

Sophisticated IT as a Cornerstone of Workforce Transformation in Integrated Delivery Systems

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A Cautionary Tale

- In the 1980s, in an effort to compete with Japan, General Motors invested \$50 Billion in new technology, including robotics.
- A 1992 study found that GM remained the highest cost auto producer in the US compared to its US and Japanese rivals.¹



1. J.P. MacDuffie and J.F. Krafcik, "Integrating Technology and Human Resources for High-Performance Manufacturing: Evidence from the International Auto Industry in Kochan and Useem eds. *Transforming Organizations* New York: Oxford University Press, 1992, pp. 209-225.

Overview

Background: Kaiser Permanente and the Labor Management Partnership

Understanding KP HealthConnect

Unit Based Teams: A Platform for Improvement

Some Case Studies

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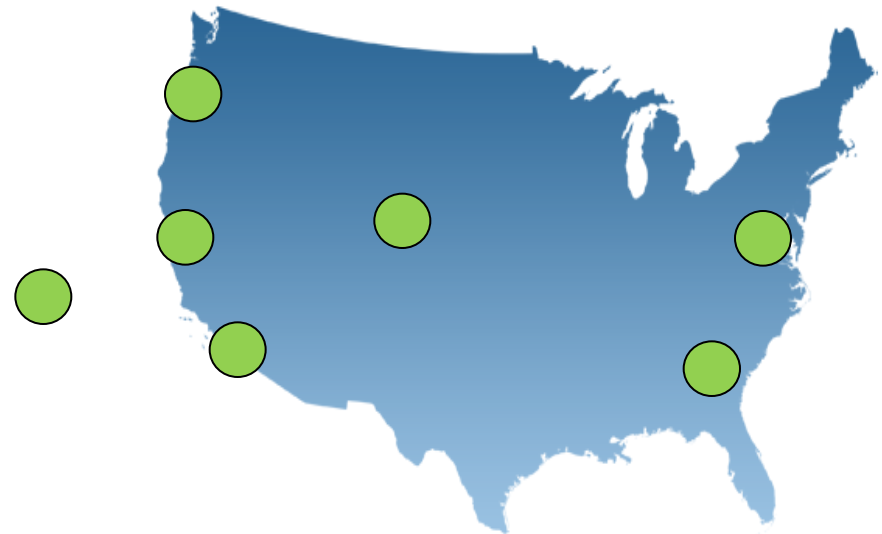
Some Case Studies



Key Facts

- 10.1 million members
- 38 hospitals
- 619 medical offices
- 17,791 MDs
- 49,778 RNs
- 177,445 employees
- 50 billion in annual revenue

7 regions serving 9 states and DC



An integrated delivery system



Excellent
Rating in 5 of 6 regions
(CO: Commendable)



5 Stars
Rating in 5 of 6 regions
(GA: 4.5 Star Rating)



Highest
Ranking among
competing providers



**Privacy
Certification**

LMP LABOR MANAGEMENT PARTNERSHIP

Key Facts

- Began in 1997
- 28 local unions
- 100,000+ employees
- Collaborate on improving quality, service, affordability and making KP the best place to work.
- Largest and longest-running such partnership in the United States.



Henry J. Kaiser surrounded by members of the Richmond shipyard safety committee.

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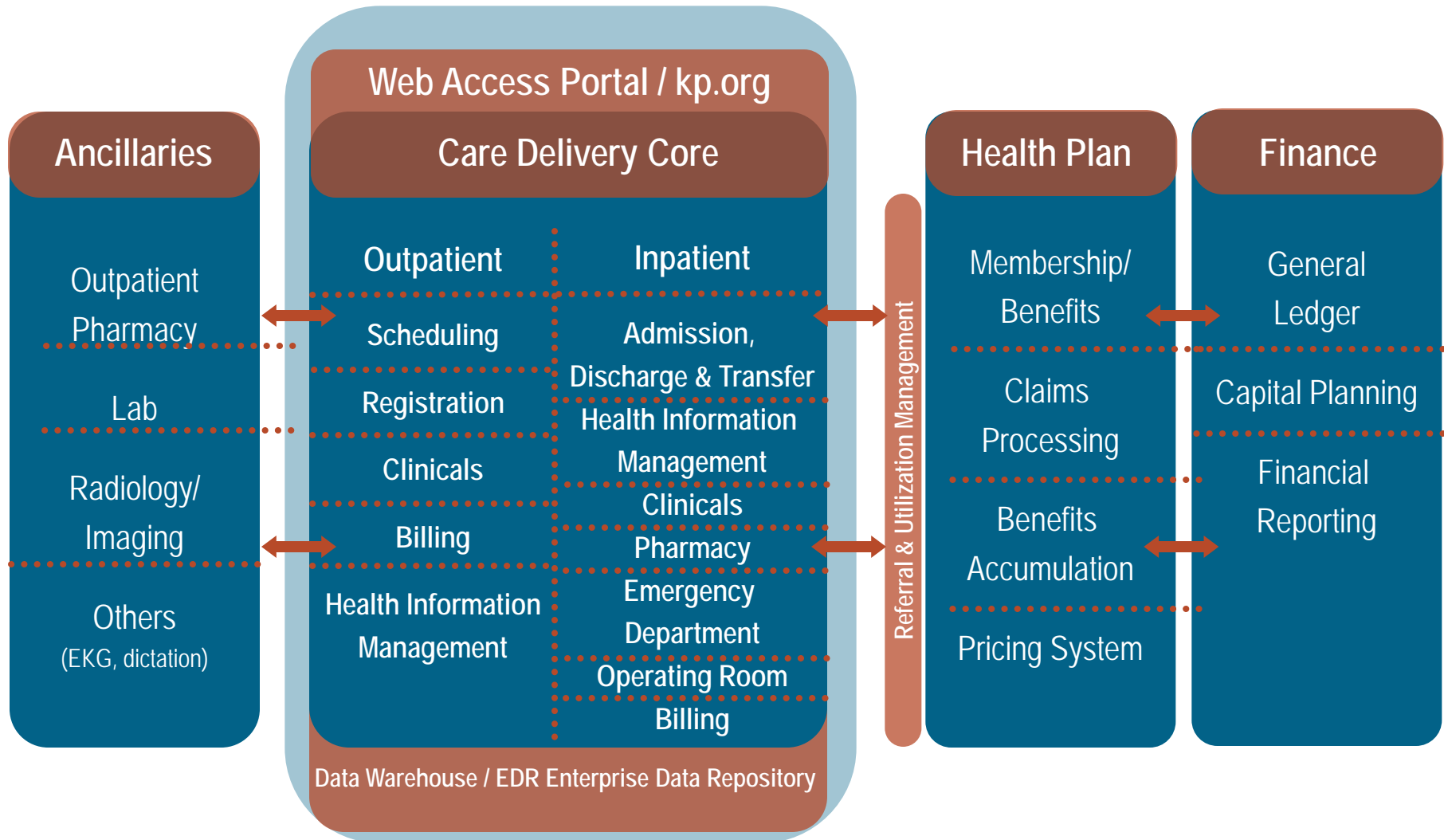
Some Case Studies

KP HealthConnect

Kaiser Permanente's Electronic Medical Record

- A Program-wide system that integrates clinical records with appointments, ancillary and specialty services, registration and billing.
- It's EPIC with a fair amount of customization.
- Integrates with KP built web interface and mobile apps used by our members.
- Cost about \$4 billion (about \$450 per member at that time).

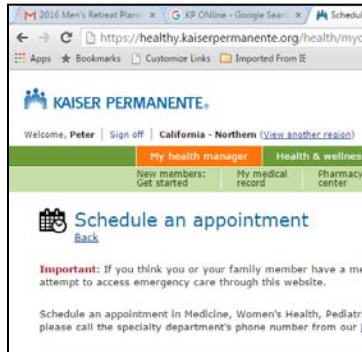
Scope of KP HealthConnect



Peter's Journey



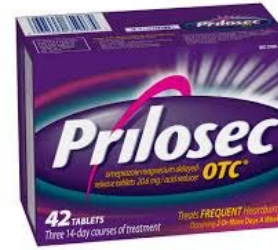
Peter experiences difficulty swallowing



Peter gets on KP Online to make an appointment to see his Primary Care Doctor, Dr. Pham.



Peter and Dr. Pham discuss his symptoms. Dr. Pham enters this history into KPHealthConnect



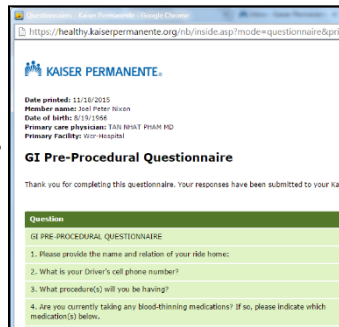
Peter and Dr. Pham agree on Rx for Prilosec and a referral to GI. Both of these actions are recorded in HealthConnect



Nancy Gonzalez, RN in GI calls Peter to schedule telephone visit with Gastroenterologist, Dr. Cheng.



Dr. Cheng and Peter discuss his history and symptoms agree on an Endoscopy. Says Nancy will call to schedule.



Nancy in GI calls Peter to schedule appointment for Endoscopy. Asks if she can send pre-procedure questionnaires to his Kp.org address.



Peter completes one questionnaire at his desktop, but has to leave before doing second, so he completes it on his cell phone using his KP.org app.



On procedure day, a different GI has to do the procedure, but all the information she needs (e.g. consent, questionnaire, etc) is already in HealthConnect.



Dr. Cheng reviews the report on the Endoscopy and emails Peter back on KP.org.

The Power of Data

What can we do with all this stuff?

- Disease Registries.
- Risk Stratification.
- Panel Management Tools.
- Decision Support
- Drug-Drug Interaction Checks
- Inreach/Outreach Lists and Tools

BUT....you can't just layer this on top of an existing physician-centered care model and expect success.



Only 2,456 more In Basket items to go.....

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Unit Based Teams

Key Facts

- Created through the Labor Management Partnership
- 3,500+ teams
- All employees, managers, and MDs in a natural work unit are members.
- Trained in the Rapid Improvement Model (e.g. PDSA)
- Strong UBTs linked to higher performance outcomes



UBTs: Impact on Culture

Percentage point difference between employees reporting high level of involvement in their UBT versus those reporting a low level of involvement*

"I can influence decisions affecting my work"	+ 42 points
"It is easy to speak up about errors and mistakes"	+ 24 points
"I am encouraged to suggest better ways of working"	+ 23 points
"My department operates effectively as a team."	+ 20 points
"People respect each other despite differences"	+ 18 points

*Employees were asked to rate their level of UBT involvement on a 5 point scale: 1) None; 2) Very Little; 3) Some; 4) Quite a Bit; 5) A Great Deal. High involvement = 4+5 and Low Involvement = 1+2.

UBTs: Impact on Performance

Difference between departments in the lowest quintile on UBT involvement compared to departments in the highest quintile*

Sick Leave Utilization	16 percent <u>lower</u>
Workplace Injury Rate	18 percent <u>lower</u>
Overall Hospital Satisfaction	4 percent <u>higher</u>

*Employees were asked to rate their level of UBT involvement on a 5 point scale: 1) None; 2) Very Little; 3) Some; 4) Quite a Bit; 5) A Great Deal. High involvement = 4+5 and Low Involvement = 1+2. Average scores were calculated for each department, which were then ranked. The top quintile (20%) was compared to the bottom quintile.

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Reducing Health Disparities

Los Angeles Medical Center Internal Medicine UBT



- In the U.S., hypertension control rates for African-Americans are lower than those for non-Hispanic Whites (50% vs. 54%).
- In our SCAL region, control rates are higher, but there is still a gap (79% for African Americans vs. 83% for non-Hispanic Whites)
- The LAMC Internal Medicine UBT decided to organize a special outreach clinic for African-Americans with uncontrolled HTN.
- Using HealthConnect, they were able to generate outreach lists for this population. LVNs and Social Workers in the department made the outreach calls.
- Response was extremely positive with a large share of patients coming into the clinic. Staff did
- For this medical center, the HTN control gap between African-Americans and Whites fell by 25%.

National Impact

“Disparities in risk-factor control for blacks have been eliminated in the West among Kaiser health plans.”

— J.Z. Ayanian, B.E. Landon, J.P. Newhouse and A.M. Zaslavsky, “Racial and Ethnic Disparities among Enrollees in Medicare Advantage Plans,” *NEJM* 2014; 371:2288-2297, December 11, 2014.

The screenshot displays the homepage of The New England Journal of Medicine. At the top, there is a banner for 'IMPROVE YOUR CLINICAL STRATEGIES' with a 'Browse Clinical Collections' link. Below this is the journal's logo and title. A navigation bar includes links for 'HOME', 'ARTICLES & MULTIMEDIA', 'ISSUES', 'SPECIALTIES & TOPICS', 'FOR AUTHORS', and 'CME'. The main content area features a 'SPECIAL ARTICLE' titled 'Racial and Ethnic Disparities among Enrollees in Medicare Advantage Plans' by John Z. Ayanian, M.D., M.P.P., Bruce E. Landon, M.D., M.B.A., Joseph P. Newhouse, Ph.D., and Alan M. Zaslavsky, Ph.D. The article's abstract is visible, discussing health outcomes for black and white enrollees. The bottom of the page shows a taskbar with several open browser windows, including the article page and a 'NASI Nixon 12-2-15' window.

Tracking Abnormal Test Results

Georgia Region

- Region was seeing large number of positive PSA tests with lack of follow up
- Implemented an Electronic Clinical Surveillance program known as the Outpatient Safety Net that was developed in our SCAL region.
- Team of 5 nurses follows up on abnormal labs, making 3 attempts to contact patient followed up by certified mail.
- Addressed a backlog of 500 positive PSA tests and (once CRC was added to the program) 1000 positive FOBT tests.
- More than 40 cancerous polyps found from post-FOBT testing.
- System has been expanded to cover Breast Cancer Screening, Cervical Cancer Screening, Colorectal Cancer Screening and First OB Visit.
- Georgia Region won KP's Lawrence Patient Safety award for transfer of a successful practice.



Eula Maddox, UFCW Local 1996 member and Likun Mishra, shown with KP leaders accept a Lawrence Patient Safety Award on behalf of the Georgia region.

Concluding Thoughts



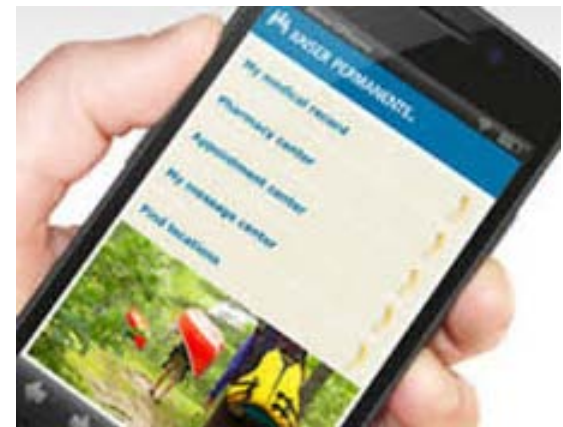
People

Engage the frontline



Process

Standardize work to ensure reliability



Technology

Technology should enable

Go forth and THRIVE!

