



# **Enhancing Cancer Care of Rural Dwellers Through Telehealth and Engagement**

**June 11, 2021  
12:00 PM - 1:00PM EST**

# Using WebEx and Webinar Logistics

The screenshot displays the WebEx interface. At the top, there is a 'Participants' panel with a search bar and a list of participants. Under 'Panelist: 1', there is a profile for 'Jennifer Lei...' (Host). Under 'Attendee:', there is a profile for 'Test Attendee' (Me). Below the participants list is a 'Chat' panel with a dropdown menu set to 'All Participants' and a text input field labeled 'Enter chat message here'. To the right of the chat panel are icons for muting and speaking.

- All lines will be in listen-only mode
- Submit comments at any time using the Chat Panel and select *All Panelists*
- You may need to activate the appropriate panel using the menu option found at the bottom of your screen

The screenshot shows the WebEx control bar. From left to right, it includes: 'Unmute' (with a mute icon), 'Start video' (with a video icon), 'Share' (with a share icon), a red 'X' button, and a 'Participants' button (with a person icon). To the right of the 'Participants' button are 'Chat' and a three-dot menu icon.

- If you have questions or feedback following the presentation, please contact [HCTcyberdiscussions@nih.gov](mailto:HCTcyberdiscussions@nih.gov)
- This webinar is being recorded

# Featured Presenter



**Debra L. Friedman, M.D., M.S.**

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Co-Leader, Cancer Health Outcomes and Control Research Program  
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Director, Pediatric Hematology and Oncology  
Vanderbilt University

**Title:** Enhancing Cancer Care of Rural Dwellers Through Telehealth and Engagement

# Background: Rural Health

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20% of Americans live in rural areas

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Elevated cancer incidence and/or mortality in rural compared to urban communities

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Rural counties have amongst the highest rates of poverty

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Challenges: Cancer treatment, supportive care services, transportation & finances

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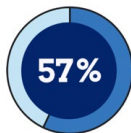
Providers have limited access to comprehensive care



# VICC Catchment Area

123

Counties



Rural  
Counties

7.9

Million

25%

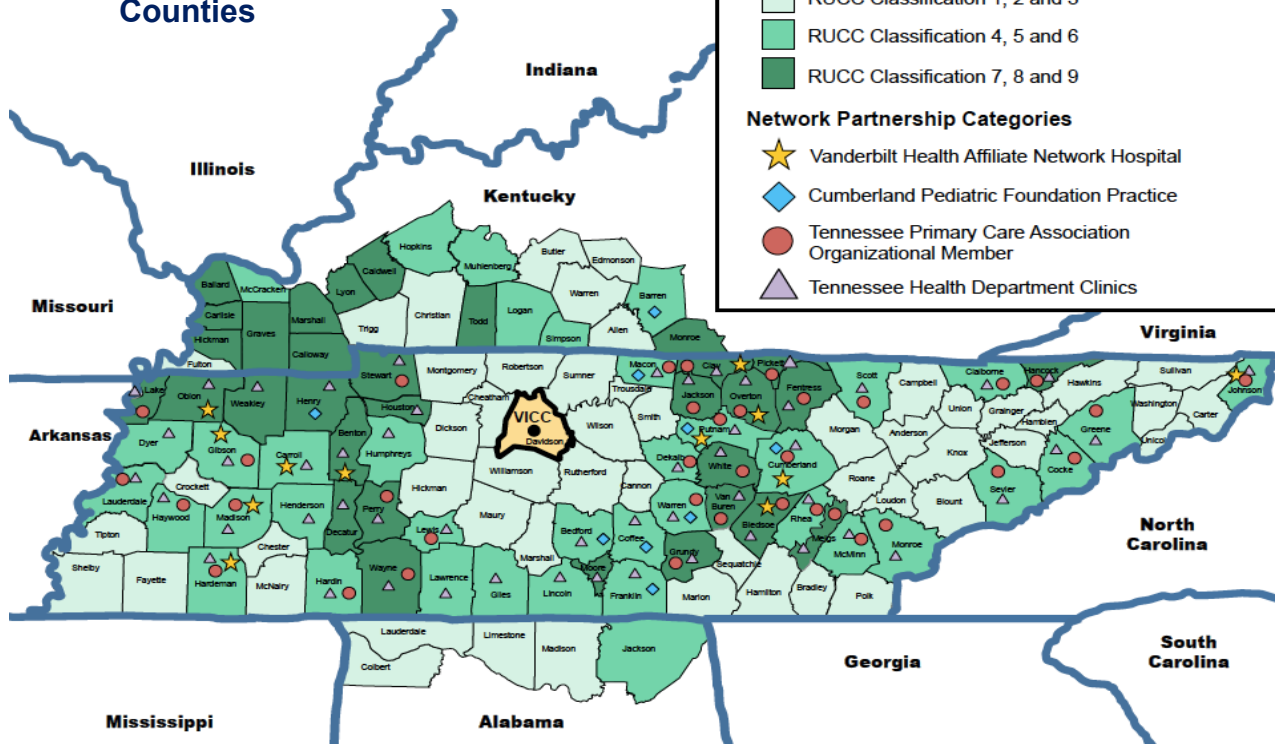
Population

## Rural-Urban Continuum Codes (RUCC) Classification

-  RUCC Classification 1, 2 and 3
-  RUCC Classification 4, 5 and 6
-  RUCC Classification 7, 8 and 9

## Network Partnership Categories

-  Vanderbilt Health Affiliate Network Hospital
-  Cumberland Pediatric Foundation Practice
-  Tennessee Primary Care Association Organizational Member
-  Tennessee Health Department Clinics





**EXPANDING OPPORTUNITIES AND BUILDING CAPACITY TO  
BRING CANCER PREVENTION AND CONTROL EFFORTS TO  
RURAL DWELLERS**

P30CA068485-23S4

## Expanding Opportunities and Building Capacity to Bring Cancer Prevention and Control Efforts to Rural Dwellers

- Multi-level cancer care needs assessment in 70 rural counties of the VICC catchment area
- Establish network of rural healthcare providers

Cancer Prevention

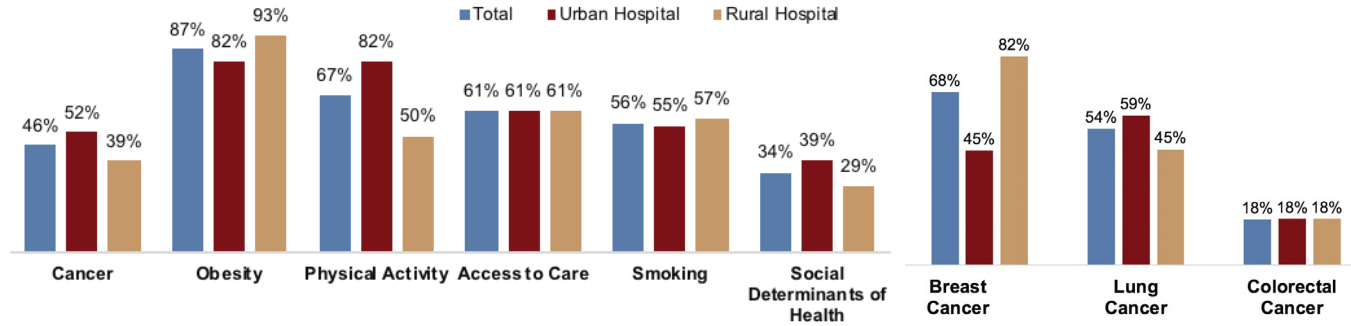
Cancer Screening

Cancer Treatment,  
Care Delivery, and  
Follow-up

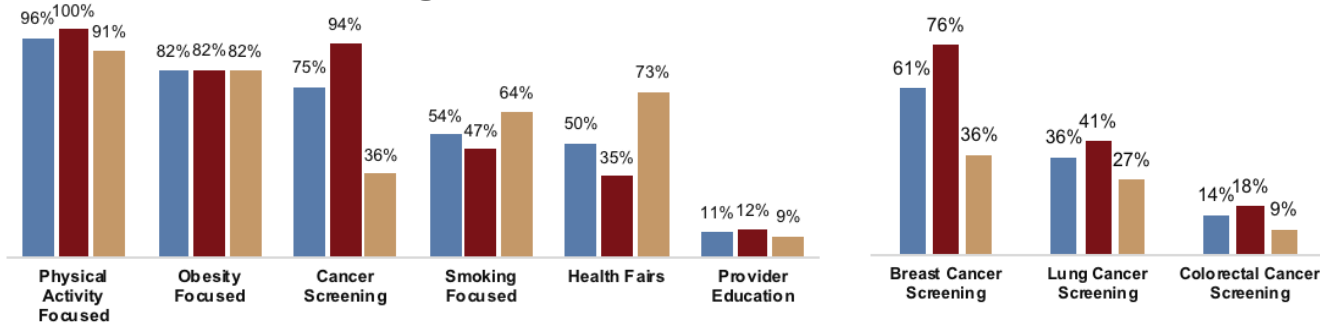
Quality of Life:  
Survivorship  
Through End of Life

# Community Health Needs Assessments: Comparison of Rural vs. Urban Hospitals

## Priorities Selected:



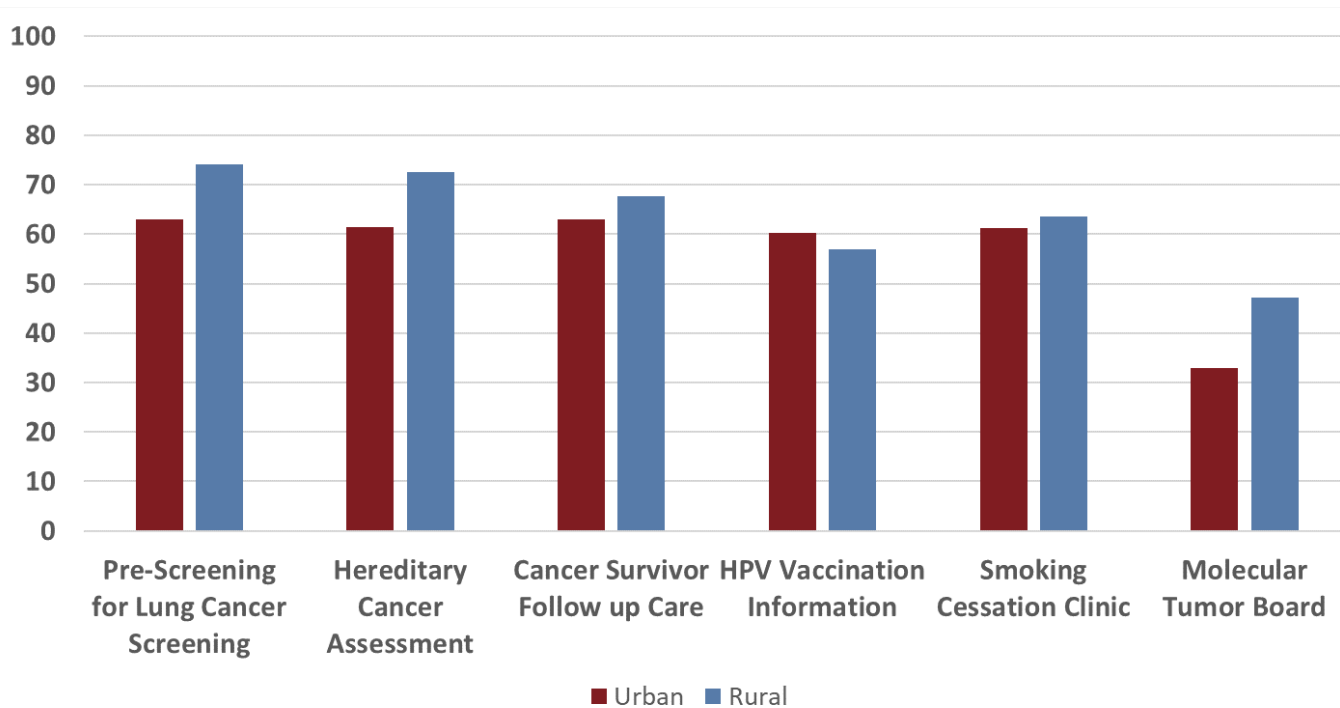
## Implementation Strategies:





# Telehealth Interest Survey:

## High/Very High Interest in Services by Rural Classification



# Advisory, Focus Groups & Key Informant Interviews

## Top Needs:

### 1. Access to educational information

- Nutrition & behavioral changes to decrease cancer risk (prevention) & enhance health after cancer care

### 2. Barriers to care

- Fear of detecting cancer, lack of education
- Distance to facilities, inadequate transportation
- Insurance concerns

### 3. Better support for patients and caregivers

- Support groups and patient navigators

## Recommended Strategies:

- Access Barriers: Telehealth services and local on-site patient navigators
- Improved coordination between oncology and primary care



## **EXPANDING RURAL HEALTH CANCER CONTROL CAPACITY: FOCUS ON CANCER SURVIVORSHIP**

P30CA068485-24S3

# Focus on Cancer Survivorship

*To improve long-term health outcomes for underserved rural cancer survivors by building capacity to deliver risk-adapted guideline-based care focused on the unique needs of cancer survivors*

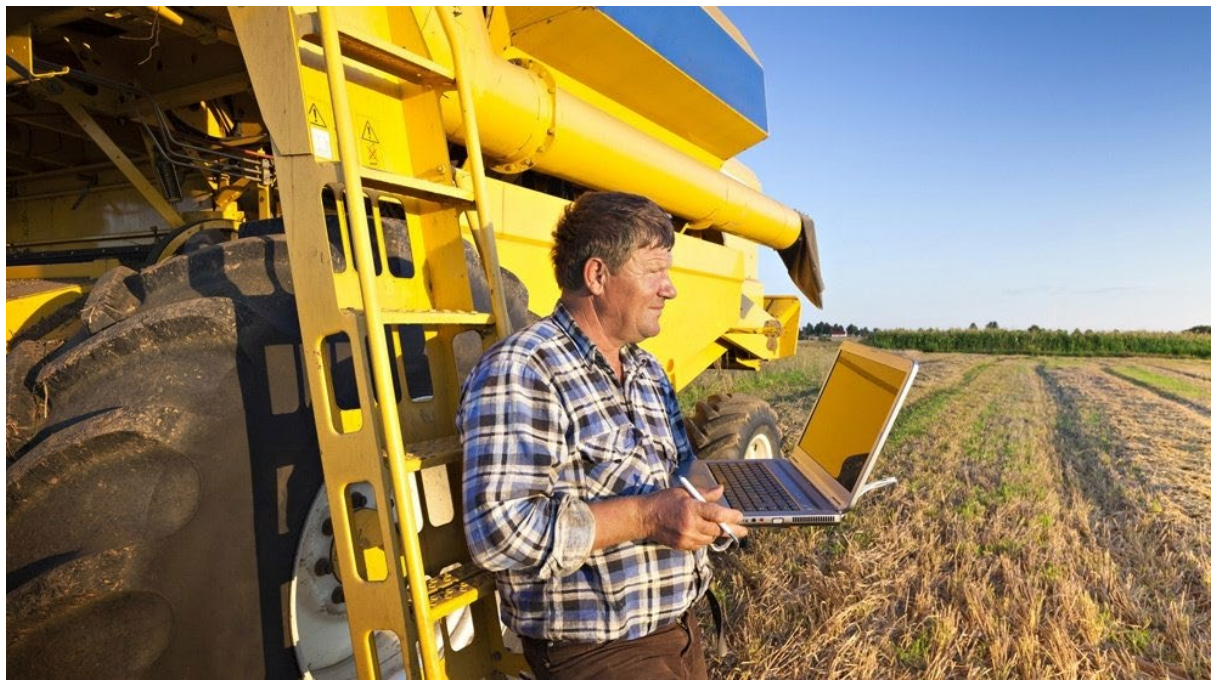
## Aim 1

Pilot test the implementation of guideline-based survivorship care planning in a rural setting using patient navigation plus telehealth

## Aim 2

Identify the facilitators & barriers to future larger scale implementation of guideline-based survivorship care planning in rural settings





## **ENHANCING CANCER CARE OF RURAL DWELLERS THROUGH TELEHEALTH AND ENGAGEMENT (ENCORE)**

R01CA240093

# Aims

## Aim 1

Test a multi-level telehealth-based intervention for rural hospitals

### Provider level:

Molecular tumor board



### Patient level:

Supportive care intervention



*Cancer: Thriving and Surviving*

## Aim 2

Study facilitators & barriers to large-scale dissemination & implementation



# Study Sites

- Baptist Memorial Hospital – North Mississippi – Oxford, MS
- Baptist Memorial Hospital – Golden Triangle – Columbia, MS
- Baptist Memorial Hospital – Bartlett, TN
- Baptist Cancer Center Memphis, TN
- Baptist Cancer Center Memphis, TN – Breast Multi-Disciplinary
- Baptist Cancer Center – Grenada, MS
- Baptist Cancer Center – New Albany, MS
- Ballad Health Cancer Care – Kingsport, TN
- Ballad Health Cancer Care – Bristol, VA



# Outcomes

## Provider

Use of and adherence to  
Molecular Tumor Board  
Recommendations



## Patient

### Primary:

- Adherence to oncology treatment plan

### Secondary:

- Psychosocial and functional wellbeing
- Patient-provider communication
- Progression-free survival



## Aim 2

# Implementation Questions

Potential barriers/  
facilitators to “real-world”  
implementation in  
rural areas?

Potential modifications to maximize  
implementation?

Problems associated with intervention delivery and translation to real-world  
implementation in other rural settings?

Promising potential implementation  
strategies?

Evaluation of process evaluation  
data to explain  
or provide context  
for outcome findings?

# Patient Intervention Arms

Weekly meetings - approx. 2 hours long via zoom - Facilitators will be at VICC streaming the weekly meetings	<b>Cancer Thrive &amp; Survive:</b> (virtual group program)	<i>Week 1</i>	<i>Week 2</i>	<i>Week 3</i>	<i>Week 4</i>	<i>Week 5</i>	<i>Week 6</i>	<b>POST-SUPPORT INTERVENTION</b>
	Example Content:	Fatigue Management	Problem Solving	Dealing with Emotions	Physical Activity	Pain Management	Changes to Your Body	Complete all post-intervention surveys
	Location:	Patient will participate via reliable device with internet from home. If reliable device is not available, satellite site will be needed by patient.						
<b>Intervention Arms</b>								
Self navigated intervention patient will receive login information for website containing all educational material	<b>Control Arm:</b> (online education program)	<i>Week 1</i>	<i>Week 2</i>	<i>Week 3</i>	<i>Week 4</i>	<i>Week 5</i>	<i>Week 6</i>	<b>POST-SUPPORT INTERVENTION</b>
	Example Content:	Overview of Self-Management	Cancer & Changes to Your Body	Making Treatment Decisions	Addressing Cancer Related Challenges	Physical Activity & Exercise	Pain Management	Complete all post-intervention surveys
	Location:	Patient will be able to access educational material comprised of 10 main categories from any reliable source with internet/wifi.						
	*Self-navigated arm will be monitored based on web tracking to determine which educational material is most referenced and used.							



## **FOLLOW-UP INTERACTIVE LONG-TERM EXPERT RANKING (FILTER)**

R01CA240093-02S1

# Aims

## Aim 1

Create FILTER using expert opinion to identify combinations of disease, treatment, demographic and non-oncologic health factors that contribute to the risk-stratified classification of low, medium and high needs for survivorship care.

## Aim 2

Develop a REDCap tool, which will translate the algorithm into a clinical practice calculator

# Approach

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Develop a risk-stratified survivorship model

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Ranking to judge the relative contribution to survivorship follow-up complexity

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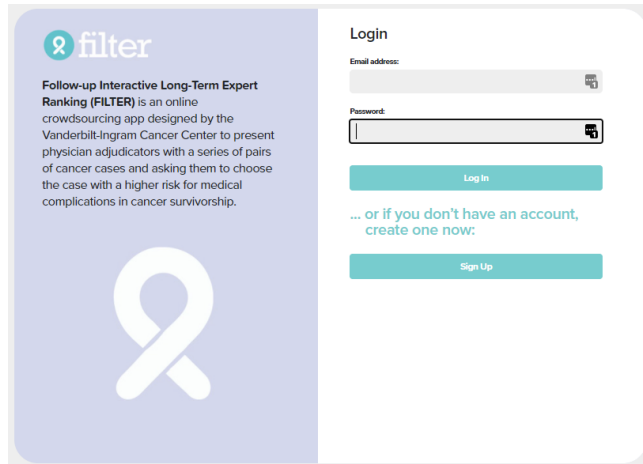
With iterations, a survivorship follow-up complexity score will be determined with elements will be partitioned into high, medium, and low risk categories

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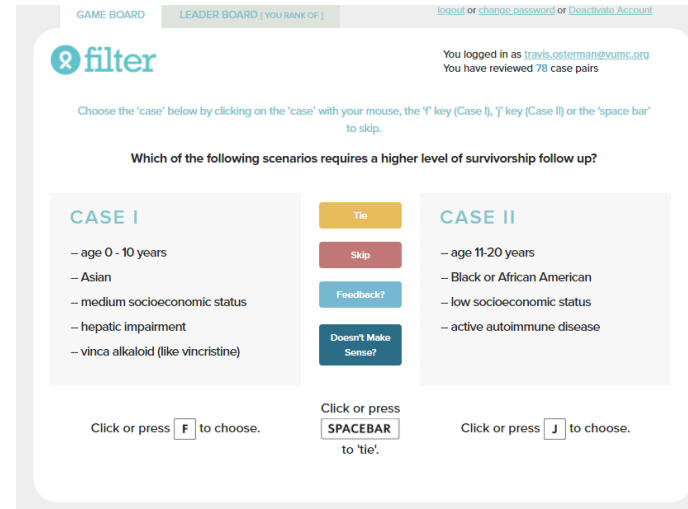
Using REDCap, an online calculator will be created to allow providers to enter the data and receive a recommendation of complexity survivorship follow up needs.

# The Products

Online expert crowdsourcing platform to assign risk scores for survivorship care using synthetic cases, generated from treatment, sociodemographic, and comorbidity risk factors



The screenshot shows the login page for the FILTER platform. On the left, there is a purple sidebar with the FILTER logo and a description: "Follow-up Interactive Long-Term Expert Ranking (FILTER) is an online crowdsourcing app designed by the Vanderbilt-Ingram Cancer Center to present physician adjudicators with a series of pairs of cancer cases and asking them to choose the case with a higher risk for medical complications in cancer survivorship." Below the text is a white ribbon icon. On the right, there is a white login form with fields for "Email address" and "Password", both with "Show" and "Hide" icons. Below the fields are "Log In" and "Sign Up" buttons. A link says "... or if you don't have an account, create one now:".



The screenshot shows the case selection interface. At the top, there are tabs for "GAME BOARD" and "LEADER BOARD [ YOU RANK OF ]", and a link for "logout or change password or Deactivate Account". The FILTER logo is on the left, and the user is logged in as "travis.osterman@vumc.org" having reviewed 78 case pairs. The main instruction is: "Choose the 'case' below by clicking on the 'case' with your mouse, the 'I' key (Case I), 'J' key (Case II) or the 'space bar' to skip." The question is: "Which of the following scenarios requires a higher level of survivorship follow up?".

CASE I	Buttons	CASE II
<ul style="list-style-type: none"><li>- age 0 - 10 years</li><li>- Asian</li><li>- medium socioeconomic status</li><li>- hepatic impairment</li><li>- vinca alkaloid (like vincristine)</li></ul>	<ul style="list-style-type: none"><li>Tie</li><li>Skip</li><li>Feedback?</li><li>Doesn't Make Sense?</li></ul>	<ul style="list-style-type: none"><li>- age 11-20 years</li><li>- Black or African American</li><li>- low socioeconomic status</li><li>- active autoimmune disease</li></ul>

Click or press **F** to choose.      Click or press **SPACEBAR** to 'tie'.      Click or press **J** to choose.

# The Products

A provider-facing REDCap risk calculator which will collect factors based on risk scores in the platform and return the risk level based on scores

INSTRUCTIONS			
To calculate relative risk in survivorship, to guide survivorship care, please select all risk factors applicable to the patient.			
The risk score will be returned below, along with resources for the associated level of care.			
SURGICAL RESECTIONS			
Please check all that apply			
<input type="checkbox"/> bladder resection	<input type="checkbox"/> brain resection	<input checked="" type="checkbox"/> breast resection	<input type="checkbox"/> colon resection
<input type="checkbox"/> esophagus resection	<input type="checkbox"/> extremity resection	<input type="checkbox"/> kidney resection	<input type="checkbox"/> larynx resection
<input type="checkbox"/> liver resection	<input type="checkbox"/> lung resection	<input checked="" type="checkbox"/> lymph node resection	<input type="checkbox"/> ovary resection
<input type="checkbox"/> pancreas resection	<input type="checkbox"/> prostate resection	<input type="checkbox"/> small intestine resection	<input type="checkbox"/> testicle resection
<input type="checkbox"/> uterus resection	<b>Surgical resection sub-score:</b> <input type="text" value="2"/>		
<a href="#">View equation</a>			
SURGICAL REMOVALS			
Please check all that apply			
<input type="checkbox"/> bladder removal	<input type="checkbox"/> breast removal	<input type="checkbox"/> colon removal	<input type="checkbox"/> esophagus removal
<input type="checkbox"/> extremity removal	<input type="checkbox"/> kidney removal	<input type="checkbox"/> larynx removal	<input type="checkbox"/> liver removal
<input type="checkbox"/> lung removal	<input type="checkbox"/> lymph node removal	<input checked="" type="checkbox"/> ovary removal	<input type="checkbox"/> pancreas removal
<input type="checkbox"/> prostate removal	<input type="checkbox"/> small intestine removal	<input type="checkbox"/> stomach removal	<input type="checkbox"/> testicle removal
<input type="checkbox"/> thyroid removal	<input type="checkbox"/> uterus removal	<b>Surgical removal sub-score:</b> <input type="text" value="1"/>	
<a href="#">View equation</a>			
RADIATION THERAPY			
Please check all that apply			



## **TOOL FOR INHERITED CANCER PREDISPOSITION COUNSELING AND TESTING (TIPS) STUDY**

3R01CA240093-02S1



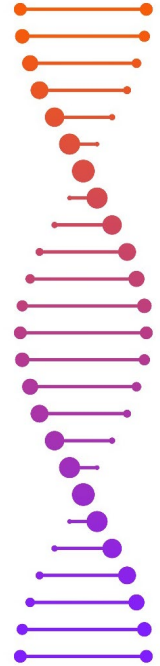
# Aims

## Aim 1

Develop and pilot test point of care genetic testing and germline genetic testing among rural cancer patients.

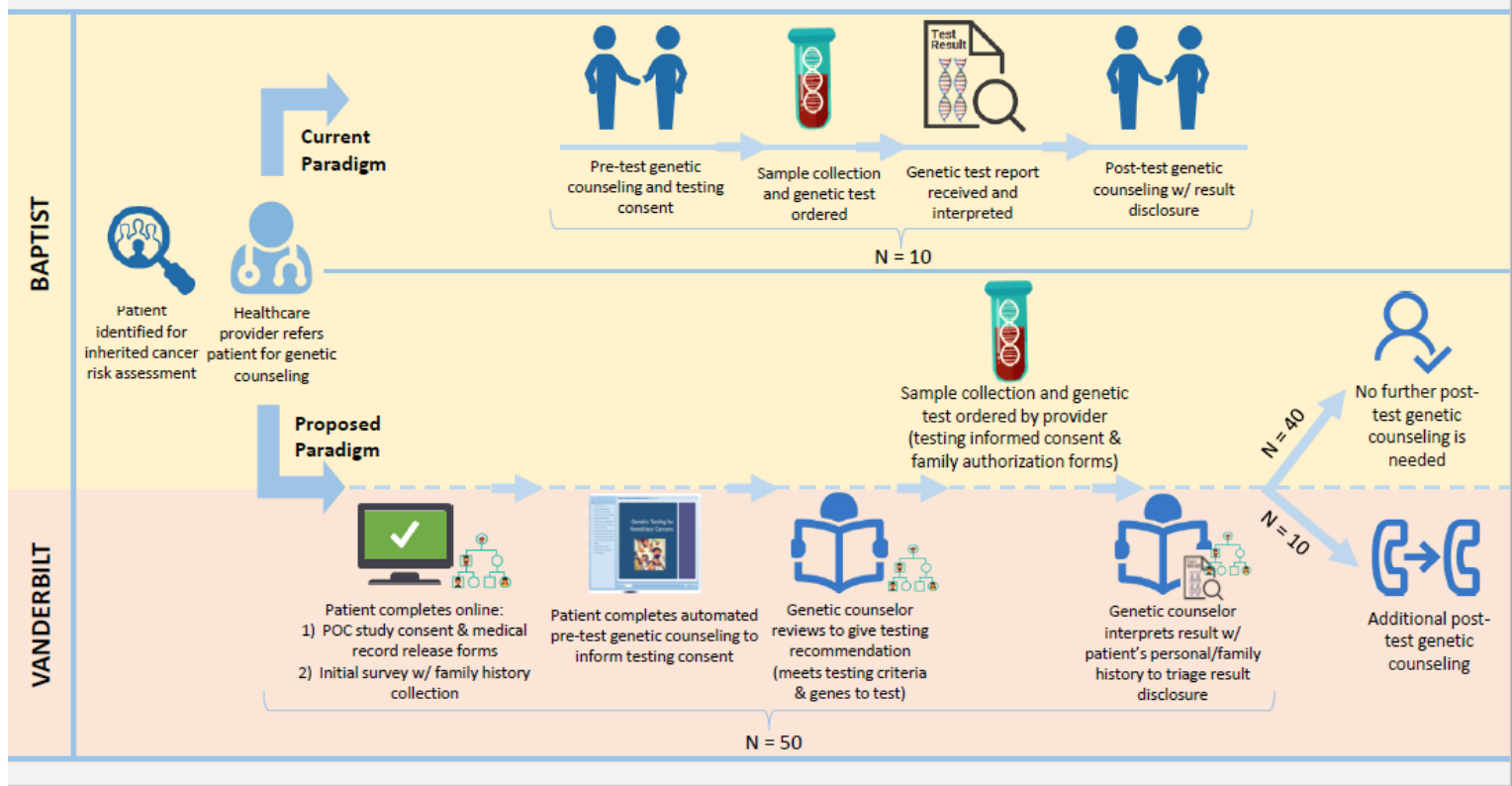
## Aim 2

Assess barriers and facilitators to and impact of the process on patients and providers.



# Point-of-Care Testing Schema

## Current Paradigm vs. Proposed Future Point-of-Care Genetic Counseling & Testing



# Value Added

## Prior to testing:

### Provide

- Inherited cancer education to patient

### Generate

- Family history

### Determine

- Whether patient meets clinical testing criteria

### Guide

- Specific tests that may be indicated

## After testing:

- Interpret results in context of family history
- Identify discrepant or complicated results
- Offer additional thoughts to interpret/clarify results for individual/family members

# Bringing Cancer Care To Rural Communities: Conclusions

Differences exist in cancer screening, early detection, incidence and mortality among rural counties

Rural communities are eager for increased services for their population

Partnerships must be bidirectional and take time to cultivate

Telehealth can be used to bring both research and clinical care to rural communities

# Acknowledgments

## Our Team

### INVESTIGATORS

Debra Friedman, MD, MS  
Pamela Hull, PhD  
Anne Washburn, MPH  
Philip Lammers, MD  
Tatsuki Koyama, PhD  
Alex Cheng, PhD

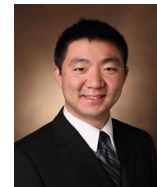
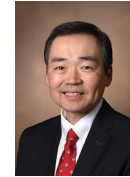
Tuya Pal, MD  
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Rebecca Selove, PhD  
Travis Osterman, DO, MS  
Lynne Berry, PhD

### RESEARCH and COMMUNITY OUTREACH TEAM

Kelsey Fetters, MPH  
Claudia Barajas, BA  
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Denise Martinez, BA  
Li Wen, PhD

## Our Funding

P30CA068485-23S4  
P30CA068485-24S3  
R01CA240093  
R01CA240093-02S1



# Questions?

# NCI Funding Opportunity

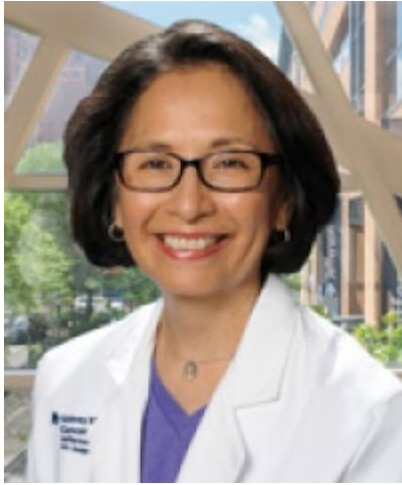
Centers on Telehealth Research for Cancer-Related Care (P50 Clinical Trial Required)

RFA-CA-21-029

Please direct all inquiries to:

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National Cancer Institute (NCI)  
Telephone: (240) 276-7588  
Email: [roxanne.jensen@nih.gov](mailto:roxanne.jensen@nih.gov)

# Next Session – October 12, 2021



Dr. Ana Maria Lopez  
Sidney Kimmel Cancer Center at Jefferson

*Optimizing Telehealth Across the Cancer Care Continuum  
During the COVID 19 National Emergency*

**Register:** <http://healthcaredelivery.cancer.gov/cyberseminars/>



# Thank You!



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