



# Improving Health Delivery

University of Kentucky  
Board of Trustees Retreat  
October 17, 2014

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# Why Apply Health Services Research to Public Health Delivery?

**>75%** of US health spending is attributable to conditions that are largely preventable

- Cardiovascular disease
- Diabetes
- Lung diseases
- Cancer
- Injuries
- Vaccine-preventable diseases and sexually transmitted infections

**<5%** of US health spending is allocated to prevention and public health

# Why Apply Health Services Research to Public Health Delivery?

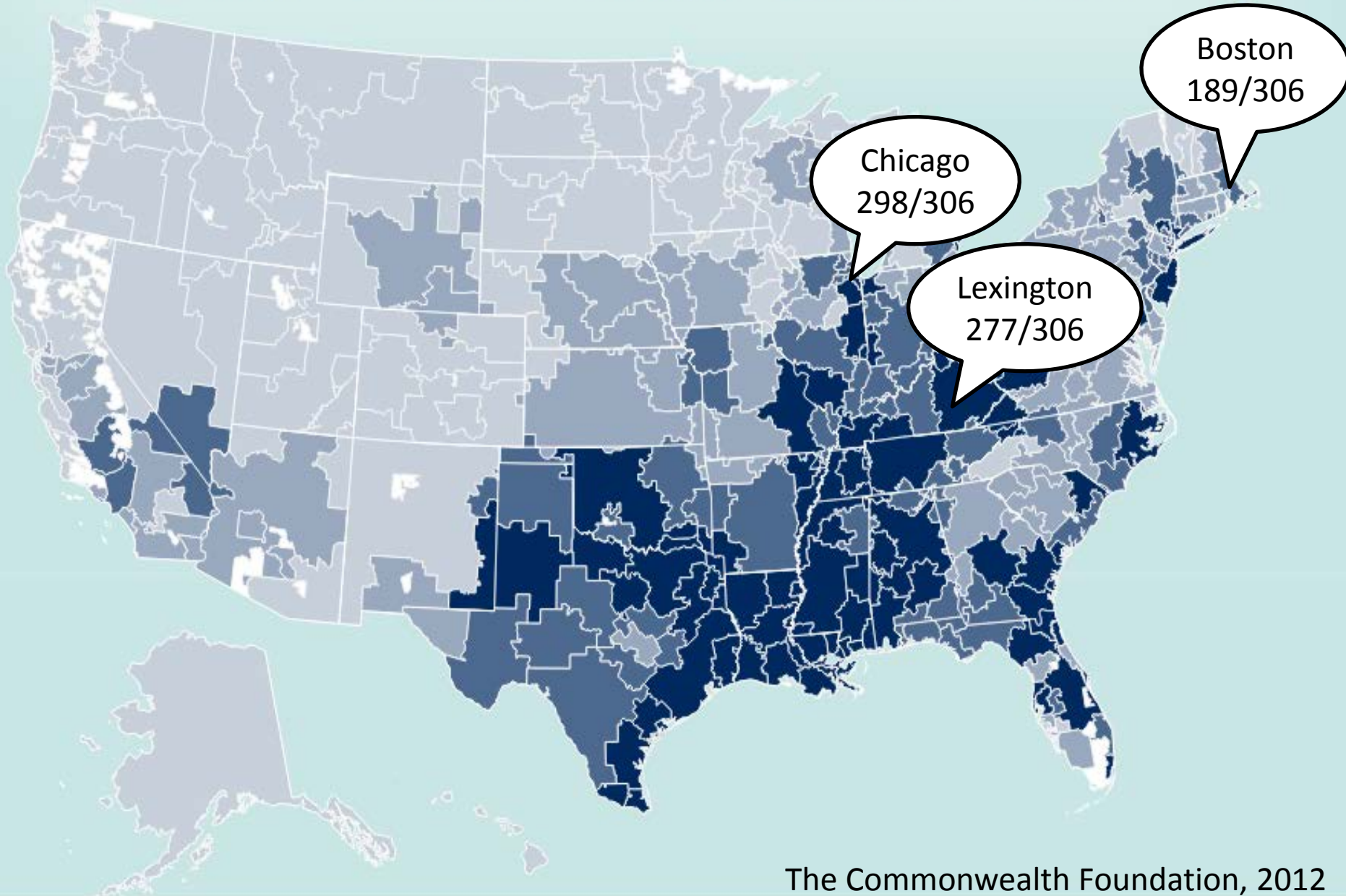
Evidence-based prevention strategies **reach** less than half of the U.S. target populations at risk:

- Smoking cessation
- Influenza vaccination
- Hypertension control
- Nutrition & physical activity programs
- Family planning
- Substance abuse prevention
- Interpersonal violence prevention



# Potentially Avoidable Hospital Use and Cost: Overall Ranking, 2012

○ Top Quartile   ● Second Quartile   ● Third Quartile   ● Bottom Quartile   ○ No Data



# Effective clinical systems improvement program

## Five components

### Consistency



### Information system



### Patient-centered



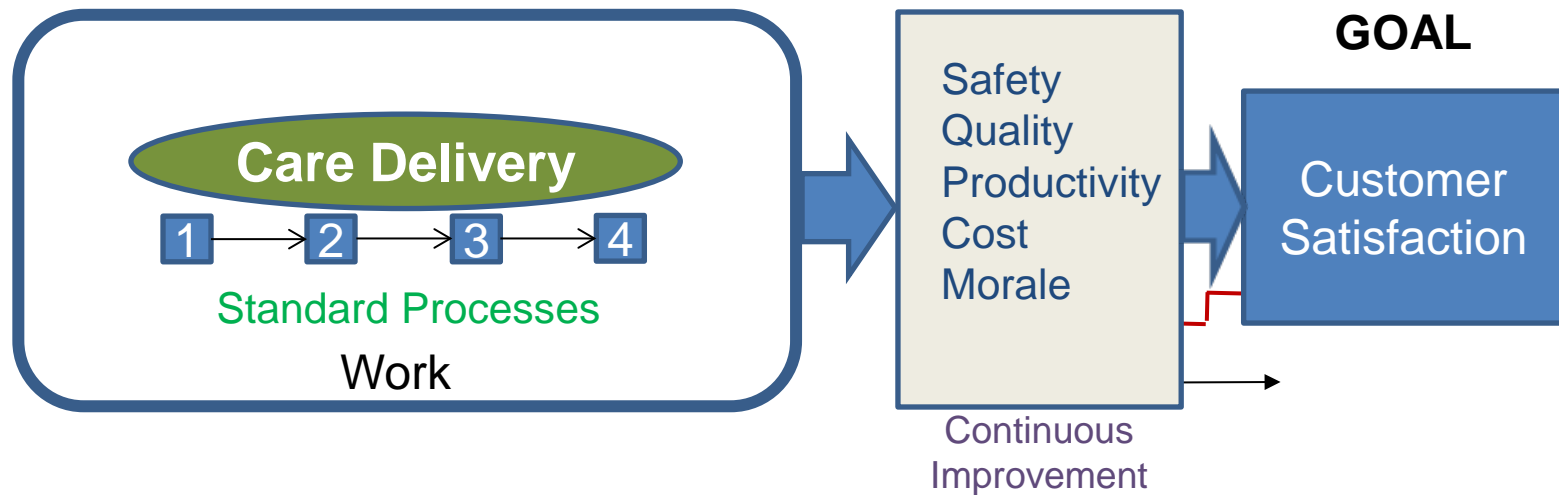
### Team-based care



### Innovation



# TRUE LEAN™ Operating Environment



# Three Research Project Examples For Improving Care Delivery

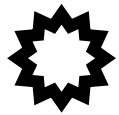
- UK-Appalachian Tele-Emergency Network
- National Coordinating Center for Public Health Services and Systems Research
- PCORI – Project ACHIEVE



# UK-Appalachian Tele-Emergency Network



University of Kentucky  
Chandler Medical Center (UK-ATEN Hub)



Rural Non-Critical Access  
Hospital (UK-ATEN Spoke)



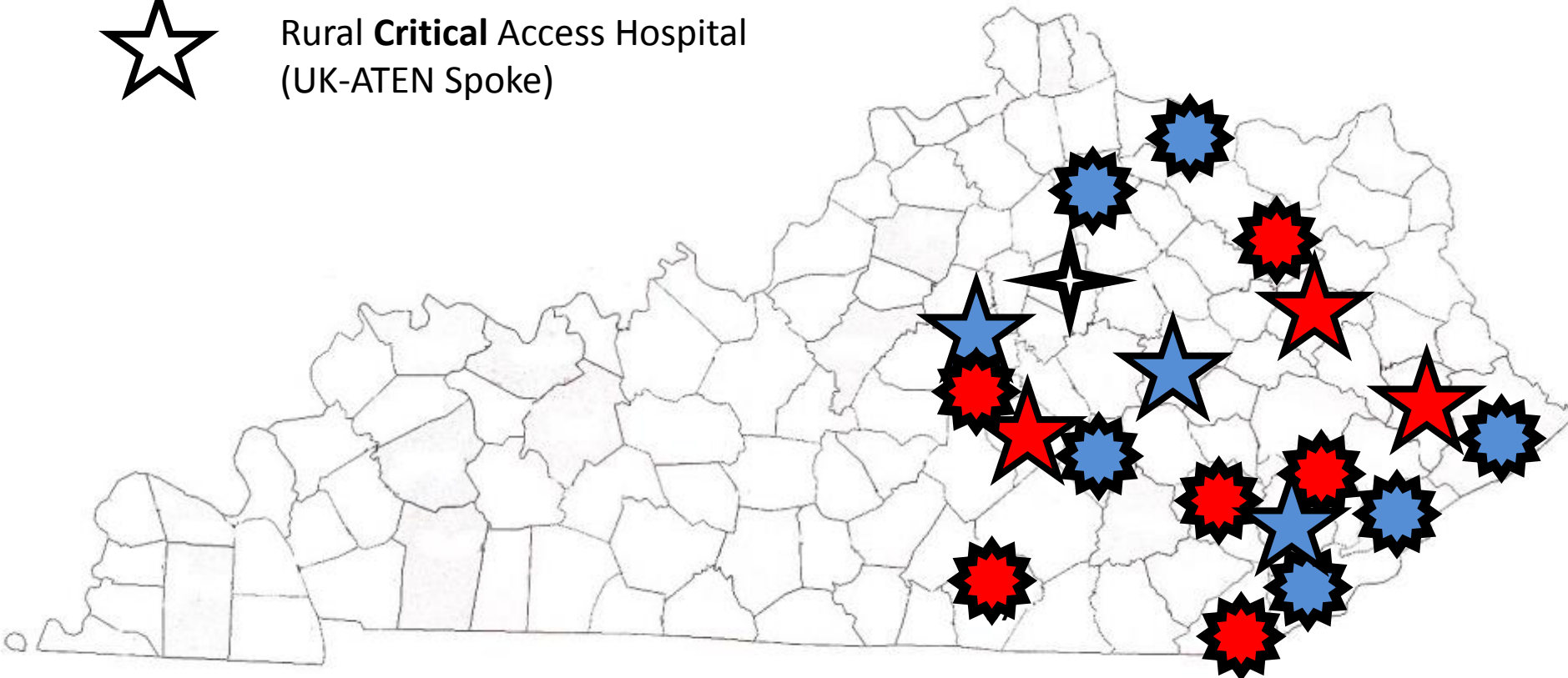
Rural **Critical** Access Hospital  
(UK-ATEN Spoke)



Control Site



Intervention Site



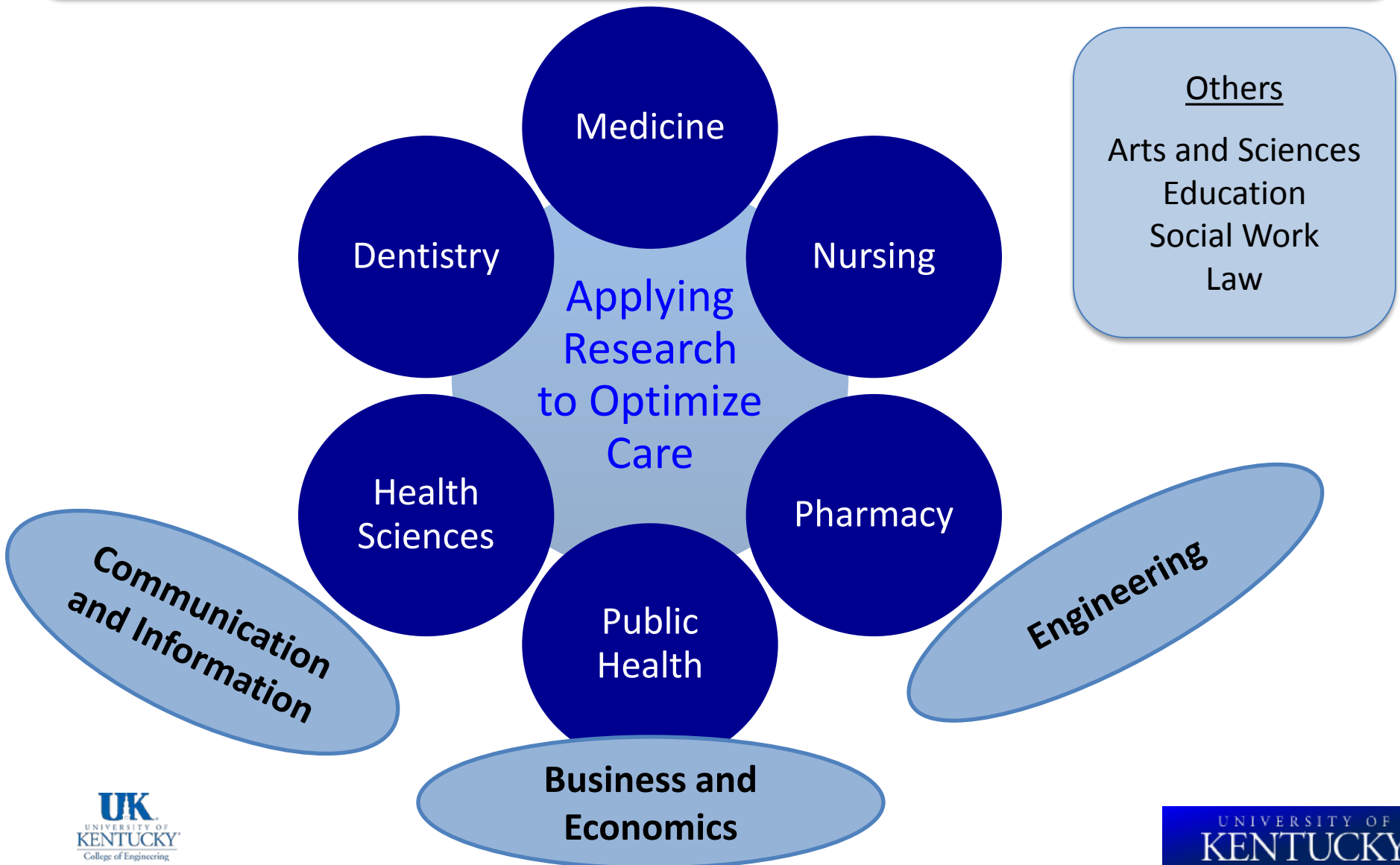
# National Coordinating Center for Public Health Services and Systems Research

- Funded by Robert Wood Johnson Foundation:  
**\$10.5M** to UK from 2011-2015
- Intramural research activities
  - **Public Health Value**: Cost estimation, economic evaluation
  - **Delivery System Reform**: ACA effects on public health delivery, population health measurement, aligning public health & health care delivery
- Extramural research programs (funded separately **≈ \$30M**)
  - **Practice-based Research Networks** (PBRNs) across U.S.
  - Investigator-initiated research awards
  - Predoctoral/Postdoctoral & career development awards
  - Quick Strike rapid-cycle studies

# Public Health PBRN Reach

- Networks in **32** U.S. states
- **1,593** local public health agencies engaged
- **35** state agencies engaged
- **52** universities engaged
- **58** professional and community organizations
- Emerging Canadian network

# Connect — Catalyze — Create

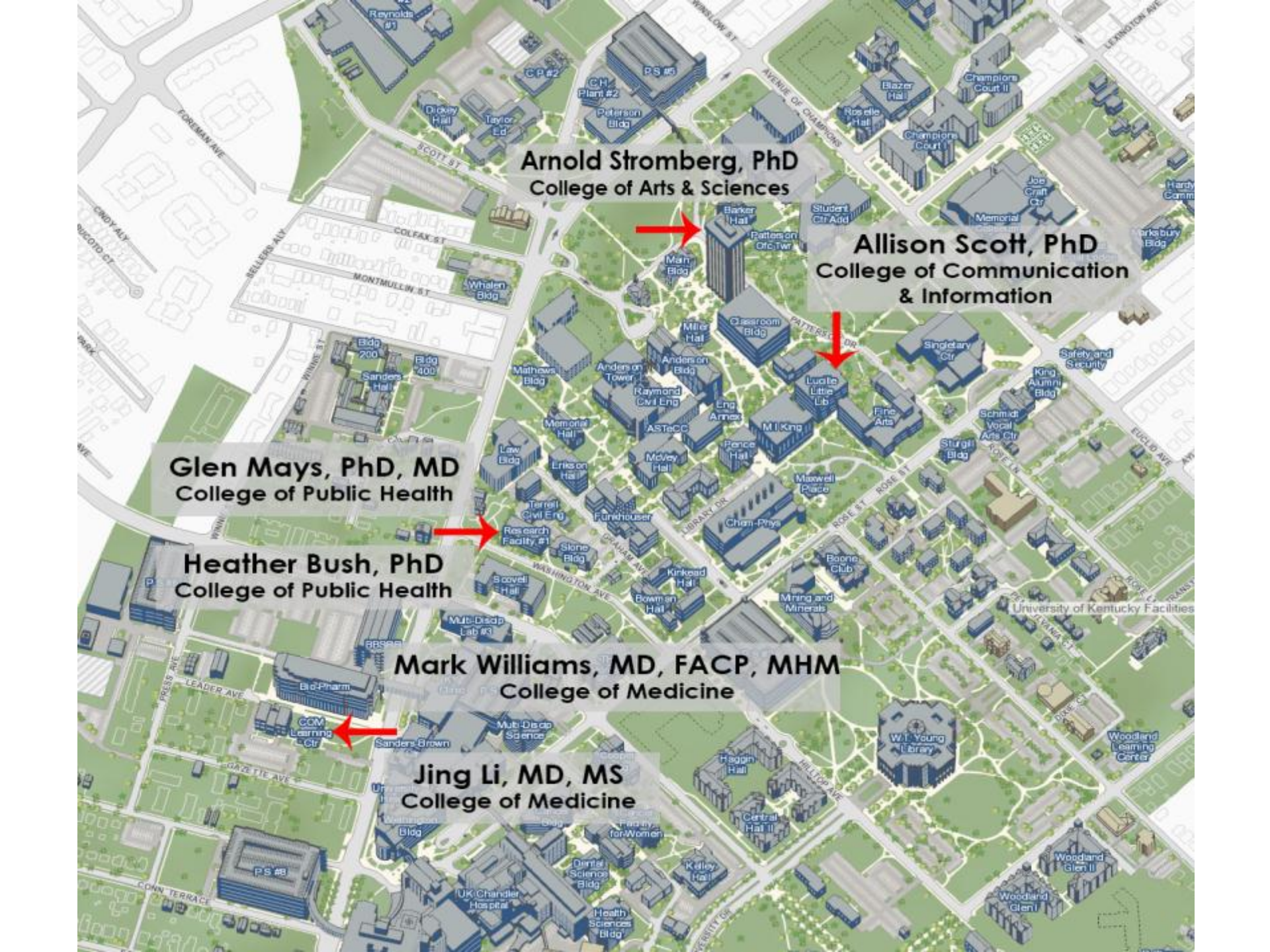




# Project **ACHIEVE**

## Effectiveness of Transitional Care

Achieving Patient-Centered Care  
and Optimized Health In Care  
Transitions by Evaluating the Value  
of Evidence



**Arnold Stromberg, PhD**  
College of Arts & Sciences

**Allison Scott, PhD**  
College of Communication  
& Information

**Glen Mays, PhD, MD**  
College of Public Health

**Heather Bush, PhD**  
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**Mark Williams, MD, FACP, MHM**  
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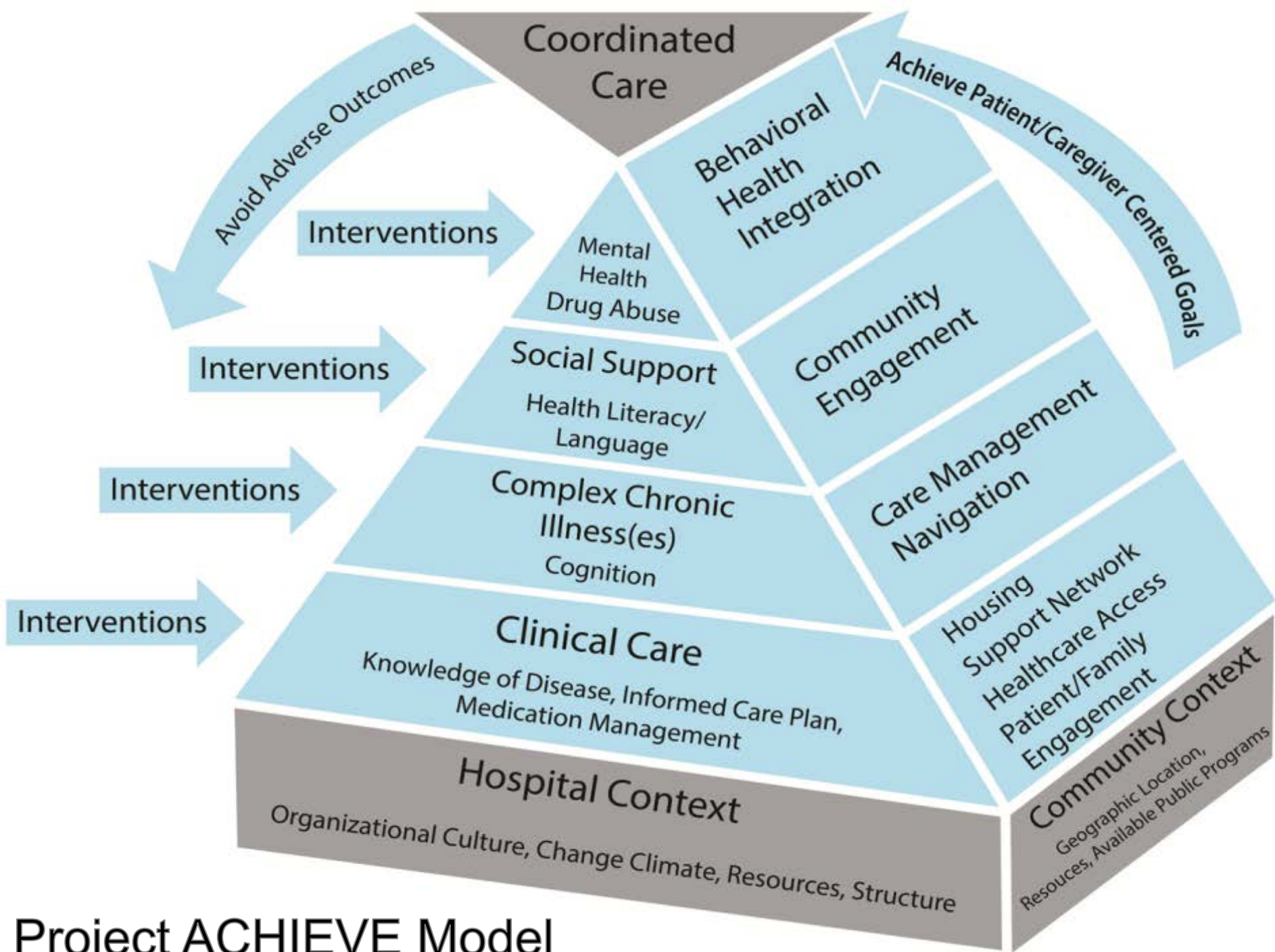
# ACHIEVE Study Design – 3 year study

**Phase 1:** Survey Development

**Phase 2a:** Retrospective Longitudinal  
Comparative Analyses

**Phase 2b:** Prospective Cohort Analysis

**Phase 3:** Dissemination



Project ACHIEVE Model



# Translational Science



## Return on investment:

- Educate future leaders
- Improve health of the Commonwealth
- Grow research portfolio



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