



# Reaching for the Top: Lessons from Kaiser Permanente

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Becoming the Best: High Performance  
Health Systems  
Edmonton, Alberta  
April 15, 2011

# Discussion outline

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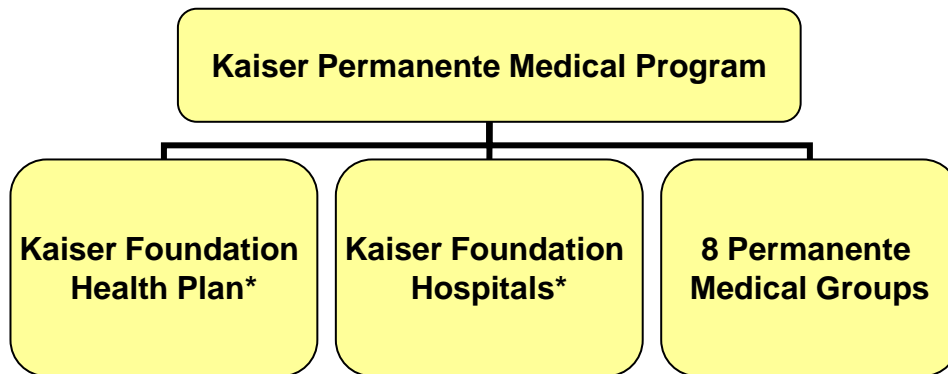
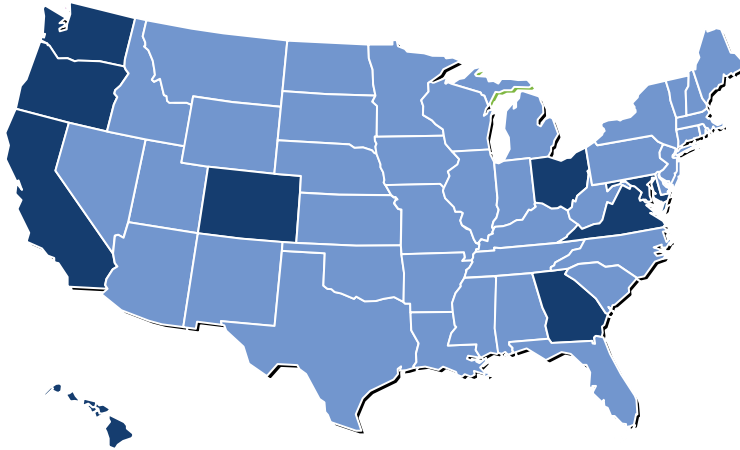
- **What do we mean by high-performing?**
- **Overview of Kaiser Permanente**
  - Our scale
  - Our structure
  - “Systemness”
- **What does integration allow us to do?**
  - Leveraging the electronic medical record
  - Care coordination all along the continuum
  - Patient engagement
  - Improve performance and innovate
- **Accountability**

# Defining a high-performing system

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- Clinically relevant information is available to all providers at the point of care
- Patient care coordinated among multiple providers and transitions are actively managed
- Providers within and across settings are mutually accountable and collaborate
- Patients have easy access to appropriate care and information
- Clear accountability for the total care of patients
- System continuously innovates and learns

# Kaiser Permanente: who we are



## Organization

- 8.8 million members
- 14,000+ physicians
- 166,000+ employees
- 35 hospitals
- 431 medical offices
- \$44b revenue (2010)

## Services (2008)

- 37 million office visits
- 129 million Rx filled
- 550,000 surgeries
- 1.1 million mammograms

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November 5, 2010: administered  
6,215 flu shots in one day!

# Kaiser Foundation Health Plan/Hospitals

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## Health Plan

- Insurance company role (ultimate holder of financial risk)
- Marketing/Sales: enrolls groups & members, collects premiums
- Contracts with providers for care
- Provides administrative services
- Owns and runs ancillary services

## Hospitals

- Owns hospitals and medical facilities
- Coordinates services with independent hospitals
- Expenses reimbursed by Health Plan

# The Permanente Medical Groups

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- **Physician owned (PC or partnership)**
  - Group accepts risk through capitation
  - All physicians are salaried; shareholders or partners
  - Provide or arrange all care for KP members
- **Medical group hires, manages all MDs, PMG staff**
  - All physician leadership selected by peers
  - Intensive leadership, development training
- **Provide/organize all primary & specialty MD care for KFHP members only**
  - Culture of performance: quality management, resource stewardship, accountability for cost and quality, evidence-based practice

# What does integration mean?

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- **Shared responsibility for program success**
  - KP “owned” jointly by physicians, health plan, labor partners
  - “Shared fate” model—the “MEMO” relationship
- **Integration along multiple dimensions**
  - Between financing and medical care
  - Along the health/illness continuum
  - Across health care providers
  - Over time (Kaiser babies become Medicare members)
- **Functional specialization**
  - Physicians practice medicine, nurses care for patients
  - KFHP execs manage finance, administration, marketing

# Leveraging the integrated model

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- **Having the tools in place: KP HealthConnect**
  - Making information available in “real time”
  - Evidence-based guidelines (CMI, INTC, registries)
  - Giving physicians a systems view with panel support
- **Care coordination**
  - Example: Transitions
  - Example: ALL for cardiovascular care
- **Performance improvement and innovation**
  - The art and science
- **Patient engagement: web portal**

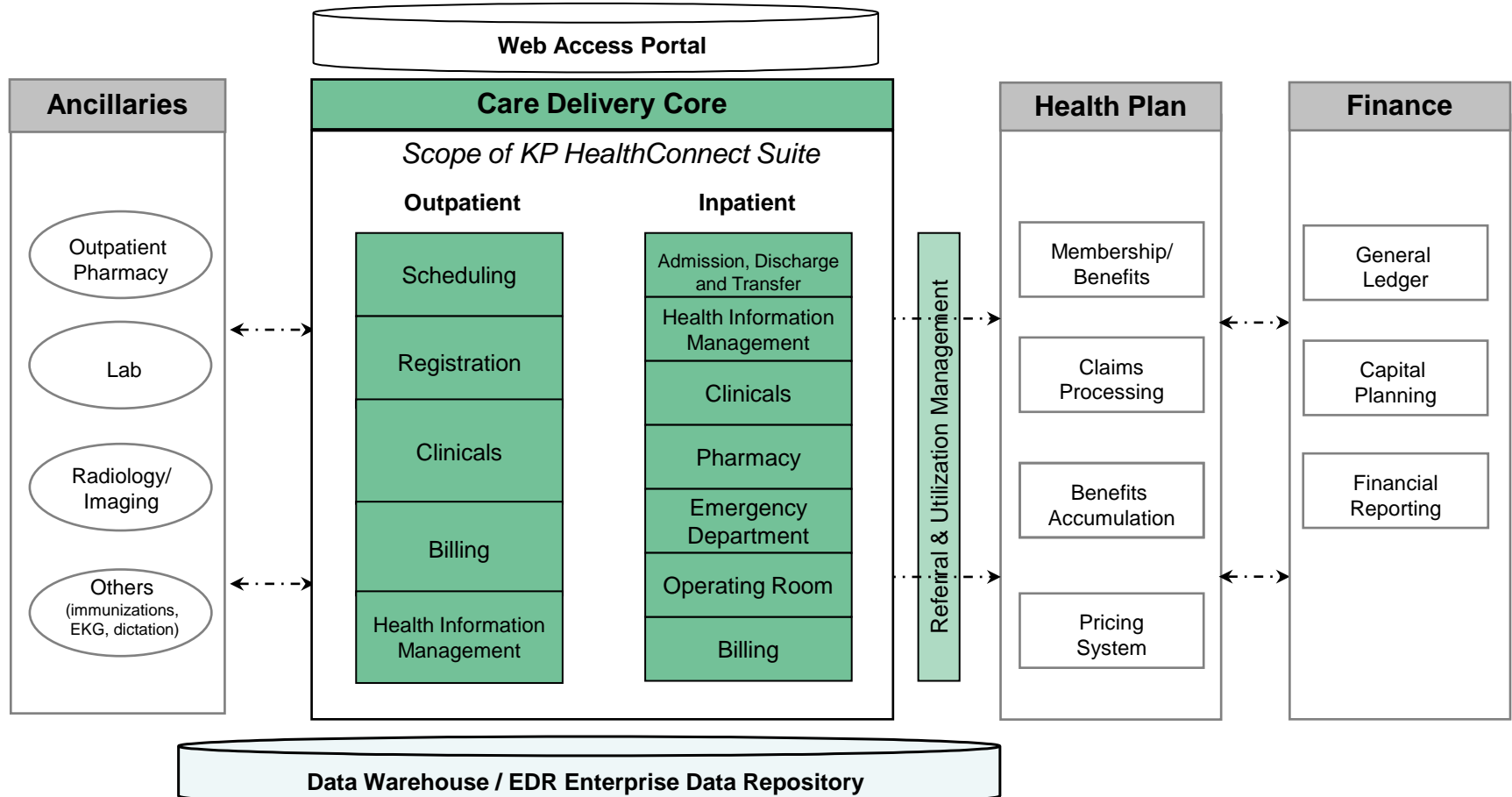


# Knowledge key to successful integration

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- **Invested \$3+ billion in electronic medical record**
  - Real-time, continuous access to information on visits, lab and radiology reports, immunizations, medications, allergies
  - All caregivers directly connected for decision support
- **Data and evidence support performance**
  - Focus on individual care, population health
  - Systems orientation drives performance improvement
  - Technology assessment, comparative effectiveness research, clinical guidelines
  - Evidence gathering: clinical trials, registries, best practices

# Kaiser Permanente HealthConnect™



# Screen shot of KP HealthConnect

**Patient Detail - Microsoft Internet Explorer**

Address: [http://devinternal.or.kp.org/im/demo/patient\\_detail.cfm?MRNR=000000540](http://devinternal.or.kp.org/im/demo/patient_detail.cfm?MRNR=000000540)

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**The Panel Support Tool**

Patient Snapshot | Return to list | Copy MRN to Clipboard | Mark as Reviewed Today

<b>PCP: DEMO DOC</b>		<b>MRN: 540</b> <b>Name: DEMO540</b> <b>Age: 73</b> <b>Sex: M</b> <b>Last PC Visit - 12/10/05</b>		<b>Home: 808 - 668 - 4753</b> <b>Work: 808 - 668 - 2273</b>																																														
<table border="1"> <tr> <th>DM</th> <th>CVD</th> <th>CHF</th> <th>HTN</th> <th>CKD</th> <th>Gap</th> </tr> <tr> <td>Y</td> <td></td> <td></td> <td>Y</td> <td>Y</td> <td>8</td> </tr> </table>		DM	CVD	CHF	HTN	CKD	Gap	Y			Y	Y	8	<b>Bolded drugs are dispensed in the last 3 months</b>																																				
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** Avg BP 146 / 82 Pulse 67 - 12/10/05 Weight 188.0    Height 71.0 BMI 26.2    12/10/05 Smoking Status Ten Year Cardiac Risk 29%		<ul style="list-style-type: none"> <li>• Foot Screen Due</li> <li>• Eye Screen Due&gt;</li> <li>• LDL due</li> </ul>																																																
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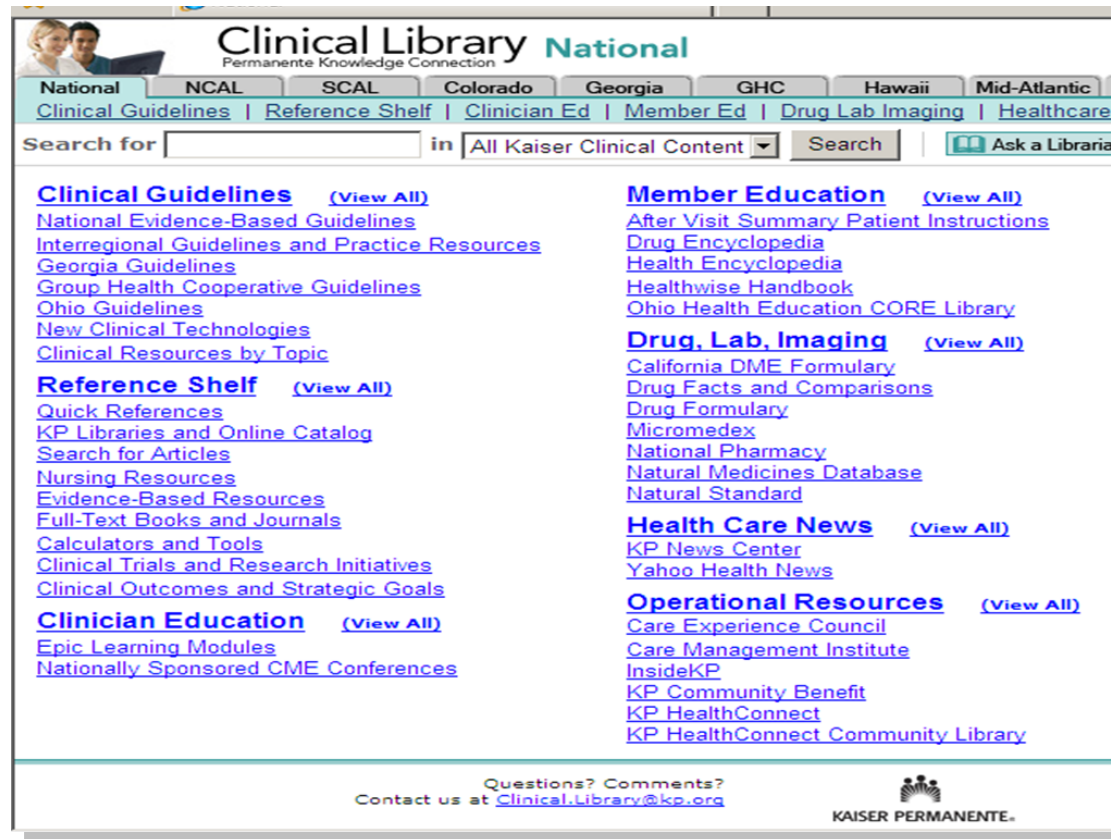
javascript:NewWindow("patient\_detail.cfm?MRNR=000000540")

Internet

Start | Samir A Patel ... | 21st Century ... | nana current ... | Complete Pan... | Patient Detai... | 12:30

# Evidence on demand


Access to library of KP knowledge, best medical practices at the point of care




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# Panel support with KP HealthConnect™

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**The Panel Support Tool**



The Panel Support Tool gives us new capabilities to view and manage all the patients in a PCP's panel. As a key part of the "Total Panel Ownership" project, it is designed to help support the PCP by enabling the PCP teams, supporting specialists, case managers, educators, and others to join in and help manage the PCP's panel.

The "Panel Support Tool" is being used to support the work of the 21st Century Care Innovation teams from Hawaii and KPNW and is part of the "Total Panel Ownership" project. It is the product of collaboration between clinicians and KP-IT from both regions, with support from the Care Management Institute's Population Care Information System (PCIS) workgroup.

**Latest news and updates...**

**Mar 17 2006 - This is a demo site to show the capabilities of the panel management tool. No userid or password are required for this demo. Simply click the "Login" button to begin.**

3-23-2006

**ProviderLogin**


User ID

Password

Login

Register Here

Change Password  
Forgot Password?



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# Screen shot of panel support tool

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## The Panel Support Tool

choose a provider | search / panel view | visit info | risk factors | logout

Complete Panel View	No PC Visit in 12 Months	BMI
Search by MRNR or Name	ER Visits last 7 days	Smoker
Run a Panel Query	Utilization	High LDL
Search for Caregaps		CAD Risk

PCP: DEMO DOC Panel Size : 1158

Y Indicates in the registry

Report	MRN	NAME	Age	Sex	Prev	Gap	DM	CVD	CHE	HTN	CKD	Last Seen	Rev'd
<input type="checkbox"/>	000000027	DEMO27	76	F		20	Y				Y		4/11/2006
<input type="checkbox"/>	000000370	DEMO370	50	F		17	Y			Y	Y	12/16/2004	4/12/2006
<input type="checkbox"/>	000000419	DEMO419	45	M		17	Y						4/13/2006
<input type="checkbox"/>	000000455	DEMO455	39	M		17	Y				Y		
<input type="checkbox"/>	000000441	DEMO441	35	M		17	Y				Y		4/13/2006
<input type="checkbox"/>	000000599	DEMO599	43	M		16	Y			Y			4/13/2006
<input type="checkbox"/>	000000676	DEMO676	60	M		14	Y	Y	Y	Y	Y	7/6/2005	4/12/2006
<input type="checkbox"/>	000000482	DEMO482	59	M		12	Y			Y	Y	3/13/2006	4/13/2006
<input type="checkbox"/>	000000566	DEMO566	37	F		12	Y				Y	7/16/2005	
<input type="checkbox"/>	000000267	DEMO267	49	M		12		Y		Y		4/13/2005	
<input type="checkbox"/>	000000567	DEMO567	54	M		11		Y		Y		7/29/2004	
<input type="checkbox"/>	000000707	DEMO707	73	M		11	Y			Y		2/28/2006	
<input type="checkbox"/>	000000746	DEMO746	58	F		10	Y			Y		12/27/2005	
<input type="checkbox"/>	000000080	DEMO80	55	M		10	Y			Y		1/26/2005	
<input type="checkbox"/>	000000989	DEMO989	65	F		10		Y	Y	Y		5/25/2004	
<input type="checkbox"/>	000000559	DEMO559	79	F		10	Y			Y	Y	9/3/2005	
<input type="checkbox"/>	000000592	DEMO592	64	F		9	Y			Y		9/7/2005	

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# The Proactive Office Encounter

Pre Encounter	Office Encounter	Post Encounter
<b><u>Proactive Identification</u></b> <ul style="list-style-type: none"> <li>• Identify missing labs, screening procedures, access management, kp.org status, etc.</li> <li>• Provide member instructions prior to visit</li> <li>• Contact member and document encounter in KP HealthConnect™</li> </ul>	<b><u>Office Encounter Management</u></b> <ul style="list-style-type: none"> <li>• Vital sign collection / documentation</li> <li>• Identify and flag alerts for provider</li> <li>• Room and prepare patient for necessary exams</li> <li>• Pre-encounter follow-up</li> </ul>	<b><u>Immediate</u></b> <ul style="list-style-type: none"> <li>• After visit summary, after care instructions, follow-up appointments, Health Ed materials, how to access info on kp.org</li> </ul>
	<b>Proactive Office Support</b> <ul style="list-style-type: none"> <li>• Phone calls</li> <li>• Letters</li> <li>• E-mail</li> <li>• Inbox Management</li> </ul>	<b><u>Future</u></b> <ul style="list-style-type: none"> <li>• Follow-up contact and appointments per provider</li> </ul>



# Impact of panel management on quality

HEDIS Measure Effectiveness of Care	Q4 2006	HEDIS 90 <sup>th</sup> %ile	Q4 2007	Change
DM HbA1c Screening	90.8%	92.7%	93.5%	2.7%
DM LDL Screening	85.4%	85.4%	90.9%	5.5%
DM Retinopathy Screening	69.6%	69.3%	75.3%	5.7%
DM Nephropathy Screening	89.4%	91.2%	92.6%	3.2%
DM LDL <100 (Commercial)	46.6%	52.6%	52.8%	6.2%
DM LDL <100 (Medicare)	60.2%	64.5%	66.4%	6.2%
DM HbA1c >9% (poor control)	24.9%	< 20.4%	23.6%	1.3%
Breast Cancer Screening	82.0%	80.1%	82.9%	0.9%
Cervical Cancer Screening	81.4%	87.1%	84.5%	3.1%



# Proactive population management tools

**Renal Population Management System: E-Consult Generator** Nephrology Division, Kaiser-Hawaii

1 1926 **ALERT LEVEL** 2 YR ESRD RISK: **37%** RISK OF RAPID PROGRESSION **43%**  
4 YR ESRD RISK: **50%**

SMITH,JOHN  
PCP: YAP, GARY G MR# 98765432 185/ 84 8/20/2008  
71 M Clinic: KAI 165/ 85 7/9/2008  
250 lbs No classes 159/ 77 5/7/2008  
DM CAD CVA Last PCP Date: 11/26/2008  
Next PCP Date: 11/26/2008

Stage 3 CKD  
GFR: 35 7/9/2008 Cr: 2 C-G: 54 COZAAR 100  
GFR: 35 5/2/2008 Cr: 2  
GFR: 46 1/23/2008 Cr: 1.6 DILTIAZEM 180  
GFR: 53 9/7/2007 Cr: 1.4 METOPROLOL 100

Latest UP: 5700 1/24/2008  
24hr Pr:  
24hr Pr:  
U Pr/Cr: 5.7 1/24/2008  
U Pr/Cr: 2.8 9/9/2007  
MARAT  
UA PROT

Hgb: 11.8 7/9/2008  
K: 4.3 7/9/2008  
Ca:  
Phos  
Album  
PTH

HgbA1c: 8.4 1/24/2008

CRNRY ATHRSL NATVE VSSL6/19/2003  
CRNRY ATHRSL NATVE VSSL6/19/2003

☒ Subset New Comment  
☐ Nephro  
☐ Reviewed

Previous Card Comment Log Update Log skip OK  
Refresh Card  
Next Card

Finish Next PCP Card Next Color Card ☐ No Log Labs  
Log Labs Expired Inactivate Card Nephro mark  
Reset K BP RRisk 37% Bone Anemia 16.5% Drug PE Sign Off Flag NR BL ESRD auto-unmark

E-CONSULT  
Date reviewed: Friday, October 17, 2008  
Re: SMITH,JOHN  
MR# 98765432  
Dear Dr. YAP, GARY G,  
This patient's estimated GFR of 35 puts him at stage 3 chronic kidney disease. Based on GFR and proteinuria, estimated 2 year risk of ESRD is 37%.  
Last Blood Pressure: 185/ 84 8/20/2008  
We examined the renal-related parameters for this patient including demographics, medications, labs and the problem list. Based on this we recommend the following:  
Recommend referral of this patient to Nephrology.  
Thank you. Sincerely, Dr. Brian Lee for the Nephrology Division.

☒ Refer  
☐ Screen most  
☐ Screen full  
☐ Screen Bone  
☐ Screen Anemia  
☐ Screen Cr  
☐ Screen Uprot  
☐ Screen lipid  
☐ Kidney Class  
☐ High BP  
☐ High HgbA1c  
☐ Start Lisinopril  
☐ Adjust Lisinopril  
☐ Stop Lisinopril

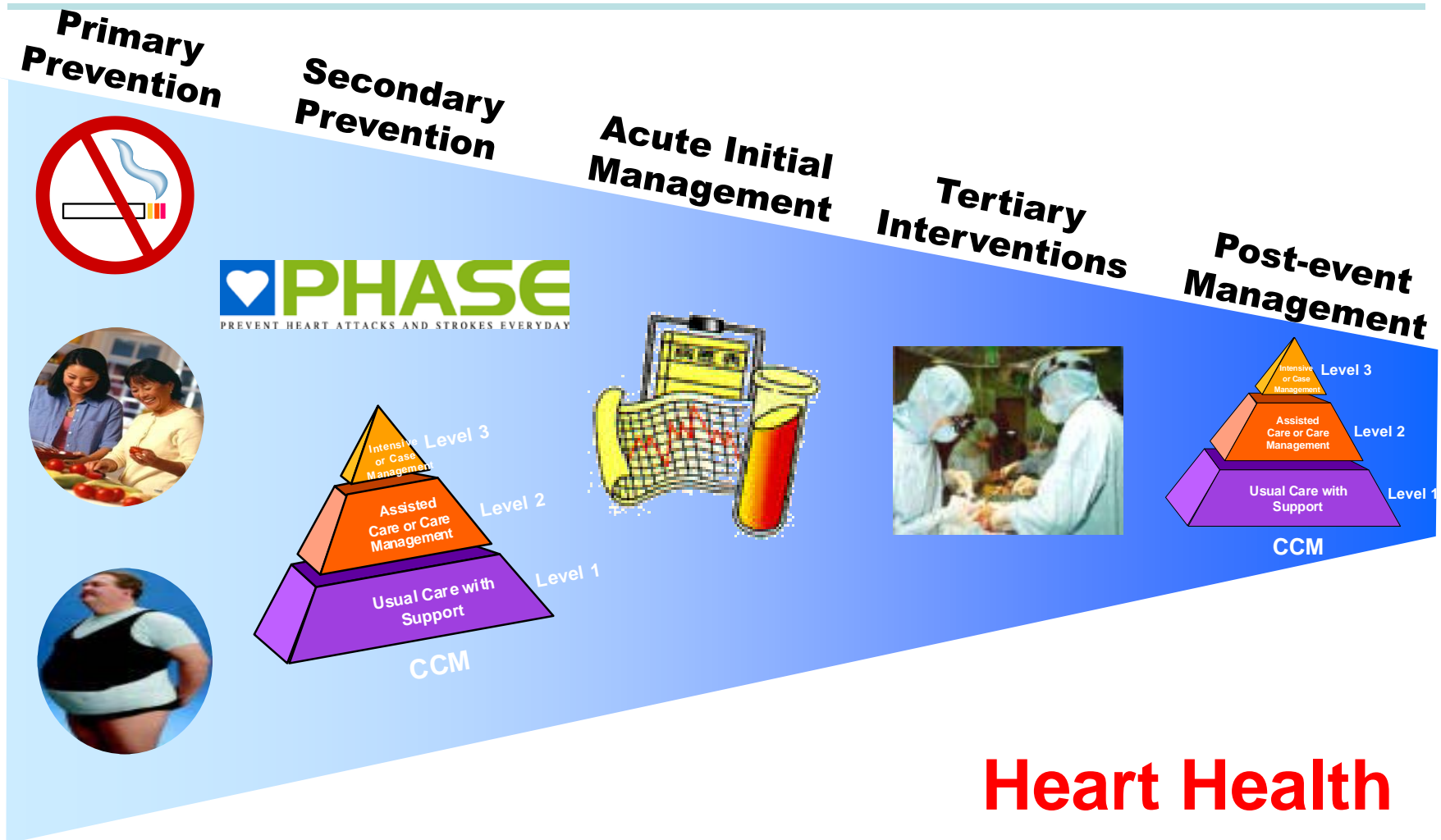
preview E-Consult  
Dr. Alan Lau  
Dr. Aurora Tomita  
Dr. Brian Lee  
Copy E-Consult Text  
Log the E-Consult  
Filename for emails: P:\projects\econsu

MR# 9876543  
Search Cards Stats Subset Review



Brian Lee, MD

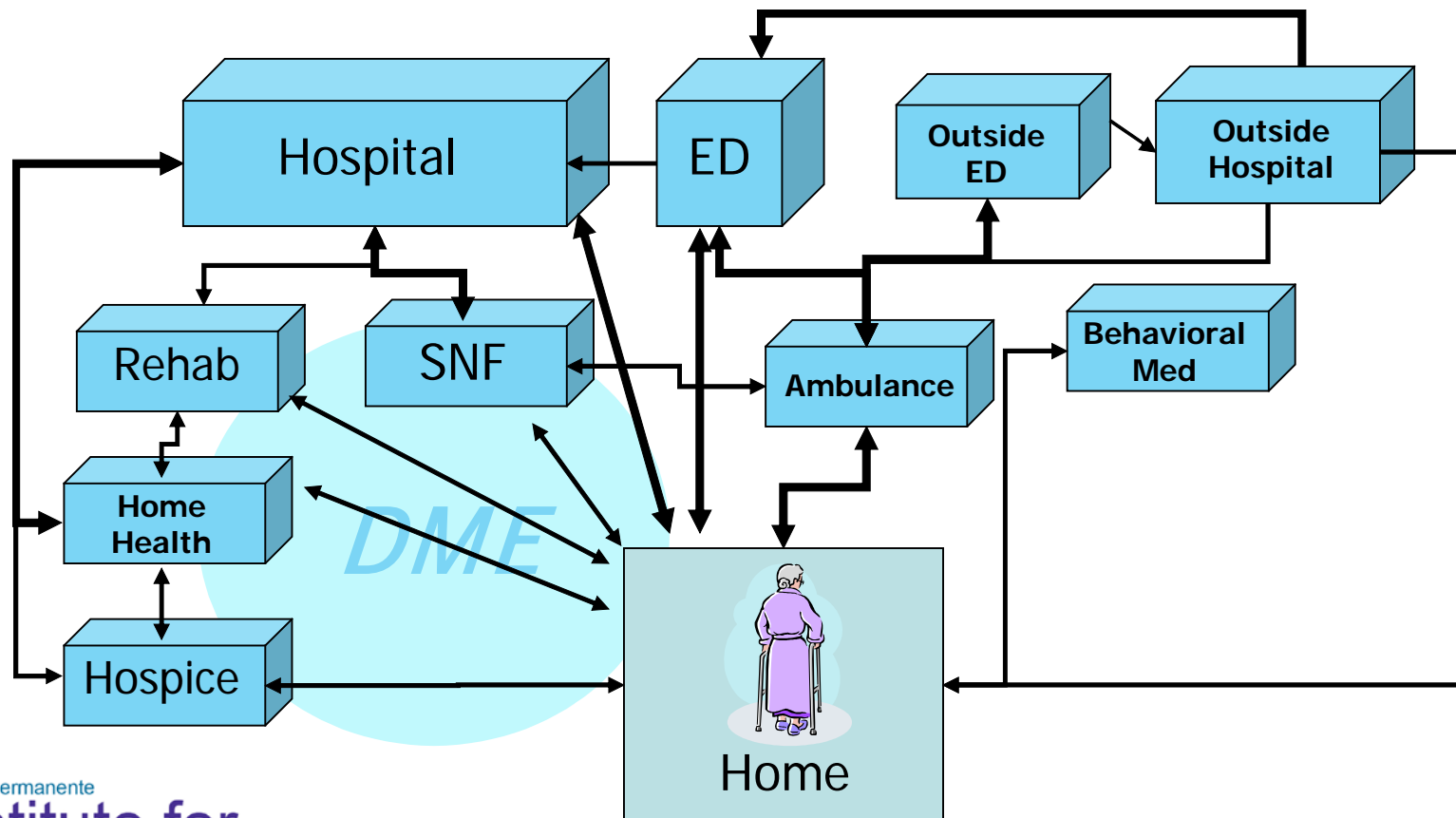
# Integration allows focus on care continuum



## Heart Health

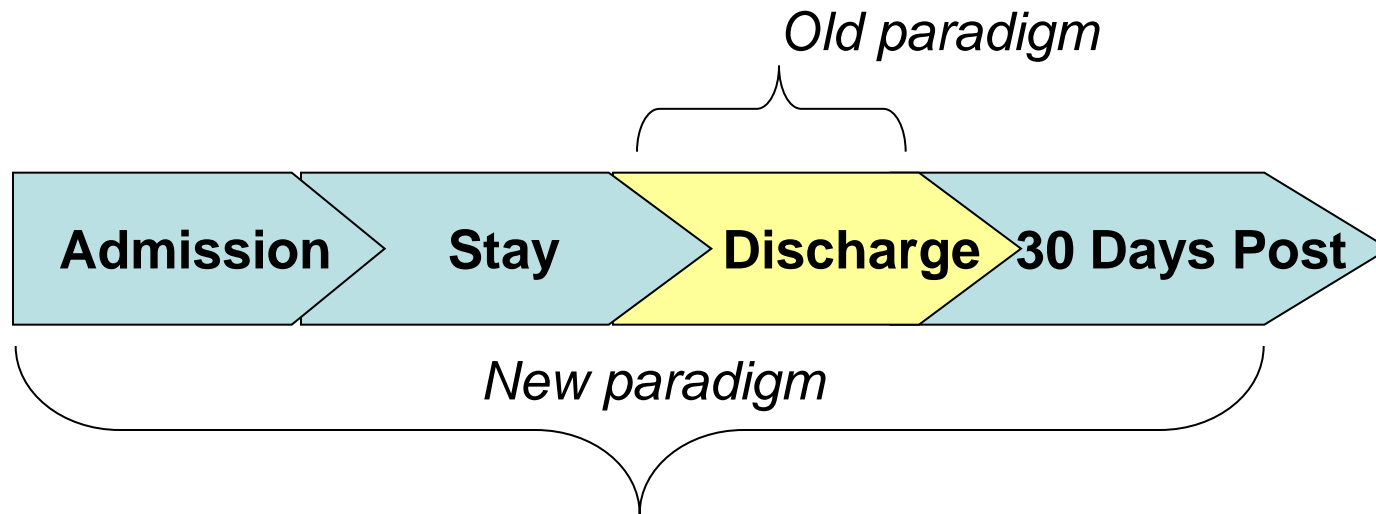
# Kaiser Permanente has many transitions

KP has over 1 million transitions annually from hospitals, inpatient facilities, SNFs, and home health services



# Key components of good transitions

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- **Assessment of Patients' Needs/Risk Stratification**
- **Develop a Plan of Care**
- **Medication Management**
- **Accurate and Timely Exchange of Healthcare Information**
- **Appropriate Follow-up**



# Simplify to prevent heart attack and stroke

- **Evidence**

- Statins, ACE inhibitors, aspirin greatly reduce risk
- All are vastly underused in US
- Too many choices of meds

- **A simplified bundle**

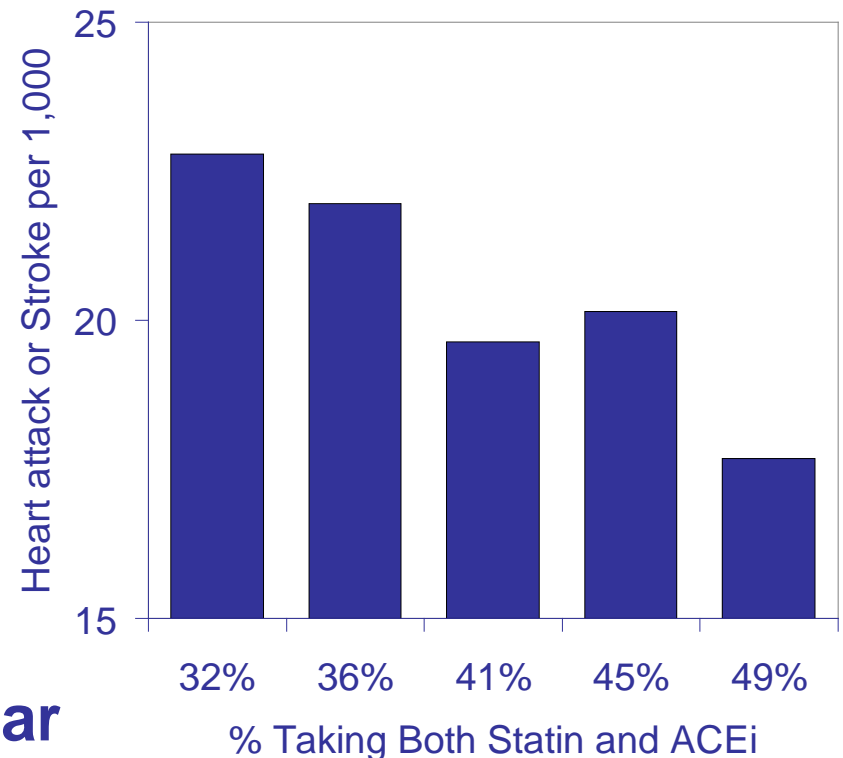
- Aspirin 81 mg
- Lovastatin 40 mg
- Lisinopril 20 mg

- **Targeted 400k members**

- Diabetics > 55, all CAD

- **1,200+ avoided events per year**

Reduced heart attack and stroke rates at facilities with the greatest A-L-L use



# Driving improvement (the science)

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- **Gather research (clinical or market) → evidence**
- **Review and refine evidence for guideline development, goal setting**
- **Design and develop care management programs:**
  - clinical priorities;
  - service improvement approaches
  - operational improvements for service and access
- **Set granular, actionable metrics**
  - internal and external benchmarks
- **Measurement, timely reporting and feedback, unblinded sharing of data**

# Driving improvement (the art)

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- **Physician leadership, clinician expert champions**
- **Cascading communication**
- **Culture of accountability, commitment, pride**
- **Performance management and recognition**
- **Relentless focus, realistic time frames**
- **Continued improvement in the quality of data**
- **Leveraging technology to facilitate quality, service, personalization of care, efficiency**



# Garfield Innovation Center: Innovation Zones



**1** Prototyping Space



**2** Hospital



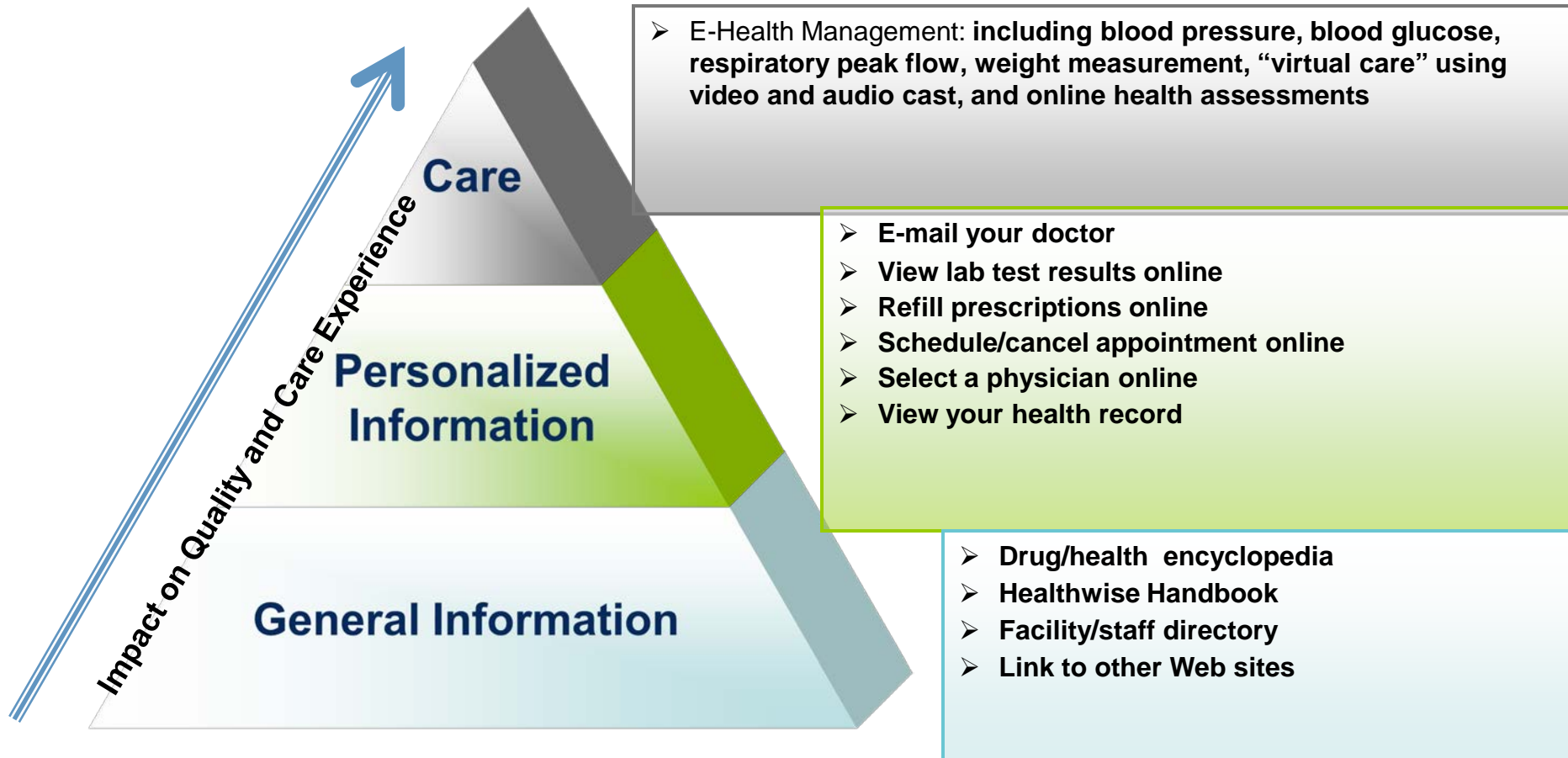
**4** Home



**3** Medical Office Building



# KP's e-care evolution



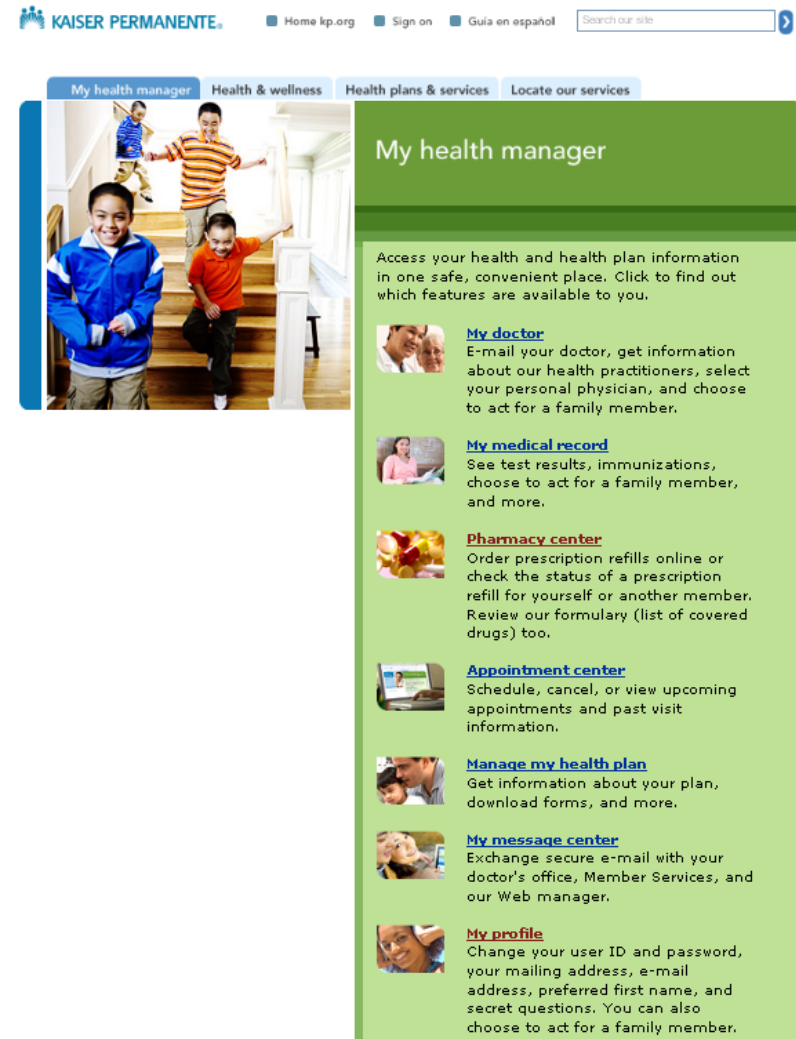
# Engaging patients: My Health Manager

- **Secure view of EHR:**
  - View lab results, immunizations, allergies, past office visits
- **Interact with care team:**
  - E-mail my doctor, complete a HRA
- **Convenient transactions:**
  - Refill prescriptions, manage appointments, act for a family member
- **Educational opportunities:**
  - Links to health & drug encyclopedias, online behavior change programs



# Patient engagement in online care

- 3.4 million registered users in 2010
  - 61.7 million site visits
  - 25 million *My Test Results* viewed
  - 11 million *E-mail My Doctor* messages
  - 8 million prescription refills ordered
  - 185,000 submissions to online behavior health programs
  - 2 million online appointment requests



# Leading in preventive and clinical measures

## HEDIS Measures 2009

	MARKET RANKING WITHIN REGION							
	NCAL	SCAL	HI	NW	CO	GA	MAS	OH
• Breast Cancer Screening	1	1	1	1	1	1	1	1
• Childhood Immunization Status	2	2	1	1	1	1	2	3
• Chlamydia Screening in Women	1	1	1	1	1	1	1	1
• Antidepressant Medication Management, Acute Phase	1	1	1	1	1	1	2	6
• Antidepressant Medication Management, Continuation	1	1	1	2	1	6	2	7
• Diabetes--BPControl – 130	1	1	1	1	1	1	3	4
• Diabetes--Neuropathy	1	1	1	1	1	1	1	1

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<sup>1</sup> Based on HEDIS 2009 Commercial results and NMR Competitors.

# Accountability

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- **Ourselves**
- **Our customers**
  - Individuals
  - Employers
  - Government programs
- **Our regulators**
  - State insurance departments
  - Federal Medicare program
- **Our accreditors**
  - National Commission on Quality Assurance

# For more information

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