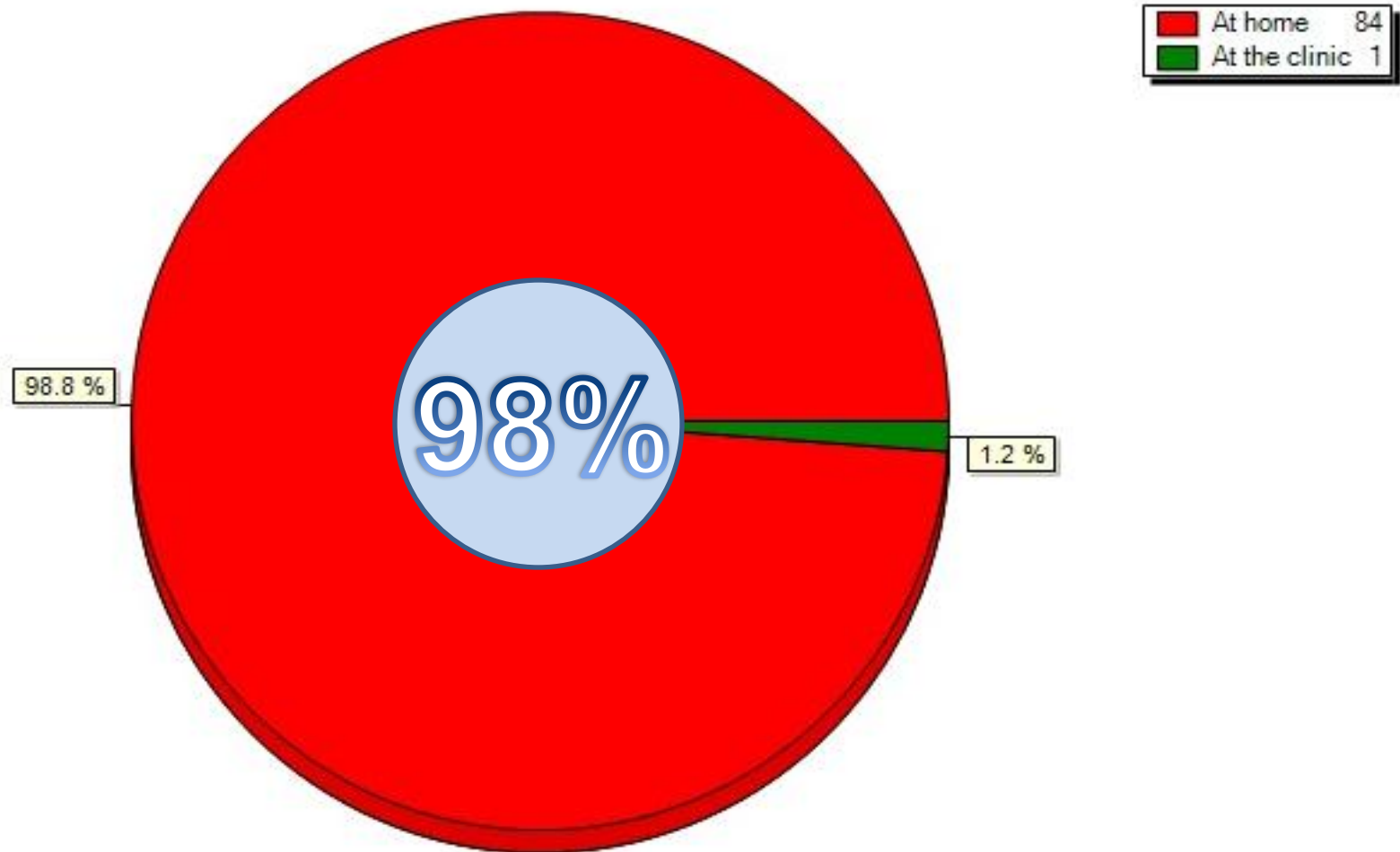
# Clinician Time Savings

How much time did the online questionnaire save you when documenting the visit?



# Parents prefer filling out the questionnaires online

Do you prefer to fill out the questionnaire:



A busy mother of three shares how PAMF's  
My Health Online helps her manage her  
children's health care needs...

My Health Online mobile  
app. available for iPhone and  
Android

Get iPhone App.



Scan QR Code\* or click icon to  
download

Get Android App.



Scan QR Code\* or click icon to  
download.

\*Scan either icon (QR Code)  
with your smartphone to  
download our mobile app. Get a  
free mobile QR scanner at  
<http://gettag.mobi>

I appreciated being able to answer the questions **at home**; this was much easier than **trying to balance a clipboard on my lap**, **rushing to answer the questions before my name was called**, all while keeping a **curious toddler occupied** in the waiting room.

The questionnaire is just another example of PAMF's dedication to streamlining procedures and putting systems in place that help both the patient and the caregivers. **I am so thankful that our family is a part of the PAMF family**

# Competition

PMPA FAMLYMED REDWOOD SHORES		83%	585	845	69%
CHAN MD (PAMF), ALBERT S.		91%			83%
		77%			58%
		83%			63%
		69%			0%
		78%			48%
		90%			75%
		79%			49%
		84%			66%

# Recognizing physician work

- Implemented a physician compensation program for which **all** physicians are eligible
- Tied to financial health of medical group related to our committee rate w/ cap
- Payment linked to desired behavior
  - Patient initiated messages only
  - Reply by 1 business day to receive payment

# Step 3:

## Sign every staff member up for My Health Online

Who are our best ambassadors / evangelists for a service like MHO?





**When It Matters to Staff,  
It Makes a World of Difference for Patients**

# Engaging Employees

## PAMFOnline Asks: How Would You Spend \$500?



If you are a PAMF benefitted employee, a PAMF patient, and a PAMFOnline user, the PAMFOnline team has one question: **How would you spend \$500?**

As you may already know, one PAMF employee with an active PAMFOnline account by the end of this month will win \$500. If you don't have an active account, now is the perfect time to sign up or activate your account.

To enroll in PAMFOnline, simply ask your front desk staff, stop by one of the PAMFOnline enrollment clinic when it comes to your location ([click here for dates and locations](#)), or go to [www.pamfonline.org](http://www.pamfonline.org) and click "enroll now" in the top menu bar.

If you have already signed up but you need a new activation code or you forgot your password, go to [www.pamfonline.org](http://www.pamfonline.org) and click "contact us" at the bottom of the Web page.



## Step 4:

Engage the Community  
&  
Commit to connect every patient to  
My Health Online at every  
encounter

# Sign up when value is greatest to the patient

- In the office
- In anticipation of upcoming laboratory or other study results
- Anticipating needs for families
- In response to information requests

# What Works Best

HIGH impact LOW cost \$	<b>In-office enrollment \$</b> <b>Setting targets \$</b> <b>MD endorsement \$</b> <b>Transparency promotes competition \$</b> <b>Empower frontline staff (PSRs) \$</b> <b>Follow up, follow up, follow up \$</b> Online enrollment	Enrollment form on Web site \$ Lab volunteers \$ Flu shot clinics \$  Expired code letters \$\$ Attendance at Health Fairs \$\$ Billing stuffers \$\$	Low impact Low cost \$
Mod \$\$	Incentive based contests \$\$ 1:1 training \$		Mod \$\$
High impact High cost \$\$\$	Direct mail from PCP \$\$\$ Giveaways \$\$\$ Marketing materials \$\$\$ Assisting patient with log in \$\$\$	Promotional videos on endless loop in lobbies \$\$  Person waiting to sign folks up 1 FTE - ~20/week \$\$\$	Low impact High cost \$\$\$

More time for fun

"My Health Online helps Mom take care of us."

Aidan and Ina, PAMF patients

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[pamf.org/findadoctor](http://pamf.org/findadoctor)

Reach out to the community







**Palo Alto Medical**

@paloaltomedical **FOLLOWS YOU**

A national leader in patient-centered, multispecialty health care & innovation since 1930. Not-for-profit @SutterHealth affiliate. Also tweets @pamfinnovation.

Silicon Valley, CA · <http://www.pamf.org>

4,067  
TWEETS

446  
FOLLOWING

7,535  
FOLLOWERS



**Following**

MOMENTS THAT  
MATTER



**Palo Alto Medical Foundation**

18,327 likes · 381 talking about this

✓ Liked

Message



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**Subscribe**

128,973  
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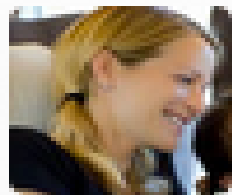
# Ways to meet unmet needs



**KatieS**

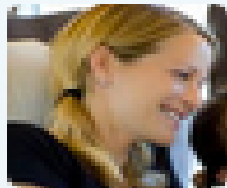
54,136  
FOLLOWERS

Getting giddy. Starting the motion for discharge. Get. Us. Outta. Here. No idea where my car is parked.



**KatieS**

Appalled. Health care company literally told me to do a google search for home care nursing ideas. Losing it.



**KatieS**

Tremendous thanks to @SutterHealth Nurse Kathy & @albertschan to help me find a home nurse. We need to make health care easier for everyone.



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# Step 5: Deliver value to patients (and thus to your organization)

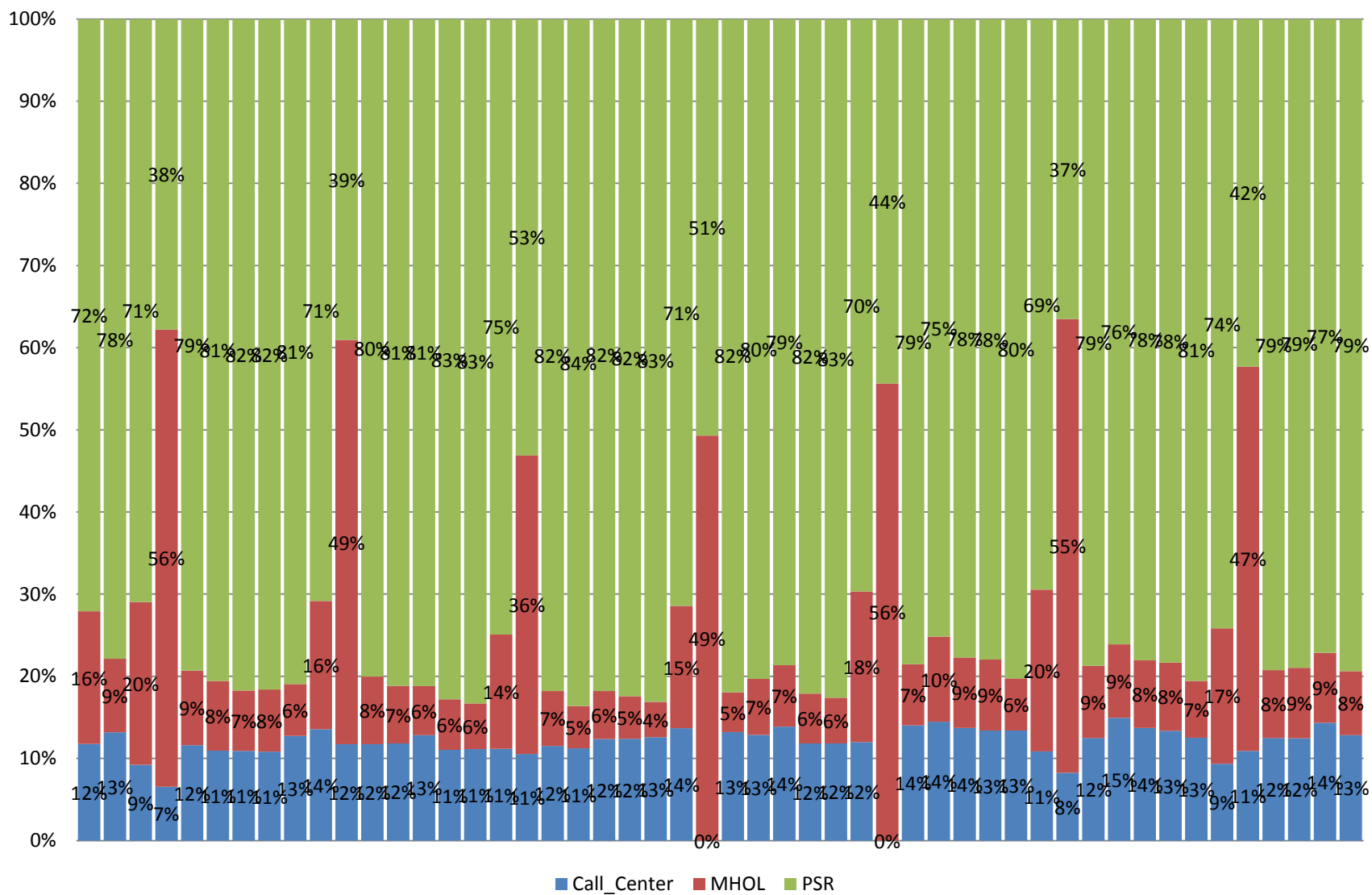
# PAMF Stats

- 75% of active PAMF adult patients are enrolled in My Health Online
- 51% of pediatric proxy patients <12
- ~92% turn around time of messages 1 bus. day
- Average turn around time <3 hours
  - 15000 messages / week
  - If you do not meet the service expectation, you will now have **two messages**



# Online Scheduling Experience

Direct Scheduling	153446
Request PCP Appt	33200
Request Specialty Appt	66607
Total Electronically Scheduled	253253
Total Visits 2012	2,556,664

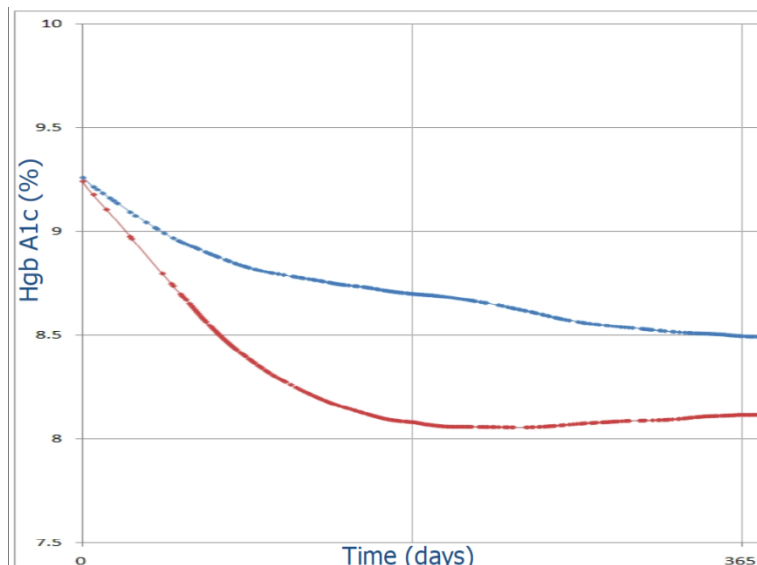


# Step 6: Innovation

So I lied about 5 steps...



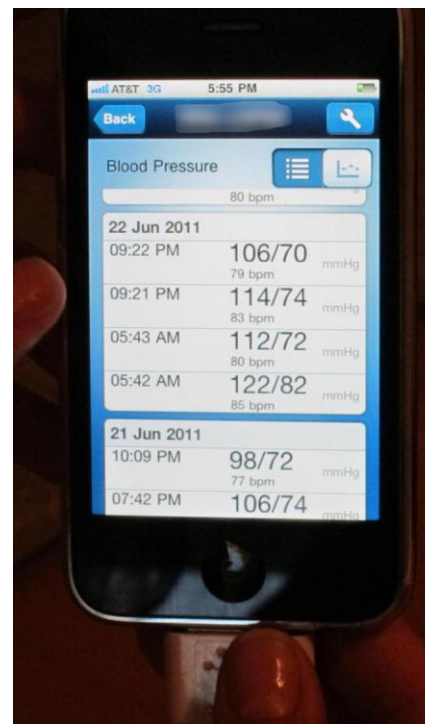
# linkAges



*J Am Med Inform Assoc* doi:10.1136/amiainl-2012-001263

## Research and applications

**Online disease management of diabetes: Engaging and Motivating Patients Online With Enhanced Resources-Diabetes (EMPOWER-D), a randomized controlled trial**



It is about people and their families,  
NOT the app or technology

# Questions?

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- Twitter: @albertschan