



# Affecting Quality and Applying Evidence-Based Practice in Public Health

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North Carolina



# NC Center for Public Health Quality

**Mission :** Create an infrastructure to foster and support **continuous quality improvement** among public health professionals.

***“Creating 11,000 Public Health Problem Solvers”***

**Vision:** All local and state public health agencies will have an embedded **culture of continuous quality improvement** that will help promote and **contribute to the highest possible level of health** for the people of North Carolina.



# National Public Health Improvement Initiative (NPHII)

## **NPHII Grant Goals:**

- Assist health departments in increasing access to and adopting proven and promising practices for prevention and wellness as well as business and organizational practice.
- Lead cross-jurisdictional partnerships to increase development, identification, implementation, and dissemination of evidence-based policies & practices.
- See that health departments can make informed decisions in selecting interventions that best use scarce resources to improve the effectiveness of public health programs & services.

# NC IOM EBP Task Force Aim

The NC Center for Public Health Quality and the NC Center for HNC 2020, working together with the NC Division of Public Health and the NC Institute of Medicine, aim to provide recommendations about updated, easy-to-access and user-friendly approaches and/or resources that assist local health departments and community partners to apply evidence-based public health strategies in NC.



# Well Established Fact...

**“To achieve state and national objectives for improved population health, more widespread adoption of evidence-based strategies has been recommended.”**

*-Brownson, et. al., Annu Rev Public Health, 2009*

**This is one of those sentences with loads of reference numbers after it in many different sources.**

The challenge is **HOW...**

The challenge is **NOW...**



# Assessing Application

“It is difficult to estimate how widely evidence-based approaches are being applied. In a survey of 107 US public health practitioners, an estimated 58% of programs in their agencies were deemed evidence-based (i.e., using the most current evidence from peer-reviewed research).

This finding in public health settings appears to mirror the use of evidence-based approaches in clinical care.”

*-Brownson, et. al., Annu Rev Public Health, 2009*

# The Gap

## Why is this work important now?

“There is a large gap between the volume of public health knowledge generated through research and the application of that research in community settings where it is likely to have positive impacts.”

*-Ross Brownson, Public Health Reports, 2006*

# The Gap

## Why is this work important now?

“To him who devotes his life to science, nothing can give more happiness than increasing the number of discoveries, but his cup of joy is full when the results of his studies **immediately** find practical applications.”

∞-*Louis Pasteur*

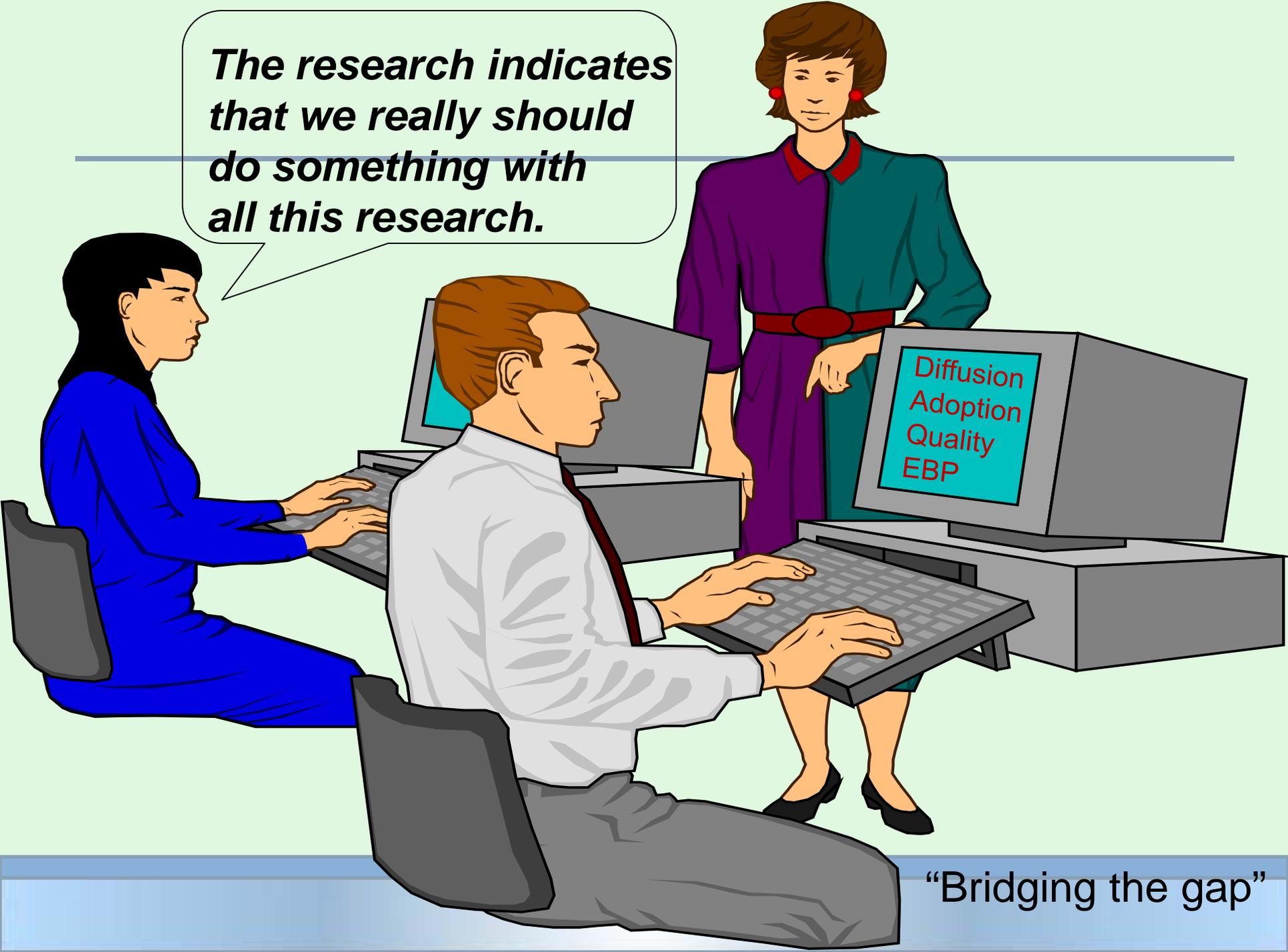
# The Gap

## Why is this work important now?

“No one denies the many slips between the cup of science and the lip of application. Clinical practice, public health programs, and health policy all lag in the application of evidence-based knowledge.”

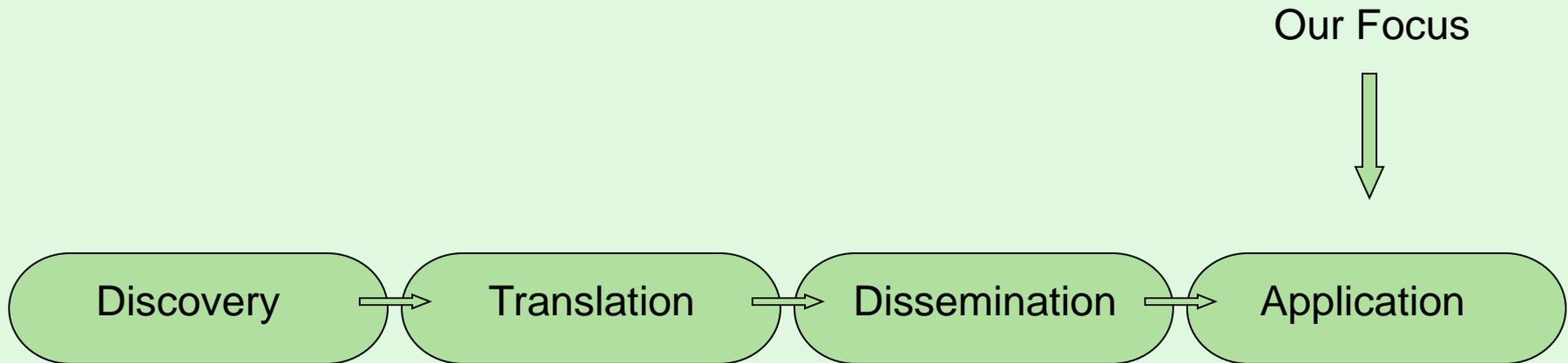
*-Lawrence W. Green, Am J Prev Medicine 2009*

*The research indicates that we really should do something with all this research.*



“Bridging the gap”

# A Framework for Translating Research into Public Health Action



The last phase in this pathway is the application / change / adoption to improve health indicators and outcomes. Adopting organizations are “complex and contextual.”

*Adapted from Brownson, et.al.  
Public Health Reports, 2006*

# Definitions...more from Alice later

## Combo from Ross Brownson & CDC

- ***Emerging (E)***: These practices are supported by field-based summaries or evaluations in progress that have plausible effectiveness, reach, feasibility, sustainability, and transferability.
- ***Promising (P)***: These practices are supported by intervention evaluations without peer review of practice or publication that have evidence of effectiveness, reach, feasibility, sustainability, and transferability.
- ***Leading (L) or Effective***: These practices are supported by intervention evaluations or studies with peer review of practice that have evidence of effectiveness, reach, feasibility, sustainability, and transferability.
- ***Best (B), Proven or Evidence-Based***: These practices are supported by intervention evaluations or studies with rigorous systematic review that have evidence of effectiveness, reach, feasibility, sustainability, and transferability.

# Research Tells Us...

**“It takes 17 years to turn  
14 per cent of original research  
to the benefit of patient care.”**

-Dr. Lawrence Green  
with reference to Andrew Balas

# 5 Ways of Making Research and Translation More Relevant for Practice

- Making research more context-based\*
- Setting research & evaluation priorities
- Making research findings more actionable, usable, relevant (to whom?)
- Producing, disseminating & translating (adapting) research in and to local circumstances, cultures, and personnel
- Making evidence more practice-based

\*Green LW. Public health asks of systems science...  
*Amer J Public Health* 96, March 2006.

# In the Words of Tina Turner: What's QI Got to Do Got to Do with it?

...and, then, Larry Green again...

*“The gap between science and practice – what the IOM in the US termed a **“quality chasm”** – appears to be narrowing only slowly and at best unevenly.”*

*-Lawrence W. Green, Am J Prev Medicine 2009*

# Relevant QI Principles

- Customer-focused
  - The customer defines quality
  - Involve customers in the design of products/resources
- Make doing the right thing the easy thing
- Context matters

# Improvement Requires...

- Will
- Ideas
- Execution

# Top Barriers to Implementation/Execution

- Time
- Time
- Time...
- Resistance to change
- Unintended consequences/risk
- Managing change process

# Top Barriers to Implementation/Execution

- Political environment
- Deficits in relevant and timely research
- Deficits in information systems
- Deficits in resources
- Deficits in leadership
- Required competencies

*-Brownson, et. al., Annu Rev Public Health, 2009*

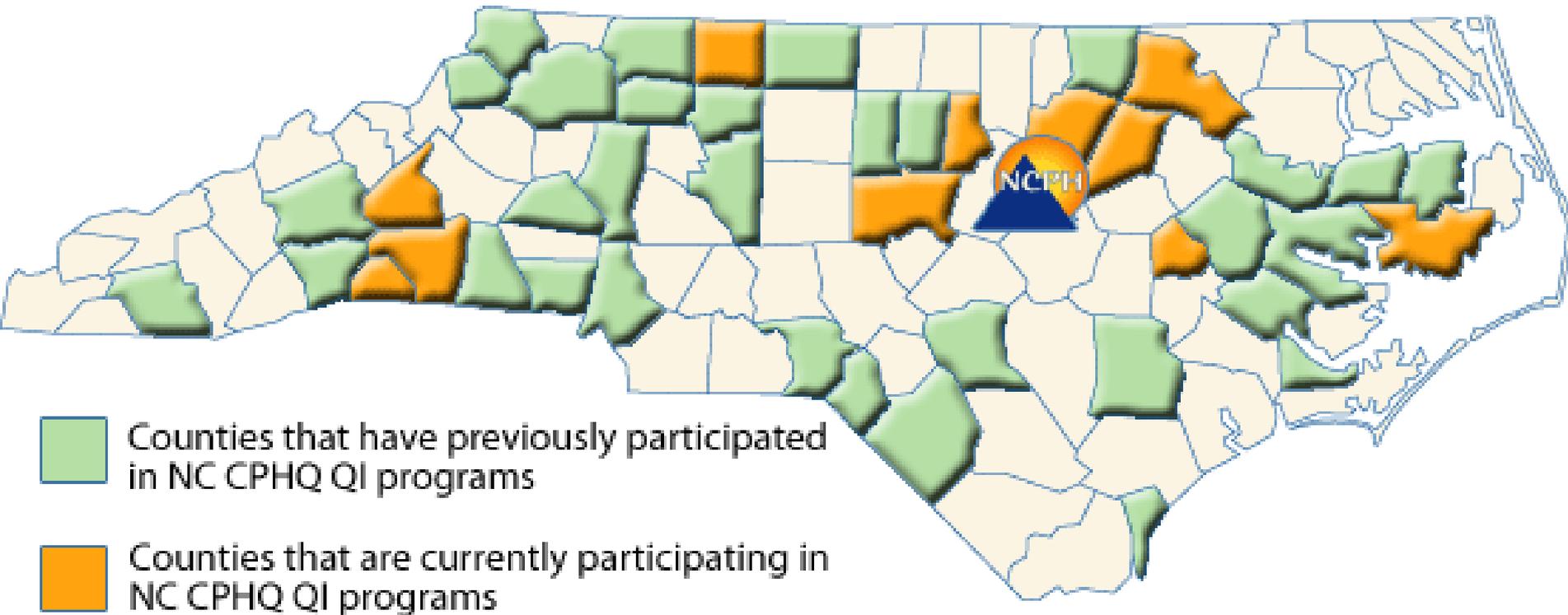
# How QI Addresses Barriers

- PDSA cycles
  - To test on small scale (time)
  - Prevent unintended consequences
  - Adaptation to local context
- Clearly stated goals that are measurable
  - Measurement during change process (resistance, managing change)

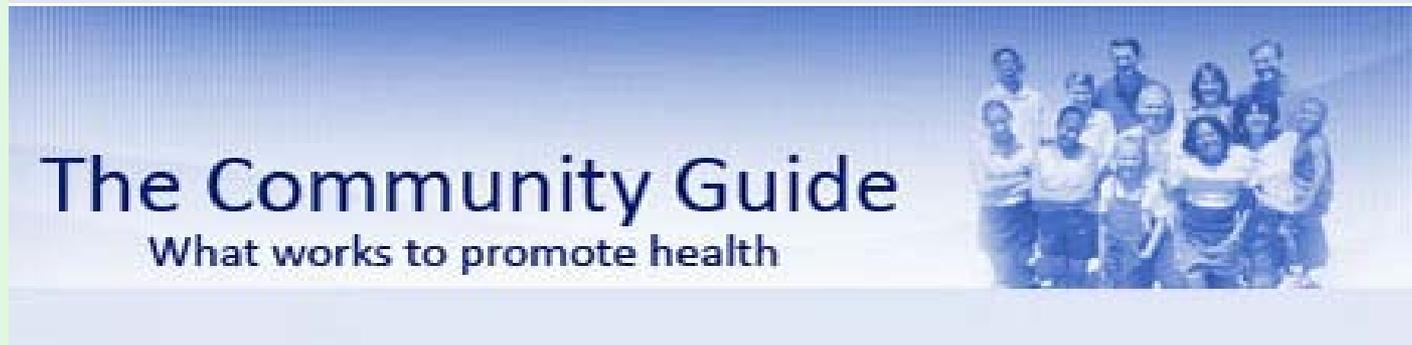
# What CPHQ is doing to Address Barriers

- QI 101 program
- QI Advisor program
- Aligning and Streamlining Initiative
  - Freeing up time for improvement
- NC Community Performance Measures
  - Prioritization
  - Actionable data
- Resources library

# QI Training Participation as of March '12



NC Division of Public Health QI programs



# The Guide to Community Preventive Services

<http://www.thecommunityguide.org/index.html>

## What is the Community Guide?

The Guide to Community Preventive Services is a free resource to help you choose programs and policies to improve health and prevent disease in your community.

**Systematic reviews are used to answer these questions:**

- **Which program and policy interventions have been proven effective?**
- **Are there effective interventions that are right for my community?**
- **What might effective interventions cost; what is the likely return on investment?**

# What else is out there?

## The Promising Practices Network

A Search a “Programs-That-Work” Database

<http://www.promisingpractices.net/search.asp#searchprograms>

Browse through the complete list of program descriptions. PPN programs can be browsed in several ways:

[View programs by outcome area](#)

[View programs by indicator](#)

[View programs by topic](#)

[View programs by evidence level](#)

[View programs alphabetically](#)



Promising  
Practices  
Network

on children, families and communities

# What else is right here in NC?

<http://library.ncahec.net/main.cfm>

North Carolina  
AHEC

North Carolina AHECs

*Click on your AHEC for more information*

## NC AHEC STATEWIDE MAP



### Mountain AHEC

Nina Vianco  
Nina.vianco@ncahec.net

### Northwest AHEC

Chris Jones  
cjones@wfubmc.edu

### Greensboro AHEC

Jill Smith  
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### Wake AHEC

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### Asheboro AHEC

### Eastern AHEC

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### Charlotte AHEC

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### Southern Regional AHEC

Jennifer Burton  
Jennifer.burton@uncc.edu

### South-East AHEC

North Carolina  
AHEC



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click here for new additions

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Physical Activity & Health  
NAP SACC

## Supporting Evidence-based Practice in Public Health

SIP 10-04 Cooperative Agreement Number U48-DP000059

Centers for Disease Control and Prevention

Division of Nutrition, Physical Activity and Obesity



North Carolina Division of Public Health



*Working for a healthier and safer North Carolina -  
Everywhere, Everyday, Everybody.*



- **Administrative, Local and Community Support**
- **Chronic Disease and Injury Section**
- **Epidemiology**
- **Office of Minority Health and Health Disparities**
- **Oral Health**
- **State Laboratory**
- **State Center for Health Statistics**
- **Women's and Children's Health**
- **NC Center for Public Health Quality**

# What else is right here in NC? **YOU!**

“...If we want more evidence-based practice, we need more practice-based evidence.”

*-Lawrence W. Green, Am J Prev Medicine 2009*

**The answer is here in this room (and by phone)!!!!**

We have public health practitioners, we have thought leaders, we have policy leaders, we have researchers, we have QI specialists, we have networks that are formal and informal across NC to help us do this well.

Including...**The NC Public Health Practice Based Research Network (PBRN):** The NC Institute for Public Health at UNC, The NC Incubator Collaboratives (Central Partnership and beyond) along with the RWJF & HPDP.