Kaiser Permanente
Complete Care

Michael H. Kanter, MD
Medical Director of Quality and Clinical Analysis
Complete Care
Every patient. Every place. Every visit. Every time.
### History of Complete Care

**KP SCAL**

<table>
<thead>
<tr>
<th>Year</th>
<th>Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>Asthma, Diabetes, HF, Eldercare, HIV, CAD, Depression, CKD, CVD, Hypertension, Geriatrics, Breast Cancer, Pain Management</td>
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<tr>
<td>2008</td>
<td>Asthma, Diabetes, HF, Eldercare, HIV, CAD, Depression, CKD, CVD, Hypertension, Geriatrics, Breast Cancer, Pain Management, Bariatrics, Cervical Cancer, Colon Cancer, Healthy Bones, Weight Management, Regional Outreach, Smoking, POE, Panel Management, Exercise, Alcohol, Safety Net, PIE, Rare Diseases</td>
</tr>
<tr>
<td>2009</td>
<td>Asthma, Diabetes, HF, Eldercare, HIV, CAD, Depression, CKD, CVD, Hypertension, Geriatrics, Breast Cancer, Pain Management, Bariatrics, Cervical Cancer, Colon Cancer, Healthy Bones, Weight Management, Regional Outreach, Smoking, POE, Panel Management, Exercise, Alcohol, Safety Net, PIE, Rare Diseases</td>
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<td>2010</td>
<td>Asthma, Diabetes, HF, Eldercare, HIV, CAD, Depression, CKD, CVD, Hypertension, Geriatrics, Breast Cancer, Pain Management, Bariatrics, Cervical Cancer, Colon Cancer, Healthy Bones, Weight Management, Regional Outreach, Smoking, POE, Panel Management, Exercise, Alcohol, Safety Net, PIE, Rare Diseases</td>
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<tr>
<td>2011</td>
<td>Asthma, Diabetes, HF, Eldercare, HIV, CAD, Depression, CKD, CVD, Hypertension, Geriatrics, Breast Cancer, Pain Management, Bariatrics, Cervical Cancer, Colon Cancer, Healthy Bones, Weight Management, Regional Outreach, Smoking, POE, Panel Management, Exercise, Alcohol, Safety Net, PIE, Rare Diseases</td>
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<tr>
<td>2012</td>
<td>Asthma, Diabetes, HF, Eldercare, HIV, CAD, Depression, CKD, CVD, Hypertension, Geriatrics, Breast Cancer, Pain Management, Bariatrics, Cervical Cancer, Colon Cancer, Healthy Bones, Obesity, Regional Outreach, POE, Panel Management, Safety Net, PIE, Rare Diseases, VTE, Pneumonia, Sepsis, Online Pap Prevention and Lifestyle Joint Relacement Prostatectomy Pregnancy MS Hep C</td>
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<td>2013</td>
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<td>2014</td>
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Organizational Change and Learning

Complete Care at Kaiser Permanente: Transforming Chronic and Preventive Care

Michael H. Kanter, MD; Gail Lindsay, RN, MA; Jim Bellows, PhD; Alide Chase, MS

The Chronic Care Model (CCM) aims to transform care for patients with chronic illnesses through six interrelated system changes: health system, delivery system design, decision support, clinical information systems, self-management support, and community resources. It has stimulated innovative models...
## HEDIS Results

<table>
<thead>
<tr>
<th>Results</th>
<th>Commercial</th>
<th>Medicare</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total measures</td>
<td>25</td>
<td>26</td>
</tr>
<tr>
<td>Above US 90th percentile at baseline</td>
<td>10 (40%)</td>
<td>11 (42%)</td>
</tr>
<tr>
<td>Above US 90th percentile by 2012</td>
<td>19 (76%)</td>
<td>22 (85%)</td>
</tr>
<tr>
<td>Average KPSC improvement, baseline to 2012</td>
<td>13.3%</td>
<td>12.8%</td>
</tr>
<tr>
<td>Average improvement in US median, baseline to 2012</td>
<td>5.6%</td>
<td>5.4%</td>
</tr>
</tbody>
</table>

KPSC improvement was 2-3 times greater than median US health plans
Disparities in control of blood pressure, cholesterol, and glucose for blacks in Medicare...were eliminated [by Kaiser Permanente] in 2011."

New England Journal of Medicine; 371:24, NEJM.ORG
"Racial and Ethnic Disparities among Enrolees in Medicare Advantage Plans
<table>
<thead>
<tr>
<th>Metric</th>
<th>Increase</th>
<th>Savings Per Decade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cholesterol control</td>
<td>34.9%</td>
<td>2,738 Lives</td>
</tr>
<tr>
<td>Blood pressure control</td>
<td>44.1%</td>
<td>6,054 Lives</td>
</tr>
<tr>
<td>HbA1C &lt; 9.0</td>
<td>14.6%</td>
<td>1,379 Lives</td>
</tr>
<tr>
<td>Smoking cessation</td>
<td>17.0%</td>
<td>1,011 Lives</td>
</tr>
<tr>
<td>Breast cancer screening</td>
<td>10.3%</td>
<td>515 Lives</td>
</tr>
<tr>
<td>Cervical cancer screening</td>
<td>11.6%</td>
<td>116 Lives</td>
</tr>
<tr>
<td>Colon cancer screening</td>
<td>38.9%</td>
<td>6,166 Lives</td>
</tr>
<tr>
<td><strong>Total: 17,979 Lives</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Proactive Office Encounter (POE)

**Pre Visit**
- Proactive Identification
  - Identify missing labs (A1c, LDL, microalbumin), screening procedures, access management, KP.org status, etc.
  - Provide member instructions prior to visit
  - Contact member and document encounter in KP HealthConnect™

**Visit**
- Office Encounter
  - Pre-encounter follow-up
  - Vital sign, history, social, demographics, medication review
  - Identify and flag alerts for provider for screening and uncontrolled chronic conditions
  - Room and prepare patient for necessary exams

**Post Visit**
- Immediate
  - After visit summary, after care instructions, follow-up appointments, health education materials, how to access info on KP.org
- Future
  - Follow up contact & appointments per provider
### Opportunities for Breast Cancer and Diabetes Management in Adult Primary Care

<table>
<thead>
<tr>
<th>Test</th>
<th>Total</th>
<th>Seen in Primary Care</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Needing Mammogram</td>
<td>47,294</td>
<td>18,222</td>
<td>38%</td>
</tr>
<tr>
<td>Needing A1c test</td>
<td>10,530</td>
<td>3,911</td>
<td>37%</td>
</tr>
</tbody>
</table>

Approximately 60% of members seen in Specialty Care
Specialty Care POE and Hypertension

- Does anyone care about the identification of Hypertension as much as the control rate?
- 18% of newly identified Hypertension cases occurred in Specialty Care
- 14% of pts with a Blood Pressure > 180/110 were identified in Specialty Care

J Clin Hypertension (in press)
• A centrally coordinated system
• Targets populations through **batch mechanisms outside of the patient encounter** (letters, e-letter, calls)
• Engage members in actions that improve health outcomes
• Accounts for over 10 million “touches” a year
Regional Outreach

Online Personal Action Plan

**Cancer Screening**
- Breast Cancer Screening (Mammogram)
- Cervical Cancer Screening (Pap Test)
- Colorectal Cancer Screening

**Preventive Care**
- Body Mass Index (BMI)
- Tobacco Use

**Heart Health**
- LDL Cholesterol
- Blood Pressure

**Immunizations**
- Flu Shot
- Pneumococcal

**Chronic Health Conditions**
- Diabetes (A1c Lab Test)
- Asthma

**General Clinical Guidelines**

**Medication Adherence**
Regional Outreach
Online Personal Action Plan

Fasting Blood Sugar
- Section to target non-diabetic, non-pregnant members
- Recommendation for member to repeat test if FBS is too high

Cancer Screening
- Update rules to match current guidelines (5 yrs. Vs. 3 yrs.)
- Addition of disclaimer for all non-high risk members

Chronic Conditions - Asthma
- Addition of brand name Asthma medications to improve user friendliness.

General Clinical Guidelines
- Addition of POLST/AD generic messaging

Cardiovascular Risk
- New section under Heart Health
- Present the member FRS score to show risk
- Dynamic risk builder customized to member
- Recommend aspirin/statins conversation with provider for high risk
- Addition of kp.org resource links to help members understand heart health

LDL
- Addition of LDL graph to the detailed page

Body Mass Index
- Display a friendly message to show optimum weight range in pounds
- Currently displays BMI alone

Immunizations
- Flu Shot – Logic updated to work off of the year, dynamically based on flu vaccine supply
SureNet

A regional program that systematically identifies members who have inadvertent lapses in care

Using a small, centralized team with limited clinical scope capacity to intervene before harm reaches the patient

As well as several automated electronic tools, consistently used by accountable frontline staff, to track certain abnormal results for all members
### Diagnosis Detection/ Follow Up
- PSA Electronic Safety Net
- +FIT Electronic Safety Net
- Abnormal Pap Electronic Safety Net
- Kidney Disease (Repeat Creatinine)
- Colon Cancer (Iron Deficiency Anemia + No colonoscopy)
- Colon Cancer (Rectal Bleeding + No colonoscopy)
- Abdominal Aortic Aneurysm Tracking
- Post Splenectomy Immunizations
- Positive Chlamydia Follow up
- Down Syndrome Care Coordination
- Sickle Cell Care Coordination
- Hepatitis C (+Antibody + No confirmatory test)
- Newborn Hearing Screening
- Lung Nodules
- Unintended Pregnancy Follow up

### Medication Safety
- Annual Lab Monitoring: Digoxin (K+, level and SCR), Diuretics (K+ and SCR)
- Amiodarone (Preventive monitoring plan)
- Acetaminophen Overuse
- Elderly Care Drug-Disease (Falls)
- Elderly Care Drug-Disease (Dementia)
- Elderly Care High Dose Digoxin Conversion
- Interacting Statin Combinations (Gemfibrozil and/or Amiodarone)
- Diuretic Medication Induced Hyponatremia
- Medication Induced Hyperkalemia
- NSAIDs in CKD 4-5, Dialysis, Kidney Transplant
- INH ALT monitoring
- Monitoring Plaquenil Eye Monitoring
- Metformin b12 monitoring
- Ethambutal eye monitoring
What do researchers need to bring to the table?

• Speed
• Ability to work with poor-quality data
• Ability to work with real uncontrolled studies
• Ability to become part of an operational team
• Ability to modify the study questions and hypothesis as needed
• Speed
References


