Health System Leadership and Improvement Research at KPSC: Care Improvement Research Team (CIRT)

Michael K. Gould, MD, MS
Senior Scientist and Leader, Care Improvement Research Team
Director for Health Services Research and Implementation Science
Department of Research and Evaluation
Kaiser Permanente Southern California

KPSC

- Pre-paid, capitated health plan (non-profit)
- Independent medical group (SCPMG)
- Integrated delivery system
- Comprehensive electronic health records
- Values:
 - Quality
 - Affordability
 - Physician autonomy
 - Small "m" managed care



KP Southern California

3.76 Million Members

209 Medical Offices

14 Hospitals

6,035 Physicians

20,393 Nurses

61,897 Employees



Department of Research and Evaluation

- 30 full-time research scientists
- Over 300 support staff
- Located in Pasadena, CA
- Employed by SCPMG
 - Report to Medical Director for Quality and Clinical Analysis
- Comprehensive Research Data Warehouse (RDW)
- Researchers embedded in health system

Care Improvement Research Team

- Created by KFH/HP leadership in 2013
- Help improve care and increase affordability for KPSC members
- Weave research into existing fabric of clinical care and quality improvement at KPSC
- Help to realize the potential of the learning health care system
- Create and share generalizable knowledge about improvement



CIRT Mission and Vision

Mission:

To enhance the health of individuals and populations through systematic study of ways to improve health care delivery.

We collaborate with clinicians, patients, operational leaders and other stakeholders to identify gaps in care delivery and apply rigorous research methods to understand and close them within the KPSC system.

Vision:

To be the model for embedded research within a learning health care system





CIRT Strategy and Tactics

- Develop sustainable partnerships between researchers, clinicians and operational leaders
- Help to transform organizational culture around innovation, implementation and improvement
- Create virtuous cycle of internally focused and externally funded research
 - Goal: ~50-50 distribution
- Use variety of research methods and select efficient designs to improve feasibility of practice-based research
 - Observational studies to identify gaps in care
 - Qualitative approaches to understand barriers and facilitators to change
 - Quasi-experimental studies to evaluate new interventions
 - Pragmatic trials to use health system as laboratory



CIRT Sponsors

- Kaiser Foundation Hospitals and Health Plan
 - Benjamin K. Chu, MD, MPH
 - Nirav R. Shah MD, MPH
 - Angela Coron (Managing Director, KPSC Community Benefit)
- Southern California Permanente Medical Group
 - Michael H. Kanter, MD
- Department of Research and Evaluation
 - Steven J. Jacobsen, MD, PhD



CIRT Members

Scientists

Michael Gould, MD, MS

Erin Hahn, PhD, MPH

Brian Mittman, PhD

Huong Nguyen, PhD, RN

Adam Sharp, MD, MS

Shayna Henry, PhD (post-doc)

Research Support

Tania Tang, PhD, MPH

Corrine Munoz-Plaza, MPH

Ellen Rippberger, MPH

Kim Miller, MPH

Mayra Macias, MS

Biostatistics

Ernest Shen, PhD

Amy Liu, MS

Janet Lee, MS

Brian Huang, MPH

Yi-Lin Wu, MS

Jianjin Wang, MS



Key Contributions of Leadership

- Made hard-money investment in program development
- Provide researchers with unprecedented access to operational decision-makers
- Provide advice regarding pitfalls
- Facilitate relationships with operational work groups
 - Clinical Chiefs of Service: Oncology, Pulmonary, Nephrology
 - KPSC technology assessment and guidelines program
 - KP Improvement Advisors (scale up and spread)
 - HCIT (VTE, pneumonia, readmissions)



CIRT Projects

Documenting Overuse, Underuse, & Misuse

- Use of antibiotics and head CT for acute sinusitis
- Pulmonary rehabilitation in COPD
- Use of intravesicular adjuvant chemo for bladder CA
- Knee arthroscopy for meniscal damage in OA
- Use of biomarkers for surveillance in early stage breast CA
- CT use in eval of traumatic head injury
- Post treatment screening in Hodgkin lymphoma survivors

Evaluating Current Practice

- Use of lung function tests to monitor Amiodarone use
- Advanced medical home for complex patients
- Care transitions
- Optimizing colon and lung CA care
- Timeliness of care for lung CA
- Atrial Fib/pneumonia care in the ED
- · Observation medicine
- Co-management: physician communications

Changing Practice

- Develop VTE risk models
- Physical activity coaching for COPD
- Reduce ATB use for acute sinusitis
- De-implementation of biomarker tests for surveillance in early stage breast CA
- Cancer survivorship care
- Changing d-dimer threshold for PE eval
- Remote monitoring and visits for members with gestational diabetes

Evaluating Care Innovations

- Hem-Avert to reduce csections
- Lung CA screening; nodule eval safety net
- Bronchial thermoplasty for severe asthma
- Activity sensors to promote ambulation in hospital
- Palliative care for advanced lung CA
- Online action plan to close care gaps
- Telestroke
- On call nurse video visits

2013

Completed Projects: 6
Active Projects: 24

2014



CIRT Research Themes

- Cancer care and survivorship
- Chronic disease management and self-management
- Overuse of imaging and other low-value care
 - Leveraging Choosing Wisely campaign of ABIM Foundation
- Health system as laboratory for improvement
- KP Priorities
 - One KP (reducing unwarranted practice variation)
 - Affordability
 - Care transformation



Ongoing Challenges

- Limited bandwidth: how do we scale up effectively?
- Project selection:
 - How to choose among competing priorities?
 - How to balance external and internal funding opportunities?
- Suboptimal infrastructure for rapid-cycle research
- Organizational culture
 - Physician autonomy
 - Informal communication channels for decision making
 - Difficult to reach consensus



Thank You!

michael.k.gould@kp.org

