NC Institute of Medicine
Task Force on Rural Health

Patterns of Patient Care in Rural Areas with Limited Resources

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C. Suzanne Lea, PhD and Tom Irons, MD
Brody School of Medicine
East Carolina University

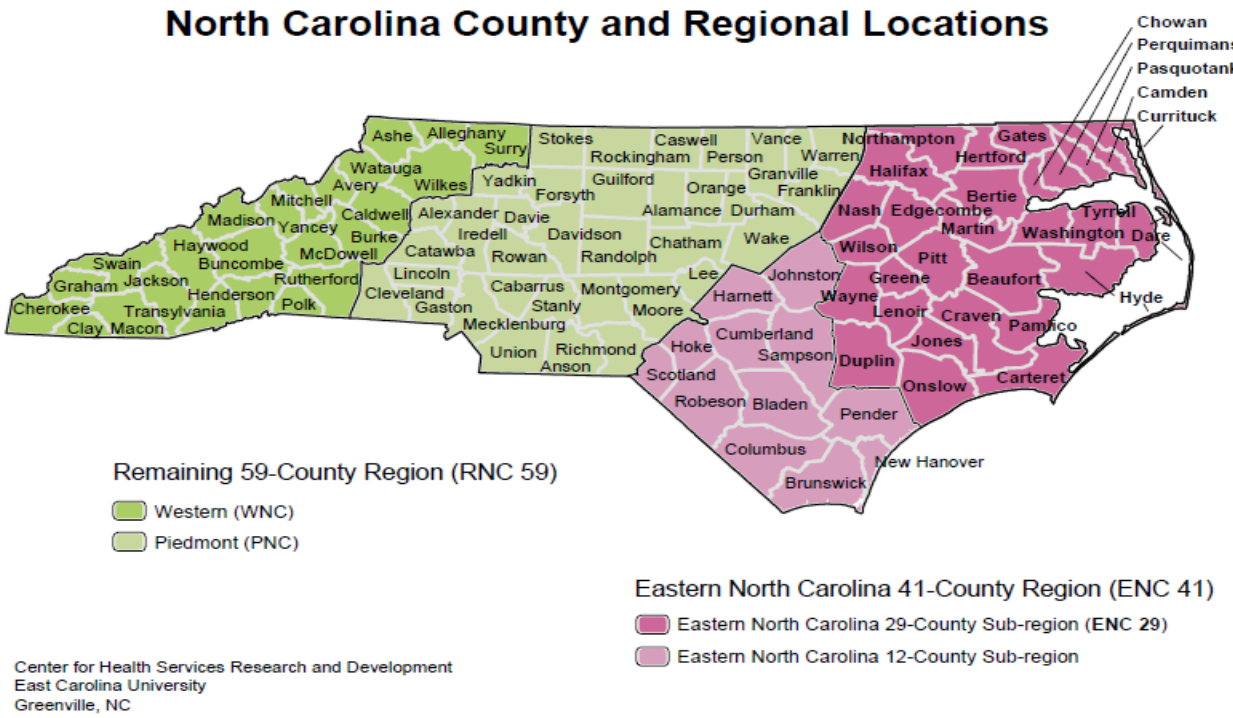
Goals of Presentation

- Introduce a typical cancer patient's experience interacting with the health care system in rural eastern North Carolina using examples.
- Adult – breast and colon cancers (S. Lea) and
- Pediatric Example (T. Irons)

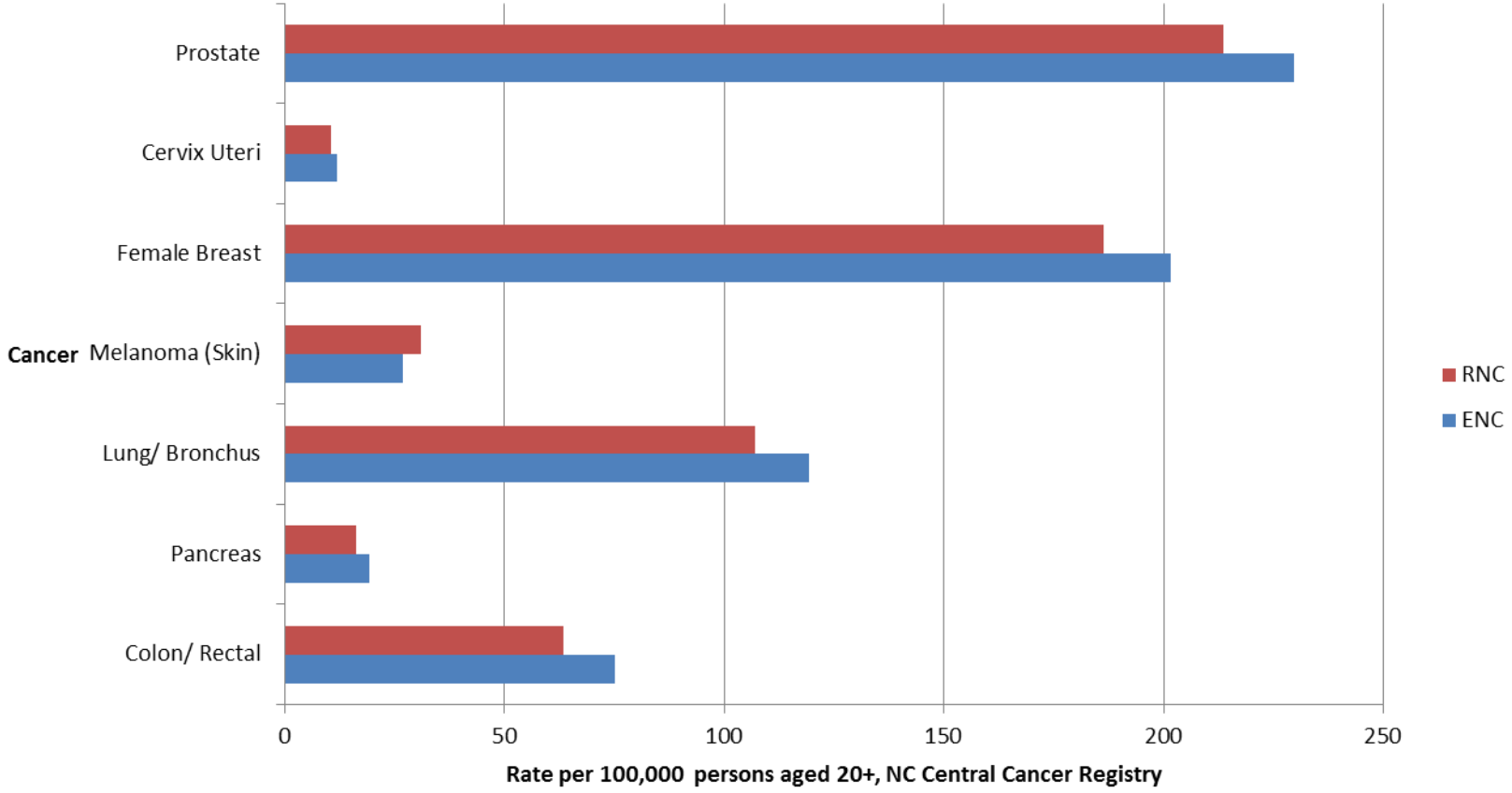
Cancer

- Since 2009 cancer has been the leading cause of death in North Carolina.
- Cancer Incidence and Mortality are higher in the eastern 29-county region than the rest of the 71-county region.

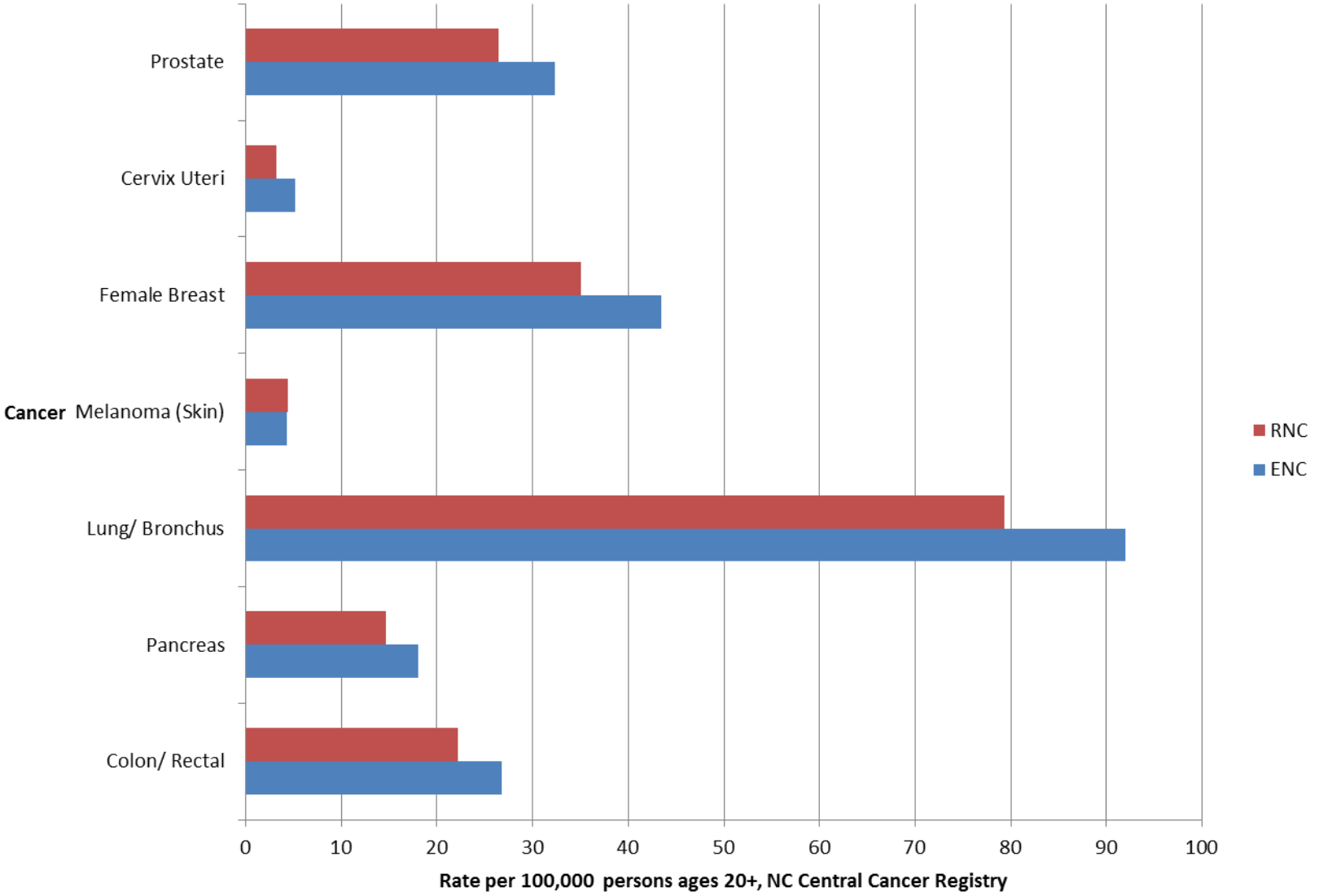
FIGURE 1. 29-County Eastern North Shown in Dark Pink



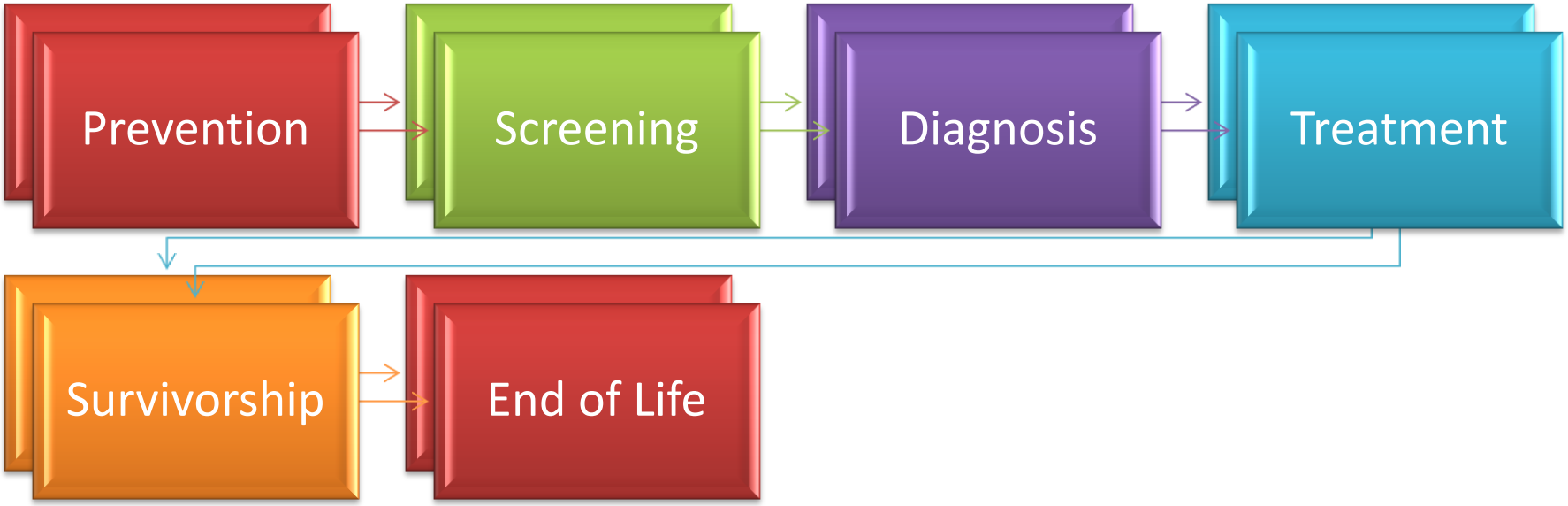
North Carolina (NC) Adult Cancer ***Incidence*** Rates by Cancer Site for Eastern NC (29 counties) and Rest of NC (71 counties), 2005-2009



North Carolina (NC) Adult Cancer ***Mortality*** Rates by Cancer Site for Eastern NC (29 counties) and Rest of NC (71 counties), 2005-2009



Cancer Care Continuum



Source: Epstein, R., Street, R. L., & National Cancer Institute (U.S.). (2007). *Patient-centered communication in cancer care: Promoting healing and reducing suffering*. Bethsda, Md.: National Cancer Institute, U.S. Dept. of Health and Human Services, National Institutes of Health. Retrieved from http://outcomes.cancer.gov/areas/pcc/communication/pcc_monograph.pdf. Accessed Feb 14, 2012

“Agnes” case scenario

- 40 year old, AA woman, ER-/PR- BRCa
- Lives in Hyde County near Beaufort County border.
- Work and Family situation
  - 18 yo daughter, twin boys (age 12), keeps her 5 year old nephew on weeknights and weekends,
  - Works full time at a restaurant,
  - Walks to work if cannot get ride.
- Uninsured

Prior to clinic visit

- Possible processes of patient:
  - Admit a medical problem to herself
  - Figure out where to go to address it
  - Make an appointment
  - Take time off work
  - Find a ride
  - Be sure to bring proper documentation to complete paperwork
  - Find Co-pay

Primary Care Clinic visit

- Agape Clinic, downtown Washington, NC
- Primary care physician
  - large mass, irregular and firm, non-tender
  - referred to Beaufort County for BCCCP

BCCCP

- To qualify for NC Breast and Cervical Cancer Control Program (NC BCCCP), patient cannot be eligible for Medicaid.
  - May be advantageous for long term treatment to qualify for Medicaid if minor in household.

- Eastern Radiology Imaging Center (EPIC) conducts mammogram,
  - May have imaging in Beaufort or Greenville depending on preference, but more cost effective to have patient go to Greenville

- LHD and ACHC receive imaging results - cancer indicated.
- Biopsy appointment at ERIC in Greenville
  - Hospital charges not fully covered by BCCCP

- Positive biopsy and cancer diagnosis qualifies for BCCCP Medicaid
- Cancer treatment referral may be to Leo Jenkins or Marion Shepard Cancer Centers, based on patient preference or physician recommendation.
  - There are a lot of variables that will determine whether the patient can receive all care (surgery, chemotherapy, or radiation) in Greenville at LJCC or Beaufort.
  - Larger tumors and more complex cases are typically are referred to LJCC
- After treatment, can re-enroll in BCCCP for follow-up mammogram.

After Treatment

- Patient quit her job for three months, but employer would not re-hire. She would like to go back to work.
- Her 18yo daughter took a second job to help support the lost pay check.
- Seeking a survivorship support group with transportation and hopes to reconnect with former friends at her church now that she is not working.

Table 5
Recommended screening strategy for CRC screening in average-risk adults

Organization	Age	Recommended Modalities and Intervals
USPSTF	Start at age 50 y Not recommended between 76 and 85 y unless benefit is greater than risk Stop at the age of 85 y	Annual high-sensitivity FOBT Sigmoidoscopy every 5 y with FOBT every 3 y Colonoscopy every 10 y
ACS-MSTF	Start at age 50 y and stop when risk greater than benefit	Preferred Preventive tests:[a] 1. Colonoscopy every 10 y 2. CTC every 5 y 3. Sigmoidoscopy every 5 y 4. DCBE every 5 y Alternative Detection tests:[b] 1. FOBT every year 2. FIT every year 3. Stool DNA (frequency unknown)
ACG	Start at age 50 y except in African Americans start at age 45 y	Preventive tests Preferred: Colonoscopy every 10 y Alternate: Sigmoidoscopy every 5 y CTC every 5 y Detection tests: Preferred: FIT every year Alternate: Hemoccult SENSA every year or fecal DNA every 3 y

Julka M, Cherukuri M, Lameh R. Screening for cancerous and precancerous conditions of the colon. *Prim Care* 2011;38(3):449-68; viii.

“Pedro” Scenario

- 55 year old Hispanic man
- Roofer-employer does not provide health insurance
- Originally from Mexico and in the United States on a H1B work visa
- 2 grown children and 5 grandkids
- Does not have a primary care physician, never screened
- Does not have a legal driver’s license
- Speaks broken English (needs medical interpreter)
- Has a pre-paid cell phone

CRC Scenario

- A typical situation of patient with symptoms:
  - Present in hospital ED and receive CT scan or flexible sigmoidoscopy (stabilizing care based on symptoms)
  - Presumed diagnosis of cancer
  - Refer patient to GI clinic for colonoscopy
  - FQHC has arrangement with GI group in Greenville for uninsured patients (reduced costs and payment plan).
  - Will he go?

Results of CRC Scenario

- CRC screening is *limited* for the underserved;
  - Use of FOBT screening is *inconsistent* across health departments and FQHCs;
  - FIT test is becoming standard screening test, NOT widely adopted by hospital network or clinics;
- Absence of free/low cost screening *colonoscopy* is a barrier to prevention;
- *Spanish* language interpretation services should be expanded;
- *Survivorship services* specific to CRC are virtually non-existent in eastern North Carolina;

Future

- Track patient across providers and geographic areas from diagnosis to post-treatment, longitudinally.
- Create network analysis
- Quantify patterns to:
  - document frequency by location,
  - identify gaps in service
  - Estimate distance travelled for care

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Pediatrics – Dr. Irons

- Hyde County

Thank you

- Questions

Contact Information

- Suzanne Lea, PhD, MPH

Associate Professor, Epidemiology
Department of Public Health
Brody School of Medicine, mailstop 660
600 Moye Boulevard
East Carolina University
Greenville, NC 27834
Phone 252-744-4036, Fax 252-744-4008, Email leac@ecu.edu

- Thomas G Irons MD, FAAP

Professor of Pediatrics
Associate Vice Chancellor, Regional Health Services
Medical Director, NC Agromedicine Institute
Director, Generalist Physician Program
East Carolina University
Brody School of Medicine
252-744-2983