

CODING

—What is it good for?—

MTLF

Minneapolis

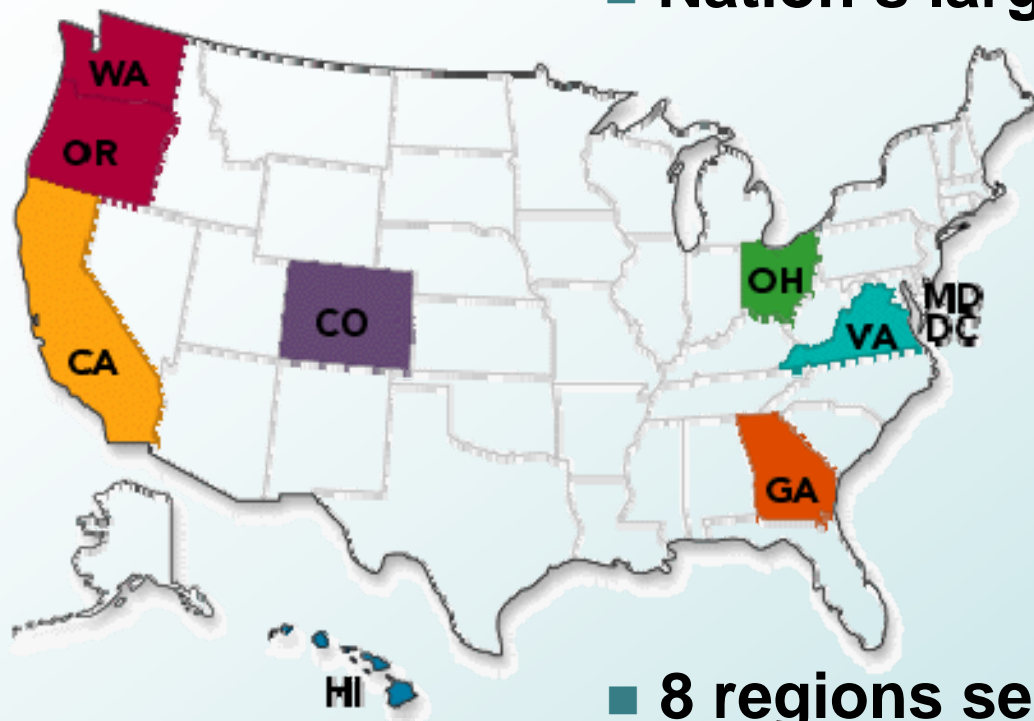
October 31, 2006

Jed Weissberg, MD

Kaiser Permanente

The Kaiser Permanente Enterprise

- Nation's largest nonprofit health plan



- Integrated health care delivery system
- 8.6 million members
- 12,800+ physicians
- 152,800+ employees

- 8 regions serving 9 states and D.C.
- 37 hospitals and medical centers
- 431 medical offices
- \$36 billion annual revenues

For CMS

- **Billing/payment for services rendered**
- **Detection of fraud and abuse**
- **Coverage with evidence determination**
- **? Improving care?**
- **? Documenting and improving value?**

Coding as Part of Documentation *Kaiser Permanente*

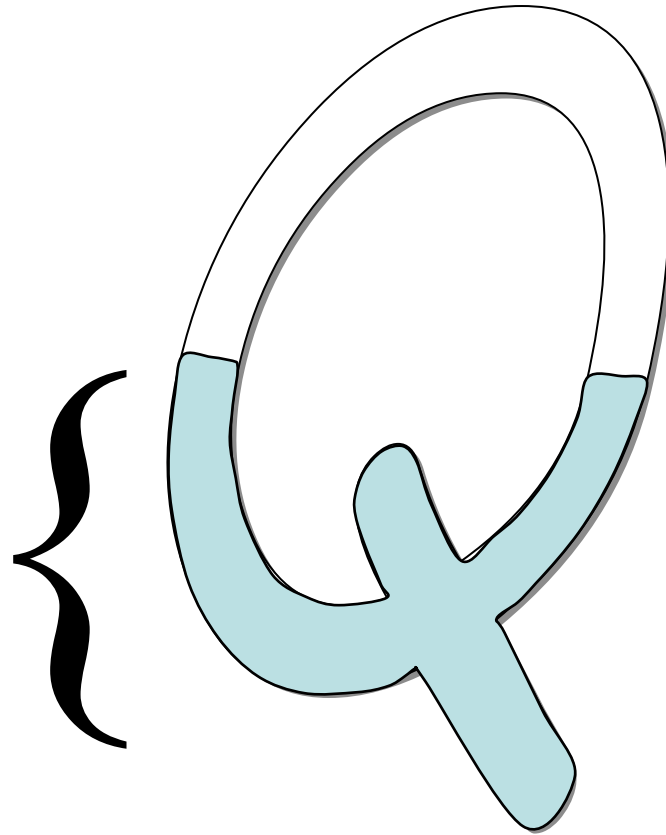
- **Improve clinical quality, safety, efficiency, and service as well as insuring payment**
- **Track progress in harvesting value from our massive investment in KP HealthConnect – our EHR**
- **Accelerate improvement**
- **Knowledge generation through data germination?**

What about accelerating improvement?

$$V = \frac{Q}{C}$$

American Medicine

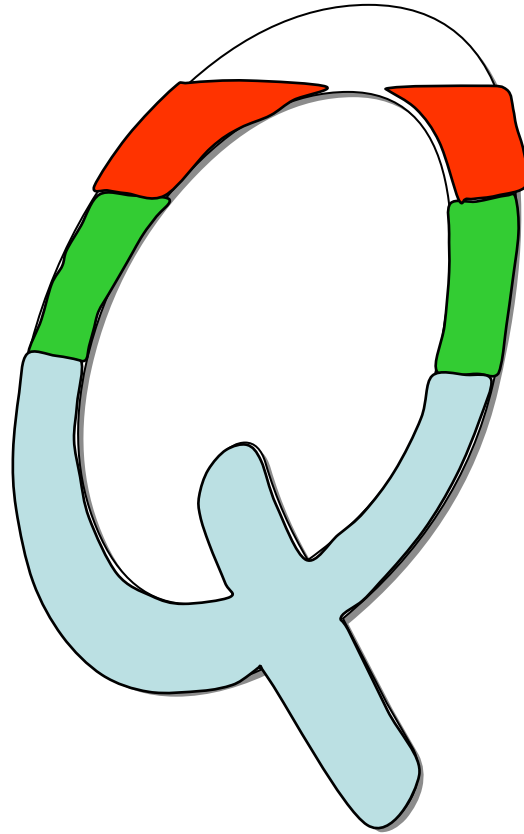
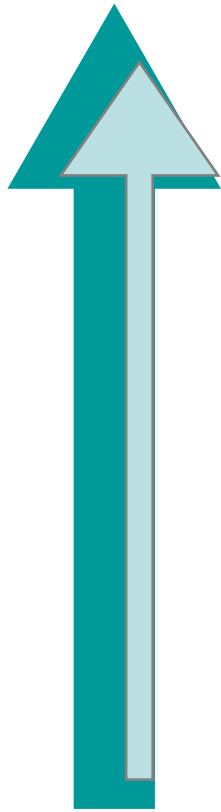
**Medical
Quality**



**Quality
Chasm**

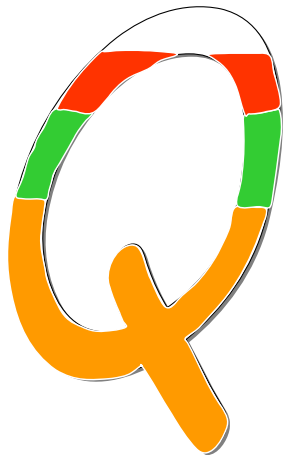
- McGlynn, et al, New England Journal of Medicine, 2003
- Institute of Medicine, 2002

Quality Improvement



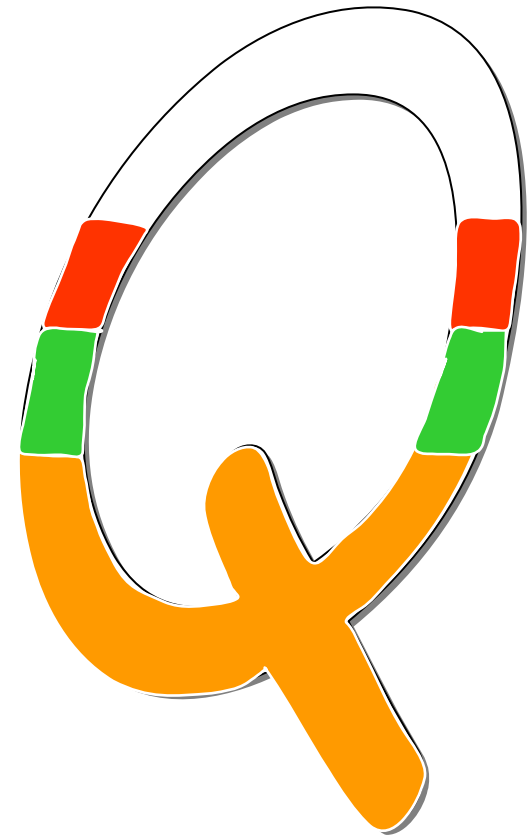
HealthConnect
QI Processes

Dynamic Environment



Drivers

- Genomics
- Miniaturization
- Technology
- Etc.



26 Detailed Questions Frame the Core Value Metrics

Executive Question

Is KP HealthConnect being implemented fully and used effectively?



Detailed Questions

- 1) How is the system affecting physician workload?
- 2) What is the level of KP HealthConnect user proficiency?
- 3) How has implementation and usage of the system affected recruiting and retention of RNs, LVNs, and nurse managers?
- 4) What is the member use rate of key KP HealthConnect Online features?

In the future, with KP HealthConnect, are we...

Coordinating and integrating care more effectively?



- 5) Are communications and handoffs among clinicians improving (e.g., curbside consults, primary and specialty handoffs, IP/OP handoffs)?

Enhancing quality of care and outcomes?



- 6) Are patients safer?
- 7) Are our clinical outcomes improving?
- 8) Are physicians following best practice guidelines?
- 9) How frequently are 'patient plans' of care utilized/referenced (e.g., 1x/2x/3x per shift)? (inpatient only)

Increasing operational efficiencies?



- 10) Are we managing our panels more effectively?
- 11) How is our mix of encounter types changing (e.g., face to face, web, phone)?
- 12) How is our staff mix/level changing?
- 13) To what extent has hospital throughput improved (e.g., ALOS, ED, OR down time, bed management, discharge processes)?
- 14) Is the utilization of lab, radiology, and pharmaceuticals changing?
- 15) Has compliance w/pharmacy preferred products/recommended medication guidelines improved?
- 16) Has first time call resolution improved in the call center?
- 17) Have we decreased the total cost of managing medical records?
- 18) What is our progress toward IT systems retirement?

Seeing improvement in member satisfaction?



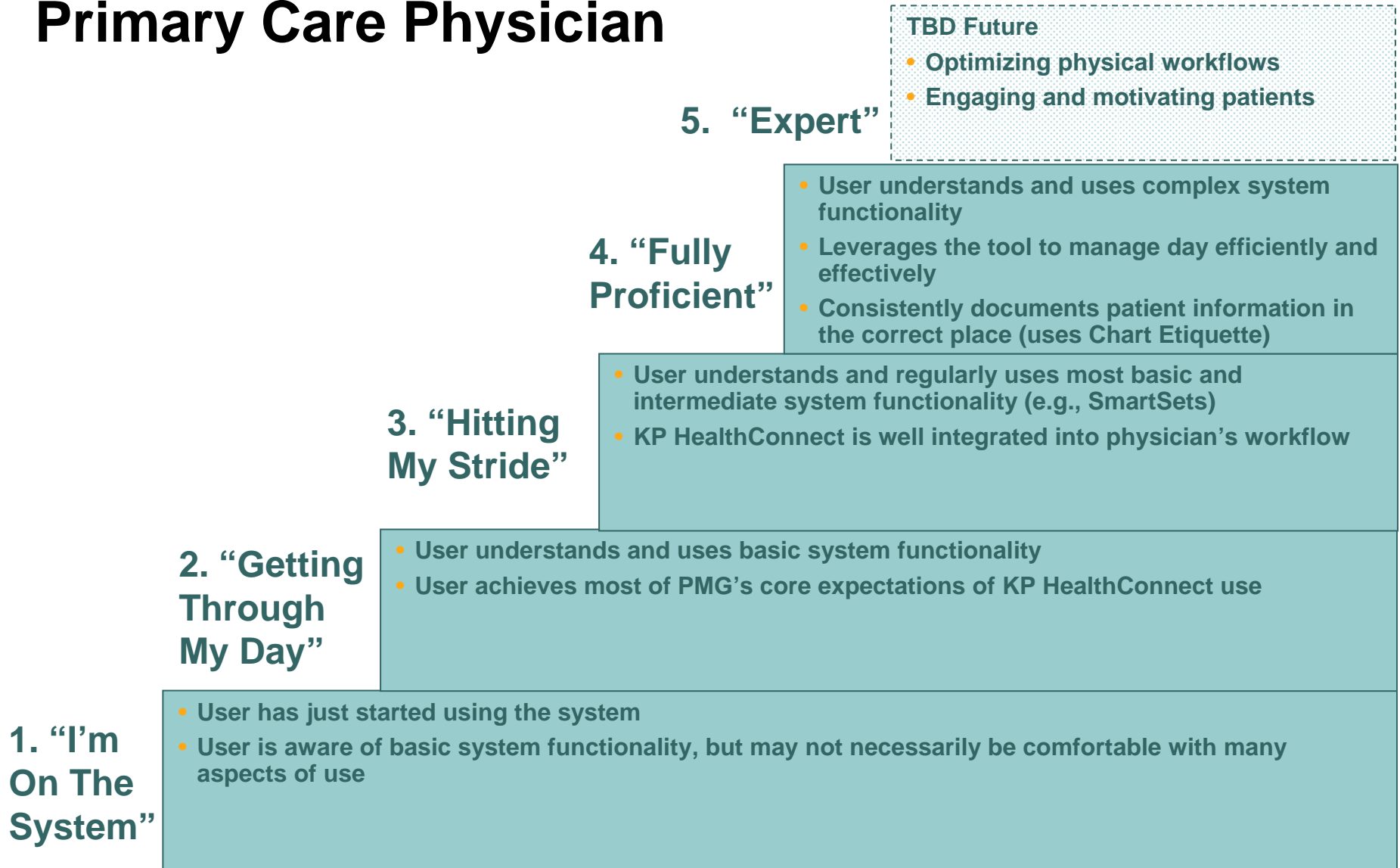
- 19) Do patients have efficient access to care?
- 20) How well do we 'know' our members?
- 21) How well do members believe we are coordinating their care?

Collecting revenue more efficiently and effectively?



- 22) Are encounters being coded appropriately?
- 23) Are we closing the gap between our expected and actual Medicare risk scores?
- 24) Are billing processes accurate and compliant?
- 25) Is the cost of billing processes reduced?
- 26) Are we collecting the expected non-dues revenues?

Core Value Metrics: Question #2: User Proficiency Index – Outpatient Primary Care Physician



Data and Learning

Spontaneous Generation or Intelligent Design

- **Accomplishments using linked patient care and administrative databases**
 - The pioneers (HMORN, CRN, ARAMIS, CERTs)
- **The promise of complete EHRs**
- **Barriers to an “organic” learning system**

The Promise: Registries and EHRs

- Widespread implementation of our EHR (KP HealthConnect) in both inpt and outpt settings will allow unprecedented opportunities for data capture
- The use of specific KPHC functionalities will allow us to generate data (coded and free text) as a byproduct of usual documentation of care

The Payoff

- **Detection of rare events and influence on common conditions**
- **Deeper insight into variation in practice**
- **Track dissemination of new technologies and health impacts**
- **Proof of benefit of adherence to E-B guidelines**
- **Evidence-based health care system design and management**

Methodological Issues

- **Missing data**
- **Dirty data – Need consistent data definitions**
- **Non-standard data time points**
- **“Normal” ranges**
- **HIPAA and proprietary data**
- **Case definitions**

The Barriers

- **Non hypothesis-driven analysis will likely yield far more false positive associations than true positives; however, each association would require further study**
- **Nothing is free – Any extra analysis of EHR backend databases takes time, interest, and money**
- **Is all the data needed routinely available?**
 - Mortality data
 - Functional status
 - Race and ethnicity
 - Adverse drug reactions
 - Exposure history
 - Multiple confounders

Who Learns What

- Many analyses already being done for the varied purposes of QI, QA, utilization studies, pt safety, and formal research
- Prepared minds can see patterns and data of interest beyond their own inquiries
- Only a system that understands and values data will act on it

Concerns

- **Research requires data and hypotheses**
- **Learning requires a prepared mind**
- **Benefit from large, linked EHRs will require more work on interoperability and data definitions as well as statistical techniques**
- **There will always have to be people interested in the analyses to take action**

Coding Redux

- **Codes have many uses – Not specifically tuned to any one**
- **EHRs currently mostly facilitating billing**
- **Standard report for A/R takes effort and is being replicated by every user**
- **Massive databases derived from clinical care require new analytic techniques, in addition to standard research approaches**
- **On the verge of truly linking cost and longitudinal effectiveness — the Value Promise**



Appendix

HIV care

JCAHO core measures

Background

- **HIV care quality measure effort sponsored by Dr. Michael Horberg, Director, HIV Initiatives**
- **16,000+ active Kaiser patients with HIV**
 - **Cohorts currently identified in each region by research driven efforts and resources**
 - **Estimated HIV+ prevalence rates:**
 - **KP HIV+ prevalence rate ~.2%**
 - **US rate ~.3-.4%**

Purpose

- **Evaluate ways to provide better care**
 - **Identify HIV+ patients earlier, with higher CD4 counts**
 - **Ensure appropriate therapies by tracking the initiation of and adherence to medication regimens**
 - **Monitor effectiveness of therapies**

7 Proposed Measures

Covering 3 areas of concern:

- Targeted testing for identification of new HIV+ (1 measure)
- Timeliness of and disease status at identification of new HIV+ (2 measures)
- Effectiveness of HIV therapies (4 measures)

7 Proposed Measures

- 1. Of members not known to be HIV+ and who have a new STD diagnosis, what percent are also tested for HIV test within a -10 to +90 day window.**
- 2. Of members newly diagnosed with HIV, how many have a CD4 count measured within 30 days (and in 90 days) after diagnosis.**
- 3. Of members newly diagnosed with HIV who had a CD4 count in 90 days, for what percent was the CD4 level AIDS-defining (< 200).**
- 4. Of all members with known HIV infection and a most recent CD4 level < 200, what percent are on PCP prophylaxis.**
- 5. Of all members with known HIV infection and a most recent CD4 level < 200, what percent are on anti-retroviral (HAART) therapy.**
- 6. Of all members with known HIV infection and on anti-retroviral therapy for 12+ months, what percent have an HIV viral load below the limit of quantification.**
- 7. Of all members with known HIV infection and on anti-retroviral therapy for 12+ months, what percent are at least 90% adherent to that HAART regimen over the most recent 12 month period.**

Epic and JCAHO

- **Reporting workbench tools being developed in future releases to facilitate both quarterly reporting and real-time improvement**
- **Medication lists and reconciliation still require work**