

# Behavioral Intervention Research: From Evidence to Practice

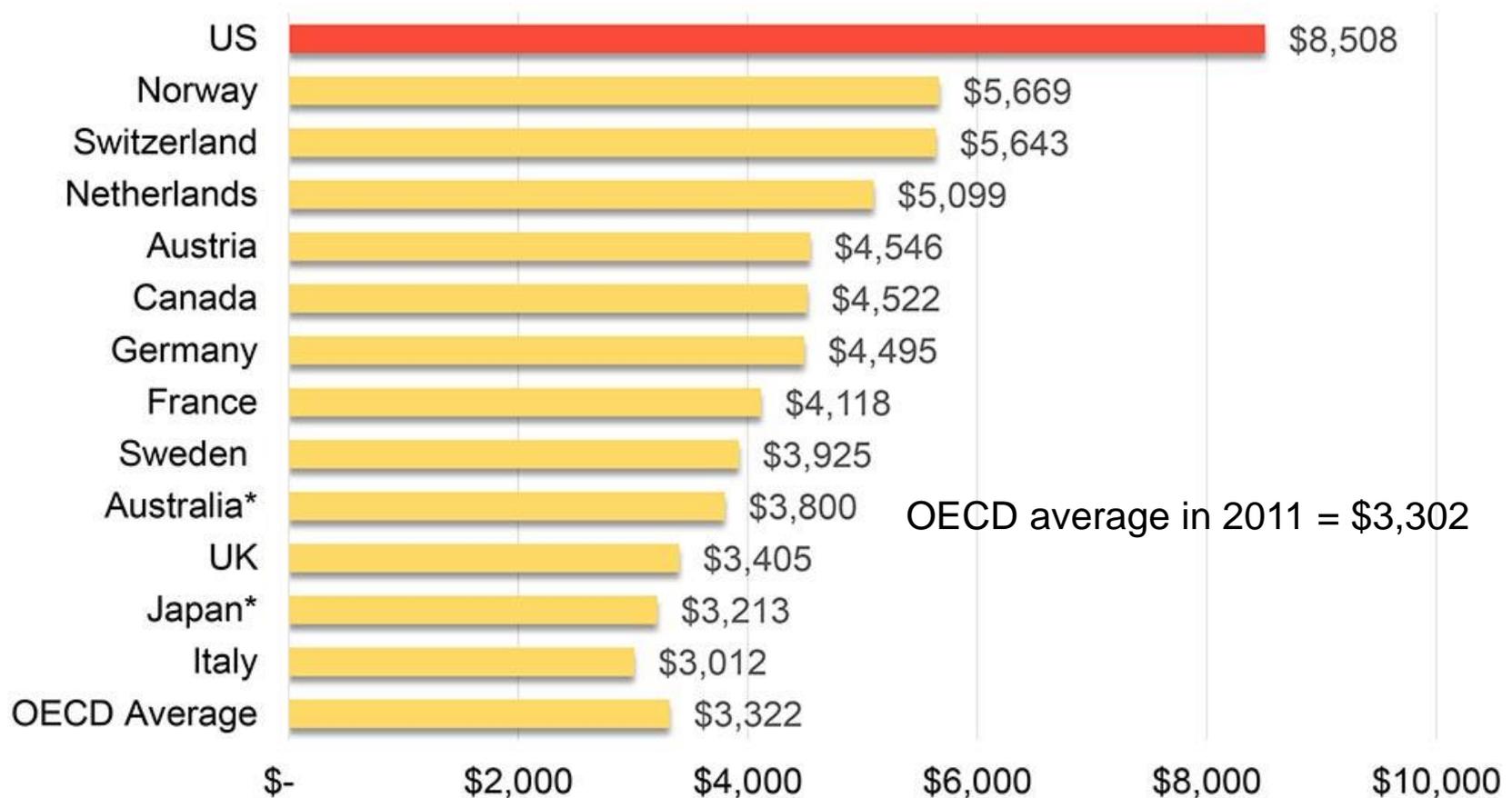
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April 3, 2014

# Current Health Care Situation in the US

- Underperforming health care system
- Balkanized and silo approaches to care, lack of integration of care
- Expensive, unsustainable cost, increasingly inaccessible
- Inequitable, significant health disparities

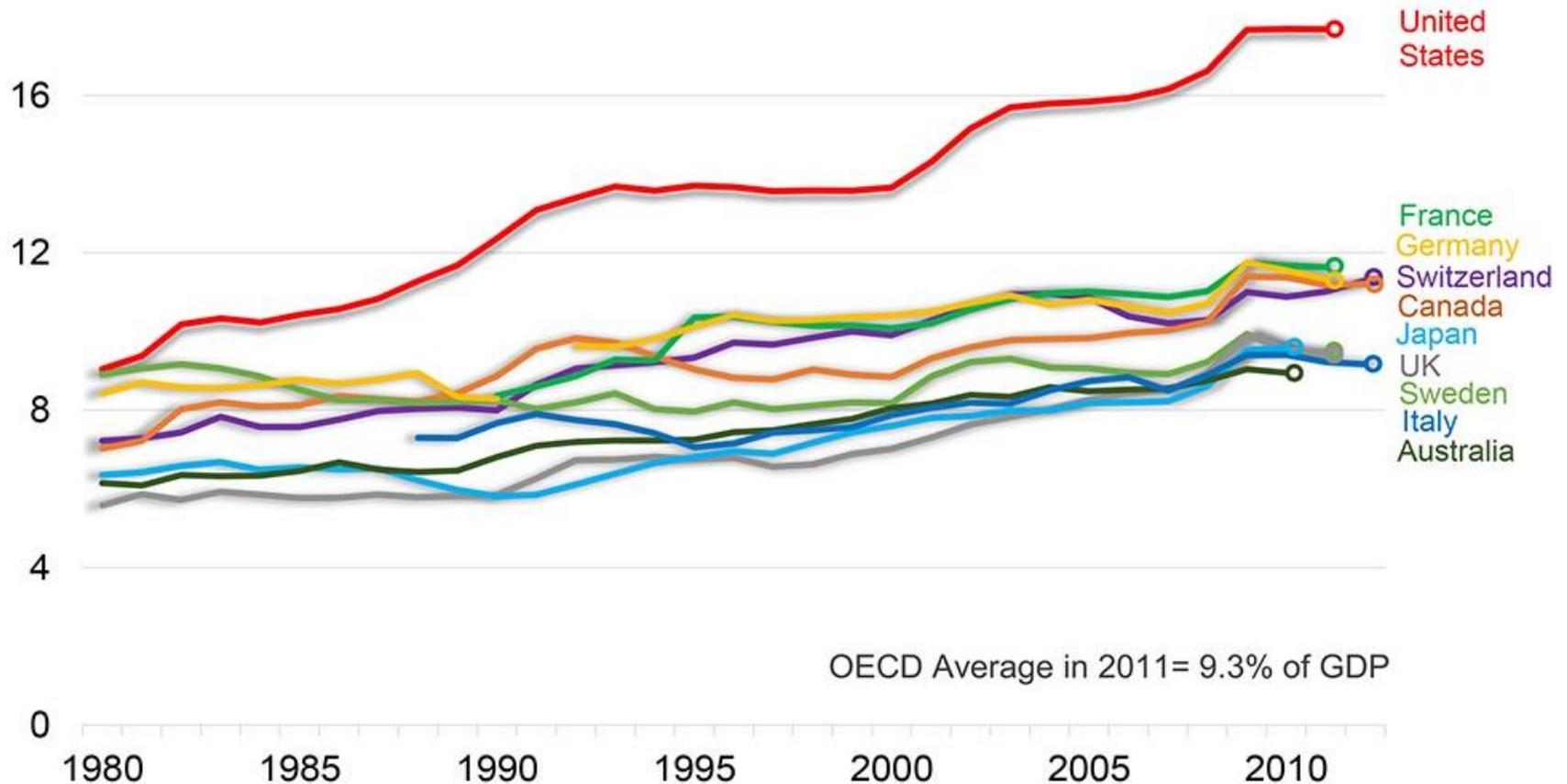
# Health Care Costs are Rising

## Per Capita Health Care Costs, 2011



Adjusted for purchasing power parity. Source: OECD health data, 2013.

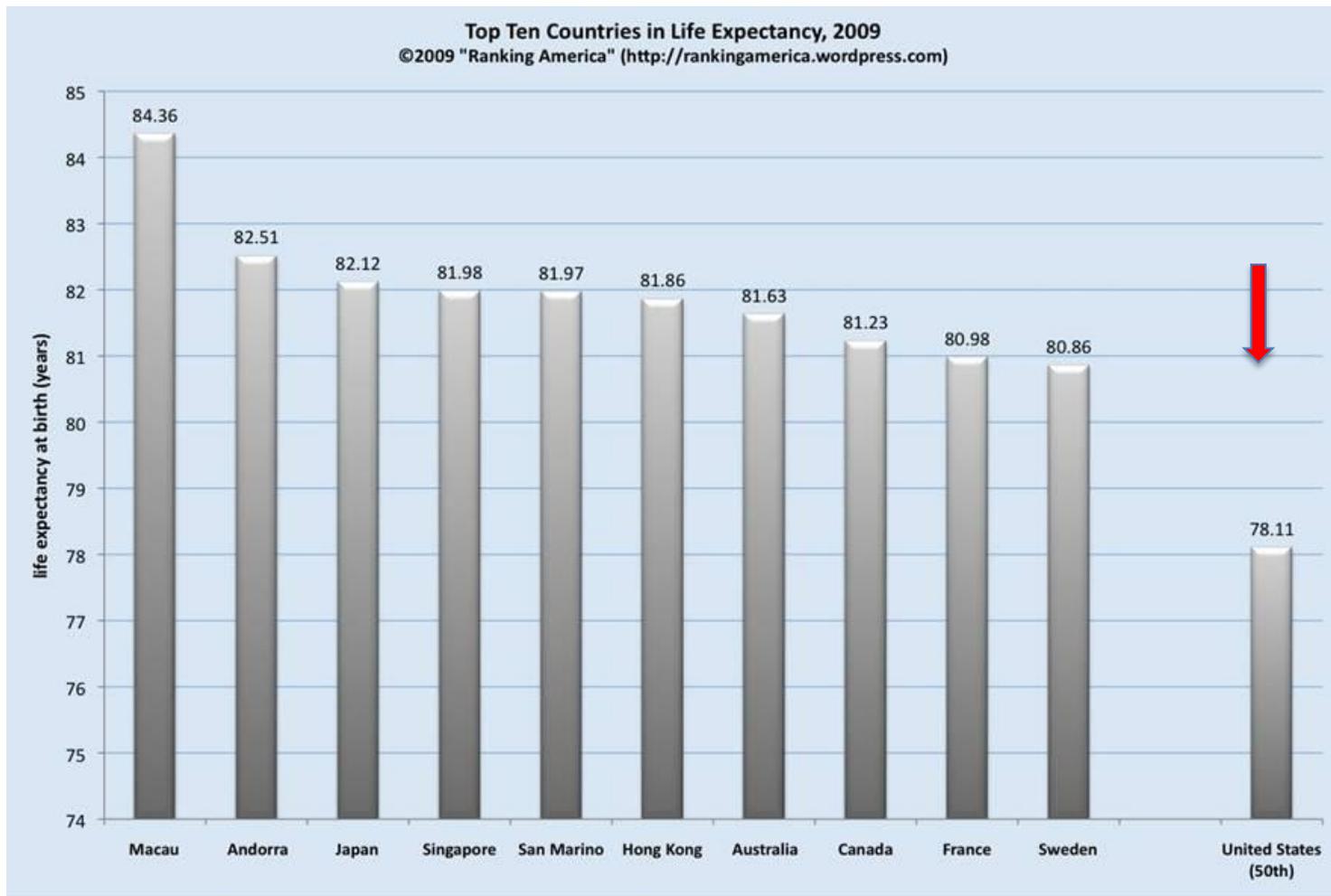
# Health Care Spending as % of GDP



OECD Average in 2011= 9.3% of GDP

Source: OECD Health Data, 2013. Health care spending projected to be 1/5 of the US economy by 2021.

# Life Expectancy in the US and Other Industrialized Nations



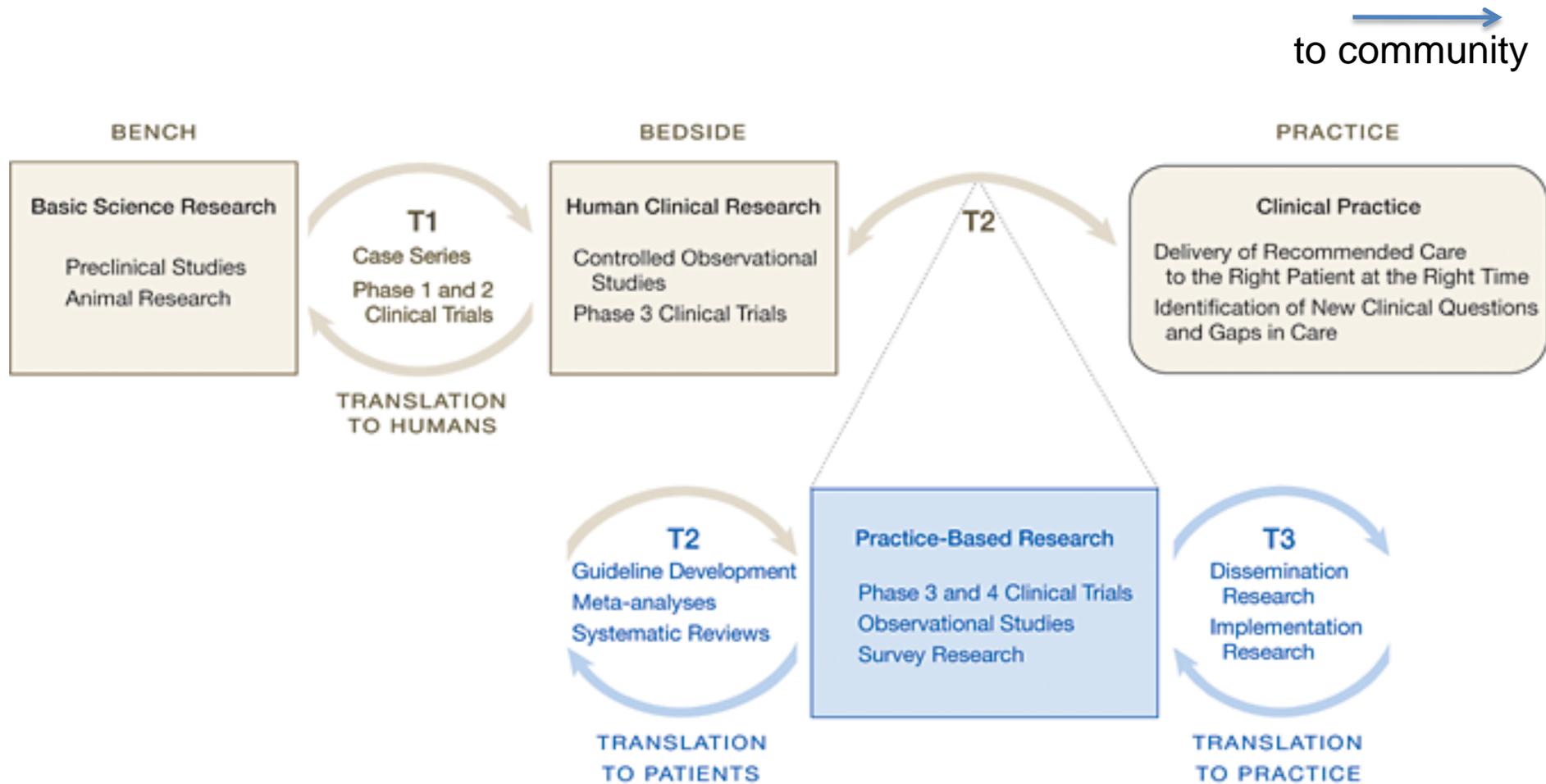
# Ideally we would have

- An integrated health care system
- Cost-effective
- Personalized care
- Rapid translation from research to care

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- An integrated health care system
- Cost-effective
- Personalized care
- **Rapid translation from evidence to practice**

# What is Evidence to Practice?



# Moving Research Evidence to Practice

**“it takes 17 years, on average,  
...for 14 % of research  
...to translate into practice”**



# Why – and when - do we need to know more about translation to practice?

- Evidence-based practices are not reaching patients with complex problems and vulnerable populations
- Effective interventions are not generally tested in real-world settings with staff found in public health and clinical situations
- **Too often, our research questions do not address issues important to practitioners, policy makers, and patients and their families**
- **Many evidence-based treatments not feasible in most real-world settings**

# Questions Addressed by Translation to Practice (Implementation) Research

- How to achieve widely accepted and adopted interventions in a variety of real-world settings
- Potentially modify interventions to be consistently accepted and implemented by individuals with varying training and expertise
- Enhance feasibility, provider and patient adherence, and community uptake while producing reliable effects at reasonable cost
- Determine how to reach large numbers of people in real-world settings, especially those who can most benefit

# Design Strategies Used in Implementation Research

Strike a balance between rigor and relevance in study designs, methods and outcomes

- RCTs
- Simulations, modeling, dynamic systems science models
- Natural experiments (implementation of new policy)
- Use of EHRs, registries, large health care systems
- Pragmatic trials
- Adaptive designs
- Factorial designs
- Cluster randomized designs
- Community Based Participatory Research approaches (CBPR)\*
- Patient-centered care approaches
- Small N studies
- and others....

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\*Guidelines and Categories for Classifying Participatory Research Projects in Health:  
<http://lgreen.net/guidelines.html>

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- ☑ Adaptive designs
- ☑ Factorial designs (SMART, fractional factorials)
- ☑ Cluster randomized designs
- ☑ Community Based Participatory Research approaches (CBPR)\*
- ☑ Patient-centered care approaches
- ☑ Small N studies
- and others....

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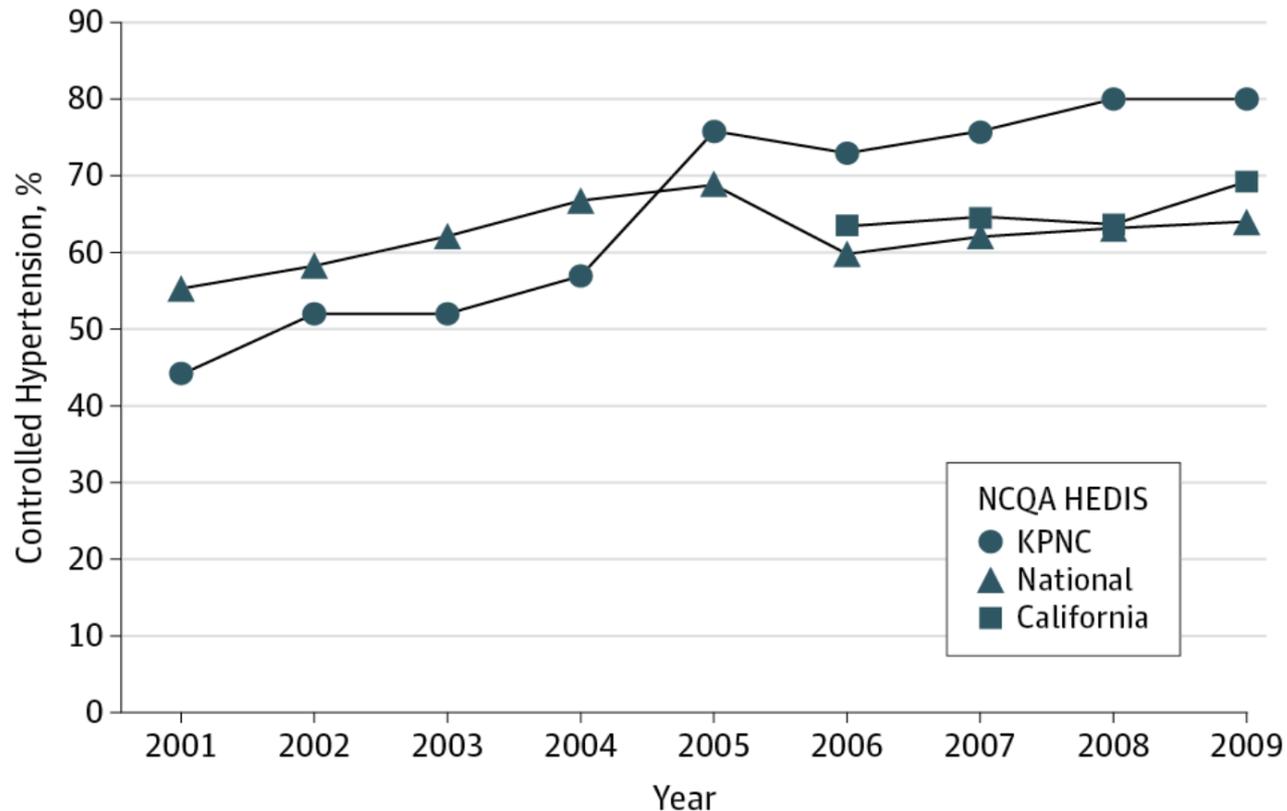
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# Snapshot: Hypertension Control in an Integrated Health Care Delivery System

- Utilized an integrated health care delivery system that implemented 1) a hypertension registry; 2) hypertension control reports; 3) guidelines; 4) medical assistant f/u; 5) single-pill combination therapy
- The Kaiser system-wide hypertension registry provided large numbers of eligible patients; study exempt from IRB review
- Large scale, multifaceted program developed from effective, primary care-based strategies published in 72 previous clinical trials.

# Hypertension Case Study - Go et al

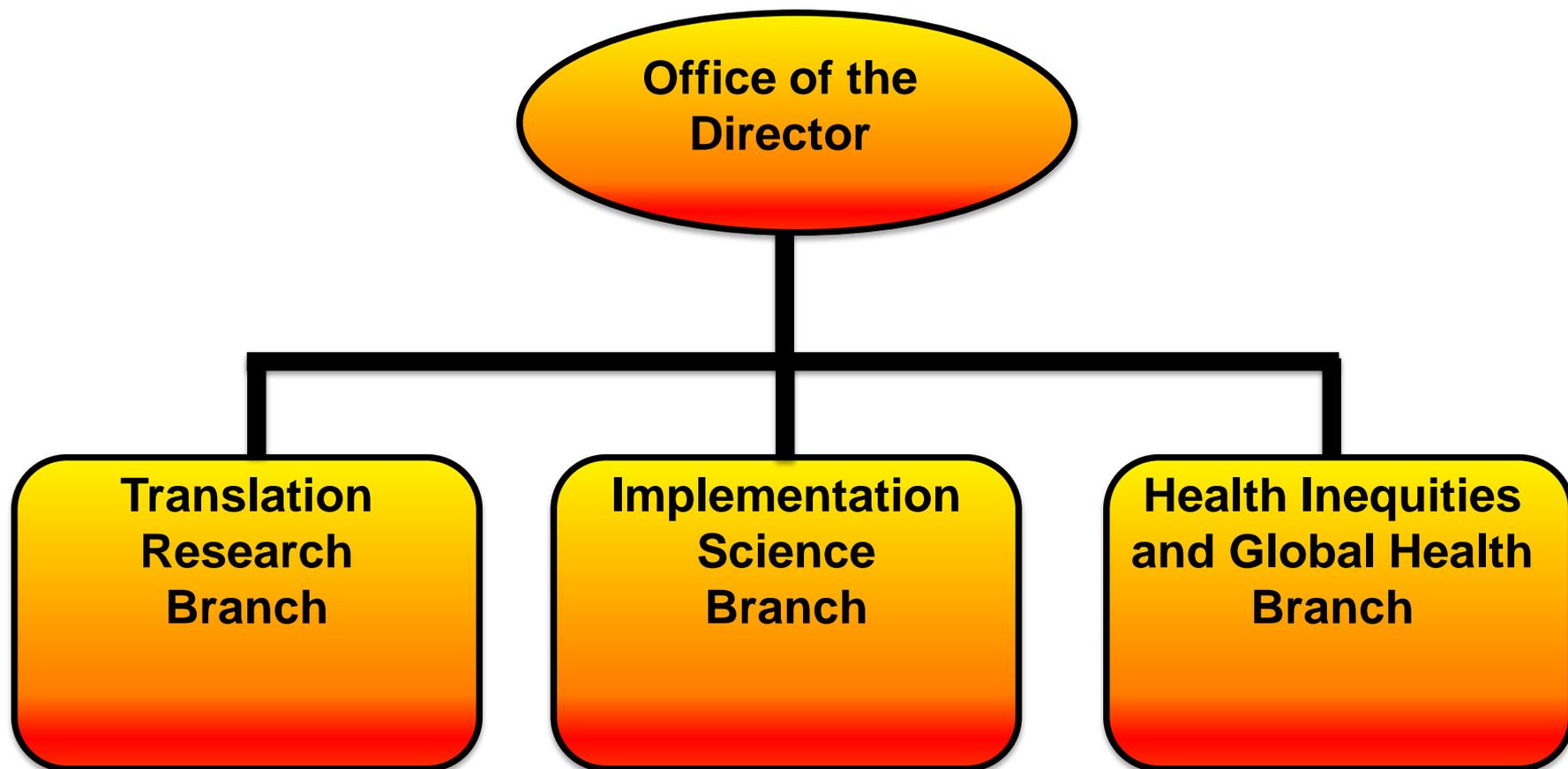
## Hypertension Control, JAMA, 2013



# CTRIS Announcement, January 23, 2014

CTRIS will serve as a strategic focal point for **implementation science, translation research**, and a **research agenda** that addresses both **domestic and global health inequities**, and **research training** for a workforce to achieve these goals.

# NHLBI Center for Translation Research and Implementation Science





National Heart, Lung,  
and Blood Institute