

Exploring Cancer

Examining the Role of Biology, Race, Class, and Socioeconomics



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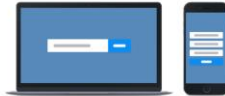


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Exploring Cancer

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Fridays

11:00 - 11:50 AM EST/EDT

August 29

Welcome to Cancer(s) and Health Disparities 101 - The Introduction

September 5

Patient Navigation: The Nurse, Patient & Advocate

September 12

Achieving Excellence and Equity in Difficult Times

October 3

Breast Cancer Health Disparities

October 17

Cancer From a Public Health Perspective

October 31

Reassessing Tumor Biology through the Lens of African Ancestry and Health Equity

November 7

Health Disparities

November 14

Precision Medicine and Immunotherapy

November 21

Cancer Care for All: Challenges and Opportunities in Low-Resource Settings

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Exploring Cancer

Examining the Role of Biology, Race, Class, and Socioeconomics

September 12, 2025

ACCURE: A Systemic Approach to Eliminating Racial Disparities in Cancer Care and Beyond



Samuel Cykert, MD

Professor of Medicine
UNC Lineberger Comprehensive Cancer Center
UNC School of Medicine
University of North Carolina at Chapel Hill



Christina Yongue, MPH, MCHES

Director, Community Engagement & Impact
Cone Health Foundation

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Samuel Cykert, MD

Dr. Cykert is a Professor Emeritus of Medicine from the University of North Carolina – Chapel Hill. He graduated from Indiana University School of Medicine with Highest Distinction and did his Internal Medicine Residency and General Medicine Faculty Fellowship at UNC. He started his career as a solo practitioner in Alamance County and learned firsthand how real world issues lead to variations in care. Combining his research training, his role as a founding member of the Greensboro Health Disparities Collaborative, and interest in health policy, Cykert has been heavily involved in projects that address cancer and chronic care management including the building of systems that reduce health care disparities and improve care for all. In this vein, he has served as principal investigator on several studies including the NCI-sponsored Accountability for Cancer Care through Undoing Racism and Equity (ACCURE) system building intervention that demonstrated marked improvements and equity in treatment completion for Black and White breast and lung cancer patients. Dr. Cykert also led the North Carolina Collaborative in the Agency for Healthcare Research and Quality's "EvidenceNow" Project. The NC group engaged 219 primary care practices caring for over 400,000 adult patients who achieved significant cardiovascular disease risk reductions especially among rural Black patients in the "Stroke Belt" region of the state. He recently retired after serving as co-chair for the UNC-Lineberger Cancer Center's Equity Council.

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Professional Highlights

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Professional Highlights

- 3.** Partnered with community members and other researchers to develop system changes that led to equity in cancer care and better care for all

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Professional Highlights

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2. Served as a founding member of the Greensboro Health Disparities Collaborative

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Professional Highlights

3. Partnered with community members and other researchers to develop system changes that led to equity in cancer care and better care for all
2. Served as a founding member of the Greensboro Health Disparities Collaborative
1. Have had the honor of supporting and taking care of many patients in their most difficult times

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**Christina Yongue,
MPH, MCHES**

Christina Yongue, MPH, MCHES, Director of Community Engagement and Impact, joined the Foundation in June 2024. She was formerly the Director of Undergraduate Studies and an Associate Professor in the Department of Public Health Education at the University of North Carolina at Greensboro. Christina earned her Master of Public Health and Bachelor of Science degrees concentrating in Community Health Education from UNCG and has been a member of the Greensboro Health Disparities Collaborative for over 16 years. She has managed research studies, funded by the National Institutes of Health, which eliminated a racial disparity for cancer patients through a community-based participatory research approach. She continues to focus on health and racial equity by participating in research, such as projects addressing maternal and infant mortality.

Professional Highlights

Professional Highlights

3. Christina Yongue, MPH, MCHES began her collegiate journey at Florida A & M University, where she studied pharmacy.

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Achieving Excellence and Equity in Difficult Times

Christina Yongue, MPH, MCHES and Samuel Cykert, MD

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Participant Engagement Moment

Drop in the ChatBox:

- Do you know anyone who has experienced cancer? If so, who?
- What kind of healthcare related job are you interested in?

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A Real Case That's One Month Old

A 57 yr old Black man developed progressive shortness of breath. He was presumptively diagnosed with pneumonia and given 2 courses of antibiotic treatment. When he didn't improve, a chest x-ray was done that revealed a new right pleural effusion (fluid around the lung) and densities in the right lung. A subsequent CT scan showed a lung mass and masses in T-12 and L-1 (the spine). The pleural fluid was removed and cells in the fluid showed adenocarcinoma. The patient was told that his condition was metastatic and little could be done. What should happen next?



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Who we are? How did our paths intersect?

- Christina Yongue
 - Attended Florida A & M University to study pharmacy
 - Earned MPH at UNCG to learn more about managing public health research projects
 - 2006 Mother Passed of Breast Cancer
 - 2007 Joined the GHDC
 - 2012 became Project Manager of ACCURE

- Samuel Cykert
 - Earned an MD
 - Met Nettie Coad
 - 2003 became a founder of the GHDC
 - Lung cancer study for ACS
 - 2012 became the Co-Principal Investigator of ACCURE

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What is the Greensboro Health Disparities Collaborative (GHDC)?

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The Greensboro Health Disparities Collaborative (GHDC) establishes structures and processes that respond to, empower and facilitate communities in defining and resolving issues related to disparities in health.



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Background Problems

- Racial Health Disparities existed, which were disproportionate and unjust
- Traditional Research approaches had not solved the trends that existed for decades

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Before the GHDC began, Breast cancer racial inequities existed

Death
“Survival Rate”

The 2002-2008 *5-year survival rate* for breast cancer among African American women was 78% compared to 90% for white women

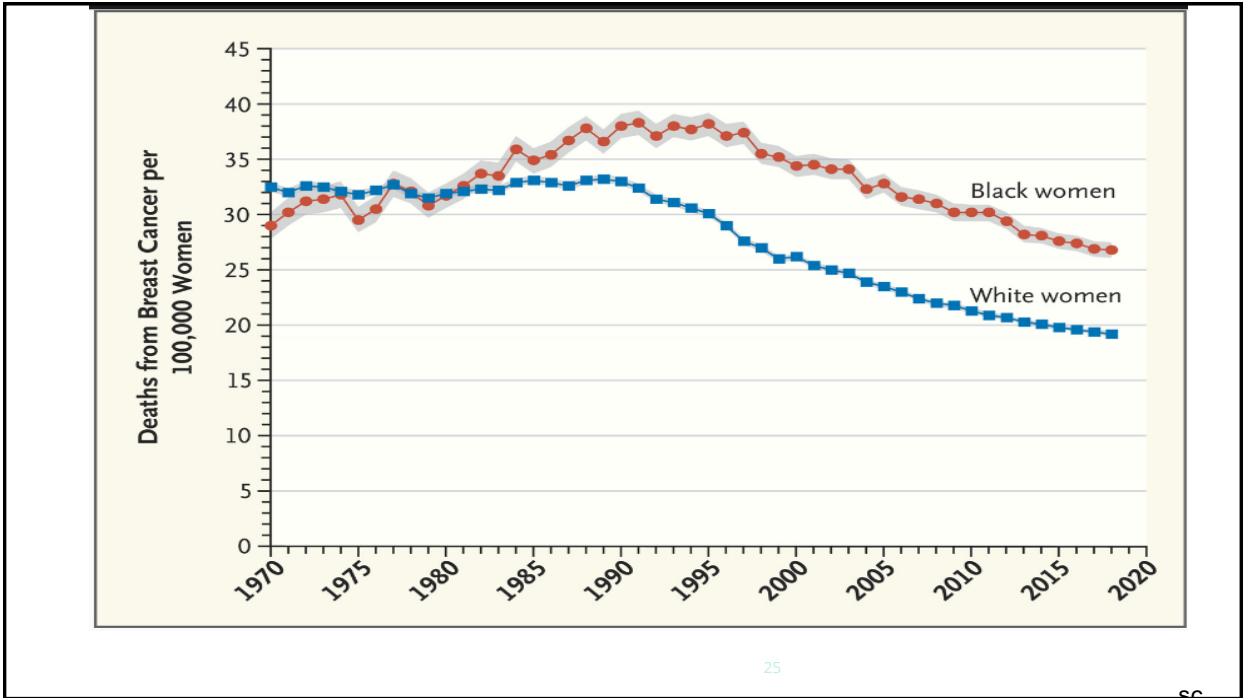
(SNI website, 2015)

Medical Services
“Treatment”

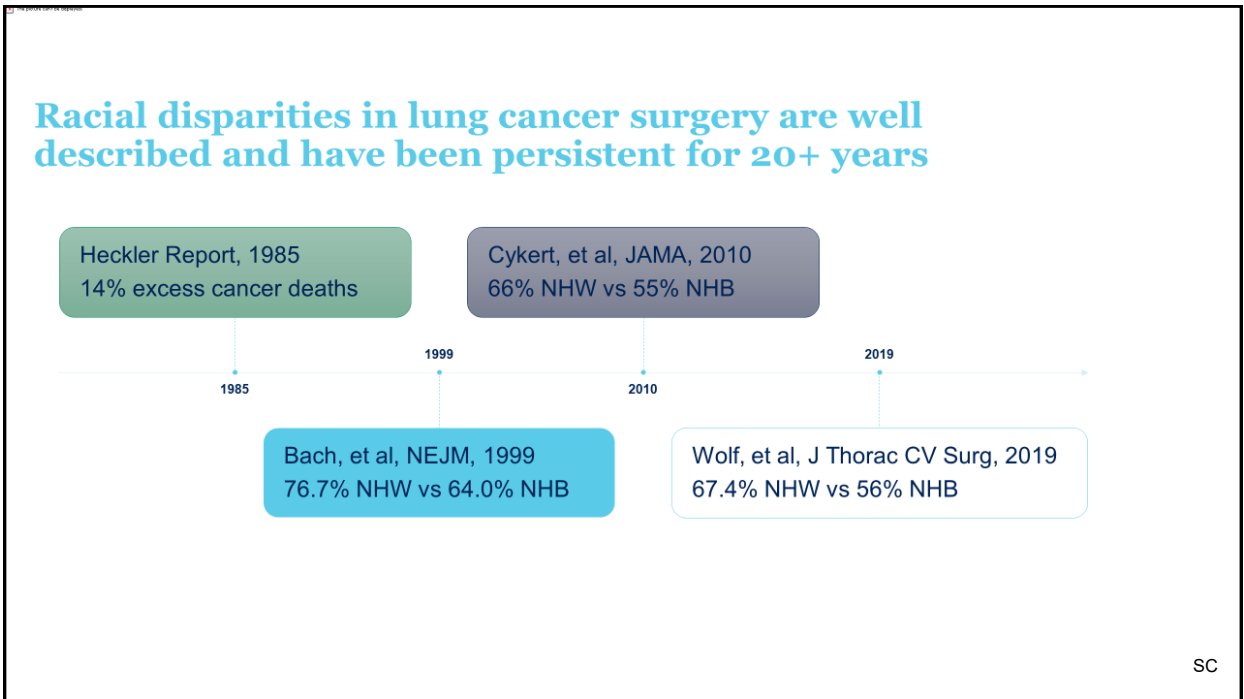
Studies have documented unequal receipt of *prompt, high quality treatment* for African American women compared to white women

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NC Mortality Rate per 100,000 Population 2018-2022

- Myeloma
 - Black 6.1
 - White 2.8
- Endometrial Cancer
 - Black 10.0
 - White 4.1
- Breast
 - Black 26.5
 - White 18.6

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What is different between traditional and participatory research?

Traditional Research

- Outside expert
- Expert defines what needs to be researched & how
- Report may or may not be used to make changes
- Capacity leaves with expert

Participatory Research

- Team of stakeholders
- Stakeholders collectively decide focus of research
- Early buy-in from stakeholders increases impact
- Recognition of expertise of all involved



CV

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Factors Associated With Worse Cancer Outcomes

- Root Factors in Society and Institutions Surrounding Communities
 - Historical & Structural Racism
 - Mortgage Loans Unequally disbursed in cities
 - Education System divestment
 - Food Desserts without remedies
- Social Determinants of Health (SDOH)
 - low income
 - lack of adequate health insurance
 - poor diet
 - lack of transportation
 - poor access to care / poor technology diffusion (for both diagnosis and treatment)

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Factors Associated With Worse Cancer Outcomes Once Diagnosed

- The role of chronic medical illnesses
- Nihilism and lack of referral
- The role of obesity
- Poor communication (at many levels)
- Implicit bias, co-morbidity, and perceptions of risk
- "Mistrust"

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Community-Based Participatory Research (CBPR)

- CBPR strives for equitable collaboration in all aspects of research development and implementation.
- CBPR aims to legitimize the expertise and contributions of community members.



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Anti-racism Principles Addressed in ACCURE

Transparency

•“As a society, we often believe that individuals and/or their communities are solely responsible for their conditions. Through **the analysis of institutional power**, we can identify and unpack” the systems that create the realities that many people experience daily.

Accountability

•To organize with integrity requires that we **be accountable to the communities struggling with racial oppression**.

•By operating with anti-racist values and networking with those who share those values and maintaining accountability in the community, **the gatekeeper becomes an agent of institutional transformation**.

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The GHDC – through ACCURE – Used a Racial Equity Analysis and Solution



The solution must be racial equity centered, system-level, and include:



→ transparency (in real time that can effect treatment)



→ accountability



→ enhanced communication

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System-Level Interventions – To address the community analysis

(1) A real time warning system derived from electronic health records (Real Time Transparency)

- **missed appointments**
- **anticipated milestones in care not achieved**

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System-Level Interventions

(2) Feedback to clinical teams regarding completion of cancer treatment according to race (Accountability) – THIS IS STANDARD QI, EXCEPT BROKEN DOWN BY RACE

- This approach uses standard quality improvement techniques of audit and feedback
- By presenting data according to race (quarterly), any disparities in treatments or outcomes must be acknowledged and addressed

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System-Level Interventions

(3) The ACCURE navigator (Enhanced Communication – TWO WAY COMMUNICATION)

- understanding structural racism and barriers that are more likely to affect people of color
- an index of local solutions
- role play in clinical scenarios
- the role of physician champions

NAVIGATION == ENHANCED COMMUNICATION!!!

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A system-based intervention to reduce Black-White disparities in the treatment of early stage lung cancer

Citation:

Cykert S, Eng E, Walker P, Manning MA, Robertson LB, Arya R, Jones NS, Heron DE. *Cancer Med.* 2019 Mar;8(3):1095-1102. doi: 10.1002/cam4.2005. Epub 2019 Feb 4.



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Five Participating Centers

- Lineberger Cancer Center, The University of North Carolina at Chapel Hill
- Leo Jenkins Cancer Center, East Carolina University and the Vidant Health System
- Palmetto Health Cancer Center affiliated with the University of South Carolina SOM
- UPMC Hillman Cancer Center, the University of Pittsburgh School of Medicine
- Cone Health Cancer Center, Greensboro, NC

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LUNG CANCER Results – Within Group Comparisons: Retrospective Control Only

- Rate of Lung Cancer Surgery or Radiation for Cure (unadjusted)
 - Black Patients 69.0
 - White Patients 77.8

$p < 0.001$
- Odds Ratio (95% CI) of **Black Patients Undergoing Lung Cancer Surgery or Radiation for Cure** controlling for age, Charlson Score, gender, income, clinical stage and study site:
 - OR 0.66 (0.51 – 0.85)

$p = 0.001$

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Results – Within Group Comparisons: Intervention Only

- Rate of Lung Cancer Surgery or Radiation for Cure (unadjusted)
 - Black Patients 96.5
 - White Patients 95.1

$p = 0.56$
- Odds Ratio (95% CI) of **Black Patients Undergoing Lung Cancer Surgery or Radiation for Cure** controlling for age, Charlson Score, gender, income, clinical stage and study site:
 - OR 2.05 (0.41 – 10.4)

$p = 0.39$

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Results – Breast cancer treatment completion added

| Cohort | White | African-American |
|--------------|-------|------------------|
| Baseline* | 87.3 | 79.8 |
| Intervention | 89.5 | 88.4 |
| 2014-2015* | 90.1 | 83.1 |

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Importance for the Future

- The world of precision medicine and biologic therapies

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Bruno, Debora S., et al. "Disparities in biomarker testing and clinical trial enrollment among patients with lung, breast, or colorectal cancers in the United States." *JCO Precision Oncology* 6 (2022): e2100427.

A total of 23,488 patients met eligibility criteria (de-identified data from Flatiron)

- Next-generation sequencing (NGS) testing rates differed significantly between White versus Black race before first-line therapy (36.6% v 29.7%, $P < .0001$) and at any given time (54.7% v 43.8%, $P < .0001$) in the nonsquamous NSCLC cohort
- Similar disparities in NGS testing rates at any time during the study were observed among patients with CRC (White 51.6%; Black 41.8%, $P < .0001$)
- Patients of Black race were less likely to be treated in a clinical trial in the overall NSCLC cohort when compared with White counterparts (3.9% v 2.1%, $P = .0002$). A statistically significant

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The Future: Precision Medicine-Biologic Treatment: How Are We Doing So Far?

Ahmed et al. Socioeconomic and Racial Disparity in Chimeric Antigen Receptor T Cell Therapy Access. *Transplantation and Cellular Therapy*. Volume 28, Issue 7, July 2022, Pages 358-364.

- 81 CART Therapy Centers; 4396 patients receiving CART Therapy; 575 for MM

- Ratio of CART-T for Black vs. non-CART-T 0.57 vs. White 1.14

- CART-T per 100,000 myeloma patients: White 63

Black 33

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WHERE ARE WE NOW?

- Navigation – good adoption, spreading (though Medicaid cuts could slow the momentum)
- Real time data systems - way behind
- Audit and feedback with meaningful measures – low to moderate adoption

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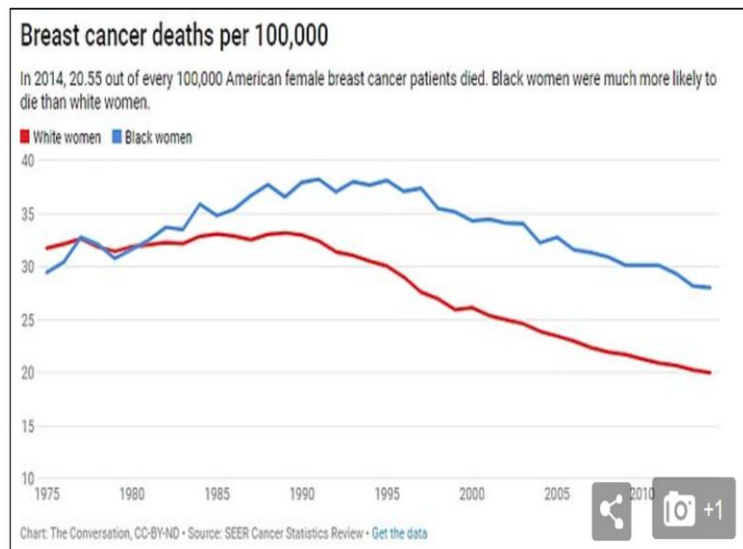
What Components Do We Need In a Precision Medicine Equity System?

- Community
- Clinicians
- Digital Communication Across Settings
- Research Recruitment
- Technology Diffusion and Referral (e.g. MM at UNC)
- Testing and Treatment Equity – Build like ACCURE

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Do Not Want
Precision
Medicine That
Looks Like
This!!!!



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Pathway to Leadership in Cancer Research

- Bachelor's Degree
 - Undergraduate Research Assistantship
 - Participate with student rates at NC PHA, NC SOPHE
- Graduate Degree (Masters and/or Doctorate)
 - Graduate Assistantship
 - Participate with student rates at NC PHA, NC SOPHE
 - Get K-Award to join another larger research study
- Medical or Advanced Allied Health Degree

**Our community needs you to get involved to help
with problem solving!**

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References

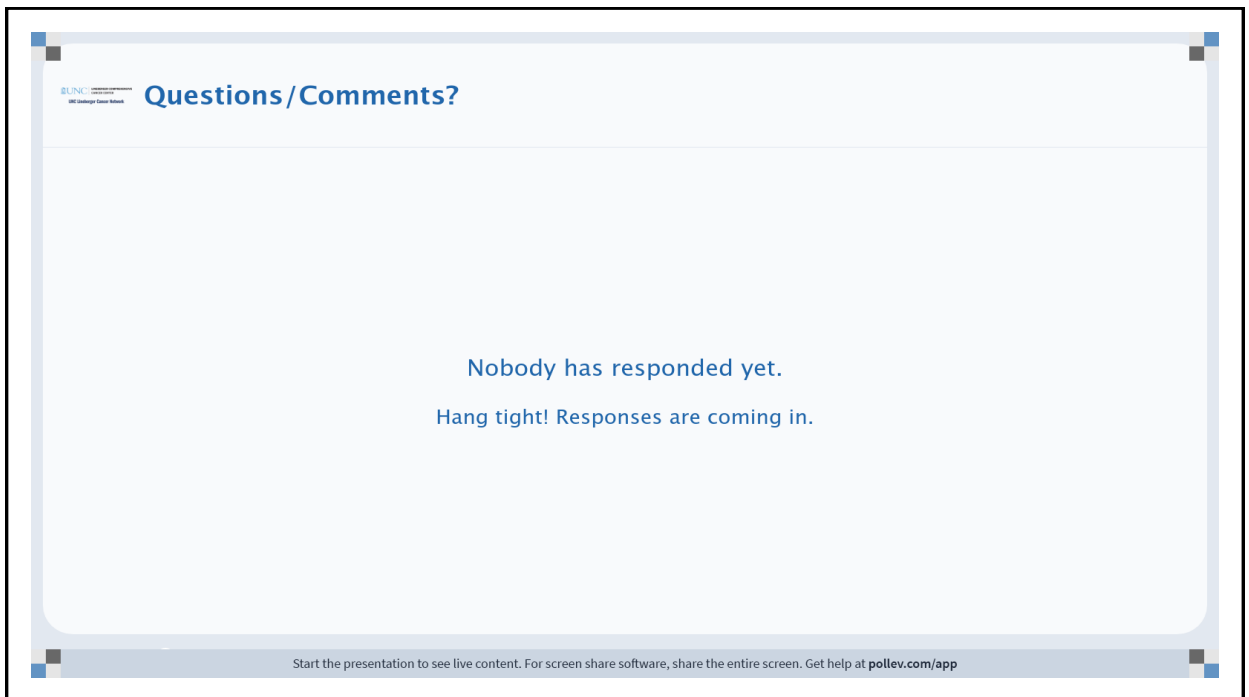
- Greensboro Health Disparities Collaborative, The Partnership Project & The Bridgespan Group. (2022, June). A Case Study in Anti-Racist Organizing: Closing Healthcare Disparities in Greensboro by Focusing on Structural Racism
- Ida Griesemer, Sarah A. Birken, Christine Rini, Suzanne Maman, Randall John, Kari Thatcher, Crystal Dixon, Christina Yongue, Stephanie Baker, Claire Bosire, Aditi Garikipati, Cleo A. Ryals, Alexandra F. Lightfoot. Mechanisms to enhance racial equity in health care: Developing a model to facilitate translation of the ACCURE intervention. *SSM - Qualitative Research in Health*, Volume 3, 2023, 100204, ISSN 2667-3215, <https://doi.org/10.1016/j.ssmqr.2022.100204>.
- Sisters Network. 2015. <http://sistersnetworkinc.org/>
- Yongue, C, Dixon, C, and Caiola, C. (2018, February 6). Seeking Health Equity: Examining Racism as a Social Determinant of Health -- Case Study 1 -- Health and Healthcare: Greensboro Health Disparities Collaborative [Video]. YouTube. https://youtu.be/uJS2Ucy_3nI and <https://youtu.be/Y4UwEeigtw>

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www.greensborohealth.org

Christina.yongue@conehealth.com

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The screenshot shows a web interface for a poll or Q&A session. At the top left, there is a logo for 'UNC' and the text 'Questions/Comments?'. The main area of the interface is a large, empty light blue box. In the center of this box, the text reads: 'Nobody has responded yet. Hang tight! Responses are coming in.' At the bottom of the interface, there is a small footer that says: 'Start the presentation to see live content. For screen share software, share the entire screen. Get help at pollev.com/app'.

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Exploring Cancer

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October 3

11:00 AM

Upcoming Live Webinar

Breast Cancer Health Disparities



Checo Rorie, PhD

Chair of the Department of Biology

Associate Professor of Genetics

Department of Biology

College of Science and Technology

North Carolina Agricultural and Technical State University

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