Integrative Healthcare: The Time is Now!

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New Jersey

Integrative Healthcare Leadership
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Laura Mann
Integrative Healthcare Lecture Series

#AIHM

"The power of integrative healthcare is that it combines the best of what conventional medicine and whole system approaches have to offer..."

Daniel Friedland, MD, ABIHM
AIHM Chair

Integrative Health Defined

- Holistic Health: Philosophy (the whole is greater than the sum of the parts, presence, values/attitude/belief).
- Integrative Medicine/Functional Medicine
- Traditional Healing (Native American, Traditional Oriental Medicine, Ayurveda).
- Complementary Therapies (massage therapy, biofeedback, aromatherapy, guided imagery, healing arts).
- Nutraceuticals/Supplements/Herbals
- Allopathic Healthcare

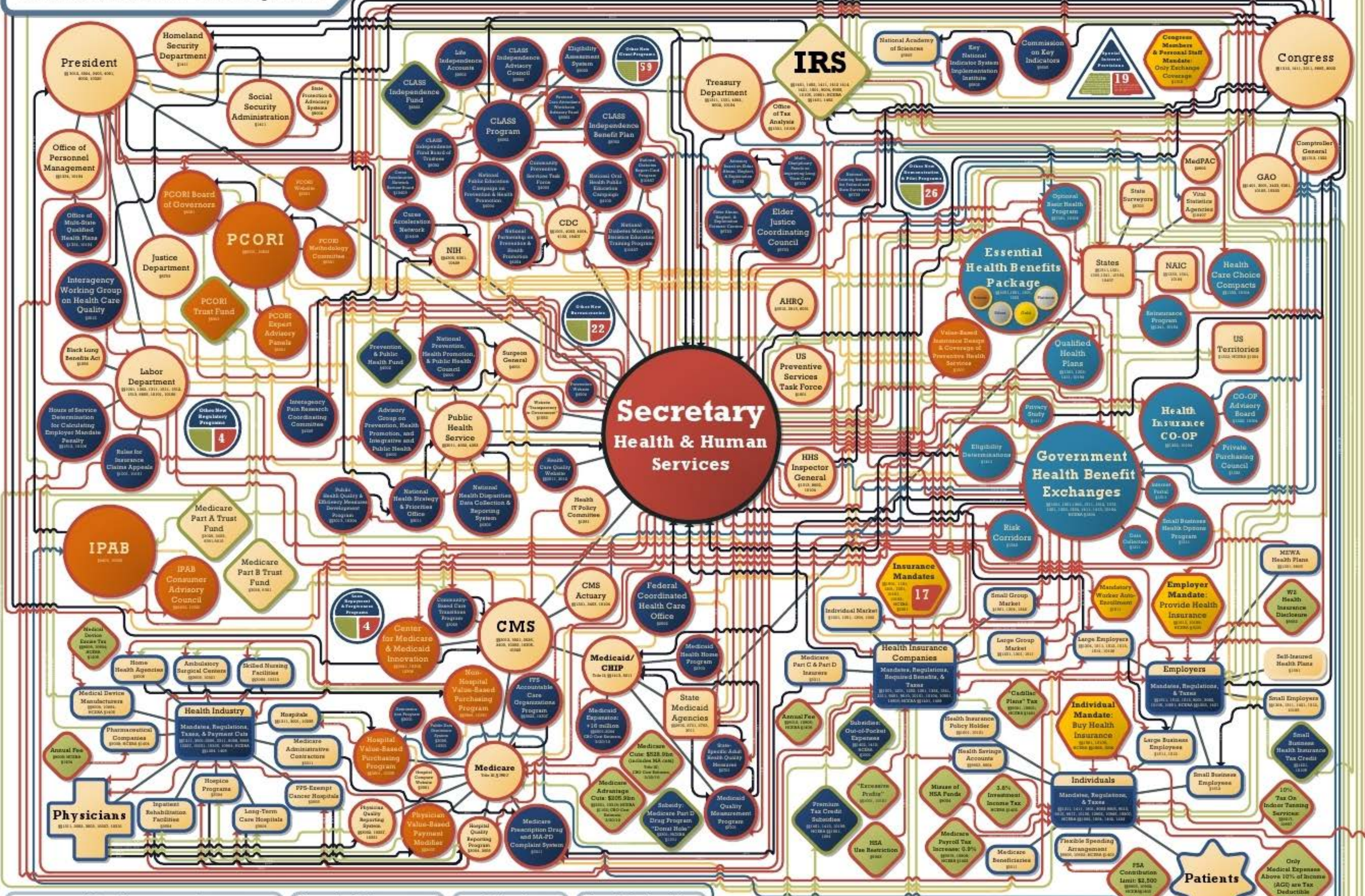
Integrative Health Foundation

- Empowering individuals with the knowledge, skills, tools, and resources for optimal health (Self Care—True Primary Care)
- Nutrition (Food as Medicine)
- Physical Activity (Functional Capacity)/Sleep
- Mind Body Connection (Psychoneuroimmunology/stress response)
- Purpose and Meaning (What Makes Life Worth Living)
- Relationship

Why Now?

Setting the Stage

Your New Health Care System



New Government

- Rationing Potential
- Involvement in Health Insurance Market
- Other Expansions
- Represents Bundles of Additional Entities
- Mandates
- Taxes & Monetary Fees/ Penalties/Cuts
- Trust Fund (Rationing Potential)
- Other New Trust Funds/ Monetary Benefits

Expanded Government

- Government with Expanded Authority/ Responsibility
- Government Financial Entity with New Inflows/ Outflows
- State/Territory with Expanded Authority/ Responsibility

Private

- Private Entity with New Mandates/ Regulations/ Responsibilities
- Unchanged Private Entity
- Special Interest Provisions

New Relationships

- Regulations/ Requirements/Mandates
- Reporting Requirements
- Oversight
- Money Flows
- Consultation/Advisory/ Info Sharing
- Structural Connections (Includes Existing)

AGI: Adjusted Gross Income
AHRQ: Agency for Healthcare Research and Quality
CDC: Centers for Disease Control & Prevention
CHIP: Children's Health Insurance Program
CLASS: Community Living Assistance Services & Supports
CMS: Centers for Medicare & Medicaid Services
CO-OP: Consumer Operated & Oriented Program
FFS: Fee-for-Service
FSA: Flexible Spending Arrangement
GAO: Government Accountability Office
HCERA: Health Care & Education Reconciliation Act
HHS: Health & Human Services Department
HSA: Health Savings Account
IPAB: Independent Payment Advisory Board
IRS: Internal Revenue Service
MA-PD: Medicare Advantage Prescription Drug
MedPAC: Medicare Payment Advisory Commission
MERD: Medical Early Risk Detection
EALORS: Executive Auxiliary Linked Office Regional Systems
MEWA: Multiple Employer Welfare Arrangement
NAIC: National Association of Insurance Commissioners
NIH: National Institutes of Health
PCORI: Patient-Centered Outcomes Research Institute
PPS: Prospective Payment System

Patient Protection & Affordable Care Act, P.L. 111-148;
Health Care & Education Reconciliation Act, P.L. 111-152
Prepared by: Joint Economic Committee, Republican Staff
Congressman Kevin Brady, Senior House Republican
Senator Sam Brownback, Ranking Member

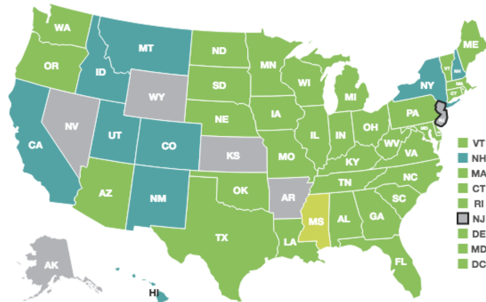
U.S. Obesity Rates 1990-2014

Adult Obesity Rate by State, 1990

Select years with the slider to see historical data. Hover over states for more information. Click a state to lock the selection. Click again to unlock.

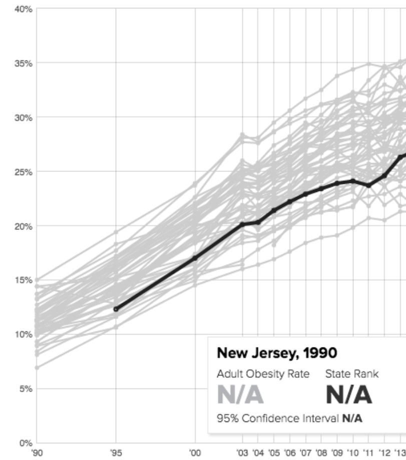
Percent of obese adults (Body Mass Index of 30+)

0 - 9.9% | 10 - 14.9% | 15 - 19.9% | 20 - 24.9% | 25 - 29.9% | 30 - 34.9% | 35%+



All States West Midwest South Northeast

Adult obesity rates, 1990 to 2014

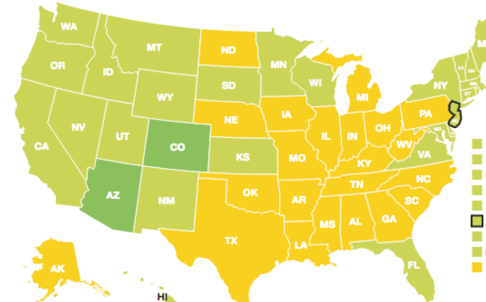


Adult Obesity Rate by State, 2000

Select years with the slider to see historical data. Hover over states for more information. Click a state to lock the selection. Click again to unlock.

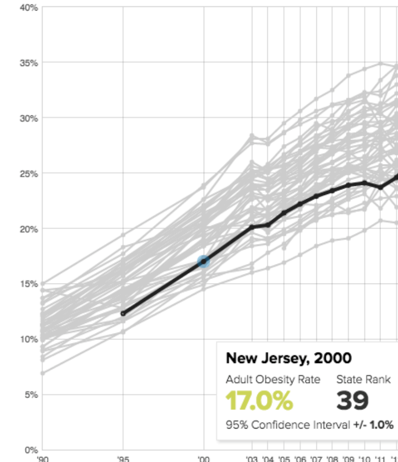
Percent of obese adults (Body Mass Index of 30+)

0 - 9.9% | 10 - 14.9% | 15 - 19.9% | 20 - 24.9% | 25 - 29.9% | 30 - 34.9% | 35%+



All States West Midwest South Northeast

Adult obesity rates, 1990 to 2014

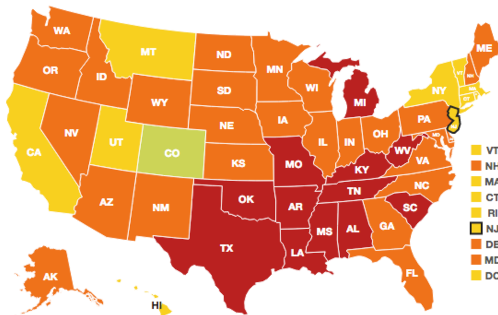


Adult Obesity Rate by State, 2010

Select years with the slider to see historical data. Hover over states for more information. Click a state to lock the selection. Click again to unlock.

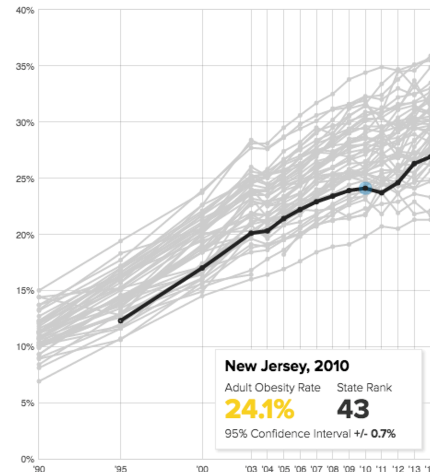
Percent of obese adults (Body Mass Index of 30+)

0 - 9.9% | 10 - 14.9% | 15 - 19.9% | 20 - 24.9% | 25 - 29.9% | 30 - 34.9% | 35%+



All States West Midwest South Northeast

Adult obesity rates, 1990 to 2014

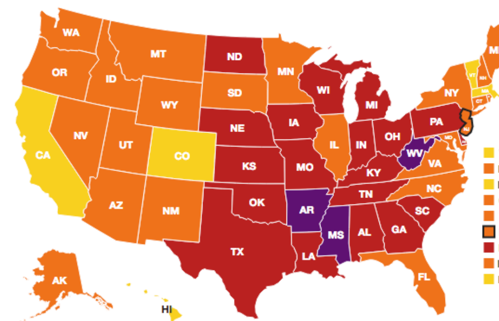


Adult Obesity Rate by State, 2014

Select years with the slider to see historical data. Hover over states for more information. Click a state to lock the selection. Click again to unlock.

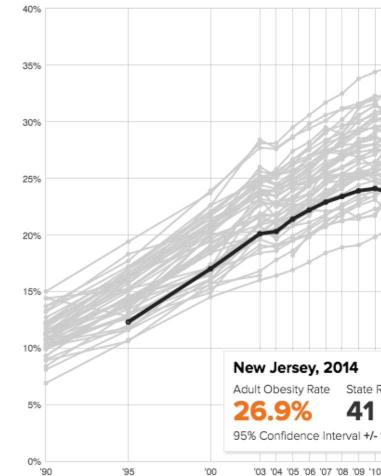
Percent of obese adults (Body Mass Index of 30+)

0 - 9.9% | 10 - 14.9% | 15 - 19.9% | 20 - 24.9% | 25 - 29.9% | 30 - 34.9% | 35%+

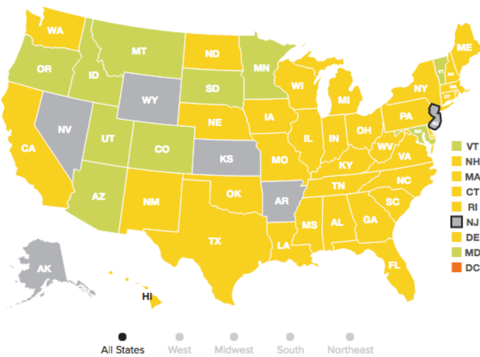


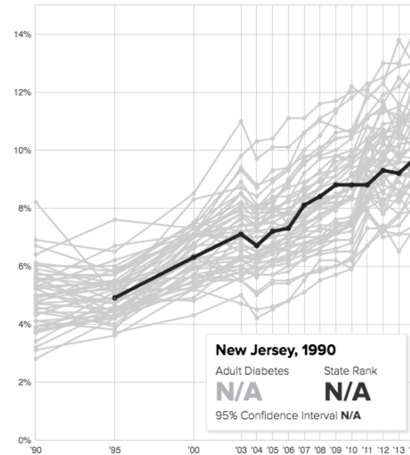
All States West Midwest South Northeast

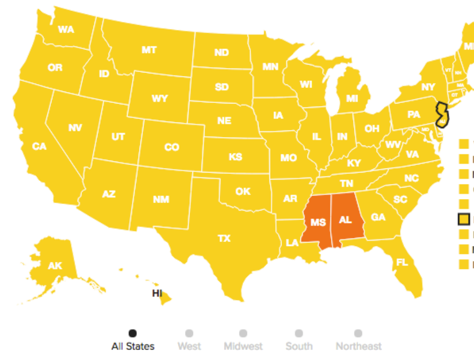
Adult obesity rates, 1990 to 2014

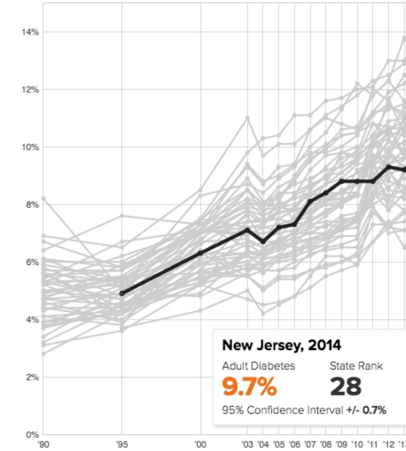


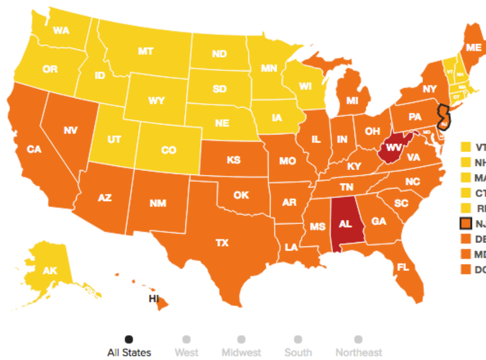
U.S. Diabetes Rates 1990-2014

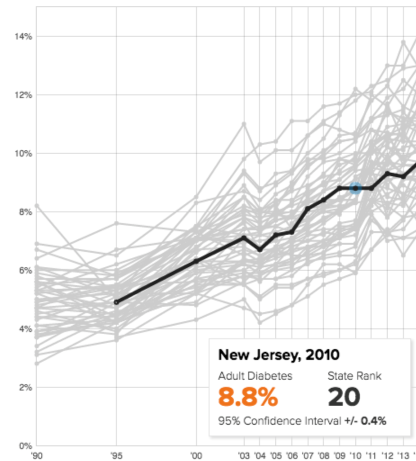


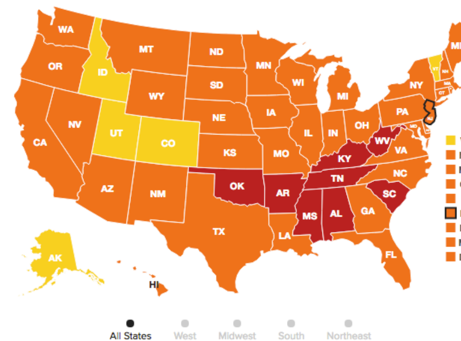


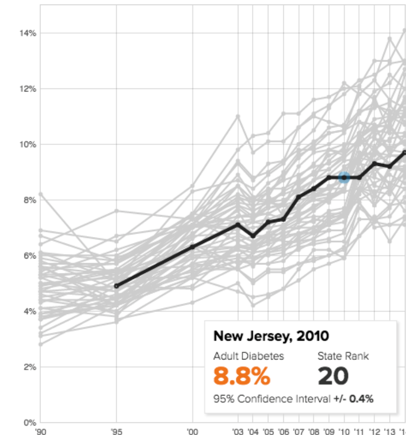




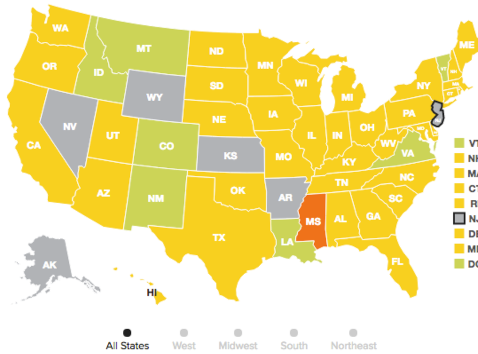


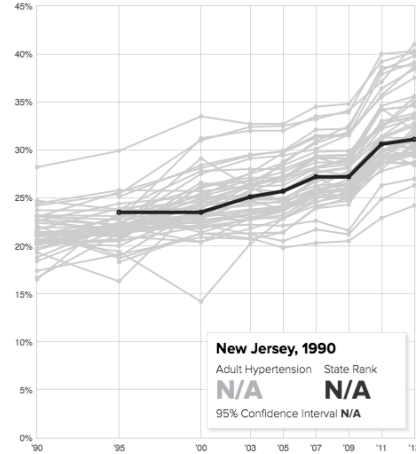


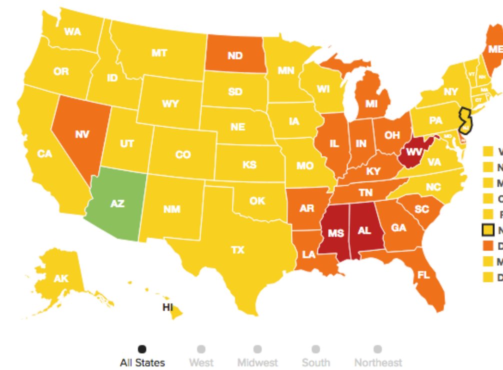


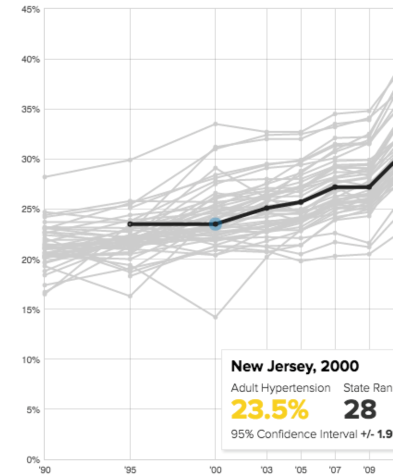


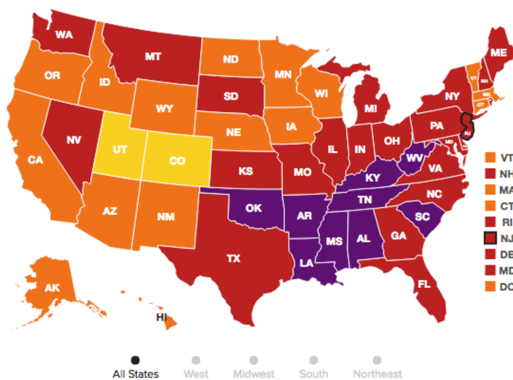
U.S. Hypertension 1990-2013

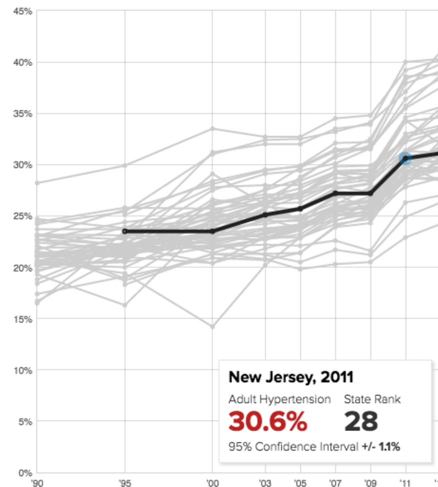


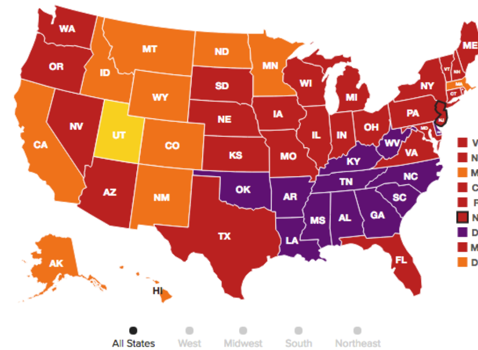


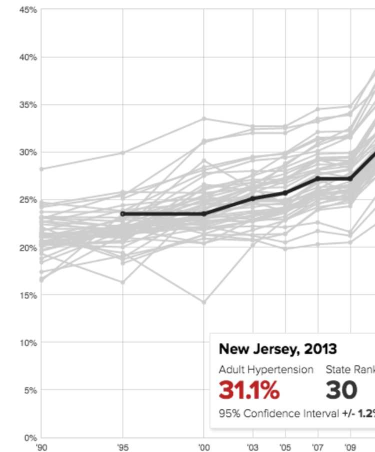




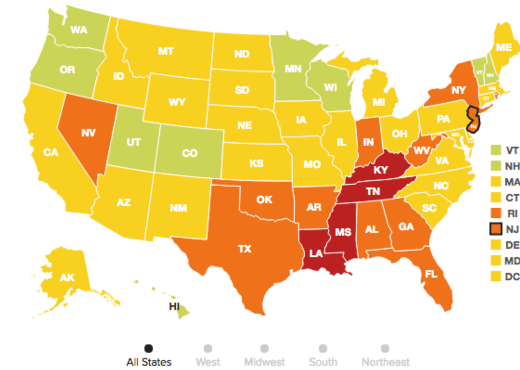


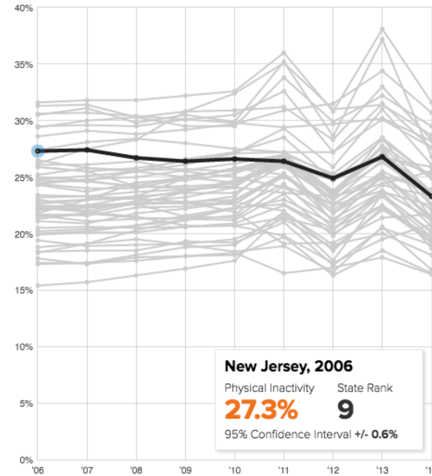


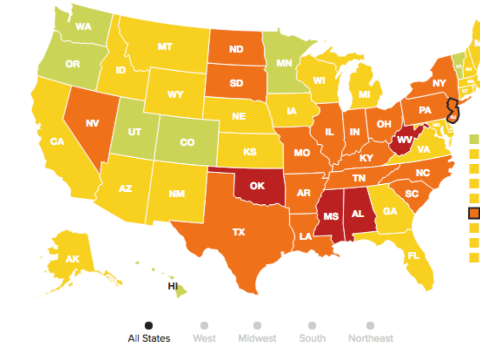


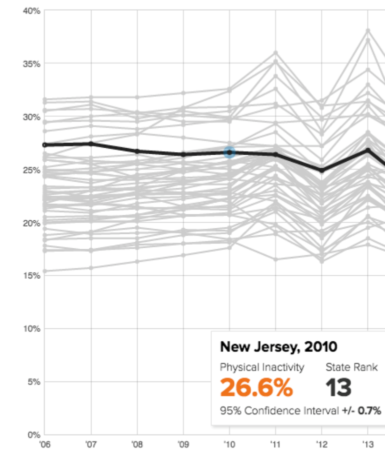


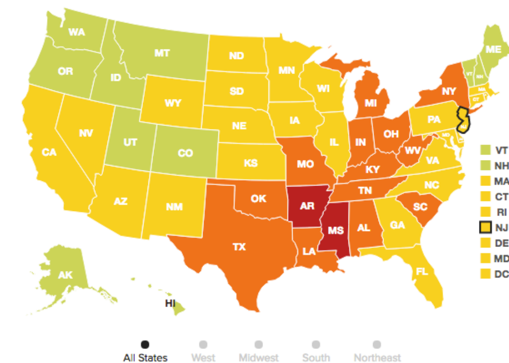
U. S. Inactivity Rates 2006 - 2014

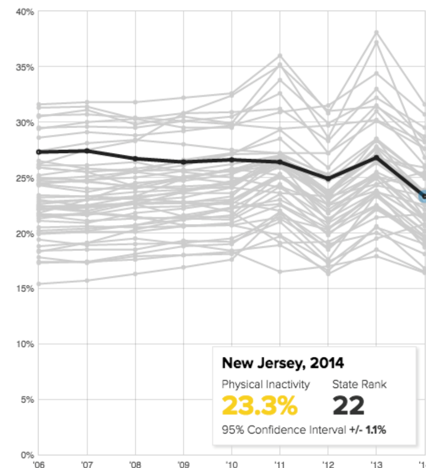


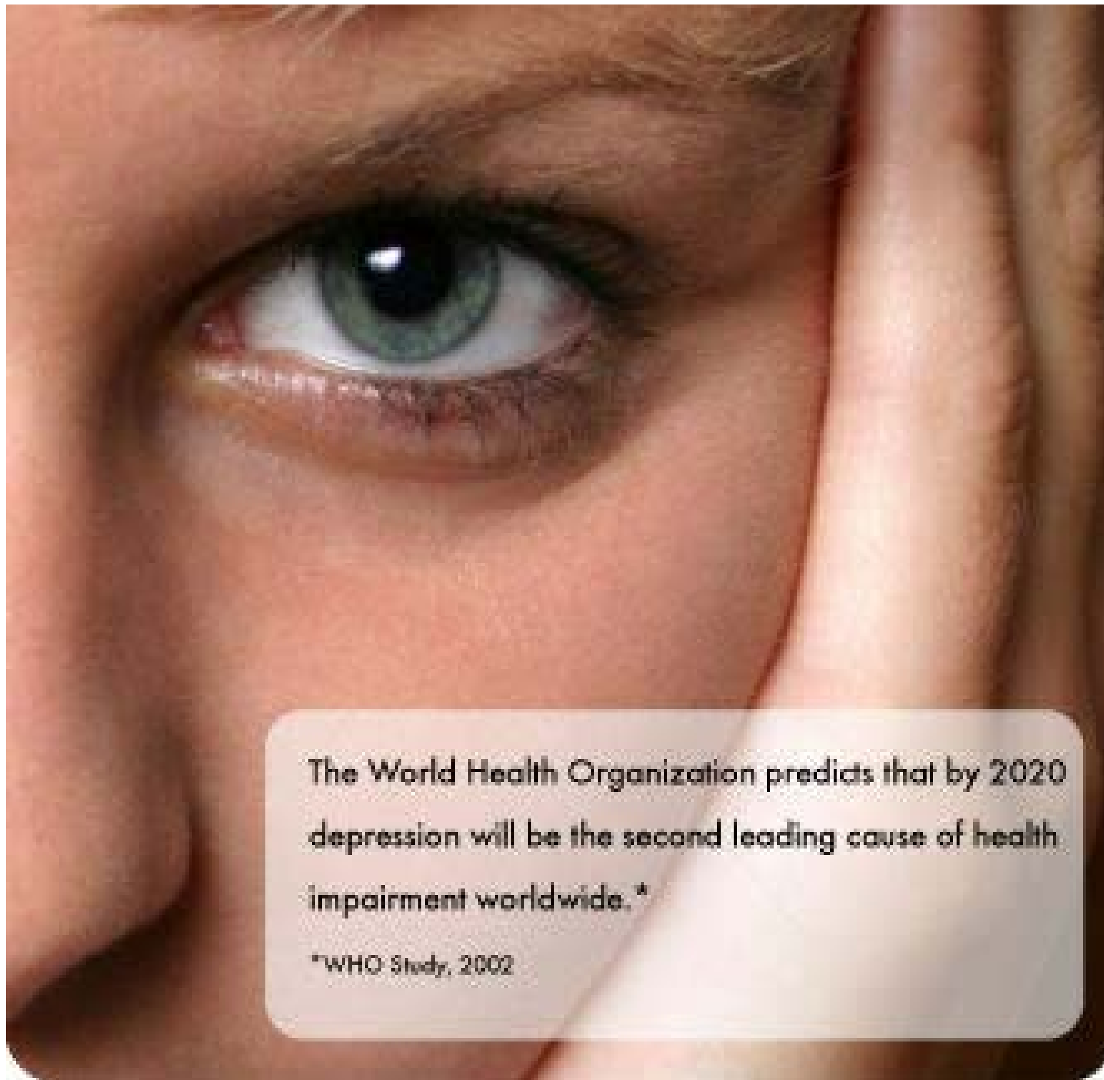








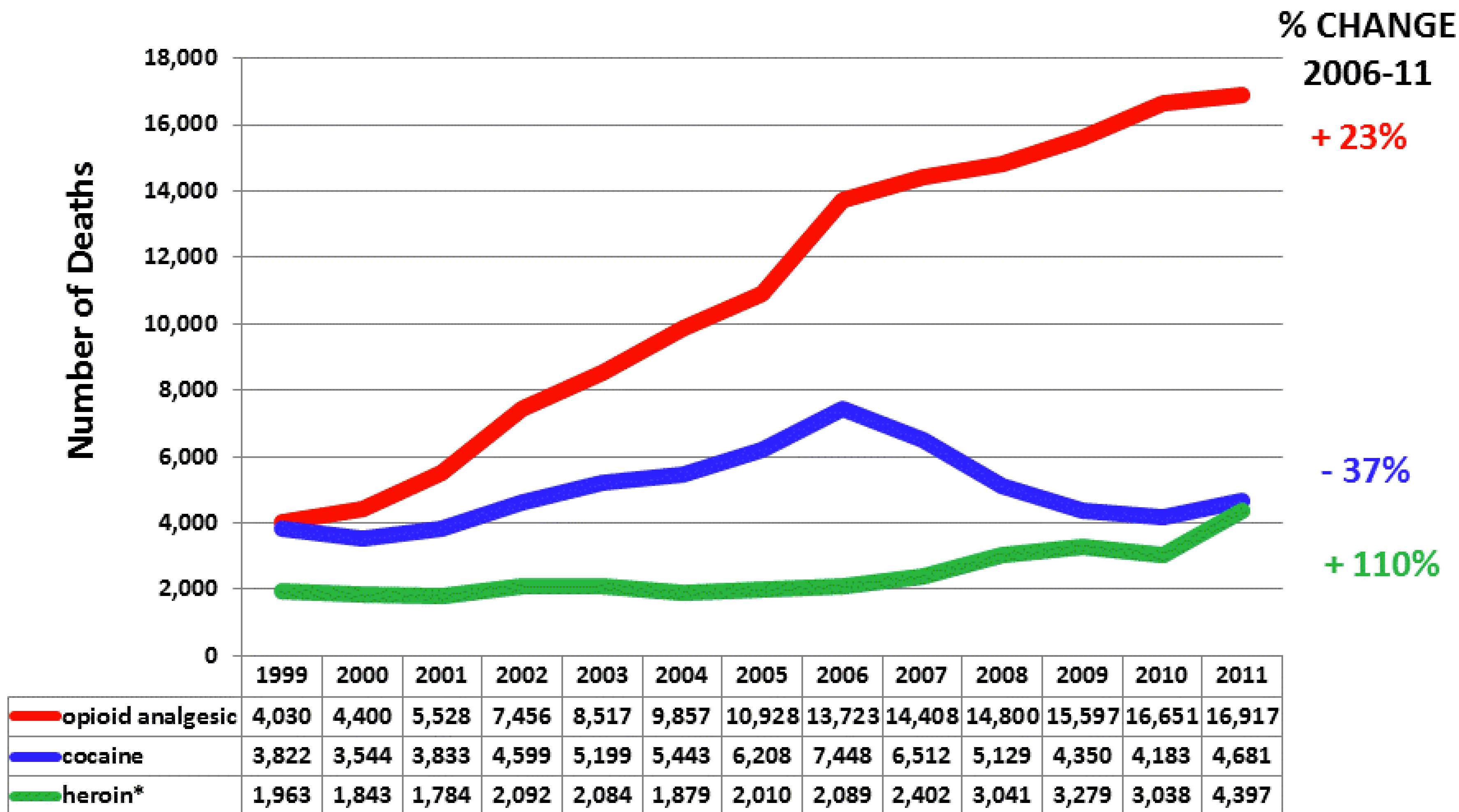




Depression results in more absenteeism than almost any other physical disorder and costs employers more than $51 billion per year in absenteeism and lost productivity, not including high medical and pharmaceutical bills. *

*According to a 2004 Rand Corporation report.

Drug Poisoning Deaths Involving Opioid Analgesics, Cocaine and Heroin: United States, 1999–2011



	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
opioid analgesic	4,030	4,400	5,528	7,456	8,517	9,857	10,928	13,723	14,408	14,800	15,597	16,651	16,917
cocaine	3,822	3,544	3,833	4,599	5,199	5,443	6,208	7,448	6,512	5,129	4,350	4,183	4,681
heroin*	1,963	1,843	1,784	2,092	2,084	1,879	2,010	2,089	2,402	3,041	3,279	3,038	4,397

Note: Not all drug poisoning deaths specify the drug(s) involved, and a death may involve more than one specific substance. The rise in 2005-2006 in opioid deaths is related to non-pharmaceutical fentanyl (see http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5729a1.htm). *Heroin includes opium.

Source: National Center for Health Statistics/CDC, *National Vital Statistics Report,* Final death data for each calendar year (June 2014).

6/2014

New CDC Opioid Prescribing Guidelines

Improving the Way Opioids are Prescribed for Safer Chronic Pain Treatment

The problem:

Existing guidelines vary in recommendations, and primary care providers say they receive insufficient training in prescribing opioid pain relievers. It is important that patients receive appropriate pain treatment, and that the benefits and risks of treatment options are carefully considered.

259 million

In 2012, health care providers wrote 259 million prescriptions for opioid pain relievers – enough for every American adult to have a bottle of pills.[1]

300% increase

Prescription opioid sales in the United States have increased by 300% since 1999[2], but there has not been an overall change in the amount of pain Americans report[3,4].

2 million

Almost 2 million Americans, age 12 or older, either abused or were dependent on opioid pain relievers in 2013.[5]

16 thousand

In 2013, more than 16,000 people died in the United States from overdose related to opioid pain relievers, four times the number in 1999.[6]

Centers for Disease Control and Prevention
MMWR
Morbidity and Mortality Weekly Report
Recommendations and Reports / Vol. 65 / No. 1
March 18, 2016

CDC Guideline for Prescribing Opioids for Chronic Pain — United States, 2016

U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

GUIDELINE FOR PRESCRIBING OPIOIDS FOR CHRONIC PAIN

IMPROVING PRACTICE THROUGH RECOMMENDATIONS

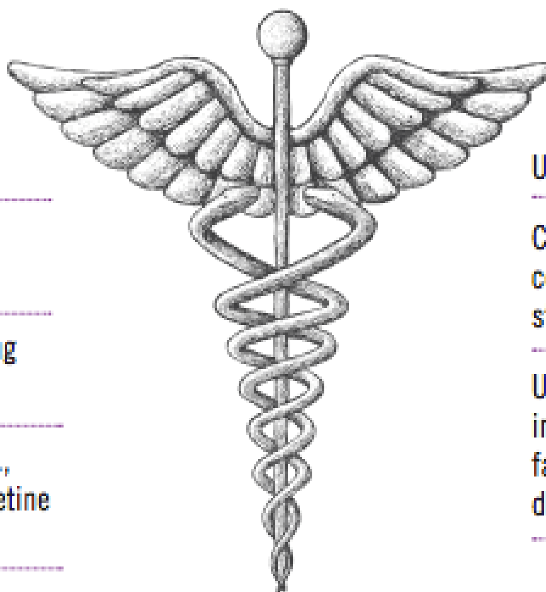
CDC's *Guideline for Prescribing Opioids for Chronic Pain* is intended to improve communication between providers and patients about the risks and benefits of opioid therapy for chronic pain, improve the safety and effectiveness of pain treatment, and reduce the risks associated with long-term opioid therapy, including opioid use disorder and overdose. The Guideline is not intended for patients who are in active cancer treatment, palliative care, or end-of-life care.

DETERMINING WHEN TO INITIATE OR CONTINUE OPIOIDS FOR CHRONIC PAIN

NONOPIOID TREATMENTS FOR CHRONIC PAIN

PRINCIPLES OF CHRONIC PAIN TREATMENT

Patients with pain should receive treatment that provides the greatest benefit. Opioids are not the first-line therapy for chronic pain outside of active cancer treatment, palliative care, and end-of-life care. Evidence suggests that nonopioid treatments, including nonopioid medications and nonpharmacological therapies can provide relief to those suffering from chronic pain, and are safer. Effective approaches to chronic pain should:



- Use nonopioid therapies to the extent possible
- Identify and address co-existing mental health conditions (e.g., depression, anxiety, PTSD)
- Focus on functional goals and improvement, engaging patients actively in their pain management
- Use disease-specific treatments when available (e.g., triptans for migraines, gabapentin/pregabalin/duloxetine for neuropathic pain)
- Use first-line medication options preferentially
- Consider interventional therapies (e.g., corticosteroid injections) in patients who fail standard non-invasive therapies
- Use multimodal approaches, including interdisciplinary rehabilitation for patients who have failed standard treatments, have severe functional deficits, or psychosocial risk factors

HCAHPS – Survey/Structure:

- Two “global” questions:
  - Overall rating of hospital
  - Likelihood of recommending hospital
- Seven focus areas “domains”:
  - Communication with nurses
  - Responsiveness of hospital staff
  - Communication with doctors
  - Physical environment (cleanliness and noise)
  - Pain control
  - Communication about medicines
  - Discharge information

Shared Savings Program

- ACOs in Your State
- News and Updates
- How to Calculate Your Primary Service Areas
- How to Apply
- Shared Savings Program ACO Agreement
- Financial and Beneficiary Assignment Methodology
- Quality Measures, Reporting and Performance Standards
- Statutes/Regulations/Guidance
- Frequently Asked Questions
- CMS Regional Office Contacts for ACOs

Quality Measures, Reporting and Performance Standards

Quality data reporting and collection support quality measurement, an important part of the Shared Savings Program. Before an Accountable Care Organization (ACO) can share in any savings generated, it must demonstrate that it met the quality performance standard for that year. There are also interactions between ACO quality reporting and other CMS initiatives, particularly the Physician Quality Reporting System (PQRS) Physician Value-Based Payment Modifier, and the Electronic Health Record (EHR) Incentive Program.

2015 Reporting Year Documentation

The sections below provide resources related to the program's 33 quality measures for Reporting Year 2015, which span four quality domains: Patient / Caregiver Experience, Care Coordination / Patient Safety, Preventive Health, and At-Risk Population. Of the 33 measures, 8 measures of patient / caregiver experience are collected via the CAHPS survey, 7 are calculated via claims, 1 is calculated from Medicare and Medicaid EHR Incentive Program data, and 17 are collected via the Group Practice Reporting Option (GPRO) Web Interface.

Narrative Specifications for all 33 Measures

2015 reporting period narrative measure specifications for the 33 quality measures are available and can be accessed in the following file:

-
2015 Reporting – ACO Measure Narratives [PDF, 485KB]

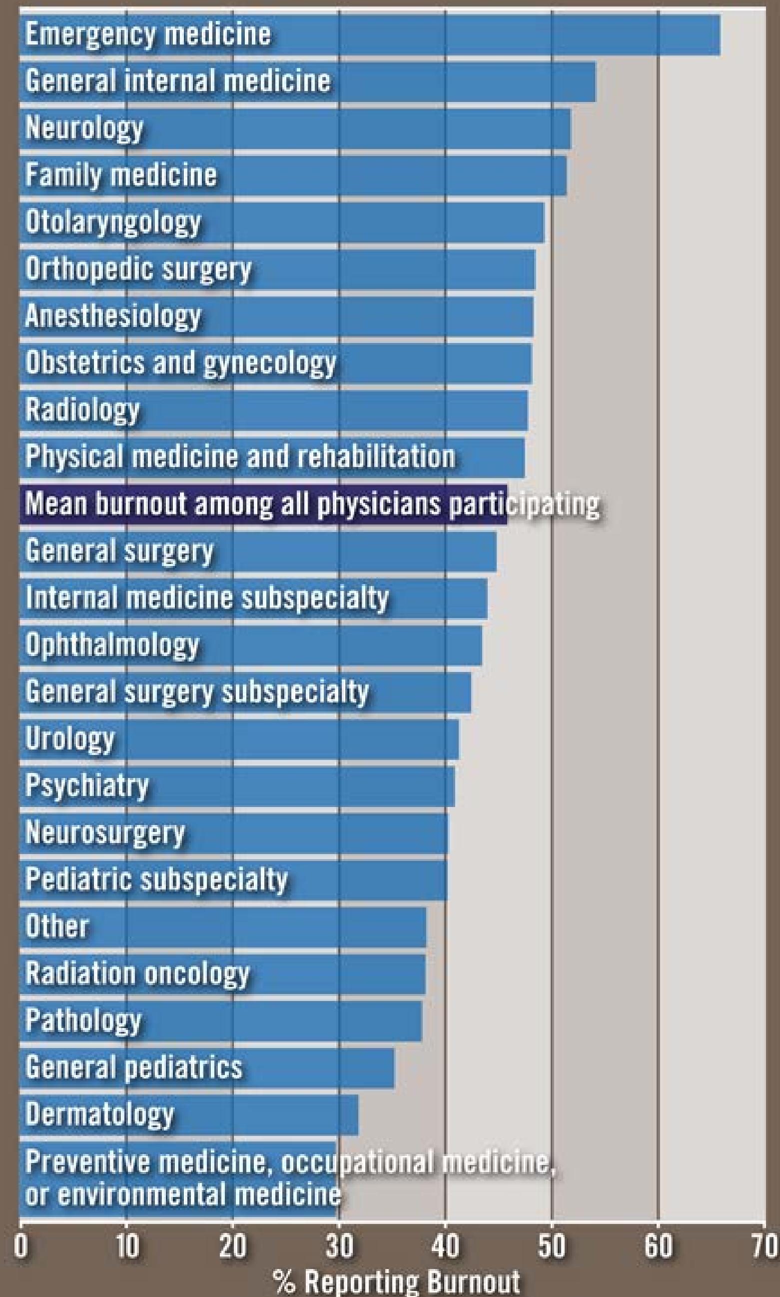
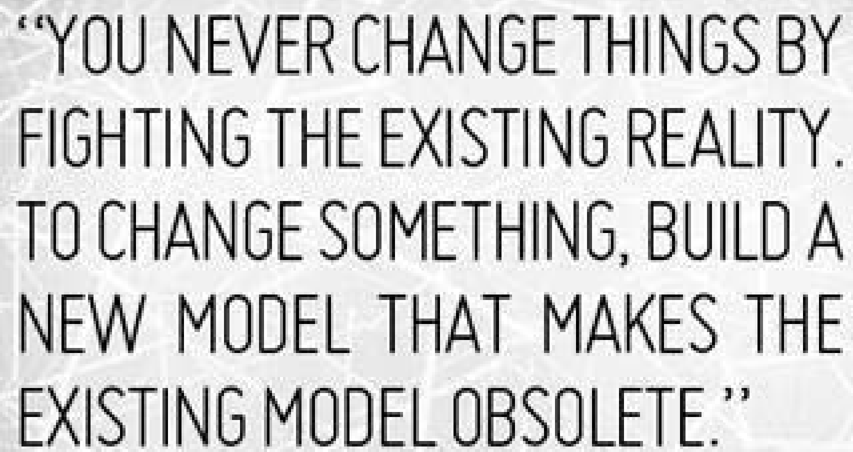


Figure Burnout by Specialty
Emergency medicine
General internal medicine
Neurology
Family medicine
Otolaryngology
Orthopedic surgery
Anesthesiology
Obstetrics and gynecology
Radiology
Physical medicine and rehabilitation
Mean burnout among all physicians participating
General surgery
Internal medicine subspecialty
Ophthalmology
General surgery subspecialty
Urology
Psychiatry
Neurosurgery
Pediatric subspecialty
Other
Radiation oncology
Pathology
General pediatrics
Dermatology
Preventive medicine, occupational medicine, or environmental medicine
0 10 20 30 40 50 60 70
% Reporting Burnout
Source: Adapted from: Shanafelt TD, et al. Arch Intern Med. 2012;172:1377-1385.

THERE ARE ONLY TWO TIMES I FEEL STRESS:

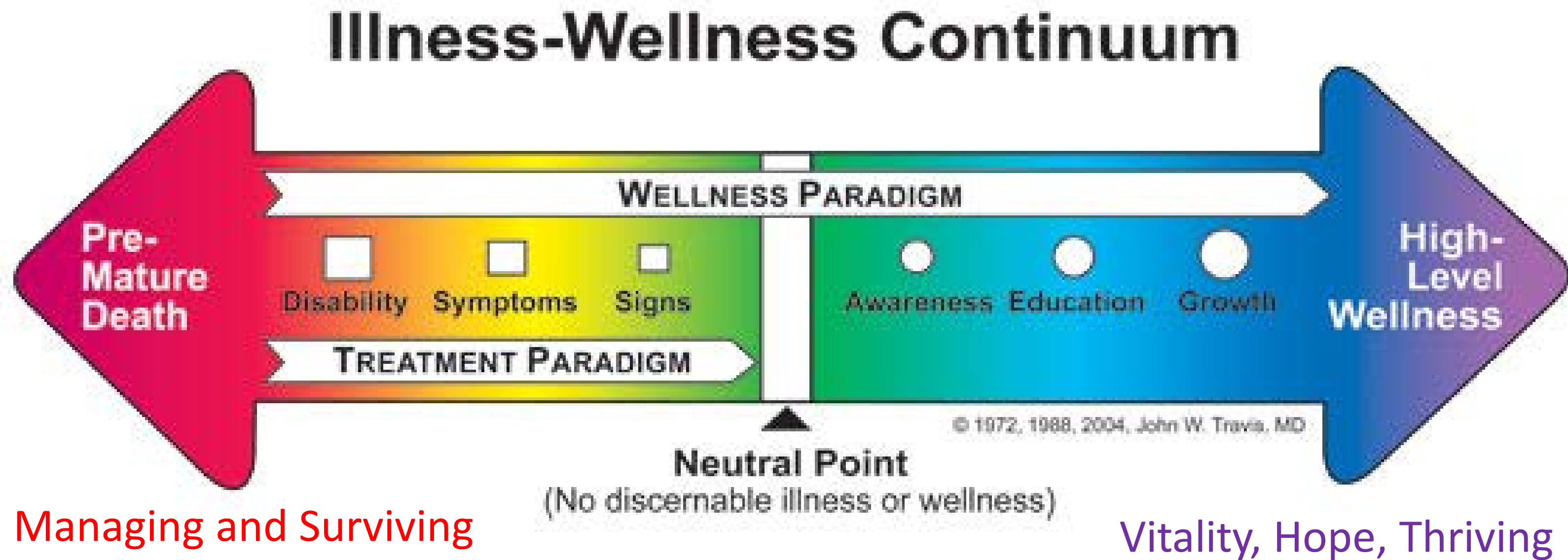
DAY AND NIGHT.

The Perfect Storm


"YOU NEVER CHANGE THINGS BY
FIGHTING THE EXISTING REALITY.
TO CHANGE SOMETHING, BUILD A
NEW MODEL THAT MAKES THE
EXISTING MODEL OBSOLETE."
- BUCKMINSTER FULLER

Emergence of a New Model

"Upstream Solutions"



Managing and Surviving

Vitality, Hope, Thriving

TAKING CARE OF NEW JERSEY

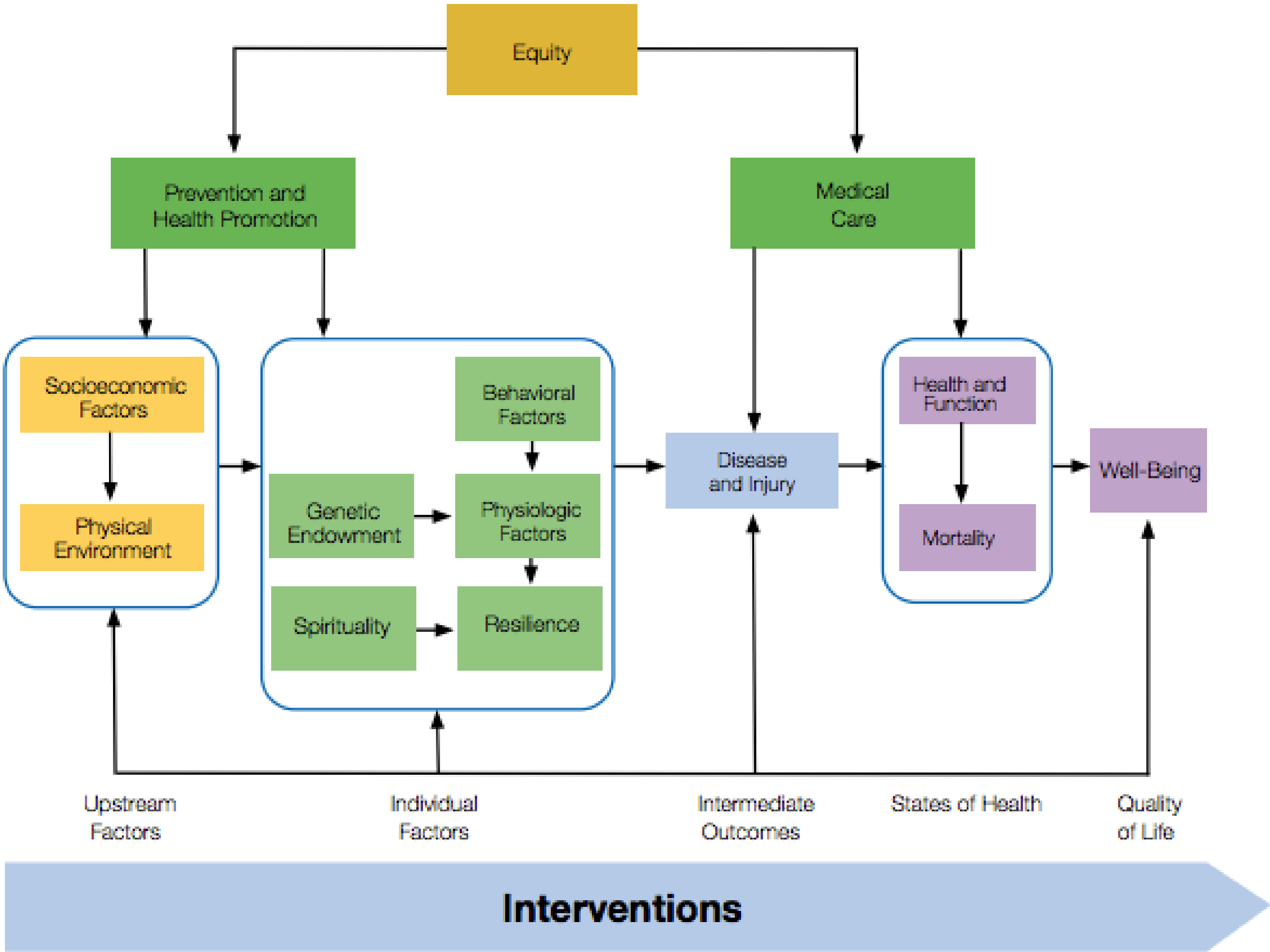
MERIDIAN HEALTH

Meridian Integrative Health & Medicine

Adapted 2015 LKnutson

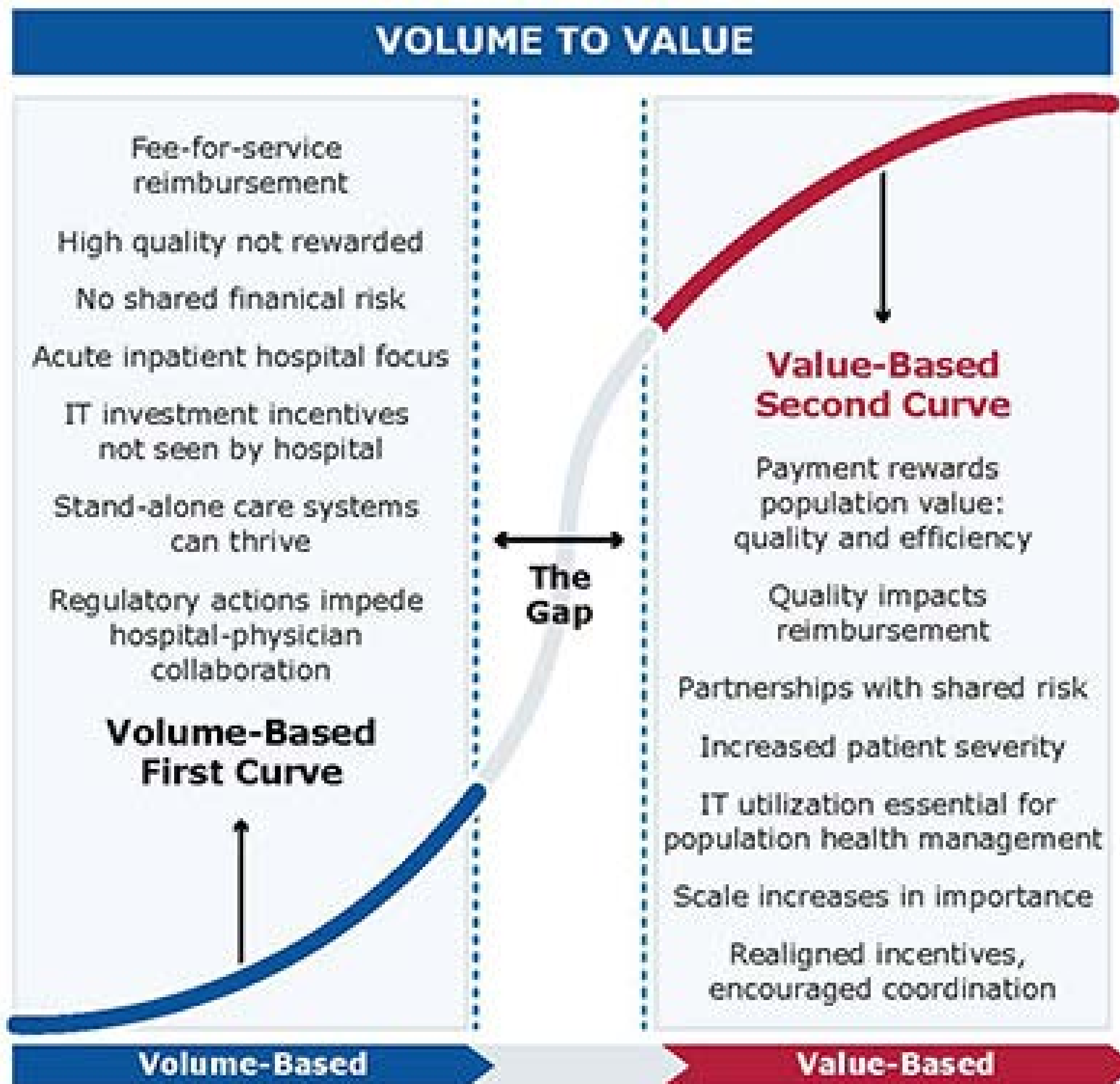
*Model modified from original version by John W. Travis MD

Figure 1. IHI Population Health Composite Model



Source: Adapted from Stiefel M, Nolan KA. Guide to Measuring the Triple Aim: Population Health, Experience of Care, and Per Capita Cost. IHI Innovation Series white paper. Cambridge, Massachusetts: Institute for Healthcare Improvement; 2012. (Available on www.IHI.org)

Integrative Health: The Gap Opportunity



Tyler Norris, Total Health Partnerships, Kaiser Permanente, 2015.

Integrative Health National Impact

- The U.S. government recently announced that it will spend $21.7 million over five years to investigate non-drug approaches to pain, PTSD, substance use, and sleep disorders.
- The U.S. Health Resources and Services Administration, Bureau of Health Professions, Division of Public Health and Interdisciplinary Education, recently awarded $1.7 million grant to establish a Center for Integrative Medicine in Primary Care.
- Effective January 2015, the Joint Commission standards for pain management in ambulatory settings now include non-pharmacologic strategies such as acupuncture, massage therapy, relaxation therapy, and cognitive behavioral therapy.

Section 2706
“Non-Discrimination in Health Care”

“expressly forbids health insurance providers to discriminate…..against any health care provider who is acting within the scope of that providers license or certification under applicable State law”

HSR Health Services Research

© Health Research and Education Trust
DOI: 10.1111/j.1475-6773.2011.01304.x
RESEARCH BRIEF

Personal Use of Complementary and Alternative Medicine (CAM) by U.S. Health Care Workers

Pamela Jo Johnson, Andrew Ward, Lori Knutson, and Sue Sendelbach

Objective. To examine personal use of complementary and alternative medicine (CAM) among U.S. health care workers.

Data. Data are from the 2007 Alternative Health Supplement of the National Health Interview Survey. We examined a nationally representative sample of employed adults (n = 14,329), including a subsample employed in hospitals or ambulatory care settings (n = 1,280).

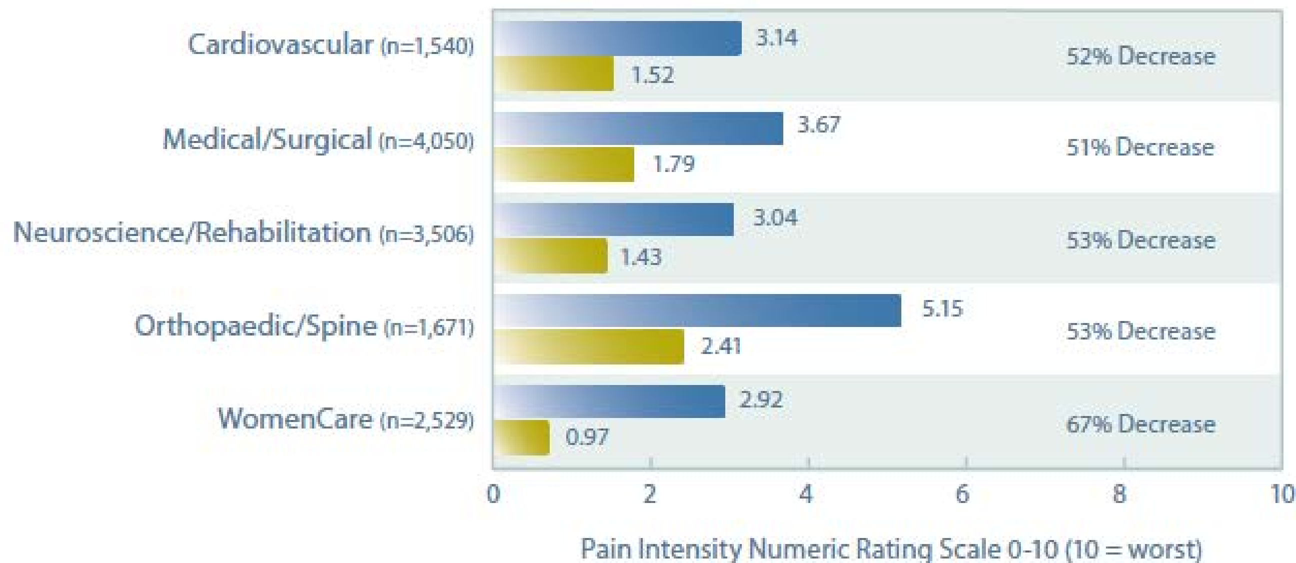
Study Design. We used multivariate logistic regression to estimate the odds of past year CAM use.

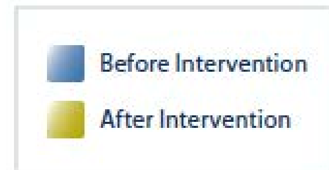
Principal Findings. Health care workers are more likely than the general population to use CAM. Among health care workers, health care providers are more likely to use CAM than other occupations.

Conclusions. Personal CAM use by health care workers may influence the integration of CAM with conventional health care delivery. Future research on the effects of personal CAM use by health care workers is therefore warranted.

Key Words. Complementary and alternative medicine, health care workforce, National Health Interview Survey

Inpatient Self-Reported Pain Scores by Type of Patient Served, 2008-2009





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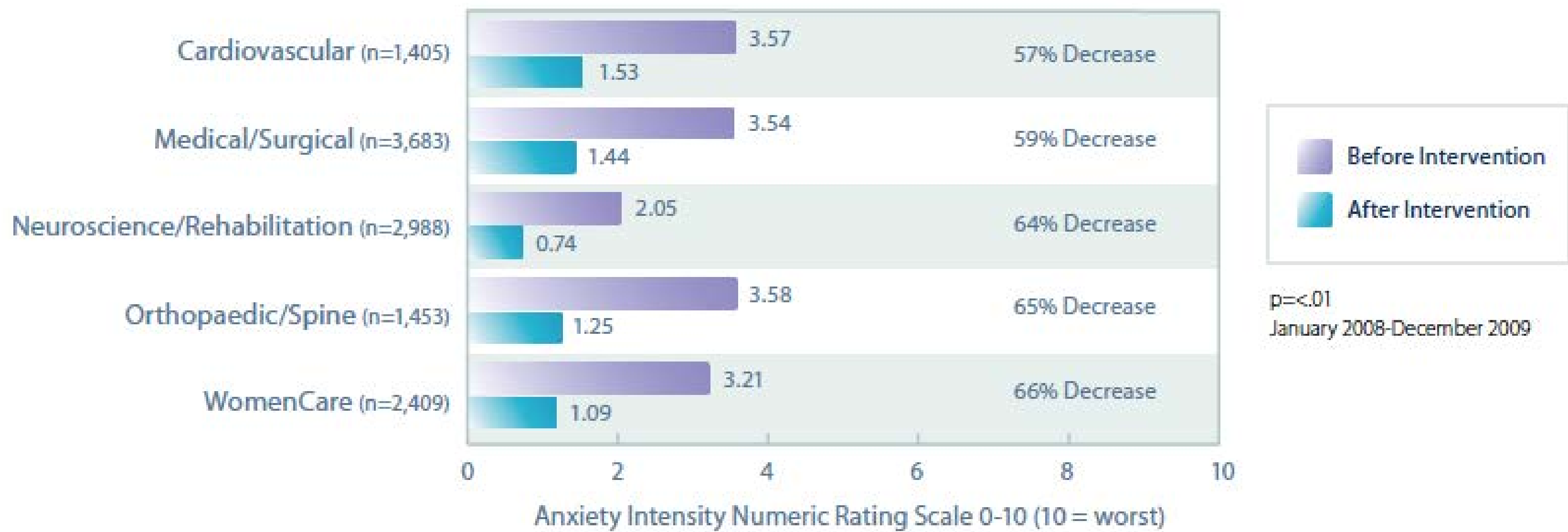
January 2008-December 2009

Inpatient Self-Reported Anxiety Scores by Type of Patient Served, 2008-09



Impact of integrative medicine therapies on immediate pain and anxiety scores at Abbott Northwestern Hospital

Jeffery A. Dusek PhD, Lori Knutson RN, Gregory A. Plotnikoff MD

PENNY GEORGE INSTITUTE FOR HEALTH AND HEALING, ABBOTT NORTHWESTERN HOSPITAL, ALLINA HOSPITALS & CLINICS, MINNEAPOLIS, MN 55407

SUPPORTED BY ABBOTT NORTHWESTERN HOSPITAL AND THE GEORGE FAMILY

Introduction

Integrative Medicine (IM) emphasizes the patient–caregiver relationship by blending complementary and alternative medicine and conventional medicine to meet patients' needs.

IM has routinely been shown to reduce pain and anxiety in the highly controlled environment of the randomized controlled trial. However, its impact has been less studied in observational

studies.

Research Objectives

To evaluate the effectiveness of IM on:

- pain & anxiety scores after IM service.
- patient's satisfaction with IM services at discharge.

Setting

The George Institute is the Integrative Medicine Department at Abbott Northwestern Hospital, a 629 bed flagship hospital of Allina Hospitals & Clinics.

Inpatient IM services are conducted individually in patients' rooms, initiated by hospital staff providing direct patient care (physicians and nurses) and documented using the hospital's EPIC – based electronic health record system.

Intervention

IM is provided to patients in all departments across the hospital: oncology, cardiovascular, neurology, rehabilitation, medical/surgical services, orthopedics, spine care, women's

health.

22 Practitioners (19 FTE) provide individualized care that may be a combination of therapies:

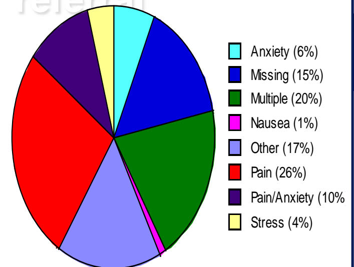
- acupuncture
- therapeutic massage (including reflexology)
- energy healing (Reiki, healing touch)
- imagery)

Assessments

- Practitioners collected verbal pain & anxiety (0-10 scale) just before and immediately after IM therapy.
- Patient satisfaction with IM services was assessed by questionnaire at discharge.

Referrals/ Reasons for referral

From 7/05 to 12/08, 15,596 pts were



Results

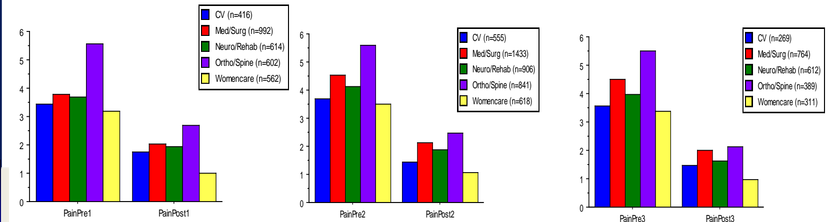
Pre/Post Pain scores collected from:

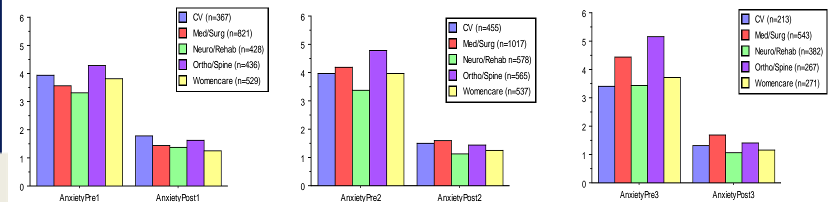
- 3,196 pts after initial IM therapy,
- 4,367 pts after second IM therapy,
- 2,355 after third IM therapy.

Pre/Post Anxiety scores assessed in:

- 2,590 pts after initial IM therapy,
- 3,162 pts after second IM therapy,
- 1,682 pts after third IM therapy

Results: Pain/Anxiety





Conclusions

- Significant reductions in pain and anxiety indicate a positive patient response.
- The impact on use of pain medications is being evaluated.
- Cost effectiveness studies will use EHR data to determine if pain/anxiety reductions mediate shorter LOS and overall reduced costs.

Learn about the Online Curriculum Pilot >

Review the Competencies >

FOCUSING ON INTERPROFESSIONAL EDUCATION, COLLABORATIVE PRACTICE, AND EVALUATION.

NCIPH Goals

Under the leadership of a national interprofessional team (InPLT) the NCIPH will focus on achieving the following goals over the next 3 years:

1. Develop core IH competencies for interprofessional primary care teams.
2. Develop a 45 hour interprofessional IH online curriculum for primary care educational programs —Foundations in Integrative Health.
3. Create an accessible and interactive online infrastructure that will house:
   - IH curricula and other educational resources
   - Best IH practices for primary healthcare professions
   - Links to partner organizations and IH resources for healthcare professionals
   - Patient portal
4. Develop patient education IH materials and facilitate access to IH practitioners.

ACADEMIC CONSORTIUM FOR INTEGRATIVE MEDICINE & HEALTH

AIHM
Academy of Integrative Health & Medicine

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HOME / EDUCATION

EDUCATION

The Most Comprehensive Interprofessional Integrative Health & Medicine Education Available.

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Our Events

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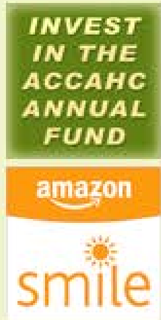
Academic Collaborative for Integrative Health

ACIH is the ICIMH Education Partner - Be There!



About ACIH

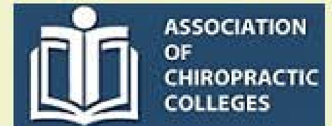
We've changed our name! The Academic Consortium for Complementary and Alternative Health Care (ACCAHC) is now the Academic Collaborative for Integrative Health (ACIH).

A new website is in development!

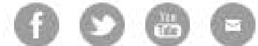
Some of the 80 professionals gathering at the ACIH Biennial Meeting, June 2013, at the

PLEASE VISIT OUR MEMBER SITES

Councils of Colleges



INTEGRATIVE HEALTH POLICY CONSORTIUM



Integrative Care for Employers: A Webinar Nov. 17

A CALL TO ACTION Report from 2014 Harkin Symposium

IHPC REPORT: Financial Benefits of Integrative Care

CoverMyCare: Critical Fall 2015 State Actions

Integrative Health in the U.S.

Integrative Wellness in the Workplace

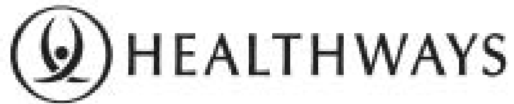
Research comparing the cost effectiveness of integrative therapies has significant potential for improving employee wellness but also for the care defined by company insurance plans.

THE CASE FOR INTEGRATIVE HEALTH CARE FOR EMPLOYERS

In case your regular physician, employer or anyone else (your insurance company) scoffs at the idea of using holistic / integrative therapies "because there's no proof," the attached sheet may help bring them up to speed on state-of-the-art research describing the benefits of integrative health, notably in workplace settings.

Create a culture of well-being.

Manage healthcare costs. Win the war for talent. Retain top employees. Maximize performance and productivity. It's time to move past wellness and engage your employees in what matters most to them — their well-being.



Healthways WholeHealth Living

Easy Access to Complementary and Alternative Medicine, Practitioners, Discounts and Education in Well-Being Improvement

iorahealth

It's a whole new patient experience.

Iora changes primary care as we know it. Our care team, which includes a dedicated advocate for each patient, works together to treat the whole person. We see people when they're sick, but also when they're well, so that we can keep them healthy. Here, the environment is caring and patients have a voice. It's our job to give them everything they need to live happier and healthier lives.

CARE TEAM WORKING TOGETHER

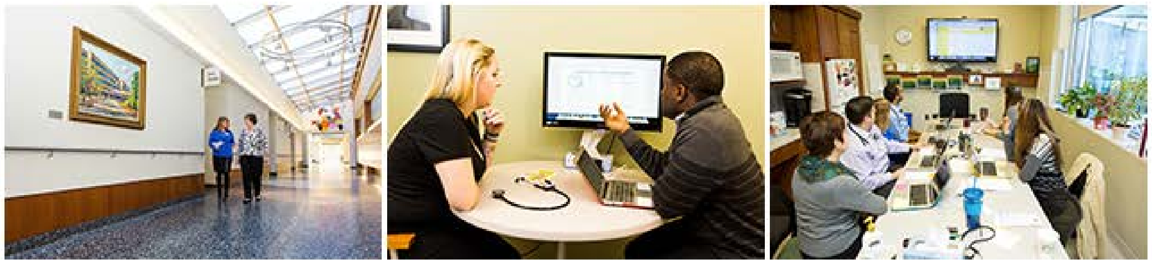
WARM AND CARING ATMOSPHERE

FORUM TO BE HEARD

HEALTH COACH

SPONSOR: NEW ENGLAND CARPENTERS BENEFITS FUNDS

Carpenters Training Center Vision Center, 2nd Floor
750 Dorchester Avenue
Dorchester, MA 02125



Iora Primary Care opened its doors to members of the New England Carpenters Benefits Funds in March 2013 and has been serving them ever since. Beyond a team-based primary care focus, the Iora Primary Care teams provide wellness classes and groups designed for the Carpenters and their families including Hammer Time.

SPONSOR: CULINARY HEALTH FUND

1961 South Las Vegas Blvd, Suite 101
Las Vegas, NV 89104

Culinary Extra Clinic serves the hotel and restaurant workers who participate in the Culinary Health Fund in Las Vegas, NV. Sponsored by the Culinary Health Fund, the Clinic is open to those participants in the Fund who experience severe and chronic illness. The Culinary Extra Clinic is located at St. Louis Square on the north end of "the Strip" in Las Vegas, Nevada.

SPONSOR: GRAMEEN PRIMACARE

82-11 37th Avenue,
7th floor Queens, NY 11372

VISIT WEBSITE

Grameen VidaSana is a membership-based primary care and health promotion program for Grameen America members beginning in the summer of 2014. This health promotion program combines Iora Health's enhanced primary care model with Grameen PrimaCare's peer educational group model to improve the health and well-being of hard-working, low-income women in immigrant communities.

OPTUMHealth™

What metrics capture the value of health and wellness programs?

Read the expert perspective on value of investment.

LEARN MORE

The Optum Resource Center for Health and Well-being helps employers improve workplace productivity, health care costs and employee quality of life through research-driven insights, innovative perspectives and ideas focused on driving a culture of health ownership among employees.

Beyond ROI: Building employee health & wellness value of investment

Optum™ & National Business Group on Health:
Value of Investment Study results

Gallup · Healthways

Well-Being Index™

The Well-Being Effect:

define. measure. transform.

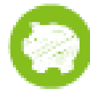
Well-Being Index

The Gallup-Healthways Well-Being Index

Gallup and Healthways have developed a comprehensive, definitive source of well-being measurement, the Gallup-Healthways Well-Being Index. This scientific survey instrument measures, tracks and reports on the well-being of populations. The five essential elements of well-being are:

Purpose: liking what you do each day and being motivated to achieve your goals

Social: having supportive relationships and love in your life



Financial: managing your economic life to reduce stress and increase security

Community: liking where you live, feeling safe and having pride in your community

Physical: having good health and enough energy to get things done daily

GALLUP

How to Realize Returns on Health

After demonstrating in Maximizing Healthy Life Years that health can have a positive return on investment, the 2016 report How to Realize Returns on Health shows how to tackle the silent NCD pandemic: why we should focus on Maximizing Healthy Life Years (MHLY) instead of just treating disease, why we need to act boldly now and how investments into health can have healthy returns in a multi-stakeholder environment by creating Ecosystems of Health.

Health-Creation Value-Based Proposition

$$\text{SROI (Social Return On Investment)} = \frac{\left(\text{Tangible Value to the Community (TV)} + \text{Intangible Value to the Community (IV)}\right)}{\left(\text{Total} + \$\ \text{Total}\right)}$$

While in financial management the term ROI refers to a single ratio, SROI analysis refers not to one single ratio but more to a way of reporting on **value creation**. It bases the assessment of value in part on the perception and experience of stakeholders, finds indicators of what has changed and tells the story of this change and, where possible, uses monetary values for these indicators

Joe Klein: The CIA's Afghan Disaster

Yemen: The New Center Of Terror

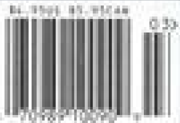
Why the Recession Hasn't Been Cool To Teens

TIME

WHY YOUR DNA ISN'T YOUR DESTINY

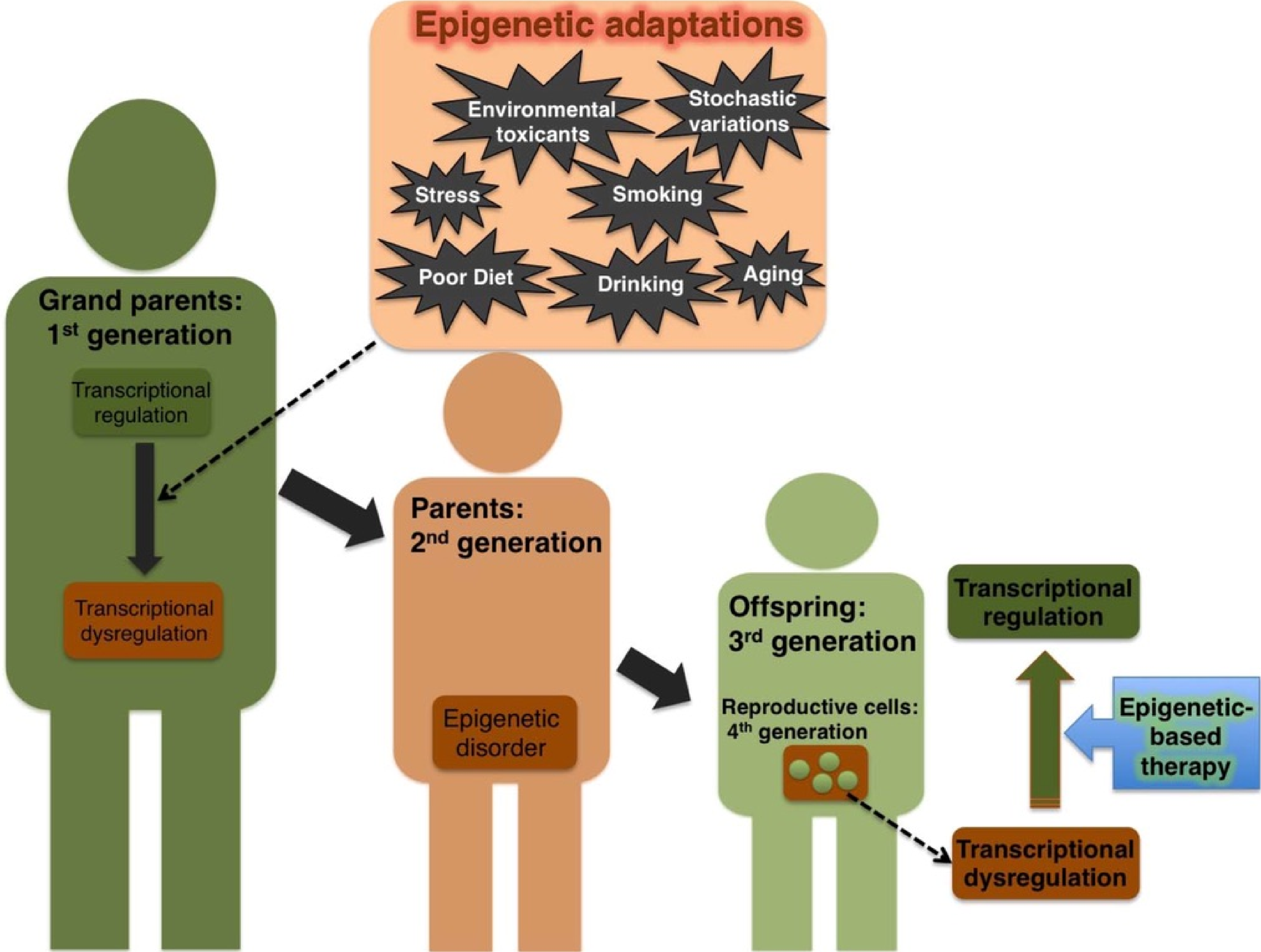
The new science of epigenetics reveals how the choices you make can change your genes —and those of your kids

BY JOHN CLOUD



"The only person you are destined to become is the person you decide to be."

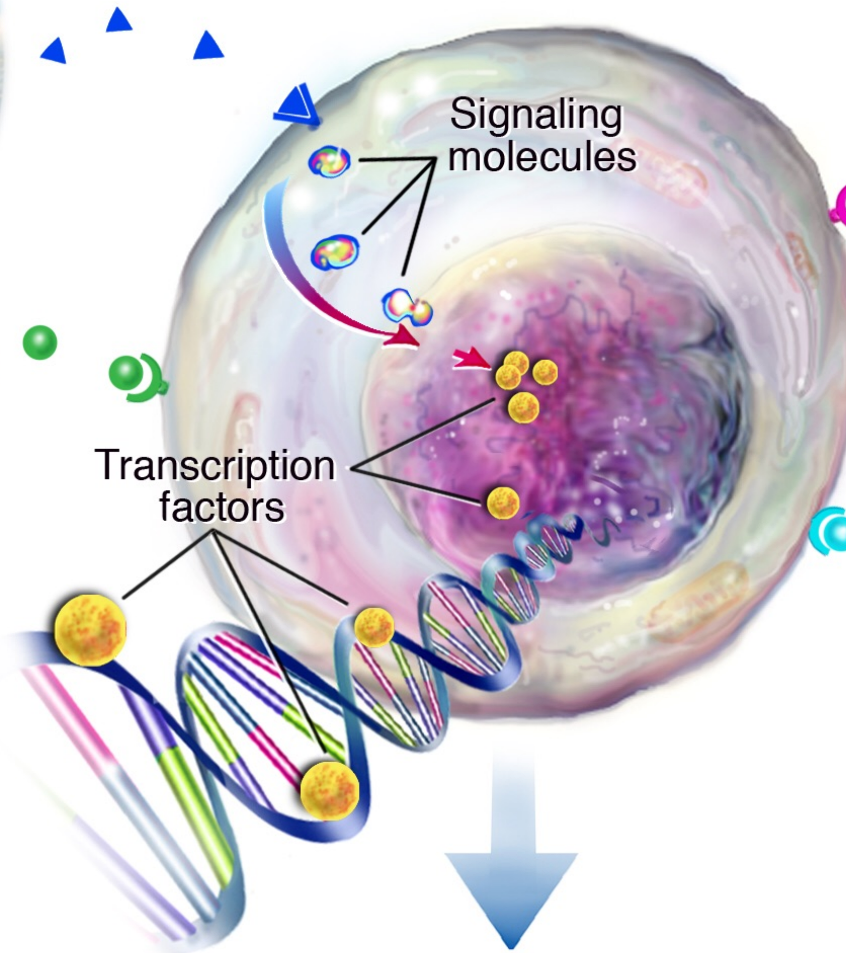
~ Ralph Waldo Emerson


Epigenetic adaptations
Environmental toxicants
Stochastic variations
Stress
Smoking
Poor Diet
Drinking
Aging
Grand parents:
1st generation
Transcriptional regulation
Transcriptional dysregulation
Parents:
2nd generation
Epigenetic disorder
Offspring:
3rd generation
Reproductive cells:
4th generation
Transcriptional regulation
Epigenetic-based therapy
Transcriptional dysregulation

Epigenetics and Gene Activation
for Improved Health and Longevity

Excercise
- BDNF

Nutritional Factors
- Calorie Restriction
- Mediterranean Diet
- Polyphenols



Environment
- Clean air, water and soil
- No smoking

Emotional Health
- Religion
- Meditation
- Spirituality

Anti-Inflammatory
Anti-oxidant, Anti-mutation

THE INSTITUTE FOR
FUNCTIONAL
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DISEASES

Diabetes

Cancer

Heart disease

Arthritis

Auto-Immune diseases

Fibromyalgia

Obesity

UNDERLYING CAUSES

Hormonal imbalances

Inflammatory imbalances

Detoxification imbalances

Structural imbalances

Immune imbalances

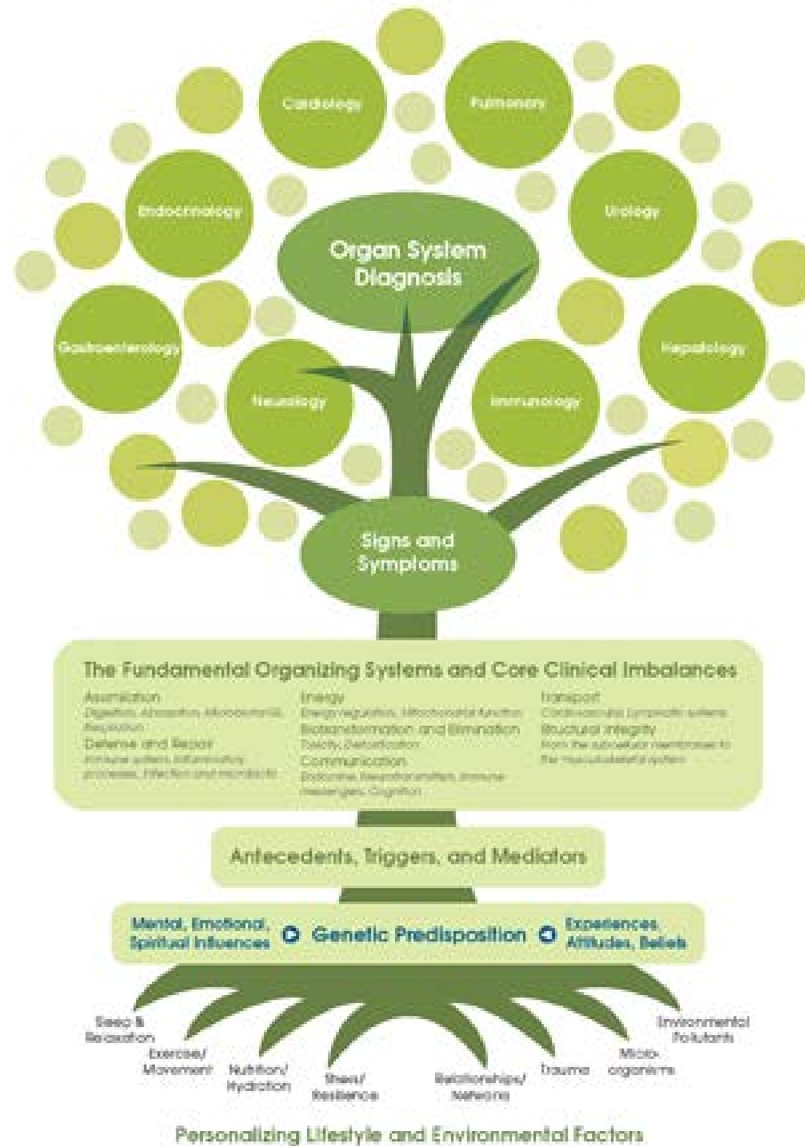
Mitochondrial dysfunction

Digestive, absorptive, and
microbiological imbalances

Toxic chemical exposure

Toxic emotions
(anger, fear, resentment, etc.)

THE FUNCTIONAL MEDICINE TREE



P4 MEDICINE institute

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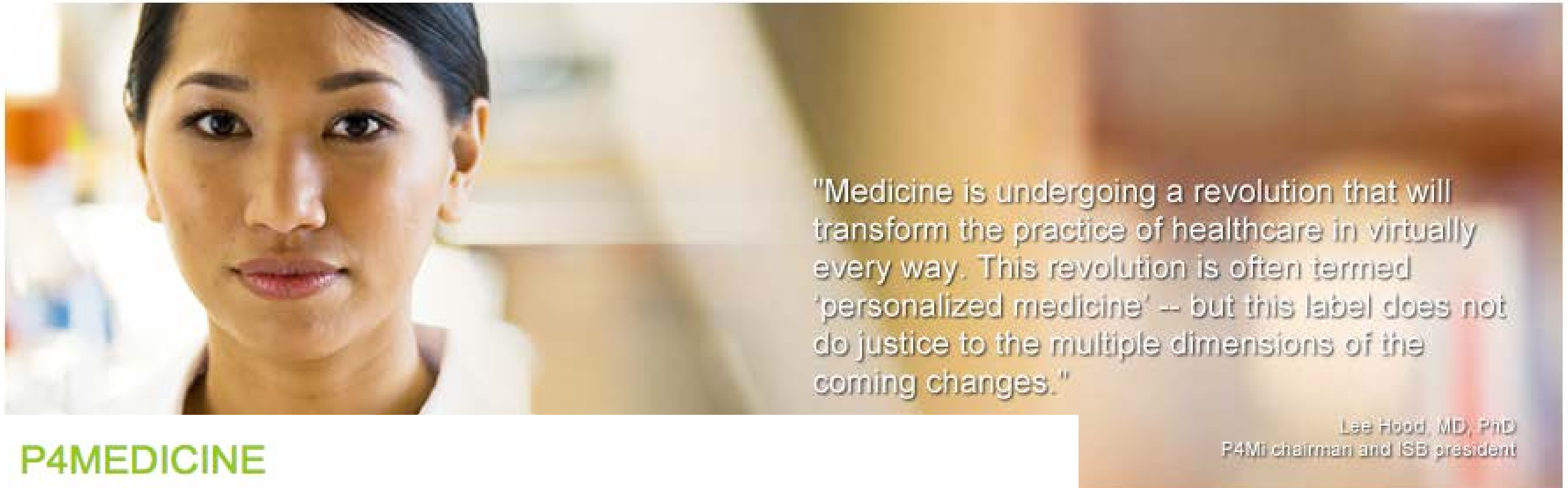
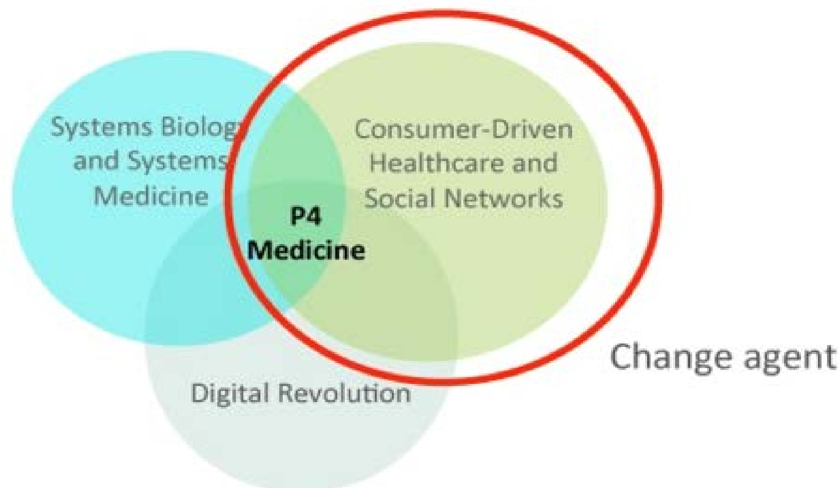


P4MEDICINE

The convergence of systems biology, the digital revolution and consumer-driven healthcare is transforming medicine from its current reactive mode, which is focused on treating disease, to a P4 Medicine mode, which is medicine that is predictive, preventive, personalized and participatory.



Change agent

P4 MEDICINE

THE 4 PS

SYSTEMS BIOLOGY

THE DIGITAL REVOLUTION

CONSUMER DRIVEN HEALTHCARE

HOW UBER WORKS

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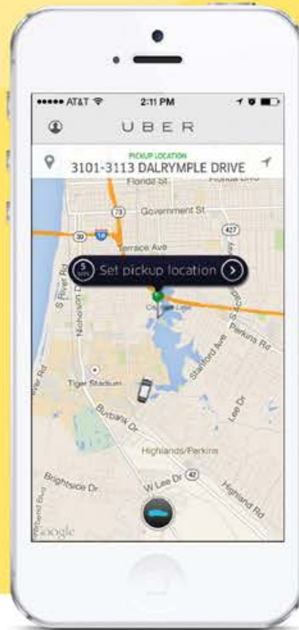
To request a ride, click on the app and a map appears, asking if you want to request a ride. If you click yes, the map indicates your location and the location of all nearby Uber cars. If you select one, it gives you the **estimated time of arrival** and information about the driver, including his name, the type of vehicle and how others have rated him.



Fares are **calculated using a standard formula**: $2.50 base fare + $.35/minute + $1.60/mile. A 4-mile trip from Towne Center to Town Square downtown would cost around $13.

Your credit card is automatically dinged for the fare, and the tip is factored in so you **don't have to pull out your wallet** and mess with cash.

Uber takes **20%** off the top; your driver gets the other **80%**.

After the trip, Uber asks you to **rate your driver** on a scale of 1-5 stars. It asks the driver to rate the fare too.

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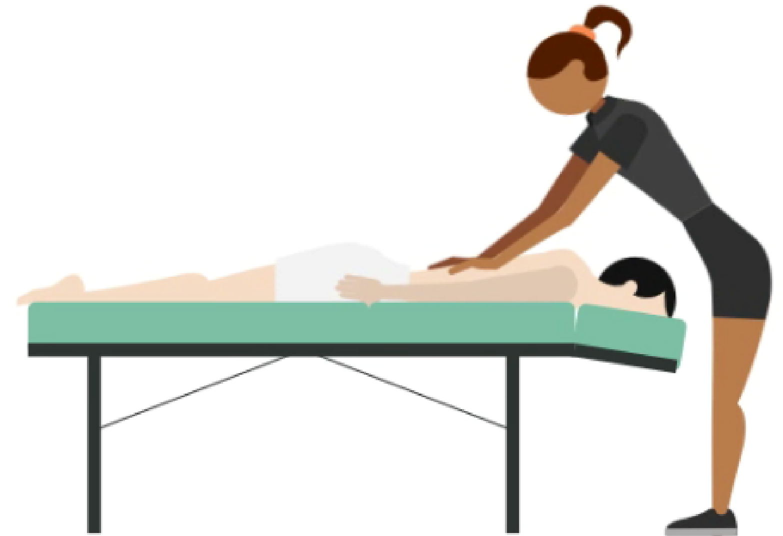
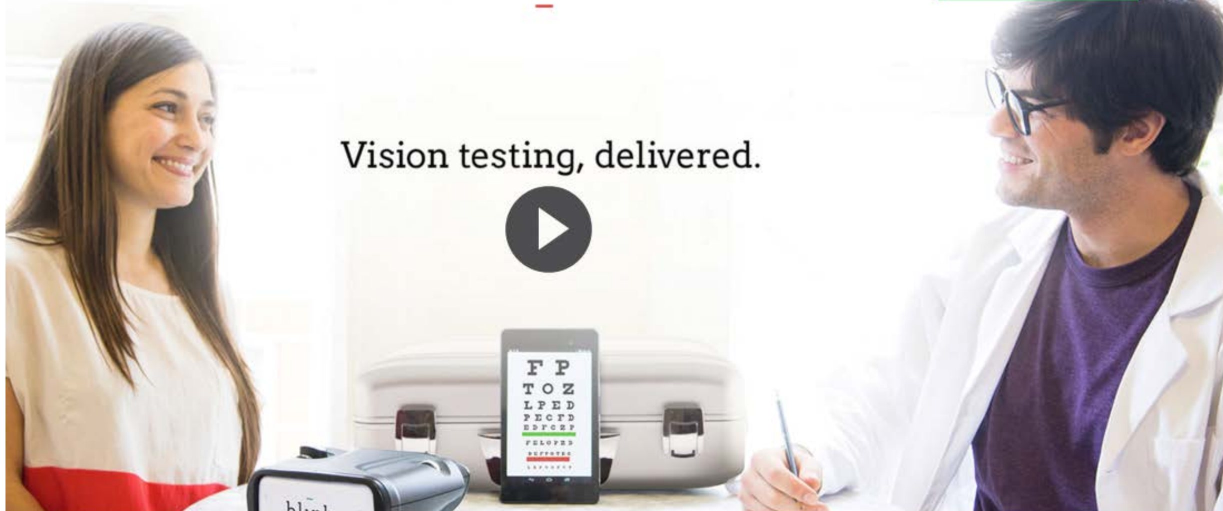


Health and Wellbeing Technology

heart rate
skin/core body temperature
SpO2 (oxymetry)
respiratory rate
blood pressure
ECG
emotional stress

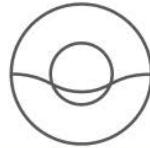

HOW IT WORKS
OPTOMETRISTS
blink.
VISIONEERS
FAQ
BOOK A TEST
Vision testing, delivered.

Meditation Devices

Thync

MY ACCOUNT

Enhance your energy. Uncover your calm.



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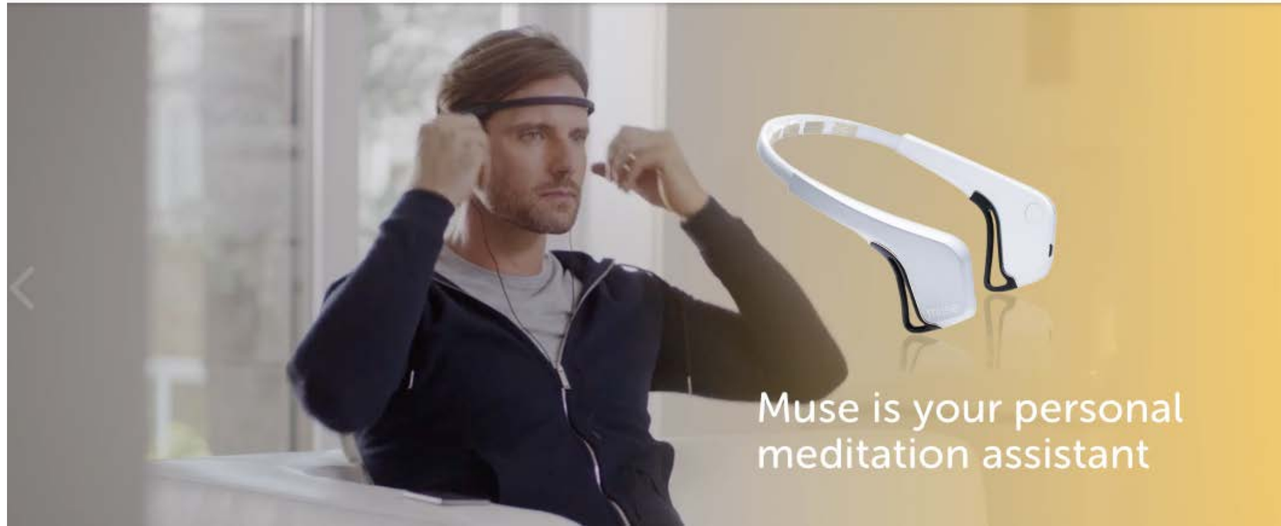
THE PEOPLE BEHIND MUSE

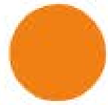
MUSE FOR PROFESSIONALS

REVIEWS & PRESS

FAQ & SUPPORT

MUSE BLOG





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Headspace is meditation made simple. Learn online, when you want, wherever you are, in just 10 minutes a day.

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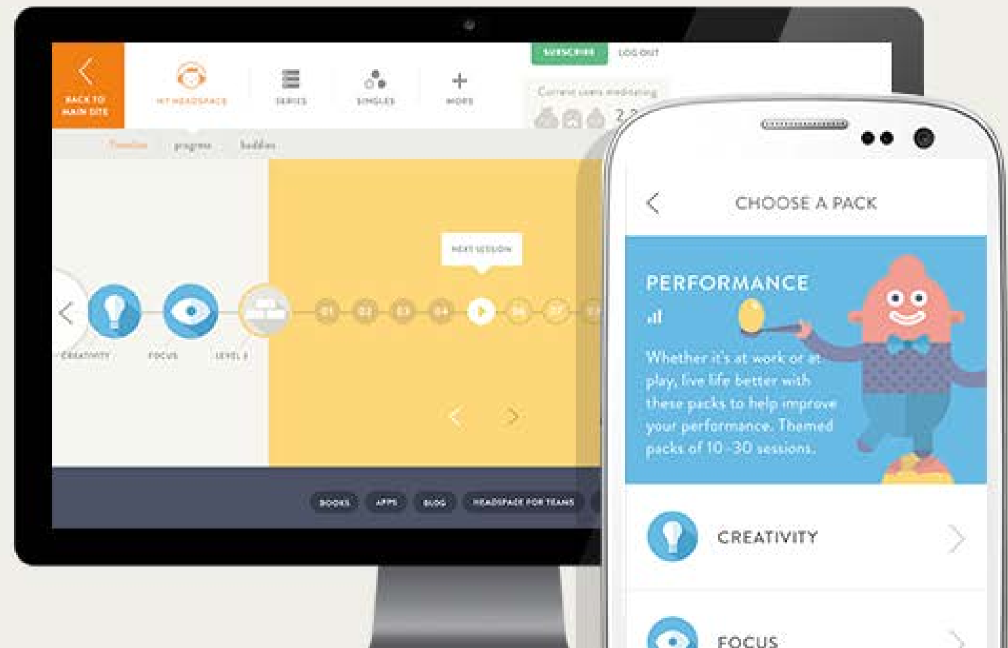

Blue Ocean

The Time is Now!