August 2011 • Issue 12, Volume 3

The Cancer Research Network
Connection

News from Ed, Larry, and Mark

Update from the CRN Executive Committee

We are actively discussing the CRN renewal, hereafter referred to as CRN4. We understand CRN4 will be distinctly different from CRN3 and its previous cycles of funding. One key difference is that unlike the previous grants, there will be no support for specifically identified research projects. Thus, CRN4 will be an infrastructure-only grant (a U24, rather than a U19), with the broad goal of supporting the development and implementation of cancer research in health care systems.

The specific shape and organizational content of CRN4 is evolving. A concept to create an FOA to solicit applications for CRN4, developed by NCI colleagues, was approved first by the NCI Executive Committee, and then (on June 20, 2011) by the NCI Board of Scientific Advisors (BSA.) The discussion of CRN4 by the NCI BSA can be viewed at http://videocast.nih.gov/Summary.asp?File=16727. The discussion begins about 195 minutes into the videocast.

In anticipation of the FOA, we have organized a bi-weekly series of conference calls among the CRN3/4 Steering Committee to develop the outlines of what the CRN4 will look like, including organizational structure and scientific emphases.

Any questions regarding development of CRN4 can be directed to your CRN3 Site PI, the CRN3 PI office (Ed Wagner or Leah Tuzzio), Mark Hornbrook, or Larry Kushi (larry.kushi@kp.org) and Heather Clancy (heather.a.clancy@kp.org).

- Ed Wagner (GHC), Mark Hornbrook (KPNW), Larry Kushi (KPNC)

News from NCI

Update from the CRN Program Office

At a July 27, 2011, town hall meeting marking his first year as NCI Director, Harold Varmus reflected on what he sees as the main accomplishments of his tenure so far and described five areas of "shared ambition" toward which he hopes to guide NCI in the near future. Visit http://www.cancer.gov/aboutnci/director/speeches/townhall-july2011 to see a summary of his remarks which also includes links to recent interviews with Dr. Varmus that have appeared in Nature, Science, and The Cancer Letter. CRN members may be particularly interested in the Provocative Questions initiative that Dr. Varmus has initiated. The RFA for this initiative was approved at the June 21, 2011 meeting of the NCI Board of Scientific Advisors (along with the RFA for the next phase of CRN). More information about the Provocative Questions initiative can be viewed at http://provocativequestions.nci.nih.gov/

- Martin Brown (NCI)

The HMO CRN Cancer Research Network

The Cancer Research Network (CRN) is a collaboration of 14 non-profit HMOs committed to the conduct of high-quality, public domain research in cancer control. The CRN is a project of NCI and AHRQ.

In this issue ...

CCRC Immerses 15 Doctoral Fellows

School's not exactly out for Patrick Dillon. After completing his coursework for the spring 2011 semester, Patrick, a doctoral student at the University of South Florida, is working hard on his dissertation proposal and teaching a summer course. And thrown in for fun is his stint this summer in Denver as a CRN Cancer Communication Research Center (CCRC) Doctoral Fellow, learning the ins and outs of a working healthcare organization (KPCO).

The CRN CCRC hosted 15 doctoral students with NCI support July 13-16. Fellows were selected from 80 applicants for the 4-day immersion. The fellows shadowed oncologists, nurses, VPs, directors, prevention specialists, corporate communications officers and strategic planners along with primary care physicians, pediatricians, and palliative care leads. CRN researchers Alanna Rahm, Bridget Gaglio, and Borsika Rabin spoke to the fellows about doing research in healthcare organizations. In afternoon seminar presentations, Craig Robbins, MD, Kaiser's national lead for evidence-based guidelines, showed the fellows what is possible with KP's EMR and its other electronic data systems. Tom Currigan, Director of KPCO Community Benefit, described how investment decisions are made. Sam Larson, PhD, Director of Knowledge Management in KPCO's Population and Prevention Services, talked with students about the range of analytic resources and uses of data across operational, business, and clinical systems.

Patrick's interest in communication began while taking an introduction to communication class and "falling in love with communication research." He says that transitioning into health communication is a "natural progression," as both health and communication impact people's lives. The work of Richard Street, professor and head of communication at Texas A&M, also has greatly influenced Patrick's ideas about studying patient-centered communication.

The objective of the fellowship was to give doctoral students who have not yet decided on their dissertation topics some insight into the real-world opportunities and challenges in a working healthcare organization. Each fellow is now writing a paper about research ideas on the basis of their KPCO experience, all of which will be posted on the CCRC website (crn-ccrc.org).

See Fellows, page 3

2011 CCRC Summer Doctoral Fellows

Name	Institution	Research interests
Paula Baldwin	George Mason University	organizational teams and palliative care
Kisha Coa	Johns Hopkins University	mass communication and health campaigns
Patrick Dillon	University of South Florida	patient-provider communication and communication in health organizations
Rachel Faulkenberry	Harvard University	patient-provider communication and community engagement
Whitney Jones	University of Colorado	survivorship and psychosocial oncology
Rebekka Lee	Harvard University	dissemination and implementation science and organizational change
Li Lu	University of Southern California	organizational/group information sharing and collaboration in online communities
Minal Patel	University of Michigan	patient-provider communication and chronic disease management
Susana Peinado	University of California at Santa Barbara	patient-provider communication and health literacy
Adam Richards	University of Maryland	social influence in health communication and decision making
Rui Shi	University of Pennsylvania	mass health communication and campaigns and decision making
Kathleen Stansberry	University of Oregon	new media and patient knowledge and activism
Rannie Teodoro	Rutgers University	technology mediation in health communication
Richard Wood	Texas A& M University	dissemination and implementation, underserved populations, and prevention and control of chronic diseases
Sunny Zhao	State University of New York, Albany	organizational identification

CRN Scholar Pilot Project Update

Kenneth Adams, PhD is a participant in the 2009-11 cohort of the CRN Scholar Program and an epidemiologist at HealthPartners Research Foundation (HPRF). In 2010, Kenneth received an award through the CRN Scholar pilot funds program. Here is a progress report from his pilot study.

We are currently collecting data at HealthPartners for the CRN Scholar pilot study "Colonoscopy Adenoma Outcomes as Predicted by Lifestyle Risk Factors." The pilot funding gives us the opportunity to develop study data from novel sources. The main objective for the pilot study is to collect study data identifying screening colonoscopies within our system, classify study subjects according to demographic and health behavior risk factors, and classify the pathologic outcomes of those subjects who had polypectomies.

Using colonoscopy referral data from our primary care clinics, we have identified the records of 7580 patients who had a screening colonoscopy within our system over a recent 2-year period.

We will retrieve the coded risk factor data, colonoscopy reports, and polyp pathology reports of these patients. The outcome of interest is advanced adenoma; these are the more highly dysplastic polyps most likely to progress to colorectal cancer. Using the colonoscopy and pathology reports, we will extract the information needed to classify polyps as hyperplastic, adenomatous, or advanced adenoma.

These data will support a grant proposal to NCI for development of an adenoma risk prediction model. The purpose of the model is to identify the characteristics of persons most likely to benefit from the screening colonoscopy. The risk factors we will evaluate have previously been established to be associated with colorectal cancer and/or adenomatous polyps; age, race, gender, body mass index, smoking, diabetes diagnosis, and others. Using data collected in the pilot study, the model will predict those population subgroups most likely to have an advanced adenoma detected during screening colonoscopy. If successful, the models could be used to discuss cancer risk with patients, or to prioritize persons for screening colonoscopy based on underlying risk.

We have successfully tested our ability to identify patients who have had a polypectomy, and to extract these subjects' polyp pathology results from our centralized pathology database. The polyp pathology results are available as short text strings. Although considerable detail is provided, advanced adenomas are not explicitly identified as such. Further information from the pathology report or colonoscopy report is required. We plan to develop an automated algorithm to distinguish between adenoma types.

This project is collecting electronic health data not frequently accessed for research. Considerable time, effort, and persistence is required to locate the needed data and verify its completeness and accuracy. We believe this effort will pay off; very few other studies have been able to construct a large dataset of objective, detailed, and up-to-date clinical data on persons who have undergone screening colonoscopies. These data will allow us to answer questions that have previously resisted understanding.

-Kenneth Adams (HPRF)

Fellows

"These were amazing discussions," said Al Marcus, PhD, co-leader of the University of Colorado Cancer Center Cancer Prevention and Control Program and Professor at the University of Colorado Denver. "The folks from Kaiser were frank about what's right and what could be better in the organization and these are great students. Their questions were insightful and right on the money."

"The ending comments and report-outs by the fellows really suggested that the experience opened their eyes to the complexities of psychosocial support, care coordination, organizational strategic directions and how those relate to the clinics," said CCRC Director Jim Dearing. "I think they were impressed in some entirely new ways. Now we'll see how they interpret what they observed and discussed in light of academic theories and methods."

The communication research center is exploring ways to keep the 2011 fellows involved with the CRN. "They have a lot of energy," said Center Coordinator Sarah Madrid, "and we're looking to build on that. We see them as a window into new partnerships with these universities, the faculty and other doctoral students. We had so many other great applicants, too. So we'll try to involve them all as we build toward next year's summer fellows."

-Jim Dearing and Sarah Madrid (KPCO)

The CRN Connection is a publication of the CRN intended to inform and occasionally entertain CRN collaborators. It is produced with oversight from the Communications & Collaborations Committee.

Please send comments and suggestions on this newsletter to Sarah McDonald, mcdonald.sj@ghc.org

Spotlight on Southern California

CRN Site Profile: Department of Research & Evaluation at KPSC

Kaiser Permanente Southern California provides high quality, comprehensive, evidence-based medicine to our members who represent more than 250 different ethnicities and speak 117 different languages.

The health plan resources provide a unique environment for conducting cancer-related epidemiologic, health services, behavioral science and clinical research. Many of our data systems date from the early 1990s including inpatient, laboratory, mortality and outpatient utilization. With the implementation of Kaiser Permanente HealthConnect®, patients' complete inpatient and outpatient medical records are available electronically. The new BEACON oncology module will improve the safety of chemotherapy administration by developing standardized chemotherapy protocols, decision support, computerized provider order entry and bar-coding.

Research & Evaluation is growing. Under the leadership of Steve Jacobsen, MD, PhD, the scientist team increased from 6 to 20, with 3 new scientists due to join R&E by the end of 2011. R&E scientists working in cancer include Chun Chao, Craig Cheetham, Kim Danforth, Michael Gould, Reina Haque, Steve Jacobsen, Aniket Kawatkar, Corinna Koebnick, and Virginia Quinn. R&E cancer researchers work closely with the KPSC Oncology Program leadership to identify priority research questions and facilitate rapid translation of research results. Visit us at www.KP-scalresearch.org.

KPSC and the CRN: R&E Scientists participated in the CRN since its conception, collaborating on core and affiliated projects (e.g., HIT, DETECT, PROTECTS, BOW I & II), joining the CRN Scholars, and working on CRN Committees. Currently, Dr. Haque is leading a CRN collaboration studying concomitant use of tamoxifen and antidepressant medication among breast cancer survivors. With CRN

See KPSC, page 5

"As a medical group, we've done a tremendous amount to improve screening for breast cancer. Our 5-year survival rate is about 95 percent. Fine tuning the treatments we offer patients may be able to push that rate even higher. We'll take the findings that come out of research and make it happen in practice. That's the exciting part of being a clinician here."

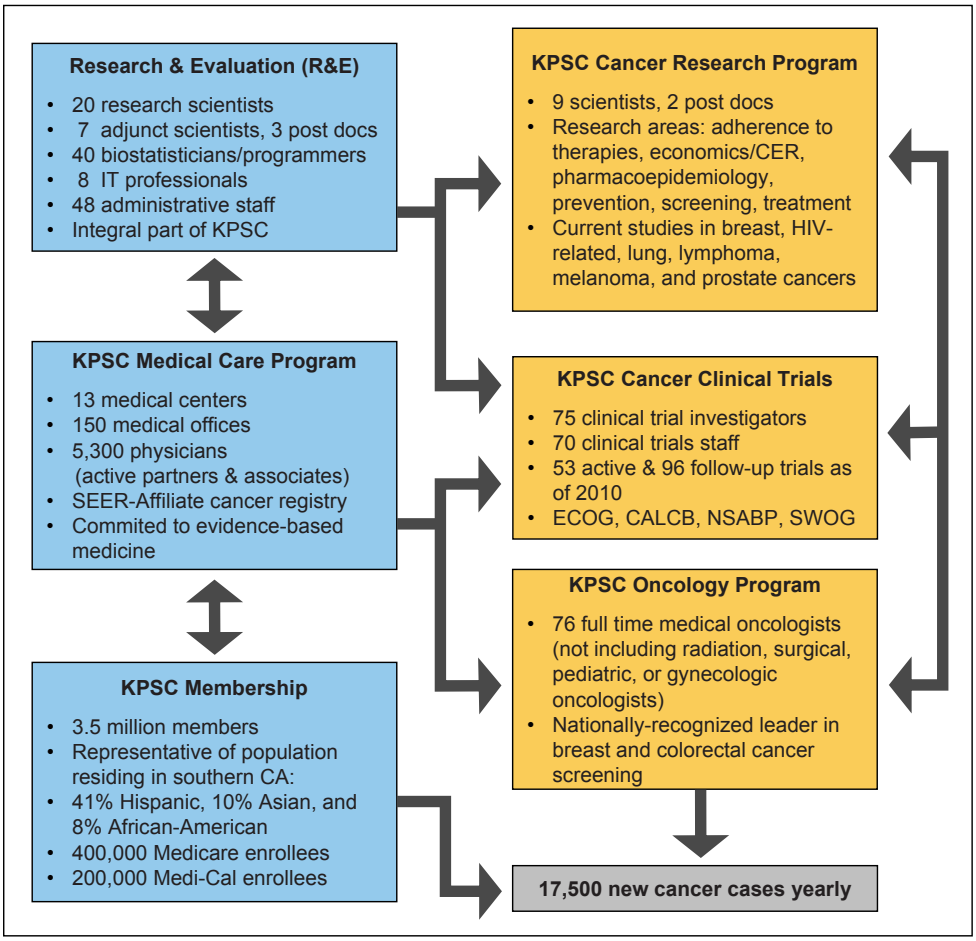
Joanne Schottinger, MD
Assistant Medical Director
Chair, Regional Cancer Committee
Oncologist Advisor to KPSC Cancer Research Program

Department of RESEARCH & EVALUATION
Advancing Science, Enhancing Lives.

Virginia P. Quinn, PhD, CRN Site PI

Kaiser Permanente Southern California (KPSC)

The mission of the Department of Research & Evaluation is to initiate and conduct high-quality, public-sector health services, epidemiologic, behavioral and clinical research that has a demonstrable positive impact on the health and well-being of Kaiser Permanente Southern California members and the general population.



KAISER PERMANENTE®

Developing Cancer Prevention Guidelines

Expert Work of a CRN Nutritional Epidemiologist

Lifestyle factors play a major role in cancer causation. Tobacco use prevention and cessation has been a cornerstone of cancer-related public policy for decades. But among the substantial majority of people in the US who do not use tobacco, food, nutrition, and physical activity are probably the major domains in which cancer risk can be modified. Several organizations, including the US DHHS, USDA, The National Academy of Sciences and the American Cancer Society (ACS) have developed nutrition and physical activity guidelines to support the prevention of cancer.

Larry Kushi, CRN site PI at KPNC, co-chairs the committee that revises and updates the ACS nutrition and physical activity guidelines for cancer prevention. Colleen Doyle of the ACS is Larry's co-chair, and committee members include leading cancer epidemiologists, other researchers and clinicians who have a primary interest in nutrition, physical activity and cancer.

The ACS guidelines were first published in 1984 and have been revised and updated approximately every five years since then. The most recent version was published in 2006. Two aspects from the 2006 guidelines will carry over to the 2011 guidelines. First, the ACS guidelines do not mention nutrients or related factors, but focus on food choices, weight and activity. Rather than using a euphemism such as "protein foods" or providing a recommendation like "consume less than 10 percent of calories from saturated fatty acids," the ACS guidelines state "Limit intake of processed meats and red meats." Studies of specific nutrients are cited as part of the rationale for several of the guidelines, even if the guidelines themselves do not mention them. Second, recognizing that food choices and physical activity are shaped not just by personal choice, but by the societal context in which one lives, the ACS developed recommendations for community action that can support the ability to make healthful choices. The ACS guidelines are not meant to be based on a comprehensive, systematic literature review. They differ from those of the World Cancer Research Fund/American Institute for Cancer Research, which published guidelines and supporting evidence monographs first in 1997, and again in 2007. However, they reflect more than the collective opinions of committee members, as they are informed by the evolving literature in this area.

Over a decade ago, the ACS convened a committee to examine the state of knowledge and whether the ACS could issue guidance on nutrition and physical activity for cancer survivors. Given the paucity of evidence of direct relevance, but recognizing the substantial public interest in this area, the ACS issued a report in 2001 called "Nutrition During and After Cancer Treatment: A Guide to Informed Choices." Unlike for cancer prevention, no specific guidelines or recommendations were issued. This report is currently undergoing revisions, with a publication target of early 2012. It is likely to include the first lifestyle recommendations for people with cancer, as studies in this area and the evidence upon which to base recommendations has grown substantially in recent years.

- Larry Kushi (KPNC)

KPSC

pilot funding, Dr. Koebnick established a cohort of nearly 2 million young adults from KPSC and KPNC to investigate obesity, diabetes, and the metabolic syndrome as risk factors for cancer. R&E's integration in the KPSC Medical Care Program provides the opportunity for rapid dissemination of research results.

- Virginia Quinn (KPSC)

R&E scientists, from left: Darios Getahun, MD; Chun Chao, PhD; Steven Jacobsen, MD, PhD; Anny Hui Xiang, PhD; Virginia Quinn, PhD; Rulin Hechter, MD, PhD; Jean Lawrence, ScD; Reina Haque, PhD; Karen Coleman, PhD; Kristi Reynolds, PhD; Kim Danforth, ScD; Dan Strickland, PhD (retired); Corinna Koebnick, PhD; Annette Adams, PhD; Aniket Kawatker, PhD; Hung-Fu Tseng, PhD; Jason Jones, PhD.

Recent Findings from CRN Scientists

Steve Clauser (NCI) published a review of selected work including the CRN study "Quality of Patient-centered Cancer Care, Communication and Coordination" in the May 2011 *American Journal of Preventive Medicine*. The study team discussed how patient data, provider and patient involvement, and informatics innovations play a role in high-quality cancer care.

❋

Tracy Onega (Dartmouth), published results from a CRN pilot study in the May 2011 issue of *Breast Cancer Research and Treatment.* The study found that primary therapy for women with early-state invasive breast cancer was significantly related to travel time to the nearest radiology facility. This suggests that women may prefer low frequency services, such as mastectomy, if geographic access to a radiology facility is limited.

❋

Cheri Rolnick (HPRF) led the CRN Family History SIG's manuscript in the June 2011 issue of *Journal of Genetic Counseling*. This qualitative study assessed genetic counselors' perspectives about identifying patients and barriers to referring high-risk patients for cancer genetic counseling services.

❋

Ramzi Salloum (HFHS) led a paper from the CRN Economic Burden project in the March 2011 issue of *Cancer*. The study team successfully estimated performance status (PS) in patients with lung cancer using claims-based measures. They conclude that emphasis should be placed on documenting PS in medical records and tumor registries.

What's New with BOW II?

Breast Cancer Treatment Effectiveness in Older Women (BOW I) was a cohort study of 1859 women 65 years of age or older diagnosed between 1990 and 1994 at GHC, KPSC, HPRF, HFHS, LCF, and MPCI with stage I or II breast cancer and followed for 10 years. We were funded in 2008 to conduct Long-Term Survivorship in Older Women with Breast Cancer (BOW II).

BOW II's specific aims focus on long-term breast cancer survivorship research: follow-up care, health care costs, and late treatment effects. We have continued to follow five-year survivors of BOW I through 15 years, and have added a comparison cohort (matched on breast cancer subjects' age, study site, and breast cancer diagnosis year) for our late effects aim. Our data collection strategies have been similar to BOW I, but with the very important addition of utilization data, as well as some laboratory and pharmacy data. Due to the foresight of our team, we were able to retrieve medical records for 97% of eligible subjects.

We used a webinar approach to training our medical record abstractors. This resulted in inter-rater agreement of 95%. We have completed data collection for BOW II, including medical record review (n=1361 cases and n=1361 comparison subjects); laboratory, pharmacy and utilization data; and National Death Index data through 2009. While awaiting completion of data collection, we have written three manuscripts and have active writing groups working on four others with an additional three planned. Current manuscripts in progress focus on late cardiovascular effects, osteoporotic fractures, and new cancers, as well as the long-term effectiveness of tamoxifen.

- Rebecca Silliman (Boston University) and Terry Field (MPCI)

NCI/CRN Health Economists

At International Health Economics Association Meeting

Martin Brown (NCI) was the kickoff speaker at the Symposium on Economic Analysis of Cancer in Toronto, July 10-13 2011, sponsored by the Canadian Centre for Applied Research in Cancer Control. He reviewed the research on cancer costs by phase of care using the SEER-Medicare Datalink. The seminal finding of this NCI-sponsored intramural research program is U-shaped cost curves for specific cancers, starting with high costs during the month of diagnosis, falling as treatment progresses, with minimum costs for the survivorship phase, followed by a rapid rise to another maximum at death. The length of the survivorship period determines the duration of the bottom of the 'U'. This cancer cost profile has been replicated in many developed nations, including those with national health care systems. Mark Hornbrook (KPNW) presented some preliminary data from his CRN Economic Burden project confirming the U-shaped phase-of-care function for major classes of utilization for specific cancers in US HMOs—hospitalizations, ED visits, ambulatory visits, same-day surgeries, and dispensings. Mark also presented a poster on patterns of hospice use in US HMOs from the CRN-leveraged REACT GO grant for each of the four leading cancers. Ramzi Salloum (HFHS) presented the results of a study of the determinants of treatment compliance for lung cancer using HMO data. Other cancer-related sessions at the conference addressed comparative effectiveness and cost effectiveness of cancer treatments, cancer screening programs, measurement of preference-weighted health status for cancer outcomes, inequality in use of cancer screening services.

- Mark Hornbrook (KPNW)