

Integrated Care meets Integrated Systems

John E. Mattison, MD, Chief Medical Information Officer and Assistant Medical Director, Kaiser Permanente, Southern California 818-321-6004

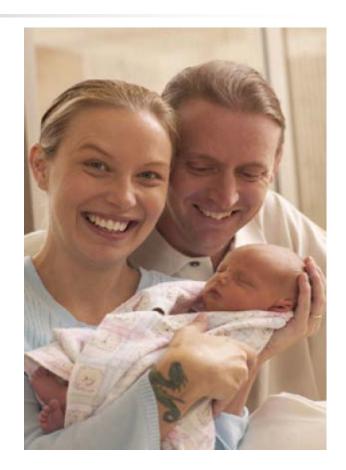
KP Facts: Who We Are

- Founded in California in 1945, Kaiser Permanente is the nation's largest nonprofit health plan serving <u>8.7 million</u> <u>members.</u>
- KP serves members in <u>9 states</u> and the District of Columbia: California, Colorado, Georgia, Hawaii, Maryland, Ohio, Oregon, Virginia, Washington.
- Medical centers: **30**

KAISER PERMANENTE

EALTHCONNECT

- Medical office buildings: 431
- <u>Employees: > 142,000</u>
- <u>Physicians: > 12,000</u>



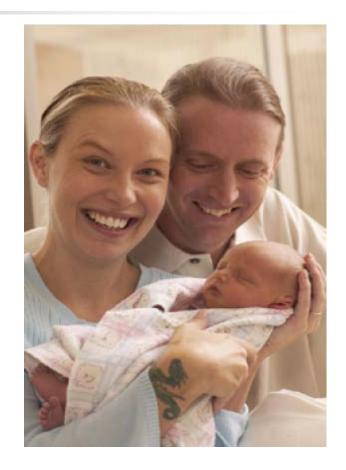
KP Facts: Who We Are

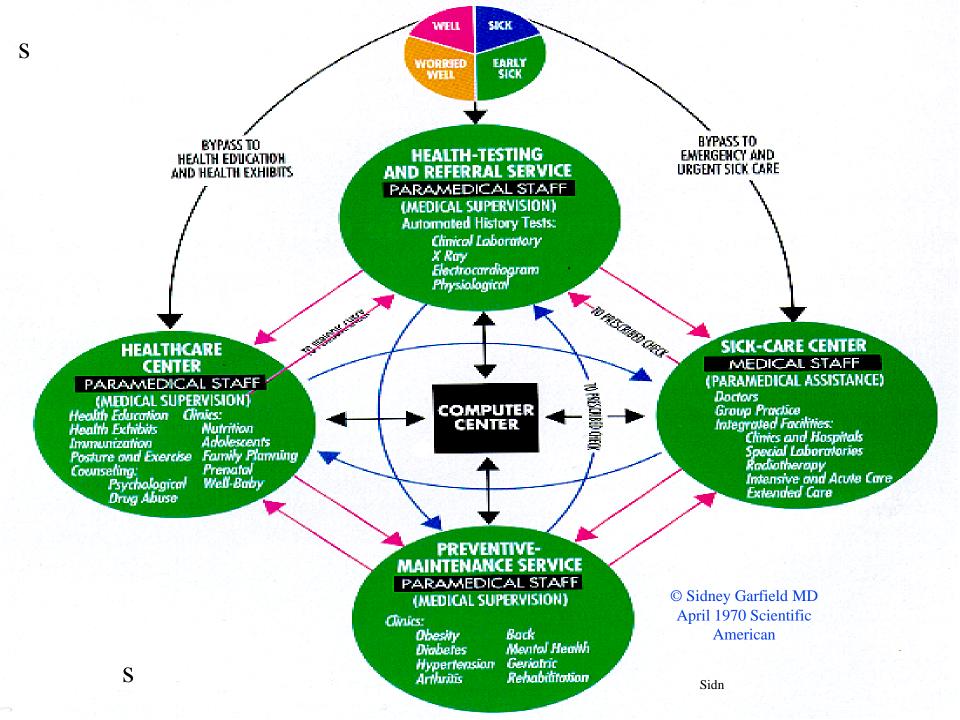
• We are now the largest fully automated Integrated Delivery System in the US

KAISER PERMANENTE

EALTI-CONNECT

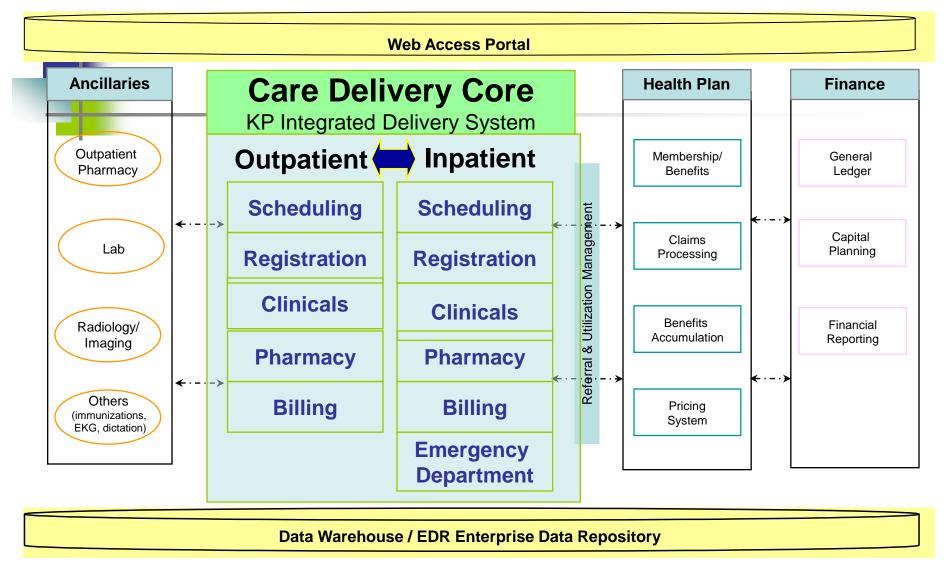
- Computers in every office, exam room and nurse station
- Printers in each office and nurse station
- Over 3 million hours of training time
- Fully implemented Personal Health Records for all members
- Over 2 million members using their PHRs over the internet
- Over 10,000 emails between patients and doctors, and rising EVERY DAY



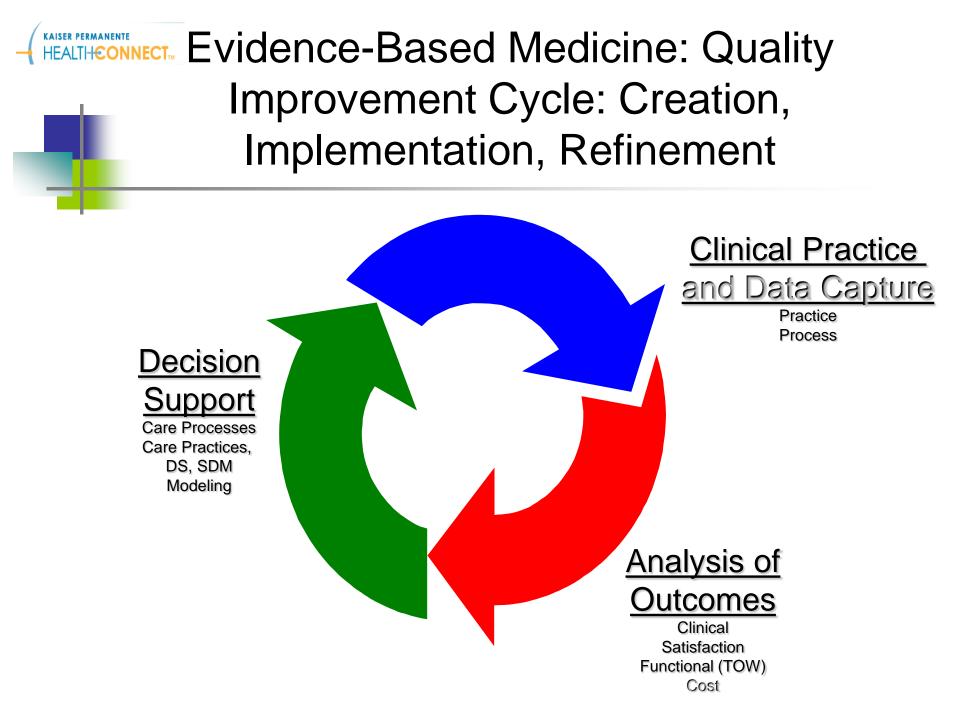


′ kaiser permanente HEALTH€ONNECT™

KP HealthConnect Overview - Scope



Also coming: Home Health, Advice Nursing, and other HealthPlan Functions



How did we train >12,000 Physicians and >142,000 users to become paperless and care for our >8.7 million patients?

- How did we survive?
- What have we learned?



Staffing Project Teams For SCAL Region

- Business and IT staffing
 - Started with about 100 people Jan 2004
 - Peaked last year at 1,200
 - End State staffing will be about 400
- Needed strategy to rapidly staff, train and deploy
 - Added HR team to the project 5 recruiters
 - Created strategy for temporary staff to include employees and contractors
- Long Term Support
 - In the medical centers
 - Includes site support, trainers, and security
 - Desktop support

Building Project Ownership

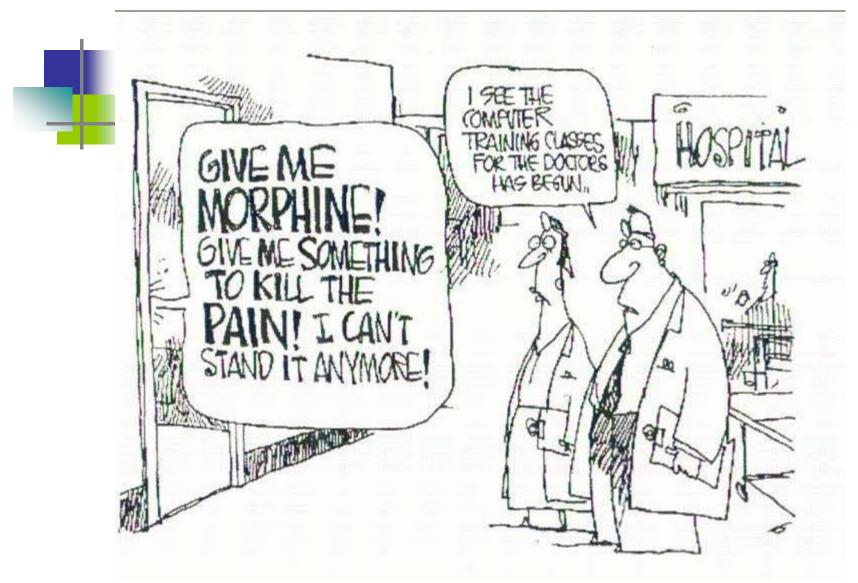
- <u>Ownership model</u>
 - Regional team vs. Medical center
 - Physician & Nurse Champions
 - Facility Content Experts
- <u>Participatory DBVs</u>, <u>Maestro Chris Wade</u>, <u>MD</u>
 --Design, Build, Validate (over 2,000 direct participants)
 --User Acceptance testing (100s of participants)
- Labor Involvement
 - KP Coalition of Unions 3 members added to project leadership team
 - Involved in all aspects of the deployment

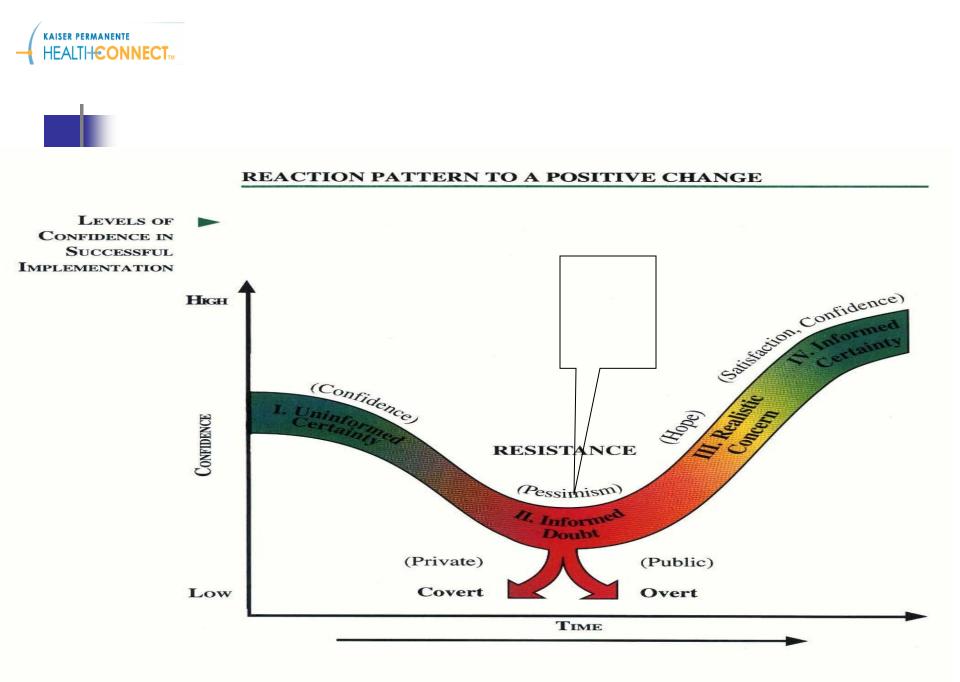


Disruptive Technologies

- The biggest benefits often come from the most disruptive technologies
- Everyone likes progress, as long as the changes are painless
- This project was not painless









Training

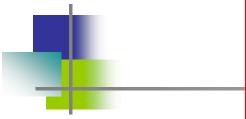
- How do you train 142,000 users
- With over 3 million hours of training
- In less than four years?

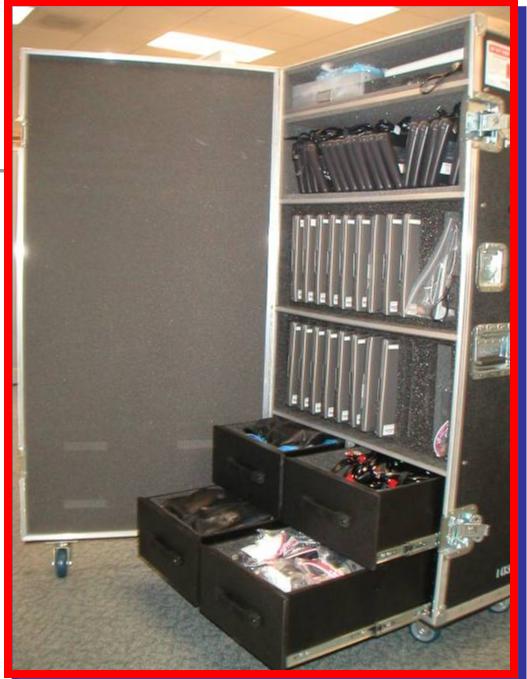
Kaiser permanente HEALTIH€ONNECT™













Consumer-Centric Care

- EHRs vs. PHRs
- Engaging the Consumer directly
- My Health Manager

Personal Health Records: My Health Manager

- My Health Manager, directly linked to Kaiser Permanente's robust electronic health record, helps individuals proactively manage their health and their families' health, anytime and from anywhere
- To use all the secure features, a person must be:
 - A member
 - Registered and "activated" to use KP.org
 - Legal complexities under age 18
- My Health Manager is accessible on any computer that can access the internet

My Health Manager Online Features

- My test results
- Email my doctor's office
- View/Cancel appointments
- Past visit information
- Act for a family member (child and adult) = "Proxy"
- My allergies
- My immunizations
- Alerts
- Healthcare reminders
- Request an update to medical record
- My health summary
- My eligibility and benefits
- Additional features (currently outside KPHC):
 - Rx Refill
 - Routine Appointment Requests



Benefits to Patients

- Currently over 10,000 emails/day
- My Health Manager has been found to:
 - Dramatically increase accessibility to care
 - Significantly increase patient satisfaction
 - Reduce primary care visits by 7-10%
 - Reduce phone calls by 14%

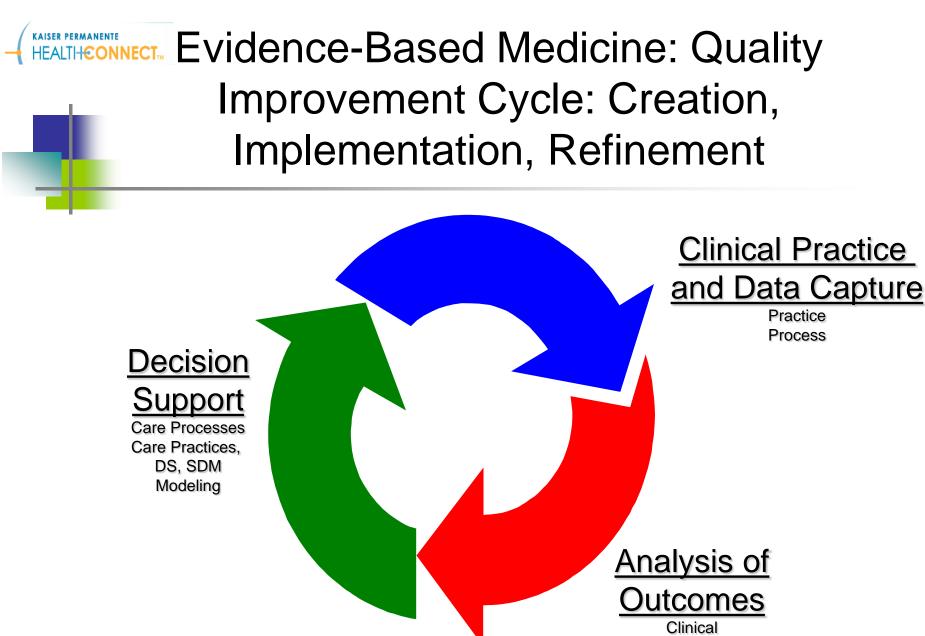


Quality Improvements

- Identification of Vioxx problem and rapid elimination from use.
- Improved Mammography screening
- Improved Cardiovascular outcomes
- Reduced prescribing of drugs contraindicated in elderly



- Clinical Content
- Preserving the richness of expression: Voice recognition and Natural Language Processing
- Communication Engines
- Interoperability Standards
- Privacy/Security:
- Availability/Redundancy
- Affordability
- Shared Decision Making
- Accelerating the quality Improvement Cycle



Satisfaction Functional (TOW) Cost



Key Legislative Opportunities

- 1. Support both paper and electronic solutions during transition, e.g. electronic signatures for POLST.
- 2. Align incentives for oversight of security with intended outcome, i.e. don't fine us for detecting and punishing bad apples
- 3. Reconcile conflicting legislation, state and federal, e.g. HIPAA covered entities in stimulus legislation
- Support federal interoperability solutions. Recognize that patients routinely cross state borders, and parochial solutions add complexity and cost, Cost = complexity²







Health and wellness

Resolve to live well with personalized plans for better health.

Winter pick-me-ups Your best shot at avoiding flu this season Shape up for less-member discount programs Take the edge off chronic pain.

- Health topics A to Z ٠
- More....







My health manager

Ready for a new you? Take a total health assessment, get a custom action plan.

- E-mail your doctor
- My test results
- Refill prescriptions View past visits
- Schedule appointments More...



Health plans and services

A perfect match of choice and price: Apply for coverade.

Plans for peace of mind

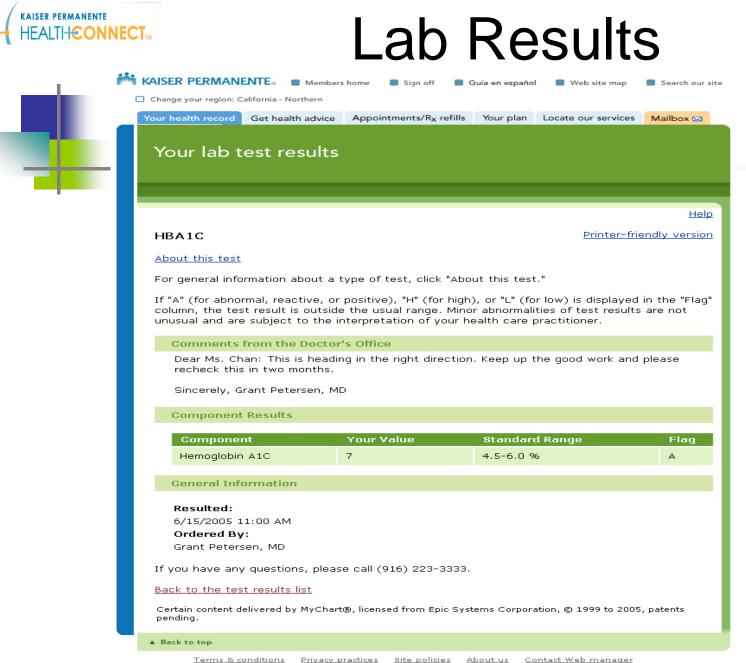
3 easy steps: individual and family plans Think big: right prices, right choices for your small business Get information on our Medicare plans

Now that we've found each other New member, meet Kaiser Permanente. At home, online, or on the road. We've got you covered.



KP News Center

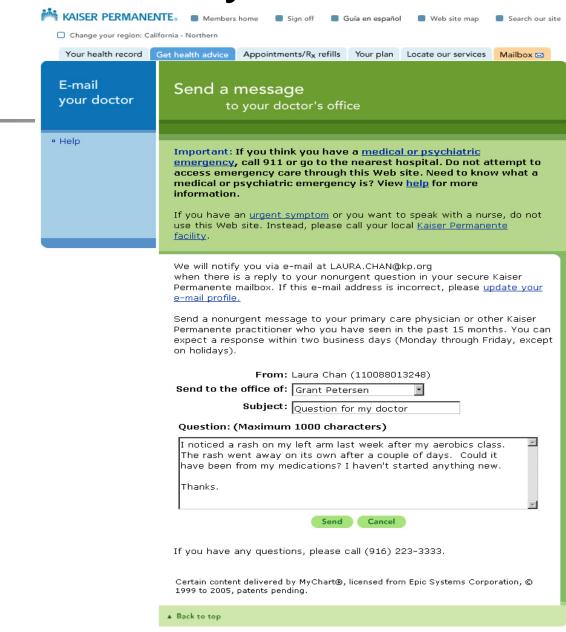
Innovative approach to family violence prevention garners award for Kaiser Permanente.



Email My Doctor's Office

KAISER PERMANENTE

EALTI-CONNECT



 Terms & conditions
 Privacy practices
 Site policies
 About us
 Contact Web manager

 Web awards & accreditations
 Careers
 Technical information
 Home kp.org

| KAISER PERMANENTE HEALTHCONNECT | Change your region: Califo | 🕒 🔳 Members home | Sign off Guía en españo nents/R _x refills Your plan | Web site map Search our si Locate our services Mailbox 🖂 | | |
|------------------------------------|---|--|---|---|--|--|
| | appointments | of your upcoming appointments | | | | |
| | • Help | | | | | |
| | | | | Printer-friendly version | | |
| | | For more information about a specific appointment listed below, click the "Date/Time" link. | | | | |
| | | Date/Time | Visit With | Department | | |
| | Related links: <u>Health</u> <u>encyclopedia</u> <u>Drug encyclopedia</u> <u>Clinical staff</u> | <u>09/17/2007 11:15</u> <u>AM</u> | Grant Petersen, MD | WEST FAMILY MEDICINE 441 N. LAKEVIEW ANAHEIM, CA 92807 | | |
| | | <u>12/15/2007 8:00</u> AM | Grant Petersen, MD | WEST FAMILY MEDICINE 441 N. LAKEVIEW ANAHEIM, CA 92807 | | |
| | directory <u>Your eligibility &</u> <u>benefits</u> | <u>12/19/2007 9:00</u> <u>AM</u> | Grant Petersen, MD | WEST FAMILY MEDICINE 441 N. LAKEVIEW ANAHEIM, CA 92807 | | |
| | | | | <u>ment online</u> or call a facility <u>ctory</u> for departments and | | |

Certain content delivered by MyChart®, licensed from Epic Systems Corporation, @ 1999 to 2005, patents pending.

Back to top

| Terms & conditions | Privacy practices | Site policies | About us | <u>Contact Web manager</u> |
|---------------------|-------------------------|---------------|----------|----------------------------|
| Web awards & accred | itations <u>Careers</u> | Technical inf | ormation | <u>Home kp.org</u> |

Past Visit Information

| | KAISER PERMANE | NTE Members | s home 🔳 Sign off 🔳 G | ŝuía en españo | I 📕 Web site map | Search our site | |
|--|--|--|---|--|----------------------|-----------------|--|
| | Change your region: Ca | lifornia - Northern | | | | | |
| | Your health record | Get health advice | Appointments/ R_X refills | Your plan | Locate our services | Mailbox 🖂 | |
| | Past office visit information | Informa | tion about your past office | e visits | | | |
| | • Help Related links: Health encyclopedia Your future appointments Request a change to your medical record | Printer-friendly version For more explanation about what kind of information you'll get about your past office visits, see the <u>help</u> page. General Information What: Office Visit with Grant Petersen, MD | | | | | |
| | | When: Friday, May 23 2005 10:30 AM Where: WEST FAMILY MEDICINE Phone: 800-555-2222 Vitals Blood Pressure: 110/60 Pulse Rate: 72 Temperature: 99 Temp Source: Oral | ay 23 2005 10:30 AM MILY MEDICINE | Patient Instructions Please check your blood sugar twice a d dinner, for three days. Send the results week. See the Diabetes featured health information on diet and diabetes. | | | |
| | | | | Follow-up Instructions | | | |
| | | | Attend Diabetes Group appointment on months or when needed. | | | | |
| | | | Medications Prescribed During This V | | | | |
| | | | | Name ACET. | B AMINOPHEN 325 M | G ORAL TAB | |
| | | | | Routin | e Orders | | |
| | | | | Name | B | , i | |
| | | | | HBA 1 | .C | L | |
| | | | | Standi | ing Orders | | |
| | | | | 01000 | n Intonual | Fim | |

KAISER PERMANENTE KAISER PERMANENTE HEALTIHCONNECT

| refills | Your plan Locate our services Mailbox | | | | | |
|---------------------|--|-----|---------------|-----------|--|--|
| t office | visits | | | | | |
| | | 20 | | | | |
| what ki elp pagi | <u>Printer-friendly versi</u> nd of information you'll get about you 3. | | | | | |
| | | | | | | |
| etersen, | MD | | | | | |
| 30 AM | Patient Instructions | | | | | |
| | Please check your blood sugar twice a day, before breakfast and dinner, for three days. Send the results by e-mail message to me next week. See the Diabetes featured health topic on kp.org for more information on diet and diabetes. | | | | | |
| | Follow-up Instructions | | | | | |
| | Attend Diabetes Group appointment on 07/03/2007; Return visit in 6 months or when needed. | | | | | |
| | Medications Prescribed During This Visit | | | | | |
| | Name Start Date Date Stopped | | | | | |
| | ACETAMINOPHEN 325 MG ORAL 1 | ТАВ | 5/23/2005 | | | |
| | | | | | | |
| | Routine Orders | | | | | |
| | Name | | Туре | | | |
| | HBA 1C Lab | | | | | |
| | Standing Orders | | | | | |
| | | | | | | |
| | Name Interval | Ex | piration Date | Туре | | |
| | HBA 1C Every 4 Weeks | 12, | /21/2007 | Lab | | |
| | | | | | | |
| | Future Orders | | | | | |
| | Name Expected Date | E | xpiration Dat | е Туре | | |
| | HBA 1C | 1 | 2/21/2007 | Lab | | |
| | Medications Stopped During This Visit | | | | | |
| | Name Start Date Date Stoppe | | | | | |
| | ACETAMINOPHEN 350 MG ORAL | ТАВ | 2/15/2005 | 5/23/2005 | | |
| | | | | | | |

kaiser permanente HEALTIICONNECTim

After visit summaries

Paper copy handed to the patient or family at the end of every visit and also available in the online health record

Appointment Information

Date: 11/06/2003 Time: 10:30 AM Visit Type: Clinic Visit Visit with: Grant Petersen, MD Campbell Medical Offices Reason for Visit: Diabetes

Vitals

Blood Pressure: 110/60 Respirations: 26 Pulse Rate: 72 Height: 5' 8" Temperature: 99 Weight: 188 lbs Temp Source: Oral SAO2: 98%

Lab Orders

HBA 1C

Patient instructions

Please check your blood sugar twice a day, before breakfast and dinner, for three days. Send the results by e-mail message to me next week. See the Diabetes featured health topic on kp.org for more information on diet and diabetes.



Survey

- Is your doctor completely automated?
- Have you emailed your doctor?
- Have you viewed your personal health record online?
- Have you used MySpace?, Facebook? Twitter? LinkedIn?
- Have you cared for an elderly relative?