



## **Cancer Prevention and Control Projects with Tribal Partners in Oklahoma**

*Mark Doescher, MD, MSPH*

*Associate Director for Community Outreach and Engagement*

*Professor, Family and Preventive Medicine*

**OAFP Scientific Assembly, June 14 , 2019**

1

### **Stephenson Cancer Center Community Outreach and Engagement Core**

**Goal:** To promote and facilitate community engagement through partnerships, advocacy, prevention and screening programs, and community-based research in order to reduce the burden of cancer in Oklahoma.

#### **Specific Aims:**

1. To conduct research on cancer-relevant issues in the catchment area
2. To engage populations in clinical studies
3. To develop, implement and evaluate health policy
4. To extend reach and impact of SCC research locally, nationally and internationally to have the widest impact

2

### Stephenson Cancer Center Community Outreach and Engagement Core

1. Facilitate collaborations with tribal and rural partners
2. Increase SCC research program community engagement (tobacco, colorectal cancer, lung cancer, genomics / biospecimens)
3. Work with SCC mHealth Shared Resource on innovative community outreach
4. Focus on community health education in the catchment area to increase cancer clinical trial accrual and NCI/NIH-funded projects
5. Continue to develop and implement cancer prevention, screening and treatment programs in collaboration with community partners

3

### High Incidence Cancers in the Catchment Area

**Age-Adjusted Cancer Incidence Rates per 100,000  
by Race, Ethnicity and Area, 2011-2013**

Cancer	US (All)	OK (White)	OK (Rural)	OK (AI)
<b>All</b>	448.9	466.7	474.8	611.0
<b>Lung</b>	61.0	68.3	73.2	100.5
<b>Colorectal</b>	39.4	41.3	44.9	64.6
<b>Breast*</b>	123.4	111.6	109.9	154.7
<b>Cervical</b>	7.4	8.4	9.0	11.9

\* excluding in situ

Sources: US – CDC Wonder; OK – Oklahoma Central  
Cancer Registry, OK2SHARE

4

## High Mortality Cancers in the Catchment Area

**Age-Adjusted Cancer Mortality Rates per 100,000 by Race, Ethnicity and Area, 2011-2013**

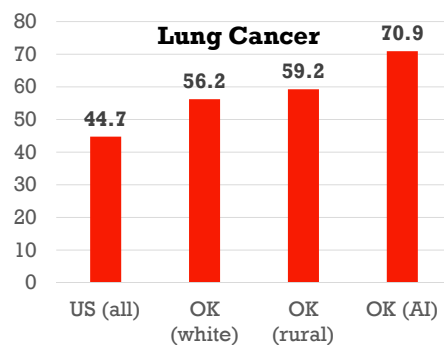
Cancer	US (All)	OK (White)	OK (Rural)	OK (AI)
All	165.9	183.3	191.6	251.1
Lung	44.7	56.2	59.2	70.9
Colorectal	14.7	16.2	18.3	28.3
Breast*	21.2	22.2	22.8	28.8
Cervical	2.3	2.7	3.3	4.9

\* excluding in situ

Sources: US – CDC Wonder; OK – Oklahoma Central Cancer Registry, OK2SHARE

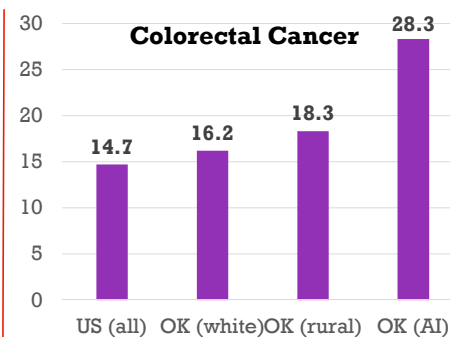
5

## Age-Adjusted Cancer Mortality Rates (per 100,000), 2011-2013



### Lung Cancer Disparities:

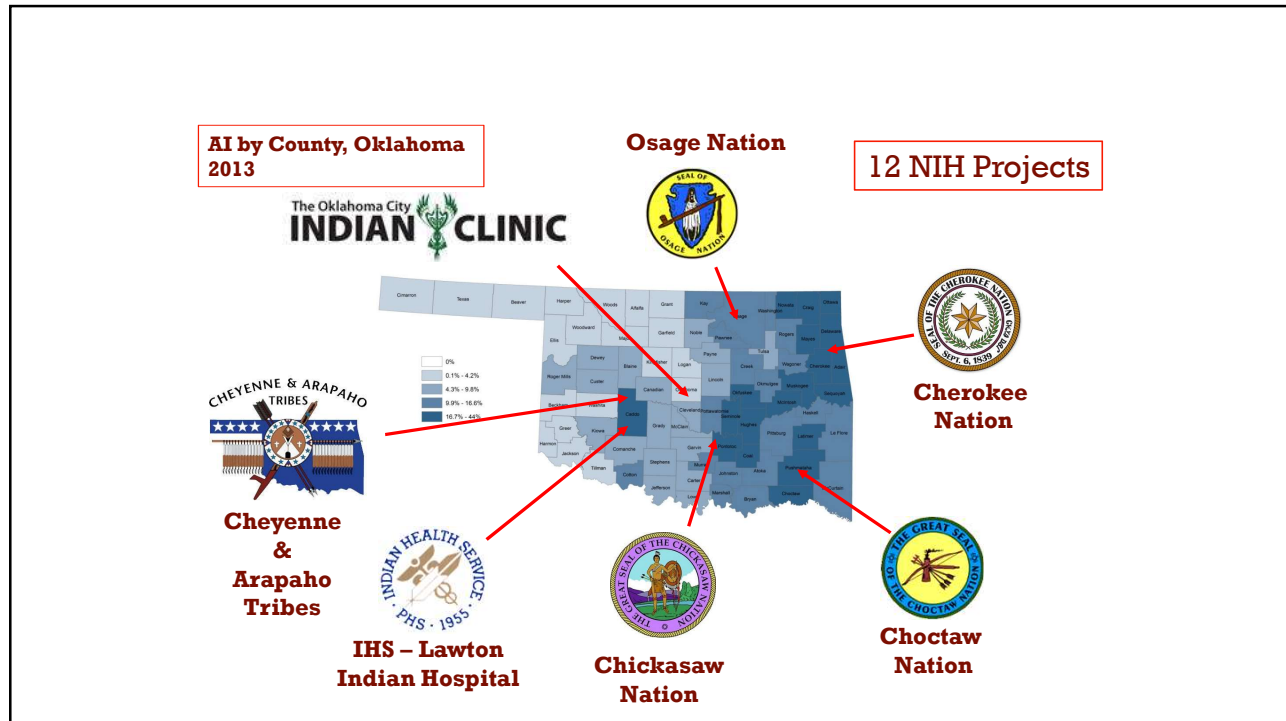
- OK rural = **32.4%** higher than US (all)
- OK AI = **58.6%** higher than US (all)



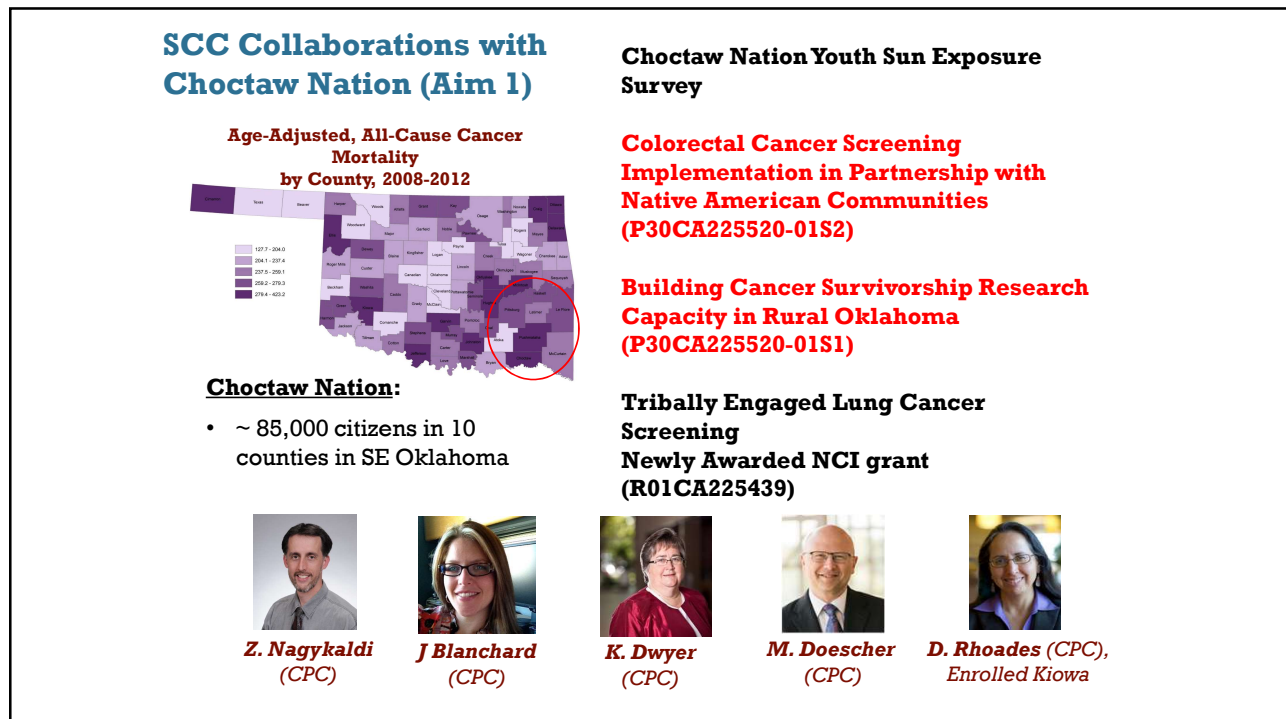
### Colorectal Cancer Disparities:

- OK rural = **24.4%** higher than US (all)
- OK AI = **92.5%** higher than US (all)


6



7




8





## CRC Screening Implementation Project across Southwestern AI Tribes

**Arizona: Peter Lance**  
**New Mexico: Shiraz Mishra**  
**Oklahoma: Mark Doescher**




9






State of CRC

- Cancer screening programs are partly responsible for declining CRC incidence and mortality in the United States.
- Unfortunately, American Indians (AIs) have experienced either no change or an increase in CRC incidence and mortality, disproportionate diagnosis of late stage disease, and poorer survival.




10




## CRC Screening

- Nearly two-thirds (65%) of U.S. adults are current with per U.S. Preventive Services Task Force (USPSTF) guidelines for CRC screening.
- However, based on the Indian Health Service (IHS) Government Performance and Results Act (GPRA FY 2016) data, screening rates ranged from a low of 28.1% in the Phoenix Area to a high of 50.5% in the Oklahoma Area; 35.0% in Tucson and 41.9% in the Albuquerque Area.




11




## Why is screening so low?

- Most Tribes possess few health care resources to address CRC disparities where health care is significantly underfunded, services are often fragmented, and acute care needs take precedence over preventive health services.
- IHS facilities have insufficient staff and high provider turnover, which results in abbreviated patient-provider encounters and insufficient or disjointed communications.




12




## Why is screening so low? (contd.)

- Documented barriers to CRC screening among AIs include:
  - cost/insurance,
  - fear,
  - stigma,
  - transportation,
  - embarrassment,
  - privacy issues,
  - beliefs, and
  - lack of symptoms.
- These inequities underscore the need to implement effective CRC screening interventions targeting AIs, while engaging them with culturally salient messaging.




13

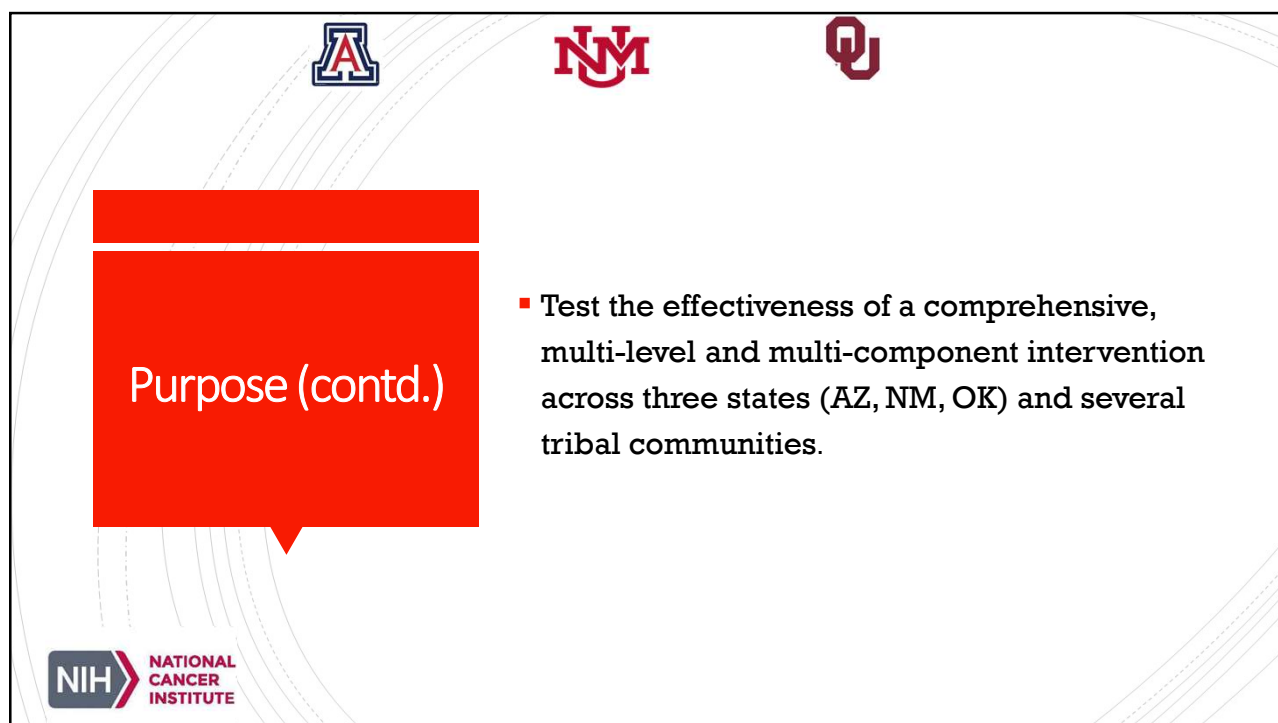


## Purpose

- To increase CRC screening uptake in AI aged 50 to 75 years who are at average risk for CRC



14



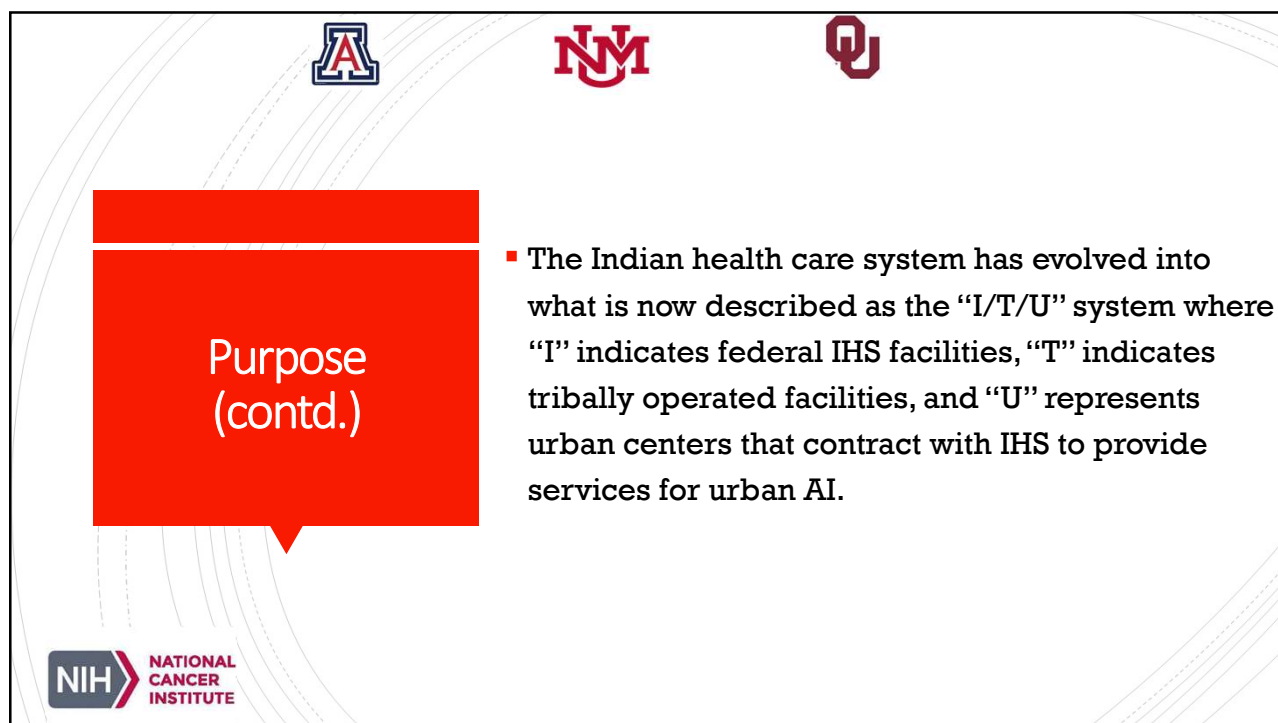
Slide 15 features a white background with a faint, stylized map of the United States. At the top, there are three logos: the University of Arizona (UA) logo, the New Mexico (NM) logo, and the University of Oklahoma (OU) logo. A large red speech bubble on the left contains the text "Purpose (contd.)". To the right of the speech bubble, a red square bullet point is followed by the text: "Test the effectiveness of a comprehensive, multi-level and multi-component intervention across three states (AZ, NM, OK) and several tribal communities." In the bottom left corner, the NIH National Cancer Institute logo is displayed.

Purpose (contd.)

- Test the effectiveness of a comprehensive, multi-level and multi-component intervention across three states (AZ, NM, OK) and several tribal communities.

NIH NATIONAL CANCER INSTITUTE

15






Slide 16 features a white background with a faint, stylized map of the United States. At the top, there are three logos: the University of Arizona (UA) logo, the New Mexico (NM) logo, and the University of Oklahoma (OU) logo. A large red speech bubble on the left contains the text "Purpose (contd.)". To the right of the speech bubble, a red square bullet point is followed by the text: "The Indian health care system has evolved into what is now described as the 'I/T/U' system where 'I' indicates federal IHS facilities, 'T' indicates tribally operated facilities, and 'U' represents urban centers that contract with IHS to provide services for urban AI." In the bottom left corner, the NIH National Cancer Institute logo is displayed.

Purpose (contd.)

- The Indian health care system has evolved into what is now described as the "I/T/U" system where "I" indicates federal IHS facilities, "T" indicates tribally operated facilities, and "U" represents urban centers that contract with IHS to provide services for urban AI.


NIH NATIONAL CANCER INSTITUTE

16








## Purpose (contd.)

- Test D&I of multilevel (i.e., individual, social, and systems/organizational) and multi-component (i.e., small media, navigation services) evidence-based strategies for enhancing CRC screening.




17






## D&I Intervention Strategy

- D&I strategies drawn from the Guide to Community Preventive Services (“The Community Guide”) and are designed:
- (1) to increase provider delivery of screening services through improved provider recommendations, patient reminders, provider reminder/recall systems and shared-decision making tools, and novel interventions, e.g., reducing administrative barriers, assisting in appointment scheduling, setting up alternative screening sites, and modifying screening clinic hours; and
- (2) to increase community demand using culturally appropriate educational material] and navigators to provide one-on-one education and client reminders.




18




## Implementation Frameworks

- Guided by two robust implementation frameworks, Reach, Efficacy, Adoption, Implementation, and Maintenance (RE-AIM) (evaluation); PRECEDE-PROCEED Models (PPM) (evaluation and determinant); & Social Determinants of Health (determinant)




19




## Sample size estimation

- The rough estimate of AI/ANs age 50-75 (and not up-to-date with CRC screening) in the 3-state area of Oklahoma, New Mexico and Arizona is 114,729 (according to 2015 IHS and GPRA data).
- May well be an underestimate as it only includes active users of IHS and Tribal health facilities (defined as a patient with at least 1 visit in the past 3 years, and the visit must be either ambulatory or a hospitalization; the rest of the service categories are excluded).
- Adjusting our metric to include eligible but not active users, the N would likely increase to about 163,898.



20

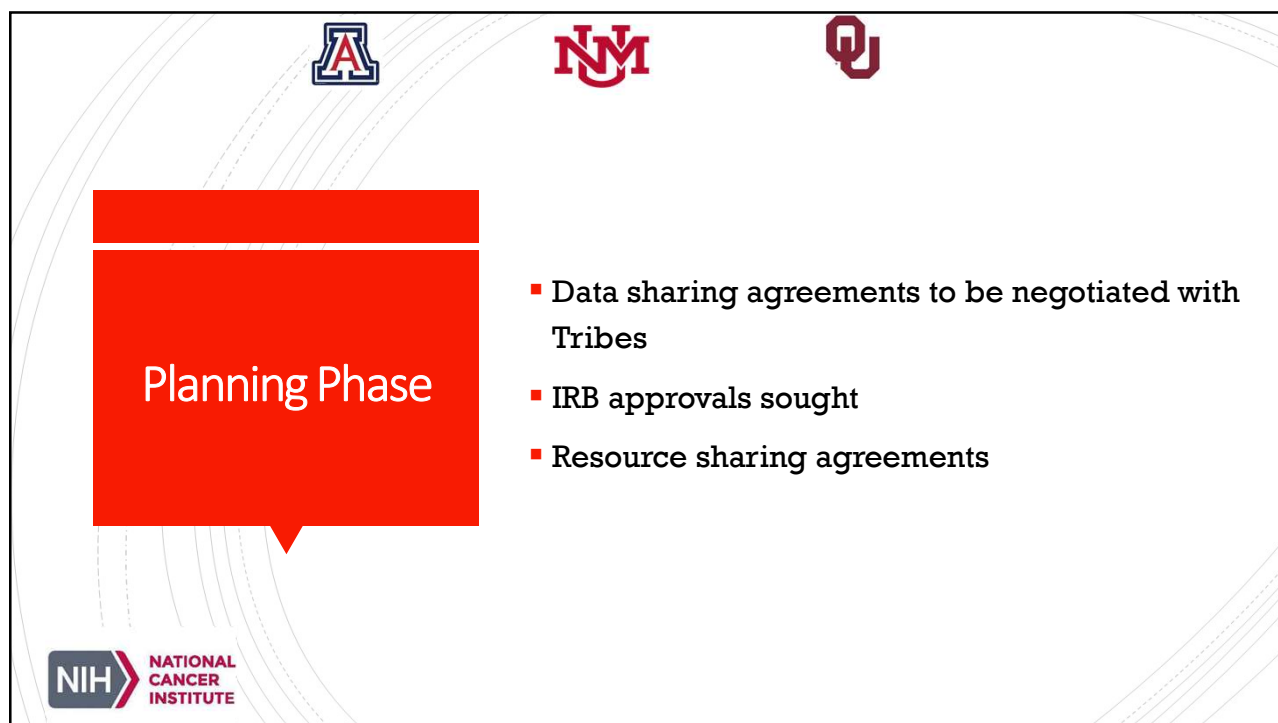


**Budget**

- Community-engaged research requires high resources
- Each state will need implementation resources
- Note, intervention may need to adapt to different tribal facilities' process and model of care

NIH NATIONAL CANCER INSTITUTE

21






**Planning Phase**

- Data sharing agreements to be negotiated with Tribes
- IRB approvals sought
- Resource sharing agreements


NIH NATIONAL CANCER INSTITUTE

22








## Challenges

- AI IRBs, specifically Navajo (e.g., compulsory appearance in person (I.e., no phone participation); Window Rock for IRB meeting roughly 800-mile round trip from Tucson
- Ongoing circumspection about genetic material & data sharing
- Surmountable but will take time




23








## Why us?

- Leverage our experiences rather than start new
- We have successfully implemented projects with AI Tribes
- Tested CRC screening interventions in community with strong results (Odds ratios 2.2 to 4)
- Strong evaluation and economic analysis
- Strong background in capacity building




24

## Impact

- Develop long reach to decrease CRC morbidity and mortality
- Potential for a sustainable program in Indian country
- Inform models across the country with indigenous communities
- In other words, a huge reward if we can overcome obstacles!



25

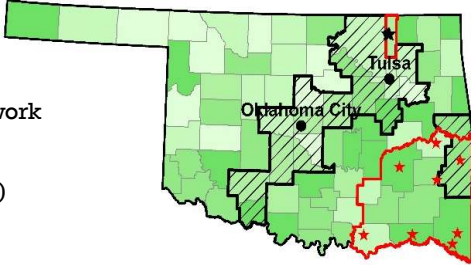
### Building Cancer Survivorship Research Capacity in Rural Oklahoma P30CA225520-01S1 (M. Doescher)

**Partners:**

- Stephenson Cancer Center
- Oklahoma Physicians Resource / Research Network
- Choctaw Nation Health Services Authority
- OK Cancer Specialists and Research Inst. (Tulsa)

**Problem:** Increasing demand for high-quality cancer survivorship care in rural locations

**Approach:** Deploy rural nurse cancer care coordinators to improve communication and coordination of care between oncologists and PCPs in rural settings



26

### OK Primary Care-Oncology Survey and Initial Qualitative Research with Choctaw Nation

- PCP and oncologist expectations regarding how to help coordinate survivorship care are **not aligned**
- PCPs envision a much more **collaborative model of care**, including better information flow and shared responsibilities with oncologists
- Oncologists have **ambivalent expectations** about the PCP role in survivorship care
- Oncologists are more confident than PCPs that **care coordination** and communication are occurring and roles are defined

Follow-up qualitative work with Choctaw Nation involving patients, oncologists and PCPs shows that PCPs want better information from oncologists regarding their mutual patients

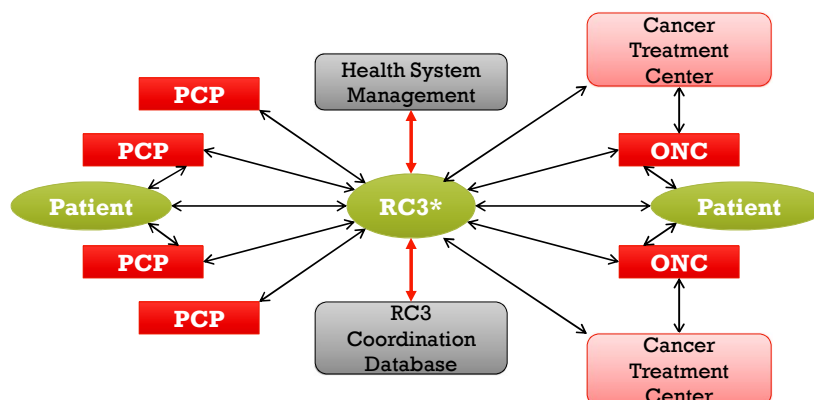
27

### Ways Forward...?

- We need a detailed **understanding** of where and how information flow breaks down in cancer survivorship care
- Oncologists may benefit from opportunities to increase their understanding of **capabilities of PCPs** for collaborative management of cancer survivors
- PCPs may benefit from opportunities to increase their fund of knowledge re. a variety of cancer types and treatments
- The development of innovative **information systems** will be critical for achieving better cancer care coordination
- We believe that the use of a professional, nurse RC3 who will compile, interpret, and transmit complex, but highly relevant, information could become a cornerstone of improved survivorship care.

28

### Rural Cancer Care Coordinator (RC3) Work and Information Flow



\*RC3s facilitate the movement of relevant information in the form of diagnoses, care plans, therapy instructions, referral information, follow-up planning/surveillance, patient or clinician questions, service requests, adverse events reports and medical records.

29

### Challenges and Expectations

- Challenges must be overcome
  - Healthcare systems are compartmentalized and inward looking
  - HIT systems not designed to enhance survivorship care
  - Financial incentives not aligned to promote coordinated survivorship care
  - Time pressures magnified by shortages of oncologists and PCPs
- However, this grant is helping us form durable partnerships in rural Oklahoma to address challenges
  - Rural Tribal Healthcare System(s)
  - Rural Primary Care Clinics and Systems
  - Oncology practices
- We have begun implementing one aspect of what we hope will become a multifaceted approach to survivorship care
  - Nurse RC3s

30

**Thank You!**

**Questions?**