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 PAMFOOnline) since January 2001
First, a patient (and doctor) story
Remind physicians what this is about...

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.

http://bit.ly/MikeCooper
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

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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

- PAMF: 86%
- SEBMF: 81%
- SGMF: 86%
- SMF: 43%
- SPMF: 43%
- Grand Total: 60%
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

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.
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

- Shared Decision Making
- Personalized for the patient...
- Focus on USPSTF recommendations – level A / B
- P4P Measures
• Personalized outreach messages to patients based on HM
• Orders placed with Epic
8%+ increase from Online patients
20% higher than Non Online patients
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

Refill request

Protocol Med
- Approve w/o MD
- Approve – notify MD
- Send to MD review

Non Protocol Med
- Send to MD for review
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

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**

<table>
<thead>
<tr>
<th>Medication</th>
<th>Disp</th>
<th>Refills</th>
<th>Start</th>
</tr>
</thead>
<tbody>
<tr>
<td>amiodarone (CORDARONE, PACERONE) 400mg Tab</td>
<td>30 Tab</td>
<td>0</td>
<td>8/29/2011</td>
</tr>
</tbody>
</table>

**Documented**

- 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

WELL CHILD VISIT 4 YEARS

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

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

Does your child move arms equally and legs equally?  
Yes  No  Unsure

Does your child coo (make “ooh”, “aah” sounds)?  
Yes  No  Unsure

Does your child smile?  
Yes  No  Unsure

Does your child seem to look at faces?  
Yes  No  Unsure

Does your child follow objects with his or her eyes?  
Yes  No  Unsure
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?

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

<table>
<thead>
<tr>
<th>WELL CHILD VISIT 3 YEARS</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
</tr>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>Yes</td>
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<td>Yes</td>
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<tr>
<td>Yes</td>
</tr>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td>LowFat</td>
</tr>
<tr>
<td>12</td>
</tr>
<tr>
<td>12</td>
</tr>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td>Unsure</td>
</tr>
</tbody>
</table>
Currently 80% of questionnaires are answered.
Clinician Time Savings

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

- 1-3 min saved: 42.9%
- 4-6 min saved: 28.6%
- 10 minutes or more: 0.0%
- 7-9 minutes: 0
- 4-6 minutes: 4
- 1-3 minutes: 6
- Did not save time: 4

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Parents prefer filling out the questionnaires online

Do you prefer to fill out the questionnaire:

- At home: 84
- At the clinic: 1

98.8% prefer filling out the questionnaire at home.

0.2% prefer filling out the questionnaire at the clinic.
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

<table>
<thead>
<tr>
<th>PMPA FAMLYMED REDWOOD SHORES</th>
<th>83%</th>
<th>585</th>
<th>845</th>
<th>69%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHAN MD (PAMF), ALBERT S.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>91%</td>
<td></td>
<td></td>
<td>83%</td>
</tr>
<tr>
<td></td>
<td>77%</td>
<td></td>
<td></td>
<td>58%</td>
</tr>
<tr>
<td></td>
<td>83%</td>
<td></td>
<td></td>
<td>63%</td>
</tr>
<tr>
<td></td>
<td>69%</td>
<td></td>
<td></td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td>78%</td>
<td></td>
<td></td>
<td>48%</td>
</tr>
<tr>
<td></td>
<td>90%</td>
<td></td>
<td></td>
<td>75%</td>
</tr>
<tr>
<td></td>
<td>79%</td>
<td></td>
<td></td>
<td>49%</td>
</tr>
<tr>
<td></td>
<td>84%</td>
<td></td>
<td></td>
<td>66%</td>
</tr>
</tbody>
</table>
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

<table>
<thead>
<tr>
<th>HIGH impact</th>
<th>LOW cost</th>
<th>Mod $$</th>
<th>Low impact</th>
<th>Low cost $</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-office enrollment</td>
<td>Setting targets</td>
<td>MD endorsement</td>
<td>Transparency promotes competition</td>
<td>Empower frontline staff (PSRs)</td>
</tr>
</tbody>
</table>

- High impact
- Low cost

<table>
<thead>
<tr>
<th>High impact</th>
<th>High cost $$$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct mail from PCP</td>
<td>Giveaways</td>
</tr>
</tbody>
</table>

- Enrollment form on Web site |
- Lab volunteers |
- Flu shot clinics |
- Expired code letters |
- Attendance at Health Fairs |
- Billing stuffers |

- Mod $$ |
- Mod $$ |

- Expired code letters $$ |
- Attendance at Health Fairs $$ |
- Billing stuffers $$ |
- Promotional videos on endless loop in lobbies $$ |
- Person waiting to sign folks up |
- 1 FTE - ~20/week $$$ |
Reach out to the community

More time for fun

“My Health Online helps Mom take care of us.”

Aiden and Ina, Sutter patients

pamf.org/findadoctor

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Palo Alto Medical
@paloaltomedical
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

MOMENTS THAT MATTER

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18,327 likes - 381 talking about this

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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 & @albertschann to help me find a home nurse. We need to make health care easier for everyone.
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

<table>
<thead>
<tr>
<th>Service</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Scheduling</td>
<td>153446</td>
</tr>
<tr>
<td>Request PCP Appt</td>
<td>33200</td>
</tr>
<tr>
<td>Request Specialty Appt</td>
<td>66607</td>
</tr>
<tr>
<td>Total Electronically Scheduled</td>
<td>253253</td>
</tr>
</tbody>
</table>

**Total Visits 2012**: 2,556,664
Step 6: Innovation

So I lied about 5 steps...
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