



UNIVERSITY OF ILLINOIS
CANCER CENTER

Bench to Community

ANNUAL REPORT 2017

MISSION

The University of Illinois Cancer Center seeks to develop and deliver innovative solutions through scientific discovery, to generate new knowledge, and train the next generation of researchers to optimize outcomes and eliminate the burden of cancer in Illinois.

TABLE OF CONTENTS

Who We Are.....	3
Where We Serve	4
Research at UI Cancer Center.....	5
Office of Community Engaged Research and Implementation Science (OCERIS)	9
Survivorship.....	14
Illinois Rural Cancer Assessment.....	15
Henrietta Lacks.....	16



Dear UI Health Community,

The University of Illinois Hospital & Health Sciences System (UI Health) and the University of Illinois Cancer Center team are pleased to present this annual report. This is a very exciting time to be involved in cancer care and research on our campus. Through the leadership of Dr. Robert Winn and everyone involved, the coming months and years show promise for refinement, growth and greater impact on our communities.

The UI Cancer Center has already gained considerable momentum in recent years through your collaborations and expertise. As we pursue our goal of National Cancer Institute (NCI) designation, I hope that each of you will bring to it the passion and commitment that is reflected in the pages of this annual report that showcases the tremendous activity of the Cancer Center this past year. It's this dedication to an innovative "bench to community model" and to the pursuit of health equity that will be unique among NCI designated Cancer Centers.

We have the opportunity to create something exceptional for Chicago, for Illinois and for the people in our communities. Thank you for your support and encouragement for the work we do at UI Health and the University of Illinois Cancer Center.

Sincerely,

Robert A. Barish, MD, MBA

Vice Chancellor for Health Affairs
University of Illinois at Chicago

FROM THE DIRECTOR

Dear friends,

It has been a very exciting year for the University of Illinois Cancer Center! Our unwavering commitment to providing a comprehensive approach to cancer care for all citizens of Illinois has led to pioneering research on the molecular, environmental and social determinants of cancer, as well as the development of groundbreaking technologies, methods of prevention, treatment and community engagement. As we continue our efforts to eliminate cancer health inequities, decrease the incidences of cancer, and improve survival rates in our catchment, across the state and beyond, I am delighted to pause for a moment to reflect and share with you our accomplishments from the past year.

It is our goal in this era of collaborative medicine to bring together researchers, health care providers, and patients in order to ensure that the communities that we serve inform every aspect of academic medicine, from “Bench (the lab) to Community.” I hope you enjoy reading the pages that follow and learning more about our innovative research and programs.

Thank you for your continued support of the University of Illinois Cancer Center and all you do to reduce the burden of cancer for all.

Sincerely,

Robert A. Winn, MD

Director, University of Illinois Cancer Center



The University of Illinois Cancer Center is the only public university-based cancer center in Chicago dedicated to the pursuit of health equity and study of cancer disparities. Our expert, multidisciplinary cancer focused physicians and researchers are dedicated to applying innovative breakthroughs for patient care from the bench to bedside, to the delivery of treatment and clinical trial options. We are part of the University of Illinois at Chicago and the University of Illinois Hospital and Health Sciences System.

We are physicians and cancer researchers dedicated to the pursuit of health equity, community engagement and the study of cancer disparities. The UI Cancer Center believes everyone deserves quality health care. Our renowned researchers and specialists – medical oncologists, surgical oncologists and cancer scientists, among others – understand the dynamics of cancer genetically, environmentally and behaviorally, developing targeted approaches and individualized therapies for each patient.

Our programs feature state-of-the-art research, clinical trials, diagnostic and treatment options, with patients having access to the latest cancer resources and survivorship program, including cutting-edge surgery options like an FDA-approved real-time magnetic resonance imaging-guided biopsy and the da Vinci robotic minimally invasive surgical system.

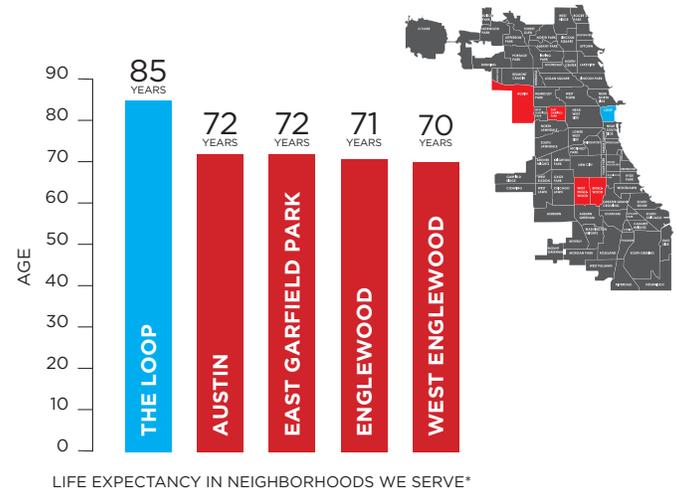
We are among the select group of medical centers accredited by the Commission on Cancer, a program of the American College of Surgeons that recognizes cancer programs for their commitment to providing comprehensive, high-quality, and multidisciplinary patient-centered care.

We partner with the 7 health science colleges at the University of Illinois at Chicago; the University of Illinois Hospital and Health Sciences System, a 465-licensed-bed hospital that cares for more than 135,000 unique patients annually; and 11 Federally Qualified Health Clinics (FQHC) throughout Chicago and Illinois, whose locations exist specifically to provide health care and access to patients who are low- to no-income, and those who may be uninsured or under-insured.

By providing free screening programs and conducting research within this patient population, the UI Cancer Center can address the health disparities that we are likely to encounter as a result of race and ethnicity, income, geography and infrastructure. The FQHC locations provide comprehensive health services in primary, preventative and specialty care; women's health; vision; and dental care.

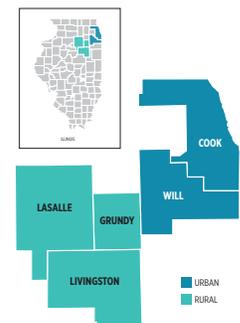
Disparities exist among minority and ethnic populations when it comes to cancer risk, prevention and treatment. Whether it is access to care, clinical trials, cancer screening, information about preventative behaviors, or genetic profiling, members of our team are embedded in our communities to study, communicate and provide support to alleviate the unequal burden that cancer poses on our constituents.

For example, life expectancy in the Chicago Loop is 85-years-old, but just a few miles away in the neighborhoods of Austin, East Garfield Park, Englewood and West Englewood, that age drops drastically to just over 70. We are striving to understand these differences and are working to reduce these burdens



We focus our research and outreach efforts on 5 Illinois counties:

- Cook
- Will
- Grundy
- LaSalle
- Livingston



Serving All in Need

The UI Cancer Center believes everyone deserves quality health care, and the closer to home the better.

Mile Square Health Center opened its first neighborhood clinic in 1967, and continues to help Chicagoans. Because we are a member of the community, we are better able to support the patients who visit our Federally Qualified Health Center sites.

Federally Qualified Health Center (FQHC) Sites

Through this program we are able to support the patients who frequent our community-based FQHC sites located in the city of Chicago. These locations exist specifically to provide health care and access to patients who are low- to no-income and, those who may be uninsured or under-insured. By providing free screening programs and conducting research within this patient population we can address the health disparities that they are likely to encounter as a result of race and ethnicity, income, geography and infrastructure. The ability to work together with these populations in a substantive way allows us to create replicable and sustainable initiatives. These health centers have community boards who are involved in determining which research programs occur at their locations.



FQHC sites provide comprehensive health services in: **primary, preventative, and specialty care, women's health, vision, and dental care**

- Main-Chicago
- Back of the Yards
- Cicero
- South Shore
- Englewood

Community-Based Clinics Serve:

Medically-underserved populations

Sliding fee scale to patients with incomes

BELOW 200% federal poverty level

APPROXIMATELY **40,000** patients

100,000 patient visits in 2016

Median household income of **APPROXIMATELY \$47,000** ↓ lower educational attainment
↑ higher unemployment rates

24 COMMUNITIES WITH **OVER 75%** MINORITY POPULATION

Our innovative cancer research is well-funded by the National Cancer Institute and is built on a bench to community model that not only engages the community but actively involves them in developing research and treatment options.

We organize our research into 3 programs:
Cancer Prevention and Control, Cancer Biology, and Translational Oncology.

Research Programs

CANCER PREVENTION AND CONTROL

Detecting cancer early can lead to a successful health outcome. Screening tests regularly catch breast, cervical and colorectal cancers, and lung cancer testing is recommended for some people who are at high risk. Vaccines can also help lower cancer risk, as can making good choices like maintaining a healthy weight, avoiding tobacco, limiting the amount of alcohol consumed, and protecting the skin.

Through research funded by National Institutes of Health grant number U54MD012523, Lisa Tussing-Humphreys and Paul Grippo are using a translational research approach to learn if exposure to structural violence increases psychosocial and physical vulnerability (such as anxiety, stress), compounded by one's behavior (such as diet), which interacts with the gut microflora that could result in colorectal cancer in urban African Americans.

"Since the gut microflora can be reshaped by diet and other factors, findings from our research could lead to novel strategies to reduce racial disparities in colorectal cancer," said Tussing-Humphreys, PhD, MS, RD, assistant professor of medicine at the University of Illinois at Chicago.

Structural violence is described as ways in which social, economic and political systems expose particular populations to risk and vulnerabilities leading to increased morbidity and mortality. African Americans are more likely to live in urban poverty areas that are fraught with structural violence, said Grippo, PhD, associate professor of gastroenterology and hepatology at the University of Illinois College of Medicine.

CANCER BIOLOGY

How does a normal cell become a cancer cell? That's what researchers in the UI Cancer Center's Cancer Biology program are exploring to develop new and better ways to prevent, detect and treat this potentially deadly disease.

Angela Tyner is studying how PTEN, an important tumor suppressor protein, prevents the activation of Protein Tyrosine Kinase 6 (PTK6), a signaling protein that regulates growth and differentiation of epithelial cells.

"Many common cancers start in the epithelial cells," said Tyner, PhD, professor of biochemistry and molecular genetics at the University of Illinois at Chicago. "We initially cloned the gene encoding PTK6 from epithelial cells, and we found that it regulates normal regeneration of epithelial linings of the intestine and skin. In the prostate, however, activation of PTK6 is associated with prostate tumorigenesis and metastasis.

"In our study, we show that PTEN can act as a protein phosphatase that dephosphorylates and inactivates PTK6, thereby inhibiting its cancer promoting activities. PTEN is often lost in prostate cancer, which leads to activation of PTK6 in the prostate, helping to promote prostate tumorigenesis."

This research was published in the journal Nature Communications.

TRANSLATIONAL ONCOLOGY

Applying basic science findings to create new therapies, medical procedures and diagnostics that advance the treatment of cancer.

The combination of genetics and environmental factors likely play a role in why African American men experience a higher incidence of prostate cancer, as well as having a worse clinical outcome, said Alan Diamond, PhD, UI Cancer Center member and pathology professor at the University of Illinois at Chicago. Diamond has led a team of researchers that has compared the accuracy of his theory that the gene SELENOF is a contributing factor in the disparity.

“We believe that reduced levels of SELENOF contribute to the risk of experiencing and dying from prostate cancer and that the differences in the SELENOF gene between African American and Caucasian men contributes to the increased risk in that population,” Diamond said.

Caucasian men accounted for about 106 new cases of prostate cancer per 100,000 men for the years 2011-2015. For African American men, that number jumped to nearly 179 per 100,000. About 165,000 new prostate cancer cases are anticipated in 2018, according to the National Cancer Institute. Nearly 30,000 will die from the disease, accounting for about 5 percent of all cancer deaths.

Clinical Trials

Clinical trials are research studies designed to answer scientific questions and discover better ways to prevent, diagnose or treat various diseases and conditions, including cancer. A clinical trial is one of the final stages of a long and careful cancer research process. The search for new treatments begins in the laboratory, where scientists first develop and test new ideas. If an approach seems promising, the next step may be testing a treatment in animals, to learn how it affects cancer in a living being, and whether it has harmful effects. However, treatments that work well in the lab or in animals do not always work well in people. When the potential treatment is deemed safe enough to explore their effects on humans, it proceeds to be studied in a clinical trial. In the context of cancer, these trials are done with cancer patients to learn whether promising treatments are safe and effective.

The most successful cancer treatments today are based on what we have learned from clinical trials. As a result, people with cancer are living longer, with a better quality of life. Participating in clinical trials at the University of Illinois Cancer Center may not only benefit you, but it also helps to develop newer, safer treatments for future cancer patients. Included in our open trials are novel approaches to prostate and breast cancer.

PREPARING TOMORROW'S RESEARCHERS IN CANCER DISPARITIES

We believe it is critical that we increase the number of underrepresented high school and college students who pursue cancer research as a potential career field. By increasing the number of underrepresented minorities interested in oncology research, we hope to impact how disparities in cancer are understood.

GUIDE Project

The UI Cancer Center is partnering with Governors State University on a \$1.5 million National Cancer Institute initiative, the GUIDE Project, which will prepare college students and junior faculty for careers in cancer disparities research by equipping them with the skills and abilities to respond to the rapidly-changing landscape of health inequities in Chicago's south side and growing south suburban and rural communities.

Located 35 miles south of Chicago, Governors State University is situated at the intersection of city neighborhoods, suburban villages, and rural towns. It is also less than a 30-minute drive from rural communities like Kankakee and Joliet, as well as northwestern Indiana.

The highest rates of cancer in the Chicago area has shifted from the city to its suburbs. But many suburbs do not possess the infrastructure of robust academic and research cancer centers, or the specialized expertise among their faculty, to address the growing disparities that exist within their local communities. That's why we've built partnerships with Governors State University and other institutions.

"Partnering with the UI Cancer Center will increase the capacity of GSU to serve as a center of health disparities research in a community that is disproportionately affected by cancer," said Dr. Rupert Evans, chair and program director of health administration at Governors State and co-principal investigator on the grant. "It will also build our faculty's ability to pursue larger federal grants for projects that will address high cancer rates and mortality in the Southland community."

researchHStart

Through the researchHStart program, a partnership with the University of Chicago, Northwestern University, and the University of Illinois Urbana-Champaign, we introduce students to cancer research to promote career opportunities in the field and help students gain knowledge in biophysics, biochemistry, immunology, and pharmacology.

As of March 2017, 38 high school students had participated in researchHStart. Of the 22 students who participated in 2016:

- 95% reported feeling more confident in their ability as researchers
- 95% said the experience increased their interest in cancer research careers
- 100% said they were more knowledgeable about how to pursue such careers

The majority of recent researchHStart participants intend to pursue majors in biology-related fields such as pre-medicine, biomedical engineering, biochemistry, and health sciences. Others are already working toward degrees in science and technology at the nation's top colleges and universities, including the University of Chicago, the University of Illinois at Chicago, and the University of Illinois at Urbana-Champaign.



GUIDE Student Directing Patients to Genetic Testing

The Academy Award's best animated short film category will not include the movie *Kaylan Norise* is helping develop, but that's not her goal. She wants it to save lives.

Norise, a senior at Governors State University who was selected to participate in the 2017 GUIDE Summer Scholars program, is assisting UI Cancer Center member Dr. Kent Hoskins and research scientist Vida Henderson in producing a four-minute video encouraging African American women to undergo genetic counseling to learn if they are predisposed to breast cancer. Patients can view the educational animated video on iPad's or download it to their phone while waiting for their appointment.



"African American women who live on the south and west sides of Chicago suffer disproportionate mortality rates from breast cancer compared to women residing in other areas," said Norise, who is majoring in Interdisciplinary Studies with an emphasis in chemistry. "Providing genetic counseling to African American women with a family history of breast cancer may prove to be an effective strategy in mitigating breast cancer mortality rates."

During her fellowship, Norise aided Henderson, PhD, PharmD, MPH, MFA, research scientist in the UI Cancer Center's Office of Community Engaged Research and Implementation Science, and Hoskins, MD, associate professor of hematology/oncology at the UI College of Medicine, in conducting focus groups to learn why African American women may or may not pursue genetic testing. Twenty of the 61 women recruited consented to be interviewed, which met their goal, Norise said.

"We learned that the women lacked knowledge about what genetic testing is, and many thought it is often combined with receiving a breast cancer diagnosis," Norise said. "They also felt there were barriers navigating the health care system; keeping breast cancer a secret within their family; and having fatalistic spiritual beliefs."

ChicagoCHEC Provides Science Summer School

The ChicagoCHEC (Chicago Cancer Health Equity Collaborative) Research Fellows program is a comprehensive summer learning experience for undergraduate and post baccalaureate students from Northeastern Illinois University, University of Illinois at Chicago, Northwestern University, the City Colleges of Chicago, and other community colleges in the Chicago metropolitan area who are planning to apply to graduate or medical school.

This program focuses on the development of academic, technical, and professional skills in preparation for careers in social, behavioral, and biomedical research, as well as healthcare. ChicagoCHEC Research Fellows will spend the summer in seminars and research rotations learning from leading researchers. Following the intensive summer program, ChicagoCHEC Research Fellows may have an opportunity to volunteer or work with a research mentor on a research project (depending on mentor and project availability) during the academic year.



OFFICE OF COMMUNITY ENGAGED RESEARCH AND IMPLEMENTATION SCIENCE (OCERIS)

The UI Cancer Center's Office of Community Engaged Research and Implementation Science (OCERIS) is a unique population health program that employs an evidence-based approach to community engagement. The OCERIS team carefully investigates the needs of our community members and develops services based on those necessities. Patients are then navigated to those services to ensure positive health outcomes.

We are able to best serve the community by becoming a part of it. We do this by leading a strong network of internal and external strategic partnerships with local and national community and health organizations, non-profits, and public health administrations. These relationships offer a wealth of resources for medical and social support, financial and legal assistance, spiritual guidance, and in some cases, just another outlet for our patients to be surrounded by others like them, who are suffering from cancer. By collaborating with internal UIC departments, OCERIS is able to provide the most accurate collection of data to investigate each part of the community that is served. This translates to patients being aware of opportunities for clinical trials and access to cancer care that is so desperately needed.

CHER Chicago

With a \$6.75 million, five-year grant from the National Institutes of Health (NIH), the UI Cancer Center, in partnership with the University of Illinois at Chicago School of Public Health and the University of Chicago, a unique project was established. CHER (Center for Health Equity Research) Chicago will advance health equity and understand the health risks – including cancer – associated with structural violence in underserved communities. CHER Chicago will delve into the effect structural violence has on health inequalities among African American, Latino, and Asian American populations (as well as their sexual minorities).

“Structural violence” refers to the multiple ways in which social, economic, and political systems expose particular populations to risks and vulnerabilities leading to increased morbidity and mortality. Those systems include income inequality, racism, homophobia, anti-Semitism, Islamophobia, sexism, ableism, and other means of social exclusion leading to vulnerabilities, such as poverty, stress, trauma, crime, incarceration, lack of access to care, healthy food, and physical activity.

CHER Chicago will initially focus on three research projects: how colorectal cancer risk in the black community correlates to experiences of racism; the relationship between stress due to racial discrimination and cardiovascular disease outcomes in Latino families; and examine the factors associated with mental health disparities among Asian immigrant populations.



ChicagoCHEC

This partnership between the University of Illinois at Chicago, Northwestern University's Robert H. Lurie Comprehensive Cancer Center and Northeastern Illinois University will address cancer disparities through pilot research, education, training and engagement in the Chicago area.

Supported by a five-year \$17.4 million National Cancer Institute U54 comprehensive cancer partnership grant, ChicagoCHEC will:

- Establish transdisciplinary cancer disparities research programs in behavioral and social science, biomedical and translational science
- Mobilize researchers, educators, community leaders, students, organizations and patients in innovative cancer education and community engagement programs to improve health outcomes among Chicago's low-income, minority and disability communities
- Provide training, mentoring and learning opportunities to recruit and retain minority and underrepresented students in health and cancer research careers
- Support the career development and advancement of minority and underrepresented faculty and scientists



Brigade Bringing Together Patients, Researchers to Find Cure

Rosemarie Rogers could only laugh.

That's not the usual response a doctor hears when informing a patient she has been diagnosed with breast cancer. But when Rogers' doctor told her that her friend – who accompanied her to the appointment – had to drive her home, laughter was all he heard. The doctor, Rogers said, looked at her quizzically.



Rosemarie Rogers

“My friend can't drive,” said Rogers, who after 22 years still laughs at the memory.

Always one to find something positive in every situation, Rogers used her diagnosis as an avenue to become better educated about cancer. Having survived a lumpectomy, radiation and chemotherapy treatments, she passes along her knowledge about the disease that could have taken her life to as many people as she can. She has volunteered her time at numerous cancer organizations, including the Dr. Susan Love Research Foundation and the Y-Me organization. Her latest endeavor is the newly formed University of Illinois Cancer Center Patient Brigade.

Karriem Watson, DHSc, MS, MPH, director of OCERIS, said that unlike traditional engagement and advisory boards, the Patient Brigade will play an integral role in establishing the research and engagement agenda of one of the nation's leading public research university cancer centers.

Since her retirement from the federal government in 2004, Rogers did not want to sit idle and let her life pass her by. She volunteered as a coordinator for a Y-Me support group, and eventually became a counselor on a telephone hotline, and then on to a trainer. But she wanted to do more. She became involved in cancer advocacy and grant reviews through the Dr. Susan Love Research Foundation.

She traveled to Washington to lobby Congress to discuss breast cancer funding, and underwent training at the National Breast Cancer Coalition, where scientists and researchers taught her the science of breast cancer.

Rogers has become one of the leaders of the Patient Brigade. She envisions the group working closely with researchers to learn what they are studying and why, and what results they expect to achieve.

“Researchers need to start with people like us before they start their projects because we know first-hand about the disease,” she said. “Whatever we do, we have to do together – survivors, researchers, doctors, whoever is affected by cancer,” Rogers said. “This has to be a total team effort.”

In 2017, ChicagoCHEC Community Health Educators led more than 100 community members on an educational tour of CECIL, the inflatable colon, which teaches individuals about colorectal cancer, screening, and the biology of disease – increasing knowledge, awareness and empowerment.

Patient Brigade

As part of the ChicagoCHEC (Chicago Cancer Health Equity Collaborative) program of building a national model of a “community focused Cancer Center,” the UI Patient Brigade was created by patient stakeholders who reflect the diverse ethnic, cultural and socioeconomic groups in the Chicago area. Guided by principles of community-based participatory research (CBPR) and Patient Centered Outcomes Research (PCORI), the Patient Brigade was the inspiration of Patient Advocate Stephanie Carter-Logan, a three-time cancer survivor who received her care at the UI Cancer Center.

The UI Patient Brigade is comprised of cancer survivors, family of, or supporters of survivors. Their vision is to move beyond engagement and usher in a new era of stakeholder involvement to ensure that the patients and communities that we serve have an active voice at the table regarding the UI Cancer Center's research and community engagement initiatives.

SCREENING

OCERIS provides patients from underserved communities with education on prevention and navigation to cancer screenings that can lead to the identification of early stage diagnoses that may have otherwise been missed. Evidence-based research identified four types of cancer disproportionately present in our service area: **colorectal, breast, lung and prostate.**

No Cost Colorectal Cancer Screenings

Colorectal cancer is the fourth most common cancer in the United States and second leading cause of cancer death. Increasing colorectal screening rates is one of the 10 recommendations of the Blue Ribbon Panel for the Cancer Moonshot and endorsed by the National Cancer Advisory Board.

In 2017, the UI Cancer Center introduced patient navigation at our 11 Mile Square Federally Qualified Health Clinic locations who are low- to no-income, those who may be uninsured or under-insured, and those who carry some of the highest burdens of risk (health, violence and otherwise). Multi-level interventions, such as patient navigation, mailed reminders, and provider intervention, have shown to be effective in increasing colorectal cancer screening in minority populations.

Our colorectal cancer screening program has increased colorectal screening from 12.7 at baseline to more than 59 percent over the last two years. The goal of this program is to increase this percentage to 80 percent in 2018. This program is funded by the American Cancer Society and Walgreens and is in compliance with the National Colorectal Cancer Roundtable guidelines.

Low- and No-Cost Mammograms

After securing a grant from the Chicago Department of Public Health, this program began as a free breast cancer screening initiative that was held bi-monthly at several of our Mile Square Health Center locations. A collaboration between the UI Cancer Center; the UIC department of radiology; the UIC department of breast surgery; and the Metropolitan Chicago Breast Cancer Task Force, the goal is to increase mammography screenings for age-eligible women of underserved communities and ensure they have a medical home. More than 270 women were successfully screened in 2017. Due to its success, the program has been expanded through a grant from the Chicago Department of Public Health for 2018 by increasing the screening frequency to six days per week from two.



Smoking Cessation

Partnering with the American Lung Association and the American Cancer Society, we are developing and implementing a replicable and sustainable evidence-based tobacco cessation initiative in our 11 Federally Qualified Health Centers. We navigate tobacco users in select, high-need communities to screening and cessation services matched to their individual needs. Trained layperson patient navigators link patients to the evidence-based cessation program best suited to meet their individual needs and reduce potential barriers (e.g. access and cost). The initiative is designed to be implemented at the community level and to maximize the benefits of existing relationships and programming resources.



Prostate

The goal of this men's health program is to increase volume of local men from underserved communities who receive health screenings at our Federally Qualified Health Center locations. This program also seeks to provide gender specific health information, education and resources to men from this community to help them obtain adequate health care. External partners include John H. Stroger, Jr. Hospital of Cook County and the Jesse Brown Veterans Administration in Chicago.



WORKING BEYOND BORDERS

While the UI Cancer Center actively engages the local community in which we serve, we also seek knowledge from non-traditional sources — under-resourced countries who have a unique perspective on health care that may benefit Chicago. Researchers have also traveled to Hungary and Uganda to learn how to optimize care, and recently we embarked on a first-of-its-kind effort with Cuban physicians to learn more about how to improve maternal health and birth outcomes in Chicago’s Englewood neighborhood.

Connecting with Cuba

The Cuban health system is successful in preventative health, and accomplishes this on a modest budget. Cuba spent roughly \$600 per capita on health expenditures in 2010. In the U.S., this figure is above \$8,000 for the same year, but average life expectancy in the two countries was the same, at 79 years.

For the past year, doctors from Cuba and researchers from the UI Cancer Center have traveled between the two countries to observe practices and exchange ideas. The team identified



a key difference between the two countries: doctors in the U.S. are not as familiar with their patients’ home life and environment as Cuban physicians. In Cuba, doctors conduct a thorough survey of each household, noting not only health but also external factors.

Learning from the Cubans and their successful experience with the health assessment, the UI Cancer Center team adapted a questionnaire for a U.S. audience and tested it in Chicago’s Englewood neighborhood, a predominantly African American community of about 25,000 individuals with most households headed by single females. At only 72-years-old, life expectancy in Englewood is well below the national average, based on 2014 data. The average in Chicago is 77 years, and 79 years in the U.S. Compared with citywide rates, Englewood residents experience four times the homicide rate and double the rate of infant mortality, which is already three times higher for black babies in the U.S. than white or Latino babies.

Through a \$1 million grant from the W.K. Kellogg Foundation, the UI Cancer Center has been working closely with the Cuban delegation to evaluate women and children’s health.

Health information was gathered during 50 home visits with women of child-bearing age (18-49) who reside in Englewood, one of Chicago’s most impoverished neighborhoods. Focusing on maternal and infant health, as well as cancer screening and prevention, the assessments

provided researchers with knowledge of social and environmental factors affecting their well-being.

Among the recommendations presented at a December event were to perform the Health Situation Analysis with 100 percent of the female population of childbearing age who have children less than one-year of age in Englewood. Cuba has been praised for delivering quality health care with limited resources, and home visits provide their health care professionals with valuable information to treat their patients.

UI Cancer Center staff, led by Katherine Tossas-Milligan, teamed with the Cuban delegation to develop the Health Situation Analysis that asked questions about weight, exercise and medical symptoms, as well as environmental factors that included access to clean drinking water, affordable food and transportation. Researchers connected with the women through the Mile Square Health Center clinic in Englewood or community organizations. Women engaged in the pilot were scheduled for a home health analysis visit to learn more about them as a whole person and to educate them about prenatal health and well-baby visits and care.

“The Health Situation Analysis will determine with greater accuracy the causes of high infant mortality,” Tossas-Milligan said.

In Cuba, the analysis is given to 100 percent of the population of each medical office, and all programs are included (communicable and non-communicable diseases, environment, etc.).

Cherita Broughton was one of the 50 women who participated in the site visit, and she was happy to welcome the Cuban and UIC contingent into her Englewood home, as “I wanted my voice to be heard.

“I want to help change the area, and the way people think,” Broughton said. “It’s not all violence and drugs. I live in the neighborhood and I went to college and I got my master’s degree in health care administration while living here. I want to see people do better for themselves, and it starts with their health.”



ENGAGING THE COMMUNITY



The UI Cancer Center is establishing a comprehensive multidisciplinary survivorship program that not only meets the clinical care, research, and education needs of our diverse patient population, but also sets the standard by which other programs will be judged.

To ensure that all aspects of the care continuum will be in place, the program is being implemented in phases with three major areas of focus for 2018.

Launch of CancerIQ – an online screening tool that can identify a patient’s cancer risk. The program allows researchers to focus more time on analyzing data than gathering it from scratch, and contains tools designed for training genetic specialists, including test-ordering features and post-appointment documentation. The program improves patient adherence to personalized cancer prevention and survivorship plans, and provides patients with tailored educational content that they can assess anywhere there’s a computer.

CancerIQ is currently being used in conjunction with a scheduled mammography screening in the Evelyn Goldberg Mammography Center, with a future goal of using it in the Survivorship Clinic at Mile Square.

Expand support services to survivors – through activities such as yoga, meditation, art therapy, nutrition, exercise, etc.

Implement a web-based survivorship education series – Project ECHO – for primary care providers to ensure that the care transition back to primary care providers after cancer treatment is seamless. Project ECHO began in New Mexico in 2003 to address Hepatitis C. It now covers more than 45 health conditions throughout the world. Since the number of specialists are limited in rural and underserved communities, ECHO trains primary care clinicians to provide specialty care services, allowing more people to get the care they need. By doing so patient outcomes are improved and costs are reduced.

Beating Cancer – A Team Effort

An estimated **15.5 million Americans** are cancer survivors, but they haven’t beaten the disease alone.

It takes a concerted effort to survive cancer, and a new program developed at the UI Cancer Center is providing patients with the resources they need to help them continue living a full life.

“Survivorship begins at the time of cancer diagnosis,” said Dr. Susan Hong, director of the Cancer Center’s Adult Cancer Survivorship Program. “Just because the cancer has been cured doesn’t mean people are left in perfect health. There’s a lot of fallout, not just with patients but for family members, friends, and others.”

The survivorship program contains numerous components: Prevention of recurrent and new cancers, as well as other health effects the cancer may cause; closely monitoring the spread of cancer or a cancer reoccurrence and assessing its medical and psychosocial late effects; intervention for consequences of cancer and its treatment; and coordination between specialists and primary care providers to ensure all aspects of the survivor’s health needs are met.

Navigating life can be difficult for cancer survivors, as they face numerous challenges. Depression affects between 15 to 25 percent of survivors, and the disease causes many survivors to make changes in their employment, causing stress. Survivors also confront pain, limitations in activity, and poor general health.

“We’re trying to gain a better understanding of what all the issues confronting survivors are, and trying to intervene early to try to prevent the disease from re-occurring,” Hong said.



ILLINOIS RURAL CANCER ASSESSMENT

Launched in January 2017, the Illinois Rural Cancer Assessment (IRCA) is co-led by Yamile Molina, PhD, assistant professor of community health sciences in the UIC School of Public Health, and Karriem Watson, DHSc, MS, MPH, director the UI Cancer Center's Office of Engagement Research Implementation Science (OCERIS).

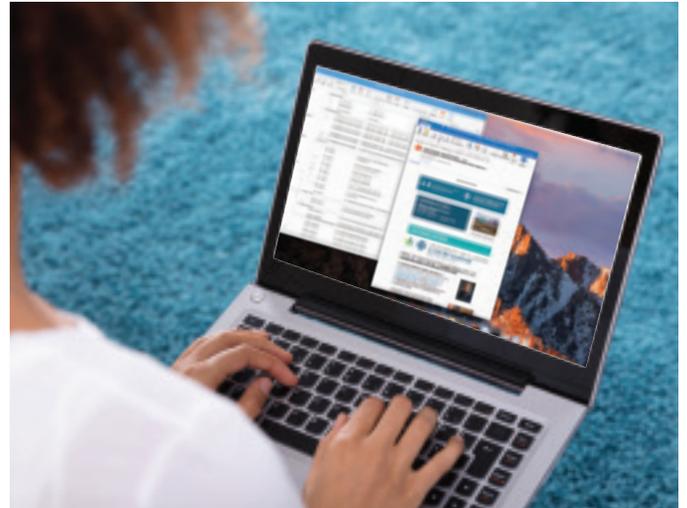
The IRCA characterizes the variation in experiences and needs among English-speaking rural cancer survivors and caregivers in Illinois. The organization examines outcomes in mental health, self-reported physical health and co-morbidities, and healthcare utilization. It also examines whether disparities exist among different groups of survivors and caregivers, including age, cancer site, socioeconomic status, gender and race/ethnicity.

Individuals were recruited in two waves, with each person asked to complete a survey. To date, 200 rural cancer survivors have done so. Less than 6 percent reported that their race/ethnicity was something other than Caucasian, non-Hispanic, and 87 percent reported their gender as female. The second wave was instituted to recruit more African American cancer survivors and caregivers in the IRCA. Wave 2 data collection will continue through August 2018. The 200 participants resided in 67 Illinois counties, including seven participants from the UI Cancer Center rural catchment areas of Grundy, LaSalle and Livingston counties.

As part of the assessment, financial toxicity, or the "patient-level impact of the cost of cancer care," is being investigated among rural cancer survivors in Illinois. Financial toxicity is fairly high among the current sample: 27 percent report treatment-related debt, bankruptcy or having to borrow money; 60 percent stopped working during treatment. No factors predicted treatment-related financial burden, but survivors with a breast cancer diagnosis (compared to all other cancer diagnosis) and those in more rural counties were less likely to stop working during treatment, compared to staying at work.

Future research will focus on understanding why breast cancer survivors had lower odds of stopping work, compared to all other survivors, as well as adding contextual variables of rurality, poverty and community health resources to conduct a spatial analysis of financial toxicity among rural cancer survivors.

The IRCA has leveraged a network of existing and new partnerships to maintain a wide reach to rural communities in Illinois. The group has connected with more than 90 organizations, including cancer centers, churches, health care providers, health departments, support groups and universities to discuss the rural cancer assessment. An online directory of support programs and resources was also utilized.



The IRCA communicates with more than 140 cancer stakeholders throughout Illinois via a monthly electronic newsletter, which includes a "Featured Partner" section that highlights cancer prevention and treatment efforts of individuals working in rural communities. It also includes research findings relevant to the current cancer awareness month, and the assessment's progress.

BUILDING TRUST

In this new era of precision medicine where researchers, health care providers, and patients work together to develop individualized care to fight life-threatening diseases, the ability to establish trust between patients and medical researchers is more critical than ever.

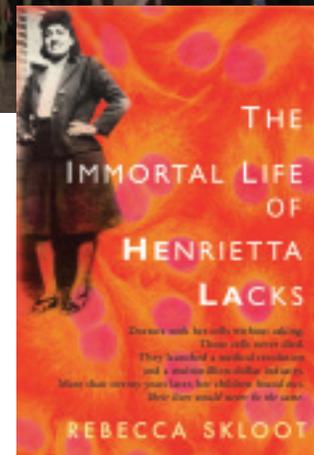
The UI Cancer Center leadership held a program in July 2017 to engage community members in a dialogue that furthered understanding about issues related to trust in medical research. At the invitation of the UI Cancer Center, family members of Henrietta Lacks participated in a dialogue about the importance of her legacy and contributions to advances in medical research as well as the significance of trust in those studies.

Henrietta Lacks was a young, African American mother of five in 1951 when she was diagnosed with cervical cancer. As was the practice at the time, her treating physicians at Johns Hopkins Hospital in Baltimore took samples of both healthy and cancerous tissue during biopsies without her knowledge or consent. Today, we know that a cell line was developed from that tissue which was utilized in the development of multiple medical treatments, including Jonas Salk's famous polio vaccine, without informing or compensating her family. It is stories like this, repeated too many times, that have led to widespread distrust of medical research.

More than 500 people attended the UIC event, which featured testimony from Shirley Lacks, daughter-in-law; Veronica Robinson, great-granddaughter; Jeri Lacks Whye, granddaughter; and JaBrea Lacks Whye, great-great-granddaughter of Henrietta Lacks. The story of Henrietta Lacks has "awakened the country," said Dr. Robert Winn.

"The legacy of Henrietta Lacks is an example of why many minority communities are hesitant to get involved in clinical trials – a tradition of mistreatment and disregard – and is an example of how it's possible to change that tradition. Our goal at the University of Illinois Cancer Center is to engage with all people, especially those who are underrepresented, and to build trust by being part of the community.

"We are about making sure that cures are accessible to everybody. Every single one of us deserves a seat at the table" Winn said.



“The University of Illinois Cancer Center
is creating the country’s first truly,
**community-focused
cancer center.**”

Utilizing partnerships with civic leadership and community partners, we are creating a new model to address the cancer burden and disparities found in our communities.”

Robert A. Winn, MD

Director, University of Illinois Cancer Center

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