



# ***Integrative Health and Medicine: A New Essential Partner in Effective Pain Management***

**Margaret A. Chesney, PhD**

**2<sup>nd</sup> Annual Integrative Medicine Symposium  
Combating the Opioid Crisis:  
Integrative Approaches for Pain Management  
Texas Tech University Health Sciences Center  
April 12, 2019**



# Integrative Medicine & Health: An Essential Partner for Pain Management

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- Describe the factors that have given rise to Integrative Medicine and Health
- Highlight the pathways that have advanced integrative medicine in recent years
- Point to the essential role integrative health and medicine can play in effective pain management



# Integrative Medicine & Health: An Essential Partner for Pain Management

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➔ Describe the factors that have given rise to Integrative Medicine and Health

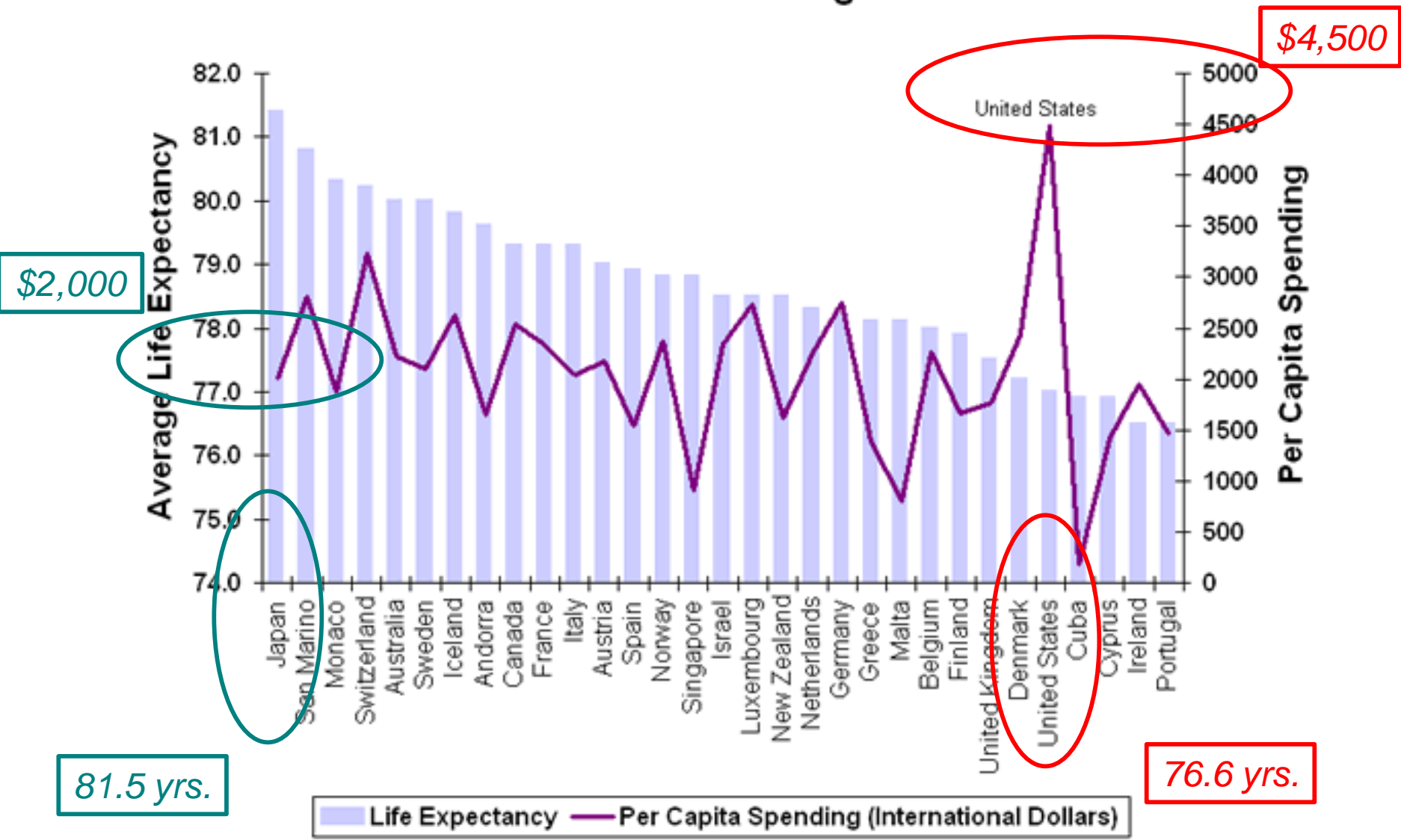
For context, I would like to point out



“The mission of the U.S. Department of Health and Human Services (HHS) is to enhance the health and well-being of all Americans”

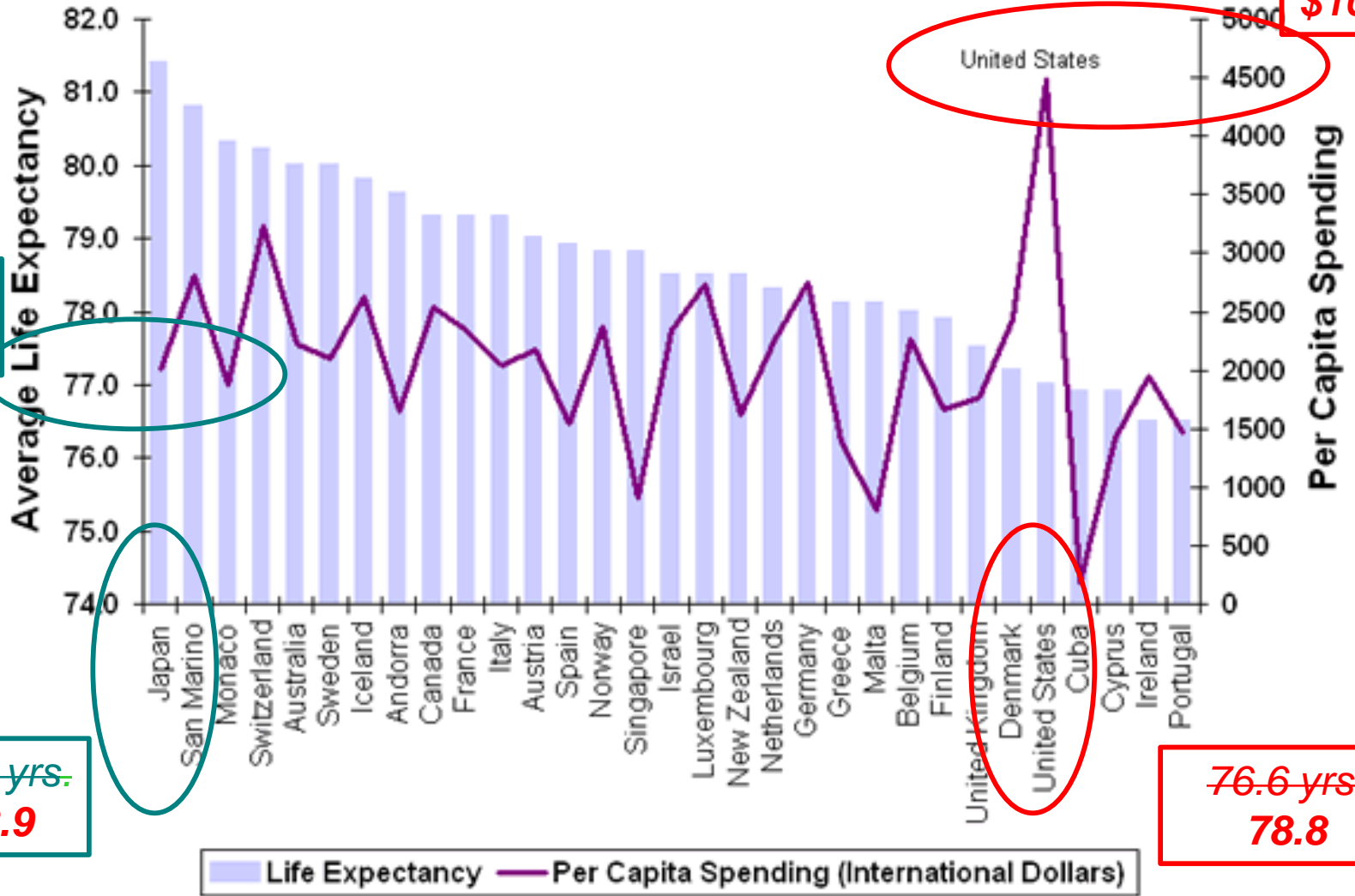
Strategic Goal #1 of HHS – “Affordable health care”

# The Cost of a Long Life



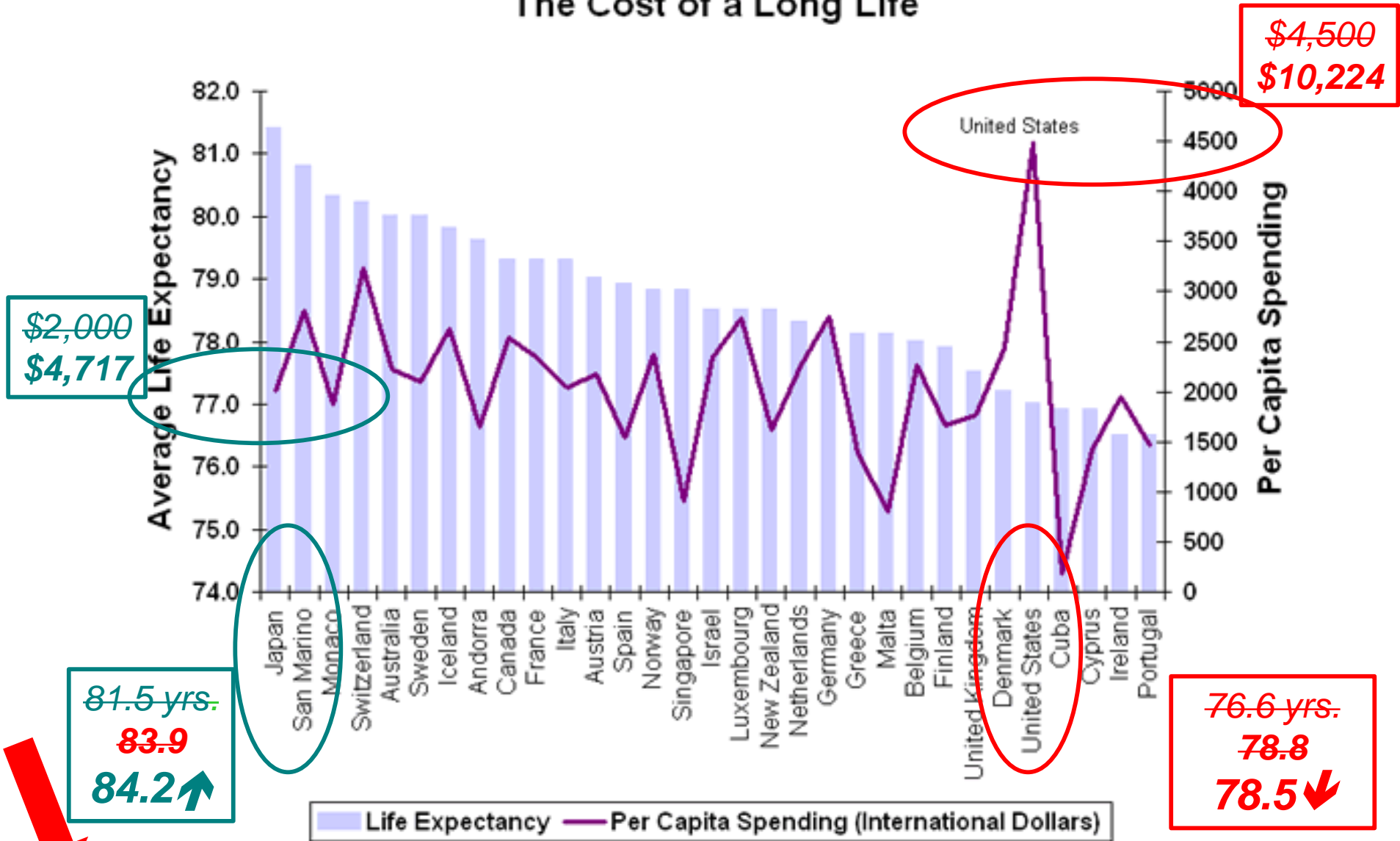
Data from 2000, UC Atlas of Global Inequality, 2014  
 Organization for Economic Cooperation and Development, 30+ Countries

# The Cost of a Long Life



**New 2017 Data – Organization for Economic Cooperation and Development, 35 Countries**  
**US Rank 27<sup>th</sup> of 35**

# The Cost of a Long Life



**New 2018 Data – Organization for Economic Cooperation and Development, 35 Countries**  
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# Vice Admiral Jerome Adams, MD Surgeon General of the US

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- “Every American deserves to live a long, healthy life, but we are falling short of that goal
  - “Life expectancy in the U.S. has declined for the second year in a row
  - “This decline marks the first time in half a century that American longevity has declined . . .
- ➔ . . . *“a disturbing problem that faces us as we observe Public Health Week” April, 2018*



# Healthcare Facts – 35 Countries

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## United States

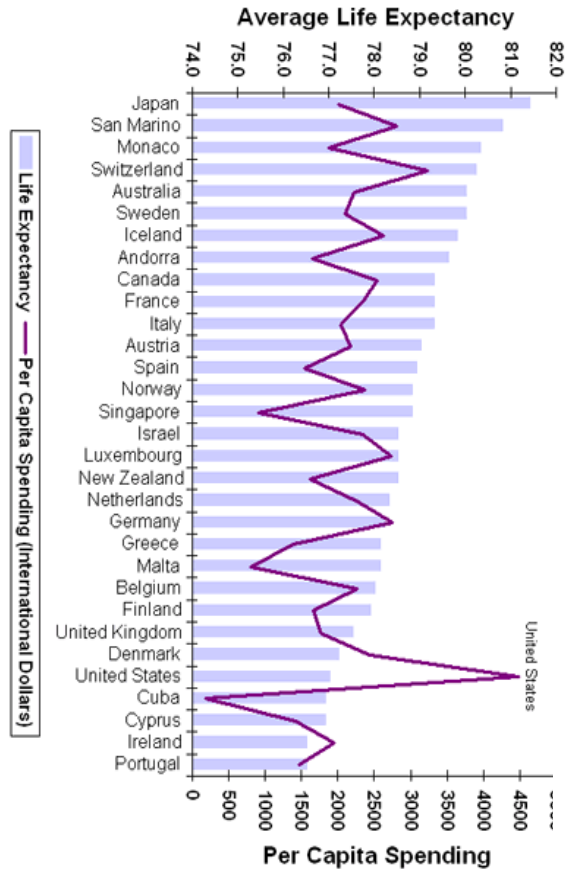
- Ranks #1 on obesity
- Ranks #33/35 on prevalence of diabetes
- Ranks #1 in drug related deaths
- Ranks #1 in pharmaceutical spending

***Organization for Economic Cooperation and Development –  
2018 (Bloomberg News, September 19,2018)***





# Look at this differently ...



The Cost of a Long Life



\$10,224 per capita

Do the math:

US Population =  
328,559,915

**\$3.36 Trillion**

**Organization for Economic Cooperation and Development – 2018 (USA Today, Dec 2018)**  
**\*Centers for Disease Control and Prevention (2018)**



# Top 8 US Companies

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Rank	Company	Revenue (Billions)
1	Walmart	\$500
2	Exxon Mobil	\$244
3	Berkshire Hathaway	\$242
4	Apple	\$229
5	United Health Group	\$201
6	McKesson	\$199
7	CVS Health	\$185
8	Amazon	\$178

**MCKESSON**

**CVS**  
Health®

**UNITEDHEALTH GROUP®**

*Fortune 500, 2018*



# Follow the Money

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- Unfortunately, there are major vested interests in driving up health care costs
- Health care has been a leading contributor to the increases in the U.S. GDP = 17.9% (2018)
- Companies, owners, and stock-holders are making money
- “Financial Gain” appears to be **more important than life-expectancy** to some policy makers

IOM SUMMIT ON  
INTEGRATIVE MEDICINE  
AND THE HEALTH  
OF THE PUBLIC

February 25 - 27, 2009



“The disease-driven approach to care has resulted in

- *spiraling costs* as well as
- *a fragmented health system* that is
- *reactive and episodic* as well as
- *inefficient and impersonal.*”

*IOM Summit, 2009*

*IOM - Now NAM - National Academy of Medicine*



## Disease-driven care

- a fragmented health system
- reactive and episodic
- inefficient and impersonal.”

## Integrative Health Care

- ➔ an integrated team offering best of conventional and Integrative Medicine
- ➔ focuses on lifestyle and health promotion
- ➔ reaffirms relationship between practitioners, *each patient and his or her personal life goals*



# Integrative Medicine & Health: An Essential Partner for Pain Management

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- Describe the factors that have given rise to Integrative Medicine and Health
- ➔ Highlight the **pathways** that have advanced integrative medicine in recent years
- Point to the essential role integrative health and medicine can play in effective pain management

# 1998 – NCCAM/NCCIH is founded to Support Complementary and Alternative Medicine (CAM) Research & Education\*

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- Natural Products, Diets

Dietary supplements

Special diets



- Mind and Body

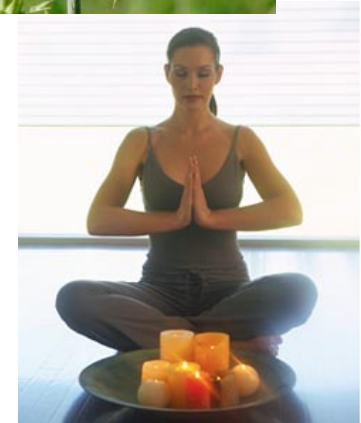
Deep Breathing

Relaxation/Meditation

Yoga/Tai Chi

Therapeutic Massage

Acupuncture



# 1998 – NCCAM / NCCIH

## What was the impetus for NCCAM?

- Natural Products, Diets

Dietary supplements

Special diets



- Mind and Body

Deep Breathing

Relaxation/Meditation

Yoga/Tai Chi

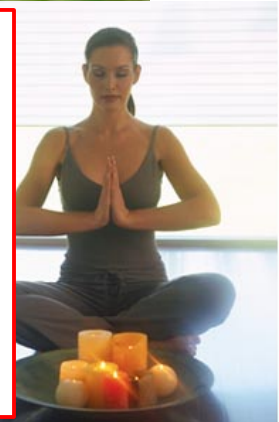
Therapeutic Massage

Acupuncture

*NCCAM created  
in response to:*

✓ *Congressional &*

✓ *Public Interest*







# How Many Use “CAM”?

- National Health Interview Survey in 2002
- National random sample

2002: 31,044 adults **% Use** **36.6%**

2004: Looking ahead to  
2007 Survey





# How Many Use “CAM”?

- National Health Interview Survey in 2002, 2007 & 2012
- National random sample **% Use**

2002: 31,044 adults	<b>36.6%</b>
2007: 23,393 adults	<b>38.3%</b>
9,417 children	<b>11.8%</b>
2012: 34,525 adults	<b>Similar</b>
10,218 children	<b>Levels</b>





# Why Do So Many Use “CAM”?

- Pain management is the #1, 2, 3, & 4 reason for using complementary medicine
- 25.3 million American adults reported daily pain during 3 months before survey



But the survey also showed:

- ➔ American adults who take supplements or practice yoga do so for wellness.





# How Many Use Integrative Health and Why?

- Pain management is the #1 reason for using integrative health

**Pathway to Policy Change #1**  
Gather key data for policy makers  
Focus on public interest  
The public cares about children

- 25% of respondents practice yoga for wellness.



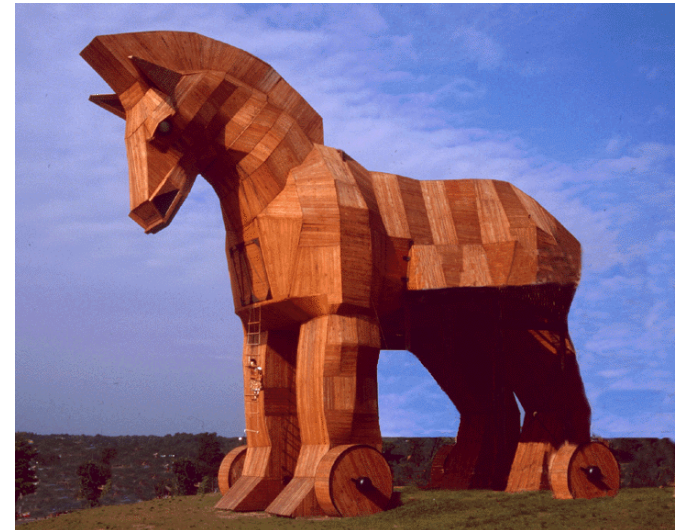
# “What’s in a name?”

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1. Holistic Medicine
2. Alternative Medicine
3. Complementary & Alternative Medicine  
NIH - NCCAM – 1998
4. “Integrative Medicine”
5. Complementary and Integrative Health  
NIH - NCCIH - 2014

*Now:* Integrative Health,  
Whole Health, Whole Person Health



# Survey of Infectious Disease Physicians

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## Survey of 311 infectious disease physicians

	Believe “Mildly” to <u>“Very Effective”</u>
■ Artemisinin/malaria	80%
■ Omega 3/hyperlipidemia	78%
■ Cranberry for UTI	54%
	<u>Interest</u>
■ Interest in CAM?	56%
■ Interest in Integrative Med.?	80%



*(Shere-Wolf\*, Tilburt, Chesney, Evidence Based CAM, 2013,  
\*Fellow, University of Arizona Center for Integrative Medicine)*



# Survey of Infectious Disease Physicians

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Survey of 311 infectious disease physicians



Believe "Mildly" to  
"Very"

- Artemisinin

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- In

- Int

**Pathway to Policy Change #2**

Choose the right **words** to describe the field of Integrative Health and Medicine

**Integrative Health ~ Whole Person Health**

80%



*(Shere-Wolf, Tilburt, Chesney, Evidence Based CAM, 2013)*

# Integrative Medicine in US Hospitals – Another Trend

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- 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%





# Integrative Medicine in US Hospitals

- Hospitals offering integrative medicine

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- Key reasons

— **Patient demand** 85%

— **Clinical evidence** 74%

**Pathway to Policy Change #3**

In the US, health care is a “business”

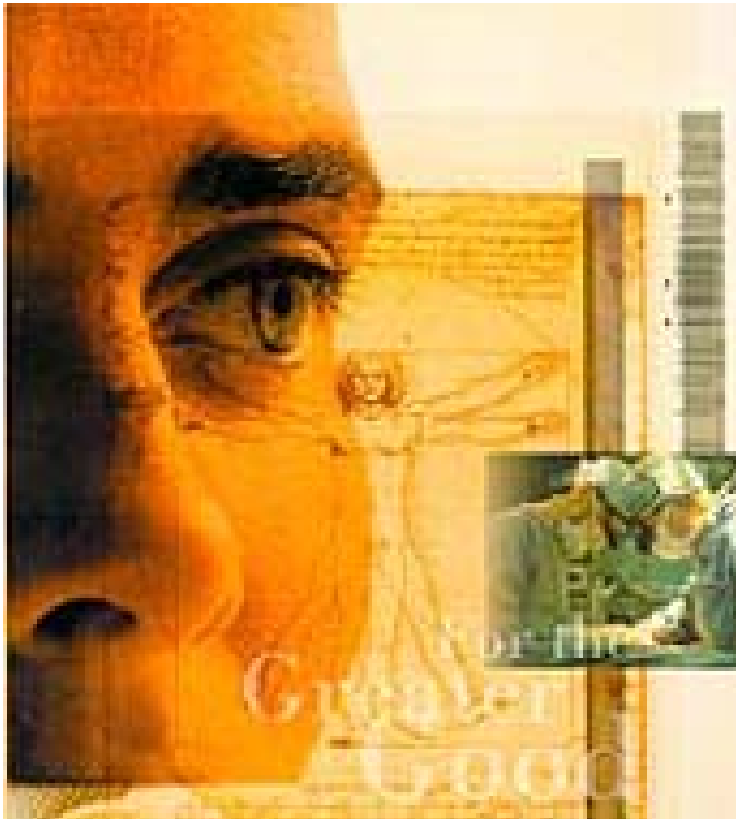
Highlight that patient demand matters

... and gather the **clinical evidence**



# Integrative Health and Medicine has been building the evidence base

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- Safety
- Efficacy
- Mechanisms
- *Evidence is essential...but not sufficient*



# Yoga for Chronic Low Back Pain (cLBP)

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- Costs the US = \$200B annually
- Affects approximately 10% US adults
- Disproportionately affects racial and ethnic communities and lower SES groups
- Physicians seeking a non-pharmacological therapy most frequently refer patients to individual **Physical Therapy (PT)** for individual stretching and strengthening exercises ~ *it is covered by insurance*



# Yoga for Chronic Low Back Pain (cLBP) – *Design of Saper et al.*

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- 320 patients, cLBP randomized
  - Yoga - 12 weekly, 75-min group classes, 30-min home practice, followed to 1 year with classes (n = 127)
  - PT- 15, 60-min individual appts. over 12 weeks, followed to 1 year, half randomized to 5 boosters (n = 129)
  - Education – The *Back Pain Helpbook* with newsletter and support calls (n = 64)
- Outcomes – Roland Morris Disability Questionnaire (RMDQ)



# Yoga for Chronic Low Back Pain (cLBP) - *Results*

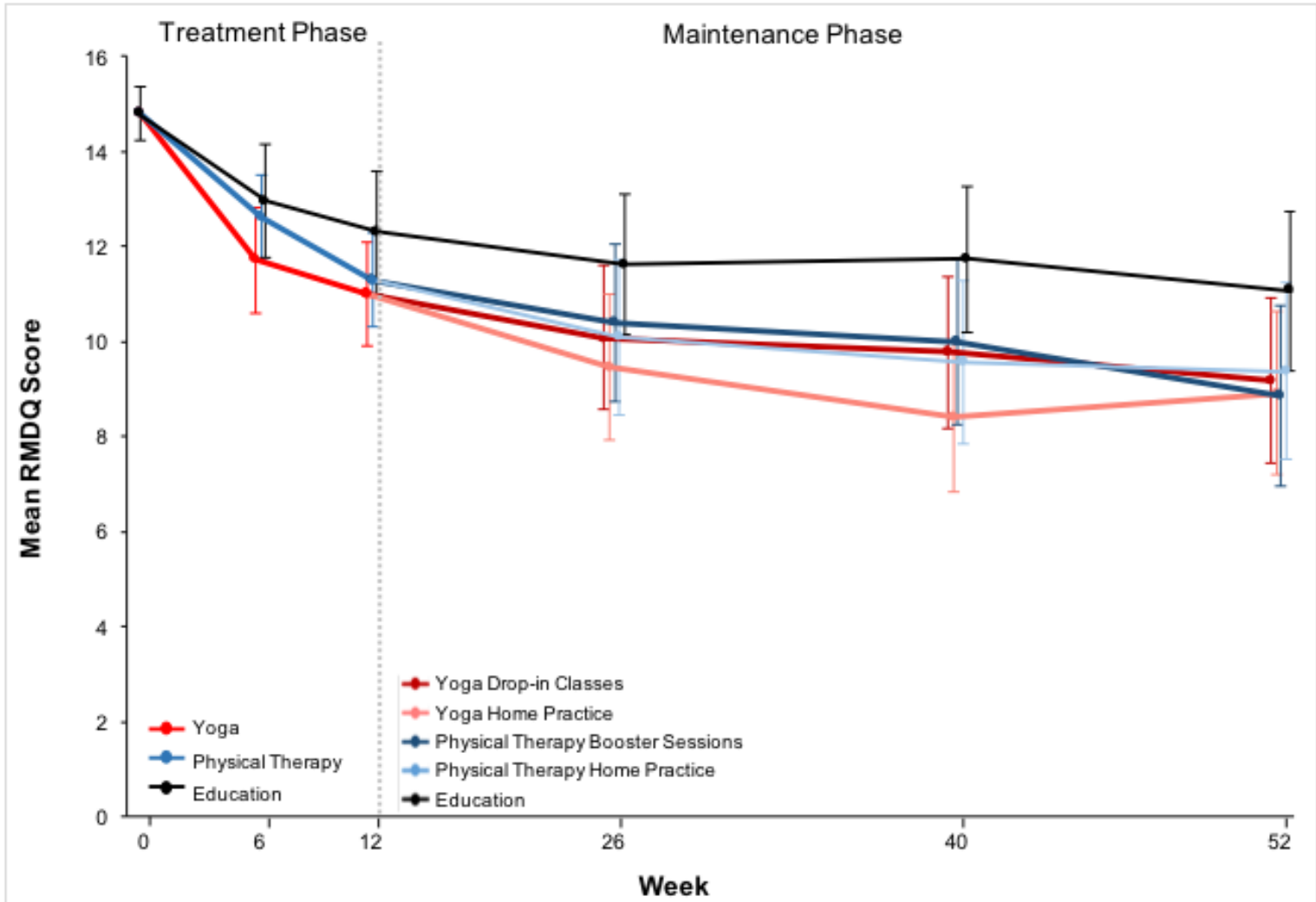
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- Primary Outcome:  
Improvement in RMDQ by those in Yoga was not inferior to improvement by those in PT
  - Yoga – Decrease in disability: -1.7
  - PT – Decrease in disability: -2.6
- Compared to Education:
  - Yoga and PT less likely to use medications
  - Yoga and PT more satisfied with the intervention



# Yoga for Chronic Low Back Pain

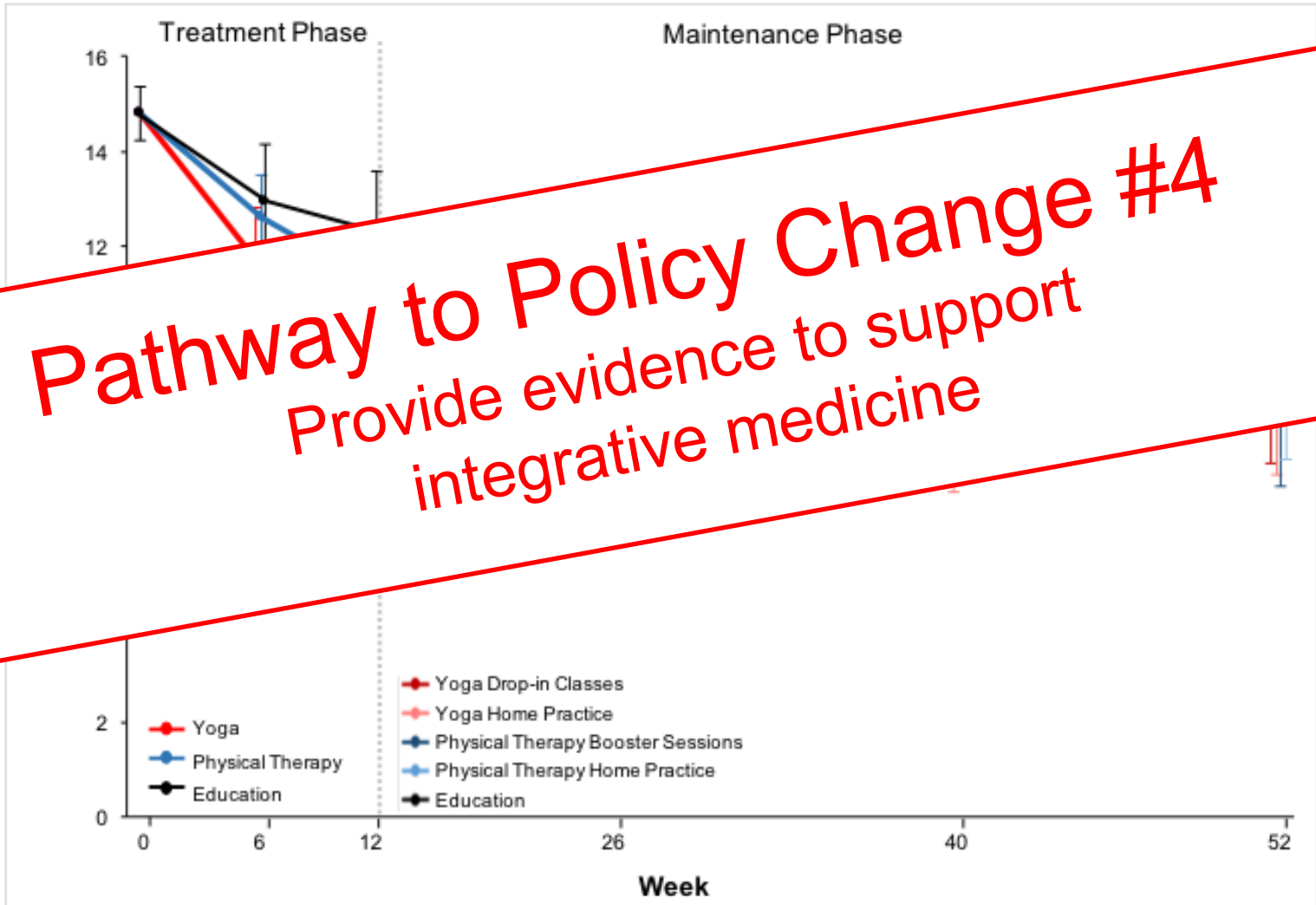
## Roland Morris Disability Questionnaire





# Yoga for Chronic Low Back Pain

## Roland Morris Disability Questionnaire



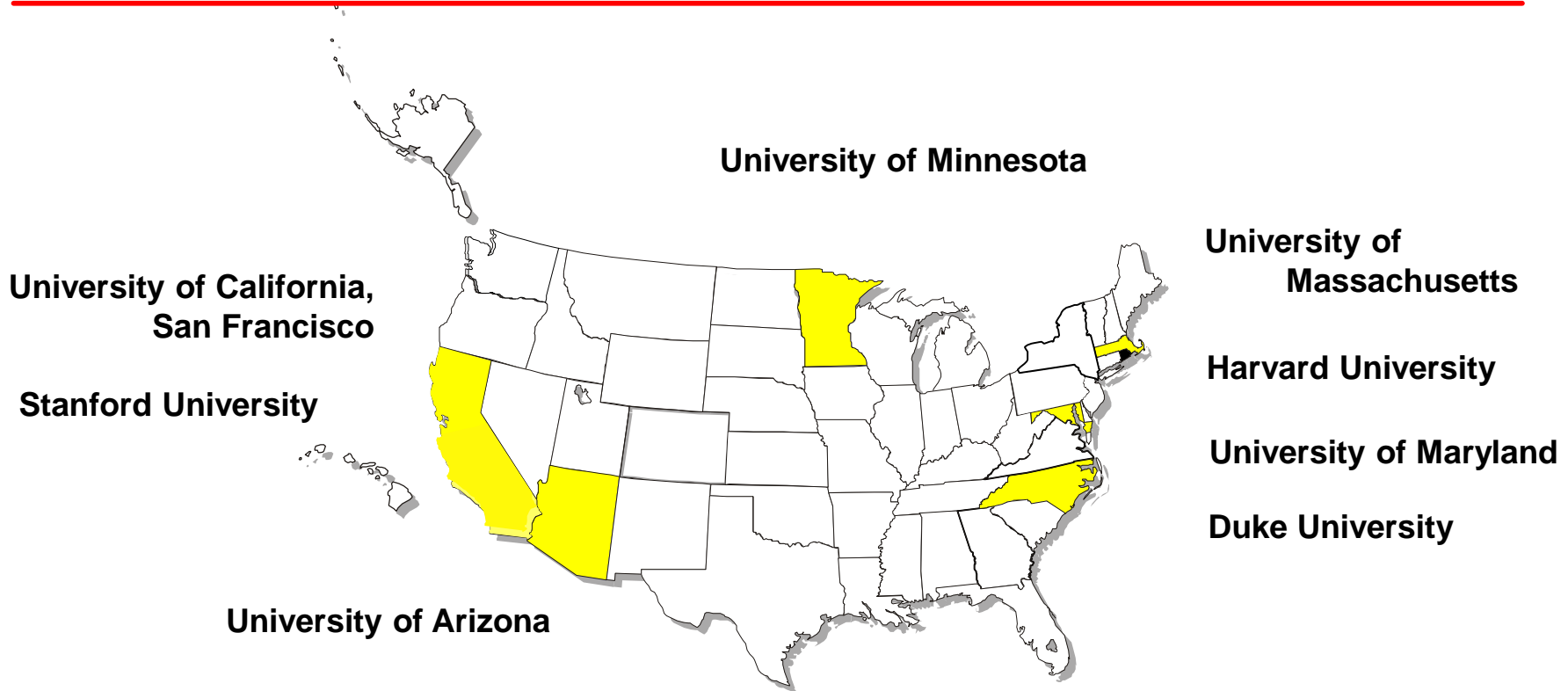
**Pathway to Policy Change #4**  
Provide evidence to support integrative medicine



ACADEMIC CONSORTIUM  
FOR **INTEGRATIVE**  
MEDICINE & HEALTH

# Academic Centers: “Home” for Medical Research, Education, Clinical Care

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**Consortium Founded in 1999 – 8 members**

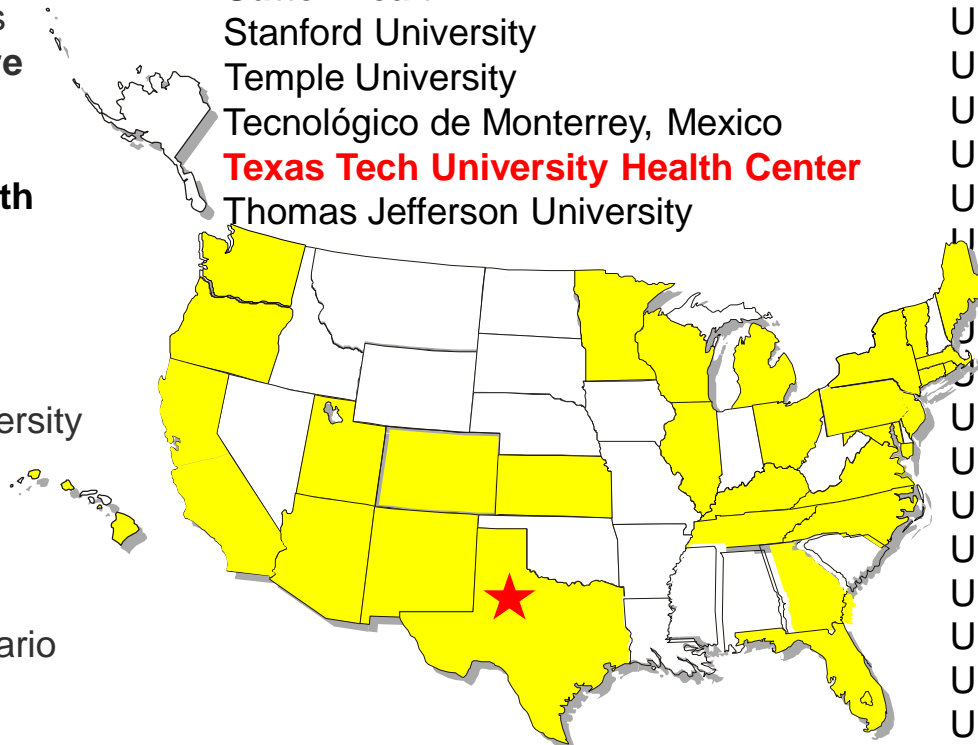


# 2019 - 75 Members\*

Albert Einstein/Yeshiva University  
**Allina Health Systems**  
**Aurora Health Care**  
**Beaumont Health System**  
 Boston University  
 Cedars Sinai Los Angeles  
**Central Maine Healthcare**  
 Cleveland Clinic  
 Columbia University  
**Connor Integrative Health**  
 Cornell University  
 Duke University  
 Emory University  
 Georgetown University  
 George Washington University  
 Harvard Medical School  
**INOVA Health**  
 Johns Hopkins University  
**Mayo Clinic**  
 McMaster University, Ontario  
 MD Anderson  
**Medstar Health**  
**Memorial Sloan Kettering**  
**Meridian Health**  
 Mount Sinai Medical Center  
 New York University  
 Northwestern University  
 Ohio State University

Oregon Health & Science University  
 Pennsylvania State Univ., Hershey  
 Rutgers New Jersey Medial School  
**Scripps Health**  
**Sutter Health**  
 Stanford University  
 Temple University  
 Tecnológico de Monterrey, Mexico  
**Texas Tech University Health Center**  
 Thomas Jefferson University

University of Chicago  
 University of Cincinnati  
 University of Colorado  
 University of Connecticut  
 Univ. of Florida  
 University of Hawaii  
 University of Kansas  
 University of Kentucky  
 University of Maryland  
 University of Massachusetts  
 University of Miami  
 University of Michigan  
 University of Minnesota  
 University of New Mexico  
 University of North Carolina  
 University of Pennsylvania  
 University of Pittsburgh  
 University of Saskatchewan  
 University of Southern Ca.  
 University of Texas, MB  
 University of Utah  
 University of Vermont  
 University of Washington  
 University of Wisconsin,  
 Vanderbilt University  
**Veterans Administration**  
 Wake Forest University  
 Yale University



Tufts University of Alberta  
 University of Arizona  
 University of Calgary  
 University of California (UC) Irvine  
 UCLA, UCSF, UCSD  
 University of Chicago

\* Apologies to  
Canada & Mexico

# 2019 - 75 Members\*

Albert Einstein/Yeshiva University  
**Allina Health Systems**  
**Aurora Health Care**  
**Beaumont Health System**  
 Boston University  
 Cedars Sinai Los Angeles  
**Central Maine Healthcare**  
 Cleveland Clinic  
 Columbia University  
**Connor Integrati**  
 Cornell  
 Duke U  
 Emory U  
 Georgeto  
 George V  
 Harvard M  
**INOVA He**  
 Johns Hop  
**Mayo Clin**  
 McMaster U  
 MD Anderso  
**Medstar Hea**  
**Memorial Sla**  
**Meridian Hea**  
 Mount Sinai Medical Center  
 New York University  
 Northwestern University  
 Ohio State University

Oregon Health & Science University  
 Pennsylvania State Univ., Hershey  
 Rutgers New Jersey Medial School  
**Scripps Health**  
**Sutter Health**  
 Stanford University  
 Temple University  
 Tecnol  
 ... University of Alberta  
 University of Arizona  
 University of Calgary  
 University of California (UC) Irvine  
 UCLA, UCSF, UCSD  
 University of Chicago

University of Chicago  
 University of Cincinnati  
 University of Colorado  
 University of Connecticut  
 Univ. of T  
 ... sets  
 ... a  
 ... Southern Ca.  
 University of Texas, MB  
 University of Utah  
 University of Vermont  
 University of Washington  
 University of Wisconsin,  
 Vanderbilt University  
**Veterans Administration**  
 Wake Forest University  
 Yale University

## Pathway to Policy Change #5






Point out that integrative health is gaining traction across the country, state by state, each with Senators & Representatives ... Federal & State Level ...

\* Apologies to  
Canada & Mexico



# Highlight the Pathways that Integrative Medicine

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-  Gather **key data for policy makers**, focusing on public interest, and integrative approaches for healthy **children pain management and wellness**
-  Choose the **right words** to describe integrative health and medicine offers ... whole health, whole person care.
-  Focus on the **public demand** for integrative medicine
-  Provide **evidence** to support integrative medicine.
-  Point out that integrative medicine is **gaining traction**

*Watch for opportunities to take action:*

***Opioid Crisis***



# Integrative Medicine & Health: An Essential Partner for Pain Management

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- Describe the factors that have given rise to Integrative Medicine and Health
- Highlight the pathways that have advanced Integrative health in recent years
- ➔ Point to the essential role integrative health and medicine can play in effective pain management



# Pain Management and the Opioid Epidemic

- Each day, estimates range from 115-175 Americans die as a result of opioids, average deaths per day = 130
- The estimated number of deaths in 2015 was more than 33,000, which rose in 2017 to more than 70,000
- The CDC estimates that the total "economic burden" of prescription opioid misuse alone in the United States is \$78.5 billion a year

The opioid epidemic provides a major impetus to examine nonpharmacological approaches to pain



# Evidence for Nonpharmacological Approaches for Pain

CLINICAL GUIDELINE



## Noninvasive Treatments for Acute, Subacute, and Chronic Low Back Pain: A Clinical Practice Guideline From the American College of Physicians

Amir Qaseem, MD, PhD, MHA; Timothy J. Wilt, MD, MPH; Robert M. McLean, MD; and Mary Ann Forciea, MD; for the Clinical Guidelines Committee of the American College of Physicians\*

“For patients with chronic low back pain, clinicians and patients **should initially select** nonpharmacologic treatments...acupuncture, mindfulness-based stress reduction, tai chi, yoga ...cognitive behavioral therapy...”





# “Nonpharmacological Approaches” for Pain



Early in 2017, the largest hospital accrediting association announced it was planning to require hospitals to promote nonpharmacological approaches to pain management starting January 1, 2018



*Public Comment Period:  
Email campaign – given the evidence,  
change “promote” to “provide...”*

*1000s of emails were sent to* **The Joint Commission**



# “Nonpharmacological Approaches” for Pain



Beginning January 1, 2018, the largest hospital accrediting association required that hospitals **PROVIDE nonpharmacological** approaches to pain management



Both recommend **nonpharmacological** modalities for pain



# Surgeon General Vivek Murthy Puts out a Physician's Pocket Guide

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## **2 CONSIDER IF NON-OPIOID THERAPIES ARE APPROPRIATE**

**Such as: NSAIDs, TCAs, SNRIs, anti-convulsants, exercise or physical therapy, cognitive behavioral therapy.**

*Question:* Acupuncture, osteopathic manipulation, other nonpharmacological approaches to pain?

# “Carpe Diem” ~ Seize the Day

## Get the Word Out



## Opioid Epidemic

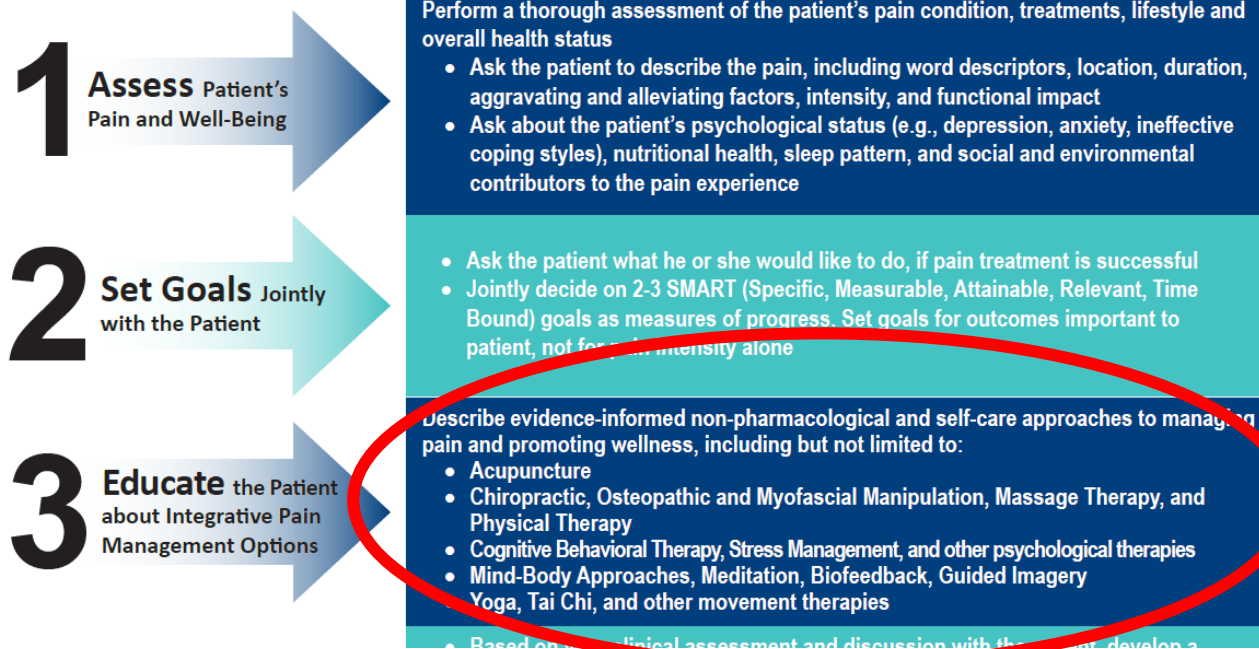
### Integrative Medicine & Health Groups

Joined forces  
to present  
Non-Pharm.  
Approaches  
to Pain



### Non-Pharmacological Approaches to Pain Management and Well-Being

In response to the current public health crisis of opioid abuse, overdose, and death, many organizations have issued guidelines and recommendations for treating pain, including the former Surgeon General’s “Turn the Tide” campaign. Similar to other guidelines, this campaign recommends non-pharmacological approaches as first line pain treatment, with opioids to be considered only if these and non-opioid pharmacological treatments are ineffective. This document expands upon those recommendations to help primary care clinicians and their patients with this approach.





# “Carpe Diem” ~ Seize the Day

## Get the Word Out

## Opioid Epidemic

Integrative  
Medicine &  
Health  
Groups

Join forces  
to present  
Non-Pharm.  
Approaches  
to Pain



- Based on your clinical assessment and discussion with the patient, develop a treatment plan
- Discuss potential challenges, and ways to overcome them, with the patient
- Reinforce that 1) chronic pain is a complex problem with no simple solutions; 2) each patient's path is a little different and you will be there to support your patient along their path; 3) just as the tide causes all boats to rise, getting healthier overall helps all medical conditions improve—even chronic pain
- Obtain patient's commitment to carry out the treatment plan

- See the patient regularly; assess progress toward identified goals at each appointment
- Encourage changes they have made and urge them to continue the good work
- Problem-solve to help overcome barriers to treatment plan adherence
- Modify treatment plan to maximize progress toward goals

Resources for Information on Nonpharmacological Approaches to Pain Management and Wellbeing



# *More progress:* HHS Task Force on Pain Management Best Practices:

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## Calls for an 'Integrative' Treatment Plan\*

Recommendations include:

- Balanced pain management should be based on a **biopsychosocial model of care.**
- Individualized, **patient-centered care** is vital to addressing the public health pain crisis.
- Recommends complementary and integrative health **Acupuncture, yoga, tai chi, meditation**



- Representative Judy Chu  
(D-California, 27<sup>th</sup> District)



- Representative Jackie Walorski  
(R-Indiana, 2<sup>nd</sup> District)

*March 2018 & 2019 – Briefings on the Hill*

- What's Missing from Medicine? ...  
HEALTH !
- Opioid Crisis: Essential Role of Integrative Medicine



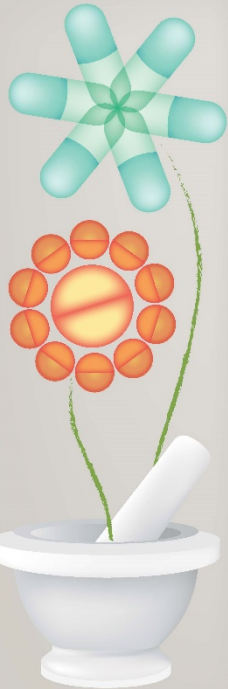


TEXAS TECH UNIVERSITY  
HEALTH SCIENCES CENTER

fifty  
YEARS

# Division of Integrative Medicine

## Center of Excellence For Integrative Health



TEXAS TECH UNIVERSITY  
HEALTH SCIENCES CENTER

SAVE THE DATE

*collaboration*  
ACROSS PAIN SCIENCE & PRACTICE

APRIL 11 • 2019

4th Annual Translational Neuroscience Center (CTNT) Symposium  
**Neurobiological Disease Mechanisms**

Keynote Speaker

*M. Catherine Bushnell, Ph.D.*

Scientific Director of the National Center for  
Integrative Health at the National Institutes of Health

APRIL 12 • 2019

2nd Annual Integrative Medicine Symposium  
**Combating the Opioid Crisis  
Approaches for Pain Management**

Keynote Speaker

*Margaret A. Chesney, Ph.D.*

Distinguished Professor and Past Director of  
Integrative Medicine, Department of Medicine,  
University of California San Francisco

Keynote Speaker

*Bruce A. Watkins, Ph.D.*

Research Professor, University of California  
Emeritus Professor, Purdue University

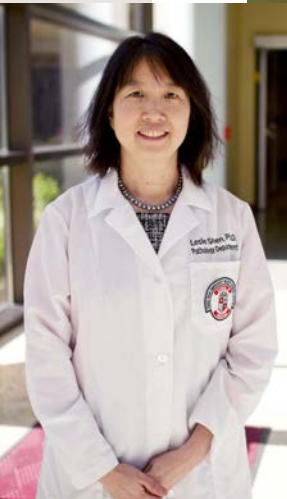
**Interactive Afternoon Interprofessional**

To Register: <https://ttuhs-integrative-health.org>

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For more information, please contact us at [ic@health.ttu.edu](mailto:ic@health.ttu.edu)



**Food as Medicine**



**Breathe**





*When we think of  
health care...*

*Optimal Health*

*Resilience*

*Reduced vulnerability  
to daily stress*

*Treatments that  
promote healing  
prevent illness*

*Health*

*“Neutral”*

*Integrative  
Medicine  
interventions*

*The goal of  
Integrative Medicine  
go the distance,  
to achieve optimal health*

*Ill-health*

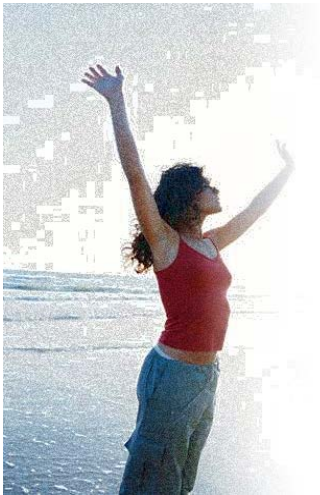
# The Goal of Integrative Medicine

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To create *healthier communities*

- Where individuals, families, and groups
  - Have access to healthy choices that enhance resilience
  - Prevent disease
  - And enhance the quality of their lives

*... and, I know you will help  
make this possible!*





# Acknowledgments

I wish to thank my many mentors and colleagues, including *Dr. Yan Zhang, Dr. Rob Saper, Dr. Ben Kligler, Dr. Lorenzo Cohen, Dr Susan Folkman, Dr. Victoria Maizes, Dr Andrew Weil*, and all those at the Consortium, IHPC, the National Academy of Medicine and NIH for helping me stretch my boundaries.

