

Integrative Medicine Fraud or Frontier?

***...and why Behavioral
Medicine May Care***



**Society of Behavioral Medicine
April 13, 2012**



Overview

- Define and present the latest US data on the use of integrative medicine among men and women
- Describe the expansion of integrative medicine and its link to behavioral medicine
- Touch on some of the challenges and current directions in integrative medicine

You Decide: Fraud or Frontier?

Integrative Medicine?

*“Integrates the best of
evidence-based conventional
and complementary medicine”*

what is meant by ‘integration’?

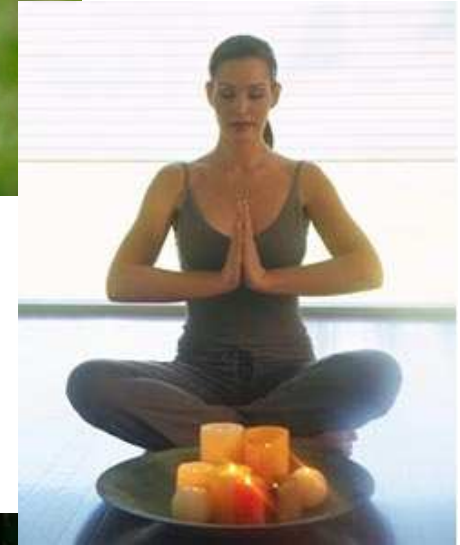
- Consideration of “whole person”
 - Partnership between *practitioners* and patient
- ➔ Informed by evidence of
therapeutic efficacy



Complementary Medicine*

- Natural Products
Dietary supplements

- Mind and Body
Meditation
Yoga/Tai Chi
Massage
Acupuncture



*NIH, NCCAM



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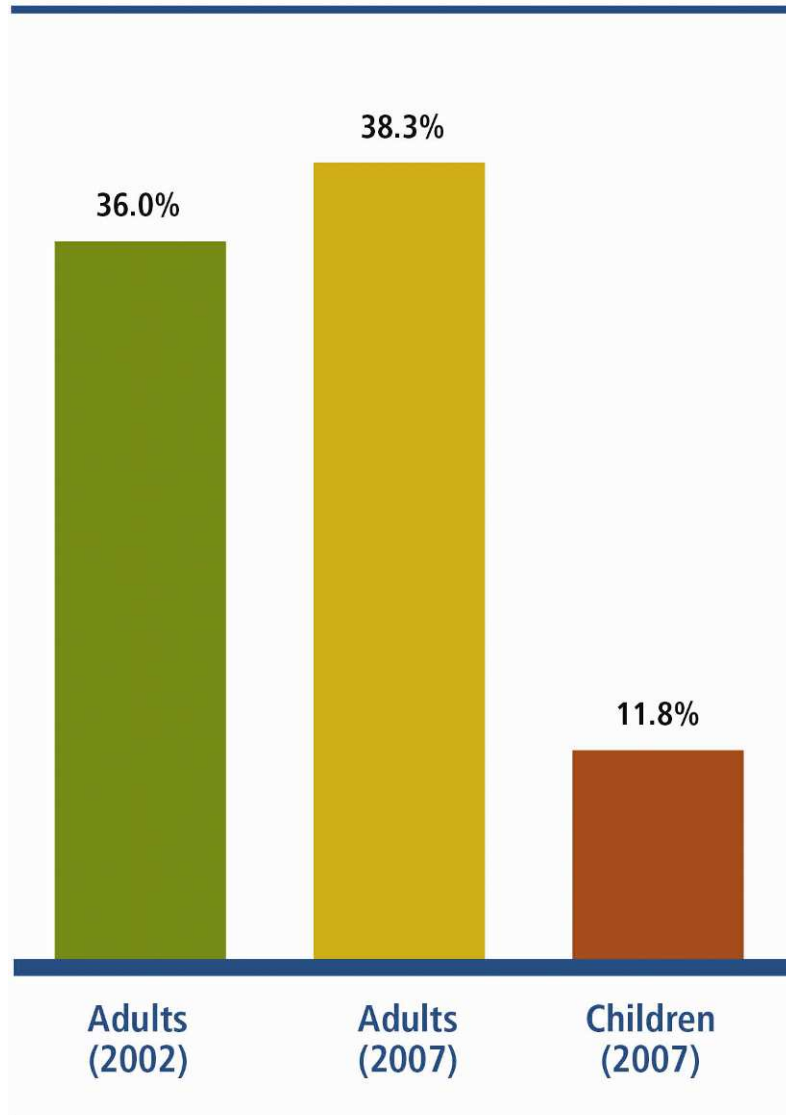
Complementary / Integrative Medicine Use Increasing

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



Barnes et al., CDC, 2004, 2008

CAM Use by U.S. Adults and Children



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.

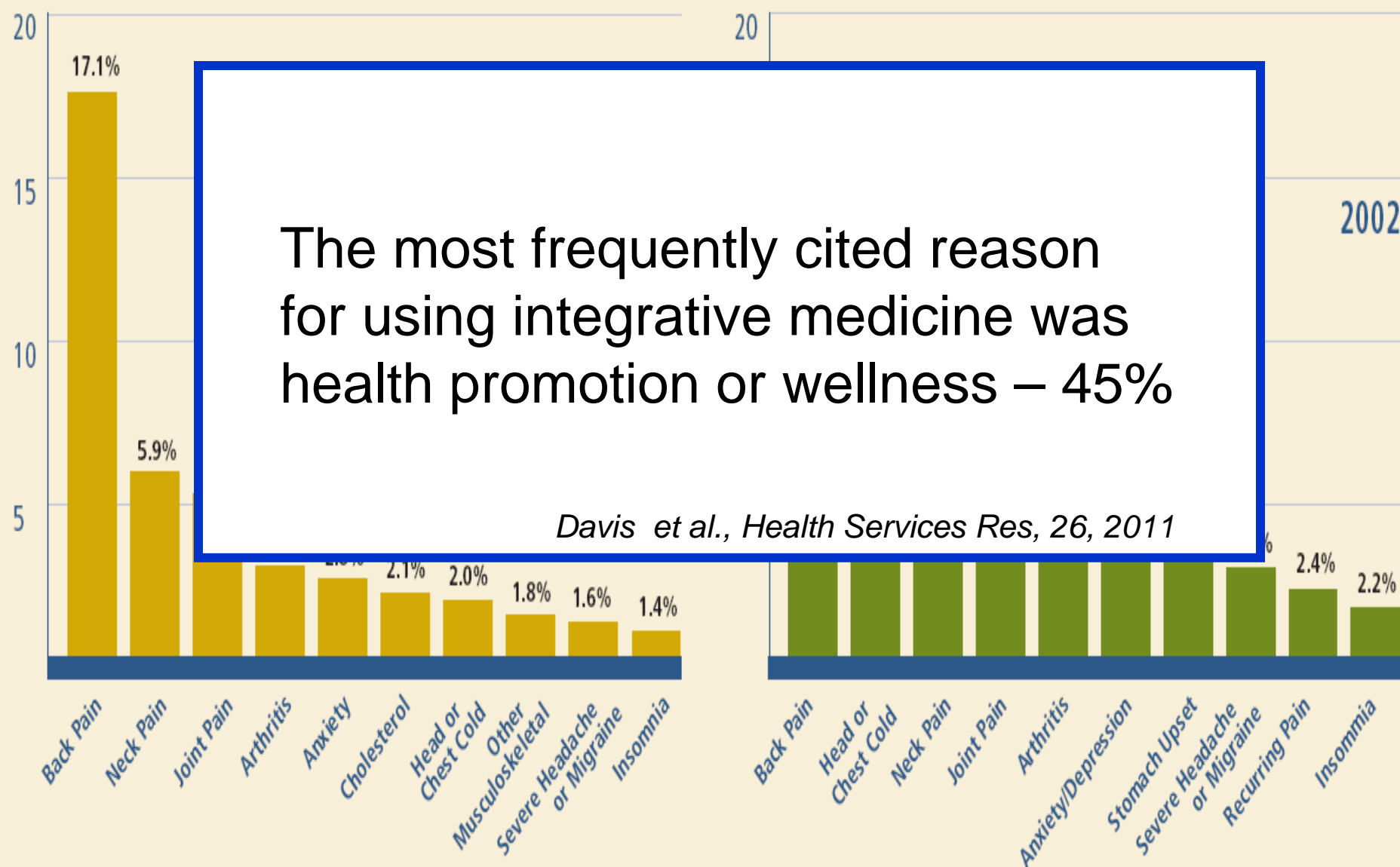
- Over 38% of adults using complementary medicine within the past 12 months
- Total estimated adults using CAM
 - *over 115 million*
 - *increase of 12 million in 5 years*
- Almost 12% of children given complementary medicine within the past 12 months

Why Public Interest in Integrative Medicine?

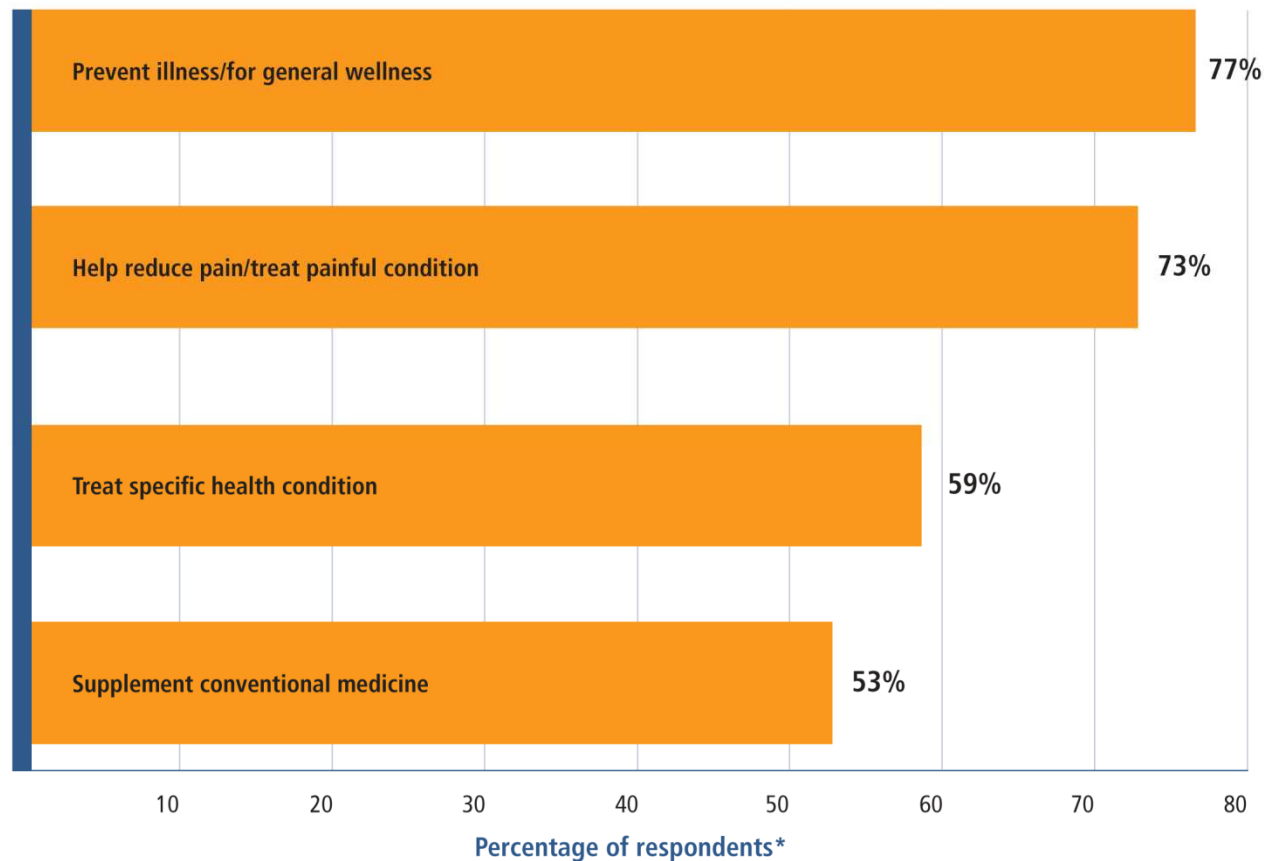
- Belief that integrative medicine emphasizes treatments that are “natural”
- Some people are interested in avoiding medication and medical procedures
- Integrative Medicine practitioners emphasize the therapeutic relationship
- Goal of optimizing health and emotional wellbeing



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

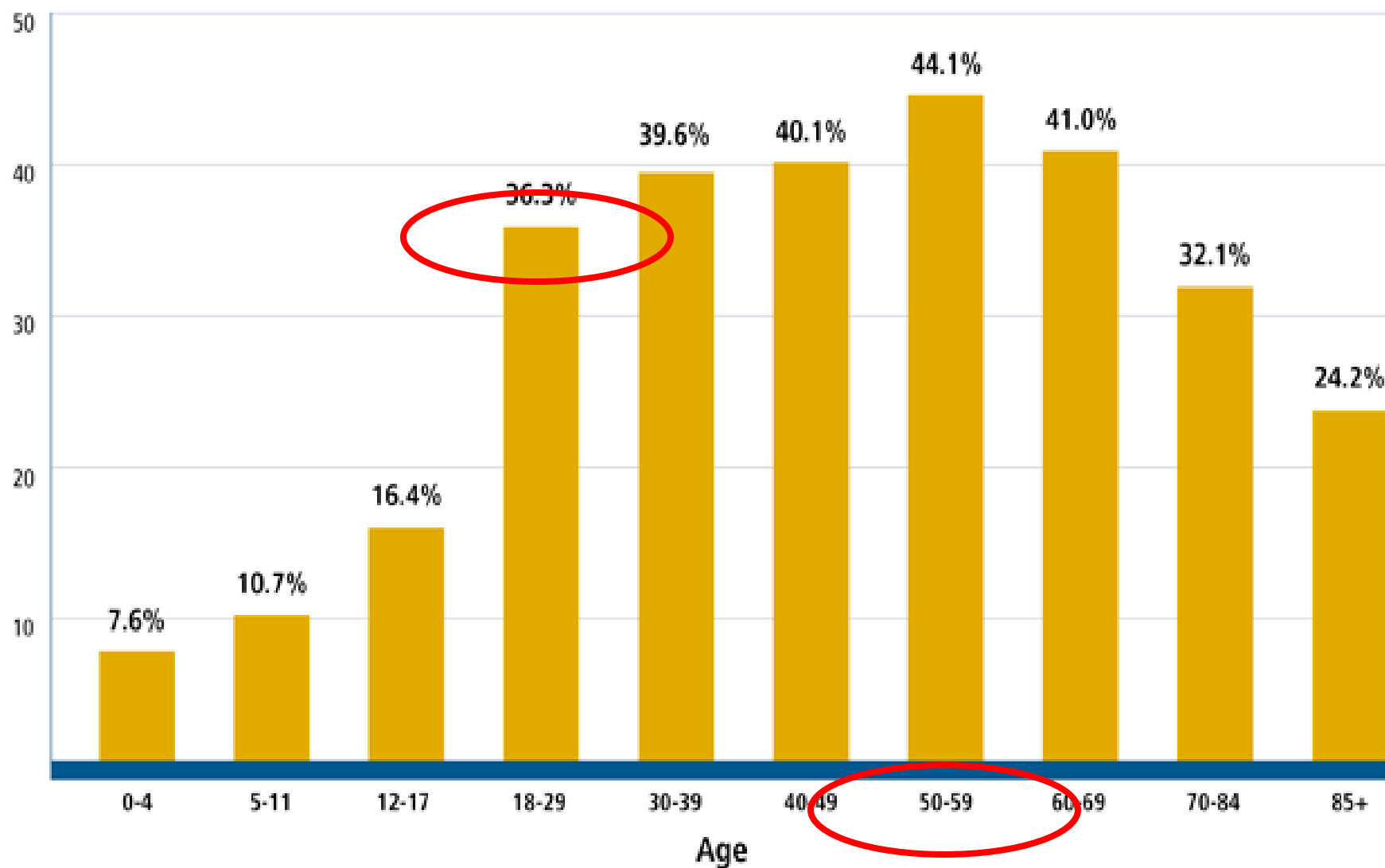


Integrative Medicine and “Wellness”



***U.S. Adults 50+ (n=539) Sampling
error: $\pm 4.2\%$ AARP/NCCAM Survey***

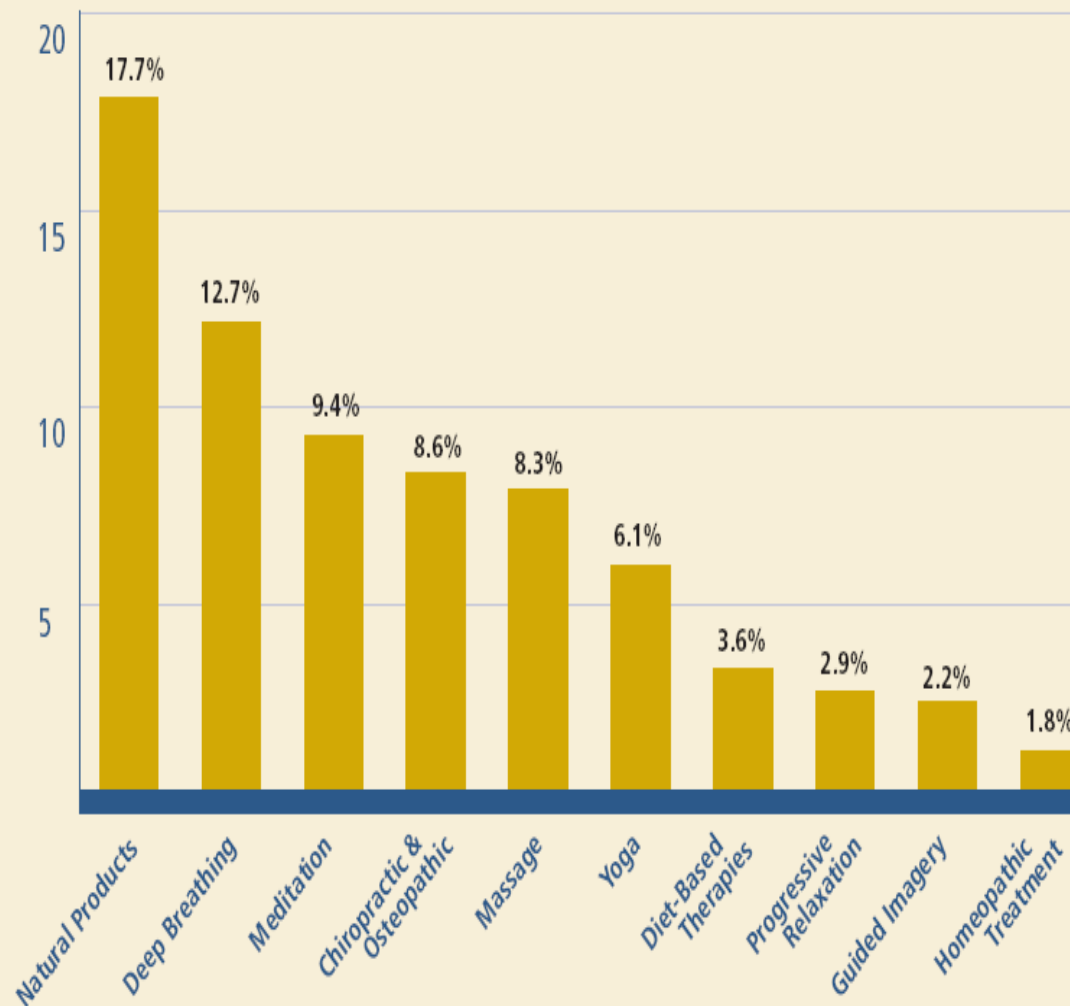
CAM Use by Age - 2007



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.

Most Common CAM 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%

Barnes, Bloom, et al NHIS, 2007



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Integrative Medicine in US Hospitals

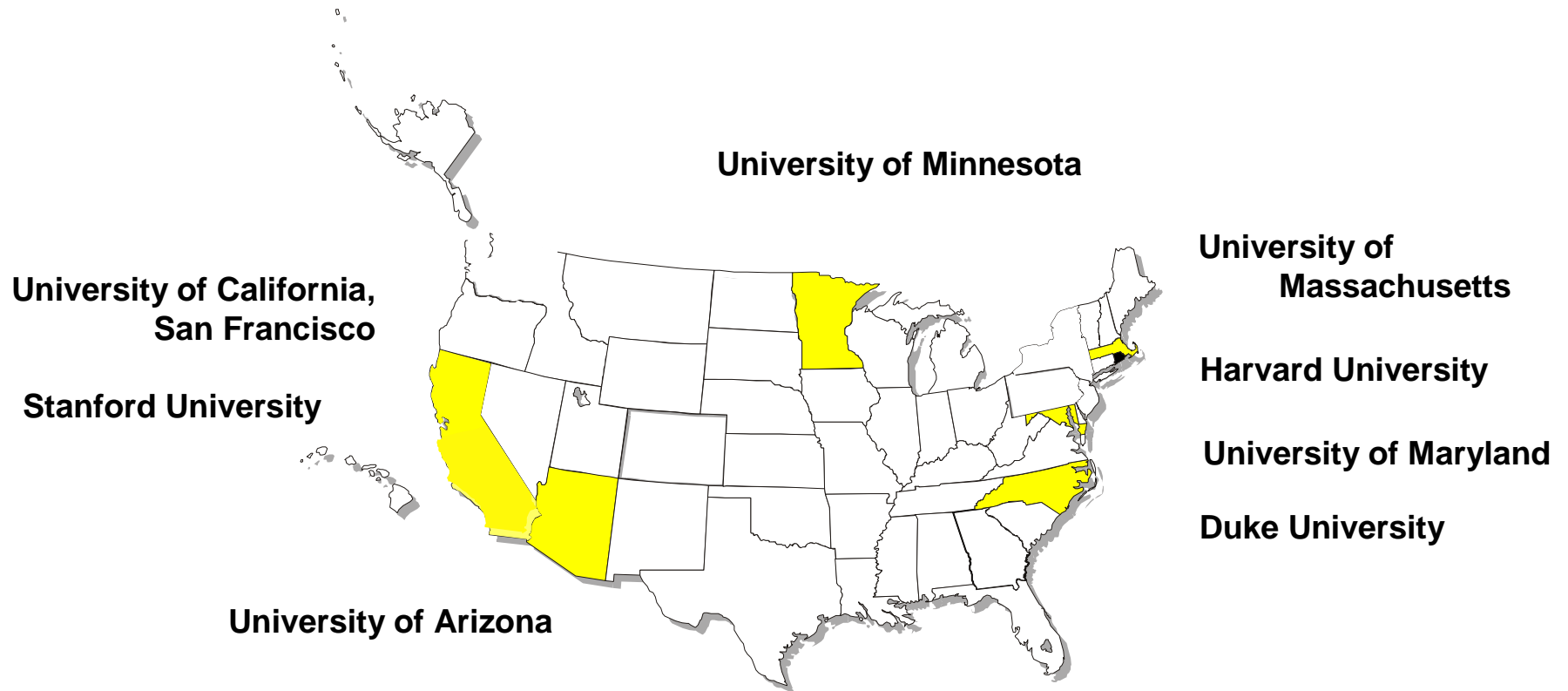
- Hospitals offering Integrative Medicine services
 - 8% in 1998
 - 17% in 2002
 - 27% in 2005
 - 37% in 2008
 - 42% in 2011
- Key reasons
 - **Patient demand** **85%**
 - Clinical evidence 74%



AHA Health Forum, Sept. 2011



1999: Consortium Formed



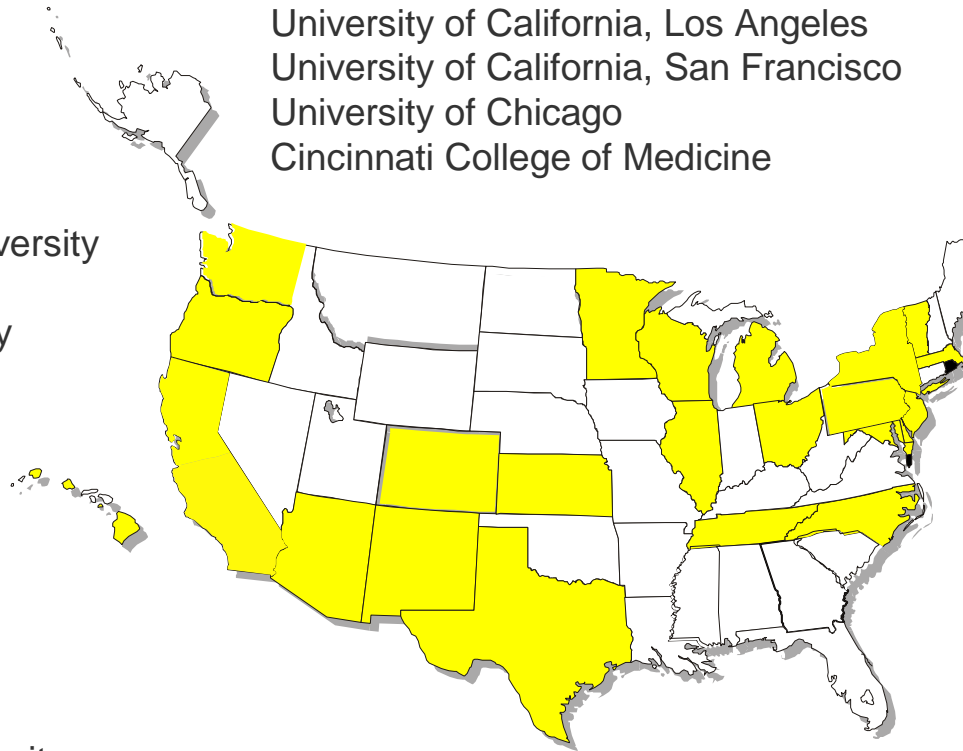
Driven by interest of the public and health professionals who wanted to offer patients health-promoting options



2012 - 50 Members

Albert Einstein/Yeshiva University
Aurora Health Care
Boston University
Cleveland Clinic
Columbia University
Duke University
Georgetown University
George Washington University
Harvard Medical School
Johns Hopkins University
MD Anderson
Mayo Clinic
McMaster University,
Ontario
Northwestern University
Ohio State University
Oregon Health &
Science University
Stanford University
Thomas Jefferson University
Tufts University
University of Alberta
University of Arizona

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



University of Colorado at Denver
University of Connecticut
University of Hawaii at Manoa
University of Illinois at Chicago

University of Maryland
University of Massachusetts
University of Medicine &
Dentistry of New Jersey
University of Michigan
University of Minnesota
University of New Mexico
University of North
Carolina, Chapel Hill
University of Pennsylvania
University of Pittsburgh
University of Texas, MB
University of Vermont
University of Washington
University of Wisconsin,
Madison
Vanderbilt University
Wake Forest University
Yale University

Consortium of Academic Health Centers (AHC) for Integrative Medicine

- Application submitted by a Dean at the Academic Health Center
- Each center must have two of these three integrative medicine programs:
 - Research – *interdisciplinary* **researchers**
 - Clinical care – *multidisciplinary* **clinicians**
 - Education – *interprofessional* **educators**



Meanwhile... well before “integrative medicine”

- 1979 – SBM first meeting
- The Society is a multidisciplinary organization of clinicians, educators and scientists dedicated to promoting the study of the interactions of behavior with biology and the environment, ...”
and the application of that knowledge to improve the health and well-being of individuals, families, communities and populations.
- Twenty years of progress from 1979 ...
1999 – Integrative Medicine Consortium

20+ yrs

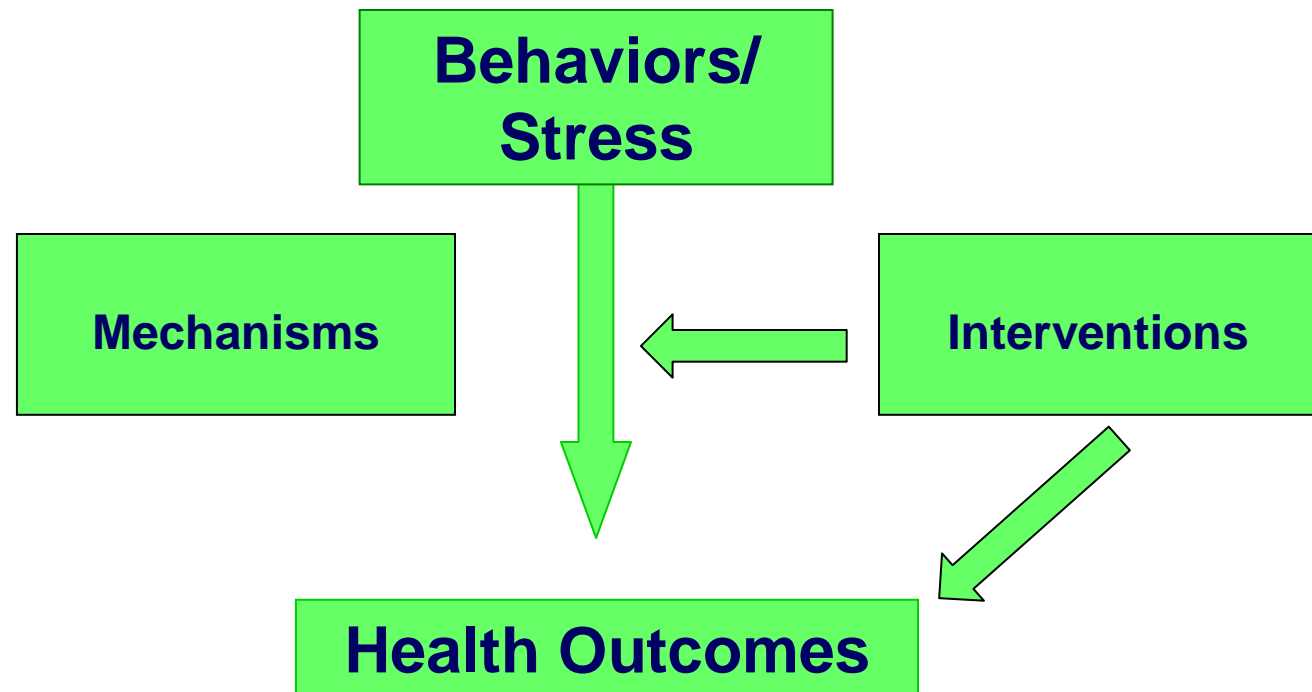


SOCIETY of BEHAVIORAL MEDICINE
Better Health Through Behavior Change

- Identified target behaviors to reduce risk and promote health
- Documented the Stress – Susceptibility to illness link / decades of stress management
- Demonstrated effectiveness of
 - Smoking cessation strategies
 - Health advantages of physical activity
 - Family-based obesity treatments
- Reduction in the incidence of Type 2 diabetes with lifestyle interventions

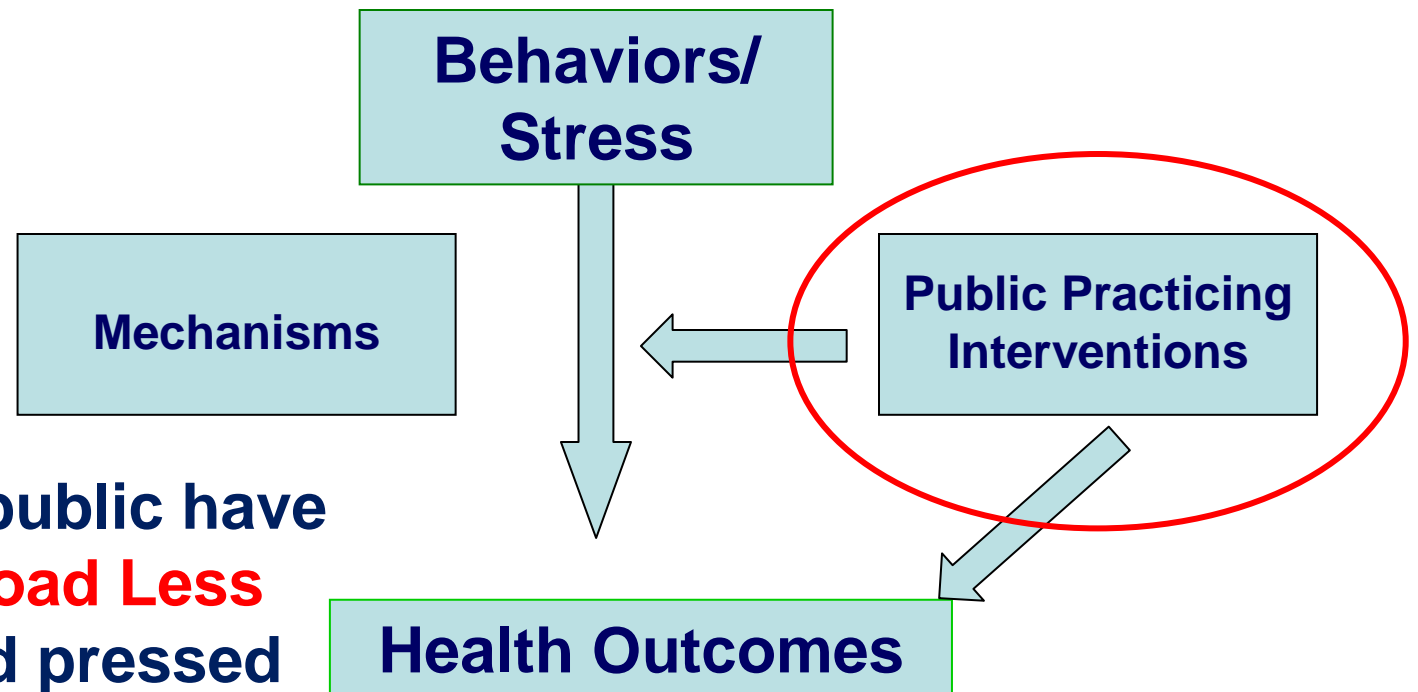
20+ yrs 1979 - 99

Behavioral Medicine



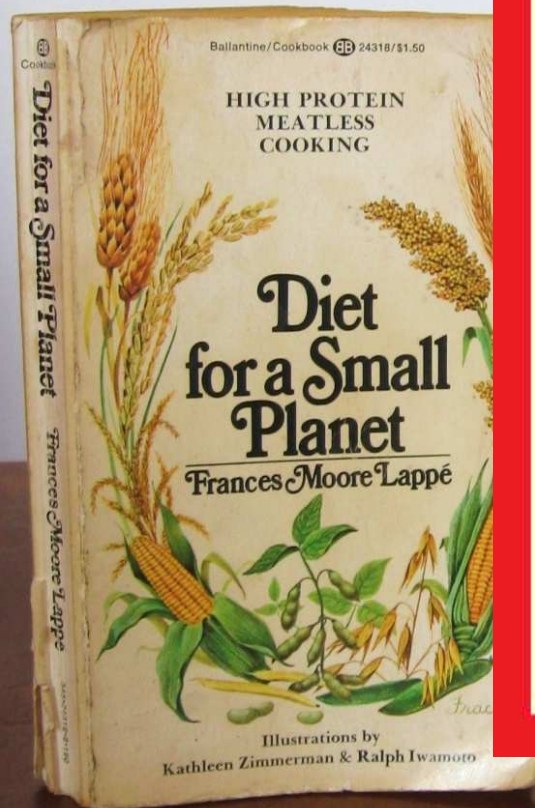
Integrative Medicine

20+ yrs 1979 - 99



Some of the public have
**“Taken the Road Less
Traveled”** and pressed
care and attention





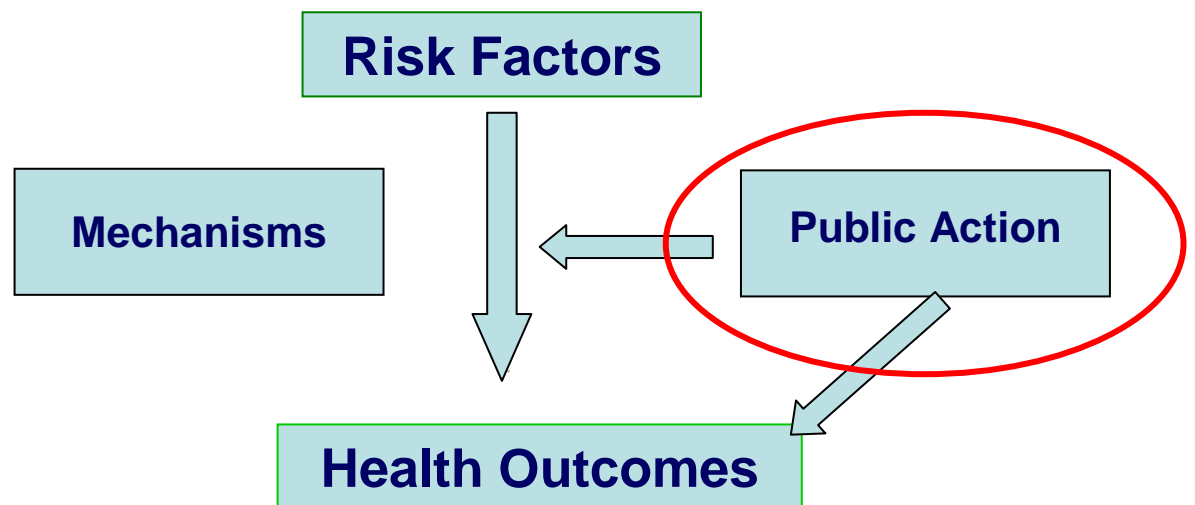
Market Responds to Public Interest



Much More Needs to be Done, *but...*

- Public engagement is obviously not enough – it is not reaching all who are “at risk.”
- But, public interest is changing the landscape
- Part of the public interest in lifestyle changes & integrative medicine is due to progress generated by SBM over the decades

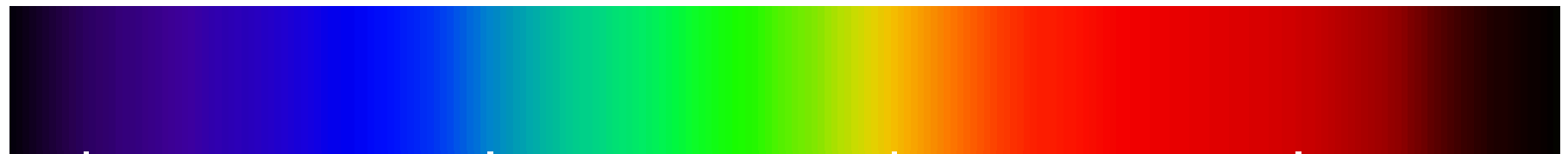
***Lifestyle Changes
&
Integrative Medicine***



**Integrative
Medicine**



**Conventional
Medicine**



Acupuncture

Stress Management

Surgery

Yoga/Tai Chi

Physical Activity

Medication

Meditation

Nutrition

Radiation

Massage

Weight Loss

Biofeedback

Translational Behavioral Medicine: **The Time has Come**

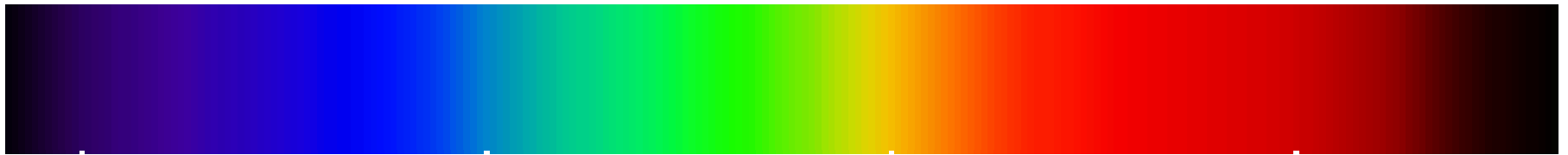
- “Isn’t it time to close the chasm between what we know about health determinants and what we put into practice to improve health?”
- “Why don’t we invest more in behavioral change interventions that could improve health?”
- “One reason is that “we” are several different constituencies that collaborate too rarely.”

Bonnie Spring, Translational Behavioral Medicine, 2011

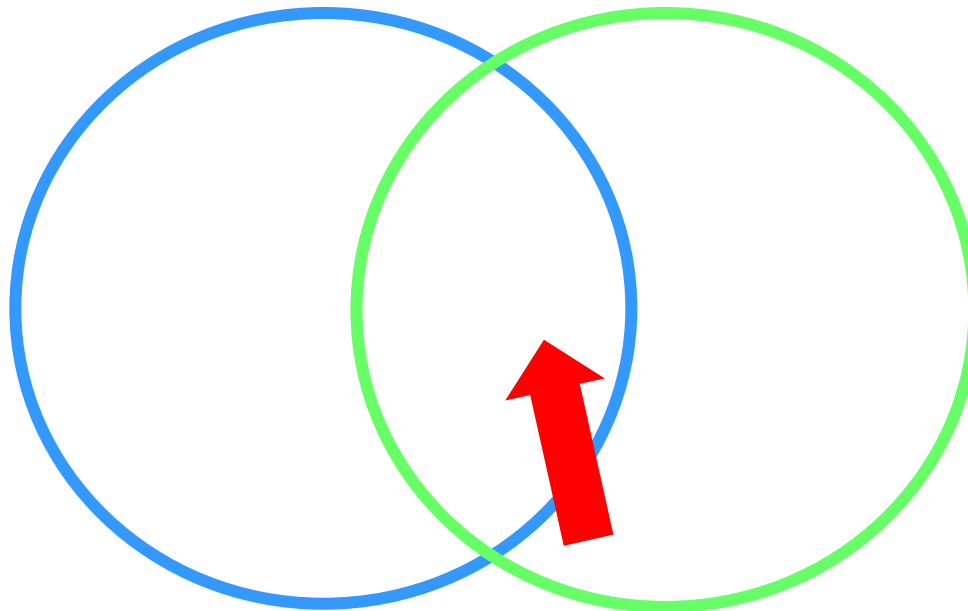
**Integrative
Medicine**



**Behavioral
Medicine**



**Integrative
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**Behavioral
Medicine**

Integrative Medicine:

Fraud or Frontier ?



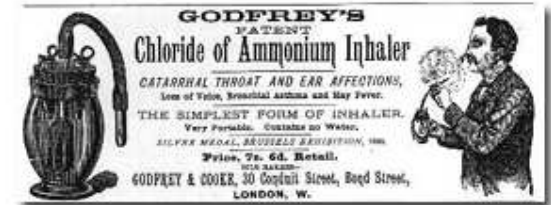
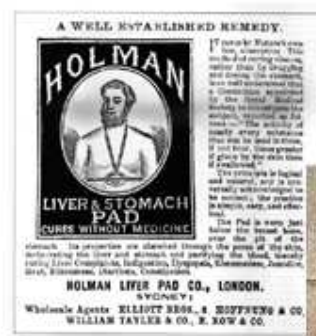
It appears to be a frontier ...

*a public response to progress
made by SBM*

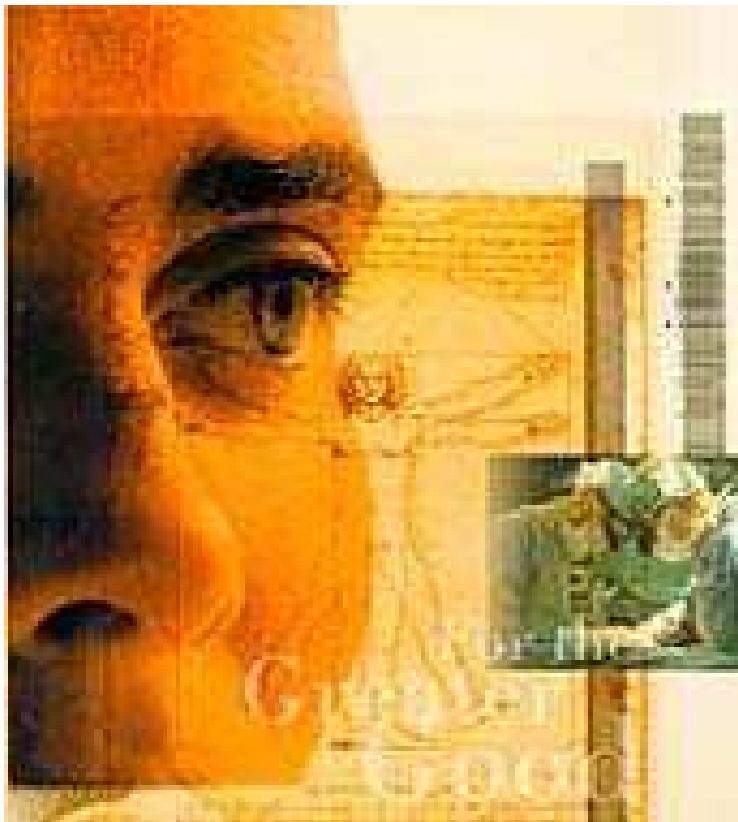
But there are also claims that can
suggest “fraud”...

- Alternative and complementary medicine include modalities supported by “claims” and anecdotal reports
- “The plural of claims is not evidence”
- Integrative Me

evidenced-bas



Integrative Medicine working to build the evidence base

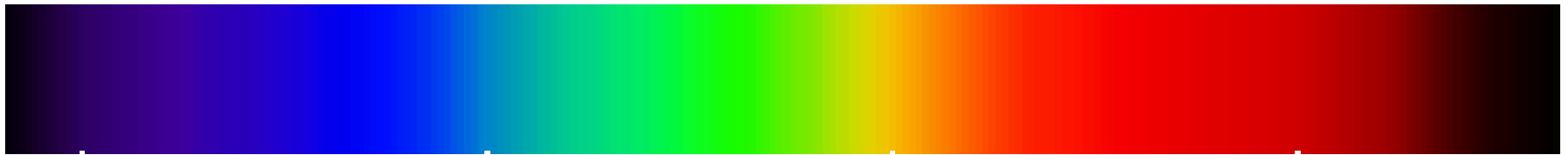


- Safety
- Efficacy
- Mechanism

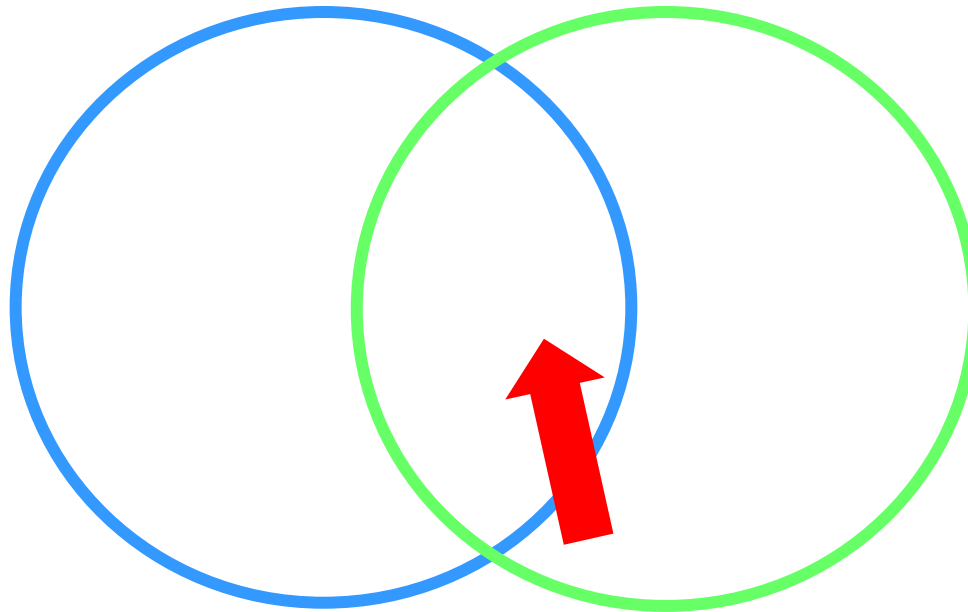
**Integrative
Medicine**



**Behavioral
Medicine**



**Integrative
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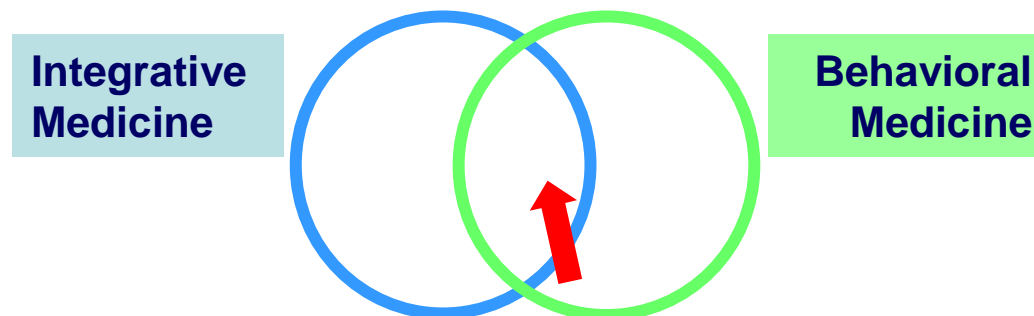


**Behavioral
Medicine**



Yoga at SBM

- Morning Exercise each day
- Symposium: Yoga as an Emerging Intervention for Cancer Patients and Post-Treatment Survivors
Chairs: Suzanne Danhauer and Crystal Park





Iyengar Yoga for Chronic Low Back Pain (CLBP)

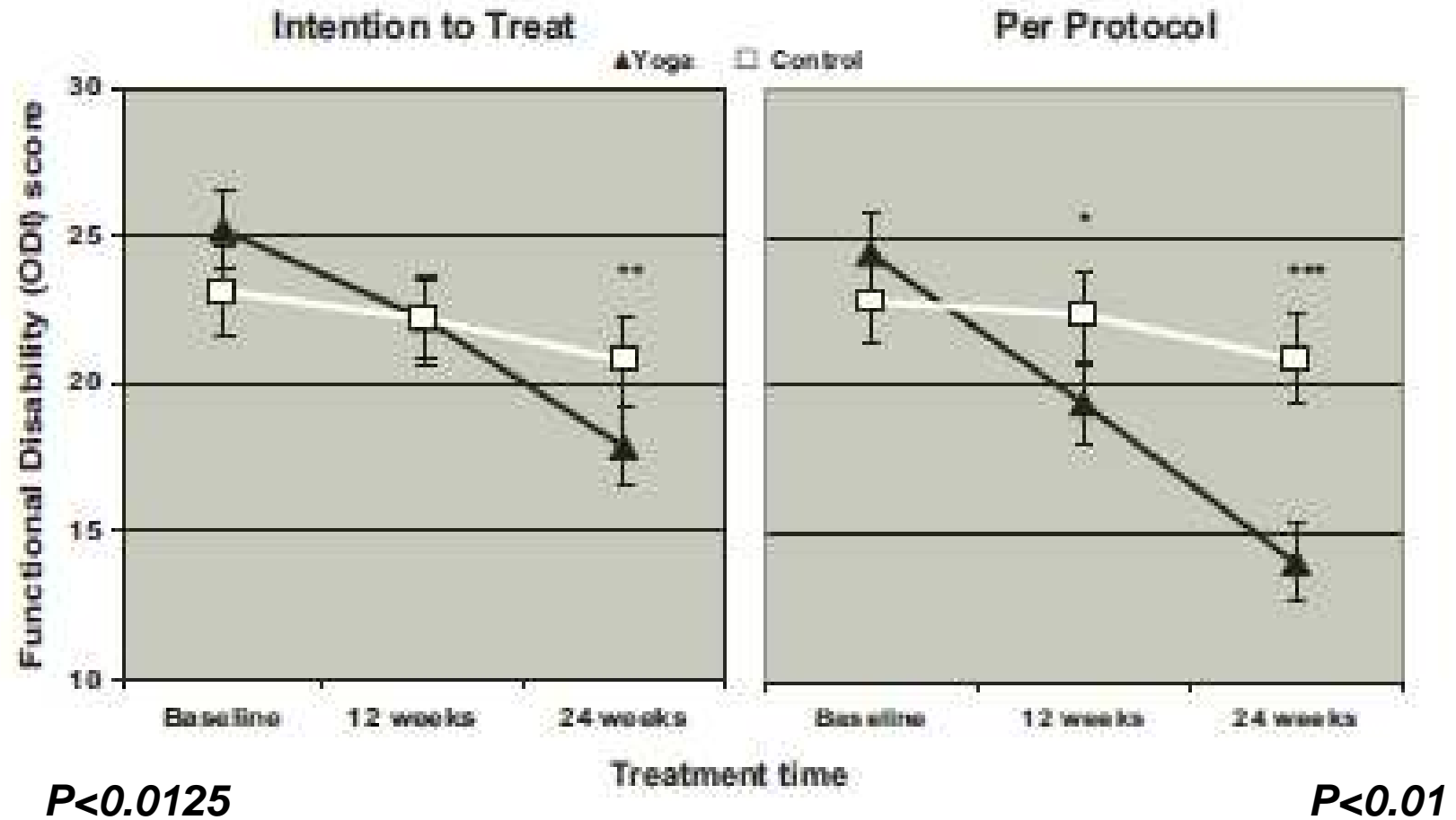
***CLBP 20-25% of all medical claims
\$34 billion in direct medical costs***

- 90 patients, CLBP randomized
 - Yoga - 24 weeks, 2 x week, 90 min. (N = 43)
 - Control - care as usual (N = 47)
- Outcomes
 - Oswestry Disability Index
 - Visual Analog Pain Scale

Williams, et al, *Spine*, 54, 2009



Iyengar Yoga for Chronic Low Back Pain



Williams, et al, *Spine*, 54, 2009

Yoga for Chronic Low Back Pain (CLBP)

- 101 adults chronic low back pain
- Randomized to 12-week program
 - Yoga
 - Conventional exercise class
 - Self-help book
- Outcome:
 - Roland disability index
 - Back pain



Sherman et al., *Ann Intern Med*, 143: 849-857, 2005

Yoga Reduces Disability & Pain

- At 12 weeks
 - Yoga > Self-help Disability - 3.4 ($p < .001$)
 - Yoga > Exercise Disability - 1.8 ($p = .03$)
- At 26 weeks
 - Yoga > Self-help Disability - 3.6 ($p < .001$)
 - Yoga > Self-help Pain - 2.2 ($p < .001$)



Sherman et al., *Ann Intern Med*, 143: 849-857, 2005



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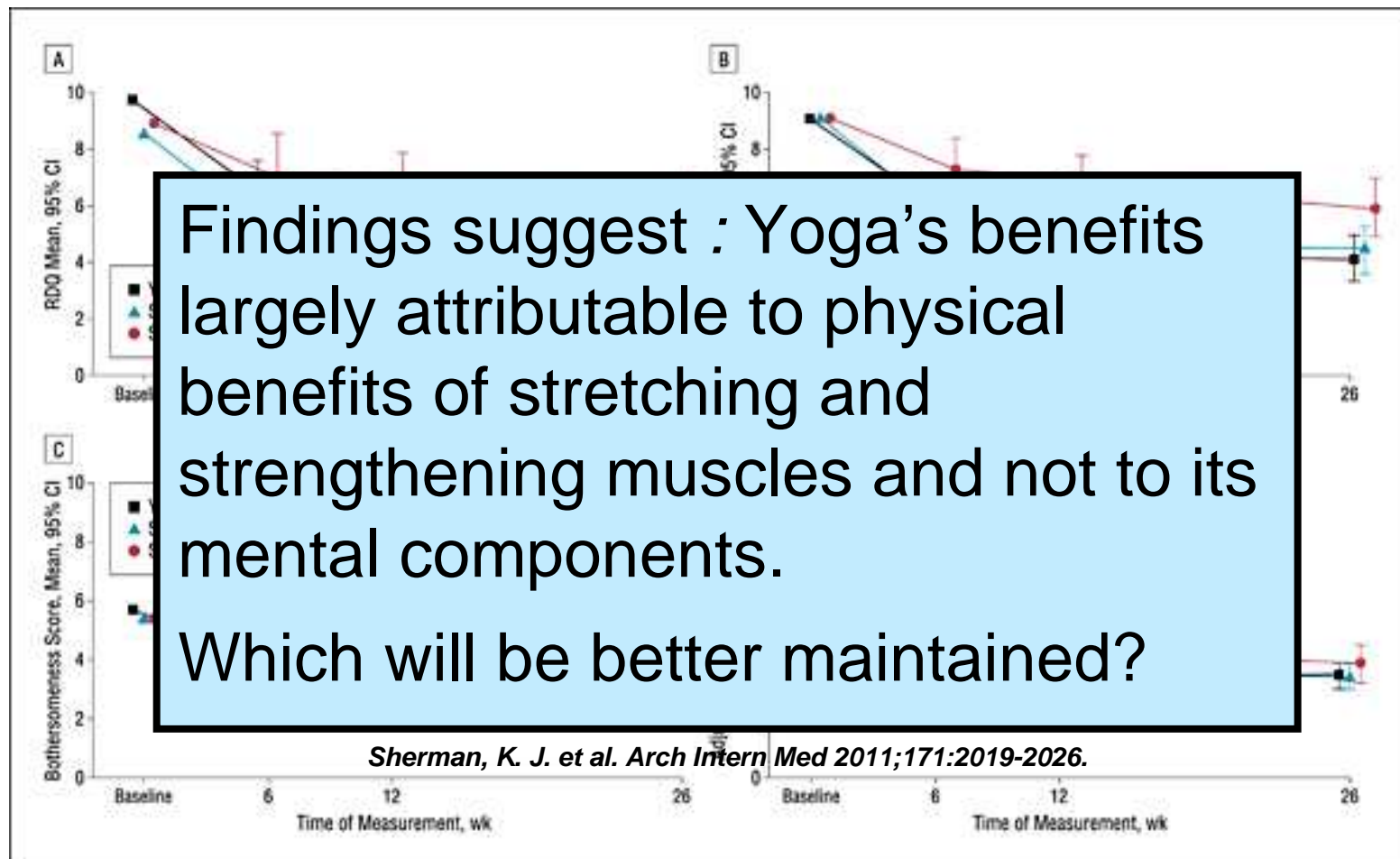
Larger Trial: Chronic Low Back Pain Yoga vs Conventional Stretching

- 228 adults chronic low back pain
- Randomized to 12-week program
 - Yoga class
 - Conventional stretching class
 - Self-help book
- Outcome:
 - Roland disability index
 - Bothersomeness



Sherman et al., *Ann Intern Med*, 171: 2012

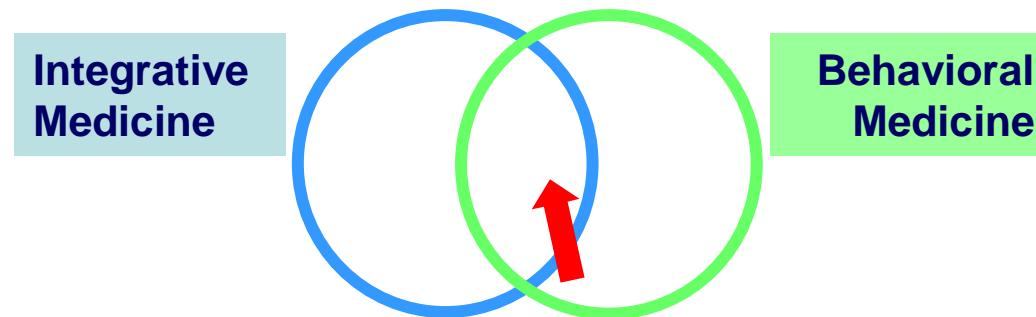
Primary outcomes for yoga, stretching, and self-care at baseline, 6, 12, and 26 weeks





Mindfulness Meditation at SBM

- Paper Session: Mindfulness and Mindfulness-Based Health Interventions
Chair: Lynn DeBar



Breathing Meditation for BP in African American Ninth Grade Students

- 121 students with systolic BP between 50-95th percentile
- Randomized to 12-week program
 - Breathing Awareness Meditation
 - Bovill Life Skills
 - Health education
- Outcomes:
 - Hostility
 - 24 hour BP



Wright et al., *J Black Psychology*, 37: 2011

Breathing Meditation for BP in African American Ninth Grade Students

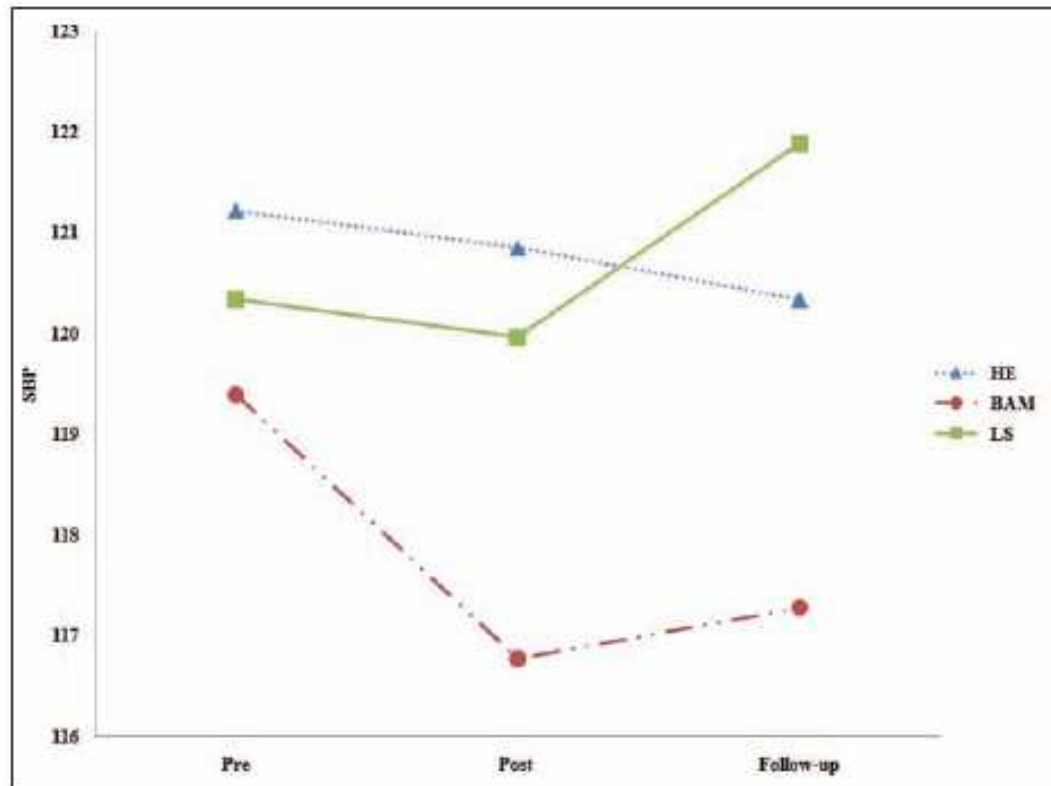


Figure 2. Treatment x time interaction on 24-hour systolic blood pressure

Wright et al., *J Black Psychology*, 37: 2011

Breathing Meditation for BP in African American Ninth Grade Students

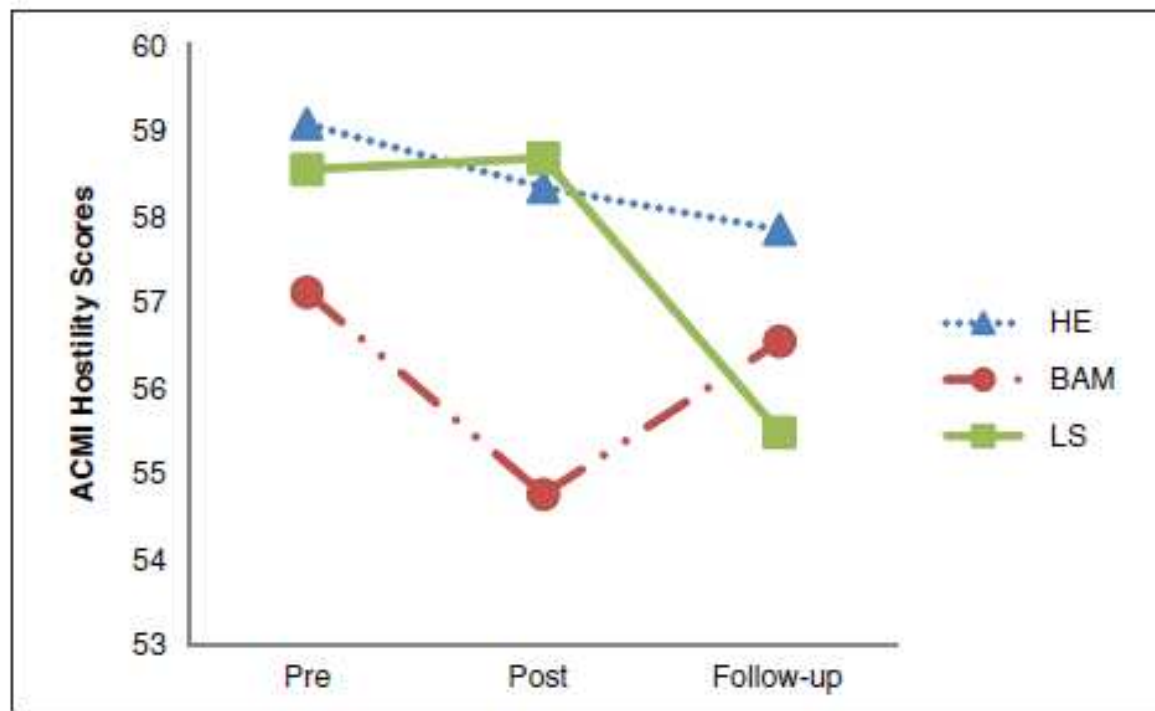


Figure 1. Treatment \times time interaction on hostility scores

Wright et al., *J Black Psychology*, 37: 2011

Stress, Inhibited Breathing and 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
 - ➔ *Monitor rate and expired CO₂*
 - Health Education Control
- Outcome
 - 24 hour BP
 - Resting and ambulatory breathing rate and expired CO₂



Chesney et al, UCSF, 2012

Challenges and Current Directions in Integrative Medicine Research

- Challenges
 - Selection of controls and comparison groups
 - “Placebo” responses
- Current Directions
 - RCT vs comparative effectiveness designs
 - Investigate mechanisms
 - Explore use of technology
 - Begin studying adherence



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2012 - 50 Members

Albert Einstein/Yeshiva University
Aurora Health Care
Boston University
Cleveland Clinic
Columbia University
Duke University
Georgetown University
George Washington University
Harvard Medical School
Johns Hopkins University
MD Anderson Cancer Center
Mayo Clinic
McMaster University
Ontario

University of Calgary
University of California, Irvine
University of California, Los Angeles
University of California, San Francisco

University of Maryland
University of Massachusetts
University of Medicine & Dentistry of New Jersey

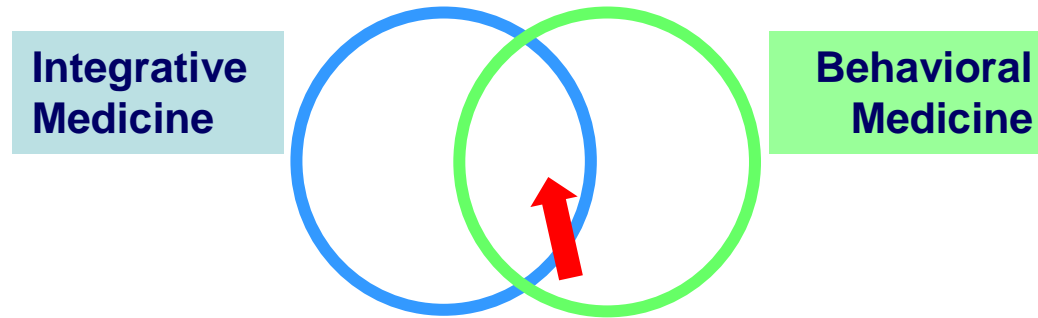
“One reason is that “we” are several different constituencies that collaborate too rarely.”

Bonnie Spring, 2011

Northwestern University
Ohio State University
Oregon Health & Science University
Stanford University
Thomas Jefferson University
Tufts University
University of Alberta
University of Arizona

University of Colorado at Denver
University of Connecticut
University of Hawaii at Manoa
University of Illinois at Chicago

University of Vermont
University of Washington
University of Wisconsin, Madison
Vanderbilt University
Wake Forest University
Yale University



- Multidisciplinary organizations
- Interested in interaction of biology, behavior and environment, and
- Share the goal of improving health and well-being of individuals, families, communities and populations



Behavioral and Integrative Medicine

Both want to bring about change

To see our society invest more in behavior change interventions that promote health



Accessible interventions that encourage people to participate in choices to enhance resilience, prevention illness and improve the quality of their lives.

In Appreciation

David Abrams

Michael Acree

Wendy Adelson

Andy Avins

Vernon Barnes

Sheldon Cohen

Susan Czajkowski

Richard Davidson

Susan Folkman

Scott Harris

Russell Glasgow

Gail Ironson

Laura Lee Johnson

Jon Kabat-Zinn

Peter Kaufman

Jean Kristeller

Wolf Mehling

C. Tracy Orleans

Crystal Park

Tom Pickering

Lynda Powell

Neil Schneiderman

Karen Sherman

Bonnie Spring

Catherine Stoney

Esther Sternberg

Stephen Weiss

Redford Williams

Eileen Ziegler

David Anderson

My colleagues at UCSF

