

# *Perspectives from an Experienced Investigator*

Electra D. Paskett, Ph.D

# The James



**THE OHIO STATE UNIVERSITY**  
**COMPREHENSIVE CANCER CENTER**

# Overview of Talk

- Describe what drove me to my career path.
  - What possibilities exist in career paths for young investigators?
  - How do you plan a career to get to that place?

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# What is my career?

- Health disparities researcher – behavioral and community/structural interventions
  - Associate Director for Population Sciences and Program Leader for Cancer Control
  - Division Director, Cancer Prevention and Control
  - Director, Center for Cancer Health Equity

# How did I get here?

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# “Why?”



# Undergraduate Training

- Bachelor's degree in Biology – thought I wanted to be a doctor
  - Worked for 10 years in drug development lab
  - Something more
  - Eureka! I found it!
    - It's epidemiology!
    - The ultimate “why” discipline!

# Education & Training



# Master's of Science Degree in Public Health (Epidemiology)



# Dee West, Ph.D. *Surveys*



# Education & Training



# *Community-Based Participatory Research*



Beti  
Thompson, PhD

# Doctoral Degree in Epidemiology and Health Services Research School of Public Health

## *Epidemiology*



Emily  
White, PhD

## *Intervention Design*



Maureen  
Henderson, MD

# Doctoral Work Ignited My Passion

**“ I don’t want to have my womb removed because I will stop being a woman to my man. ”**



# Why this work?

- Inner need to right wrongs
  - Right place at the right time
  - Love working with communities

## How?

- Dedication
  - Supportive family
  - Training
  - Great staff/colleagues
  - Respect for community members

# “Health Disparities” Defined



# **September 1999**

“... **Differences** in the incidence, prevalence, mortality, and **burden** of diseases & other adverse health conditions that exist among specific **population groups** in the United States.”

– National Institutes of Health

## Racial and Ethnic Minorities, Medically Underserved Communities, Females, Geography, Age, Sexual Orientation, Income

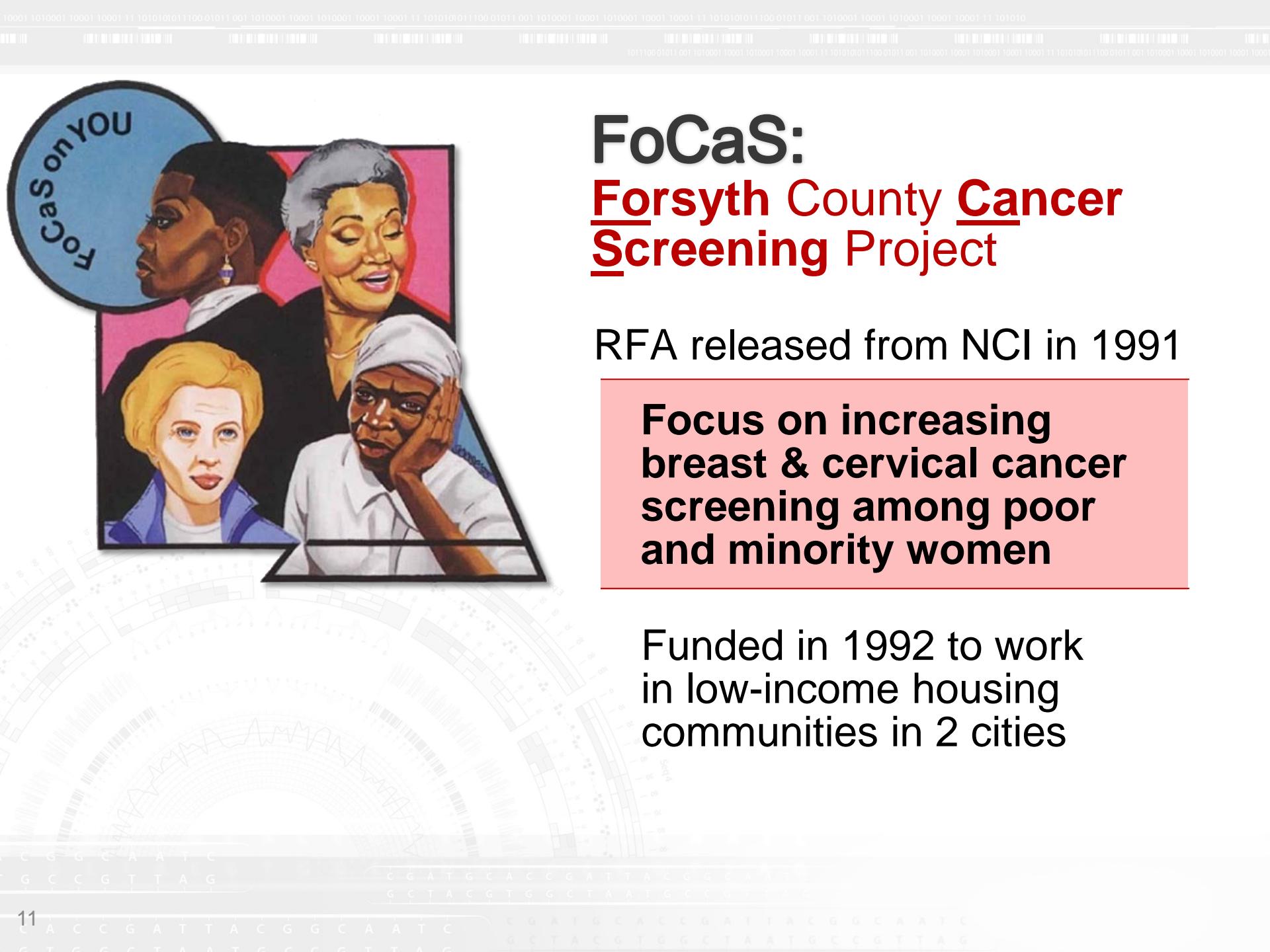
# How did I start on this path?



WAKE FOREST  
UNIVERSITY

# Department of Public Health Sciences

10



# FoCaS: Forsyth County Cancer Screening Project

RFA released from NCI in 1991

**Focus on increasing  
breast & cervical cancer  
screening among poor  
and minority women**

Funded in 1992 to work  
in low-income housing  
communities in 2 cities



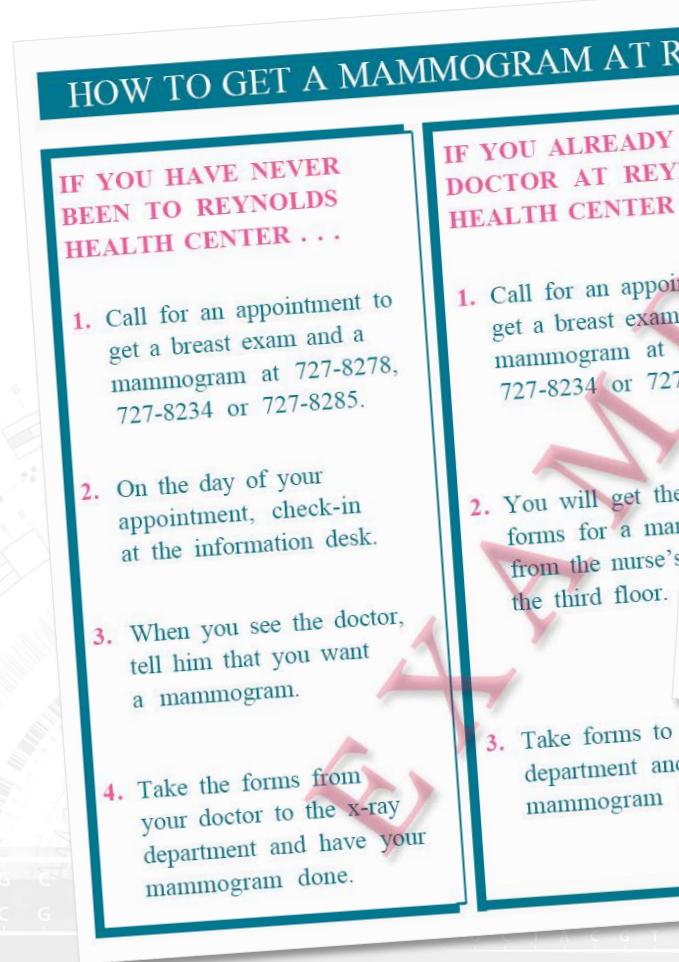
# Community-based Interventions

**Theory-based:**  
*Social Support*  
*Stages of Change*  
*Health Belief Model*  
*Theory of Reasoned Action*

## FoCaS: Methods

## Placed Nurse in Federally Qualified Health Center

# In-Reach



## HOW TO GET A MAMMOGRAM AT REYNOLDS

### IF YOU HAVE NEVER BEEN TO REYNOLDS HEALTH CENTER . . .

1. Call for an appointment to get a breast exam and a mammogram at 727-8278, 727-8234 or 727-8285.
2. On the day of your appointment, check-in at the information desk.
3. When you see the doctor, tell him that you want a mammogram.
4. Take the forms from your doctor to the x-ray department and have your mammogram done.

### IF YOU ALREADY HAVE A DOCTOR AT REYNOLDS HEALTH CENTER

1. Call for an appointment to get a breast exam and a mammogram at 727-8234 or 727-8285.
2. You will get the forms for a mammogram from the nurse's station on the third floor.
3. Take forms to the x-ray department and have your mammogram done.

**CERVICAL CANCER**

All women are at risk for cervical cancer. But some things increase your risk. They are as follows.

- \*If you smoked more than 100 cigarettes.
- \*If you had sex before age 18.
- \*If you have been told by your doctor that an earlier Pap Smear was not normal.
- \*If you had sex with 3 or more partners.
- \*If you ever had a sexually transmitted disease. (venereal, etc.)
- \*If you ever had warts or bumps on the outside of your vagina.

If you have had one or more of the above, you may be at a higher risk for cervical cancer. Ask your Doctor for a Pap Smear. It is a quick and easy exam that does not cost much.

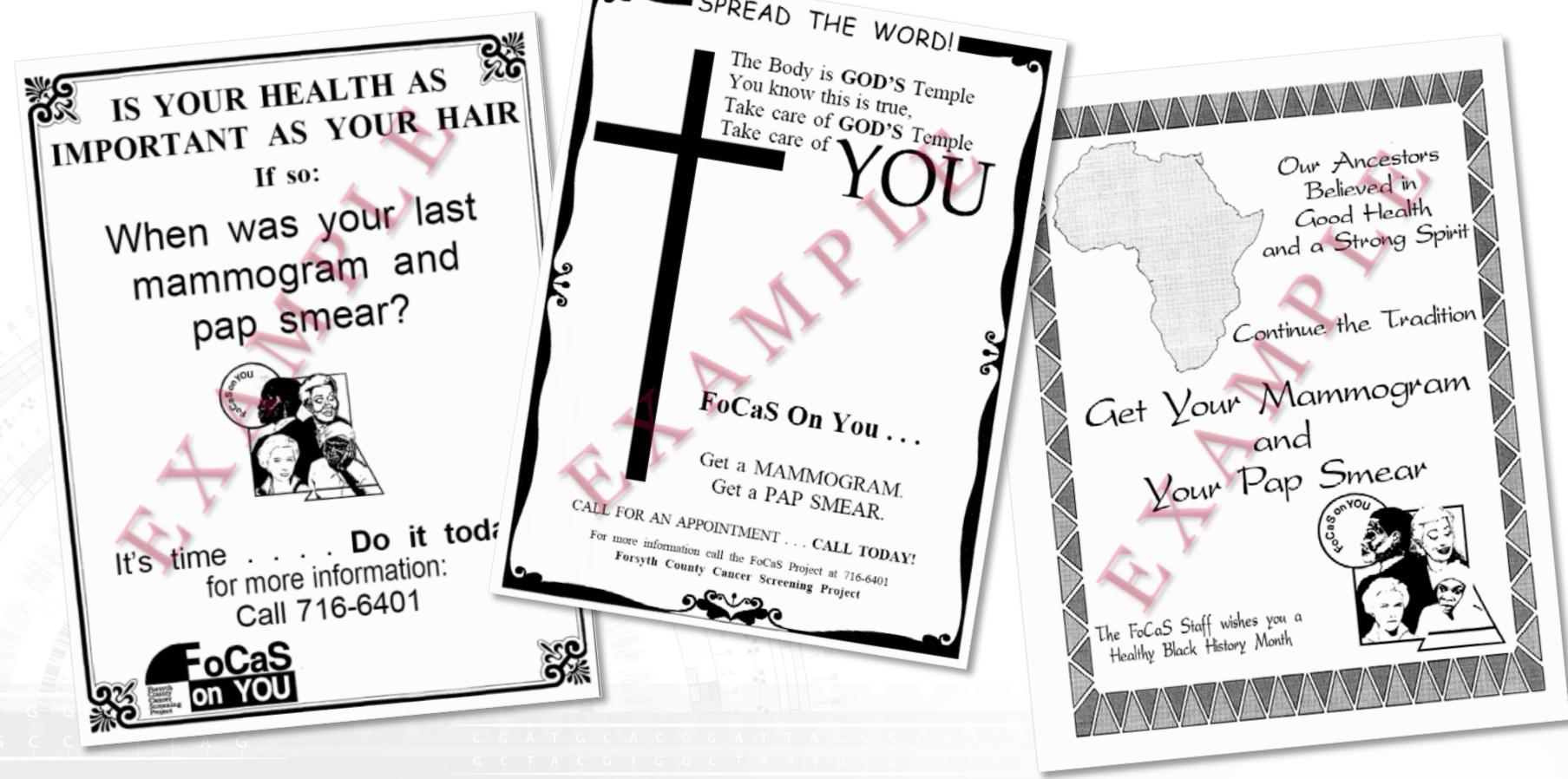
**Get a mammogram**

**At**  
**Reynolds**  
**Health Center**

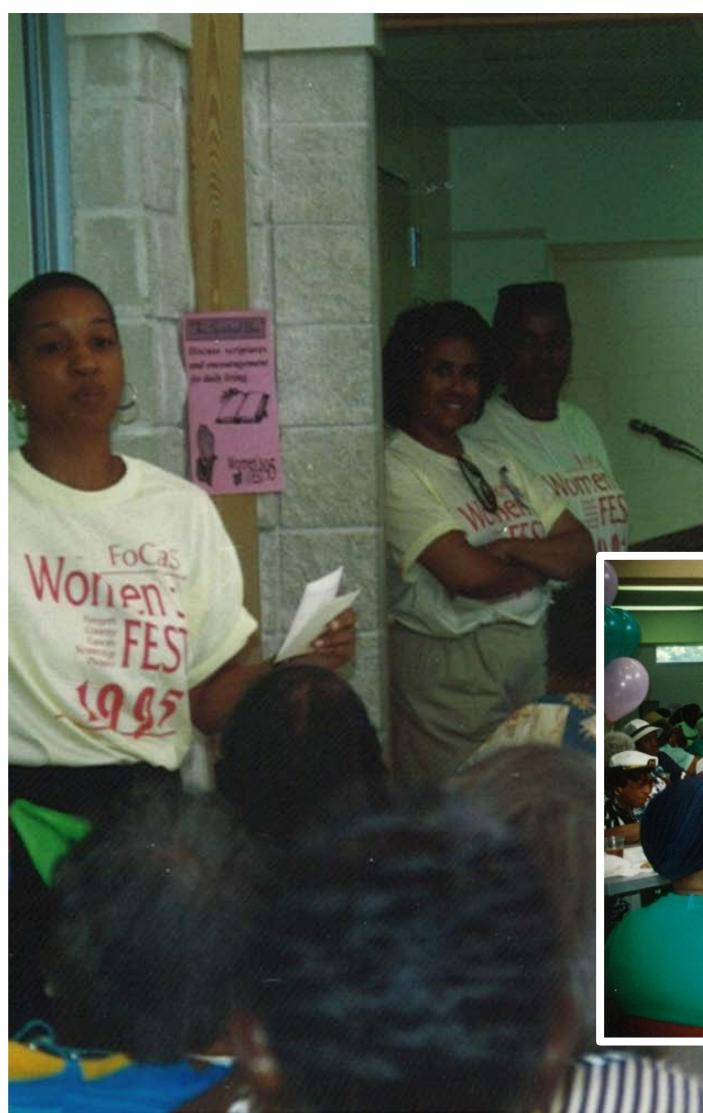
## FoCaS: Methods

Used Lay Health Advisors (LHAs) to deliver community education (groups and one-on-one)

# Out-Reach



## FoCaS: Methods (con't)



- Used a Community Advisory Board and a Provider Advisory Board
  - Cross-sectional and cohort samples to evaluate impact



# FoCaS: Results

## Screening Rates: Pre-to-Post Intervention

	Mammogram	Pap Smear
Comparison City	33% to 40%	67% to 60%
Intervention	<b>31% to 56%</b>	<b>73% to 87%</b>

# 18% Increase

*p*=0.04

# 21% Increase

*p*=0.004

(Paskett et al, CEBP, 1999) R01 CA57016

# Impact of...

# FoCas

# Lay Health Advisor Interventions

# Dissemination of Findings & Products

# Community-Based Participatory Research

# Training the Next Generation

17

# Impact of...

# FoCas

# Lay Health Advisor Interventions

# Dissemination of Findings & Products

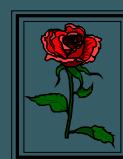
# Community-Based Participatory Research

# Training the Next Generation

## **Lay Health Advisor- Intervention Tested in Studies**

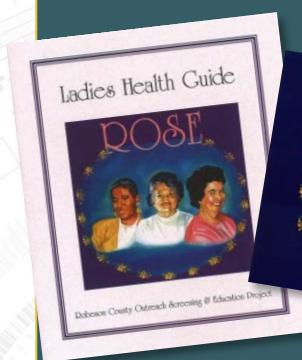
‘97 ‘98 ‘99 ‘00 ‘01 ‘02 ‘03 ‘04 ‘05 ‘06 ‘07 ‘08 ‘09 ‘10 ‘11 ‘12 ‘13 ‘14 ‘15

# Robeson County Outreach Screening & Education Project 9/1/97 – 8/31/03



ROSE

**Robeson County  
Outreach  
Screening &  
Education Project**



R01 CA72022

**Carolinias  
Cancer**

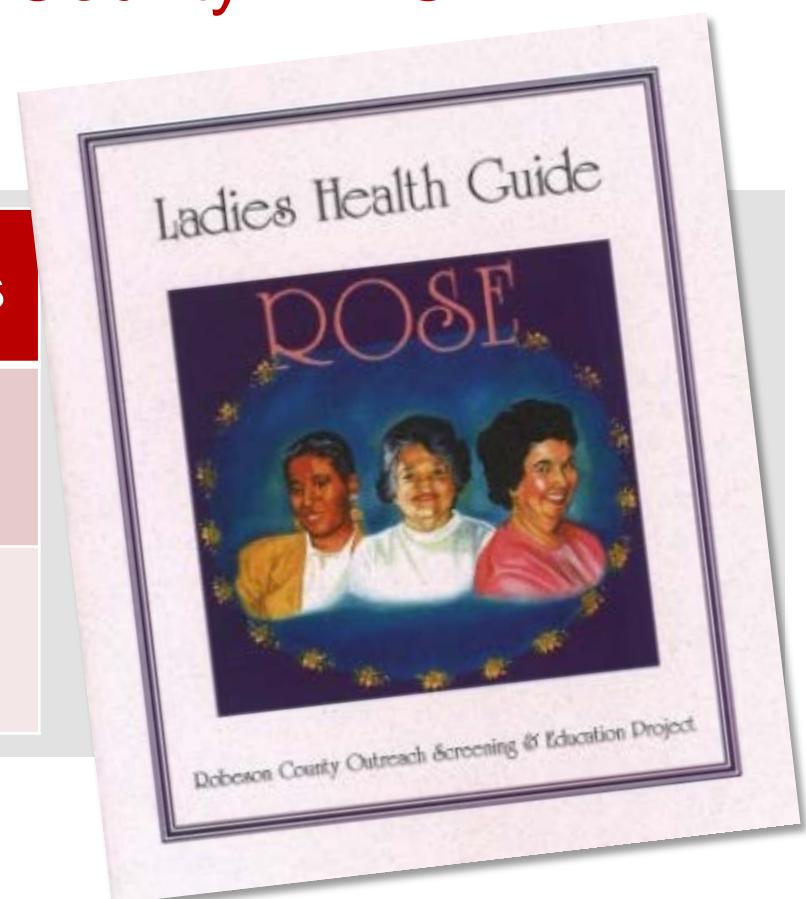
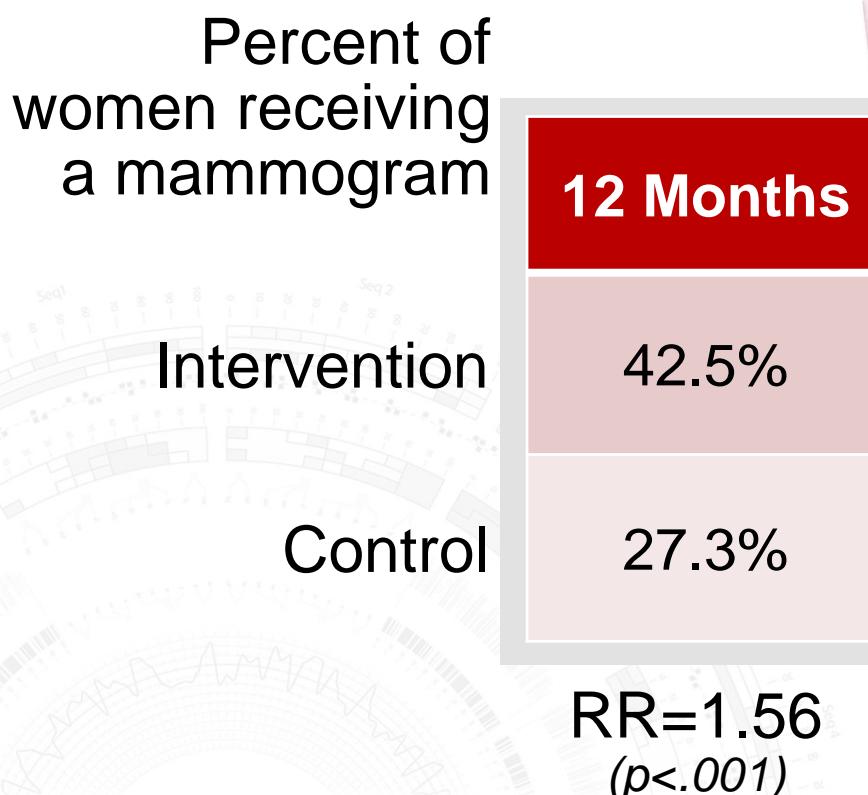
# **Community Awareness Resources Education**

The Ohio State University Comprehensive Cancer Center  
The James Cancer Hospital and Solove Research Institute

## **4/01/03 – 4/30/15**

## Lay Health Advisor- Intervention Tested in Studies

# Improved Breast Cancer Screening among Tri-racial Women in Low-Income Rural County in NC



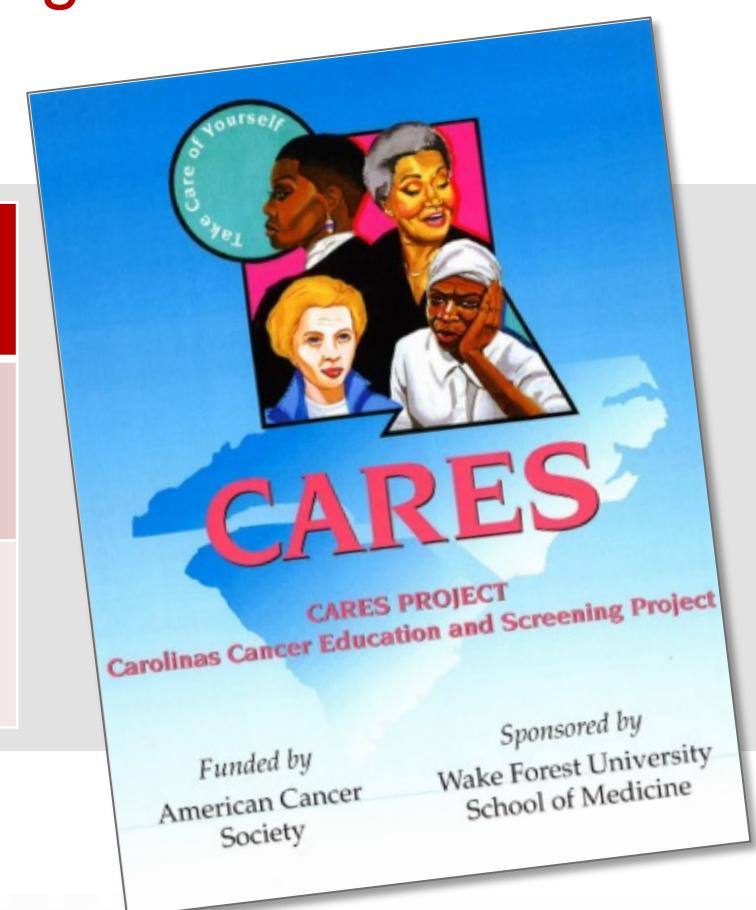
(Paskett et al, JNCI, 2006) R01 CA72022

## Lay Health Advisor- Intervention Tested in Studies

# Improved Colorectal Cancer Screening among Women in Low-income Housing Communities

	Baseline	3 Years
Intervention	49.3%	55.6%
Control	49.3%	49.7%

**OR=1.13  
(*p*=ns)**

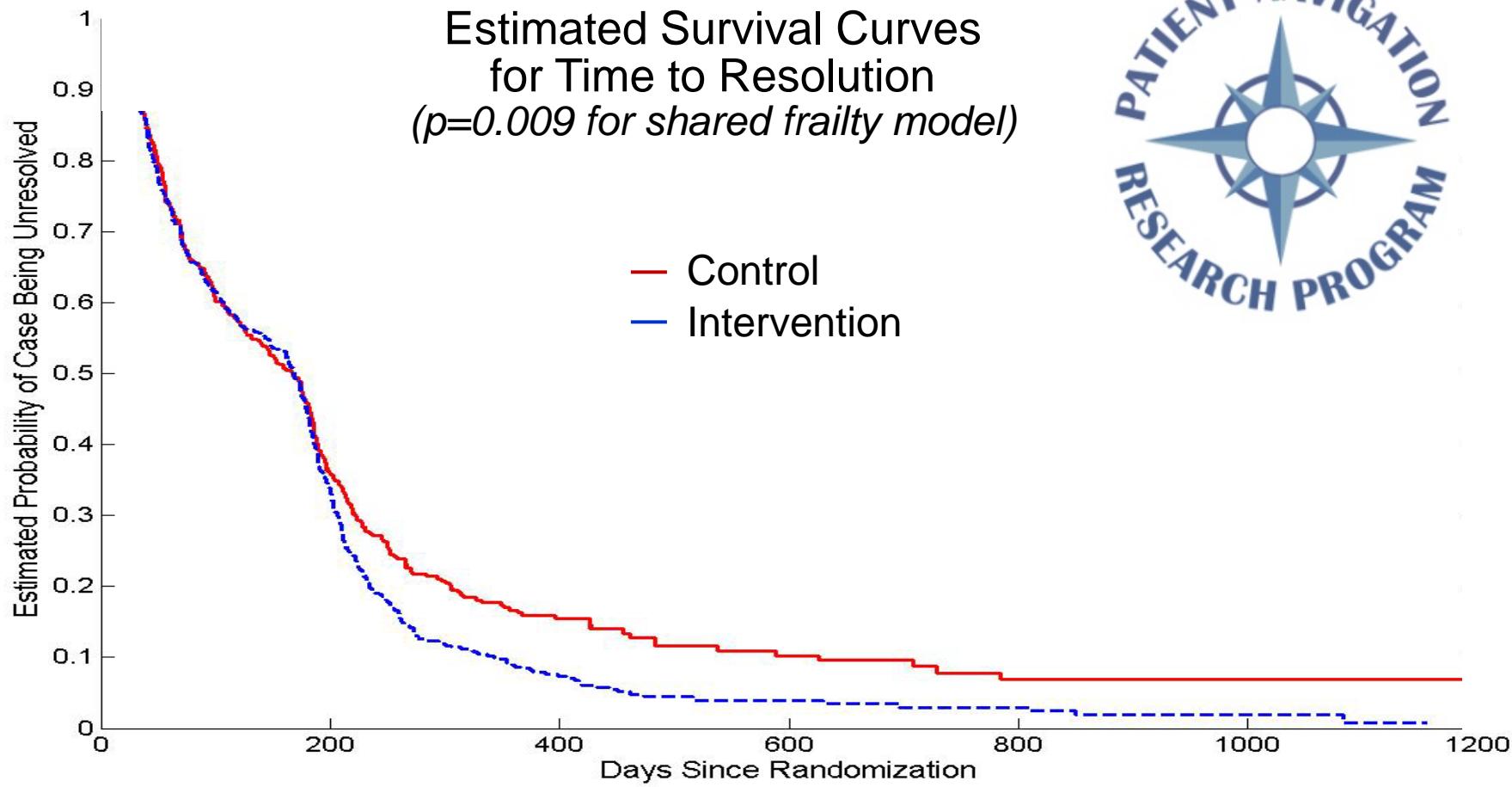


(Katz et al, CANCER, 2007)

ACS, TIOG-99-361

## Lay Health Advisor- Intervention Tested in Studies

# Patient Navigation Reduced Time to Resolution After an Abnormal Screening Test



(Paskett et al, CEBP, 2012)

ACS, SIRG-05-253-01

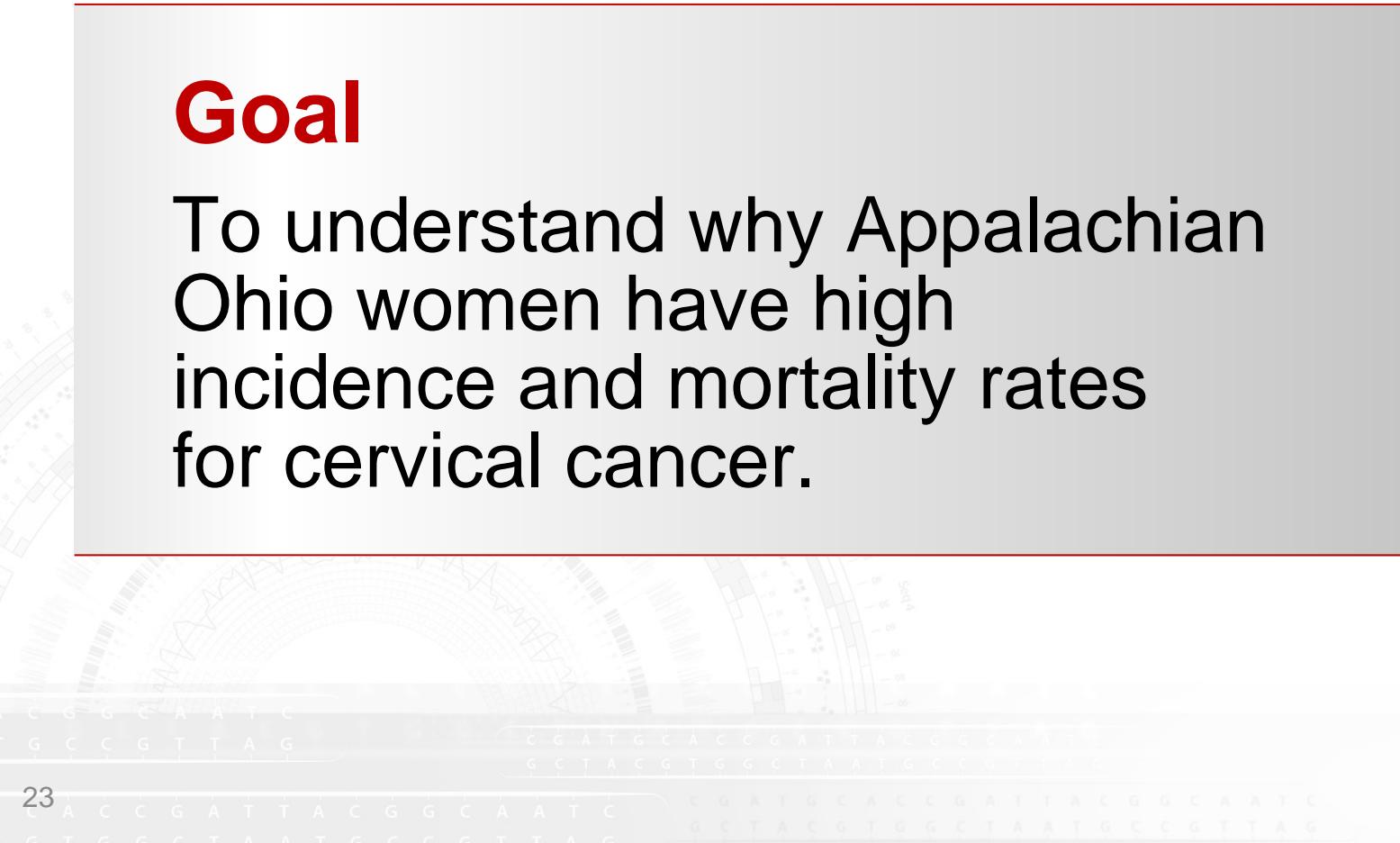


## Lay Health Advisor- Intervention Tested in Studies

# OSU Center For Population Health and Health Disparities

## Goal

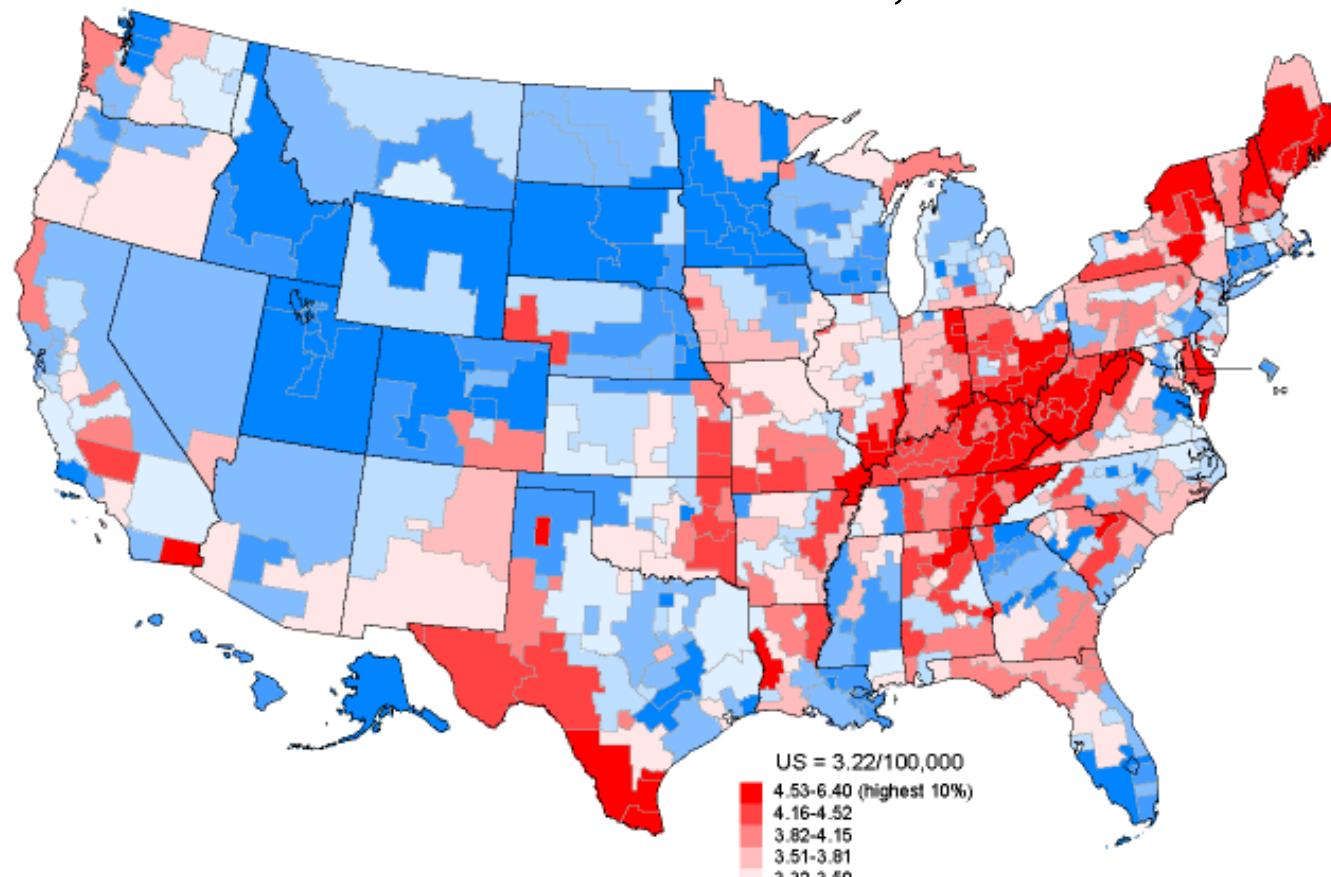
To understand why Appalachian Ohio women have high incidence and mortality rates for cervical cancer.



## Lay Health Advisor- Intervention Tested in Studies

# Cancer Mortality Rates by State Economic Area

# *Age-adjusted 1970 US Population Cervix Uteri: White Females, 1970-94*



## Lay Health Advisor- Intervention Tested in Studies

### 14 Clinics

Observational Study  
N=571

Multi-level factors associated  
with tobacco use & Pap testing

RCT testing LHA  
vs. usual care

**Project 1**  
**N=286**

- Pap smear use:**
- Risk appropriate guidelines
  - Barriers counseling

**Project 3**  
**N=1360**

- Case-control study**
- HPV testing, Pap smear, EBV titers, Cotinine
  - TGF-Beta receptor

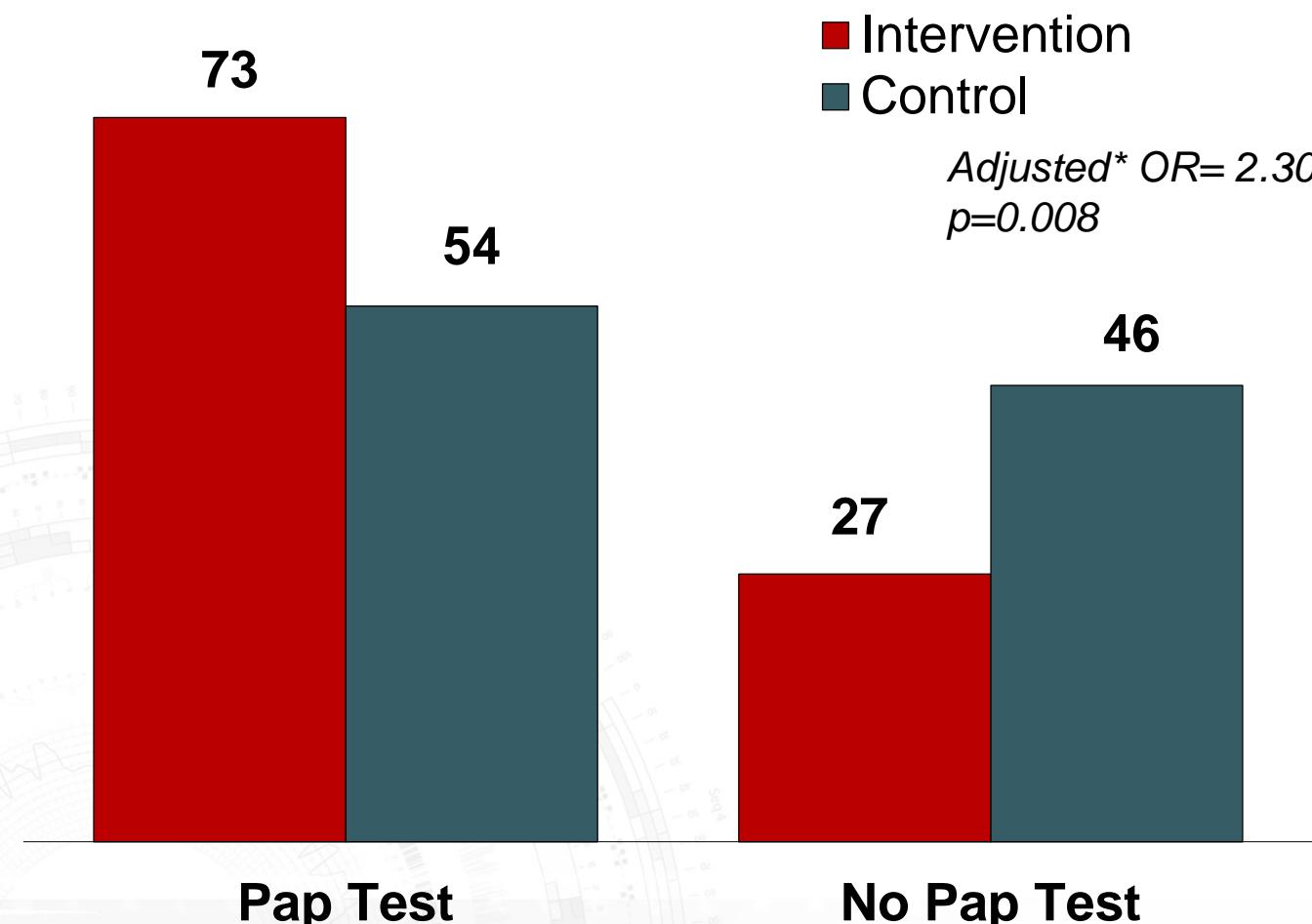
**Project 2**  
**N=302**

- Smoking cessation:**
- Biochemical validation
  - Pharma-based intervention with behavioral component

## Lay Health Advisor- Intervention Tested in Studies

# LHA Intervention to Improve Pap Smear Use

### *Self-Reported Pap Status (N=235)*

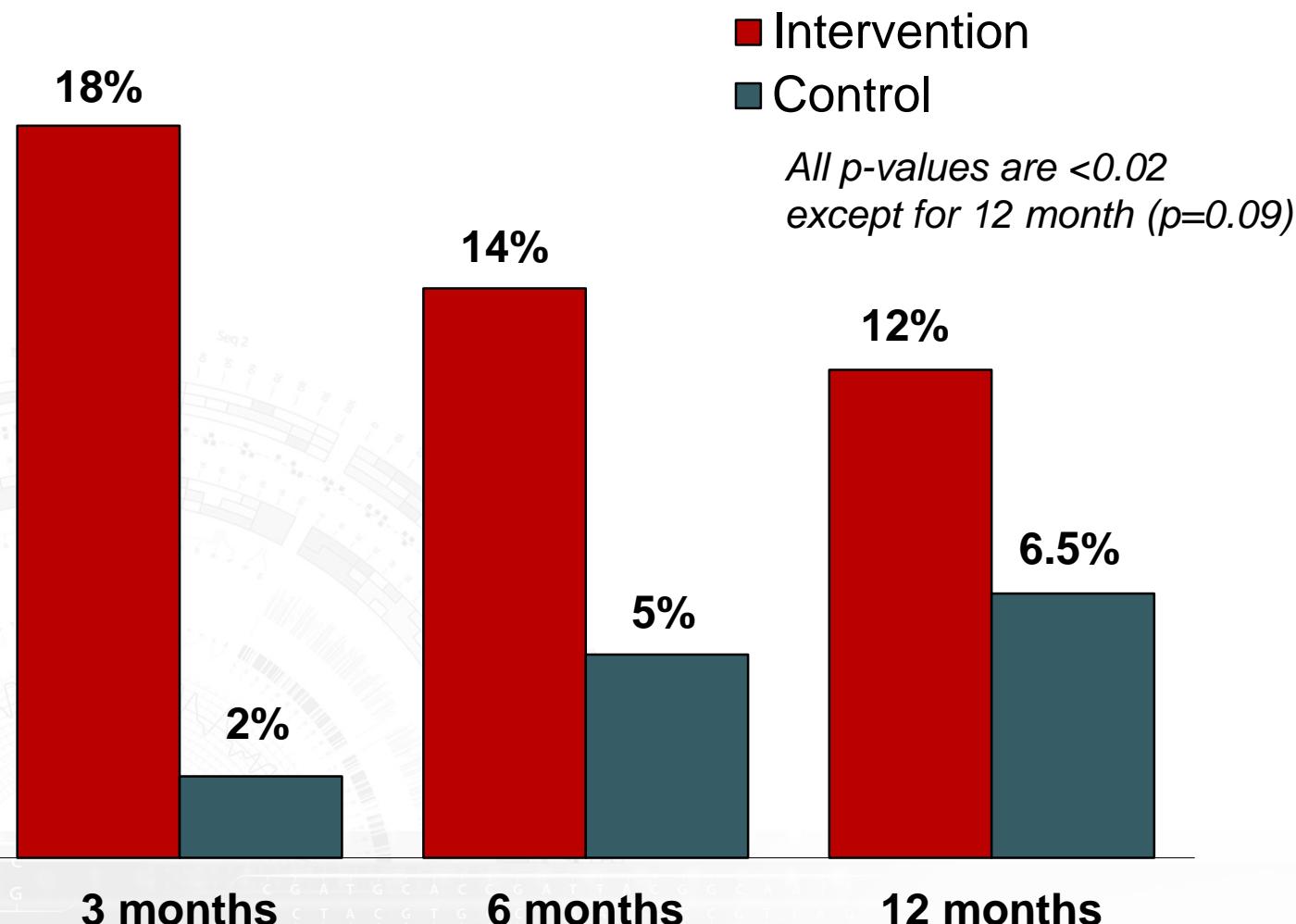


\*Adjusted for age, race, education, employment status, SES, marital status, health insurance and previous abnormal Pap. Clinic included as a random effect in models.

(Paskett et al., CEBP, 2011)

## Lay Health Advisor- Intervention Tested in Studies

# LHA Intervention to Improve Smoking Cessation *Cotinine-Validated Cessation Rates*

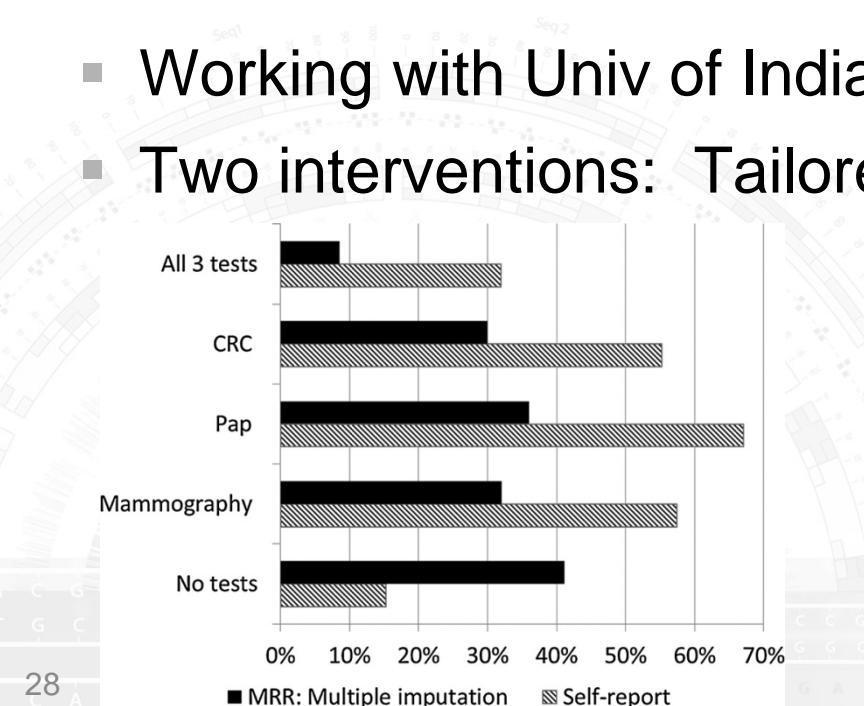


(Wewers et al., CEBP 2010)

## Lay Health Advisor- Intervention Tested in Studies

# Newly-funded RO1: *Comparative Effectiveness of Interventions to Improve Multiple Screening Test in Rural Women*

- Rural women in 32 counties in NW Ohio and NE Indiana
  - Underserved in terms of access to medical care
  - Only 8% of rural women are up-to-date on 3 screening tests
  - Working with Univ of Indiana – *v. Champion and S. Rawl*
  - Two interventions: Tailored, interactive DVD +/- PN



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# Impact of...

# FoCaS

# Lay Health Advisor Intervention

# Dissemination of Findings & Products

# Community-Based Participatory Research

# Training the Next Generation

29

# Dissemination of Findings & Products

# FoCaS Intervention Used in:



## Core Partners:

- National Cancer Institute's Cancer & Information Service
  - American Cancer Society
  - Center for Disease Control's National Breast & Cervical Cancer Education Program
  - USDA's Cooperative State Research
  - Education & Extension Service with USDA

# Summary of Evidence-Based Interventions



Research-tested Intervention Programs (RTIPs)	
<b>Most Hits for Breast &amp; Cervical Cancer Interventions</b>	
<i>From August 2003 – Jan 2011, usage statistics collected:</i>	
# of times program summary viewed:	7,049
# of program orders completed:	161
# of single product downloads:	3,645
# of separate product “preview” files viewed:	235

## **Dissemination of Findings & Products**

## **Policy Impact Among Underserved Populations**

# Patient Navigation Research Program: All sites

## Meta-Analysis Results:

PN reduced loss to follow-up in both diagnostic and treatment phases after 3 months post-diagnosis among poor, minority patients

**Days since diagnosis 91-365**  
**Adjusted Hazard Ratio (95% CI)**

Diagnostic phase	<b>1.5 (1.2 – 1.8)</b>
Treatment phase	<b>1.4 (1.1 – 1.9)</b>

### **Policy Implication:**

American College of Surgeons Commission on Cancer mandate for PN starting January 2015

Freund, et al., JNCI 2014

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# Impact of...

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32

# Community-Based Participatory Research

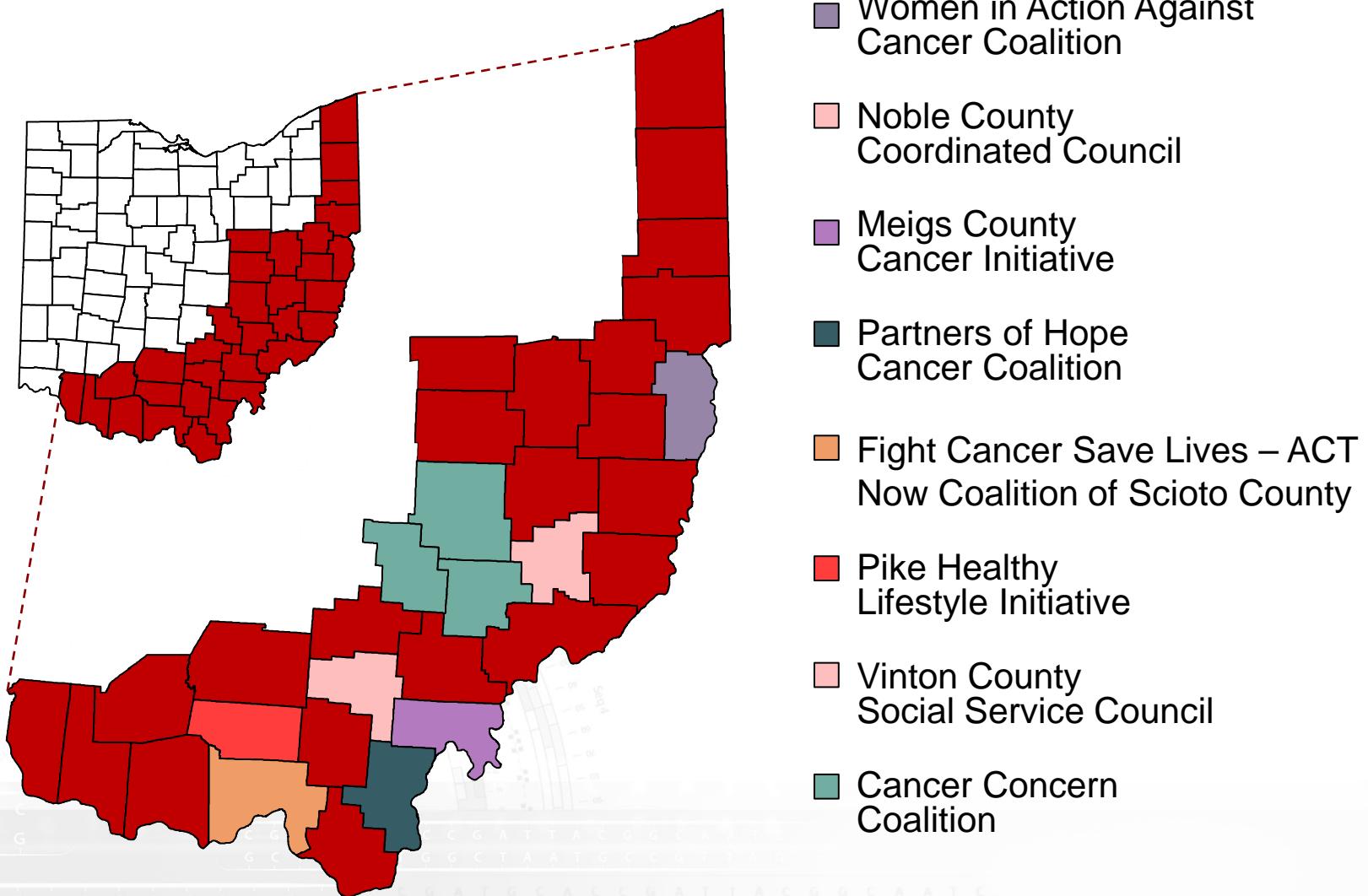
# In Appalachia,

**“We don’t talk about cancer.”**

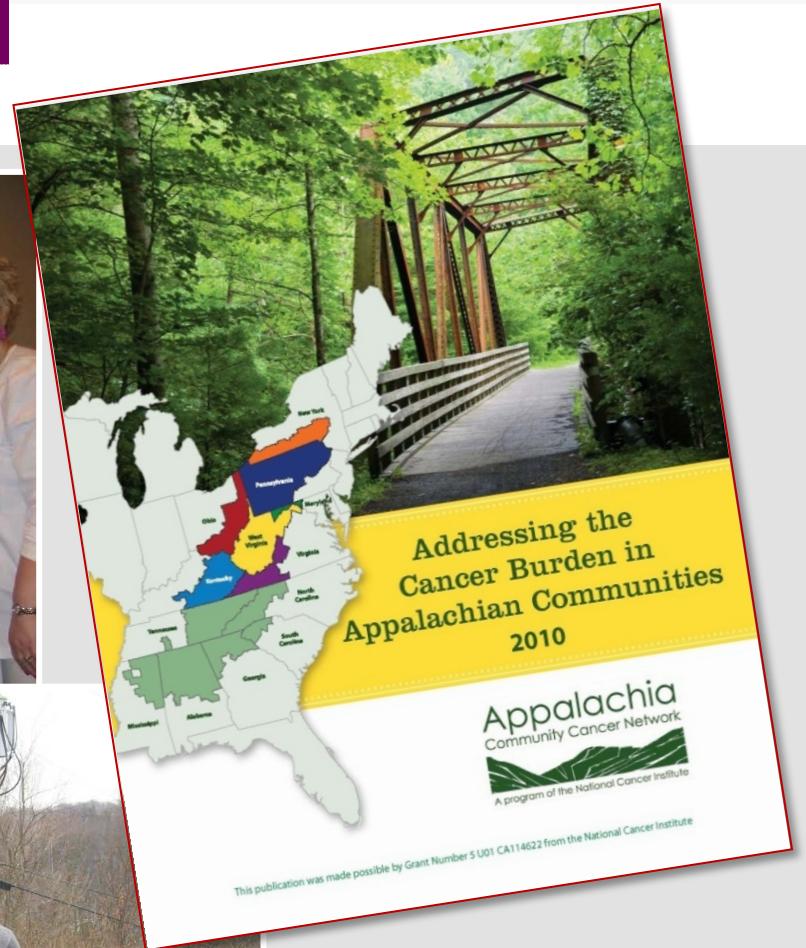


# Community-Based Participatory Research

# Appalachia Ohio Coalitions & Councils to Facilitate Research



# Community-Based Participatory Research



This publication was made possible by Grant Number S U01 CA114622 from the National Cancer Institute

# Impact of...

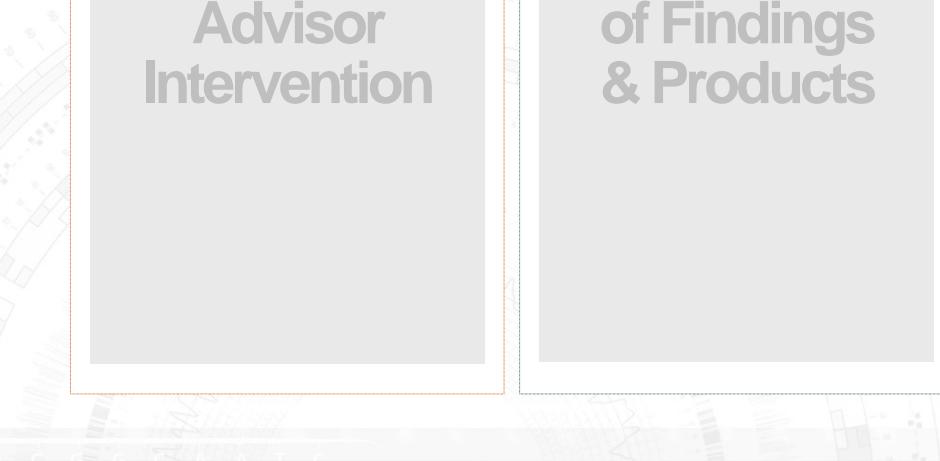
# FoCaS

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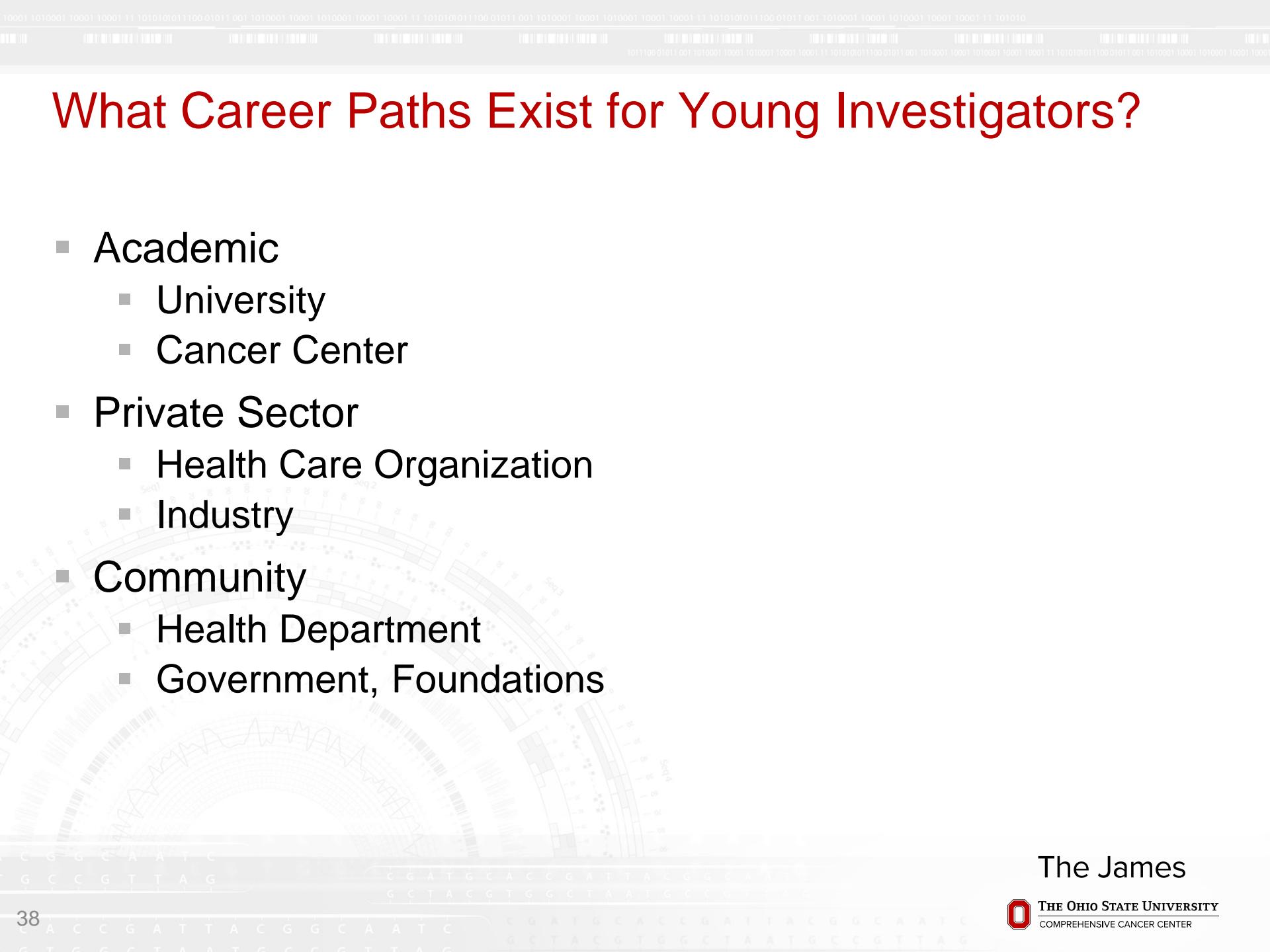
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# Training The Next Generation

# Training in CBPR & Health Disparities Research

- Community Members
  - Students
  - Post-docs & Fellows
  - Junior Faculty





# What Career Paths Exist for Young Investigators?

- Academic
  - University
  - Cancer Center
- Private Sector
  - Health Care Organization
  - Industry
- Community
  - Health Department
  - Government, Foundations

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# What Do You Want to Be Excellent In?

- Leadership
    - Academic – chair, dean
    - Cancer Center – program leader, associate director
    - Other Centers – eg, Health Disparities
  - Teaching
    - Classes – load; seminars; on-line
    - Mentoring – undergrad's, graduate school, post-docs, medical students, junior faculty
    - Training – eg., community members
  - Funding/Research
    - Metrics at your institution
    - Climate for young investigators
  - Service
    - Institution and the greater community of science
    - Committees, journals, study section, professional associations

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# How Do You Plan a Career to Get Where You Want to Go?

- Develop a Plan
  - Get the right mentor(s)
  - Be in the right place
  - Always be learning
  - Take advantage of opportunities
  - Be seen for your work and be known for something

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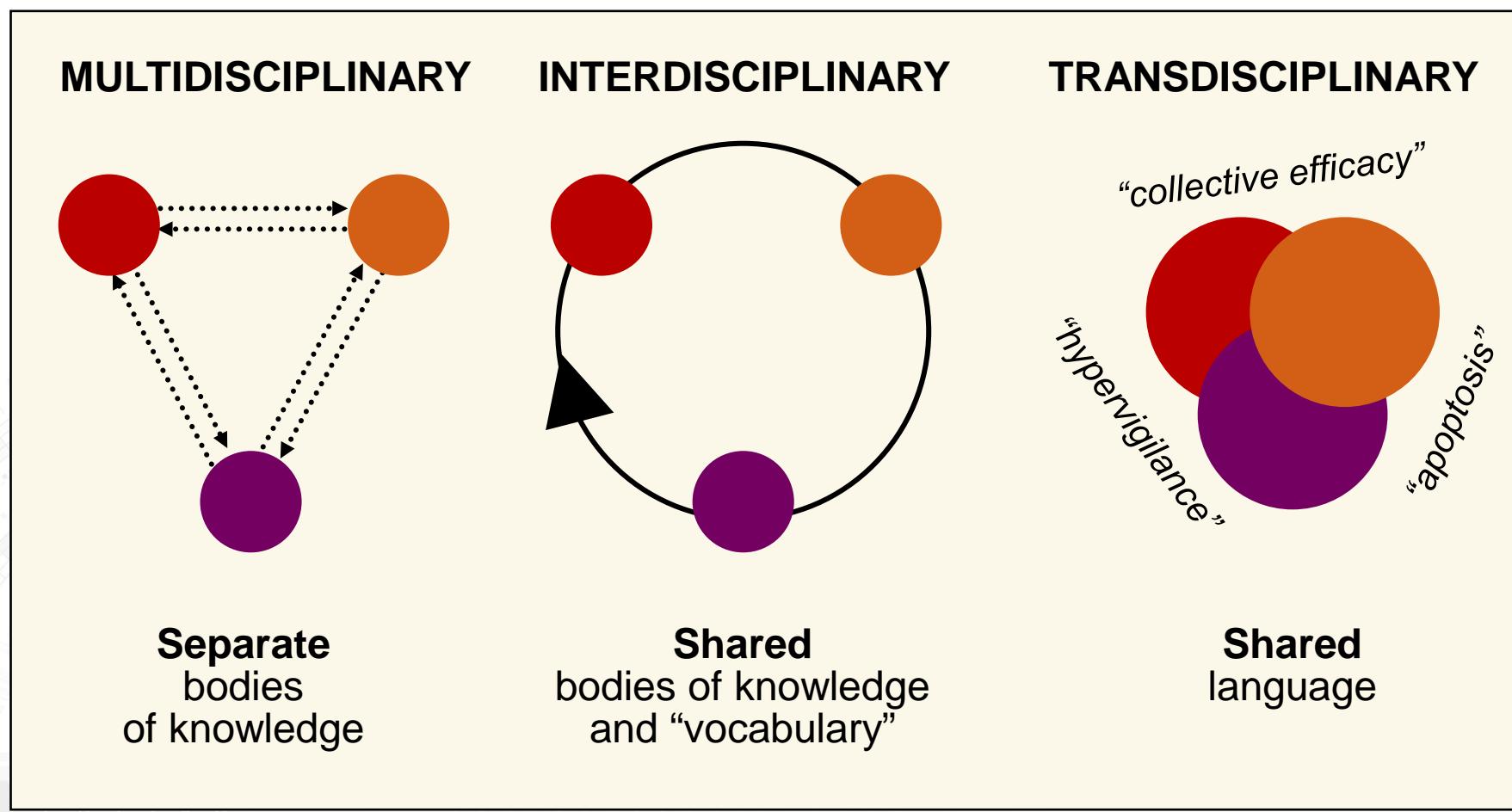
# Concrete Example: Disparities Research

- What should a new investigator who wants to do and be known for disparities research learn?
    - Team Science
    - Multi-level approach
    - CBPR

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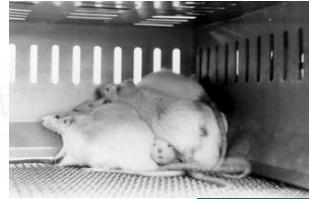


# A New Paradigm: Team Science



# Multi-level Approach: Spans From Basic Biology to the Population

# *“From Cells to Society”*



# Genetics Biology



# Behavior & Individual Risk Factors



# Socio-Cultural Context & Relationships

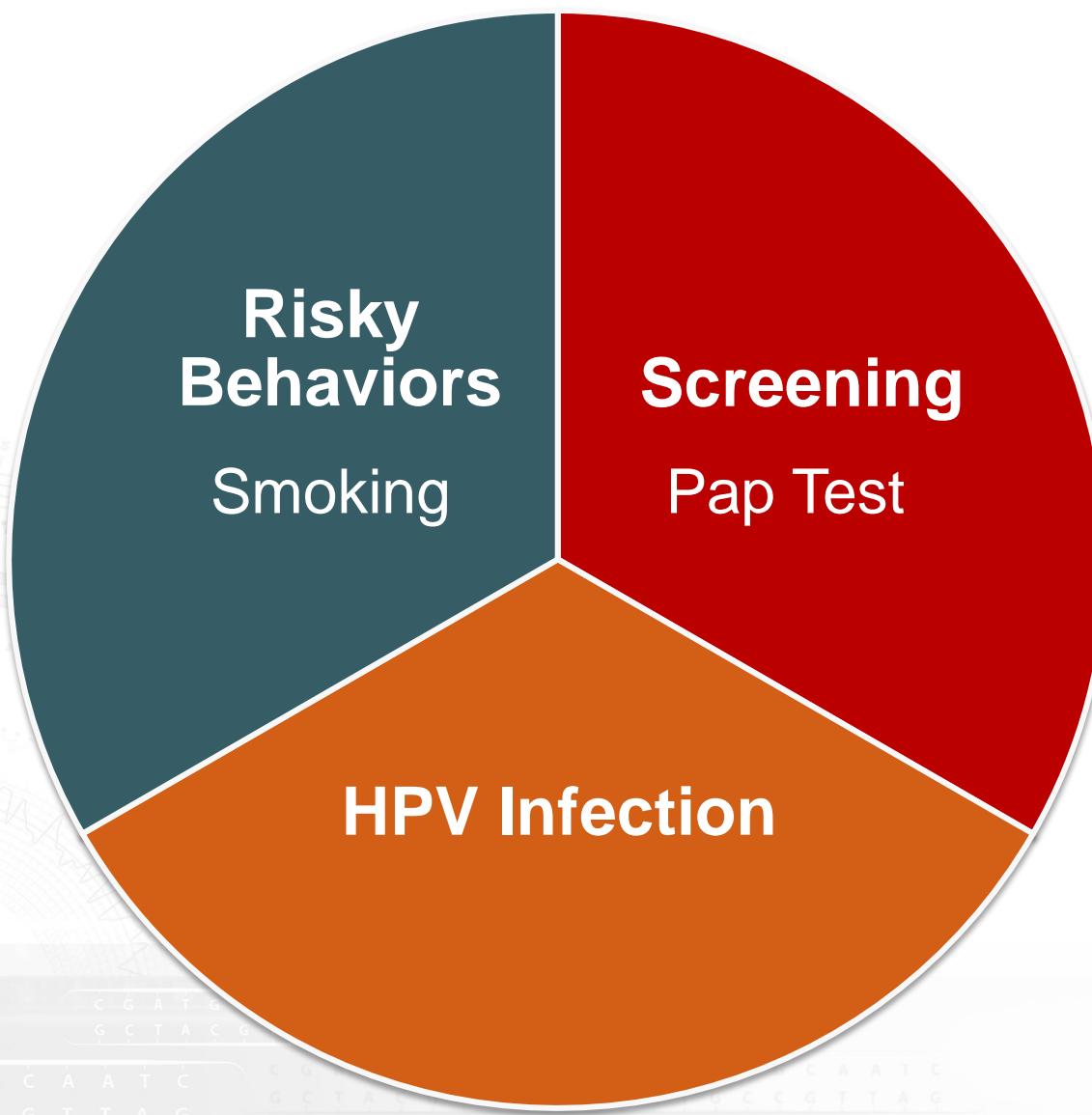


# Physical Environment

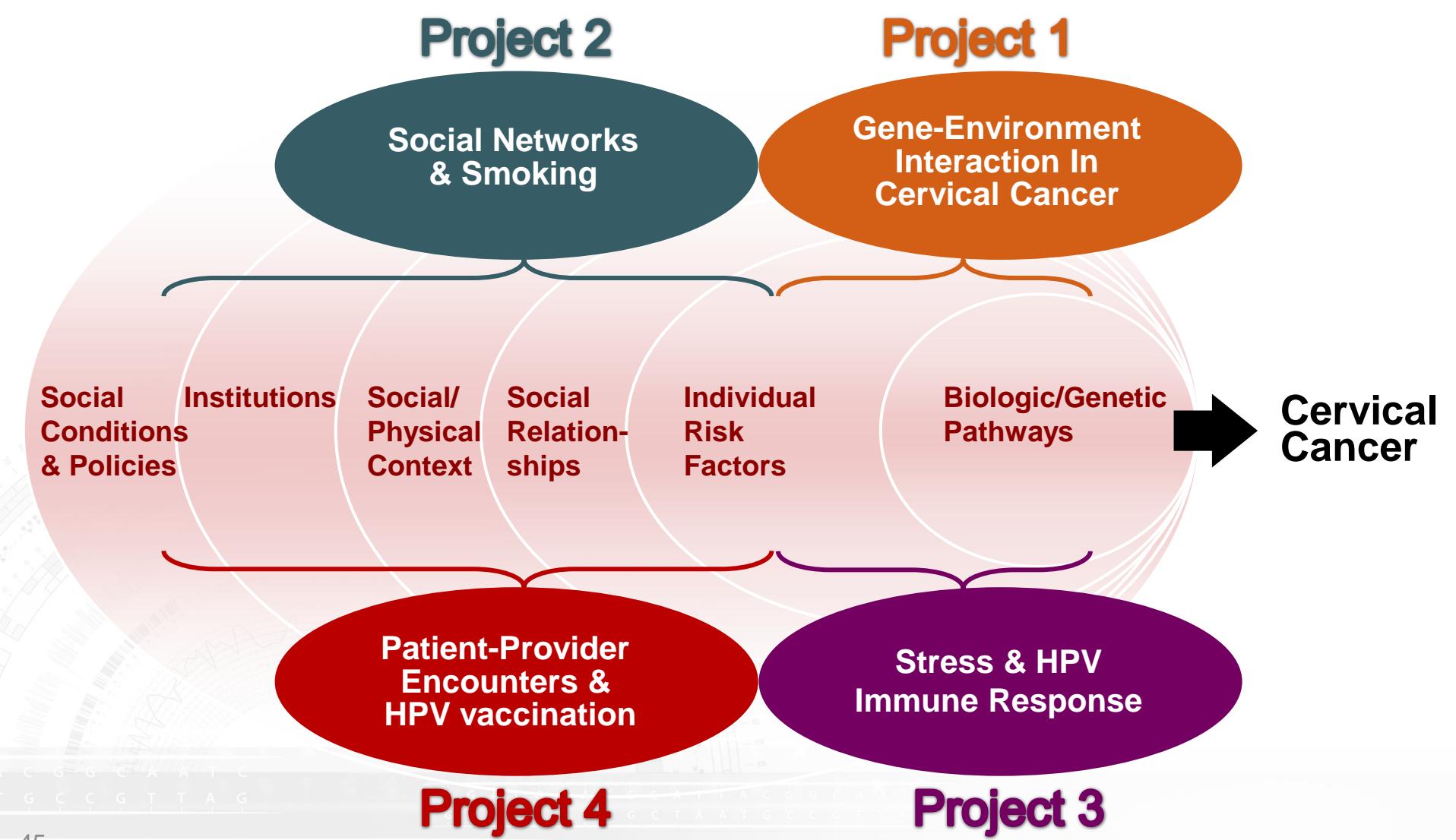


# Clinical Translation, Community, Institutions, Neighborhood, & Policy

# Multi-level Approach: Initial Model for Addressing Cervical Cancer



# Multi-level Approach: Today's CARE II Model Comprehensive



# CBPR: Listening to the Community

# Appalachia Ohio: 12 Counties Intervention CRC Screening

- Billboards, posters
  - Clinic intervention
  - Media kit to local newspapers



## Comparison

# Fruit and Vegetable Consumption

# Parting Words of Wisdom

- Things always take longer than expected.
  - Try, try, try again.
  - Submit frequently and diversify.
  - The right staff make all the difference.
  - Befriend your Program Officer (and listen to them).
  - Say “no” to opportunities to serve judiciously.
  - Enjoy the journey – that is how you bring passion to your work.

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# Thank You



THE OHIO STATE UNIVERSITY



A Comprehensive Cancer Center Designated by the National Cancer Institute

