



Jeffrey Weisz, MD  
**Wellness Conference**  
 Rejuvenate your mind, body and spirit

**Primum Non Nocere: First Do No Harm**  
**Heidi Meyer, M.D.**  
 Diplomate, American Board of Integrative Holistic Medicine  
 Integrative Family Medicine SCPMG San Diego

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**Primum Non Nocere: First Do No Harm**

- Nothing to disclose

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**Goals: participants will be able**

1. To understand the players involved in the American Healthcare system
2. To understand forces that affect the daily practice of medicine in America, and YOUR practice of medicine
3. To understand the extent of mood disorders and suicide in the medical profession
4. To be able to begin a personal journey towards full understanding of our health system, with the goal of affecting positive change for both providers and patients

**CME OBJECTIVES:**

- Translate successfully established tools and skills in integrative medicine into clinical care and achieve a high level of pt satisfaction
- Optimize health, quality of life and clinical outcomes through personalized evidence-based clinical care (use of shared decision making)




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**A Thought Experiment..**

- What if I asked you to invest in a business...




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**Strange Times**

- Perhaps the most volatile health care system in the world
- The most complex in terms of payment and care delivery
- The most expensive
- Likely the best in terms of "very sick" (tertiary) care
- Perhaps the worst in terms of care equity (social justice)
- Losing providers to early retirement, burnout, impairment, and suicide at alarming rates




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“Health systems thus have three fundamental objectives.

These are:

- *improving the health of the population they serve;*
- responding to people’s expectations;
- providing financial protection against the costs of ill-health.”

WHO World Health Report, 2000  

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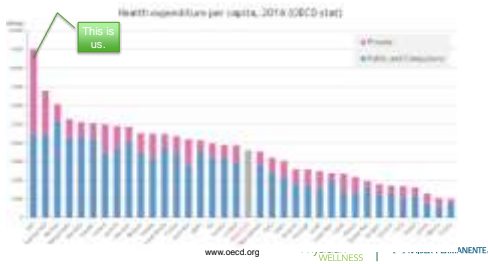
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### The Most Expensive System on Earth..




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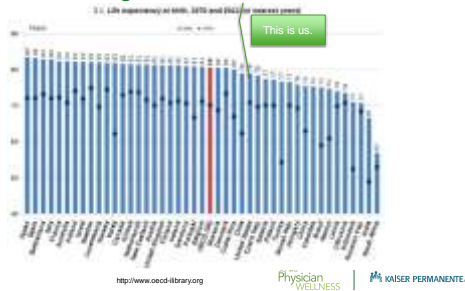
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### ...with average outcomes overall




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### How did we get here?

1910: The Flexner Report —embraces the all-science model of German medical education.

Creation of specialties in the 1930-70's as technology explodes:

**"The Flexner model remains in place, the foundation of the magnificent edifice that is American medicine."**

Dr. Thomas P. Doherty, *The Flexner Report, 100 Years Later*, 2011 [12](#)

- 1942 — first penicillin treatment. [13](#)
- 1957 — Salk polio vaccine.
- 1971 — First CT scan.
- 1977 — First MRI performed.




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### Half of what we do may be wrong.

- "Recently, a project of *BMJ*, entitled *Clinical Evidence*, [81 completed a review of 3000 medical practices. The project found that slightly more than a third of medical practices are effective or likely to be effective; 15% are harmful, unlikely to be beneficial, or a trade-off between benefits and harms; and 50% are of unknown effectiveness.](#)"

<http://www.bmj.com/permissions/permissions-forms-and-letters/submit/bmj-2014-09-17>




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### The Set Up

- A medical school system with a top-down curriculum
- A post-graduate training culture where most of our education is provided in tertiary care centers
- And 80% of it's graduates continue to work in those centers, where less than 5% of all medical care occurs




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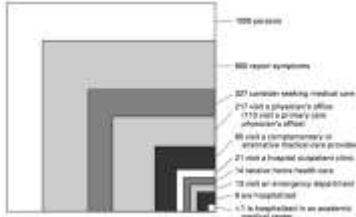
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### The most telling graphic in American medicine



<http://www.nejm.org/doi/pdf/10.1056/NEJM200106283442611>



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“I learned a lot of things in medical school, but mortality wasn’t one of them.”  
–Atul Gawande, Being Mortal



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### The Set Up

- High-cost technology that helps a minority of patients
- Direct-to-consumer marketing
- Lack of pricing transparency
- No risk to NOT participate in the risk pool
- Competition for patients leads to “ratings” and patient-driven medicine
- Payment system rewards care of the sick, procedures and devices
- Low number of PCP’s whose income is often a fraction of the specialists that far outnumber them

<http://www.tentmaker.org/Quotes/lawyers-per-capita.html>



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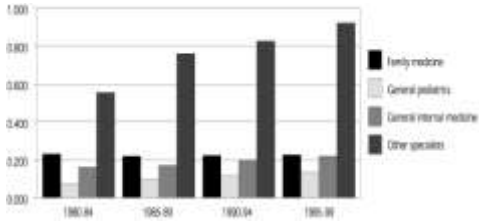
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http://www.aafp.org/pressroom/2011/04/11a.html

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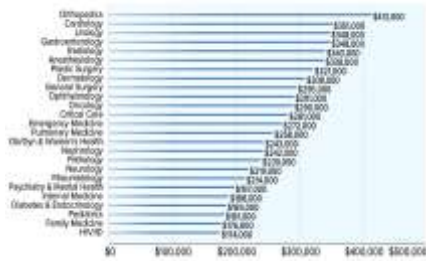
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Physician Compensation in 2013



Medscape.com

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### What determines physician payment in the U.S?

- The resource based relative value scale (with Medicare conversion factors)
- The RUC (a group of 29 physicians appointed by the AMA who meet 3 times a year and decide how much each code should be paid)
- Medicare (whose fee system is essentially accepted from the RUC, and is then copied by private insurers as the minimum billable for a code)
- Congress

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### The Set Up

Who gets to be a doctor?

- Those who do extremely well on standardized testing
- High GPA
- Likely to have a physician as a parent
- Unlikely to grow up in an underserved environment and unlikely to practice in one

<https://www.ama-assn.org/press-releases/2015/08/19/ama-releases-report-on-the-physician-workforce>




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### The Set Up

What are these people like?

- They carry traits that make them more vulnerable to depression (neuroticism, conscientiousness) and make suffer from it at a rate 3 times the general population
- Not familiar with failure
- Variable emotional intelligence

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3842470/>  
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3842470/>




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### The Set Up

What kind of doctors are these people likely to become?

- Specialists who deal with a limited number of complex issues that do not need to consider the larger picture
- Average, or perhaps, worse communicators
- Depressed and burnt-out
- Surrounded by failure, a broken system, increasing demands, they are likely to become disillusioned




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### The Set Up

What kind of medicine will they practice?

- Burn-out may be responsible for up to 1/3 of all medical errors
- In a search for "work-life balance", they will do LESS medicine
- They will seek out other practice styles that affords them more control
- As burn-out increases, emotional detachment increases → "bedside manner"




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Could it be, we complete our training with a very specific toolbox, but somehow believe it is the best toolbox in the world???

What if we realized we are fighting the battle with one weapon, when we need dozens?




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“Diagnosis is simply another form of judgement.”

Rachel Naomi Remen,  
Kitchen Table Wisdom

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<https://goboldly.com/research>

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Harm?



<http://www.nature.com/news/personalized-medicine-time-for-one-person.html-1.1741870>



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The most recent observational study on PPI use:

- "After adjustment for age, sex, atrial fibrillation, hypertension, diabetes, heart failure, peptic ulcer, cancer, chronic kidney disease, and use of nonsteroidal anti-inflammatory drugs, current use of a PPI was associated with a 20% increased risk for stroke, with an incidence rate ratio (IRR) of 1.19 (95% confidence interval [CI], 1.14 - 1.24;  $P < .0001$ )."

[http://www.industrydocuments.ucsf.edu/docs/2483pg\\_2](http://www.industrydocuments.ucsf.edu/docs/2483pg_2)



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Number of PPI Rx Fills in KP SCAL

YEAR	DISTINCT FILLS OF PPIs
2017	128,251
2016	240,169
2015	212,748
2014	197,172
2013	179,526
2012	162,818
2011	144,900



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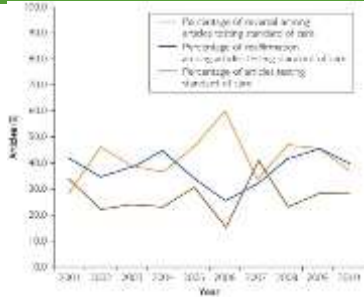
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<http://theevidencebase.kaiserpermanente.org/efficacy-categories.html>




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**Who Got Hooked**

An Institute of Medicine study found dependence rates for medication were far lower than those for other substances.




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"Nearly 2 decades ago, we were encouraged to be more aggressive about treating pain, often without enough training and support to do so safely. This coincided with heavy marketing of opioids to doctors....The results have been devastating."

-Dr. Vivek H. Murthy, U.S. Surgeon General, August 2016




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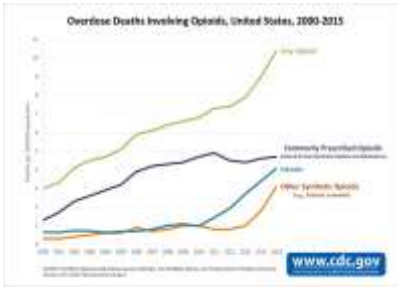
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**Rising Drug Costs**

**Medicare's Share of National Prescription Drug Spending Rose From 2% in 2004 to 20% in 2014**



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**U.S. pricing-all the market will bear**

**Many Specialty Drugs Are Priced Higher in the United States Than in Other Developed Countries**



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### The Biggest Industry on Earth: Pharma

Industry	Net Margin In 2016
Pharma: Generic	30%
Investment Managers	29.1%
Tobacco	27.2%
Pharmamajor	25.5%
Internet Software/Services	25%
Biotechnology	24.6%
Savings Banks	24%
IT Services	23%
Regional Banks	22%
Major Banks	22.9%

Forbes.com



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### Pharma: for profit, publically traded



Forbes.com



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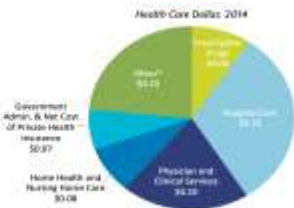
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### Pharma: powerful lobbying

**RETAIL SPENDING ON PRESCRIPTION MEDICINES IS A SMALL SHARE OF TOTAL U.S. HEALTH CARE SPENDING**

Prescription medicines make up just 10% of total U.S. health care spending, the same percentage as in 1980.



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Pharma: buying votes

Top Lobbying Clients, 2016

Client/Parent	Total
Pharmaceutical Research & Manufacturers of America	\$19,730,000
Amgen Inc	\$9,860,000
Pfizer Inc	\$9,750,000
Biotechnology Innovation Organization	\$9,230,000
Bayer AG	\$7,990,000

Opensecrets.org




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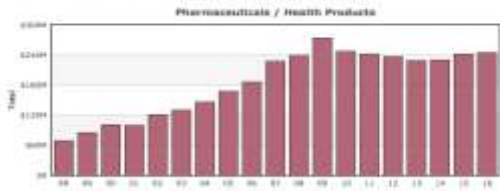
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Pharma: buying votes

Lobbying Totals, 1998-2015



Opensecrets.org




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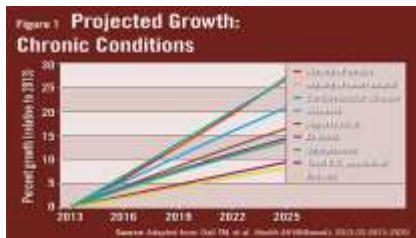
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Why are our patients getting ill?



http://www.physicianwellness.com/specialty-training/




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### Do We Know How to Stay Well?

- 7 of the top 10 leading causes of death in the United States are due to chronic diseases
- Not eating a healthy diet or getting enough physical activity increases a person's chance of having a chronic disease
- The United States spends \$147 billion on obesity-related health care costs each year
- The United States spends \$117 billion on health care costs associated with inadequate physical activity each year.

cdc.gov

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Kaiser Permanente

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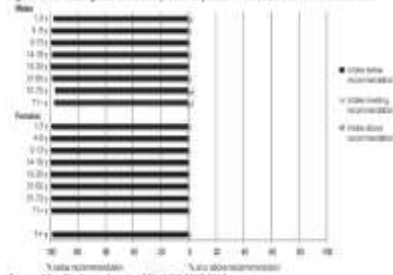
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Figure D1.17 Whole grains: Estimated percent of persons below, at, or above recommendation



Source: What We Eat in America, NHANES 2007-2010

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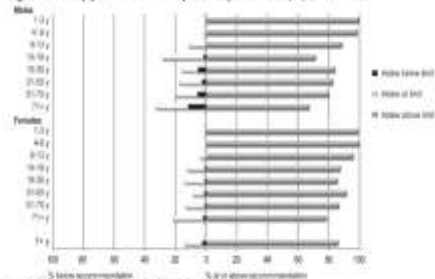
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Figure D1.24 Empty calories: Estimated percent of persons below, at, or above limits



Source: What We Eat in America, NHANES 2007-2010

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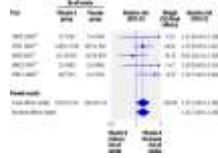
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## We Don't Study Nutrition Well

A side note: how to critically interpret studies on vitamins/minerals

- Meta-analysis, included 9 trials, 5 of which examined hemorrhagic stroke risk
- Baseline vitamin E levels never obtained
- Dose ranged from 111-800IU of vit E
- RDA: 30-50IU, the amount in a typical MVI
- This is 2-16 times higher the RDA
- Cited in 42 other papers in PubMed



Schirris Markus, Glynn Robert J, Rita Paveza M, Tounis Christos, Kurth Tobias. Effects of vitamin E on stroke subtypes: meta-analysis of randomised controlled trials. BMJ 2010; 341:c6702




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## Got Vitamin E?

- To get your RDA of vitamin E (30 IUs) you could eat:
  - ✓ 5 cups of canned tomato sauce OR
  - ✓ 4 cups cooked spinach OR
  - ✓ 18 cooked eggs OR
  - ✓ 13 oz tofu OR
  - ✓ 6 tbs sunflower seeds OR
  - ✓ 5 tbs almond butter

Dr. Tieraona Low Dog, Fortify Your Life, 2016




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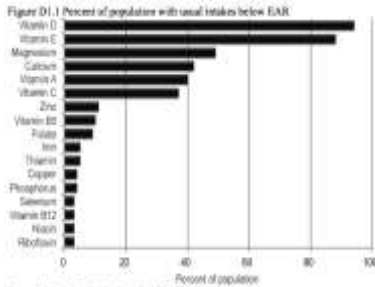
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Source: What We Eat in America, NHANES 2007-2010




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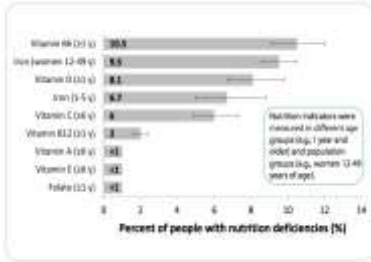
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### Nutrition deficiencies in the U.S. population



[https://www.cdc.gov/nutritionreport/pdf/FatPage\\_5202nd1220nutrition1208-report\\_08\\_032012.pdf](https://www.cdc.gov/nutritionreport/pdf/FatPage_5202nd1220nutrition1208-report_08_032012.pdf)

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### We don't have good methods to determine nutrition levels

- "Despite NHANES 2001–2002 dietary intake data demonstrating that 93% of the U.S. population consumed less than the Estimated Average Requirement (EAR) for vitamin E, for decades mean serum vitamin E concentrations have remained consistently adequate, with less than 1% of the population vitamin E deficient."

<https://www.cdc.gov/nutritionreport/pdf/Fat.pdf>

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### So what do we have so far?

- A cadre of doctors who have all the right traits to make them highly specialized—and depressed—, average communicators, working in an opaque, fractured system driven by high cost pharmaceutical meds, short patient visits, and most work in places only about 1% of our patients will ever need
- Those doctors also eat poorly, exercise little, and are getting more obese—just like their patients!

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### The Set Up

What will happen to these people?

- They will suffer depression at twice the national rate
- Up to 80% will endorse burnout within the first year of residency
- The men in this profession will suicide at twice the national rate
- The women in this profession will have an 80% success rate for suicide, equivalent to the average American male
- Which will give them a suicide rate up to FOUR times that of the average American

<http://www.ncbi.nlm.nih.gov/pubmed/21812318> Suicide rates among physicians: a quantitative and gender assessment. Emdin-analysis, Schemhammer ES, Colditz GA. Am J Psychiatry. 2004 Dec;161(12):2295-302.



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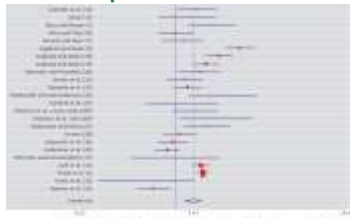
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### Suicide is one of the leading causes of death in our profession



Suicide rate in male physicians is 1.41 times greater than for age-matched males in the general population

Schemhammer E, Colditz G, Am J Psych, 2004



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### The Silent Epidemic

- "although physicians globally have a lower mortality risk from cancer and heart disease relative to the general population (presumably related to knowledge of self care and access to early diagnosis), they have a significantly higher risk of dying from suicide, the end stage of an eminently treatable disease process. Perhaps even more alarming is that, after accidents, suicide is the most common cause of death among medical students"

<http://emmedicine.medicape.com/article/606779-overview2>



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## We Harm Ourselves

- The most reliable estimates of successful completion of suicide range from 1.4-2.3 times the rate achieved in the general population. Although female physicians attempt suicide far less often than their counterparts in the general population, their completion rate equals that of male physicians and, thus, far exceeds that of the general population (2.5-4 times the rate by some estimates).

<http://emedicine.medscape.com/article/806779-overview#as>



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We do not see things as they are. We see things as we are.  
— The Talmud



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### Use of Integrative Medicine by our Patients

- About 1/2 of U.S. adults use integrative therapies
- Most common modality: supplements
- Over \$30B/year is spent on "alternative" therapies or supplements
- Most common reason: pain
- Most common supplement: fish oil
- Most common manipulative therapy: chiropractic

<http://nccih.nih.gov/research/statistics/NHS/2012/key-findings>




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### First, Do No Harm

- We are failing at keeping our oath, both to our patients and ourselves
- We have failed to critically and continuously examine a system that is breaking down
- We have failed to educate the public about the system's failings
- Outside forces, like big pharma, are driving the system, not us




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### First, Do No Harm

- Saving America's doctors, and the system in which they treat Americans, requires a radical, bottom-up culture shift
- It requires all the qualities doctors typically do not have
- It requires we select medical students and educate them in a drastically different way




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### First, Do No Harm

- It requires a re-wiring of the expectations of the primary care physician and specialist
- It requires aligning the time and money given to primary care physicians to actually reflect the level of care they provide and the amount of value they create in the system
- All this has to be done in the political arena




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### What We Know

- Resilience, a learnable skill, fights off burnout
- Models of care that leverage teams may fix both burnout and improve care of chronic disease
- As doctors, en bloc, we or societies that represent us, have insidiously contributed to a culture where profit comes before care
- As doctors, we are, for the most part, oblivious to how they system we operate in, actually works
- Frustration often comes from ignorance




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"See, I have set before you this day the choice; good and evil, the blessing and the curse, life and death. Therefore, choose life!"  
-Deuteronomy




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"It is never to late to be what you might have been."

--Anais Nin



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Sources

- List of sources including Atul Gawande, Ted Epperly, Elizabeth Rosenthal, Rachel Naomi Remen, Jameson Jones, Andrew Weil, Marcia Angell, Cdc.gov, Graham-center.org, Nih.gov, Medscape.com



Horizontal lines for notes

Sources

- URLs for PBS, NCBI, and WSJ articles



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