From the Directors

Scott Ramsey
MD, Ph.D.
Director

Veena Shankaran
MD, MS
Co-Director

2020 was an extraordinarily challenging year for our community of cancer patients, family members, healthcare providers and public health representatives. HICOR investigators devoted significant time and resources to face these challenges, with new studies and reports aimed at addressing the SARS COV-2 pandemic, and the healthcare inequities and racism that so deeply affect the health of our patients and our society.

In Washington State, HICOR was charged by the Department of Health to collect statewide data to assess the impact of COVID-19 on cancer care, with specific emphasis on underserved populations. This effort is funded by the Washington State CARE Fund. On the national front, Dr. Gary Lyman was involved in early efforts to monitor the clinical impact of the pandemic through his leadership in the COVID-19 and Cancer Consortium.

This year, we expanded our cancer care quality measurement program to compare quality measures between the Medicaid and commercially insured populations with the goal of understanding disparities in care. We continue to collaborate with our stakeholders to develop actionable, meaningful performance measures.

The economic stress of the pandemic has only highlighted the critical need to directly address the financial burden of cancer on patients and families. We are delighted that this year, Dr. Veena Shankaran launched an NCI-funded national trial to evaluate a proactive financial navigation program.

Our early career investigators are making their voices heard across the country. In July, Dr. Rachel Issaka shared a powerful perspective in the Journal of the American Medical Association outlining the multi-level actions necessary to dismantle structural racism in medicine, including recognition of racism as a public health emergency, training healthcare professionals to recognize and respond to racism, and building a diverse healthcare workforce.

HICOR faculty and staff sincerely hope that our colleagues and patient communities throughout the nation are healthy and safe. We approach 2021 with hope, purpose, and a commitment to continue collaborating with our community to improve outcomes for all cancer patients.

Scott Ramsey

Veena Shankaran
COVID-19

Tackling the Pandemic

Understanding the Clinical Impact of COVID-19 on Cancer Patients

As the pandemic emerged in early 2020, Dr. Gary Lyman along with colleagues at Fred Hutch and around the U.S. swiftly mobilized to form the COVID-19 and Cancer Consortium (CCC19), a national grassroots registry that aims to understand the unique effects of COVID-19 on patients with cancer. Over 120 cancer centers participated by sharing treatment pathways and clinical information for cancer patients diagnosed with COVID-19. Now with data on more than 8,000 patients with cancer and confirmed COVID-19, CCC19 has reported several key findings:

- Among patients with cancer and COVID-19, 30-day all-cause mortality was high, and associated with both universal risk factors and those unique to patients with cancer.
- There was no survival benefit from treatment with hydroxychloroquine or high-dose corticosteroids, alone or in combination.
- Black patients were approximately half as likely as white patients to receive remdesivir, a drug that may lessen disease severity or reduce the duration of infection, raising concerns about disparities in access to treatment.

Tracking the SARS-CoV-2 Virus in Washington State

Dr. Scott Ramsey is leading an effort to create a statewide database—known as the Washington state COVID-19 and Cancer Research Data Repository—containing information about the impact of COVID-19 on cancer patients with a focus on underserved groups. Initial analyses highlighted differences in telehealth use between the commercially insured versus Medicaid populations. In the commercially insured population, in-person physician visits decreased in the pandemic period but were replaced by telehealth visits. Among the Medicaid population, however, the decrease in physician visits was not replaced by telehealth visits, suggesting a need to investigate access to telehealth in this population. This project is funded by the Washington State Andy Hill Cancer Research Endowment (CARE) Fund.

Ensuring community access to COVID-19 testing and vaccination

Washington State has developed a COVID-19 testing program in community pharmacies located in regions with high COVID-19 infection rates. Dr. Parth Shah is leading a project to rapidly evaluate program implementation, including measuring the rate of uptake and program cost in participating pharmacies. The goal is to understand if the program can facilitate increased access to testing for community members, especially in rural and remote areas. Dr. Shah is also collaborating with the COVID-19 Prevention Network to improve community awareness and engagement with Phase 3 COVID-19 vaccine trials. The overarching goal is to ensure greater access to cancer vaccines, particularly in disadvantaged communities.
The focus on Medicaid-insured cancer patients in Washington state is an important first step in understanding key elements of cancer care and outcomes for a population with significant economic, social, and medical challenges. Our aim was to highlight system-wide issues that may be impacting performance and outcomes.

One key finding: Medicaid-insured patients undergoing chemotherapy have a significantly and substantially higher rate of emergency department visits and hospitalizations than similar patients enrolled in commercial health plans. Future research will examine the drivers of this higher rate of emergency department visits.

Dr. Christopher Chen, Medical Director for Medicaid at the Washington State Health Care Authority, collaborated on the interpretation and presentation of results. “HICOR’s performance measures provide key insight into aspects of care that we can target for quality improvement,” said Dr. Chen “Our next step is to design interventions to improve care delivery.”

HUTCHINSON INSTITUTE FOR CANCER OUTCOMES RESEARCH / ANNUAL REPORT / 2020

7TH ANNUAL

Value in Cancer Care Summit

HICOR’s annual summit took up the most important issues impacting the cancer care community in 2020: COVID-19 and healthcare disparities. Over 175 attendees joined the virtual annual event on Monday, November 9, 2020. The Summit featured a comparison of quality measures between the commercially insured and Medicaid populations, discussed the impact of COVID-19 on cancer care in Washington state, and resulted in calls to action to achieve health equity in cancer care.

Ensuring Quality Cancer Care for Vulnerable Populations

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COVID-19 Pandemic Widening Disparities in End-of-Life Care

The COVID-19 pandemic dramatically reduced family access to hospitals and created new barriers to home hospice care, raising concerns about how the pandemic has impacted cancer patients’ place of death and end-of-life home hospice support. Dr. Laura Panattoni, HICOR’s performance measurement expert, found that Medicaid patients were significantly more likely to die at home without hospice care after the onset of the pandemic, compared to pre-COVID care. Further analyses by the Health Care Authority found that the trend of increased numbers of patients dying at home without hospice was not reflected more broadly across deaths from any cause.

“The disparity in home hospice use raises concerns that the pandemic disproportionately worsened end of life experience for low income patients with cancer,” said Panattoni. “These preliminary results suggest a need to further investigate how health systems can improve home-based end-of-life care for low-income patients during pandemics.”

Hospitalization During Chemotherapy

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Dr. Christopher Chen, MD, MBA
Medical Director, Medicaid
Washington State Health Care Authority

Laura Panattoni, PhD
Senior Staff Scientist
In spring of 2021, HICOR Co-Director Dr. Veena Shankaran will partner with the SWOG Cancer Network to test a novel program designed to curb cancer-related financial hardship. The five-year randomized study will examine whether offering free financial navigation services to patients diagnosed with late-stage cancer and their spouse caregivers can prevent or reduce household financial hardship. The study will take place within the NCI Community Oncology Research Program (NCORP), a national network of community-based oncology practices that partner with researchers to conduct efficient and high-quality clinical research studies in local settings.

CREDIT is the progression of nearly a decade of HICOR research documenting the incidence of financial hardship in cancer patients and its devastating outcomes. “It’s a problem that is all too common for families facing a cancer diagnosis. This will be the first randomized trial testing an intervention that aims to directly alleviate the financial burden on patients and their families,” said Dr. Shankaran. Dr. Shankaran is hopeful that by targeting family financial wellbeing the intervention will have a greater chance of success. “Given the interrelatedness of patient and spouse financial status, we hypothesize that interventions that can be implemented at the household level may have the best chance of improving financial outcomes.”

The study will also compare the program’s effects on patient and spouse financial worry, quality of life, and the number of hospital and emergency department visits during treatment between couples receiving financial navigation and a control group. “The hypothesis is that patients in the intervention group may have less hospital and ER use, better access to therapies and that caregivers will be less burdened,” Shankaran said.

**CREDIT Financial Navigation Program**

- **Financial literacy training**
  - Video series about cancer costs and financial concerns during treatment

- **Financial counseling**
  - Financial and legal planning
  - Budgeting, medical expense management

- **Nonmedical cost assistance**
  - Employment, disability
  - Debt management
  - Food, transportation, housing, utilities

- **Medical cost and healthcare coverage assistance**
  - Copay assistance
  - Insurance navigation

“Why does cancer-related financial toxicity exist in the first place? Can’t we do better? If we show the system is so broken that people need all this assistance just to get appropriate cancer care, shouldn’t we change the system?”

— Dr. Veena Shankaran
ABOUT 100,000 PEOPLE IN THE U.S. ARE AFFECTED BY SICKLE CELL DISEASE (meaning two sickle cell genes or one sickle cell gene and another abnormal gene), a disproportionate percentage of which are Black or Hispanic. About one in 13 Black or African Americans have sickle cell trait (one sickle cell gene) and are at risk for having a child with the disease. The inherited blood disorder leads to many medical complications and shortens the life spans of people affected by about 20-30 years.

The disease can lead to episodes of excruciating pain, stroke, heart, lung, and kidney damage. The trauma of the pain and repeat hospitalizations for young children can cause stigmatization, depression, and social isolation. For people living with the disease, early intervention and access to care are vital for their long-term prognosis, physically and psychologically.

The National Institutes of Health’s National Heart, Lung, and Blood Institute (NHLBI) has funded The Sickle Cell Clinical and Economic Impact Analysis (CEIA) Consortium to identify and support the most promising genetic therapies to cure sickle cell disease. The CEIA Consortium brings together HICOR, the CHOICE Institute at the UW School of Pharmacy, NHLBI, and The Emmes Corporation.

The teams at HICOR, led by Dr. Scott Ramsey, and the CHOICE Institute, led by Dr. Anirban Basu, are tasked with developing models that will estimate the clinical and economic benefits of cures for sickle cell disease over the lifetime of the patients. The goal is to clarify the potential long-term benefits of promising new curative therapies.

The two teams will develop health economic models that simulate the outcomes of new sickle cell therapies. The models will investigate comorbidities and complications, quality of life, health care utilization, and costs over a lifetime horizon for a cohort of patients. The investigators will conduct extensive literature review and use datasets from both public and private sources, which will likely make these models the most comprehensive ever to be built around sickle cell disease in the United States.

“Our findings can help optimize strategies to use gene therapy to treat patients with severe sickle cell disease with the objectives of reducing disease complications, extending survival, and improving quality of life. Our team is very excited to apply our expertise in economic modeling to address these important issues.”

— Dr. Scott Ramsey
TRAINEES

Developing the Next Generation of Cancer Care Delivery Researchers

HICOR is committed to advancing high quality research that drives clinical practice and policy change, and to developing the next generation of leaders in cancer outcomes research.

Hematology-Oncology Fellow Spotlight

HICOR collaborates closely with the Fred Hutch Hematology-Oncology Fellowship Program to identify clinical trainees with interest in health outcomes, comparative effectiveness, and cancer care delivery research, and provide mentorship and training to two clinical fellows annually.

Dr. Ali Khaki completed his hematology-oncology fellowship at Fred Hutch and the University of Washington in December 2020. As a fellow, he devoted his research to treatment outcomes in patients with urothelial cancers and solid tumors, and worked closely with Drs. Veena Shankaran, Gary Lyman, and Petros Grivas studying health care utilization and costs for patients with advanced cancer. He was invited to present a poster on “Real-world prognostic model for overall survival in patients with advanced urothelial cancer treated with immune checkpoint inhibitors” at the American Society of Clinical Oncology’s 2020 conference. In February 2021, Dr. Khaki will join the Stanford University School of Medicine faculty as Assistant Professor in the Division of Medical Oncology, with a focus on genitourinary malignancies.

Bayer Fellow Spotlight

HICOR has partnered with Bayer Healthcare on a health economics and outcomes research (HEOR) fellowship to develop leaders in HEOR research. Trainees are mentored in advanced techniques pertaining to HEOR evaluation of cancer pharmaceuticals and related health care technologies. The fellowship combines one year of academic research experience in the Public Health Sciences Division of Fred Hutch with one year of industry experience at Bayer HealthCare in New Jersey.

Dr. Yuxian Du is a health economist and health services researcher focusing on improving access and quality of patient care. He recently completed the final year of a joint research fellowship with Fred Hutch and Bayer, and is currently a Manager of Research Strategy at Bayer Pharmaceuticals. During his fellowship Dr. Du undertook research on the cost-effectiveness of CAR-T cell therapy, the financial effects of cancer diagnosis, and the development of psychometric measures of financial anxiety and clinical relevance for cancer patients.

Fred Hutch
Seattle, WA

Stanford University School of Medicine
Palo Alto, Calif.

Bayer HealthCare
Whippany, NJ
Selected Publications


This pilot study examined the use of fecal immunochemical tests (FIT) for colorectal cancer (CRC) screening when offered to patients by mail. 945 Medicare Advantage enrollees aged 50–79 years old who were overdue for CRC screening were mailed information about screening and a FIT kit. Over the 12-month follow-up period CRC screening rates increased by 5% and 29% of patients completed screening after receiving FIT by mail. These results suggest that mailed FIT outreach in a Medicare Advantage population is feasible, effective, and worth considering along with other system-level strategies to improve overall CRC screening participation.

This study is part of a larger effort by Dr. Issaka and fellow HICOR faculty to develop and test multilevel interventions that address barriers to screening and improve CRC outcomes, especially for medically underserved and underrepresented communities. Dr. Issaka is conducting additional research studies aimed at reducing barriers to diagnostic colonoscopy after abnormal FIT results, including investigating how a ride share program could be optimized for patients that require procedural sedation. “Screening is a way to not only prevent disease but reduce racial and economic disparities,” said Dr. Issaka. “We need to close that gap so that every citizen can benefit from the advances in cancer care and prevention.”


FEATURED PUBLICATION

A Multilevel intervention to improve colorectal cancer screening


Fecal Immunochemical Test (FIT)
Selected Publications (continued)


LEADERSHIP

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LEADERSHIP

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Hutchinson Institute for Cancer Outcomes Research team

The HICOR team, from left to right: Judy Nelson, Kate Watabayashi, Kat Egan, Debbie Delaney, Scott Ramsey, Kristy Drury, Amy Harper, Hayley Sanchez, Laura Panattoni, Catherine Fedorenko, Sarah Shirley, Winona Wright, Qin Sun, Jordan Steelquist, Lily Li, Shasank Chennupati, Ari Bell-Brown, Yuxian Du, Andrea Tate, Parth Shah, Karma Kreizenbeck, Bernardo Goulart, Veena Shankaran