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

CDC 2008 and CMS 2011
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

- Boston: 189/306
- Chicago: 298/306
- Lexington: 277/306

The Commonwealth Foundation, 2012
Effective clinical systems improvement program

Five components

Consistency

Information system

Patient-centered

Team-based care

Innovation
Operating Environment

GOAL

Customer Satisfaction

Safety
Quality
Productivity
Cost
Morale

Continuous Improvement

Care Delivery

Standard Processes

Work

1 2 3 4
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)

- Blue star: Control Site
- Red star: 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
Project ACHIEVE
Effectiveness of Transitional Care

Achieving Patient-Centered Care and Optimized Health In Care Transitions by Evaluating the Value of Evidence
ACHIEVE Study Design – 3 year study

Phase 1: Survey Development

Phase 2a: Retrospective Longitudinal Comparative Analyses

Phase 2b: Prospective Cohort Analysis

Phase 3: Dissemination
Translational Science

Return on investment:
- Educate future leaders
- Improve health of the Commonwealth
- Grow research portfolio
Improving Health Delivery