

The Latest Research on Mind-Body Approaches

September 3, 2014 2:00 p.m. Eastern

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Integrative Medicine and Health Care Disparities

Integrative Medicine

Advances in

Mind-Body Medicine



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Chair, Consortium of Academic

Health Centers for Integrative Medicine

Director, UCSF Osher Center for Integrative Medicine

Grantmakers In Health

September 3, 2014



Overview

- ➔ Define and present the latest US data on the use of integrative medicine, particularly mind body approaches
- Describe the growth of integrative medicine
- Highlight some of the current directions and challenges in mind body medicine

Integrative Medicine?

- “Integrative Medicine integrates the best evidence-based conventional and complementary medicine”
- Integrative Medicine is the practice of medicine that
 - reaffirms the importance of the relationship between practitioner and patient,
 - focuses on the whole person,
 - is informed by evidence, and
 - makes use of all appropriate therapeutic approaches, healthcare professionals and disciplines to achieve optimal health and healing



Complementary/Integrative Medicine*

- Mind and Body
Meditation
Yoga/Tai Chi
Massage
Acupuncture



- Natural Products



*NIH, NCCAM



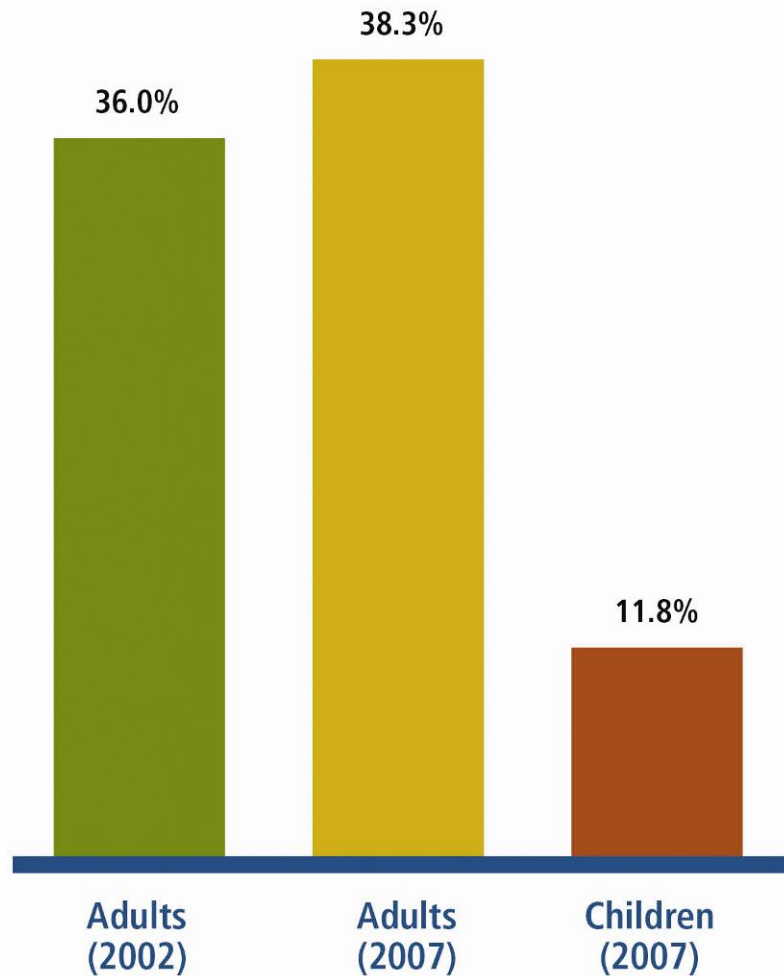
Complementary / Integrative Medicine Use Increasing

- National Health Interview Survey in 2002 & 2007
- National random sample
 - 2002: 31,044 adults
 - 2007: 23,393 adults & 9,417 children
 - 2012 : 31,044 adults

Coming Soon!



CAM Use by U.S. Adults and Children



The 2007 Report Indicated

- Over 38% of adults using complementary medicine within the past 12 months
- Total estimated adults using CAM
 - *over 115 million*
 - *increase of 12 million in 5 years*
- Almost 12% of children given complementary medicine within the past 12 months

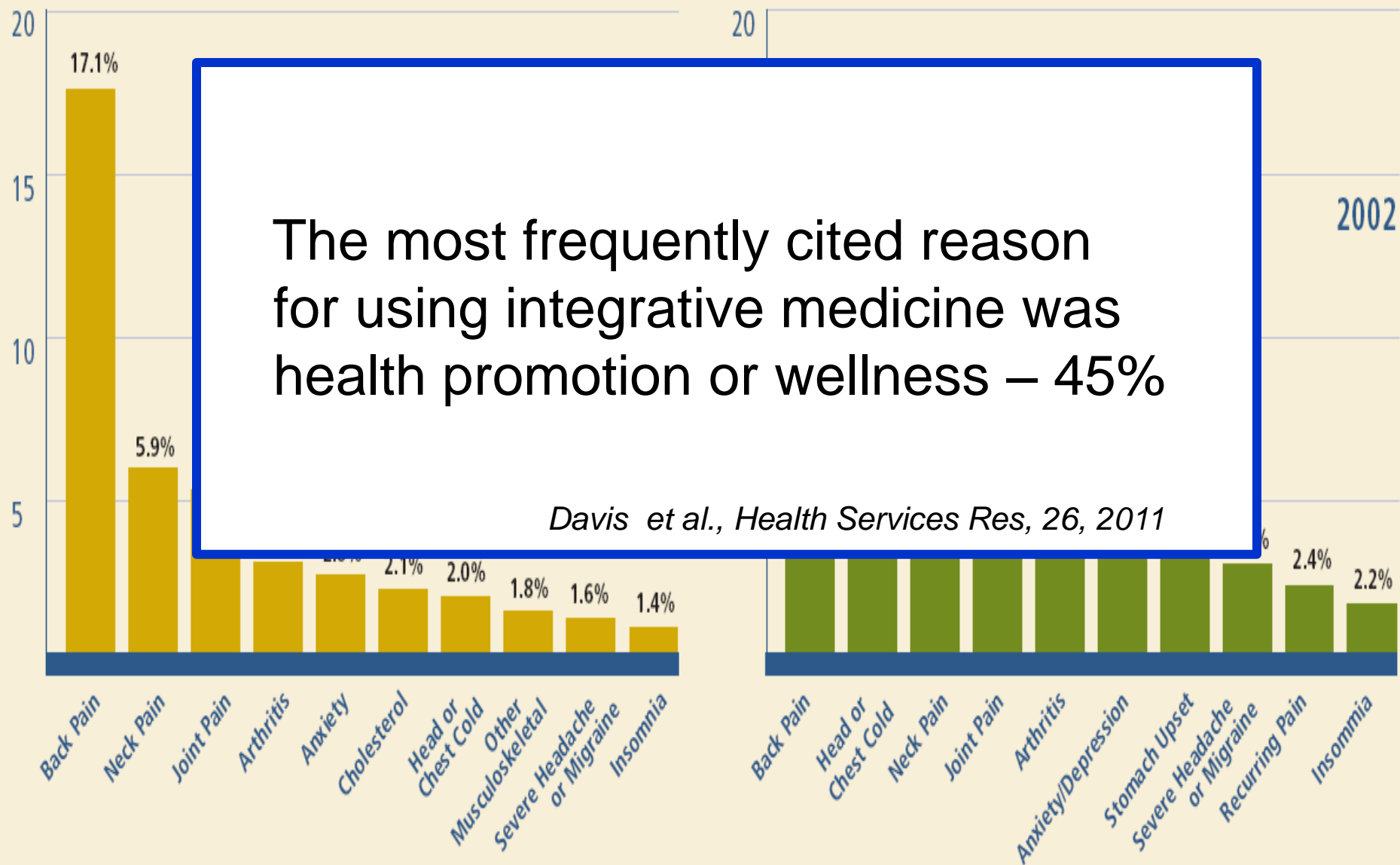
Source: Barnes PM, Bloom B, Nahin R. *CDC National Health Statistics Report #12. Complementary and Alternative Medicine Use Among Adults and Children: United States, 2007*. December 2008.

Why Public Interest in Integrative Medicine?

- Some people are interested in avoiding unnecessary medication and medical procedures
- Belief that integrative medicine emphasizes treatments that are “natural”
- Integrative Medicine practitioners emphasize the therapeutic relationship
- Goal of optimizing health and emotional wellbeing

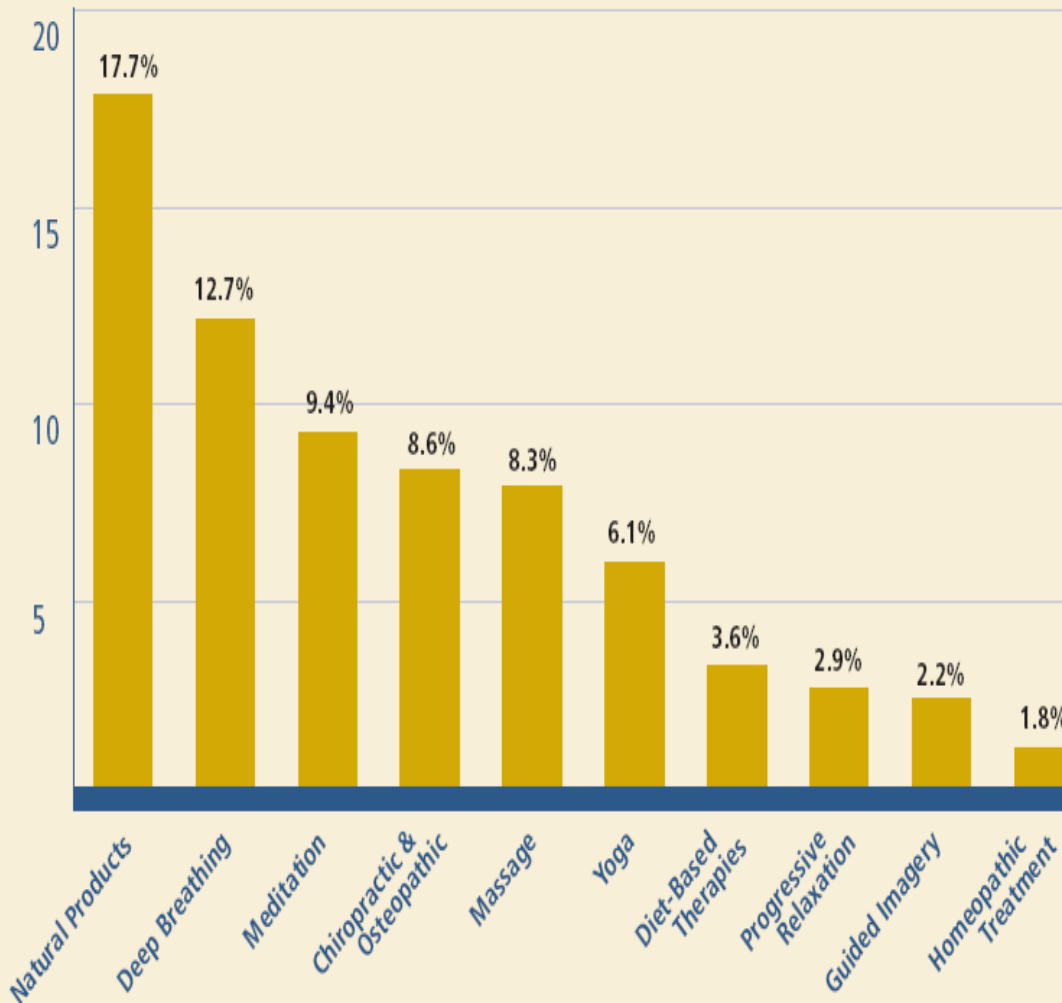


Figure 4 Diseases/Conditions for Which CAM Is Most Frequently Used Among Adults



Most Common Integrative Therapies

Figure 3 10 Most Common CAM Therapies Among Adults - 2007



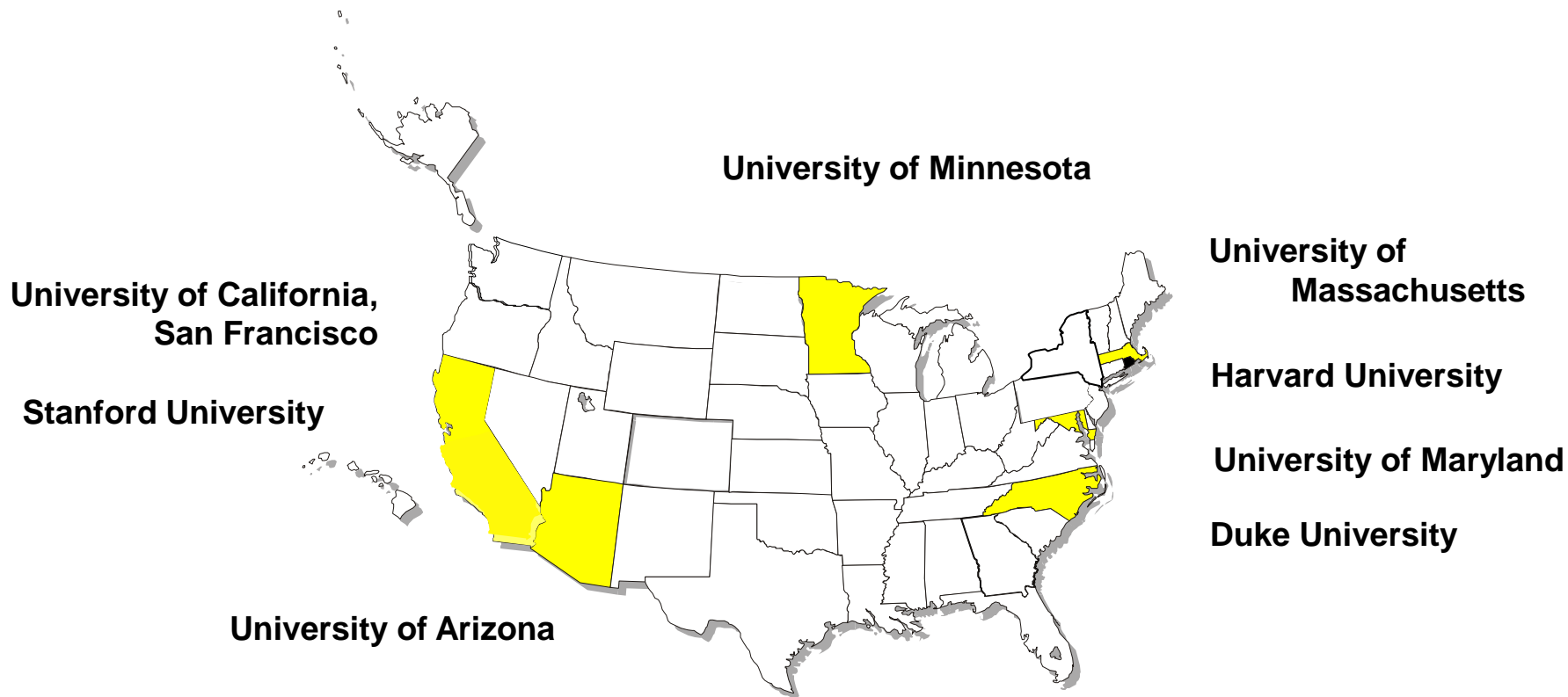
Therapies with significant increases between 2002 and 2007 are

	2002	2007
Deep breathing	11.6%	12.7%
Meditation	7.6%	9.4%
Massage	5.0%	8.3%
Yoga	5.1%	6.1%

Mind-Body Approaches



1999: Consortium Formed - 8 Centers



Consortium of Academic Health Centers for Integrative Medicine (“Consortium”)

- Application submitted by a Dean at the Academic Health Center
- Each center must have two of these three integrative medicine programs:
 - Research
 - Clinical care
 - Education

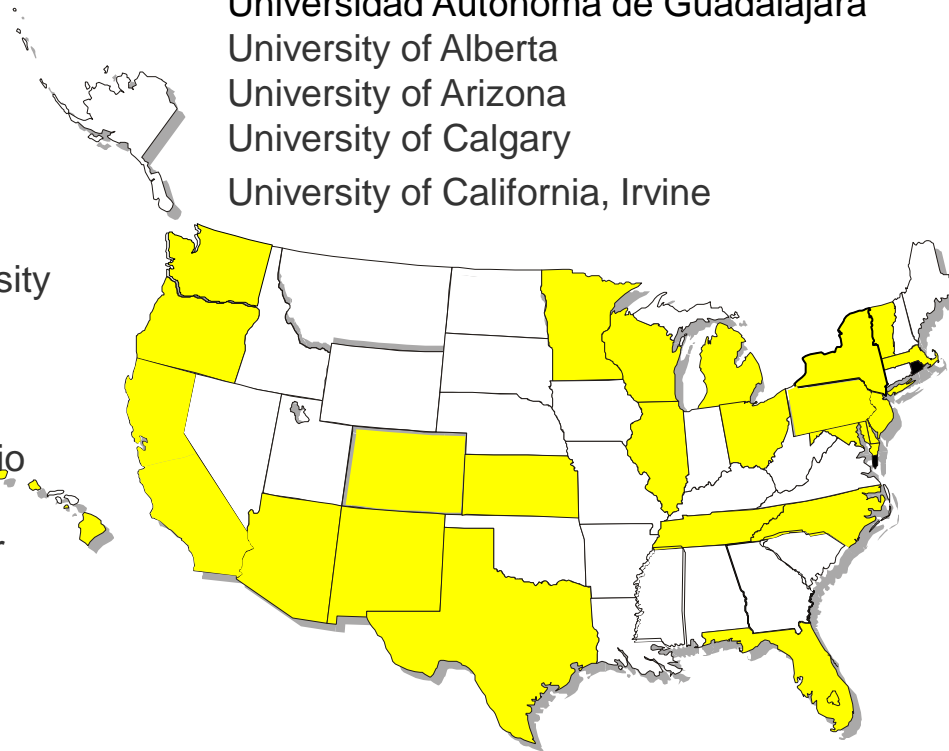




2014 - 57 Members

Albert Einstein/Yeshiva University
Allina Health Systems
Aurora Health Care
Boston University
Cleveland Clinic
Columbia University
Duke University
Georgetown University
George Washington University
Harvard Medical School
Johns Hopkins University
Mayo Clinic
McMaster University, Ontario
MD Anderson
Mount Sinai Medical Center
Northwestern University
Ohio State University
Oregon Health & Science University
Rutgers New Jersey Medial School
Scripps Health
Stanford University
Temple University
Texas Tech University

Thomas Jefferson University
Tufts University
Universidad Autónoma de Guadalajara
University of Alberta
University of Arizona
University of Calgary
University of California, Irvine



University of California, Los Angeles
University of California, San Diego
University of California, San Francisco
University of Chicago
University of Cincinnati College of Medicine

University of Colorado at Denver
University of Connecticut
Univ. of Hawaii at Manoa
University of Kansas
University of Maryland
University of Massachusetts
University of Miami
University of Michigan
University of Minnesota
University of New Mexico
University of North Carolina, Chapel Hill
University of Pennsylvania
University of Pittsburgh
University of Southern California
University of Texas, MB
University of Vermont
University of Washington
University of Wisconsin, Madison
Vanderbilt University
Wake Forest University
Yale University

**Integrative
Medicine**



**Conventional
Medicine**



**Integrative
Physicians**

Stress Management

Surgery

Acupuncture

Physical Activity

Medication

Yoga/Tai Chi

Nutrition

Radiation

Meditation

Weight Loss

Natural Products

Biofeedback



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Transcendental Meditation “TM” on Metabolic Syndrome

- 103 patients with stable Coronary Heart Disease
- 16 weeks TM vs. health education (HE)
- Outcomes
 - TM reduced BP (-3 mmHg), while HE showed an increase ($p < .04$)
 - TM reduced insulin resistance more than HE ($p < .01$)



Mindfulness Meditation for Prehypertension

- 56 adults with prehypertension (SBP 120-139; DBP 80-89)
- Randomized to 8 session program
 - Mindfulness Based Stress Reduction (MBSR)
 - Progressive Muscle Relaxation (PMR)
- Outcomes:
 - Clinic BP
 - 24 hour BP



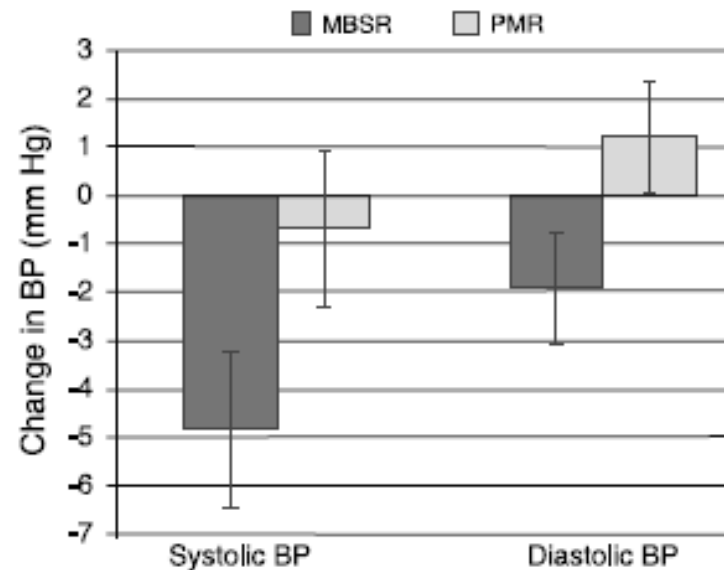
Mindfulness Meditation for Prehypertension

- Clinic BP

	<u>MBSR</u>	<u>PMR</u>
SBP (mmHg)	- 4.8	- 0.7
DBP (mmH)	- 1.9	+1.2


- Ambulatory BP

Smaller differences favoring MBSR but not significant



Challenges and Current Directions in Mind Body Approaches

Challenges

- Interventions don't work consistently 
 - Resist make final judgment after one trial
 - Biomedical research is accustomed to inconsistent results
 - All results provide parts of the puzzle
- Selection of appropriate controls and comparison groups
- “Dose,” Number of sessions?
- Engage, motivate, address adherence to programs

Challenges and Current Directions in Research on Mind Body Approaches

- Current Directions
 - Investigate mechanisms
 - Explore use of technology, “engaging” participants
 - Begin studying adherence – both issue of dropouts and adherence to interventions
 - Use more pragmatic research designs
 - Comparing mind body approaches with usual care
 - Examine cost effectiveness – impact on medication use, shortened stays in hospital, etc.

Stress → Inhibited Breathing and Elevated Blood Pressure



- Potential treatment approach – Mindful breathing
- Train prehypertensive people to apply mindful breathing in stress-inducing situations
- Providing biofeedback regarding inhibited breathing



Mindful Breathing Effects on Expired CO₂, Breathing Rate and BP

- 128 women with prehypertension
- Randomized to 8-wk program with 12-wk follow-up
 - Mindful Breathing
 - Usual Care with Health Ed Control
 - *Monitor breathing and expired CO₂*
- Outcome
 - 24 hour BP
 - Resting and ambulatory breathing rate and expired CO₂





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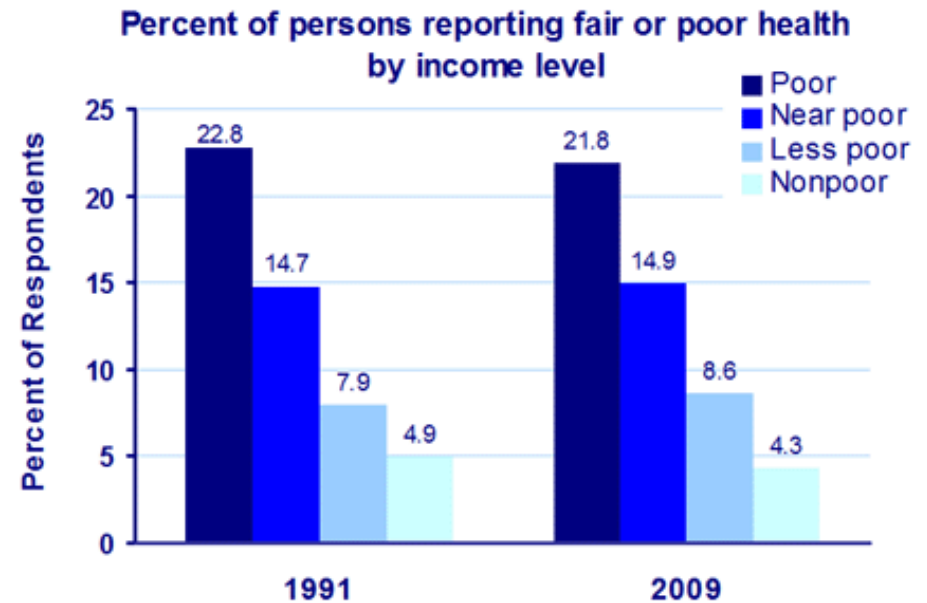
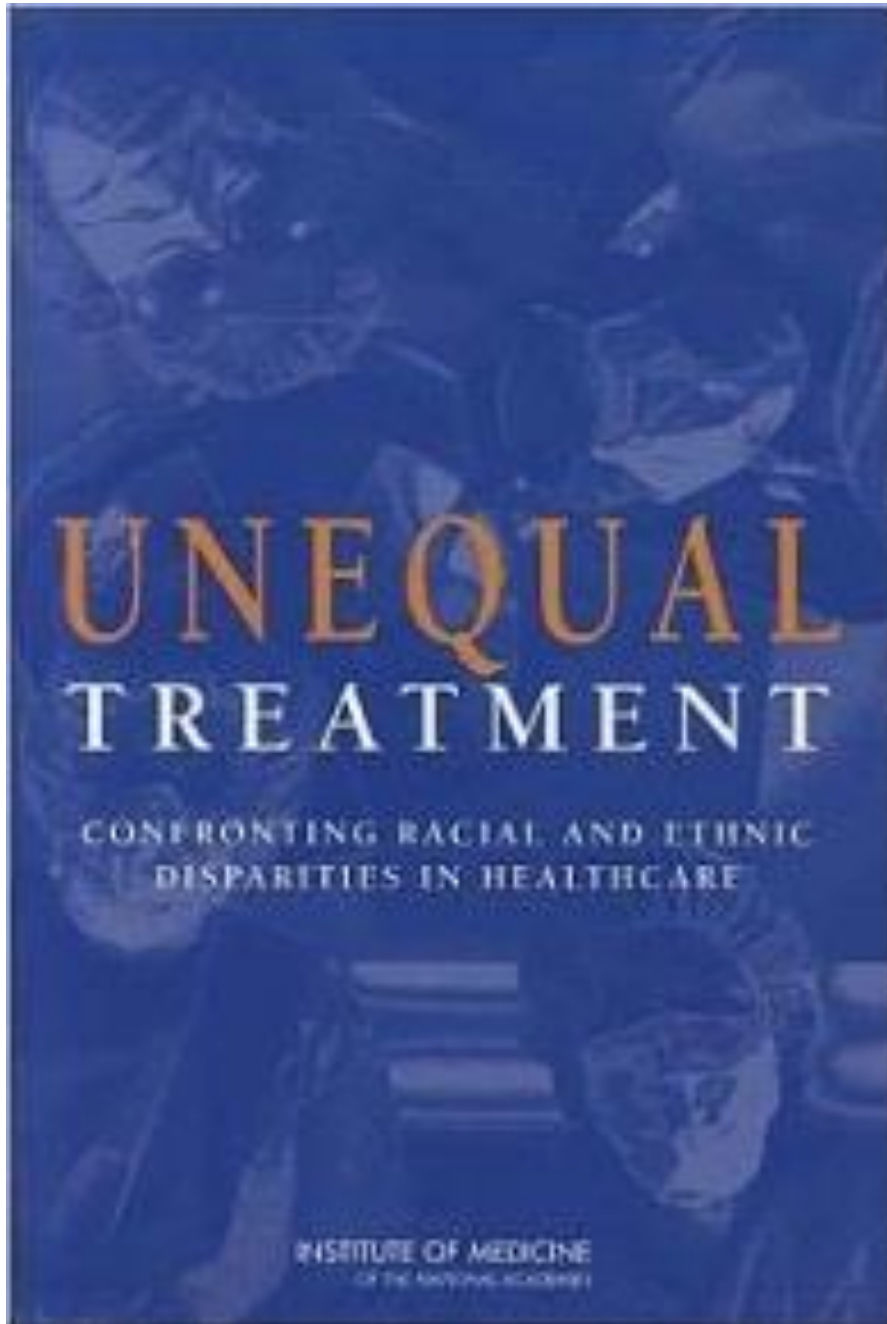


Overview

In underserved populations, are mind-body approaches feasible, safe, and effective?

How do they compare in effectiveness and cost to conventional approaches?

Can mind-body approaches play a role in reducing health disparities?



Source: Health, United States, 2010. Nat. Center for Health Statistics, U.S.



Relieving PAIN in America

A Blueprint for
Transforming Prevention,
Care, Education,
and Research

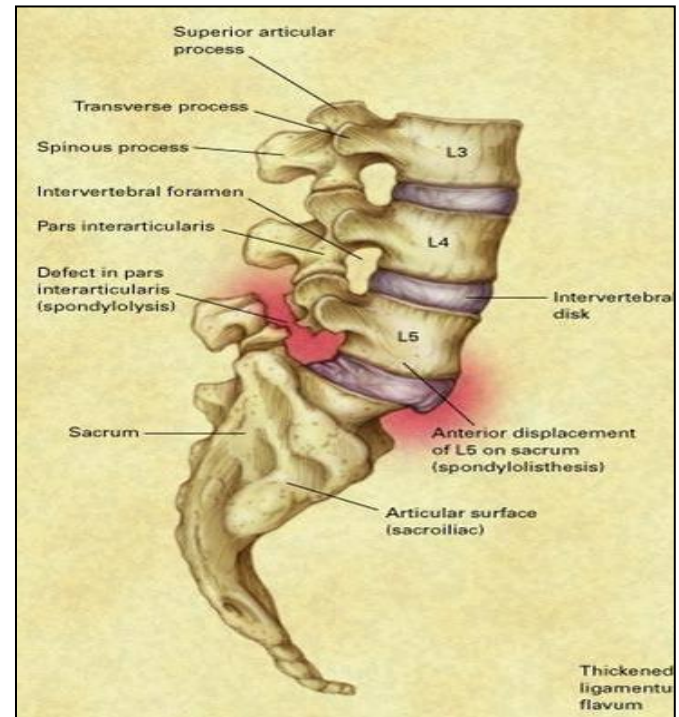
INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES

“100 million U.S. adults [are] burdened by chronic pain.”

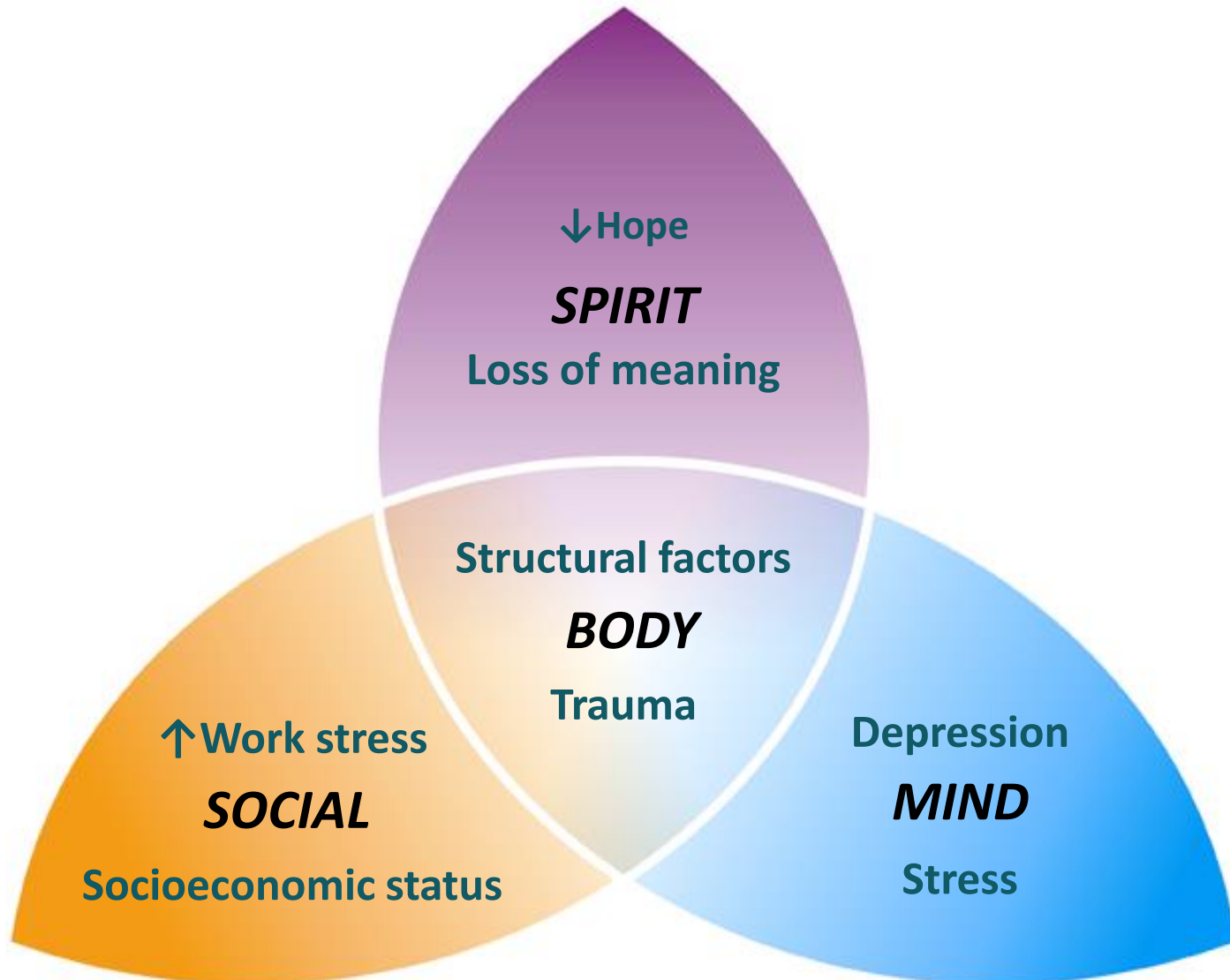
“Some population groups have a much higher risk of experiencing pain and its disabling effects and receiving inadequate treatment.”

Chronic Low Back Pain

- Large cause of morbidity, disability, and cost
- Complex poorly understood condition
- Estimated 5-10% of population
- Contributes to most suffering and cost
- Conventional treatments (meds, PT) can help but often not fully satisfactory



Biopsychosocial-Spiritual Model of Chronic LBP

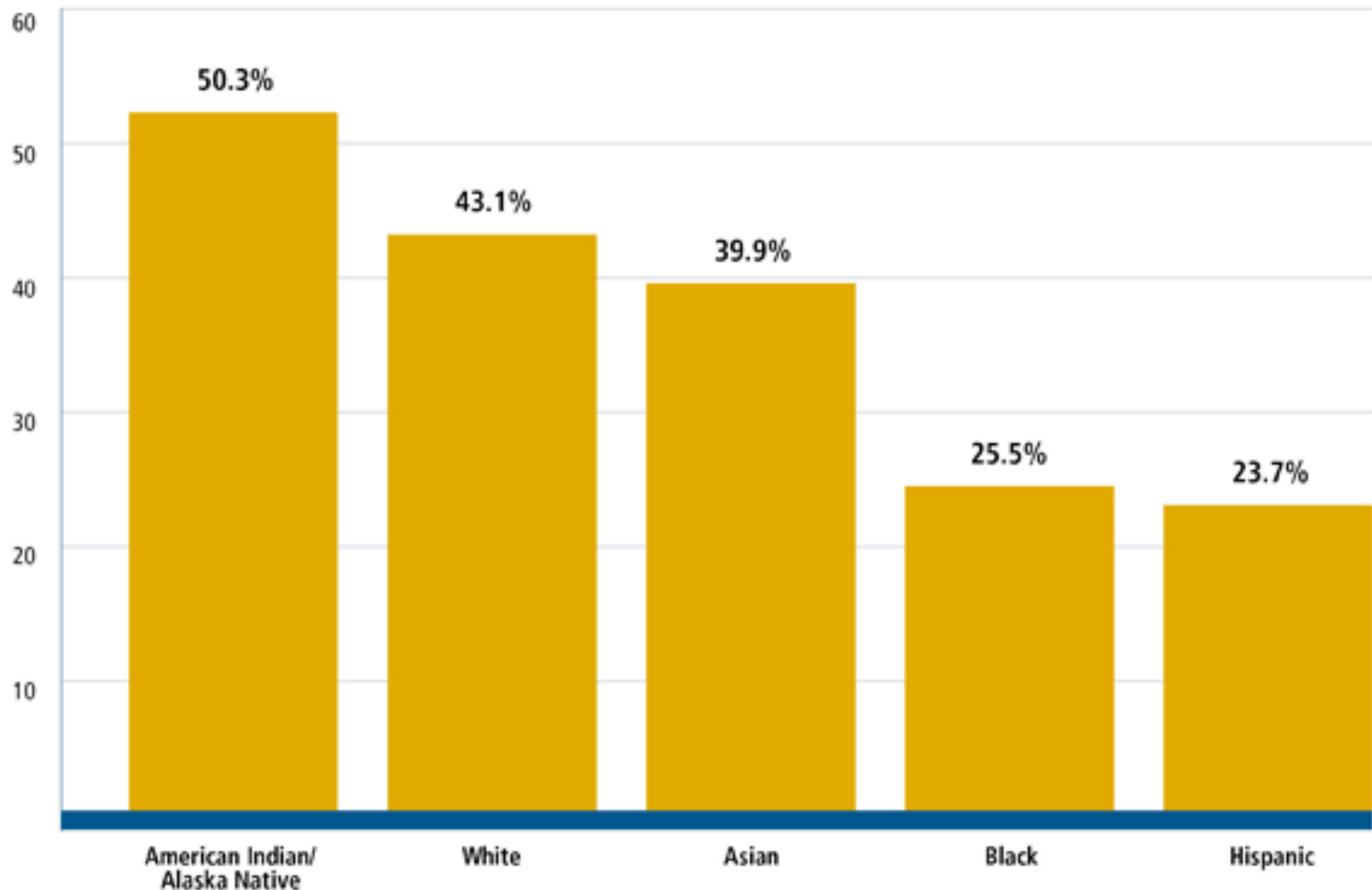


Disparities in Low Back Pain

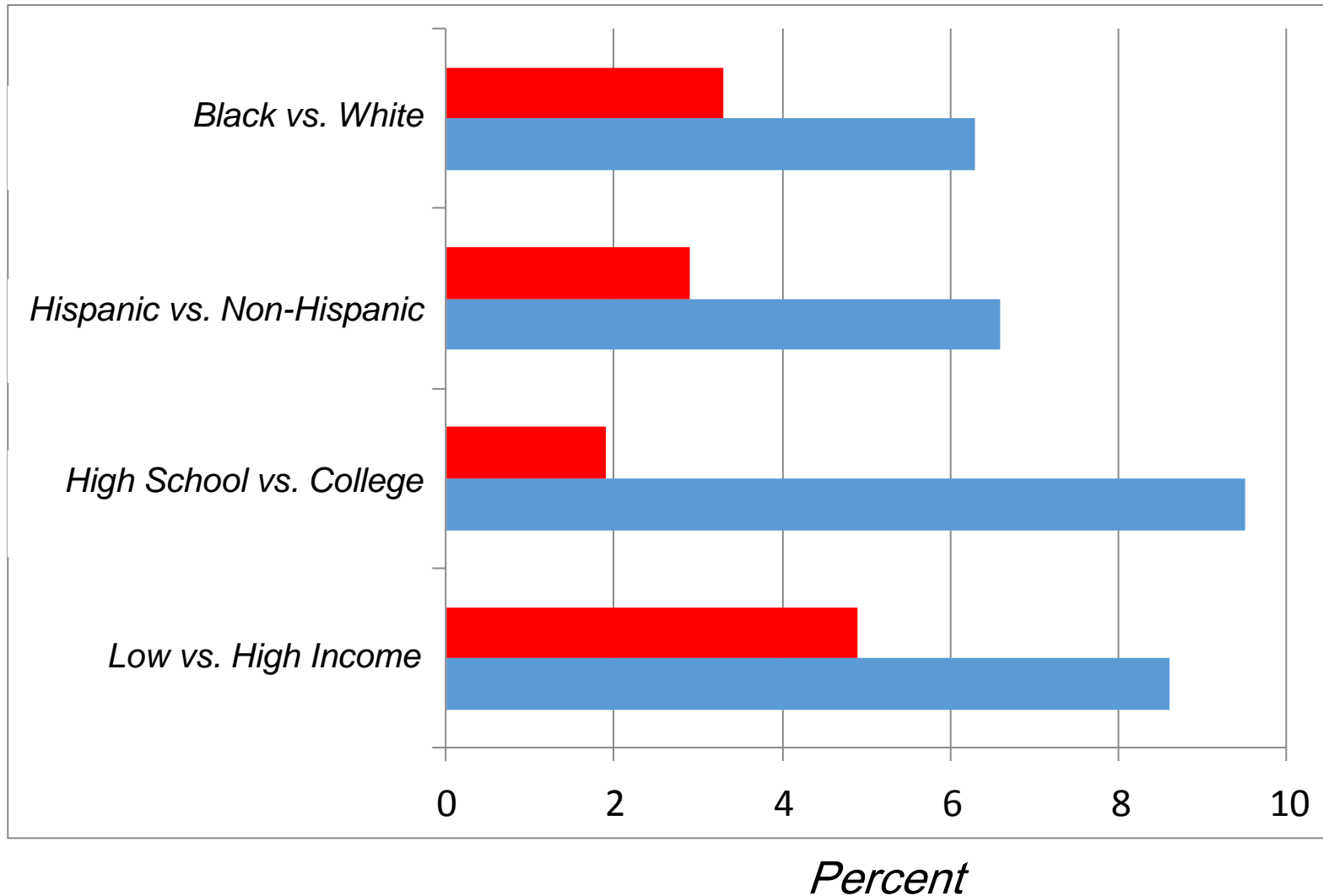
- Prevalence similar across racial groups
- Impact greater in low-income minorities
- Medical expenditures for LBP in minorities are 30% lower than in whites (Luo)
- Minorities with LBP receive less:
 - patient education (Licciardone)
 - specialty referrals (Green)
 - intensive rehabilitation (Chibnall)
 - opiate prescriptions (Pletcher)
 - back surgery (Carey)



Disparities in Complementary Medicine Use 2007



SES Disparities in 2007 Yoga Use



Barriers to Integrative Medicine Use in Low Income Communities

- Affordability
- Awareness
- Access
- Time Constraints
- Cultural/Religious views



Yoga for Chronic Low Back Pain

Why?

Mind-body therapies like yoga which address biopsychosocial-spiritual dimensions of a complex condition like back pain may be more helpful than treatments like medications which address only the physical dimension.



Yoga Research on Chronic LBP

- 11 published RCTs (N=22-313)
- Mostly white educated high SES adults
- Typically 12 weeks of classes + home practice
- Yoga styles: Iyengar, Viniyoga, Hatha
- Controls: usual care, education, exercise, stretching
- Overall improvements in pain intensity and function



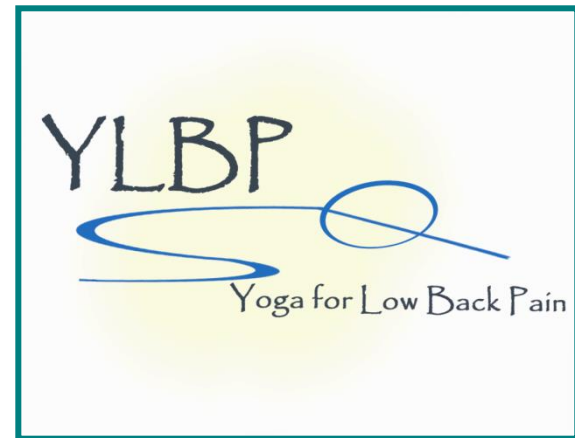
Rationale for Research Questions

1. Yoga has been shown to be promising for LBP in higher SES groups.
2. Minority low income populations are:
 - more likely to be negatively impacted by LBP
 - less likely to use yoga
3. Yoga for LBP research and programs should target all affected groups including vulnerable populations



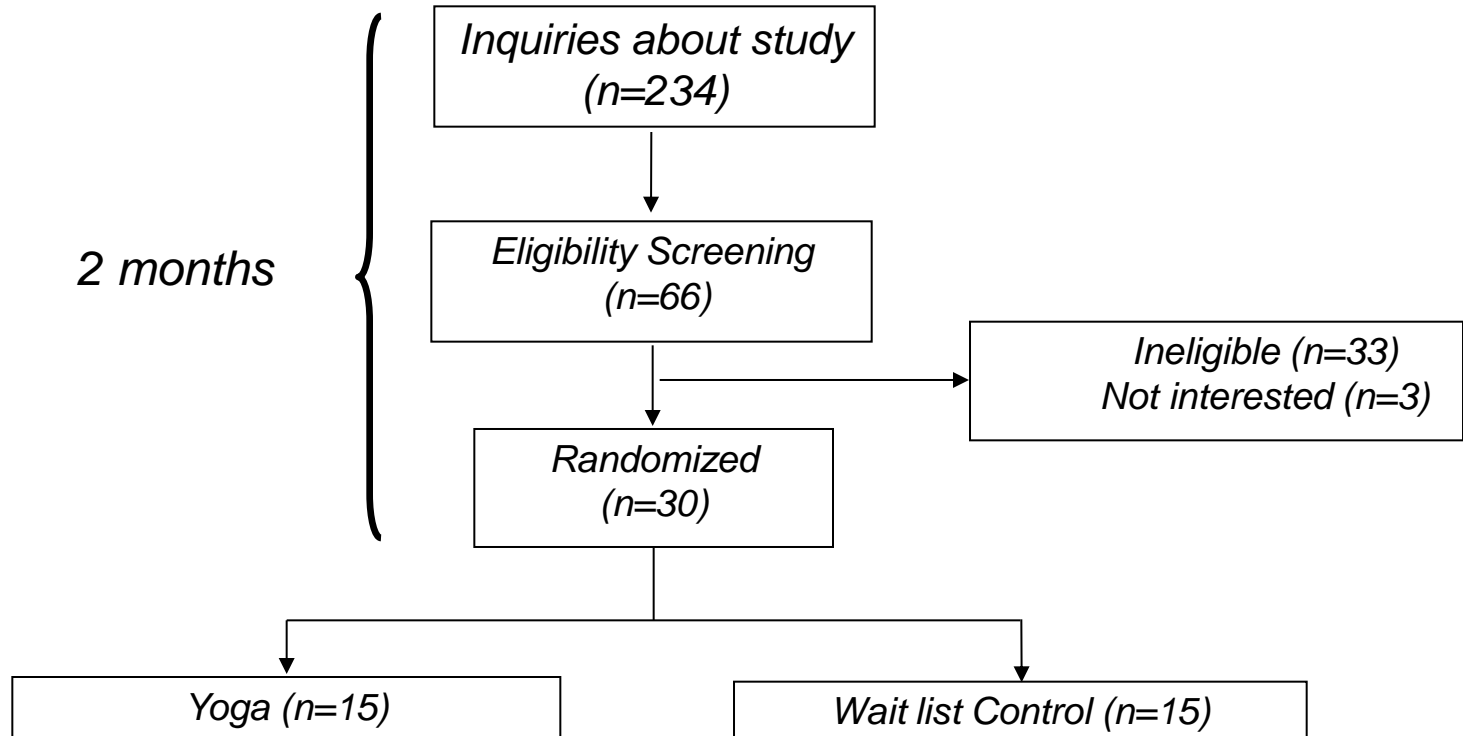
Is a randomized controlled trial of yoga for chronic low back pain in predominantly low income minority populations feasible?

*Yoga For Chronic Low Back Pain In
A Predominantly Minority
Population:
a pilot RCT*

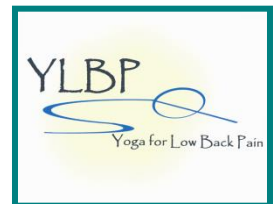


(Saper et al, Alt Ther Health Med 2009)

Participant Flow Chart



(Saper et al, Alt Ther Health Med 2009)

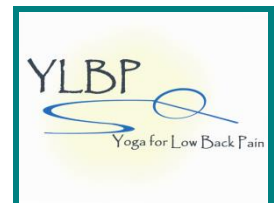


Baseline Characteristics

Mean age, yrs	44
% female	83
Race, %	
White	24
Black	70
Other	6

% Annual household income \leq \$30,000	44
% No or public-funded health insurance	50
% \leq High school grad	33
Mean pain score	7.1

Many co-morbidities and few had previous yoga experience

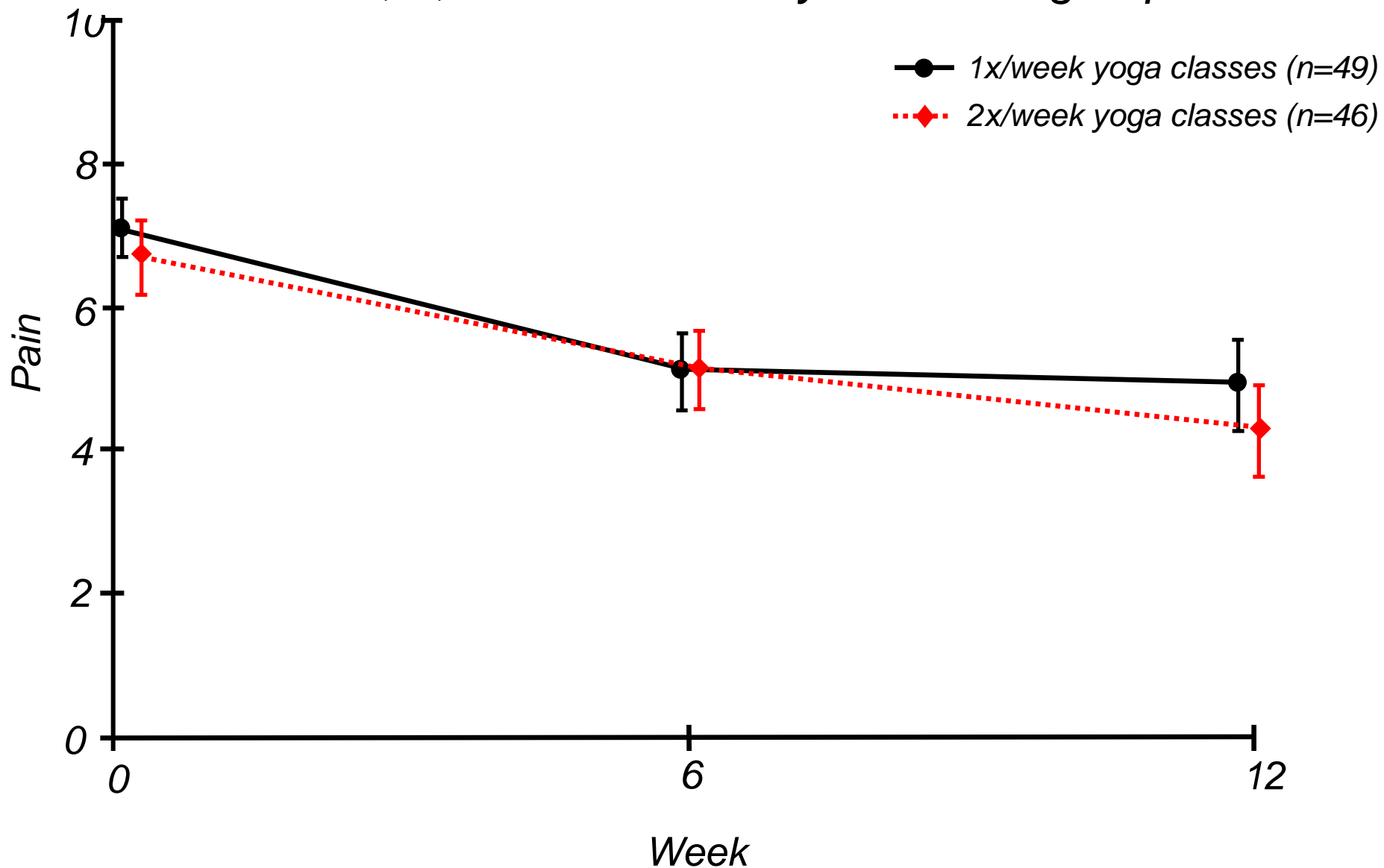


What is the ideal “dose” of yoga for chronic low back pain?

*The Yoga for Low Back
Pain Dosing Study*



Mean unadjusted low back pain scores at baseline, 6, and 12 weeks by treatment group



Qualitative Data

Doing yoga, it actually takes you to a place where some days there is absolutely no pain.

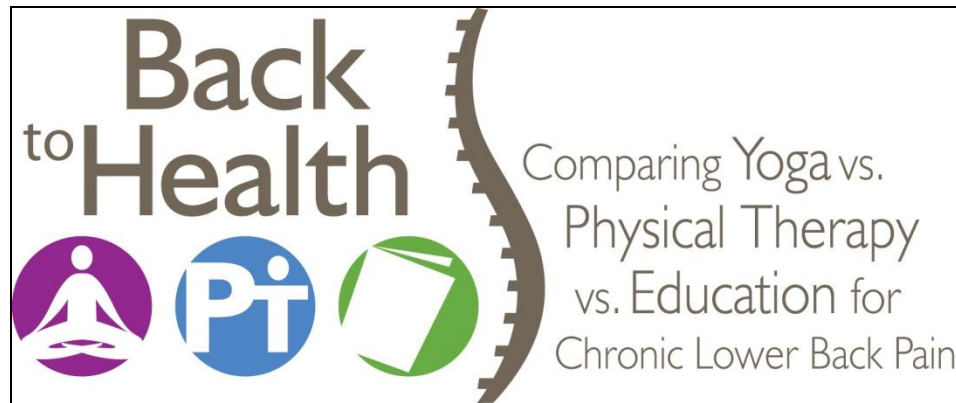
It's going to have to be something that's part of my life... I'm looking at it as a medical treatment...not just a yoga class.

People can push those buttons as they used to, they can't make you angry, because now you have something that keeps you calm.

I felt good because I was doing something, not sitting around waiting for a diagnosis, not taking another pill.

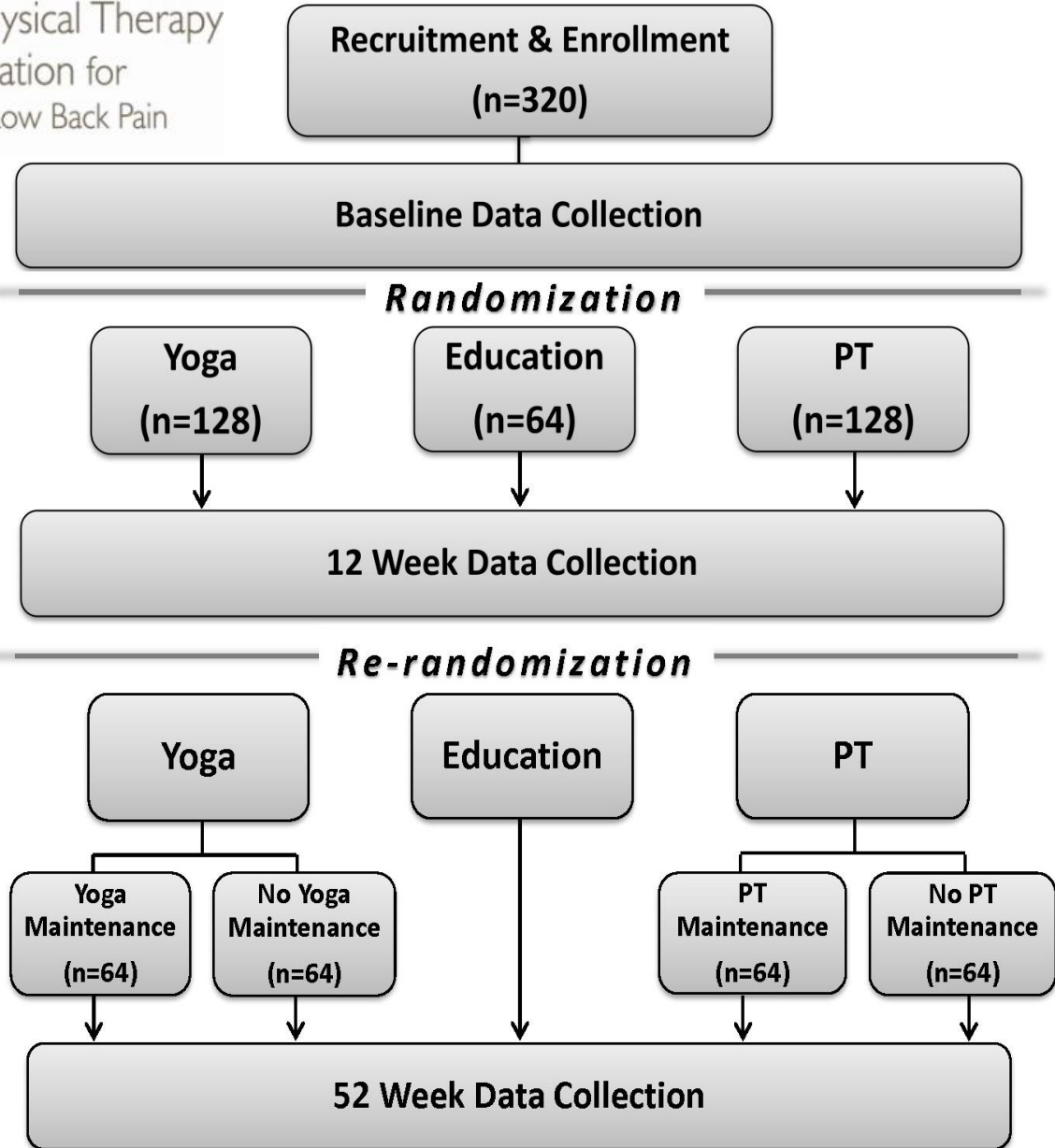
*How does yoga compare to PT in effectiveness
and cost?*

*How can adherence to yoga be improved
beyond 12 weeks?*



Back to Health

A Study Comparing
Yoga, Physical Therapy
& Education for
Chronic Low Back Pain



Question?

Please type your question into the Chat Box or press
*6 to unmute your phone line and ask a question



Attend the GIH Fall Forum,
an annual gathering for funders interested in health policy.

Visit www.gih.org for details and to register.