

FRED HUTCH

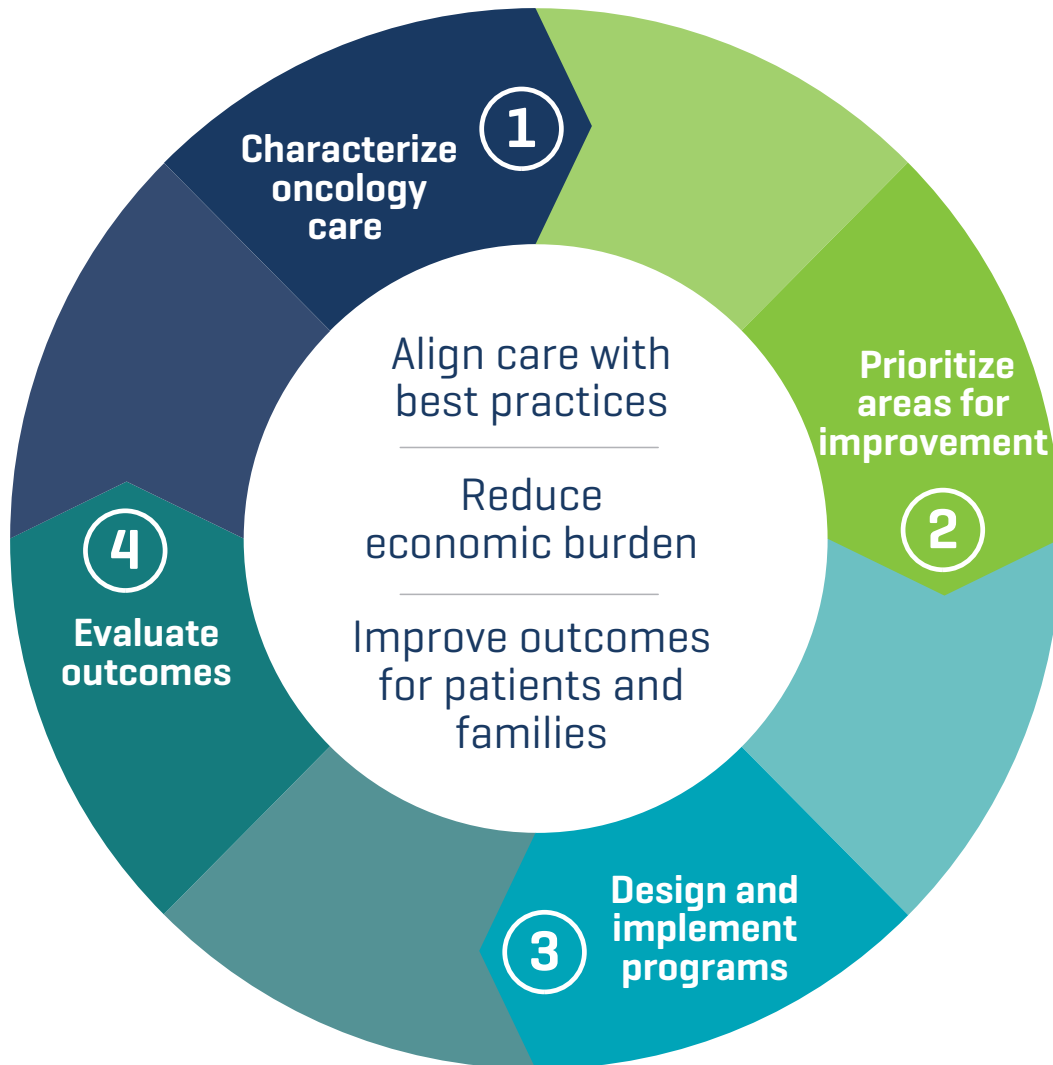
HICOR

ANNUAL REPORT

JULY 2016-JUNE 2017



HOW WE WORK



1

Community Cancer Care Report

Report Quality, Cost, and Value Metrics

2

2016 Summit

Community Working Groups present innovative solutions to improve care for End of Life, Breast Cancer Surveillance, and Preventable Emergency Room Use and Hospitalizations during Treatment

2017 Summit

Present high-performing clinic results for new composite quality metrics

3

2016-2017 CENTS

Development of a Financial Navigation Program for Patients with Advanced Cancer

2015-2020 TrACER

A Pragmatic Trial Assessing Colony Stimulating Factor Prescribing, Effectiveness, and Risk

4

Evaluate Outcomes

Evaluate expected changes in practice patterns, patients' outcomes, costs, and value

FROM THE DIRECTORS



**Scott Ramsey
MD, PhD**

Director

Scott Ramsey is a practicing internist, an internationally recognized health economist, and a leader in comparative and cost-effectiveness research.



**Gary Lyman
MD, MPH**

Co-Director

Gary Lyman is a medical oncologist and hematologist associated with the SCCA Breast Oncology Program, an internationally recognized clinical oncology researcher, and a leader in clinical practice guidelines and cancer policy.

Our work at the Hutchinson Institute for Cancer Outcomes Research at Fred Hutch is driven by a vision to improve outcomes and reduce costs for cancer patients and families. Engaging patient partners in the research process is central to this vision. This year we were fortunate to work with a number of talented patients and patient advocates as we opened enrollment for a national clinical trial, conceptualized novel interventions to improve cancer care, and expanded our performance measurement program.

August 2016 marked the activation the Trial Assessing Colony Stimulating Factor Prescribing, Effectiveness, and Risk (TrACER), a national trial investigating the effectiveness of a systems-based intervention to increase guideline-adherent use of colony stimulating factors. The trial is guided by an external advisory board consisting of patients and other key stakeholders who collaborated with our research team to identify effective recruitment strategies and develop patient-facing materials, which catalyzed the successful enrollment of 811 patients in the first 12 months of the trial.

Our performance reporting work is a foundational component of our research portfolio. This year, our analytics team created additional value metrics aligned with national reporting standards, and developed cost measurement methods to fully characterize value in care. In addition, we redesigned our oncology informatics platform HICOR IQ to share these expanded quality and cost reports with our community. In June, HICOR Staff Scientist Dr. Laura Panattoni presented her work on refining performance-reporting methodology in the area of potentially preventable emergency room visits at the 2017 American Society of Clinical Oncology Annual Meeting.

As we continue to develop robust methods to generate value metrics in oncology, we will bring patients and health care stakeholders together to discuss these findings and the critical role of transparency in data reporting. Our goal is to advance conversations among providers, patients, and payers in our region, and encourage collaboration between health care systems to share best practices and raise the level of care for all patients.

Emboldened by urgency and optimism, the HICOR team is confronting the growing challenges in our health care system in order to reduce the human and economic burden of cancer among all patients, families, and caregivers.

Scott Ramsey

A handwritten signature in black ink, appearing to read "Scott Ramsey".

Gary Lyman

A handwritten signature in black ink, appearing to read "Gary Lyman".

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PATIENT IMPACT ON RESEARCH



Patient advocate Camins Bretts discusses high-value services for breast cancer patients with patient partners Rebecca Seago-Coyle, Courtney Preusse, and Diane Mapes at the 2017 Value in Cancer Care Summit. Photo by Robert Hood / Fred Hutch

At HICOR, we anchor our research in the priorities and values of cancer patients and families. We are fortunate to work with dedicated patient partners—including patients, caregivers, and advocates—who shape our research agenda.

FROM PROPOSAL TO PUBLICATION OF RESULTS

As a critical asset to the research team, patient partners offer experiential knowledge and unique skills in translating evidence-based science to broader audiences.

Judy Johnson, a patient advocate for the national cancer research cooperative group SWOG, is one of 11 patient partners advising the Trial Assessing Colony Stimulating Factor Prescribing, Effectiveness and Risk (TrACER Study). She offers guidance at each stage of study development and has contributed

“Patient advocates can ensure that the research is relevant to patients, and that it has the potential for a positive impact on their lives. It is important that the patient voice be represented throughout the clinical trials lifecycle, from study concept and design to protocol specifics such as designing eligibility requirements and recruitment strategies to increase the likelihood of patient participation.”



Judy Johnson, MBA
SWOG Patient Advocate & Lung Committee Member

to patient-facing materials that use simple, clear language to explain the trial.

COLLABORATING ON HIGH-VALUE CARE

Patient partners, many of whom are national leaders in patient advocacy, are a driving force in HICOR’s Value in Cancer Care initiative. Their feedback and questions influenced the development of a regional HICOR study examining the use of imaging and tumor marker surveillance testing for early-stage breast cancer patients. The results from the study, presented by Dr. Gary Lyman at the 2017 American Society of Clinical Oncology Annual Meeting, suggest that innovative strategies to reduce unnecessary testing and imaging are needed. “While such strategies may reduce financial burden for patients,” said Lyman, “we know from our patient partners that we must also ensure that other survivorship needs are addressed.”

PATIENT PARTNER PATHWAYS

Study Advisors
Guide research studies from start to finish

Collaborators
Participate in longitudinal community initiatives

Consultants
Provide feedback on specific project issues based on expertise

Organizational Partners
Work with HICOR to implement a pilot or research study

KEEPING CANCER PATIENTS OUT OF THE EMERGENCY ROOM

There is growing recognition that unnecessary Emergency Department (ED) visits can have a detrimental impact on cancer patients, caregivers and families, and health care systems. Preventing such visits is critical for patients wishing to avoid unnecessary hospitalizations and increased out-of-pocket expenses, for providers striving to provide the best care, and for insurers seeking to utilize resources efficiently.

ACCELERATING COMMUNITY PRIORITIES

In response to these trends, HICOR’s regional working group comprised of patients, payers, and providers identified reducing ED and hospital use for patients undergoing treatment as a key priority area for intervention. The group recommended investigation into the hypothesized drivers of ED use: certain unavoidable symptoms, patient self-efficacy and empowerment to seek help, lack of access to same-day, evening, and weekend care from their oncologist office, and poor symptom management support.

As a result, Dr. Laura Panattoni led a study focused on identifying preventable ED visits with data from Washington state cancer care delivery systems. This research, presented at the 2017 American Society of Clinical Oncology conference, found that a significant proportion of cancer patients’ ED visits without subsequent admission may have been avoided with better symptom management and greater availability of tailored outpatient care.

FROM QUALITY MEASUREMENT TO CARE TRANSFORMATION

This study highlighted opportunities to characterize potentially preventable visits by considering a broad range of relevant diagnosis codes. Starting with newly released guidance from the Centers for Medicare and Medicaid (CMS) on measuring potentially preventable ED visits, Dr. Panattoni explored the impact of additional criteria including patient-reported outcomes (PROs) pertaining to 12 symptoms from the National Cancer Institute’s Common Terminology Criteria for Adverse Events, as



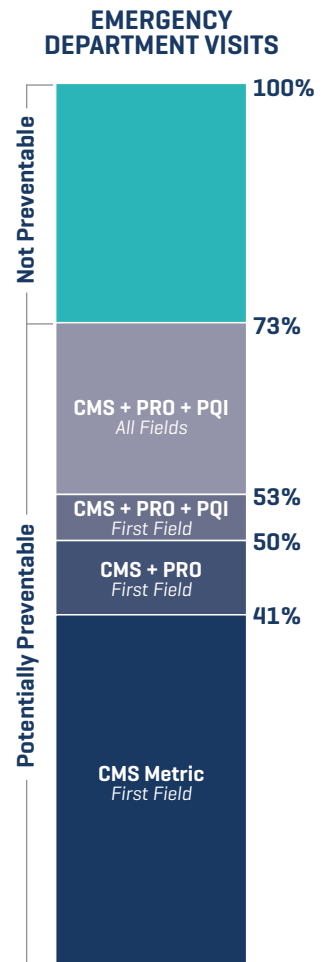
Dr. Panattoni at the American Society of Clinical Oncology 2017 Conference

“At a time when federal authorities and private payers are linking insurance payments to hospital quality measures, this study points to the importance of developing methods to accurately identify those ED visits that are preventable versus those that are appropriate.”

—Dr. Laura Panattoni

well as chronic conditions as defined by the Agency for Healthcare Research and Quality Prevention Quality Indicators (PQIs). Panattoni also explored the effect of examining all diagnosis code fields associated with an ED visit, rather than limiting analysis to the first relevant field, which is the generally accepted standard for quality reporting. The results showed that between 41% and 73% of ED visits were potentially preventable, depending on the measurement approach.

“Providers can use these strategies to construct metrics that shed light on their own practice patterns, and develop programs to meaningfully improve care” said Panattoni. “Further methodological refinement will also help us better understand the complex landscape of preventable ED visits.”



IMPROVING VALUE IN CANCER IMAGING

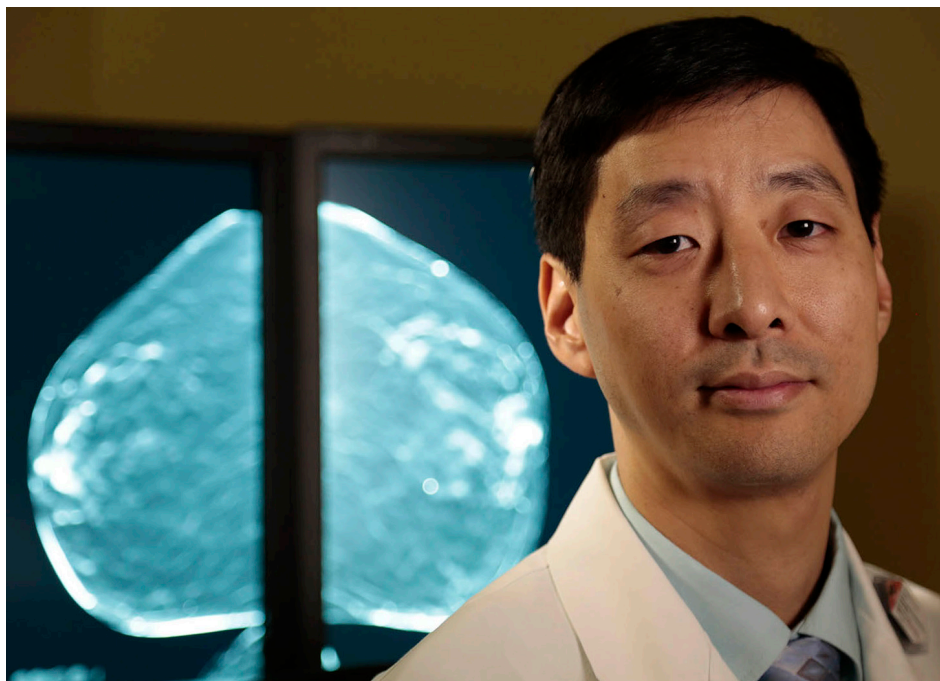
As radiologists caring directly for patients, Drs. Janie Lee and Christoph Lee understand the clinical value of imaging for cancer detection, diagnosis, and treatment. As researchers focused on cancer outcomes across populations, they are also concerned with balancing the benefits of imaging against possible harm to patients, particularly in an era in which uptake of new imaging technologies often outpaces the evidence supporting their use.

TRANSLATING RESEARCH INTO PRACTICE

“In some settings, such as routine surveillance for breast cancer survivors who are not experiencing symptoms, we know that advanced imaging does not benefit patients and may lead to harm,” said Dr. Christoph Lee. In fact, as part of the American Board of Internal Medicine Choosing Wisely Campaign, the American Society of Clinical Oncology recommends against the use of surveillance testing, including biomarkers and imaging [PET, CT, and radionuclide bone scans] for asymptomatic breast cancer patients treated with curative intent, as studies have shown there is no benefit from their routine use. “We know what the evidence supports,” said Dr. Janie Lee, “but we need innovative approaches to translate these guidelines into clinical practice to ensure patients receive the highest quality care.”

UNDERSTANDING DRIVERS OF USE

Using the HICOR IQ informatics platform, Drs. Janie Lee and Christoph Lee examined patterns of advanced imaging — including



Dr. Christoph Lee, MD, MS

MRI, whole body scans, and CT or PET-CT — during the post-treatment surveillance

period for breast cancer patients. They found that patients who received more advanced imaging and tumor marker testing at the time of diagnosis were more likely to receive these costly procedures during the surveillance period, even when adjusting for other risk factors driving the need for more advanced surveillance. In addition, tumor marker use

increased from 13% during the diagnostic phase of care to 35% during surveillance, suggesting overuse of both advanced imaging and tumor marker testing. “This suggests that targeted interventions to improve Choosing Wisely guidelines

adherence should focus on both phases of care,” said Dr. Janie Lee.

ENGAGING PATIENTS AND PROVIDERS IN SHARED SOLUTIONS

These investigators are now designing research interventions to explore the impact of incorporating evidence statements and key images directly into the radiology reports that are widely referenced by both physicians and patients for surveillance planning. The approach also includes one-on-one visits between breast cancer patients and radiologists to review results and make shared decisions regarding care planning. “We know that many patients are viewing their own radiology reports through online portals,” said Dr. Christoph Lee. “Our hope is to develop systems that are relevant to the way that patients are accessing information and making decisions today.”



Dr. Janie Lee, MD, MSc

VALUE IN CANCER CARE

To accelerate the scope and transparency of quality, performance, and value in Washington State cancer care, the 2017 HICOR Washington State Report. Informed by stakeholder input, the report captures

DRAFT COMPOSITE METRIC

Stakeholder Feedback

SHARE INITIAL

Community

Reporting performance for 20 cancer care delivery systems to drive high-quality care in Washington state

5 quality composite metrics

built from nationally recognized, guideline-based quality metrics

1. Hospital Use

- Emergency department visit
- Hospital inpatient stay

2. Breast Cancer Treatment

- Appropriate treatment based on:
 - HER2 status [gene mutation]
 - ER/PR status [hormone receptor]
- Use of anti-nausea drugs

3. Cancer Treatment for Breast, Colorectal, and Non-Small Cell Lung

- Appropriate and timely use of systemic therapy [chemo, hormones, etc.]
- Use of anti-nausea drugs

4. End of Life Care

- Chemo in last 14 days of life
- >1 ED visit in last 30 days of life
- ICU admission in last 30 days of life
- Hospice

5. Surveillance After Treatment

- Imaging and biomarker testing

Episodes Costs of Care

Breaking down where health care resources are spent.

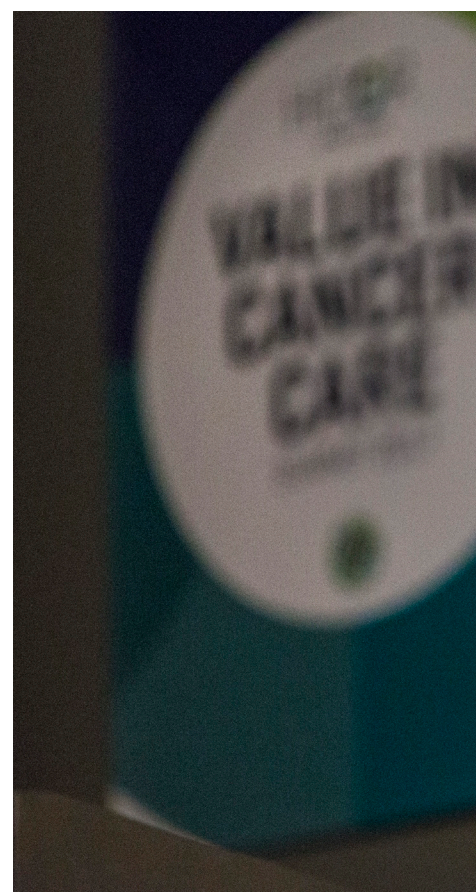
2017 Summit: Paying for Value

As health care systems transition from volume- to value-based payment models, HICOR aims to equip delivery systems with the quality and cost metrics they need to assess value in care. Patients, providers, and payers contributed to critical discussions about data transparency, performance reporting, and strategies for raising the bar for quality care in Washington state.



Breast cancer advocate Rebecca Seago-Coyle shares her experience during a breakout session.

PHOTOS BY ROBERT HOOD



“High-value care is evidence-based and patient-centered. It takes into account quality of care experience, patient goals and values, and quantity of life. And at the end of the day, it needs to be affordable — by individual patients and by us as a society.”

—Dr. Nancy Davidson

CARE SUMMIT

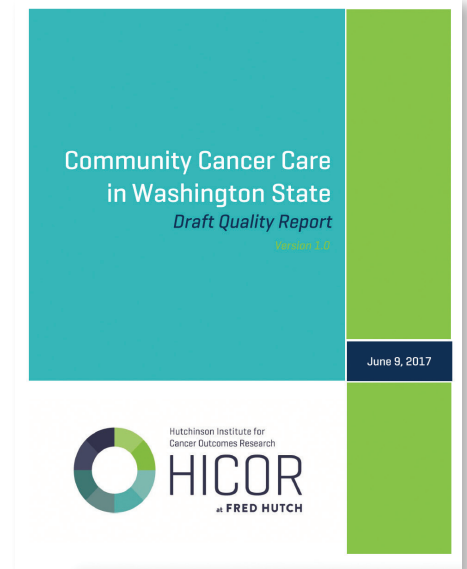
Due reporting in oncology, HICOR has created the Community Cancer Care in Washington State and will feature cost trends in 2018.

AL RESULTS

Feedback

DRAFT REPORT RELEASED
FALL/WINTER 2017

Public Review & Commentary



The Community Cancer Care in Washington State Report is an annual, public report on cancer quality and cost. The first draft report was shared with regional stakeholders for review and feedback. The final report will be released in 2018.



ABOVE: Dr. Nancy Davidson, President and Executive Director, Seattle Cancer Care Alliance and Senior Vice President and Director, Clinical Research Division, Fred Hutch, presents the keynote address.

LEFT: Ted Conklin, Barry Straube, and Jeff Ward listen as Family Reach CEO Carla Tardif describes the financial hardships faced by many cancer patients.



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Physician-in-Chief, Hartford HealthCare Cancer Institute

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Trial Assessing Colony Stimulating Factor Prescribing, Effectiveness, and Risk [TrACER]

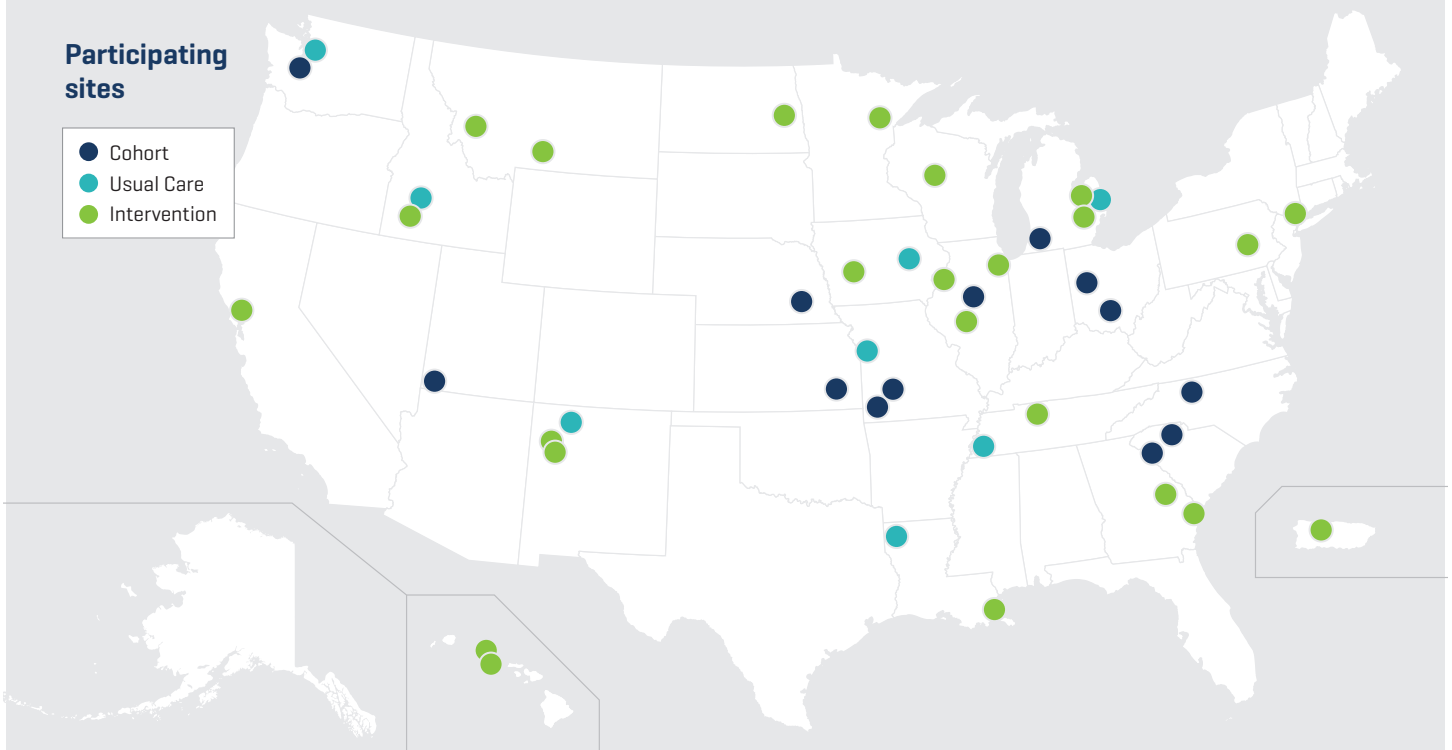
Colony stimulating factor [CSF] is prescribed to patients undergoing a chemotherapy regimen that carries a high risk of febrile neutropenia [FN]. FN is a serious, life-threatening complication that can result in hospitalization and death, and disrupt treatment, compromising the likelihood of remission or cure. Although practice guidelines for prescribing preventive CSF based on chemotherapy risk levels for FN are widely available, studies show that CSF is both over- and under-used, exposing patients to unnecessary risk and cost. To address this, HICOR has partnered with Columbia University Medical Center, University of Washington, and SWOG to implement the TrACER Study with funding from the Patient Centered Outcomes

Research Institute [PCORI] and the National Cancer Institute's [NCI] Community Oncology Research Program.

TrACER is the first pragmatic trial in an NCI cancer cooperative group setting and the first cluster-randomized trial in SWOG. The trial was also in the first wave of large, pragmatic clinical studies funded by PCORI. The pioneering study investigates whether a guideline-informed standing order for administering preventive CSF improves guideline adherence and reduces the incidence of FN. The study will also assess the impact of preventive CSF in patients receiving intermediate risk chemotherapy. Forty-five clinics across the country are participating in the study.

Participating sites

- Cohort
- Usual Care
- Intervention



HICOR IQ

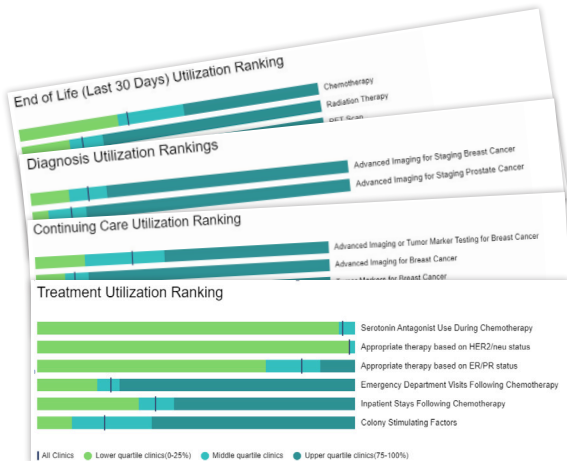
A Reporting Tool for Community Cancer Care

HICOR IQ is a single resource for providers, patients, and payers that reports on what matters in cancer care: quality and cost.

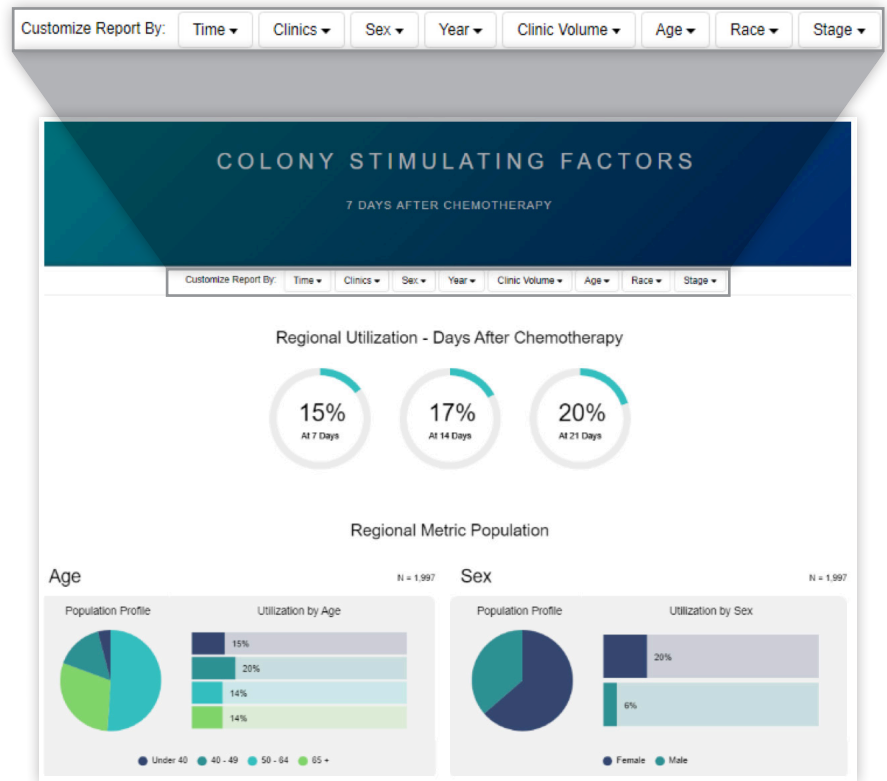


MEASURING WHAT MATTERS

By providing quality and cost reports for national and regionally prioritized measures at the clinic and region level, HICOR IQ empowers users to develop strategies to improve care. The initial rollout of HICOR IQ focuses on Washington state, linking Cancer Surveillance System and Washington State Cancer Registry records with claims from major regional health plans.

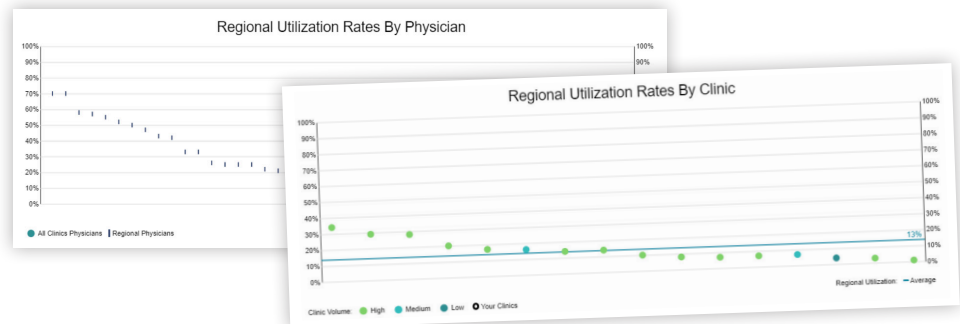


Dashboard displays clinic performance at a glance.



TRANSPARENT REPORTING

Using a common data source and a standard set of methods, HICOR IQ allows users to compare results across institutions and supports collaboration in the region.



Explore HICOR IQ at hicoloriq.org

THE HICOR TEAM



From Left to Right, Back Row: Karma Kreizenbeck, Joshua Roth, Gary Lyman, Scott Ramsey, Jordan Steelquist, Sarah Barger, Cara McDermott, Greg Warnick, Christoph Lee. **Second Row:** Mikael Anne Greenwood-Hickman, Judy Nelson, Julia Walker, Andrea Tate, Annika Hanson, Kat Egan, Caleb Richmond. **Front Row:** Catherine Fedorenko, April Alfiler, Kristy Drury, Ari Bell-Brown, Debbie Delaney, Laura Panattoni. **Not Pictured:** Aasthaa Bansal, Eva Culakova, Bernardo Goulart, Richard Kim, Janie Lee, Marek Poniewierski, Veena Shankaran, Jeremy Snider, Lotte Steuten, Qin Sun, and Kate Watabayashi.

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