U.S. Department of Health & Human Services • National Institutes of Health

National Center for Complementary and Integrative Health

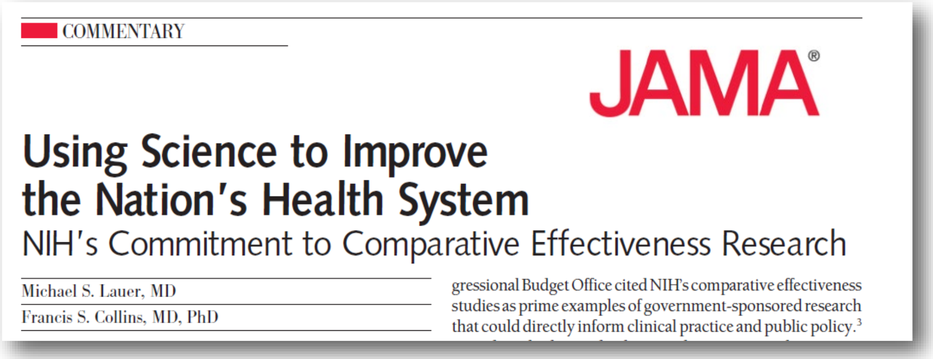
Embedded Pragmatic Clinical Trials: Accelerating Evidence Generation in Nephrology

American Society of Nephrology Kidney Week, November 8, 2019

Moderators: Catherine M. Meyers, M.D., FAHA; NCCIH

Susan R. Mendley, M.D.; NIDDK

Contemporary Challenges for Clinical Research


COMMENTARY

JAMA®

Using Science to Improve the Nation's Health System

NIH's Commitment to Comparative Effectiveness Research

Michael S. Lauer, MD

Francis S. Collins, MD, PhD

gressional Budget Office cited NIH's comparative effectiveness studies as prime examples of government-sponsored research that could directly inform clinical practice and public policy.[3]

- New approaches & strategies for the clinical trial enterprise
  - Stakeholder interactions & leveraging multidisciplinary expertise
  - Methods for preserving randomized trial design & optimizing use of available data
  - Dissemination and Implementation

Lauer MS, Collins FS. JAMA 2010;303:2182-3

MEDICAL RESEARCH

Science, 2015, 348:382

Clinical trials get practical

Many clinical trials don't help doctors make decisions. A new breed of studies aims to change that

By **Jennifer Couzin-Frankel**, *in Philadelphia, Pennsylvania*

trials will involve more women, more minorities, a range of incomes," says Monique

N Engl J Med 2016;375:454-63

REVIEW ARTICLE

THE CHANGING FACE OF CLINICAL TRIALS

Jeffrey M. Drazen, M.D., David P. Harrington, Ph.D., John J.V. McMurray, M.D., James H. Ware, Ph.D., and Janet Woodcock, M.D., *Editors*

Pragmatic Trials

Ian Ford, Ph.D., and John Norrie, M.Sc.

PRAGMATISM IN CLINICAL TRIALS AROSE FROM CONCERNS THAT MANY trials did not adequately inform practice because they were optimized to determine efficacy.[1] Because such trials were performed with relatively small samples at sites with experienced investigators and highly selected participants, they could be overestimating benefits and underestimating harm. This led to the

- Need for trials that inform practice & policies
- Decision makers include patients, clinicians, payers, & policy makers

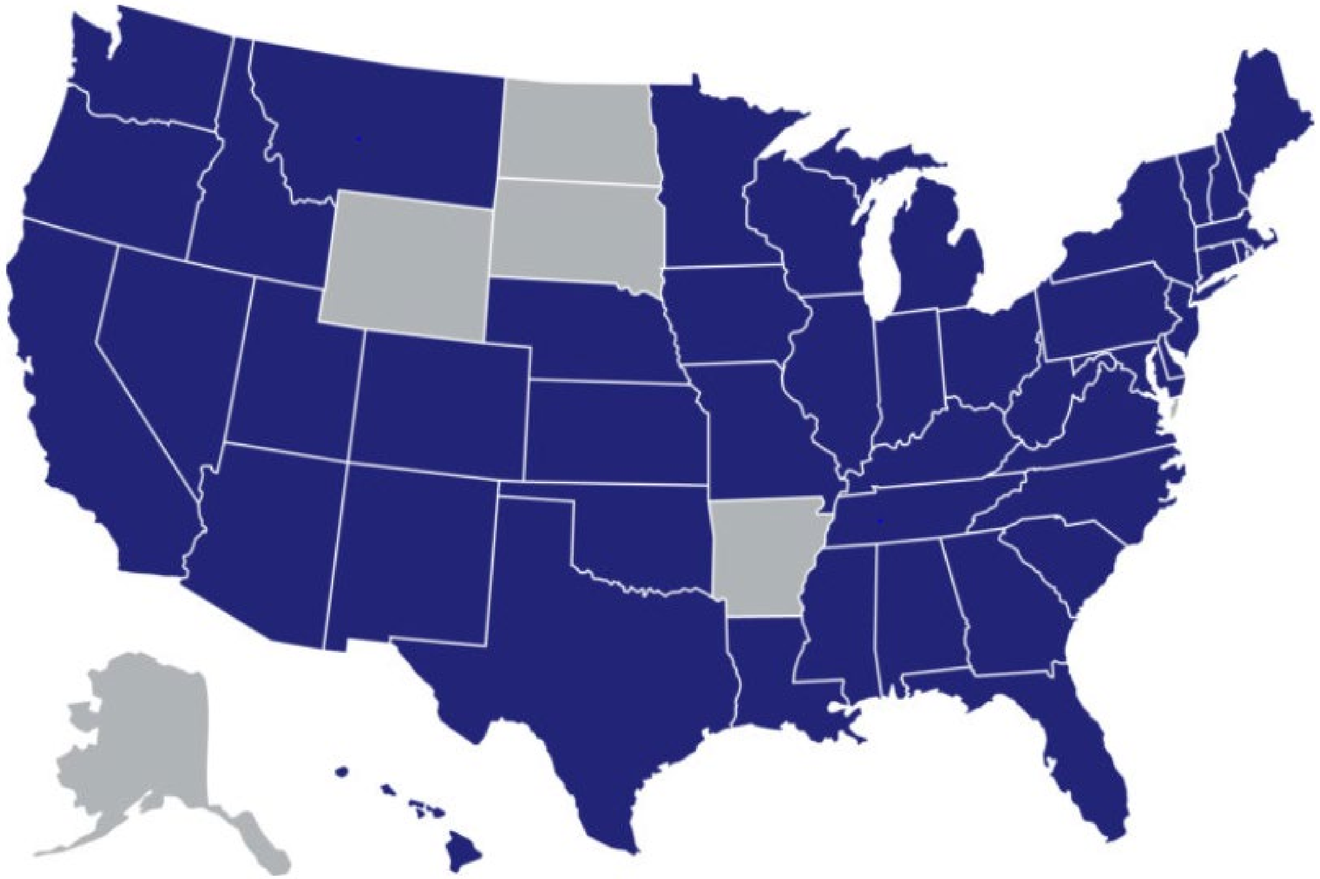
NIH Health Care Systems Research Collaboratory

Goal: To strengthen the national capacity to implement cost-effective, large-scale research studies that engage health care delivery organizations as research partners.

Aim: To provide a framework of implementation methods and best practices that will enable the participation of many health care systems in clinical research. Research conducted in partnership with health care systems is essential to strengthen the relevance of research results to health practice.

NIH Collaboratory PCT

- 19 Pragmatic clinical trials
- Diverse clinical settings, across 12 NIH Institutes
- >850 clinical sites, >85% of the US, >20 Heath Care Systems, >800,000 participants



Pragmatic Clinical Trial Programs

NIH Collaboratory

Health Care Systems Research Collaboratory

pcori

NIA IMPACT COLLABORATORY

TRANSFORMING DEMENTIA CARE

NIH Collaboratory—ePCTs in Nephrology

- Time to Reduce Mortality in ESRD (TiME) trial

TiME

  - Multicenter, cluster-randomized, parallel group trial of HD session ≥4.25 hr in incident patients compared to usual care
  - Develop approaches to embed a large, randomized trial into routine HD care
  - Endpoints—mortality, hospitalization, lab measures of safety

NIH Collaboratory—ePCTs in Nephrology

- Improving Chronic Disease Management with Pieces (ICD-Pieces)
  - Stratified, cluster randomized study of patients with CKD, DM, HTN to test if a collaborative model of primary care-subspecialty care using novel information technology and practice facilitators can implement best practices and reduce hospitalizations
- Management of Phosphorus in ESRD (HiLo)
  - Cluster randomized trial of HD patients to test a target serum phosphate >6.5 mg/dl vs standard 5.5 mg/dl using a hierarchical composite outcome of mortality and hospitalization

Panel Members

Laura M. Dember, MD
Professor of Medicine, Perelman School of Medicine, University of Pennsylvania

Qilu Yu, PhD
Lead Biostatistician, NIH, National Center for Complementary and Integrative Health, Office of Clinical and Regulatory Affairs

Miquel Vazquez, MD
Professor of Medicine, University of Texas Southwestern Medical Center

Wynne E. Norton, PhD
NIH/NCI, Office of the Director, Division of Cancer Control and Population Sciences

Rethinkingclinicaltrials.org