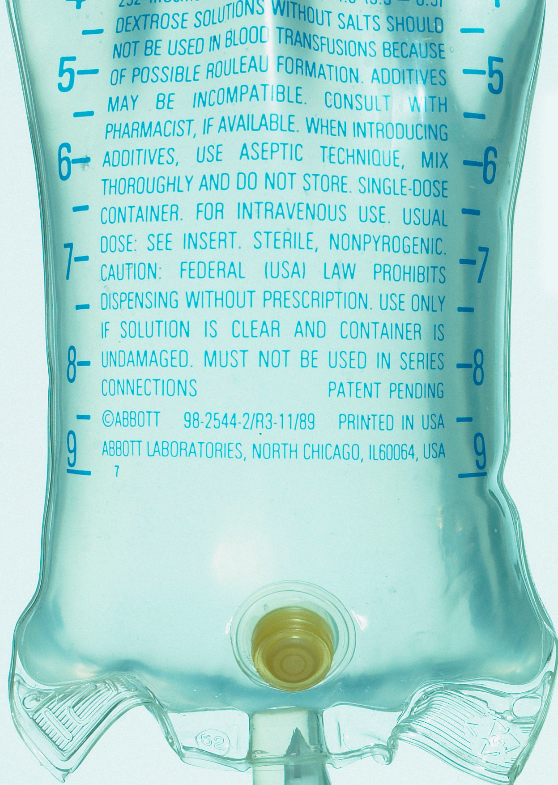


VIEWER'S GUIDE

MONEY & MEDICINE

TABLE OF CONTENTS

Table of Contents

Director's Statement....................2
Background on the Issues Addressed in Money & Medicine....................3
- Health Care Costs....................3
- The Impact of Soaring Health Care Spending....................6
- Forces Driving Health care Spending....................7
- The Dangers of Excessive Medical Care....................9
- Waste....................9
- Overtreatment....................10
- Technology Creep....................12
- Geographic Variation....................12
- Evidence Based Medicine....................13
- Shared Decision-Making 1
- Comparing UCLA Medical Center and Intermountain Medical Center....................17
- Alternative Health Care Financing Proposals....................18

Background On Medical Treatment Featured in Money and Medicine....................21
- Breast Cancer Screening and Treatment....................21
- Prostate Cancer Screening and Treatment....................22
- Diagnostic Imaging for Brain Injury....................23
- Cardiac Catheterization and Treatment of Heart Disease....................24
- End of Life Care....................24
- Labor and Delivery....................25

Planning an Event....................26
- Facilitating a Discussion....................26

Who's Who in Money and Medicine....................28
General Discussion Questions....................34
- Rationing....................34
- Health Care Cost Crisis....................34
- Waste....................35
- International Comparisons 35
- Dangers of Excessive Medical Care....................35
- Geographic Variation in Medical Care....................36
- Comparing Intermountain Medical Center and UCLA Medical Center....................36
- Geographic Variation in End of Life Care....................37
- Coordinated Care....................37
- Evidence Based Medicine....................38
- Shared Decision-Making 38

Discussion Questions for Patient Stories....................39
- Labor and Delivery 39
- End of Life Treatment....................40
- CT Scans....................43
- Breast Cancer Screening and Treatments....................43
- Prostate Cancer Screening and Treatments....................44
- Coronary Artery Disease Diagnosis and Treatment....................46

Action Steps: What Can Individual Patients Do?....................48
Learn More....................48
- General Online Resources....................48
- Resources Related to the Patient Protection and Affordable Care Act....................48
- Health Policy Organizations....................49
- Patient Decision Aids....................50
- Shared Decision-Making....................51
- How to Find Out More Information About Your Doctor and Hospital....................51
- Hospital Ratings and Comparisons....................51
- Health Care News....................52
- Hospice, Palliative Care, and Living Wills....................52
- Hospitals in the Film....................52
- Health Care Blogs....................52
- Books....................53
- Films....................53
- Articles....................54
- Reports....................55
- Radio....................55

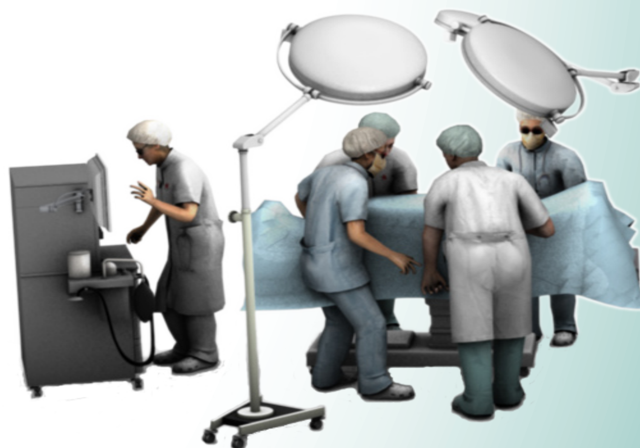
How to Buy the DVD....................56
Credits and Acknowledgements....................56

Director's Statement

As rising health care costs threaten to bankrupt the country, *MONEY & MEDICINE* investigates the dangers the nation faces from runaway health care spending as well as the dangers patients face from over-diagnosis and over-treatment. In addition to illuminating the so-called waste and overtreatment that pervade our medical system, *MONEY & MEDICINE* explores promising ways to reduce health care expenditures and improve the overall quality of medical care.

Although reducing health care spending without compromising the quality or accessibility of medical care is much more easily said than done, we've adopted an approach that allows us to address this pressing medical, ethical, and financial challenge. We filmed *MONEY & MEDICINE* at two world-renowned hospitals - UCLA Medical Center in Los Angeles and Intermountain Medical Center in Utah. The dramatic doctor/patient stories that we were able to capture at these two hospitals illustrate the powerful forces driving excessive medical care as well as proven strategies that can reduce unnecessary medical spending, such as improving the coordination of patient care, facilitating shared patient decision-making, and practicing evidence-based medicine.

At both hospitals we capture the painful end-of-life treatment choices made by patients and their families, ranging from very aggressive interventions in the ICU to palliative care at home. We also investigate the controversy surrounding diagnostic testing and screening as well as the shocking treatment variations among patients receiving a variety of elective procedures. Beyond the broad policy implications of the film, *MONEY AND MEDICINE* may also prompt viewers to alter some of their own behaviors whether it's executing an advance directive, thinking twice about that seemingly benign screening test, or learning more about the risks, benefits, and possible outcomes of elective procedures. Simply put, we hope the film will encourage viewers to question the pervasive more-is-better attitude about medical care.



Many of my previous PBS productions have taken viewers inside our nation's health care system, including *SOUND AND FURY*, *WHAT'S AILING MEDICINE, OUR CHILDREN AT RISK, BORDERLINE MEDICINE, WHO LIVES-WHO DIES, CAN'T AFFORD TO GROW OLD,* and *HEALTH CARE ON THE CRITICAL LIST*. My most recent PBS health care documentary on the struggles of the uninsured, *CRITICAL CONDITION*, aired during the last major health care reform debate in 2008 and 2009. Now, as the focus of health care reform shifts from the access crisis to the cost crisis, we hope that our new film, *MONEY AND MEDICINE,* will build on our three-decade body of work, putting a human face on one of the greatest challenges facing American medicine.

Roger Weisberg

Producer/Director, *Money & Medicine*
President, Public Policy Productions

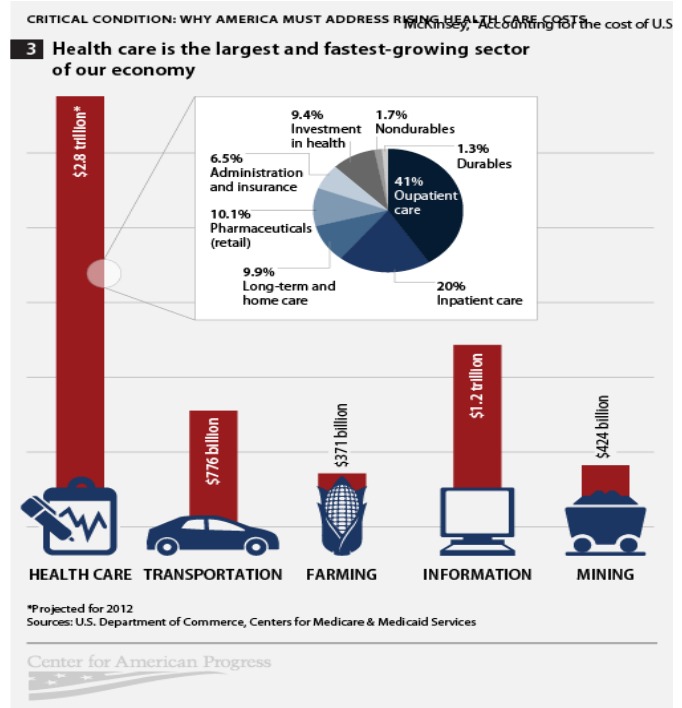
Background on The Issues Addressed in Money & Medicine

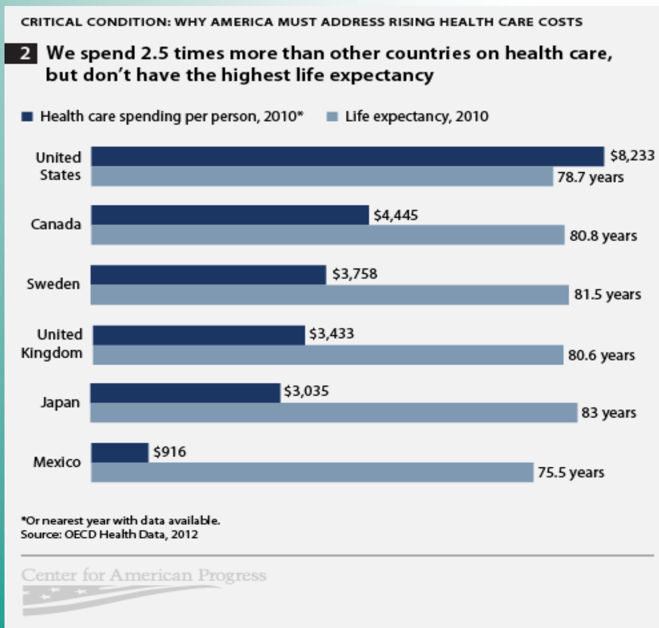
Health Care Costs

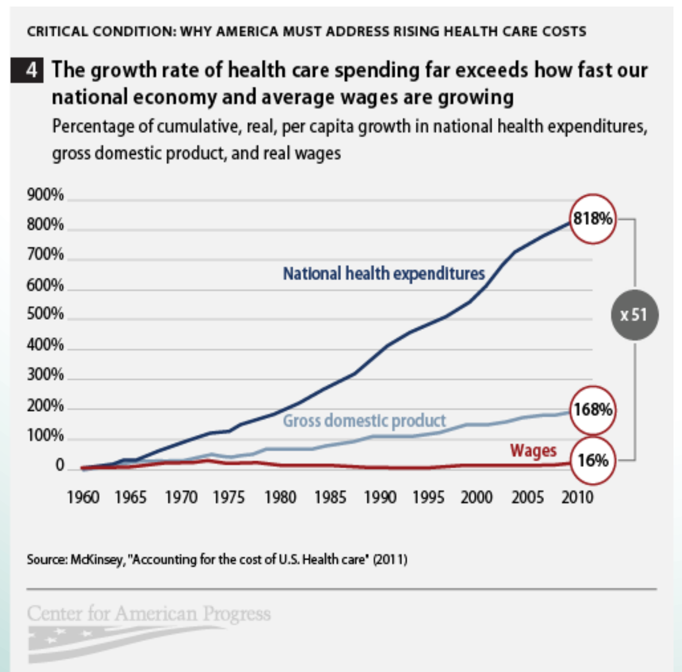
Health Care Spending in America: Past and Present

In 2009, the U.S. spent a staggering $2.5 trillion on health care, an average of $8,086 per person, representing 16.3% of GDP.[1] Even more alarming is the rate at which health care spending has grown over the past four decades. Since 1970, spending on health care has grown at an average annual rate of 9.8%, significantly faster than the economy as a whole.[2] Unless the rate of growth is dramatically reduced, within the next few decades the cost of health care will become an overwhelming financial burden on individuals, employers, and the federal government.

The following graphics are from the Center for American Progress: www.americanprogress.org/issues/2012/07/health_costs_infographic.html







1 "Health Care Spending Projections Through 2019: The Recession's Impact Continues" Health Affairs, February 2010.

2 Kaiser Family Foundation, "U.S. Health Care Costs: Background Brief," March 2010. Available at: http://www.kaiseredu.org/Issue-Modules/US-Health-Care-Costs/Background-Brief.aspx#footnote5

BACKGROUND

Where does the money come from and how is it spent?

- 32% of health care spending is paid out of private health insurance policies, 35% through Medicare and Medicaid, and the remaining 33% by various third parties and by patients out-of-pocket.[3]
- Hospital care (31%) and physician/clinical services (21%) account for over half of all health care spending.[4]
- The largest share of health care spending is devoted to treatment for Americans over the age of 65—$14,797 per capita in 2004. This figure is 5.6 times higher than health care spending per child and 3.3 times higher than health care spending per working-age adult.[5]
- In 2004, almost half (49%) of health care spending was devoted to treatment for only 5% of the population.[6]
- In 2004, almost a quarter (22.5%) of health care spending went towards treating the 1% of the population that accrued over $39,688 in medical expenses.

The shocking truth about health care costs

- 1/2 of all personal bankruptcies in the United States are due, at least in part, to health care expenses. 3/4 of such bankruptcies are filed by people who have some form of health insurance.[7]
- The average elderly couple is likely to accrue $300,000 in health care costs not covered by Medicare.
- On average, health insurance premiums have increased 131% in the last ten years.
- Approximately 1/3 of medical spending each year in the U.S. can be attributed to unnecessary treatment.[8]

Future Projections

- By 2020, Americans are expected to spend $4.64 trillion per year on health care—19.8% of projected GDP.
- Of that $4.64 trillion, almost half (49%) will be paid by the government largely as a result of more Americans enrolling in Medicare and Medicaid.[9]
- By contrast, the proportion of health care spending contributed by private employers is expected to decline from 20% in 2014 to 18% in 2020.
- The Affordable Care Act, which will expand coverage to nearly 30 million uninsured Americans, is expected to have a minimal impact on the growth of spending.[10]

Health spending in the U.S. surpasses that of other developed countries.

- Since the 1970s, health spending globally has risen faster than overall economic growth. The United States leads this trend.
- Though richer countries tend to spend more on health care than poorer countries, the United States is an outlier, spending more per capita than any other developed country. [11] In 2002, Canada spent just over half as much per person on health care (57%) as the United States.[12]

3 Katherine B. Wilson, "Health Care Costs 101," California Health care Foundation, May 2011. Available at: http://www.chcf.org/publications/2011/05/health-care-costs-101

4 Kaiser Family Foundation, "U.S. Health Care Costs: Background Brief,"

5 Center for Medicare and Medicaid Services, " National Health Expenditures by Age," August 23 2011. Available at: http://www.cms.gov/NationalHealthExpendData/04_NationalHealthAccountsAgePHC.asp#TopOfPage

6 Kaiser, "Health Care Costs: Key Information on Health Care Costs and Their Impact,"

7 Himmelstein, D, E. Warren, D. Thorne, and S. Woolhander, "Illness and Injury as Contributors to Bankruptcy," Health Affairs Web Exclusive W5-63, 02 February , 2005.

8 Roni Caryn Rabin. "Doctor Panels Recommend Fewer Tests for Patients," New York Times, April 4, 2012. Available at: http://www.nytimes.com/2012/04/04/health/doctor-panels-urge-fewer-routine-tests.html?_r=1&emc=tnt&tntemail0=y.

9 CBO, NHE Projections 2010

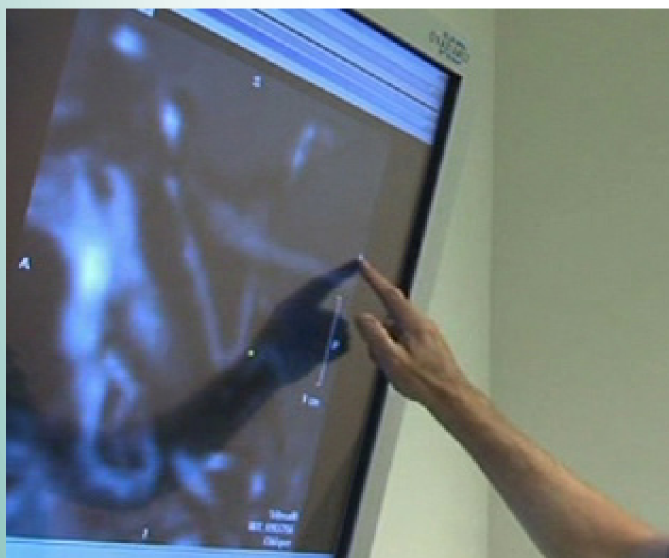
10 Phil Galewitz, "Nation's Health Care Bill to Nearly Double by 2020," Kaiser Health News, July 28 2011. Available at: http://www.kaiserhealthnews.org/Stories/2011/July/28/health-care-spending-to-double.aspx

11 Dana P. Goldman and Elizabeth A McGylnn, "U.S. Health Care: Facts About Cost, Access and Quality," *RAND*, 2005.

12 Uwe E. Reinhardt, Peter S. Hussey and Gerard F. Anderson, "U.S. Health Care Spending in An International Context," *Health Affairs*, 23 no. 3 (2004):

BACKGROUND

- The U.S. is also an outlier in terms of the percentage of GDP devoted to health care. At 17.4% of GDP, the U.S. spends almost twice as large a portion of its total economic output on health care as the average member country of the Organization for Economic Co-operation and Development (OECD).[13]
- Our annual health care spending is equal to the entire gross domestic product of France—the fifth largest economy in the world.[14]



Spending more doesn't make Americans healthier.

- Despite spending more than any other industrialized country, the United States remains the only wealthy, developed nation without a universal health care system.[15]
- The American health care system is vastly inefficient. In 1999, health administration costs in the U.S. totaled $1,059 per person, compared to $307 in Canada.[16]
- In 2006, out of 191 countries, the United States ranked 39th in infant mortality, 43rd in adult female mortality, 42nd in adult male mortality, and 36th in overall life expectancy.[17]
- A study in 2006 found that middle-aged Americans, compared to their British counterparts, have a higher incidence of diabetes, hypertension, heart disease, myocardial infraction, stroke, lung disease and cancer.[18]
- The average Japanese lives 5 years longer than the average American, despite the fact that Japan spends only 40% of what the U.S. does per person on health care.[19]

The poor health outcomes in the United States in part reflect lack of coverage and access to health care.

- Over 81 million working-age adults—44% of those ages 19-64—were either uninsured or underinsured at some point during 2010. This is up from 61 million, or 35%, in 2003.[20]
- A 2009 study out of Harvard University found that 45,000 deaths per year—that's 1 death every 12 minutes—are associated with lack of health insurance.[21]
- In a global survey of adults suffering from chronic illnesses conducted in 2008, 60% of Dutch patients and 42% of French patients could get same-day appointments with doctors. In the United States, this figure was only 26%.[22]

10-25. Available at: http://content.healthaffairs.org/content/23/3/10.full.html

13 Organization for Economic Co-operation and Development, "Health: spending continues to outpace economic growth in most OECD countries," June 30 2011. Accessed October 31, 2011. Available at: http://www.oecd.org/document/38/0,3746,en_21571361_44315115_48289894_1_1_1_1,00.html

14 Ezekiel J. Emanuel, "Spending More Doesn't Make Us Healthier," *The New York Times*, October 27 2011. Available at: http://opinionator.blogs.nytimes.com/2011/10/27/spending-more-doesnt-make-us-healthier/

15 HealthPAC

16 Steffie Woolhandler, M.D., M.P.H., Terry Campbell, M.H.A., and David U. Himmelstein, M.D., "Costs of Health Care Administration," *The New England Journal of Medicine* 2003;349:768-75.

17 Christopher J.L. Murray, M.D., D.Phil., and Julio Frenk, M.D., Ph.D., M.P.H., "Ranking 37th—Measuring the Performance of the U.S. Health Care System," *The New England Journal of Medicine*, 2010; 362:98-99 January 14, 2010

18 James Banks, PhD; Michael Marmot, MD; Zoe Oldfield, MSc; James P. Smith, PhD, ìDisease and Disadvantage
in the United States and in Englandî JAMA 2006; 295:2037-2045;

19 Katy Heslop, "How does US health care compare to the rest of the world?" *The Guardian*, March 22 2010. Accessed October 31 2011. Available at: http://www.guardian.co.uk/news/datablog/2010/mar/22/us-health care-bill-rest-of-world-obama

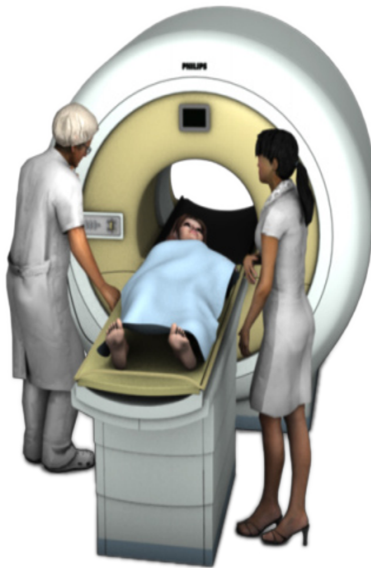
20 Maggie Fox, "U.S. Health Care System Losing Ground, Group Reports," *National Journal*, October 18 2011. Available at: http://nationaljournal.com/health care/u-s-health-care-system-losing-ground-group-reports-20111018

21 Ellen Shaffer, "US Health Care Myths and Facts" *Equal Health Network*, July 14 2010. Accessed October 31 2011. Available at: http://www.centerfor-policyanalysis.org/index.php/2010/07/us-health-care-myths-and-facts-equal/

22 Jonathan Cohn, "Health examples: Plenty of countries get health care right," *The Boston Globe*, July 5 2009. Accessed October 31, 2011. Available at: http://www.boston.com/bostonglobe/ideas/articles/2009/07/05/healthy_ex-amples_plenty_of_countries_get_health care_right/?page=2

BACKGROUND

The Impact of Soaring Health Care Spending



Employers

- Employers are the primary providers of health insurance for Americans. 58% of all private sector employees have some form of health benefit through their employers.[23]
- Some economists argue that the increasing burdens of health care costs are making U.S. companies significantly less competitive on the international market.[24]
- General Motors estimates the company spends around $5 billion annually to cover health care for its 1.1 million employees. These exorbitant health care costs add an estimated $1,500-$2,000 to each vehicle.

Employees

- The cost of health insurance premiums has increased between 8% and 14% per year since 2000, while inflation and workers' earnings have increased only 3-4% per year.[25]
- Many employers, in order to offset the rising cost of health care, have increased workers' hours, reduced their pay, and slashed retirement benefits. When such measures are insufficient, and the cost of providing health care is still too onerous, many companies resort to layoffs. Many Americans have suffered layoffs because firms can't fully offset the rising cost of providing heath care with wage reductions or hourly increases.[26]

Households

- In a survey conducted in 2003, 63% of American families reported difficulty paying medical bills[27]
- In 2011, American families insured through their jobs accrued, on average, $19,393 in medical bills—up from $18,074 in 2010.[28]
- The average percentage of household income devoted to out-of-pocket medical expenses grew from 12% in 1997 to 16% in 2005[29]
- One quarter of all Medicare beneficiaries spent nearly one third of their income (31%) on health care in 2005.

Government

- In 1966, Medicare and Medicaid made up 1% of total government spending; now that figure is 20%[30]
- The federal government spends on health care...
  - 8 times as much as it does on education
  - 12 times as much as it does on food aid to children and families
  - 30 times what is does on water supply
  - 830 times what it does on energy conservation[31]
- State governments are struggling to make up for decreased revenues by cutting health coverage.

23 The Kaiser Family Foundation, "Employer Health Benefits: 2011 Annual Survey," September 27 2011. Accessed October 31, 2011. Available at: http://ehbs.kff.org/.

24 Toni Johnson, "Health Care Cost and U.S. Competitiveness," *Council on Foreign Relations*, March 23 2010. Available at: http://www.cfr.org/health-science-and-technology/health care-costs-us-competitiveness/p13325

25 The Kaiser Family Foundation, "Health Care Costs: A Primer," August 2007. Available at www.kff.org.

26 US Department of Health and Human Services, "Effects of Health Care Spending on the U.S. Economy," February 2005, Available at: http://aspe.hhs.gov/health/costgrowth/#_edn33

27 Social Security Advisory Board, "The Unsustainable Cost of Health Care," September 2009, Available at: http://www.ssab.gov/Publication-ViewOptions.aspx?ssab_pub=42

28 http://money.cnn.com/2011/05/11/news/economy/health care_costs_family/index.htm

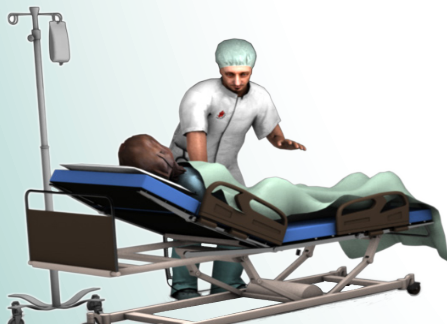
29 Social Security Advisory Board, "The Unsustainable Cost of Health Care,"

30 David Goldhill, "How American Health Care Killed My Father," *The Atlantic* September 2009. Accessed October 24, 2011.

31 Social Security Advisory Board, "The Unsustainable Cost of Health Care,"

BACKGROUND

- At least 31 states have put into place budget cuts that will restrict the eligibility for health insurance programs and/or access to care[32]
  - California has cut almost all funding for services supporting HIV/AIDS patients and completely eliminated funding for domestic violence shelter programs, maternal/child and adolescent health programs.[33]
  - As of July 10, 2012, governors from the states of Louisiana, Florida, South Carolina, Wisconsin, Mississippi, Nebraska, and Texas have declared that they will opt out of the Medicaid expansion outlined by the Affordable Care Act.[34]



Forces Driving Health Care Spending

(1) Medical technologies and prescription drugs

- Numerous studies have concluded that technological change is the most significant driver of health care costs and spending increases over time.[35] The Congressional Budget Office estimates that technology accounts for anywhere from 38-65% of health care cost growth.[36]
- Some technologies create new treatments, while others replace existing treatments with newer ones. Discerning whether a technology improves outcomes, or simply achieves similar outcomes at a greater expense is a difficult task.
- While new technologies do have the potential to lower medical spending—vaccines and other preventive measures, for example, result in overall savings—the general consensus seems to be that most new technologies increase spending. These new technologies and drugs add to health care spending not only because the development and maintenance of them is costly but also because they generate consumer demand, regardless of whether they are cost-effective.[37]
- Other industrialized countries keep drug costs low by negotiating prices on the world market. In the United States, only the VA system and Medicaid negotiate prices. Drug companies make a huge profit in the United States—often 3 times the Fortune 500 average.[38]

(2) Aging population

- As the baby boomer generation grows older, and as a greater proportion of the American population passes the age of 65, the demand for health care and medical services is expected to increase dramatically.[39] The CBO Long-Term Budget Outlook predicts that this demographic shift will account for 44% of growth in spending through 2035.[40]

(3) Longer, less healthy living

- Americans are living longer with a greater number of chronic conditions, which places greater strain on the health care system.[41] It is estimated that the cost of treatment for chronic diseases represents

---

32 Nicholas Johnson, Phil Oliff, and Erica Williams, "An Update on State Budget Cuts" Center on Budget and Policy Priorities, February 9 2011. Available at: http://www.cbpp.org/cms/?fa=view&id=1214.

33 Ibid.

34 Jennifer Lubell, "Tough Talk from Governors About Medicaid After Reform Law Ruling," *American Medical News*, July 16, 2012. Available at: http://www.ama-assn.org/amednews/2012/07/16/gvl10716.htm

35 Robert Wood Johnson Foundation, "High and rising health care costs: Demystifying U.S. health care spending," Research Synthesis Report No. 16, October 2008.

36 Social Security Advisory Board, "The Unsustainable Cost of Health Care."

37 http://www.kaiseredu.org/Issue-Modules/US-Health-Care-Costs/Background-Brief.aspx#footnote5

38 Ellen Shaffer, "US Health Care Myths and Facts," *Center for Policy Analysis,* July 14 2010. accessed October 31 2011. Available at: http://www.centerforpolicyanalysis.org/index.php/2010/07/us-health-care-myths-and-facts-equal/

39 Jules Delaune MD and Wendy Everett ScD, "Waste and Inefficiency in the U.S. Health Care System," *New England Health care Institute*, February 2008.

40 Social Security Advisory Board, "The Unsustainable Cost of Health Care."

41 Ibid.

over 75% of national health care expenditures.

- From 1987 to 2002 there was a 20% increase in the number of Medicare patients who received treatment for five or more conditions each year.
- The increase in obesity alone is estimated to account for 12% of the growth of health spending between 1987 and 2001[42]
- Among chronic conditions, obesity is of particular concern both because of the increasing rate of obesity among Americans and because of the increasing resources devoted to treating obesity and its associated effects. It is now estimated that nearly a third of Americans over the age of 20 are obese.[43]
- In 2001, medical spending for the obese was estimated to be 37% higher per capita than costs for people of normal weight.[44]

(4) The structure of our insurance system

Administrative costs

- Beginning in the late 1990s, spending for administration of health insurance has become a major contributor to overall spending. Spending on these services grew by 7% in the period from 1995 to 2005.[45] The McKinsey Global Institute has estimated that excess spending on health administration accounted for about 21% of total excess spending. The majority of this excess spending (85%)[46] is attributed to the private health insurance system, where companies are thought to spend 20% of every dollar on administrative costs or profit.[47]

The Fee-for-service payment model

- In our fee-for-service system, providers are paid based on the number of services/tests/screenings performed. This structure rewards physicians who do more, increases volume, and drives up health care costs.
- Lowering the price of services is not always effective, as physicians may respond to price reductions by increasing the number of tests, screenings, and services they prescribe to make up for the difference in payment.[48]

Insurance insulates patients from cost

- Our current 3rd party payer insurance system also insulates patients from the cost of care, making them more likely to seek more care.[49]
- The average insured American and the average uninsured American spend very similar amounts of their own money on health care each year--$654 and $583 but they spend vastly different amounts of other people's money--$3,809 and $1,103, respectively.[50]
- A RAND study showed that although cost-sharing did not result in significantly different care or health outcomes, it did result in very different use patterns on the part of patients. Participants in the study made one to two fewer physician visits annually and had 20 percent fewer hospitalizations than those with fully covered care.

42 Kenneth E. Thorpe, Curtis S. Florence, David H. Howard and Peter Joski, "The Impact of Obesity on Rising Medical Spending," *Health Affairs*, no (2004): available at: http://content.healthaffairs.org/content/early/2004/10/20/hlthaff.w4.480.citation

43 Ogden CL, Carroll MD, McDowell MA, Flegal KM. Obesity among adults in the United States—no change since 2003–2004. NCHS data brief no 1. Hyattsville, MD: National Center for Health Statistics; 2007. Available from: http://www.cdc.gov/nchs/data/databriefs/db01.pdf Adobe PDF file [PDF-366KB]

44 Kenneth E. Thorpe, Curtis S. Florence, David H. Howard and Peter Joski, "The Impact of Obesity on Rising Medical Spending."

45 The Congress of the United States, "Technological Change and the Growth of Health Care Spending," Congressional Budget Office. January 2008. Available at: www.cbo.gov/ftpdocs/89xx/doc8947/01-31-TechHealth.pdf

46 Uwe E. Reinhardt, "Why Does U.S. Health Care Cost So Much? (Part II: Indefensible Administrative Costs," *The New York Times*, November 21 2008. Available at: http://economix.blogs.nytimes.com/2008/11/21/why-does-us-health-care-cost-so-much-part-ii-indefensible-administrative-costs/

47 Ellen Shaffer, "US Health Care Myths and Facts," *Center for Policy Analysis*, July 14 2010. accessed October 31 2011. Available at: http://www.centerforpolicyanalysis.org/index.php/2010/07/us-health-care-myths-and-facts-equal/

48 The Congress of the United States, "Technological Change and the Growth of Health Care Spending," Congressional Budget Office. January 2008. Available at: www.cbo.gov/ftpdocs/89xx/doc8947/01-31-TechHealth.pdf

49 Social Security Advisory Board, "The Unsustainable Cost of Health Care."

50 David Goldhill, "How American Health Care Killed My Father," *The Atlantic*, September 2009. Availabe at: http://www.theatlantic.com/magazine/archive/2009/09/how-american-health-care-killed-my-father/7617/

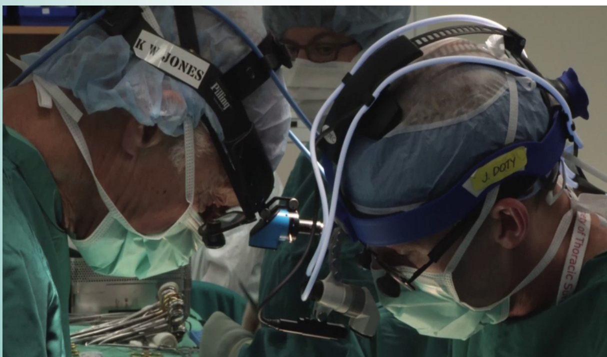
BACKGROUND

The Dangers of Excessive Medical Care

Adverse Events

1 in every 3 hospitalized patients in America experiences an adverse event as a result of medical care [51]

- Adverse medical events cause 187,000 deaths and 6.1 million injuries each year.[52]
- 1.5% of Medicare patients experience an adverse event from medical treatment that contributes to their death.[53]
- Adverse effects of medical treatment account for 3.5% of Medicare in-patient spending, amounting to $4.4 billion in additional costs.[54]



Institute of Medicine on Medication Errors, 2006

The Centers for Medicare and Medicaid sponsored a study conducted by the Institute of Medicine (IOM) with the aim of measuring and reducing medication errors. The study concluded that preventable medication errors injure 1.5 million people each year and create an additional $3.5 billion in additional hospital health care costs

- It is estimated that around 98,000 Americans die each year because of medical errors—this number is greater than the number that die from vehicle accidents, breast cancer or AIDS.[55]
- Two large studies—one in Utah/Colorado and one in New York—found that adverse events happened in 2.9 and 3.7 percent of hospitalizations.[56]
- The costs of preventable adverse events are estimated to be between $17 billion and $29 billion per year.[55]

Waste

The New England Health Institute identifies seven ways in which waste might be significantly reduced in the American health care system:[57]

(1) Reducing Emergency Department Overuse

- Each year, Americans make approximately 67 million emergency rooms visits that are potentially avoidable- 56% of all American emergency room visits.
- On average, the cost of a visit to an emergency room is $580 more than the cost of a comparable office visit, meaning that avoidable emergency room visits are costing Americans nearly $39 billion each year.

(2) Reducing Antibiotic Overuse

- The overuse of antibiotics contributes to the evolution of antibiotic-resistant bacteria and thus to the incidence of Antibiotic-Resistant Infections (ARIs)
- The treatment of ARIs costs Americans roughly $20 billion each year.

(3) Improving Patient Medication Adherence

- Roughly 187 million Americans take at least one prescription medication. Of those, as many as

---

50 Global Trigger Tool Shows That Adverse Events in Hospitals may be Ten Times Greater than Previously Measured. David Classen, Roger Resar, et al. Health Affairs, 2011. http://content.healthaffairs.org/content/30/4/581.abstract

52 The $17.1 Billion Problem: The Annual Cost of Measurable Medical Errors. Jill Van Den Bos, Karan Rustagi et al. Health Affairs, 2011. http://content.healthaffairs.org/content/30/4/596

53 The Social Cost of Adverse Medical Events, And What We Can Do About It. John Goodman, Pamela Villarreal, et al. Health Affairs, 2011.

54 Adverse Events in Hospitals: National Incidence among Medicare Beneficiaries. Office of Inspector General. Nov 2010. OEI-06-09-00090. www.oig.hhs.gov/oei/reports/oei-06-09-00090.pdf

55 Meena Seshamani, MD, PhD and Report Production by the HHS Web Communications and New Media Division, "The Cost of Inaction," U.S. Department of Health and Human Services, Available at: http://www.healthreform.gov/reports/inaction/

56 Institute of Medicine, To Err is Human: Building a Safer Health Care System (Washington, DC: 31. National Academies Press, 2000).

57 The New England Health Institute, "Bend the Curve: A Health Care Leader's Guide to High Value Health Care" December 16, 2011. Available at: http://www.nehi.net/publications/57/health_care_leaders_guide_to_high_value_health_care

50% do not take their medications as prescribed.
- Not taking medications as prescribed costs Americans over $100 billion each year in easily preventable hospitalizations.

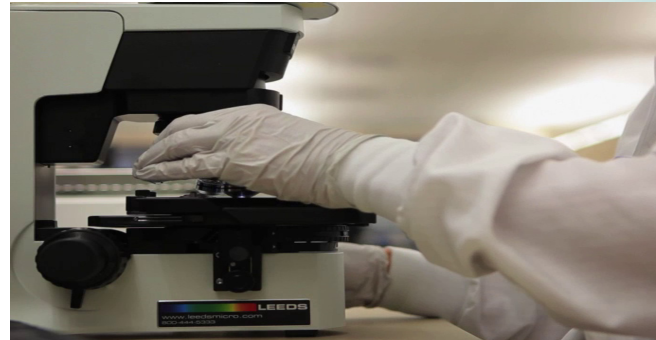
(4) Reducing Vaccine Underuse
- 20% of American children have not completed their recommended schedule of vaccinations.
- Each year, Americans spend $10 billion dollars in health care costs directly attributable to vaccine underuse.
- Each year, 36,000 elderly Americans die of influenza or its complications, which could be prevented by more widespread flu vaccination.

(5) Preventing Hospital Readmissions
- Nearly 20% of Medicare patients who are discharged from a hospital are readmitted within 30 days.
- Every year, there are more than 7 million 30-day hospital readmissions. Of these, 12% are preventable.
- Preventing 12% of 30-day hospital readmissions would save Americans $25 billion each year.

(6) Decreasing Hospital Admissions for Ambulatory Care-Sensitive Conditions
- Ambulatory Care Sensitive Conditions (ACSCs) are those conditions "for which good outpatient care can potentially prevent the need for hospitalizations, or for which each intervention can prevent complications or more severe disease." These include hypertension, diabetes, chronic obstructive pulmonary disease, bacterial pneumonia, and urinary tract infections.
- In 2006, preventable hospitalizations for ACSCs and their complications cost Americans $30.8 billion.

(7) Preventing Medication Errors
- The consequences of medication errors can include harmful drug interactions, allergic reactions, or simply inappropriate dosages.
- Every year, serious preventable medication errors occur in 3.8 million inpatient admissions and 3.3 million outpatient visits.
- Inpatient preventable medication errors cost Americans roughly $16.4 billion per year.
- Outpatient preventable medication errors cost Americans roughly $4.2 billion per year.

Overtreatment



A survey of U.S. primary care physicians revealed that 42% of them believe that patients in their own practices are receiving too much care, while only 6% reported believing patients receive too little.[58] The survey identified four principal motivating factors behind this tendency to overtreat:

(1) Malpractice concerns
- The fear of lawsuits may be a significant influence on a physician's decision to recommend procedures and tests.
- There is a significant body of evidence suggesting that physicians' fear of lawsuits (and the commonly held belief that some sort of nationwide tort reform is necessary in order to bring down health care costs) is overstated. Only 2% of adverse events due to negligent practice result in malpractice lawsuits, and only 22% of such lawsuits result in jury-awarded damages to the plaintiff.[59]
- Nevertheless, 76% of physicians surveyed cited malpractice concerns as the most important factor leading them to order potentially unnecessary tests and procedures.

---

58 Brenda E. Sirovich, Steven Woloshin, Lisa M. Schwartz, "Too Little? Too Much? Primary Care Physicians' Views on US Health Care," *Archives of Internal Medicine*, 2011; 171(17):1582-1585. Abstract available at: http://archinte.ama-assn.org/cgi/content/abstract/171/17/1582

59 Naomi Freundlich, "In Survey, Doctors Report Providing 'Too Much Care,'" The Century Foundation, 2011. Available at: http://botc.tcf.org/2011/09/in-survey-doctors-report-providing-too-much-care.html

(2) Financial incentives of fee-for-service

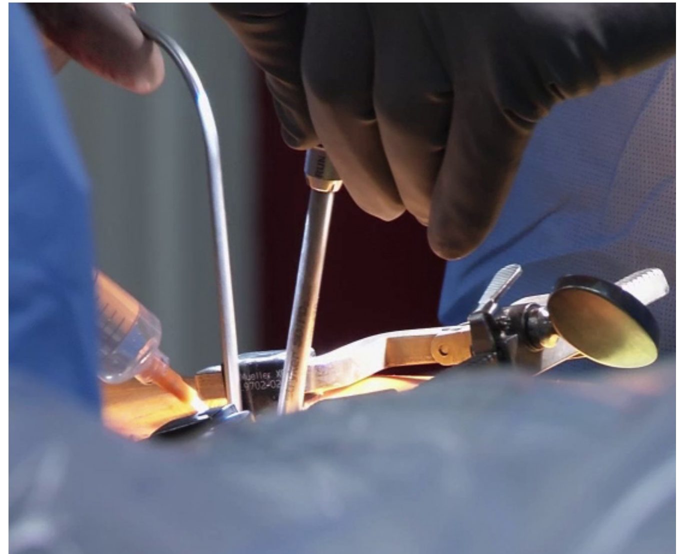
- Physicians are compensated for each procedure they perform regardless of whether the procedure is necessary or beneficial.
- 62% of physicians surveyed said that fewer diagnostic tests would be performed if not for the influence of financial incentives.

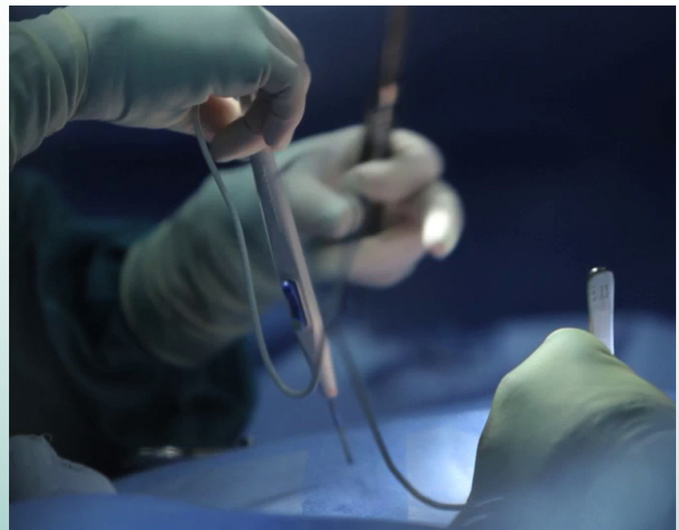
(3) Clinical performance measures

- In 1995, in an attempt to establish and enforce standards of care, the Department of Veterans Affairs began establishing official protocols for how various common conditions should be treated. In 2005, the Centers for Medicare and Medicaid Services began establishing similar protocols, against which a doctor's performance can be measured.
- Although there is solid evidence that establishing such protocols can significantly improve care, many physicians are wary. They feel that the protocols do not place sufficient emphasis on the procedures and treatments that are likely to have the greatest benefit for patients, and that the protocols do not take into account the limited amount of time that physicians are able to spend with patients, and that the protocols are inflexible and do not allow physicians to respond to the specific individual needs and concerns of individual patients.[60]

(4) Inadequate time spent with patients

- Whereas an extended conversation with a patient might be sufficient for an experienced physician to make an accurate diagnosis, given heightened time constraints, it may be far more convenient for a doctor to simply write an order for a battery of expensive diagnostic tests and procedures.
- 40% of physicians surveyed cited inadequate time to spend with patients as the most important factor leading them to practice more aggressively.





60 Rachel M. Werner and David A. Asch, "Clinical Concerns About Clinical Performance Measurement," Annals of Family Medicine, 2007. Available at: http://www.annfammed.org/content/5/2/159.full#ref-4

BACKGROUND

Technology Creep

A specific form of overly aggressive medicine involving the overuse of advanced technology is often called "technology creep."[61] Technology creep refers to the process by which the use of a newly developed machine, drug, or procedure is extended to treat a set of conditions for which it was not originally intended and for which the added benefits, if they exist at all, are very slight. For examples:

- The Implantable Cardioverter-Defibrilator (ICD), a battery-powered device that is surgically implanted in the chest, was first given to patients who had survived cardiac arrest. Now the devices are frequently given to patients who merely have some risk of experiencing cardiac arrest in the future as an extremely expensive and invasive form of primary prevention.
- Proton-beam therapy, an extremely expensive form of radiation therapy originally developed to treat certain very rare pediatric cancers, is now more commonly used to treat prostate cancer. The benefits of proton-beam therapy over more conventional radiation therapy for prostate cancer have not been proven.

The two principal forces driving technology creep are:

(1) Competition between hospitals

- Because they compete with each other to attract doctors and patients, hospitals in the U.S. find it very important to invest in and develop a reputation for having the most advanced technology, even if there is little local demand for the services these technologies were originally developed to provide.

(2) Financial incentives of fee-for-service

- Once hospitals have acquired new technologies, doctors are rewarded every time they make use of them, whether or not such use has distinct advantages.

61 Katherine Hobson, "Cost of Medicine: Are High-Tech Medical Devices and Treatments Always Worth It?" U.S. News and World Report, July 10, 2009. Available at: http://health.usnews.com/health-news/best-hospitals/articles/2009/07/10/cost-of-medicine-are-high-tech-medical-devices-and-treatments-always-worth-it

Geographic Variation

Waste and inefficiency are not always so easy to detect. One of the best indicators of waste and inefficiency is geographic variation. If, in order to treat the same medical conditions, much more money is spent per capita in one part of the country than in another with no evidence to connect greater spending with improved outcomes, then it is likely that these conditions could be treated less expensively. The data surrounding geographic variation in health care spending is most thoroughly documented in the Dartmouth Atlas of Health Care.

The Dartmouth Atlas of Health Care

The Dartmouth Atlas Project has been measuring geographic variation in health care resources and utilization since 1993. In 2006, the Dartmouth Atlas showed that Medicare spending varied threefold across the country. More than any other factor, this variation in spending seems to be best explained by how physicians respond to the availability of technology, capital, and other resources in the context of a fee-for-service payment system.[62] As both doctors and patients generally assume that "more is better," in the absence of clear evidence-based guidelines, hospitals with more resources tend to deliver a greater number of services.[63] This phenomenon is what researchers at Dartmouth call supply-sensitive care.

"Supply-sensitive Care"[64]

Services characterized as "supply-sensitive" include physician visits, diagnostic tests, hospitalizations, and ICU admissions. The delivery of supply-sensitive care differs widely across the country, depending on the resources available in a given region. Especially in caring for patients in the last few mouths of life, the Dartmouth researchers found more beds meant more hospitalizations, and more physicians meant more visits. Such a strong correlation suggests that supply or capacity is critical in determining the wide variation in the use of resources.

62 Elliott S. Fisher, M.D., M.P.H., Julie P. Bynum, M.D., M.P.H., and Jonathan S. Skinner, Ph.D., "Slowing the Growth of Health Care Costs—Lessons from Regional Variation" *The New England Journal of Medicine* 2009; 360: 849-852. Available at; http://www.nejm.org/doi/full/10.1056/NEJMp0809794

63 The Robert Wood Johnson Foundation, "The Dartmouth Atlas of Health Care," June 4 2008. Available at: http://www.rwjf.org/qualityequality/product.jsp?id=28772

64 The Dartmouth Atlas Project Topic Brief, "Supply-Sensitive Care."

"Preference-sensitive Care"[65]
According to Dartmouth's Atlas Project, preference-sensitive care includes elective treatments for which there are significant tradeoffs among the possible outcomes of each treatment. These tradeoffs can involve quality or length of life, so preference-sensitive care decisions should reflect a patient's personal values, and should be made only after the patient is given the appropriate information. Variations in rates of preference-sensitive care can be attributed to both the state of clinical science and the way medical decisions are made. For example, in certain situations, alternative treatments are not thoroughly examined, leading surgeons to recommend surgery. Additionally, rates of surgery for the same medical condition vary drastically from place to place, as much as 20-fold, and are often lower in areas where informed patients make their own informed medical decisions.

"Effective Care"[66]
The Dartmouth Atlas Project defines effective care as treatments and services with proven value and no significant tradeoffs. For example, when a patient breaks a hip, there is consensus in the medical community that the patient needs a hip replacement. Although widely proven to be successful, certain effective care treatments are underutilized, leading to dire consequences for patients. The Atlas Project found that there is no correlation between higher health care spending and more widespread use of effective care treatments. Rather, the underutilization of effective care is due to fragmented physician care and the lack of comprehensive systems to ensure the implementation of effective care for eligible patients. The Dartmouth Atlas Project suggests developing organized and integrated physician practices to ensure more widespread use of effective care.

Evidence-Based Medicine

What is "evidence-based medicine"?
Health care reformers often advocate a shift towards "evidence-based medicine" (EBM) with the goal of reducing geographic variation and mitigating the phenomena associated with "supply-sensitive care" and "technology creep." Essentially, the advocates of EBM hope to change the practice of medicine so that physicians make decisions and recommend treatments to patients based not on the scope of resources and technologies available to them, nor on their intuition or what they perceive to be customary practice in their local professional communities, but rather based on what broad-based clinical studies indicate are the most effective and beneficial treatments for a particular medical condition. Although medicine has always been "evidence-based" to some extent, the proponents of EBM hope to expand and improve the quality and accessibility of the evidence that medical practitioners have at their disposal.

The apprenticeship model
Traditionally, doctors have been educated in large part according to an "apprenticeship model,"[67] whereby resident physicians ask questions and learn from more experienced attending physicians within their own hospitals. They also attend lectures by experts who offer personal opinions and anecdotes suggesting what treatments ought to be provided in various circumstances. This reverence for and transmission of professional expertise over generations has the effect of generating and reinforcing significant variation in how medicine is practiced around the country. It also has the effect of reinforcing "medical myths" – precepts that are rigorously adhered to in a medical community in spite of having no solid evidentiary basis. For example, for many years it was the conventional wisdom among many doctors that patients with congestive heart failure must never be prescribed beta blockers. Today, thanks to the wider dissemination of clinical research, it is standard practice to prescribe beta blockers to all patients suffering from congestive heart failure.[68]

65 The Dartmouth Atlas Project Topic Brief, "Preference-Sensitive Care."

66 The Dartmouth Atlas Project Topic Brief, "Effective Care."

67 The Politics of Evidence-Based Medicine. Journal of Health Politics, Policy and Law, 26:2, April 2001. Copyright 2001, Duke University Press. All rights reserved; posted with permission. For information on the journal or to order a hard copy, go to http://www.dukeupress.edu/jhppl/

68 Brandi White, "Making Evidence-Based Medicine Doable in Everyday Practice," Family Practice Managements. 2004 Feb; 11(2):51-58. Available at: http://www.aafp.org/fpm/2004/0200/p51.html

Barriers to evidence-based medicine

Some physicians are wary of EBM, referring to it as "cookbook medicine," and condemning it as a top-down approach wherein researchers in ivory towers dictate practice to physicians on the front lines of care delivery.[69] Such physicians feel that they are being asked to disregard their own professional judgment and experience, which will be to the great detriment of patients. The proponents of EBM respond to such reservations by insisting that evidence-based medicine does not disregard the judgment and experience of professionals, but merely integrates this judgment and experience with consideration of the best clinical and scientific research.

The most significant barrier to the implementation of EBM, however, has always been that physicians lack the time to survey all the relevant research every time they have to recommend treatment to a patient. With modern information technology, and the development of vast online medical databases, evidence-based medicine has become far more practical in recent years. However, there is still a notable lack of evidence-based research with respect to many common medical treatments and practices,[70] and much work still needs to be done in order to synthesize the research that is available and make it more accessible to physicians. There are several major organizations dedicated to doing this work.

EBM related websites:

The Agency for Health care Research and Quality: http://www.ahrq.gov/clinic/

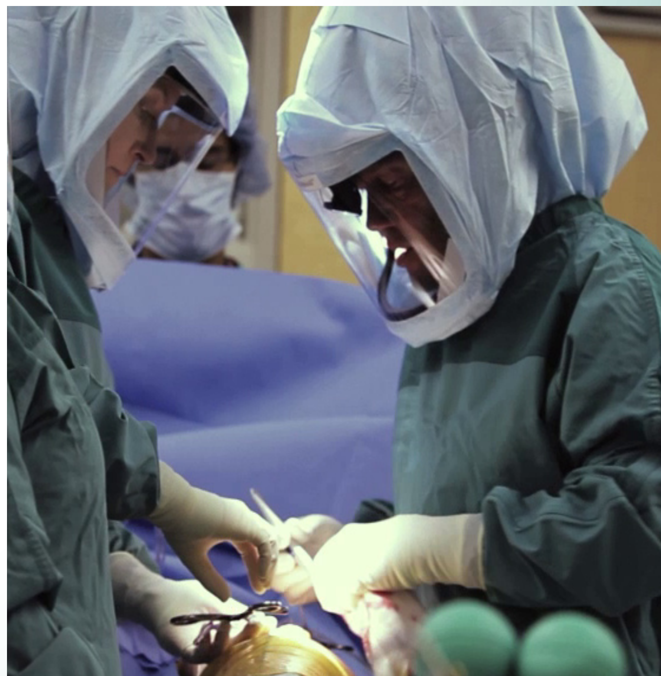
The Centre for Evidence Based Medicine: http://www.cebm.net/

Evidence Based Medicine Tool Kit: http://www.ebm.med.ualberta.ca/

Shared Medical Decision-Making

What is shared decision-making?

Closely related and largely dependent upon evidence-based medicine is Shared Decision-Making (SDM). Reformers hoping to reduce the waste and cost of overly aggressive medicine in the United States have taken a great interest in this concept based on the assumption that any care or treatment that an informed patient would prefer not to receive is by definition wasteful. Such reformers are attempting to carve out a greater role for patients in medical decision-making both out of a belief in a patient's right to be involved in such decisions, and in the expectation (supported by significant evidence) that well-informed patients often choose less aggressive and less expensive treatments if given the opportunity. It is important to note that patient autonomy, not cost-saving, is the goal of shared decision-making.



Preference-sensitive conditions

The adoption of shared decision-making is most important with respect to the treatment of so-called "Preference-Sensitive Conditions," defined as those "health problems for which scientific evidence demonstrates more than one medically acceptable treatment option."[71] These include lower back pain, osteoarthritis, uterine fibroids, breast cancer, prostate cancer, and coronary artery disease. In choosing to pursue a course of treatment for such a condition, the potential benefits of each treatment option

69 David L Sackett, William M. C. Rosenberg, J A Muir Gray, R Brian Haynes, W Scott Richardson, "Evidence based medicine: what it is and what it isn't," *BMJ* 312:71 (Published 13 January 1996) Available at: http://www.bmj.com/content/312/7023/71.full

70 Dan Mendelson and Tanisha V. Varino, "Evidence-Based Medicine in the United States—De Riguer or Dream Deferred?" *Health Affairs*, 24 no 1 (2005): 133-136. Available at: http://content.healthaffairs.org/content/24/1/133.full

71 Ann S. O'Malley et al., "Policy Options to Encourage Patient-Physician Shared Decision-Making ," *NIHCR Policy Analysis*, No. 5, September 2011

must be weighed against its potential risks and side-effects. An informed patient's involvement in this choice of treatment can be extremely valuable.

End-of-life care

Shared medical decision-making is particularly important for end-of-life care. In communities where patients have been encouraged by their physicians to formulate "advance care plans" specifying which forms of care, under which circumstances, they wish to receive in order to prolong their lives, the average costs of health care for patients in their last two years of life have fallen well below the national average.

Advance Directives

An advance directive is a legally binding document that outlines a patient's health care wishes, focusing on the degree of care that should be given at the end of life. The document—comprised of a living will and the selection of a durable power of attorney for health care—ensures that an individual is given the opportunity to express his or her medical care wishes in the event of incapacitation. While every adult is encouraged to make an advance directive, the document is especially important for those with terminal diseases and for those nearing the end of life.

Living Will

A living will outlines a patient's health care wishes and preferences so that they are clearly expressed even if the patient is incapacitated. The document can address the issues of organ donation, pain medication, artificial respiration, and CPR, among others. In a living will, a patient can decline life-prolonging measures under specific circumstances, although palliative care and pain medication will still be administered to ensure a patient's comfort.

Durable Power of Attorney for Health Care (Health Proxy)

The second part of an advance directive allows an individual to select one durable power of attorney for health care, or health proxy, to make medical decisions on his or her behalf in the event of incapacitation. The proxy, often a family member or close friend, should be trustworthy and familiar with the patient's values and medical wishes. Health proxies can only make medical decisions for those who are terminally ill and incapacitated, and restrictions on the power of health proxies to make certain medical decisions (for example, those regarding experimental treatment or mental health services) vary from state-to-state.

Those without advance directives often receive aggressive medical treatment, including potentially invasive or unwanted procedures. In the event that a patient is incapacitated and without an advance directive, the following people, in order, are authorized to make health care decisions for that patient: guardian, spouse, adult child, parents, adult sibling, adult relatives, close friend.

Making an advance directive is simple and can be done without the help of a lawyer or medical professional, although employing a professional's help can be beneficial. Simply fill out the advance directive forms for the state in which you are treated and follow the state-specific guidelines to make your document legally binding. Once completed, make multiple copies of the document and give them to family, friends, and your health care provider, and make sure at least one copy is easily accessible in case of emergency.

Physician Order for Life Sustaining Treatment

A Physician Order for Life Sustaining Treatment (POLST) often complements advance directives and allows patients to better communicate their end-of-life medical wishes with health care professionals. These forms simplify advance directive instructions into clear medical orders that can be understood across a broad range of medical fields.

DNR (Do-Not-Resuscitate) Order

A Do-Not-Resuscitate order instructs doctors to forgo CPR when treating patients at the end of their lives. There are different types of DNR orders, and DNR policies tend to vary from hospital to hospital. Generally, a DNR order is a verbal or written request made by a patient, and recorded and carried out by a health care professional. However, after judging a patient's state of health, a physician can independently issue a DNR order if he or she determines that it is inappropriate to perform CPR on a dying patient.

Barriers to Shared Decision-Making

- One of the more significant barriers to adopting Shared Decision-Making more broadly is that discussing all available treatment options with

patients can take a great deal of time. Under the typical fee-for-service payment model, doctors tend not to be remunerated for taking this time, making it a significant inconvenience. The 2010 Affordable Care Act originally contained a provision that would compensate physicians for sitting down with Medicare patients and discussing the goals of care and end-of-life medical decisions. The bill's opponents seized upon this provision, insisting that it would lead to the emergence of so-called "death panels," an allegation that generated a firestorm of public controversy. Rather than defend the provision, the bill's proponents simply removed it.

- Another reason why some physicians are wary of Shared Decsion-Making has to do with malpractice liability concerns. Currently, the scope of a physician's legal liability under a medical system involving Shared Decision-Making is not entirely clear. A patient might insist upon a course of treatment likely to result in significant adverse side-effects. When such side-effects occur, the patient might feel that his or her physician did not adequately impress upon him or her the risks associated with the course of treatment he or she chose, and decide to sue.
- Physicians' worries concerning their malpractice liability under Shared Decision-Making are related to the more fundamental problem of widespread medical illiteracy within the general population. Patients may be bewildered by the information put before them, or simply prefer to defer responsibility for making difficult choices to their doctors. Conversely, other patients may have a deep distrust of the health care system, be skeptical of evidence-based medicine, and adhere strongly to the belief that more expensive care must be better care.

Patient-decision aids

Patient-decision aids (PDAs) are print, audiovisual and computer-based tools that help convey to patients the relevant information concerning preference-sensitive conditions or elective procedures. Improving the quality and availability of PDAs is essential to promoting medical literacy among patients and making effective shared Decision-Making a reality. Numerous organizations are currently working to develop and distribute PDAs to health care providers. The International Patient Decision Aid Standards Collaboration (IPDAS) is an association of researchers and practitioners from 14 countries working to establish international standards for PDAs. The organization's website is accessible at: http://ipdas.ohri.ca/

Recommended Resources

- Caring Connections is a program of the National Hospice and Palliative Care Organization (NHPCO) that aims to improve care at the end of life. State-specific advance directives and guidelines can be downloaded through the Caring Connections website at: http://www.caringinfo.org/i4a/pages/index.cfm?pageid=3289
- National Health Care Decisions Day is a program designed to educate the public about the importance of advance care planning, and to encourage health care providers to respect patients' end-of-life-wishes. The website contains information and resources about advance directives: www.nhdd.org
- Oregon Health and Science University created the National POLST Paradigm Task Force, which aims to facilitate POLST programs in every state. For more information about POLSTs and to see if your state has a program, visit their website at: http://www.ohsu.edu/polst/index.htm
- Respecting Choices is a program created by the Gundersen Lutheran Medical Foundation, Inc., that focuses on the process of advance care planning. The program's goal is to help individuals and communities make informed decisions regarding end-of-life health care: www.respectingchoices.org
- The Informed Medical Decisions Foundation is a Boston-based organization that aims to promote evidence-based shared Decision-Making through the development of decision aids, outreach, and advocacy: www.informedmedicaldecisions.org

Comparing UCLA Medical Center and Intermountain Medical Center

UCLA Medical Center

UCLA Health System is comprised of four hospitals and over 80 primary care offices in the Los Angeles area. UCLA's Ronald Reagan Medical Center, located in Los Angeles, is a highly renowned hospital, ranked "Best in the West" for 22 years straight and number 5 in the nation by the annual U.S. News & World Report Survey. UCLA scores high in terms of patient satisfaction, and UCLA's physicians are some of the most skilled in the world, with over 200 named to a list of the "Best Doctors in America." Moreover, as an academic medical center, UCLA is the site of significant medical research and cutting edge clinical trials, and has been home to countless medical breakthroughs over the past 50 years. Some examples are[72]:

- UCLA physicians are leaders in minimally invasive and robotic procedures, ranging from joint replacement to cancer treatment.
- UCLA was the first hospital system on the West Coast to install dual-source computed tomography scanners, which are the fastest CT scanners for cardiovascular imaging.
- Positron Emission Tomography, a valuable imaging technique that, when paired with a CT scan, produces simultaneous recording of molecular and anatomical information, was invented in 1970 by Michael Phelps, M.D., chair of the UCLA Department of Molecular and Medical Pharmacology.
- UCLA's heart transplant program became the second in the world to reach 2,000 procedures. The Health Resources and Services Administration recently recognized the program as the nation's best. Similarly, the system's Face Transplant Program is the first of its kind in the western United States.
- UCLA surgeons recently performed the first hand transplant in the western United States as part of their experimental program. Only 40 such procedures have been performed worldwide.
- In 1981, UCLA physicians reported and diagnosed the world's first case of AIDS.

72 "Medical Breakthroughs," UCLA Health System. http://www.uclahealth.org/body.cfm?id=26.

Intermountain Medical Center

Intermountain Medical Center is located in Murray, Utah, near Salt Lake City, and is the flagship institution of Intermountain Health care's system of 22 hospitals and over 185 clinics in Utah and Idaho. Intermountain's approach emphasizes coordinated "evidence-based" care, and the practices at these hospitals have achieved international attention. President Obama himself has cited Intermountain as a model for national health care reform.

- According to a 2006 study performed by the Kaiser Family Foundation, Utah (in which Intermountain Health care provides about half of all inpatient care) has the lowest total health cost per capita at just over $4000.
- A 2008 study performed by Time Magazine found that if Utah were a nation, the total annual health care spending per capita would be $3,972. The US has the highest per capita spending in the world at $7,026.
- In order to address the rising costs of health care, Intermountain is dedicated to teaching and applying "continuous quality improvement" (CQI) techniques. The Intermountain Institute for Health care Delivery Research has held training courses in the techniques for over a decade. [73]
- Intermountain partnered with General Electric to build the innovative Qualibria, a computerized system that provides doctors with fast access to research and real-time clinical data. The goal of the technology is to improve health care quality while reducing costs.[74]

73 "Institute for Health Care Delivery and Research: Course Offerings," Intermountain Health care. http://intermountainhealth care.org/qualityandresearch/institute/courses/Pages/home.aspx

74 "Intermountain, Mayo & GE Unveil Clinical Data System," GE Reports.

Alternative Health Care Financing Proposals

Information about alternative health care financing proposals is derived from the following sources:

Ewe Reinhardt, "The Options for Payment Reform in U.S. Health Care," The New York Times, February 17, 2012. Available at: http://economix.blogs.nytimes.com/2012/02/17/the-options-for-payment-reform-in-u-s-health-care/

Janet Silversmith, "Five Payment Models: the Pros, the Cons, the Potential," Minnesota Medicine, February 2011. Available at: http://www.minnesotamedicine.com/PastIssues/February2011/FivePaymentModelsTheProstheCons.aspx

There are three fundamental questions that determine how health care is financed and delivered. First, "How do patients pay for the health care they receive?" Second, "How are physicians paid for the health care they provide?" And Third, "What organizations and institutions intermediate in the exchange between patients and physicians?" Many of the reforms proposed by those hoping to make health care more efficient and affordable design alternative ways that these three questions can be answered.

Alternative Forms of Patient Contritbution:

Forms of patient contribution can be categorized as either direct contributions or indirect contributions. A patient makes a direct contribution to the cost of his or her health care by making a payment directly to a physician, pharmacist, or medical practice ("out-of-pocket"). A patient makes an indirect contribution to the cost of his or her health care by making a payment to an intermediary organization, for example, by paying premiums to a health insurance company or by paying taxes to the government. The more the cost of health care is paid for through indirect contributions, the less the individual patient is affected by the cost of the health care he or she personally receives. To encourage patients to be conscientious in their consumption of services, intermediary organizations usually insist that patients, in addition to their indirect contributions, also make some direct contribution, usually in the form of deductibles and co-pays.

March 1, 2010. http://www.gereports.com/intermountain-mayo-ge-unveil-clinical-data-system/.

Fee-for-service:

The fee-for-service model, widely used across the U.S. is a form of payment wherein each specific test, procedure, and service is billed separately. From the patient's perspective, the advantage of fee-for-service is that the patient only pays for the specific services he or she consumes. Under the fee-for-service system, health care providers have an incentive to maximize the number of procedures they perform, which patients may also feel is an advantage, particularly if they are of the mindset that more treatment means better treatment. The disadvantage of fee-for-service is that patients or third party payers often end up paying for many tests and procedures that are unnecessary and may actually do patients more harm than benefit. Furthermore, because fee-for-service rewards providers for the number of procedures they perform, patients may find that their doctors have less time to meet and speak with them before rushing off to perform more treatments on other patients. The focus on the quantity instead of the quality of medical services is exacerbated by the fragmentation among providers usually associated with fee-for-service medicine, which leads to poor coordination of care and duplication of effort.

Bundled payment:

Many reformers are in favor of making use of evidence-based medicine to combine the services and procedures required to treat various common conditions into standardized packages or "bundles." The patient or third party payer would then be required to pay for the bundle, rather than each individual service. Proponents of bundled payments argue that they would encourage coordination among providers, greatly reduce the incidence of both overtreatment and undertreatment, and thus improve care while controlling costs. The potential drawbacks of bundled payments are similar to the criticisms made of evidence-based medicine more generally—that they would lead to a "cookbook medicine," that they do not take into account the particular needs of each unique patient and that they would discourage a practitioner from exercising his or her own professional judgment.

Alternative Forms of Intermediary Organization:

Health Maintenance Organization:

A Health Maintenance Organization (HMO) is a health insurance company that seeks to control costs by managing care. There are many different kinds of HMOs that manage care in many different ways. For the most part, however, "managed care" means that policy holders can only be reimbursed for services provided by a network of doctors who have agreed to abide by the HMO's

BACKGROUND

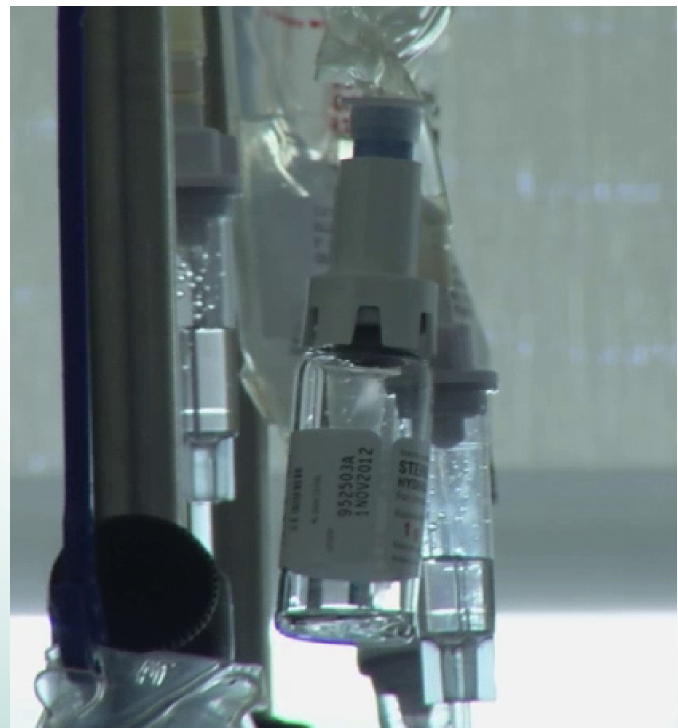
guidelines and directives. Some HMOs build a network out of a wide variety of hospitals, physician groups and independent practitioners (the “network model”). Other HMOs own and maintain their own medical facilities and directly employ a staff of salaried physicians (the “staff model”). Still other HMOs contract with groups of physicians who then agree to treat that HMO’s members exclusively (the “captive group model”).

Accountable Care Organization:
The concept of the Accountable Care Organization (ACO) has generated a great deal of discussion and excitement among health care reformers since it was first proposed by Dr. Elliot Fischer and his colleagues in 2007.[75] An ACO has been very loosely defined as “An organization of health care providers that agrees to be jointly accountable for the quality, cost and overall care of a population of patients.”[76] The point of an ACO is to increase coordination and create appropriate incentives among providers in order to increase the quality and decrease the cost of health care. Kelly Devers and Robert Berenson enumerate three essential characteristics of an ACO[77]:

- The ability to provide, and manage with patients, the continuum of care across different institutional settings, including at least ambulatory and inpatient hospital care and possibly post acute care
- The capability of prospectively planning budgets and resource needs
- Sufficient size to support comprehensive, valid, and reliable performance measurement

The 2010 Affordable Care Act provides financial incentives for health care providers to form ACOs. A noted and thus-far successful example of an ACO is Advocate Health Care, based in Chicago, Illinois.[78] Proponents expect various pre-existing organizations, including some HMOs to serve as ACOs. In response to critics who suggest that ACOs do not differ from such HMOs in any meaningful way, proponents like Ezekiel J. Emanuel and Jeffrey B. Liebman, health policy advisors to President Obama, point to subtle but significant distinctions. In contrast to HMOs, they claim, which are “often large national corporations far removed from their members... ACOs will consist of local health care providers working as a team to take care of patients who are likely to be members for years at a time.”[79]

Patient-Centered Medical Home
The term, “Patient-Centered Medical Home” (PCMH) refers to an innovative model of care delivery that would greatly expand the role played by primary care physicians. Under a PCMH, primary care physicians would be empowered to act as patient advocates and be responsible for coordinating their patients’ care. In return for taking on these added responsibilities, it is assumed that primary care physicians would receive greater monetary compensation, although how this arrangement would be implemented is not entirely clear, and may vary according to the broader institutional setting of the PCMH. Establishing a PCMH depends on there being some sort of organization or network of physicians already in place. This organization could just as easily be an HMO or an ACO, as there is no fundamental contradiction between a PCMH and either framework. Some proponents of PCMHs and some proponents of ACOs feel that the two concepts are inherently complementary.



75 Elliot Fischer et al., “Creating Accountable Care Organizations: The Extended Hospital Medical Staff,” *Health Affairs*. 2007; 26(1): w44-57

76 Ann S. O’Malley et al., “Policy Options to Encourage Patient-Physician Shared Decision-Making ,” *NIHCR Policy Analysis* No. 5 September 2011

77 Kelly Devers and Robert Berenson, “Can Accountable Care Organizations Improve the Value of Health Care by Solving the Cost and Quality Quandaries?” The Urban Institute Research of Record, October 2009.

78 Bruce Japsen, “Small-Picture Approach Flips Medical Economics,” *The New York Times*, March 12, 2012.

79 Ezekiel J. Emanuel and Jeffrey B. Liebman, “The End of Health Insurance Companies,” *The New York Times*, January 30, 2012

Alternative Models of Physician Reimbursement:

Fee-for-service:
From the perspective of physicians, fee-for-service has a certain intuitive appeal in that it rewards hard work and productivity. The danger is that fee-for-service reimbursement also rewards overutilization of medical services. Fee-for-service above all benefits those physicians (such as cardiologists and neurosurgeons) who perform the most elaborate and expensive procedures. By comparison, primary care physicians who spend more time with their patients find themselves at a disadvantage. Despite a looming shortage of primary care physicians in America,many talented medical students feel the financial pressure to pursue one of the higher paid specializations.

Salaried doctors:
Most often seen in highly structured environments, like large-staff HMOs, corporate or large physician-owned practices, or in academic medical centers, the salaried model reduces incentivizes to maximize the volume of medical procedures and encourages a reliance on protocols and guidelines. Moreover, the model offers greater simplicity in billing and payments. The primary criticism of this model, however, is that it does not reward exceptional effort, productivity, or innovation. The salaried model may work best when combined with bonuses or deferred compensations, added at the end of the year based on productivity or performance measures.

Capitation:
First implemented extensively by HMOs in the late 1980s and early 1990s, the intent of capitation is to reward physicians for providing quality care to as many patients as possible while also tightly controlling costs. An insurance company pays a physician or group of physicians a fixed recurring fee for each of its policy-holders who choose them as their health care provider. In exchange, the provider owes those patients any of an established list of services should they need them. Ostensibly, a physician's incentive under a capitation system is to avoid performing unnecessary services and procedures while at the same time maintaining the highest-possible quality of care (in order to maximize the number of patients who decide to choose him or her as their health care provider). Critics argue that in practice, however, capitation has sometimes been associated with doctors cutting corners, underutilizing services, limiting access to specialists, and refusing to accept high-risk patients.

Pay-for-performance:
In the pay-for-performance model, physicians are rewarded for meeting certain pre-determined measures of quality and efficiency. Quality is often measured in terms of patient outcomes, while efficiency is measured in terms of utilization of particular services—radiology, diagnostic testing, emergency department, etc.

Shared savings:
Under this model, physicians belonging to a medical practice or network share both the revenues and costs that come with providing care to a large population of patients. Each of the physicians thus has a vested interest in both the reputation and the financial well-being of their institution, and thus an incentive to control costs while maintaining quality of care. As part of its provisions to encourage the formation of ACOs, the 2010 Affordable Care Act establishes the Medicare Shared Savings Program. The program stipulates that if a group of providers organize an ACO, implement a shared savings payment model, and include a sufficient number of primary care physicians, the Center for Medicare Services (CMS) will entrust the ACO with the care of at least 5000 Medicare recipients for a period of 3 years (the ACO must be willing and able to commit to these terms). The CMS will pay the ACO a fixed sum for each of the Medicare patients the organization accepts. If the ACO meets specified quality targets, these sums may be increased. If these targets are not met, the sums will be reduced. Critics fear that this payment structure will lead to some of the negative consequences previously associated with capitation. Proponents argue that this problem will not materialize since the payments, although in fact a form of capitation, will be paid to a large organization rather than an individual provider, and because the payments will be tied to measures of population health.

Background on Medical Treatments Featured in Money and Medicine

Breast Cancer Screening and Treatment

Mammography

Every year, over 200,000 American women are diagnosed with breast cancer, and roughly 17% of them die of the disease. [80] Approximately 78% of women diagnosed with breast cancer are over the age of 50, among whom mortality rates are slightly higher (19%). For decades, it was widely accepted that early detection was essential to the successful treatment of breast cancer, and that all women over the age of 40 should undergo mammography once every year. The U.S. Preventative Services Task Force ignited a huge debate when, in November 2009, it issued recommendations that women not begin regular mammograms until age 50.[81] The Task Force also recommended that women over 50 only undergo mammography every two years and that doctors discontinue teaching women to perform breast self-examination. The scientific evidence seemed to indicate that the old approach of screening earlier and more frequently might not be the best approach. Simply put, mammography is associated with substantial risks of over-diagnosis, harm from over-exposure to radiation, and devastating alarms from false positives. Most importantly, breast cancer screening turns up many abnormalities that are either not cancerous or are so slow-growing that they would never become life-threatening. However, when a suspicious abnormality is discovered, women usually get additional mammograms, other imaging tests, and biopsies, which are not without complications. And, if cancer is detected, even indolent cancers that are unlikely to ever cause harm, these women usually receive surgery, radiation, and chemotherapy, all of which are associated with significant risks, including risk the of death. Statistically, doctors would have to screen approximately 1900 40-year-old women every year for ten years in order to prevent one death from breast cancer. During that same decade, roughly half of these women would recieve one false positive result, and between 4 and 20 of those 1900 women would undergo radiation, chemotherapy, or surgery unnecessarily. For this reason, the Task Force concluded that the benefits of annual mammograms for women in their 40s are outweighed by the potential harms.
The public response to these findings illustrates not only how difficult it is to formulate evidence-based treatment guidelines but also how difficult it is to alter established practice patterns in response to new scientific findings. Critics of the new breast cancer recommendations raised the frightening prospect that the government would use these guidelines to ration health care. The federal government, the American Cancer Society, and private insurers promptly made it clear that they would not adopt these guidelines.

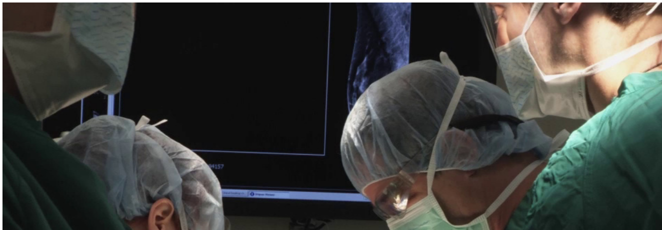
It is difficult to persuade doctors and patients to change the way they think about a disease that is as prevalent and deadly as breast cancer. Knowing that one life can be saved by screening 1900 women for a decade is enough of a reason for many women in their forties to continue getting mammograms. When the decision is personal rather than an abstract population health statistic, many women decide not to delay mammography until age fifty despite the potential risks and complications of aggressive testing and treatment.

---

80 "Breast Cancer." National Cancer Institute. 2010. Accessed June 2011. http://www.cancer.gov/cancertopics/types/breast

81 "Screening For Breast Cancer," U.S. Preventative Services Task Force, U.S. Health and Human Services; December 2009.

Breast Cancer Treatment



Since the beginning of modern oncology, numerous aggressive treatments for breast cancer have been pioneered and touted as life-saving only to be subsequently reevaluated and rejected as doing more harm than good. For example, radical mastectomies were performed for years before studies showed that removing the chest muscles and lymph nodes along with the breast was no more effective in extending life for most patients with breast cancer than were simple mastectomies.

During the 1990s there was a great deal of excitement surrounding a promising new approach to treating breast cancer – high-dose chemotherapy with autologous bone marrow transplantation. For these procedures, the patient's bone marrow was painfully removed before the patient underwent high-dose chemotherapy often with total body radiation to obliterate disease areas. The patient's own bone morrow was then restored. Although this procedure cost around $500,000 and about 10% of patients died from the treatment itself, for more than a decade many oncologists believed that this procedure was extending the lives of their patients. However, when the results of a randomized controlled trial were finally published in the New England Journal of Medicine in 2000, it turned out that this costly and highly toxic procedure offered no survival advantage over standard-dose chemotherapy. These procedures were halted immediately, but only after $3.4 billion had been spent and approximately 600 patients had died prematurely.[82]

Breast cancer patients today face a choice between mastectomy and breast-conserving lumpectomy followed by radiation therapy. For most breast cancer patients, the prognosis is just as good if they elect lumpectomy. In some hospitals, however, all patients receive mastectomies. Many women are never even told that lumpectomy is an option while others are given subtly biased recommendations. In a recent study of 157 hospitals, patients treated by doctors trained before 1981 were less likely to receive breast-conserving lumpectomies.[83]

82 Lippman Marc. "High-Dose Chemotherapy plus Autologous Bone Marrow Transplantation for Metastatic Breast Cancer," New England Journal of Medicine. April 2000. N Engl J Med 2000; 342:1069-1076.

83 Kotwall, CA, et al. "Breast Conservation Surgery for Breast Cancer at a Regional Medical Center." AM J Surg 1998 Dec;176 (6):510-4

Prostate Cancer Screening and Treatment

PSA

32,000 men die of prostate cancer every year.[84] Another cancer screening controversy surrounds the prostate-specific antigen (PSA) test used to diagnose prostate cancer. Each year we spend over 3 billion dollars on PSA tests for about 30 million American men.[85] Once again, it seems to make intuitive sense that it must be worthwhile to diagnose and treat prostate cancer early. However, the results from a 2011 study of American men found that over a period of 7 to 10 years, PSA testing did not reduce the prostate cancer death rate.[86]

The most important problem with the PSA test is that it can't distinguish between the small minority of rapidly spreading cancers that can be fatal and the majority of cancers that will never cause significant harm.[87] By the age of 80, virtually all men will develop some form of prostate cancer, but they are much more likely to die from other causes.[88] It is therefore hardly surprising that, with the help of widespread PSA testing, over 200,000 American men are diagnosed with prostate cancer every

84 Cancer Facts and Figures 2010. American Cancer Society.

85 The Great Prostate Mistake. Richard Ablin. The New York Times. March 10, 2010.

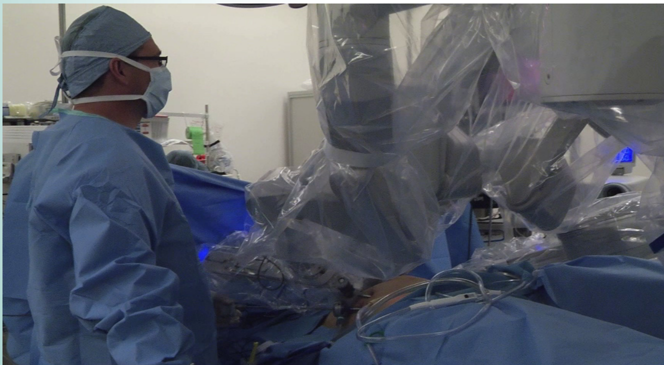
86 Andriole, Gerald L.; et al. (March 18, 2009). "Mortality Results from a Randomized Prostate-Cacner Screening Trial." NEJM 360 (13): 1310.

87 Learn About Cancer, Prostate Cancer, Detailed Guide, Early Detection and Diagnosis- Can prostate cancer be found early? American Cancer Society. 2010. http://www.cancer.org/Cancer/ProstateCancer/DetailedGuide/prostate-cancer-detection

88 For men over 75: The Iowa Prostate Cancer Consensus. The New Prostate Cancer Infolink. Reproduced with permission from The University of Iowa Department of Urology. May 5, 2008. http://prostatecancerinfolink.net/diagnosis/screening-diagnosis/iowa-prostate-cancer-consensus/

year.[89] Once they receive this diagnosis, most patients opt for aggressive treatment like radical prostatectomy or a range of radiation options. The potential side effects associated with these treatments include impotence, incontinence, deadly complications during or as a direct result of surgery, painful urination and defecation, and injury to the intestines and bowels from radiation.[90]

Prostate Cancer Treatment



When the results of a PSA test indicate the likelihood that a patient has some form of prostate cancer, the patient usually undergoes a biopsy in order to confirm the diagnosis. Once the diagnosis is confirmed, the patient has a number of treatment options, including the surgical removal of the prostate ("prostatectomy") and several forms of radiation. A prostatectomy can be performed by conventional means for about $5000 or with the help of a sophisticated piece of robotic machinery for a few thousand dollars more. Radiation can be delivered by implanting small sources of radiation directly into the prostate ("brachytherapy") for about $25,000. For about $50,000, radiation can also be delivered as an external beam through a process known as Intensity-Modulated Radiation Therapy (IMRT). Finally, for about $100,000, patients may opt for proton beam therapy, the goal of which is to confine a patient's exposure to radiation to as small a part of his body as possible. In order to be able to provide proton beam therapy, a hospital must build and install a proton accelerator the size of a football field.[91,92] Not surprisingly, the more expensive treatment approaches are growing the fastest. In just the last five years, use of IMRT has increased tenfold, and as medical centers compete to offer patients the "latest and greatest" technologies, proton beam centers are springing up in cities across the country.[93] Sometimes urologists have an ownership stake in these expensive machines and refer their patients to these facilities. A New England Journal of Medicine study found that urologists perform 58% more procedures when they have an ownership interest in the equipment.[94]

Although about $10 billion a year is devoted to treating men for prostate cancer, there is little comparative effectiveness evidence to demonstrate the benefits of one technology over another.[95] Studies have shown that when patients are fully informed about the known risks and benefits of treating prostate cancer, many will opt for active surveillance in lieu of aggressive treatment.[96] But it is certainly understandable that many patients, having been diagnosed with cancer, feel the need to pursue aggressive treatment, however uncertain the benefits may be.

Diagnostic Imaging For Brain Injury

Breathtaking technological innovations in diagnostic imaging now enable doctors to look deep inside the body to find previously undetectable abnormalities. The result is that we can now make truly life-saving discoveries and diagnose illness in people without symptoms. However, these technologies also enable us to give a diagnosis to just about everybody, creating what some analysts call an "epidemic of diagnoses." Nationwide, more than 95 million high-tech scans are done each year, at a cost of over $100 billion dollars.[97] Recent studies show that between 20% and 50% of these procedures should never have been done because they did not help diagnose or treat patients. Virtually all doctors report ordering unnecessary tests, whether it is because their patients demand them, because they make more money by doing so, or because they need

89 Cancer Facts and Figures 2011. American Cancer Society.

90 Prostate Cancer Overview, American Cancer Society. 2010. http://www.cancer.org/Cancer/ProstateCancer/OverviewGuide/index

91 "Cost Comparison of laparoscopic versus radical retropubic prosatectomy," Journal of Urology, Department of Urology, University of Texas Southwestern Medical Center, Dallas, Texas; April 2005.

92 "Technologic Evolution in the Treatment of Prostate Cancer," CancerNetwork.com

93 "Proton Beam Therapy and the Convoluted Pathway to Incorporating Emerging Technology into Routine Medical Care in the United States," The Cancer Journal; July/August 2009.

94 "Integrated Prostate Cancer Centers and Over-utilization of IMRTs: A Close Look at Fee-for-Service Medicin in Radiation Oncology," 2010.

95 "Costs of Cancer Care. Cancer Trends Progress Report - 2009/2010 Update. National Cancer Institute. http://progressreport.cancer.gov/doc_detail.asp?pid=1&did=2007&chid=75&coid=726&mid

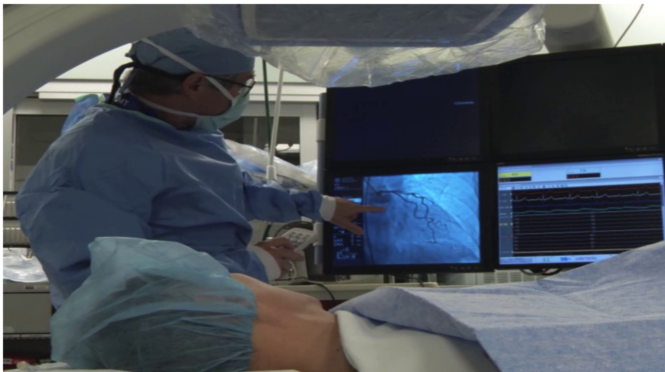
96 Preference Sensitive Care - A Dartmouth Atlas Project Topic Brief. Dartmouth Atlas Project. January 2007.

97 "Good Or Useless, Medical Scans Cost The Same," Gina Kolata, The New York Times; March 1, 2009.

to protect themselves from malpractice lawsuits. CT and MRI scans alone account for an estimated $26.5 billion in unnecessary health care expenditures every year.[98]

Across America we do 62 million CT scans a year[99], and each scan delivers between 100 and 500 times the radiation exposure of a conventional chest X-ray. One recent study found that 15,000 people were projected to die every year from cancers caused by the radiation they received from CT scans.[100] Although there are well-understood guidelines for when to order a CT scan of the head, they do little to discourage overutilization. For example, CT scans are rarely necessary after most car accidents. There are other clinical methods to decide who is truly at risk for serious brain injury. Still, as one radiologist and researcher from Yale Medical Center put it, "the indication for getting a head CT after a car accident is if you have a head." In emergency rooms across the country the frequency of these scans has quadrupled in the past decade, and scans are now ordered in 14% of all ER visits.[101]

Cardiac Catheterization and Treatment of Heart Disease



Coronary heart disease causes over 400,000 deaths a year and is the single leading cause of death in America. According to the American Heart Association, treatment for heart disease and stroke costs Americans $177 billion every year.[102] Cardiac catheterization (also known as coronary angiography) is an invasive procedure used to diagnose coronary heart disease. It's often the treatment of choice for patients presenting with chest pain, despite the fact that two thirds of patients with stable chest pain who undergo elective coronary angiography are found to have no significant coronary artery disease.[103] These results would not be so problematic if cardiac catheterization was without risk. About 1% of patients who undergo coronary angiography—10,000 thousand every year—die from the procedure.

Once coronary artery disease is diagnosed, patients face a number of treatment options including medical therapy, angioplasty, stenting (perhaps with a drug-coated stent), and coronary artery bypass graft surgery (CABG). These are tough decisions, but in the last decade there has been a 27% increase in heart operations and a 57% increase in angioplasty and stenting procedures.[87] Hospitals charge on average $117,000 for each bypass surgery procedure, $56,000 for each stenting procedure, and $34,000 for each diagnostic cardiac catheterization.

Understandably, cardiologists have long assumed that blocked arteries cause heart attacks and that opening clogged arteries (through angioplasty and stenting) will keep the blood flowing and prevent heart attacks. Despite their enthusiasm for these procedures, studies have consistently shown that angioplasty and stenting do not reduce the risk of a heart attack or extend the life span of patients with non-acute coronary artery disease. Dr. David Waters, a cardiologist at the University of California at San Francisco, reported that the rate of angioplasty was twice as high among a group of American patients as it was for a comparable group of Canadians, but the Americans did not have a better survival rate. Often a better way to reduce the risk of heart attacks for most patients with non-acute coronary artery disease appears to entail a combination of cholesterol-lowering drugs, diet, and exercise.[104]

End-of-Life Care

A third of Medicare dollars are spent treating patients in their last two years of life, but just as we've seen in other areas of medicine, there are also enormous geographic

98 America's Health Insurance Plans, December 2009. www.ahipresearch.org/

99 OECD Health Data 2010 - Frequently Requested Data [updated version October 2010]. CT Scanners exams, per 100,000 population, calculated at 2007 OECD US population

100 Radiation from CT Scans May Raise Cancer Risk. Richard Knox. NPR. June 21, 2011. http://www.npr.org/templates/story/story.php?storyId=121436092

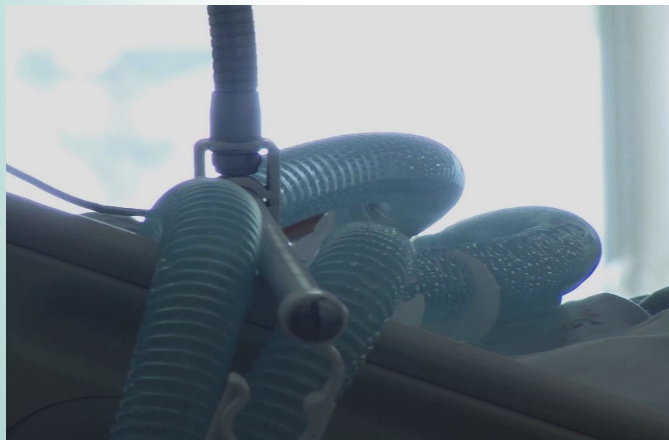
101 Report form the Centers for Disease Control and Prevention, www.cdc.gov

102 "Heart Disease and Stroke Statistics - 2011 Update: A Report from the American Heart Association." American Heart Association. Circulation 2011; 123; e18-e209. http://circ.ahajournals.org/cgi/reprint/123/4/e18

103 Patel MR, Peterson ED, Dai D, et al. Low diagnostic yield of elective coronary angiography. N Engl J Med 2010;362:886-895. http://www.nejm.org/doi/full/10.1056/nejmoa0907272#t=article

104 "What Money Doesn't Buy in Health Care," David Leonhardt, New York Times; Dec. 2006.

variations in end-of-life expenditures. In one recent study of the 226 largest California hospitals, Medicare spending for patients in their last two years of life ranged from $24,722 to $106,254.

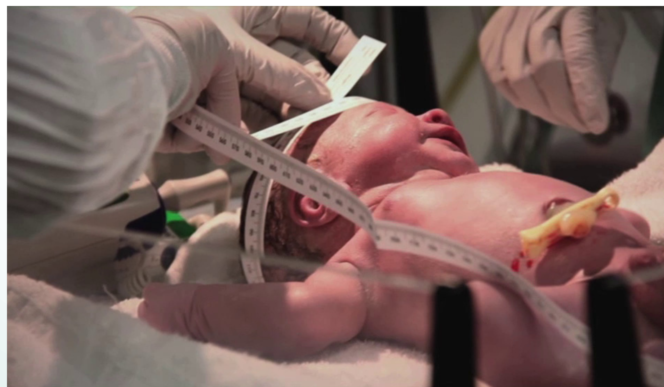


The fear mongering surrounding talk of “death panels” and “pulling the plug on grandma” that we heard during the recent health care reform debate did a tremendous disservice to this important discussion about end-of-life treatment. No reasonable person proposes to withhold potentially beneficial treatment from critically ill elderly patients. However, more and more people are beginning to realize that there may be a fate that is worse than death - spending our final days in pain and isolation, hooked up to ventilators and other life-support equipment that can only prolong the dying process. When we or our loved ones are presented with a terminal condition with no possibility of recovery, few of us would choose a few more days of suffering in an intensive care unit over palliative treatment that could ease our pain in our final days. Yet, far too often these choices are not discussed, and as a result, our doctors spare no cost or effort in using every tool in their medical arsenal to extend life, even if their interventions can only extend the suffering and pain of the dying process. A mature and full discussion of end-of-life treatment options often results in more compassionate, less invasive, and less costly care.

Labor and Delivery

The number of cesarean births has risen 71% over the past decade.[105] Today, roughly 1.2 million American women have Cesarean sections each year, which amounts to about a third of all births. The proportion of babies delivered by C-section varies considerably from hospital to hospital, with some hospitals greatly exceeding the national average. Although C-sections can be lifesaving for both mothers and children, there is broad consensus within the medical community that this invasive procedure poses serious risks and is grossly overused. The World Health Organization recommends that medical centers maintain a C-section rate no higher than 15%. It is estimated that if rates of C-section continue to increase, by 2020 they will be associated with an additional 1,620 preventable hysterectomies and 50 preventable maternal deaths per year.

One of the forces driving the increased C-section rate is the practice of electively inducing labor before 39 weeks of gestation. This practice, driven mostly by patient demand or convenience for the obstetrician, dramatically increases the likelihood that the mother will need a C-section and that the baby will have to spend time in a Neonatal Intensive Care Unit. A few years ago, Intermountain Medical Center had a C-section rate that mirrored the national average of 32%.[106] After studying the problem, Intermountain instituted a new labor and delivery protocol, which dramatically reduced their rates of elective induction, brought their Cesarean section rate down to 21%, and curtailed admissions to their newborn intensive care units to such an extent that one of these units was closed. This single protocol saved Intermountain $50 million per year. If applied nationally, the same protocol could save Americans as much as $3.5 billion a year.[107]



105 “50 “Recent Trends in Cesarean Delivery in the United States.” NCHS Data Brief Number 35, Centers for Disease Control and Prevention. March 2010. http:www.cdc.gov/nchs/databriefs/db35.htm

106 “Females with Deliveries 2007” National Hospital Discharge Survey, Center for Disease Control. Accessed June 15 2011. http://www.cdc.gov/nchs/data/nhds/7femalesdelivery/2007fem7_numberpercent.pdf

107 James B Savitz L. “How Intermountain Trimmed Health Care Costs Through Robust Quality Improvement Efforts.” Health Affairs June 2011 30:6. DOI: 10.1377/hlthaff.2011.0358.

Planning an Event

Screening events create a wonderful opportunity for people to come together and learn more about a particular issue. Documentaries have the ability not only to educate, but also to generate engagement that extends beyond the screening. The first thing a viewer will want to do after watching a powerful film is talk about it. Screening events nurture that desire and facilitate meaningful debate, reflection, and subsequent action. The following suggestions will provide you with the tools you need to host the most successful possible.

Create goals for the event

What do you hope to achieve as a result of your event? Are you hoping to increase awareness or knowledge? Change attitudes or behavior? Help people network in ways that spark energy and ongoing connection? Keep in mind that some goals are easier to accomplish than others: Adding to a person's knowledge base is easier than changing beliefs and behaviors, for example. Being clear about your goals will make it easier to decide how to structure the event (whether as a single meeting or an ongoing project, for example), target publicity and evaluate results.

Invite a diverse group of viewers

Try to gather a group of people that have different opinions on the subject at hand. If all sides of an issue are fairly represented, the discussion will be much stronger and have much more of an impact on those involved.

Make sure the structure of the event fits your goals

Do you need an outside facilitator, translator or sign language interpreter? If your goal is to share information, are there local experts on the topic who should be present? How large an audience do you want? (Large groups are appropriate for information exchanges. Small groups allow for more intensive dialogue.)

Create a comfortable environment

Do you have a space that is comfortable enough for viewers to sit through a feature length film? Can it then be easily transformed into a space that allows for an inclusive discussion? If the space is small or awkwardly shaped, you may run the risk of someone feeling separated or left out of the conversation. Is the building wheelchair accessible? Is it in a part of town easily reachable by various kinds of transportation?

End discussion with a plan for action

After an engaging film and a thought-provoking discussion, your viewers will hopefully leave the event wanting to take action. Make sure that you address this next step in your discussion so that all of the emotion and excitement doesn't fizzle out of your group because they don't know how to proceed once the event is over. Give your audience a list of ideas of how they can carry the power of the film into their community. Give a wide range of possibilities from those that can only devote minimal time and effort, to large scale options for those that want to put all of their energy into the cause.

Involve all stakeholders

It is especially important that people be allowed to speak for themselves. If your group is planning to take action that affects people other than those present, how will you give voice to those not in the room.

Facilitating a Discussion

Finding a Facilitator

If you are particularly invested in a topic, or feel that you may become overwhelmed with your duties as the host, you may want to find someone else to be in charge of facilitating the discussion. The facilitator plays an important role in creating an environment in which people feel

respected, safe, and encouraged to share their opinions about controversial topics.

If you need to find someone else to facilitate, some university professors, journalists, or health care professionals may be particularly gifted in facilitation skills. In addition to these local resources, groups such as the National Conference for Community and Justice and the National Association for Community Mediation may be able to provide or help you locate skilled facilitators. Be sure that your facilitator receives a copy of this guide well in advance of your event.

Preparing Yourself

Identify your own hot-button issues.

View the film before your event and give yourself time to reflect so you aren't dealing with raw emotions at the same time that you are trying to facilitate a discussion.

Be knowledgeable

You don't need to be an expert on health care issues, but knowing the basics can help you keep a discussion on track and gently correct misstatements of fact. In addition to reviewing the "Background Information" section in this guide, you may want to take a look at the websites and books suggested in the "Resources" section.

Be clear about your role

You may find yourself taking on several roles for an event, including host, organizer, even projectionist. If you are also planning to serve as facilitator, be sure that you can focus on that responsibility and avoid distractions during the discussion. Keep in mind that being a facilitator is not the same as being a teacher. A teacher's job is to convey specific information. In contrast, a facilitator remains neutral, helping to move the discussion along without imposing his or her views on the dialogue.

Know your group

Issues can play out very differently for different groups of people. Is your group new to the issue, or have they dealt with it before? Factors like geography, age, race, religion and socioeconomic class can all have an impact on comfort levels, speaking styles, and prior knowledge. Take care not to assume that all members of a particular group share the same point of view.

Preparing the Group

Introductions

If you are bringing together people who have never met, you may want to devote some time to introductions at the beginning of the event.

Allow each viewer a chance to voice his or her opinions

Pay attention to which viewers are dominating the conversation and which are not getting a chance to speak. If someone appears to be actively listening but has not had a chance to be heard, cut into the discussion and ask for his or her thoughts.

Remind participants that everyone sees through the lens of their own experience

Who we are influences how we interpret what we see. Everyone in the group may have a different view about the content and meaning of the film they have just seen, and each of them may be accurate. It can help people understand one another's perspective if speakers identify their backgrounds and the experience on which they base their opinions.

Who's Who in Money & Medicine

Patients at UCLA Medical Center

Diana Marin

Ms. Toston & Mr. Toston

Dywane and Willie Stonum

Adam Sinasky

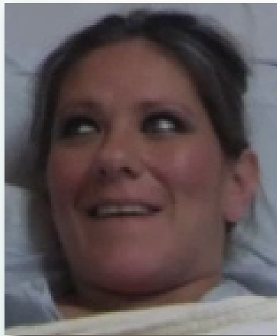
Jonathan Wasserberger

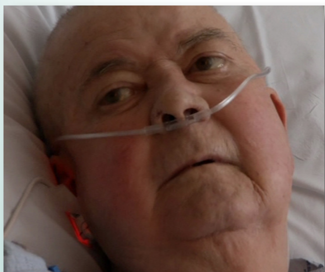
John Hill

Jimmy Ku

WHO'S WHO IN MONEY & MEDICINE

Patients at Intermountain Medical Center


April Montoya


Roy Silcox

Davis Sargent

Melissa Oborn

Cindy Hepner

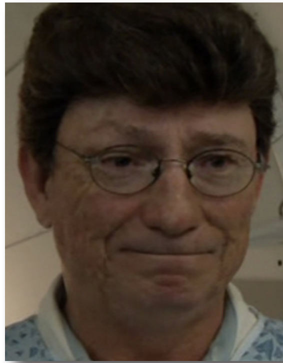
Thomas Swissler

John George

Jerry McKibben

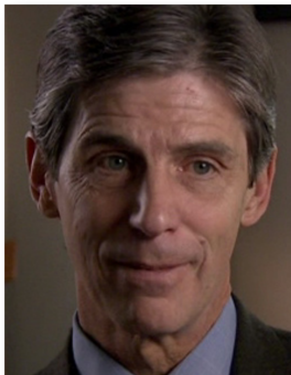
WHO'S WHO IN MONEY & MEDICINE

Patients at Loma Linda Medical Center:



Kurt Thompson

Doctors and Nurses:



Dr. Elliot Fisher
Director, Population Health and Policy, The Dartmouth Institute

Dr. David Feinberg
President, UCLA Health System

Dr. Brent James
Chief Quality Officer, Intermountain Health care

Dr. Melissa Brown
Obstetrician, Intermountain Medical Center

Shannon Brownlee
Acting Director, Health Policy Program
New America Foundation

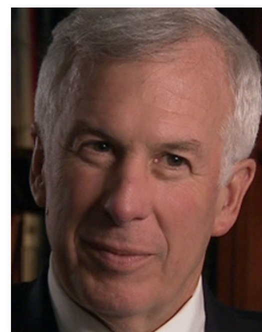
Dr. Jerome Hoffman
Professor Emeritus, Emergency Medicine
UCLA Medical Center

WHO'S WHO IN MONEY & MEDICINE

Dr . Ravi Aysola
Professor, Pulmonary and Critical Care,
UCLA Medical Center

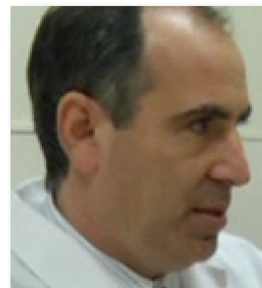
Dr. Michael Barry
President,
Foundation for Informed Medical Decision-Making

Dr. David Reuben
Chief, Division of Geriatrics
UCLA Department of Medicine



Dr. James Weinstein
President, Dartmouth-Hitchcock Medical Center

Dr. Neil Wenger
Chair, Ethics Committee UCLA Medical Center



Dr. Robert Reiter
Professor of Urology
Director, UCLA Prostate Cancer Program

Dr. Samuel Brown
Asst. Professor, Critical Care Medicine
Intermountain Medical Center

Dr. Jerry Slater
Chair, Department of Radiation Medicine
Loma Linda Medical Center

WHO'S WHO IN MONEY & MEDICINE

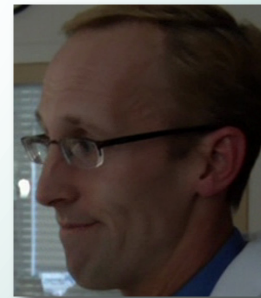
Dr. William Sause
Chairman, Dept of Radiation Oncology
Intermountain Medical Center

Dr. Scott Childester
Chairman, Urology Dept
Intermountain Medical Center

Dr. Jonathan Tobis
Director, Interventional Cardiology
UCLA Medical Center

Dr. James Revenaugh
Medical Director,
Intermountain Cardiac Catheterization Laboratories

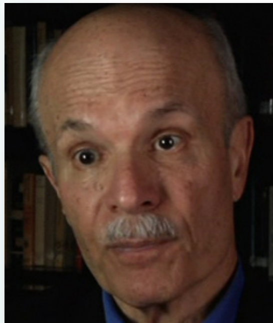
Dr. Edward Miner
Cardiologist, Intermountain Medical Center



Dr. John Doty
Cardiovascular and Thoracic Surgeon
Intermountain Medical Center

Meg Randle
Palliative Care Nurse Practitioner
Intermountain Medical Center

WHO'S WHO IN MONEY & MEDICINE

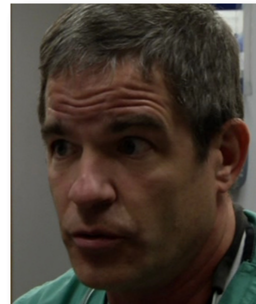


Dr. E. Richard Brown
Director Emeritus
UCLA Center for Health Policy

Dr. Nestor Gonzalez
Neurological Surgeon, UCLA Medical Center

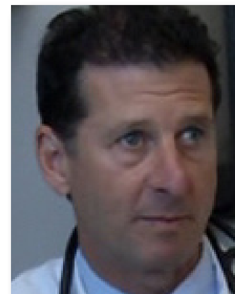
Dr. Edward Zaragoza
Clinical Director, UCLA Radiological Sciences

Dr. Gilbert Welch
Professor, Community and Family Medicine
Dartmouth Medical School



Dr. Clark Rasmussen
General Surgeon
Intermountain Surgical Specialists

Dr. Brett Parkinson
Medical Director,
Intermountain Breast Cancer



Dr. David Cutler
Asst. Professor, UCLA Dept. of Family Medicine

Dr. Mark S. Litwin
Chair, UCLA Dept of Urology and Professor
UCLA School of Public Health

DISCUSSION

General Discussion Questions

General Questions

1. Describe the general perception you had of the American health care system before you saw Money & Medicine.
2. Did you agree with the widely-held belief that the American health care system was the best in the world?
3. What did you feel were the strengths of the system?
4. What part of the health care system did you feel needed improvement?
5. What information or personal experiences shaped that perception and those feelings?
6. Did your perception and feelings change as a result of seeing the film?
7. What did you learn from the film that most surprised you?
8. What, if anything, will you do as a result of seeing the film?
9. What topics or themes would you like to learn more about?

Respond to some of the film's most provocative statements:

Rationing

Dr. Elliott Fisher: One of the myths of American medicine is that we have to ration in order to reduce costs. I think our research shows that's absolutely not necessary. That if you look at some of the examples of great care around the country, it is possible to redesign our care in ways that are great for us as patients, and great for us as physicians, by the way, and that reduce the cost of care. This is about redesign, not rationing.

1. Do you agree that we can avoid rationing by redesigning our health care system?
2. Do you think America already rations health care or will inevitably have to ration health care?
3. How does the prospect of rationing health care make you feel?
4. Does the possibility of your doctor, hospital administrators, insurance executives, or politicians branding certain forms of medical treatment as "unnecessary," "overly aggressive," or "wasteful" worry you?

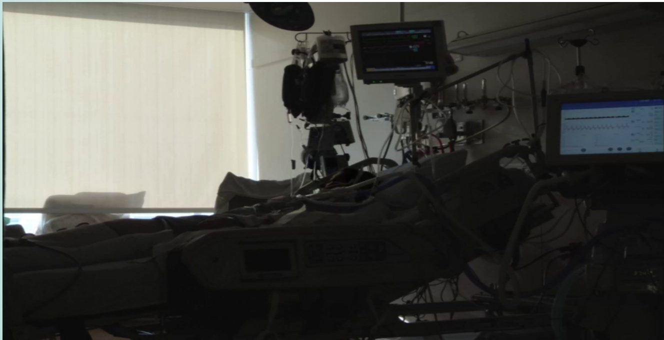
Health Care Cost Crisis

Dr. Brent James: The big entitlement programs, Medicaid, Medicare, social security, with the vast majority being Medicaid and Medicare, they're on auto pilot. They automatically increase year by year. By 2050 they will be consuming over 70% of the total federal budget, oh wait a minute, so will interest on the debt. We can't afford it.
Dr. Elliot Fisher: If health care costs keep rising at the rate they've been rising for the last few years, we will bankrupt this country.
Dr. Brent James: We will create a financial crisis of a size sufficient to destroy the United States of America. We have no choice; we will solve the problem.

1. Why have health care costs risen at over twice the rate of inflation over the past 30 years?
2. Where do our health care dollars go? How much is spent on physician fees, hospital care, outpatient care, pharmaceuticals, nursing home care, and administration?
3. What impact does rising health care spending have on our overall economy, on business competitiveness, on individual patients, and on our health care providers?
4. What do you predict will happen if we fail to contain rising health care spending?

DISCUSSION

Waste



Dr. Elliot Fisher: We all come to a similar conclusion, that about 30% of US health care spending is devoted to unnecessary services. And that's, you know, 800 billion dollars a year.
Dr. Brent James: One person's waste is nearly always another person's income—and income turns into strong political defenses of areas that are classic waste.
Shannon Brownlee: When payment incentives are aligned towards more care, when their worries about defensive medicine are aligned towards giving more care, when their patients seem to want more care, it keeps driving in the same direction towards more, more, more.

1. How would you define wasteful health care spending?
2. What forces drive unnecessary health care expenditures? What role do the following pressures play: incentives built into our fee-for-service reimbursement system, the expectations of a sophisticated and demanding public, the so-called moral hazard built into our employer-based insurance system that insulates patients from the cost of their medical decisions, our malpractice system, which encourages the practice of defensive medicine, our love affair with medical technology, our aging population, and our quest to extend life at all cost?
3. Where are the areas of greatest waste (ie provider reimbursement, administrative costs, unnecessary procedures, defensive medicine, fraud and abuse)?
4. What kind of reform is needed to reduce wasteful health care spending?

International Comparisons

Shannon Brownlee: We spend two and half times more per capita than the average western European country spends. But the part that I'm most worried about is the waste that actually hurts patients.
John Hill: There's a lot of unnecessary treatment that people undergo.
Dr. Jerome Hoffman: I see it everyday in real human beings who get enormous amounts of unnecessary testing and enormous amounts of unnecessary treatment and then the irony of course is that when we look at the health Olympics and how we come out in the world in terms of health outcomes, we end up doing terribly, you know, we're just below Slovenia or next to Costa Rica.

1. Do you believe the conventional wisdom that the US has the best health care system in the world?
2. Why does the US pay more for medical care than any developed country?
3. How do we compare with other countries in terms of longevity, infant mortality, preventable death?
4. Why does the US get seem to have poorer outcomes and health status compared to countries that spend considerably less on health care?

Dangers of Excessive Medical Care

Dr. Brent James: Everything we do in health care is innately dangerous. It's sometimes extremely difficult to walk that thin line between help and harm and you step over it fairly routinely.
Kurt Thompson: I have cancer, and life as we have known it is over.
Shannon Brownlee: If you add up medical errors, drug interactions, and hospital-acquired infections, medicine itself is the third leading cause of death in this country.
Davis Sargent: Of course I don't want to die.
Dr. Brent James: I am paid more when I harm

my patients. I am paid more when I do more even if it's not beneficial.

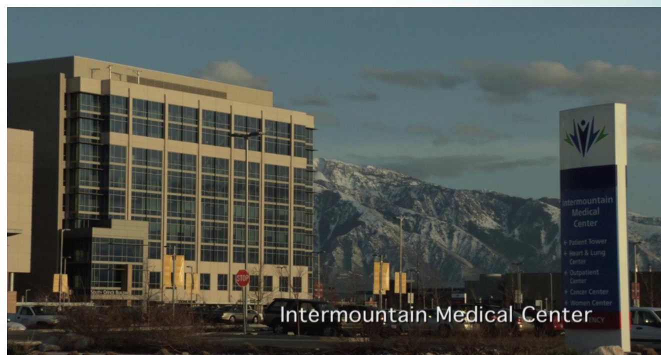
1. Do you think that more medical care usually results in better medical care?
2. How many people are harmed by medical care each year?
3. What factors account for the greatest harm – ie medical errors, hospital acquired infections, improper prescriptions or drug interactions?
4. How can patients evaluate when a medical procedure is more likely to cause harm than benefit?
5. What accounts for so many "adverse events" in hospitals?

Geographic Variations in Medical Care

Shannon Brownlee: There's so little science behind many of these decisions. The same patient is going to be treated in a different way at one hospital versus another hospital.
Dr. Jerome Hoffman: Very highly trained people with great skills and knowledge, who've put in a career at being the best at what they do, you put them in one place versus another place, and they act very differently. And that cannot be because of a medical reason. It can't be because it's better in one place to do something, and another place not to do it.
Dr. Mark S. Litwin: If you identify variation that's ten fold, fifteen, twenty fold, like we see in prostate cancer from one area of the country to another, then we know that we're over-treating men with prostate cancer.

1. Why do patients at some hospitals consume more medical care than patients in other hospitals?
2. What accounts for the fifteen-fold variation in the per capita rate of prostatectomy?
3. Do you think that patients in hospitals or regions that spend more get better care or have better outcomes?
4. What factors cause the geographic variation in the volume of procedures and cost of medical care?
5. What does the dramatic geographic variation in health care expenditures tell you about opportunities to reign in unnecessary health care spending?

Comparing Intermountain Medical Center and UCLA Medical Center

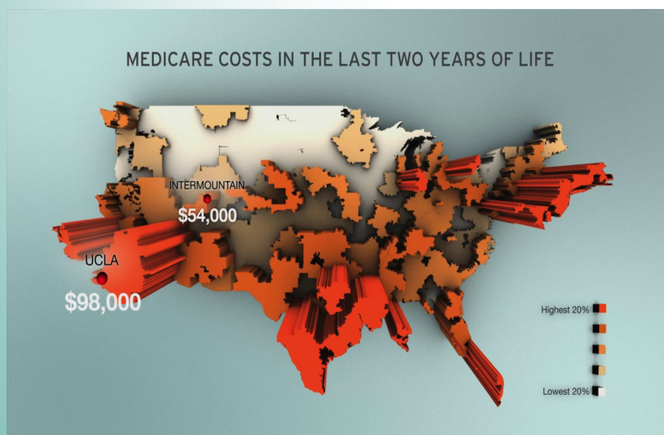


Dr. Elliot Fisher: When we compare UCLA and Intermountain in terms of use of care, what we saw is that similar patients in Los Angeles were spending 60% more time in the hospital. They were having 75% more frequent office visits. And, of course, if you are seeing more specialists, by golly you are going to get a lot more diagnostic tests and minor procedures. That led to the question: are they getting much better health outcomes as a consequence of all this extra time in the hospital and all these additional procedures? And we found that they were not.
Dr. David Feinberg: I would put our quality rankings against anybody, because to me, the most important quality ranking is patient satisfaction. If we look at that measure, we're the number one academic medical center in the United States.
Dr. Elliot Fisher: UCLA is a very high quality hospital, and I would want to be taken care of there if I had an acute catastrophe, but they also provide a lot of care that I believe is unnecessary.
Dr. David Feinberg: I'm certain that we provide care, not intentionally, that isn't needed. And we have to work on decreasing those inefficiencies that don't add value to care.

DISCUSSION

1. What role does supply or medical capacity – the number of beds, physicians, medical equipment, etc – play in the amount of care and cost of care that patients receive?
2. Do places that provide more medical services perceive that there is an oversupply or a scarcity of medical resources at their disposal?
3. What do you think happens when doctors move from a high intensity medical environment to a lower intensity medical environment?
4. What benefits and what potential dangers do patients face in places with a high volume of medical services?
5. How are hospitals ranked in terms of quality? What measures are used to determine which hospitals have the fewest medical errors and best patient outcomes?

Geographic Variation in End-of-Life Care



Shannon Brownlee: The variation in how we care for patients, I think, has real meaning for patients' lives, especially when you talk about what happens to patients as they near the end of life.
Dr. Elliot Fisher: Places like Los Angeles that have more hospital beds on a per capita basis, or have more physicians on a per capita basis, will have patients spending more time in the hospital and having them seeing their physicians more often.
Dr. Jerome Hoffman: "We all know you build it and they will come. If we have, if we have a whole bunch of things that are profitable and we could use them, well we use them."
Dr. Elliot Fisher: In the last two years of life for patients with serious illness, at the University of California Los Angeles, the average patient spends 29 days in the hospital, whereas those at Intermountain spend 16 days. How many physician visits do they have in the last 2 years of life? 92 at UCLA, 48 at Intermountain Health care. Startling difference—almost two-fold differences. And patients at UCLA spend three times as many days in the intensive care unit. As a consequence, in the last two years of life, patients at Intermountain spend about $54,000 dollars, whereas patients at UCLA spend about $98,000 dollars.

1. What factors drive the differences in the cost of end-of-life care at these two hospitals?
2. Do you think that the differences are due to the make-up of the patient population?
3. Do you think that the higher expenditures at UCLA may enable more patients to recover and go home?
4. Do you think patients in their final days of life at UCLA are more likely to receive aggressive procedures like chemotherapy, CPR, or artificial respiration?
5. What can doctors and hospitals do to avoid having to offer care that they perceive to be futile?
6. What can you as an individual do to ensure that your values and preferences are respected if you become incapacitated?

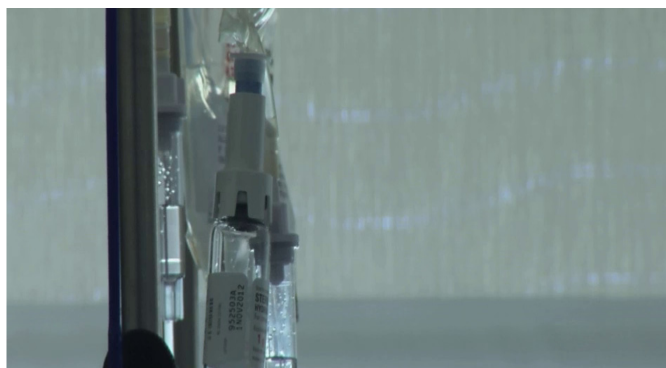
Coordinated Care

Dr. Brent James: This team based care, we sometimes call it organized care. And that's the shift that's happening in medicine right now. It's from each physician as a standalone expert in their own right, kind of a little law unto themselves, God-like in their powers, uh, to a team of physicians managing the complex knowledge necessary to deliver best care to a patient.
Dr. Brent James: Turns out that when you start to work in an organized care system, you talk an awful lot about indications guidelines. It relies on data, when is there a benefit? How do I properly advise a patient? Um, when you start to make this explicit so people can see it, it changes their

behavior—even my good aggressive surgeons. By the way, we won't lose clinical outcomes if we do this. We'll lose a lot of complications; we'll lose a tremendous amount of cost; we'll probably lose a few deaths. We'll get care that's a lot better, not worse. This isn't withholding necessary care; this is withholding unnecessary injuries.

1. What is "coordinated care" and how does it differ from conventional care?
2. Why is the health care delivery system usually so fragmented?
3. What are the potential dangers of a fragmented health care system?
4. What advantages does coordinated offer, and why might it save money as well as improve the quality of care?
5. Do you agree with the criticism of coordinated care that it can lead to "cookbook medicine" and doesn't allow doctors to use their discretion and professional judgment to treat individual patients?

Evidence-Based Medicine



Dr. Michael Barry: You might say, 'Gee, how is the patient possibly gonna decide between these therapies with so little evidence to guide us about whether one is better than the other in terms of either cancer control or side effects?'
Dr. Jerome Hoffman: People rely on us to help them make decisions. But if it turns out that your doctor doesn't have information about which one is good and which isn't, and your doctor could do a much better job if she knew that because we studied it and we said this treatment's good, this treatment isn't good, that test is good, this one isn't: that would help your doctor help you make a decision. Why don't we do the type of research that tells us what actually works and what doesn't work?

Dr. David Feinberg: Medicine really has been this cottage industry where each doc learned from an apprentice model, and then goes and practices in their own little private practice. If you don't pool that information together, and really use evidence as a way to come up with decision- making, you never advance.
Dr. Elliot Fisher: There's an assumption on the part of the public, and even on the part of many physicians, that, you know, physicians are scientists, and that science mediated through my brilliant judgment is somehow going to lead to the correct treatment for you my patient, every time, you know, for every patient. Nothing could be further from the truth.

1. How much of medical decision-making is based on science versus your doctor's intuition, training, and the overall practice pattern in your geographic area?
2. What kind of science is needed to improve medical decision-making?
3. Why is there insufficient research on comparative effectiveness and outcomes?
4. What does it take to mount randomized controlled trials - the gold standard in medical effectiveness research?
5. What prevents comparative effectiveness research from being more broadly disseminated?
6. What prevents doctors from relying on medical evidence when it is available?
7. What can be done to encourage both doctors and patients to rely more heavily on "evidence" in medical decision- making?

Shared Decision-Making

Dr. Brent James: Treatments that are powerful enough to heal can also harm. I trained in surgery. To be a good surgeon you have to believe in what you do, you really do. And so the advice we give to patients is much too aggressive—more aggressive

than they would probably choose if they had a true fair choice. But maybe I need my counselor, who advises the surgery, to not be the surgeon.
Dr. Brent James: When you give patients a true fair choice, it typically reduces surgical treatment rates by 40-60%. Their consumption rate drops—it comes to about the same level that physicians themselves show when we get these conditions.

1. How would you describe the traditional paradigm of is the doctor/patient relationship?
2. In making decisions about elective procedures, what is wrong with deferring to the judgment of your trusted doctor?
3. Why is it difficult to consider other factors besides the advice of your doctor?
4. What kinds of values and preferences should contribute to a patient's decision about undergoing an elective procedure?
5. Should saving money ever be the goal of shared medical decision-making?
6. Why do patients who make truly informed decisions tend to choose less aggressive and less expensive care?
7. What role should evidence play in shared medical Decision-Making ?
8. What are decision aids, and what role can they play in helping patients arrive at the "right" decision?
9. If a patient makes a truly informed shared medical decision, what impact will it have on the patient's satisfaction and acceptance of the outcome?

Discussion Questions for Patient Stories

Labor and Delivery

At Intermountain Medical Center, **April Montoya** has a C-section after her 39th week of pregnancy. April had a C-section to deliver a previous baby, which often leads to C-sections for subsequent deliveries.

Dr. Melissa Brown: So, my understanding is that we've decided not to go with the vaginal delivery and we'd like to do the c-section, right? Ok.
April Montoya: That's for sure.
[They both chuckle]
Dr. Melissa Brown: Tell me how you really feel.
April Montoya: Yeah!

1. Is it possible to have a vaginal delivery after delivering a previous baby by cesarean section?
2. What are the potential risks?
3. What percentage of women who've had previous C-sections opt for C-sections for subsequent deliveries?
4. When is it safe and appropriate to attempt a vaginal delivery when a woman has had previous babies delivered by cesarean section?

At the UCLA Santa Monica Hospital, **Diana Marin** had twins born by Cesarean section. After spending weeks in the NICU while one of the twins was on a ventilator, Ms. Marin is finally able to take her baby home.

Diana Marin: I had a C-section, and basically, I had two babies that were over seven and a half pounds apiece, so, they're pretty big babies, and I kinda chose to do the C-section.

1. What high risk conditions warrant C-section deliveries?
2. Does having twins make C-section delivery more likely and appropriate?
3. What are the risks to mother and baby of C-section versus vaginal delivery?
4. What role does the convenience of the physician or the comfort of the patient play in the decision to have a C-section?

DISCUSSION

End-of-Life Treatment

Mr. Toston is rushed to the emergency room at Santa Monica-UCLA Medical Center after suffering a stroke. Mr. Toston had already spent the previous two years in a nearby nursing home after a previous stroke left him incapacitated and dependent on a ventilator, catheter, and feeding tube. Although he had not been conscious for at least two years and clearly suffered another massive insult to his brain, his wife insists that the hospital admit Mr. Toston to the ICU. The family also demands that Mr. Toston be resuscitated if he suffers a cardiac arrest. Under the care of **Dr. Ravi Aysola** in the ICU, MR. Toston recieves medical interventions to maintain the function of every major organ in his body.

> **Dr. David Feinberg:** The family wants everything done. And I would challenge anybody, come up and talk with this family. And if you tell me that the rules are that we can withdraw care because it's potentially futile, then we'll do it, but that's not the way the system is set up. The way the system is set up currently is that spouse, that child, that parent, can really demand a full-court press, regardless of what the odds are.

1. Do you think doctors should provide whatever life-sustaining treatment a patient or his family requests?
2. Are doctors required to offer care to patients in their final weeks of life that the doctors consider futile?

> **Dr. Ravi Aysola**: If his heart stops, you want us to shock his heart and do CPR, if that's needed?
> **Mrs. Toston**: When that's needed, yeah.
> **Dr. Ravi Aysola**: Okay, okay.
> **Mrs. Toston**: Are you ok with that, Mom?
> **Mother**: I want him to live – whatever you can do to help him.
> **Dr. G**: Ok, alright, thank you, thank you, Mom.
> **Dr. Ravi Aysola**: Essentially, to provide adequate CPR one must essentially have the full weight pressing upon someone's chest, and that is likely to crack ribs, um, potentially cause bleeding and result in significant trauma.
> **Mrs. Toston**: Hang in there, honey. We'll hang in there with you. I don't know what to say more but you know that we are here and that we love you so much and I'll be right here beside you. I will always love you. Life is so unfair.
> **Dr. Ravi Aysola**: I would characterize his state certainly now as a vegetative state and potentially even worse. It is enormously troubling to focus our resources on patients in his condition who really have no reasonable chance for recovery to a level of function which most of us would find acceptable. Now, what one finds acceptable is a very personal decision, but I think we can all agree that it's not how most of us envision the last days of our lives.

1. How do you feel about Dr. Aysola's interaction with Mr. Toston's family?
2. Do you think he acted appropriately even though he didn't personally agree with the decisions the family was making?

EEG test results indicate that Mr. Toston lost virtually all brain function and would languish in a permanent vegetative state. After a week in the ICU, Dr. Aysola is able to convince Mr. Toston's wife and other family members that the aggressive care they are providing is futile and that it is time to withdraw invasive life support. Mr. Toston dies in the ICU surrounded by his family shortly after his ventilator is removed.

After a massive stroke, UCLA patient, **Willie Stonum**, has been languishing for over a year with multi-organ system failure and can no longer communicate. She is on a ventilator, uses a feeding tube, relies on dialysis, and needs constant medical support to maintain her blood pressure and fight pneumonia and other infections. Willie's son, **Dywane Stonum**, is his mother's proxy for medical

DISCUSSION

decisions. He has decided that he wants the doctors and hospital to do everything possible to extend his mother's life, including resuscitation if she has a cardiac arrest. Ms. Stonum's doctor, **Dr. David Reuben**, is troubled by the intensive and expensive care that they are offering to a patient with no chance of recovery. After almost a year of continual care, UCLA imposed a 'Do Not Resuscitate' order against the wishes of Dwayne Stonum, sparking a heated dispute over the treatment of Ms. Stonum.

> **Dywane Stonum:** I feel like my mom is my baby, so to speak. And so I want to nurture and care for her in any way that I can. If there's something that can sustain her medically, she would want that... Miracles happen if you believe in miracles...You do everything you can to preserve life. That's what my mother would want.

1. Do you feel that Dywane Stonum is responding appropriately, given the prognosis of his mother?
2. Would you want your child to insist that doctors "do everything" to extend your life at all costs if there was no chance for meaningful recovery?
3. What limitations would you set?
4. Under what circumstances, if any, would you not want to be resuscitated, or go on a ventilator, or feeding tube?

> **Dr. David Reuben:** We do run out of miracles. And there is a time for everyone.
> **Dywane Stonum:** I don't know what that time frame would be that I feel, or some family member feels, you know, she's really not here with us now. I suppose something like that, something spiritual.
> **Dr. Wenger:** It's under those extremely unusual circumstances where the goals of medicine are being tested by the use of technology that physicians need to begin to pull back, have intensive conversations with families, and sometimes consider overriding them.

1. Do you agree that UCLA acted appropriately by imposing a do-not- resuscitate order?
2. What limits, if any, should be put on the decisions families make as their loved ones near the end of life?

> **Dr. Ravi Aysola**: I think there's a disconnect between what we can do and what we can do that helps.... We're in a situation where we have very powerful technology, medications, and tools, and expertise in caring for people in critical illness, but I think we've approached a point where we're almost abusing that power.... It's difficult when we're put in an adversarial position, where we have to tell patients' families that 'I don't think this will help.
> **Dywane Stonum**: Essentially, they're pulling the plug, I call it a medical execution. It is essentially a death panel.
> **Dr. Ravi Aysola**: It's difficult when we're put in an adversarial position, where we have to tell patients' families that, 'I don't think this will help.' This is exacerbated by discussions in the general media and in politics unfortunately with statements like 'death panels,' and really politicizing a deeply personal issue.

1. What can be done to avoid an adversarial relationship between doctors, patients, and their families as end-of-life decisions are made?
2. During the recent health care reform debate, there was a major backlash against efforts to allow Medicare to reimburse doctors for having frank discussions with patients and their families about the goals of care and the preferences and values of patients as they near the end of life. This proposal was characterized as the government sponsoring death panels. What do you think about that reaction?

> **Dywane Stonum**: It is euthanasia, and I feel that the decision was made because she basically wouldn't go away.
> **Dr. Wenger**: We do not practice euthanasia under any circumstances. Euthanasia is the active promotion of death with that intent. We use machines to be able to protect patients from dying from an underlying condition. And it's possible to use these advanced tools that we have to not help patients, but to actually prolong a death, or to actually produce more suffering, or less comfort. And under those circumstances physicians may very well say 'no.'
> **Dr. David Feinberg**: We have to be able to save lives, perform miracles, and we also need to figure out the best way to allow people to pass with dignity. But that's a discussion that really doesn't take place when you show up to our emergency room in extremis. That discussion has to take place with a trusted primary care provider that has been your family doc for years, ideally, because when you come to us with multi-organ failure, we do what we know how to do. And America, has not focused on that particular discussion in advance, enough. And we're not talking about death squads, we're talking about having real discussions about the end of your life, and how do you want it to be?

DISCUSSION

1. Do you think it's important to make decisions about end-of-life care before you're incapacitated?
2. What can be done by doctors and hospitals to facilitate advance directives?
3. What can doctors and hospitals do to better respect the values and preferences of patients as they near the end of life?
4. Do you have an advance directive or durable power of attorney for health care decision-making?

At Intermountain Medical Center, **Roy Silcox** is suffering from sepsis as a result of his battle with cancer in the stomach and the esophagus. He is willing to allow certain invasive procedures if there is a chance that it will save his life but is adamant that he does not want to be kept alive by machines if there is no hope for recovery. After five days in the ICU, Mr. Silcox is transferred to a hospice unit where he dies the following day.

> **Dr. Samuel Brown:** If I told you that we might need to go on the ventilator for a couple days, and I thought that you had a 90% chance, so 9 out of 10 that you'd get through it and we'd remove the ventilator and you'd do okay, would you want me to put you on the ventilator?
> **Roy Silcox:** Okay, if you could do it that way, then I'll go with the ventilator.
> **Dr. Samuel Brown:** I see, now comes the hard part. Would you want me to put you on the ventilator temporarily if it was a 1 in 10 shot that we would get you through?
> **Roy Silcox:** A 1 in 10, I'd take it for a couple days like we talked about.
> **Dr. Samuel Brown:** Oh, okay, okay, that's very helpful for me to understand.
> **Roy Silcox:** But yeah, like a long-term thing, like 3 months, no. I just don't want to tie people down. I mean, if it's not gonna work, it's not gonna work.

1. Have you thought about what interventions you would want under what circumstances if you had a terminal condition?
2. Under what circumstances would you want to be resuscitated, or go on a respirator, or go on a feeding tube?
3. Under what circumstances, if any, would you want to withdraw some of these treatments?

Davis Sargent, another patient at Intermountain Medical Center, met with **Meg Randle**, a nurse practitioner and palliative care specialist. Mr. Sargent is suffering from end-stage congestive heart and kidney failure and only has a short time to live. He is very clear that he wants comfort care at home instead of rescue care in an ICU. The medical team is able to discharge Mr. Sargent to his home where he receives hospice care for another 10 days before he dies the way he wanted - at home surrounded by his loved ones.

> **Shannon Brownlee:** To deny people an opportunity to talk about death, to discuss how they want to die, to be given choices about dying, I think is a really cruel thing. And we have to start being able to talk about it. And not just because we're spending a huge amount of money on it, but because a medicalized death is not what most people want.
> **Davis Sargent:** When it's time, it's time. Of course I don't want to die, but going out kicking and screaming doesn't change the going out. I realize that I'm going to need hospice at home. I'm only 6 feet from a nice place to sit in the sun in the front yard, and I love that more than anything else.

1. How comfortable are you discussing end-of-life decisions with your family and with your doctors?
2. How would you respond if your doctor initiated a conversation about it?
3. Do you think physicians should be encouraged to have such conversations with patients, and should they be reimbursed for these sessions if no medical procedures are performed during these visits?

DISCUSSION

CT Scans

Dr. Jerome Hoffman: Someone is worried about the possibility that he's sustained an important injury to his head. The only way to know for sure is to do a cat scan. It seems reasonable, and then it comes out normal and we all feel better. It sounds like that's a good deal, but it's not a good deal, actually, for anybody, and most particularly not for that patient. Why is that? Well, there are many, many reasons. One is that most of the time, almost always, I can tell, clinically, whether he has an important head injury. The right test is usually putting the eyes of an experienced physician on a patient.... The cat scan itself is not benign. And we know for sure that doing a cat scan, which is about 200 to 500 chest x-rays in terms of radiation—it's a lot of radiation!—will cause cancer.
Shannon Brownlee: The estimate is that tens of thousands of cancer deaths are being caused each year by medical radiation.
Dr. David Feinberg: Not doing the scan and missing that one out of a thousand is a big problem. And the medical legal responsibility of now experts saying, 'Well in this case you should have certainly done a scan, why didn't you do one?' gets you into this sort of defensive medicine mode. And I'm a parent of two teenagers, I want a clean bill of health. "That's my little girl, are you sure there's nothing you're missing?" 'Well, I can't be a 100% sure. I can tell you the neurologic exam was normal, but there's a 1 in 5000 chance that there could be a small bleed that I'm missing.' Well, yeah, I want the test!
Dr. Jerome Hoffman: When I do all sorts of tests, that I don't really think are abnormal, some of them are going to look abnormal, just by chance, that's just how it is. And when they do look abnormal, I'm forced to do things to you that many times will cause you harm, and only rarely will do any benefit.
Dr. Brent James: Imaging, or testing, in inappropriate circumstances, it just exposes you to the risks of false positives. And working out those false positives kills people sometimes, not often thank heavens. There's this, oh, deeply embedded belief that it's all upside. No.

1. Which risk would you take: the risk of cancer from unnecessary radiation exposure or the risk of a physician failing to diagnose a potentially serious condition?
2. Did it ever occur to you that testing, even with seemingly benign diagnostic tests, could casue more harn than benefit?
3. Do you think that we are over-testing and over-diagnosing patients?

Breast Cancer Screening and Treatments

After her 40th birthday **Melissa Oborn** has her check-up with OBGYN specialist **Dr. Melissa Brown**, at Intermountain Medical Center. Melissa decides to have a mammogram despite the debate that is raging over the risks and benefits of the procedure for women in their forties.

Shannon Brownlee: When I turned 40, my doctor said, 'Well, time to start mammograms!' And at that point I knew enough about mammography to know that the chances that a mammogram for me in my 40s would benefit me was a lot lower than the chances that it would lead to harm.
Dr. Jerome Hoffman: I wouldn't be surprised if most women who knew the very tiny likelihood of benefit, the fairly substantial likelihood of some harm, would say, 'I don't want it.'
Dr. David Feinberg: When it says, 'Oh, well, we shouldn't do mammography until age 50,' that's looking at populations. But now you're an individual patient. Now it's my wife, Andrea, who's 46. Should she skip her mammography, because this new study came out? Or should she get her

mammography? And that becomes a very, very personal decision. If it picks something up, it could actually save her life, despite when we looked at 5,000 women it didn't statistically improve overall life survival because there were false negatives and false positives. But now this is my wife. And when you start talking about personal, individual choices and families, the evidence kind of takes a backseat.

Dr. Melissa Brown: We know it's a source of much anxiety and worry for a lot of patients. But we love our patients, we care about our patients, and we want to do everything we can to keep you healthy.... Guess what I'm going to recommend to you, ok, is that we should do that annually. I think it's just worth it. It's the right thing to do.

Melissa Oborn: After listening to what you said, I feel a lot more confident. For me, it's, yeah, absolutely, I'm... guarantee I'm going to get that done as soon as possible.

1. When helping their patients make decisions, how much responsibility do physicians have to present a full and unbiased picture of the risks, benefits, and tradeoffs of any particular treatment?
2. Is there a risk that physicians practicing evidence-based medicine will appear too distant or impersonal?
3. How persuaded are you as a patient by your doctor's recommendation?
4. Do you think your doctor always presents a balanced picture of your treatment options?

After receiving a diagnosis of breast cancer at Intermountain Medical Center, **Cindy Hepner** has to decide whether to undergo a mastectomy or a breast-conserving lumpectomy followed by radiation therapy. In consultation with her oncologist and surgeon **Dr. Clark Rasmussen**, Cindy opts for a lumpectomy.

Dr. Brett Parkinson: Cindy absolutely probably saved her own life, or at least saved herself additional harsh treatments by having a screening mammogram at age 47 instead of waiting until age 50. Let's say she waited until age 50. That would have given this tumor—which was not palpable, it was seen only on the mammogram and an ultrasound—would have given that tumor three more years to grow. Now, there are those who argue that, well, maybe it doesn't make that much difference to find a cancer later. But we know that that's patently false. We know that screening mammography saves lives.

Dr. Gilbert Welch: Every time someone has a diagnosed cancer, I hope she is, in fact, the winner of the lottery and did have her life saved by the test. Our estimates are, though, in fact, that's relatively uncommon; it's less than 1 in 4, less than 25%. There are two other possibilities that combined are actually more common. One is she was diagnosed early, but she didn't benefit from the early diagnosis. In other words, she would have been treated just as well if her cancer had presented clinically. But the third possibility is that she was overdiagnosed—that she had a cancer that was never going to become apparent clinically, that was never going to kill her. And yet she was treated for it. And in fact, that's the harm of cancer screening. Now I hope that's not the case in Cindy's case; I hope she's a winner. But in fact, most women with screen-detected cancer fall in one of the other two categories.

1. Each doctor seems very certain of the risks and benefits of treatment, but their opinions differ dramatically. In light of these kind of controversies, how can you make the most informed decisions about your health and well-being?
2. If you were in Cindy's position, would you opt to start mammography in your 40s?

Prostate Cancer Screening and Treatments

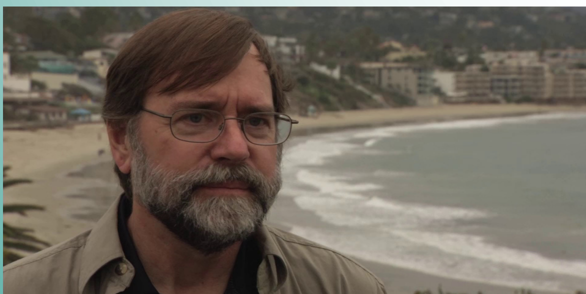
Adam Sinasky is at his annual check-up at the office of **Dr. David Cutler** in Los Angeles. After having a brief discussion about the pros and cons of PSA screening for

DISCUSSION

prostate cancer, Mr. Sinasky decides to go ahead and have the test done.

Dr. David Cutler: What are your feelings about getting a routine PSA test?
Adam Sinasky: I have no issues about it. I'd rather know. I'd definitely rather know.... I'd rather know now rather than wait until it's late stage and there's nothing I can really do.
Dr. Jerome Hoffman: It seems like catching it early would be a good thing, but it almost never is. Because when you catch it early you're mostly not catching cancer, you're catching something that looks like cancer and it isn't. And when it is cancer it almost never is a cancer that would ever bother you in your life. So we're finding it, we have to do something about it, but it's trivial; it's only cancer under the microscope. And, the flipside is, the few others, it's probably too late to do anything. So we haven't found anything that's good for you.

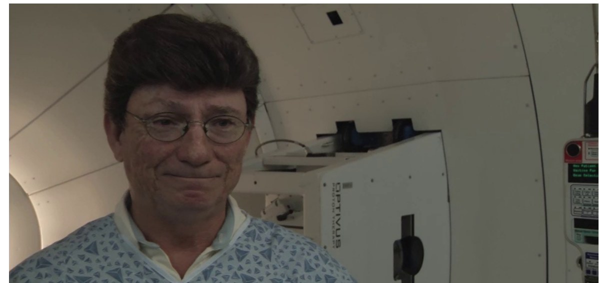
1. Mr. Sinasky's insistence that he'd rather know as soon as possible whether he has prostate cancer seems to be based on his perception that early detection means identifying a cancer early in its development, permitting more effective treatment and greatly increasing his chance of survival. Knowing that recent studies have shown that patients screened for prostate cancer are just as likely to die from the disease as those who are not screened, would you get a PSA test or recommend that a loved one have the test?



John Hill meets with **Dr. Robert Reiter**, the Director of the UCLA Prostate Cancer Program. After being diagnosed with prostate cancer and reviewing his treatment choices, the patient opts to have a robotic prostatectomy performed by Dr. Reiter.

John Hill: Going into the surgery I was aware of the potential side effects, that I might be giving up some things that I would rather not give up. And, as it's turned out, I did give up something. But prostate cancer kills people, and I would do it again.... At least I'm not left with the concern that I could have done more and didn't act.... I believe that I may be one of the people whose life was saved, or at least extended by going in aggressively. I understand that there's a lot of unnecessary treatment that people undergo, but I'm not comfortable carrying a tumor around if I don't know how lethal it is.

1. In light of the serious side effects and the studies that suggest that most men who undergo aggressive prostate cancer treatment would not have died from the disease, would you consider watchful waiting or active surveillance if you received a prostate cancer diagnosis?
2. If you received a prostate cancer diagnosis, would you prefer aggressive treatment even with a high liklihood of becoming impotent or incontinent?



Kurt Thompson decides to travel to Loma Linda, California, to be treated with proton beam radiation therapy. Although the proton beam machine has not been proven to be a superior technology, it costs about $150 million to build and can cost upwards of $200,000 for a course of treatment. Mr. Thompson thinks it's well worth it, since he believes that proton beam therapy will spare him the adverse side effects of incontinence and impotence usually associated with prostate cancer treatment.

Shannon Brownlee: It's very American I think, to think that higher tech is better than lower tech, new tech is better than old tech. And so we've created this way of thinking about health care that is ultimately inflationary.
Dr. Sause: In American health care, the bar to adapt new technology has been relatively low, and I think we've developed that culture. To develop a new drug, we have a lot of hurdles to go through. To develop a new technology, in this case proton treatment, the bar really is that its not harmful, or not worse, not that it necessarily needs to be better. And it may be better, but when something costs that much, one would truly like to know it's better if society is going to bear the cost.

1. How important do you think it is to conduct comparative effectiveness studies before approving new medical technologies?
2. What practical limitations prevent more evidence-based approaches to adopting new medical technologies?

At Intermountain Medical Center we film a Tumor Conference in which all urologists, surgeons, radiation and medical oncologists, internists, dieticians, and nurses discuss each recently diagnosed prostate cancer patient. They all weigh in on the recommended treatment for each patient. Immediately follwing the conference. each patient meets separately with all the specialists so that he can make the most informed choice. The process of shared decision-making is important because there is often no "right decision," and all invasive treatments cause life-altering side effects. We follow **Thomas Swissler** (above) through a series of these meetings and see how and why he chooses active surveillance instead of more aggressive forms of prostate cancer treatment.

> **Dr. William Sause**: The good situation is this disease is very unlikely to cause you any harm, in the immediate short term. You're in no immediate distress. But everybody wants to be immortal and live as long as they can. The upside to immediate treatment is you could eradicate the cancer, it's early and I don't have to worry about it. Or you could say, 'you know doc, treatment has side effects, I probably don't need the treatment for awhile, why don't we just delay things for a while,' which is, or forever, which is also not an unreasonable approach in you.
> **Thomas Swissler**: So I guess I'm safe for now.
> **Dr. William Sause**: You are safe for now.
> **Thomas Swissler**: I might have to make a decision at some point. Since my cancer is low grade and early stage, watchful waiting seems like a reasonable approach.

1. Do you think Mr. Swissler made a reasonable decision?
2. Would you be willing to live with a cancer diagnosis without pursuing aggressive treatment?

Coronary Artery Disease Diagnosis and Treatment

Jimmy Ku is experiencing shortness of breath when exercising, and because of a family history of coronary artery disease, he meets with **Dr. Jonathan Tobis**, an interventional cardiologist at UCLA Medical Center. Dr. Tobis presents Mr. Ku with two treatment options: watchful waiting with drug therapy, or cardiac catheterization to better diagnose any possible blockages in his coronary arteries. Worried about his symptoms, Mr. Ku chooses catheterization, which reveals that his arteries are all clear and that he has no signs of any significant narrowings.

> **Dr. Tobis:** "I think it will make a big difference for Mr. Ku, because it decreases the patient's anxiety, it helps his physicians who will care for him in the future know exactly what's going on."

1. Do patients have the right to any and all medical treatments even when there is little evidence to suggest that such treatments are warranted?
2. If patients feel such treatments are necessary in order to relieve their anxiety, should doctors offer these treatments?
3. Do stricter guidelines need to be in place in order to determine who has access to what treatments and technologies, and who doesn't?

John George, a patient of **Dr. James Revenaugh** at Intermountain Medical Center, had a previous angiogram

revealing significant narrowings. While he was on the table, he had to persuade his cardiologist not to insert stents to open up his blocked arteries. Because of his history of internal bleeding, Mr. George was concerned about the risks associated with taking blood thinners, which is necessary after undergoing stenting. Dr. Revenaugh orders a nuclear stress test, and although Mr. George has a 70% blockage in his LAD artery, he has good blood profusion under stress, and no invasive intervention seems necessary. Instead, Mr. George goes on medical therapy with statins.

> **Dr. Brent James:** "There is this very strong bias to action almost any good interventionalist, surgeon, cardiologist will show. The interesting thing is, if they don't, you don't really trust them to do the procedure. They need to have that belief in what they do. Boy, throw on top of that that every time they place a stent they make more money. I don't believe that's their main driver, they certainly try not to. You know the money they receive is just the burden they have to bear for the good that they are achieving, you see? But you kind of get this witches brew, this perfect alignment of forces that says, 'let's do it.' The net impact of that is the decision-making transfers away from the patient, who should be making the decision, to the physician."

1. Have you ever had an experience where you felt pressured into an aggressive treatment for a condition without being fully informed about the less aggressive options?
2. If your surgeon seemed hesitant about performing a surgical procedure, would you look for a different surgeon, or would you question the surgery itself?

Jerry McKibben is on a ski vacation in Park City, Utah, when he has a massive heart attack. His wife performs life-saving CPR, and the EMT crew is able to shock his heart back into a normal rhythm when they arrive on the scene. Mr. McKibben is rushed to Intermountain Medical Center where interventional cardiologist **Dr. Edward Miner** performs a cardiac catheterization, revealing two major blockages in his coronary arteries. Although Dr. Miner feels he could have easily inserted stents into the two arteries that were blocking adequate blood flow to the heart, he wants to give Mr. McKibben the choice between a stenting procedure and coronary artery bypass graft surgery (CABG). In light of his problem with previous internal bleeding, Mr. McKibben is worried about the risks of taking blood thinners if he opts for stenting, and therefore decides to undergo bypass surgery.

> **Dr. Edward Miner:** "After you were recovered enough from the initial ventricular fibrilation episode, we went ahead and did the angiogram, and in fact the artery on the front of your heart, that's the most important artery, the one that we call the LAD, was 100% blocked. And another artery is 80% blocked."
> **Dr. John Doty:** "So tomorrow, we're going to plan on doing an operation that will hopefully take care of all of that for you... the chance of you dying or having a stroke—those are, sort of, the real feared complications—I would say would be 1 to 2%, very low. It doesn't really get any lower than that."
> **Jerry McKibben:** "We've got—I've got too much living to do. And I don't want to be worried about my heart."
> **[Jerry McKibben's Wife]:** "And pretty much 100% recovery, is that what we're anticipating?"
> **John Doty:** "That's our plan!"
> **Dr. Brent James:** "When you go into surgery, it's never as good as new. There's always a price you pay. Surgery is always the last option."

1. Dr. Doty is extremely confident that CABG surgery will "take care of all of" Mr. McKibben's heart troubles, and that Mr. McKibben will make a "100% recovery." Dr. James is much less sanguine, suggesting that there is no such thing as a 100% recovery after open-heart surgery, and that surgery should only be a last resort. For Mr. McKibben, surgery seems to be his best bet. "I don't want to be worried about my heart," he says. Do you think CABG surgery is overused?
2. How do you explain the dramatic variation in the rates at which their surgeries are performed in different hostpitals and in different parts of the Country?

Action Steps: What Can Individual Patients Do?

1) Make informed decisions

- Make use of the resources listed, which include information on how to conduct research to find the best hospitals, physicians, and treatment options.
- Make sure you ask your physician questions and take an active role in the decision-making process.
- Consult decision-aids when considering elective procedures, and be aware of the relative risks and benefits of each treatment choice.
- Execute advance directives, including a living will and health care proxy form.
- Be sure to think through your preferences and values when it comes to health care treatment choices, and make those preferences clear to your family, friends, and health care providers.

2) Spread Awareness

- Host a discussion about the health care cost crisis and the pros and cons of various alternative approaches to health care financing and delivery.
- Host a screening of the film to spread awareness about the dangers the nation faces from runaway health care spending as well as the dangers patients face from overdiagnosis and overtreatment.

3) Work to Promote Less Fragmented Health Care Delivery

- Write your elected representatives, urging them to support organized, coordinated systems of care.

Learn More

General Online Resources:

The Dartmouth Atlas of Health Care
http://www.dartmouthatlas.org/
The Dartmouth Atlas Project is a great source of information about the geographic variation in the distribution and use of medical resources across the United States. The project uses Medicare data to provide comprehensive information and analysis about national, regional, and local markets, as well as individual hospitals and their affiliated physicians. On this website, you can search for data by topic, hospital, or region. You can also choose to view the information in a multitude of ways including interactive maps, bar graphs, and charts.

Castlight Health
http://www.castlighthealth.com
Castlight Health is a San Francisco-based company founded in 2008 and committed to collecting and providing the information patients, employers, and insurers need in order to compare the prices charged by health care providers for medical services. By informing consumers, Castlight hopes to improve the quality and reduce the cost of health care in America.

Aligning Forces for Quality
http://www.rwjf.org/qualityequality/af4q/
Aligning Forces for Quality (AF4Q) is the Robert Wood Johnson Foundation's signature effort to lift the overall quality of health care in targeted communities, reduce racial and ethnic disparities and provide models for national reform. AF4Q is composed of a group of initiatives based in 16 communities around the country. These initiatives measure and report on the quality of both ambulatory and inpatient care, and engage consumers to make informed choices about their own health.

Resources Related to The Patient Protection and Affordable Care Act:

Summary of New Health Reform Law
Kaiser Family Foundation: Focus on Health Reform
http://www.kff.org/healthreform/upload/8061.pdf
A Summary of the newly passed Health Reform Law broken down into sections including; individual mandate, expansion of public programs, Medicaid, Medicare, Subsidies, Tax Changes, States Role and more.

LEARN MORE

Implementation Timeline
Kaiser Family Foundation
http://healthreform.kff.org/en/timeline.aspx
A Timeline breaking down how the Patient Protection and Affordable Care Act will be implemented through 2018.

Robert Wood Johnson Foundation: Health Policy Connection
http://www.rwjf.org/files/research/how-doestheacaattempttocontrolhealth carecosts.pdf
A brief that outlines what steps the Affordable Care Act will take in order to control health care costs.

Health Reform GPS
George Washington University's Hirsh Health Law and Policy Program and
The Robert Wood Johnson Foundation
http://www.healthreformgps.org/summary-of-the-legislation/
The Health Reform GPS is a collaboration between the Robert Wood Johnson Foundation and the Hirsh Health Law and Policy Program of George Washington University. This page is an overview of the Patient Protection and Affordable Care Act.

Major Provisions of the Affordable Care Act
Commonwealth Fund: Health Reform Resource Center
http://www.commonwealthfund.org/Health-Reform/~/media/Files/Publications/Other/2010/CMWF_Overview_Timeline_20102018.pdf
A timeline by the Commonwealth fund outlining major provisions of the Affordable Care Act.

Mitt Romney on Health Care
MittRomney.com
http://www.mittromney.com/issues/health-care
An outline of what Mitt Romney plans to do with health care if elected.

Barack Obama on Health Care
http://www.barackobama.com/record/health-care?source=primary-nav
An outline of President Barack Obama's views on health care reform and the passing of the Affordable Care Act

Health Policy Organizations:

The Commonwealth Fund
http://www.commonwealthfund.org/
The Commonwealth Fund is a private foundation that aims to promote a high performing health care system that achieves better access, improved quality, and greater efficiency, particularly for the most vulnerable members of society, including low-income individuals, the uninsured, young children, and elderly adults. The Fund carries out independent research on number of health care issues, including health care reform and quality, payment reform, and patient centered care. Their website posts information on these topics along with other publications, maps, and data from their research.

New America Foundation: Health Policy Program
http://health.newamerica.net/
The New America Foundation's Health Policy Program is committed to achieving a high quality, coordinated, and economically sustainable health care system. Building on its successful advocacy for increased access, New America's Health Policy Program has shifted focus to the next crucial step in reform: improving the quality and cost-effectiveness of America's health care delivery system. On this website you can find recent publications, upcoming discussion panels and events, and additional resources that all address the issue of quality health care at an affordable price.

Health Care Cost Monitor
http://health carecostmonitor.thehastingscenter.org
The Health Care Cost Monitor provides commentary and opinion on cost control as part of the implementation of health care reform. It was created to fill a void: the cost crisis has not been addressed in the public and legislative arenas with the care, depth, and nuance it requires. This forum starts with expert analysis and commentary, and then invites readers to comment in hopes of

initiating a conversation that extends beyond this blog to policymakers charged with carrying out health reform and setting spending priorities that enable the country to flourish.

New England Health care Institute
http://www.nehi.net/
The New England Health care Institute (NEHI) is a non-profit organization that researches public health policy issues in order to improve health care quality and lower health care costs. Their program on Waste and Inefficiency in Health Care conducts comparative-effectiveness research and aims to make health care in the US more streamlined, value-driven and higher in quality.

Kaiser Family Foundation
http://www.kff.org/
The Kaiser Family Foundation is a non-profit organization dedicated to providing information on the major health issues facing the United States. KFF develops and runs its own research and communications and is a valuable source of health policy analysis and health journalism. Their news site, Kaiser Health News, is listed below.
http://www.kaiserhealthnews.org

RAND Corporation
http://www.rand.org topics/health-and-health-care.html
The RAND Corporation is a nonprofit organization that aims to improve policy and decision-making through research and analysis. The RAND Health division has conducted numerous studies on health care policies, practices, and reform.

Patient Decision Aids:

What ia a Patient Based Decision Aid?
The goal of patient based decision aids is to illuminate available options to patients in an unbiased way. They explain the risks and the benefits of each option based on evidence and inform patients about potential outcomes. Decision aids allow patients to think about their personal values and attitudes about risk.

Decision aids give patients all of the pertinent facts so that when they meet with their doctor, they will be able to make a more informed decision. Information in a decision aid is tailored to meet the needs of each individual illness and situation. There are clarification exercises to help everyone involved understand their condition. Examples of others patients who had the same or similar problems are described, which can help the patient better understand their condition and possible outcomes.

Shared Decision-Making:

Foundation for Informed Medical Decision-Making
http://www.informedmedicaldecisions.org/
The Foundation for Informed Medical Decision-Making is a non-profit organization promoting changes in the health care system to ensure that treatment decisions are made with the active participation of fully informed patients. The foundation has been working to advance evidence-based shared Decision-Making through research, policy, clinical models and patient decision aids.

Health Dialog
http://www.healthdialog.com/Main/default
Health Dialog web site provides decision-aids to improve informed shared Decision-Making .

Center for Shared Decision-Making
http://patients.dartmouth-hitchcock.org/shared_decision_making.html
The Center for Shared Decision-Making at Dartmouth-Hitchcock Medical Center in Lebanon, New Hampshire supports shared Decision-Making by providing an online decision aid library and one-on-one decision support counseling.

Ottawa Hospital Research Institute's Patient Decision Aids Research Group
http://decisionaid.ohri.ca/
The Patient Decision Aids Research Group was established in November 1995 to help patients and their health practitioners make "tough" health care decisions. The Group provides an online library of patient decision aids.

Choosing Wisely
http://choosingwisely.org/
Choosing Wisely is an initiative of the American Board of Internal Medicine (ABIM) Foundation

that focuses on encouraging physicians, patients, and other health care stakeholders to think and talk about potentially unnecessary and harmful medical tests and procedures. To date, the initiative has collected lists of "Five Things Physicians and Patients Should Question" from each of nine medical specialty professional organizations.

Shared Decision-Making Toolkit
http://med.dartmouth-hitchcock.org/csdm_toolkits.html
This resource, aimed at health care professionals, provides information and toolkits that outline how to start a health care decision support service.

How To Find Out More Information About Your Doctor and Hospital:

If you want to learn about your doctor's background including board certification and medical malpractice sanctions history, there are a few steps to take. You can contact your State Medical Board, or you can do additional research online.

Certification Matters
http://www.certificationmatters.org/
Certification matters is a website you can use to find out if your doctor is board certified.

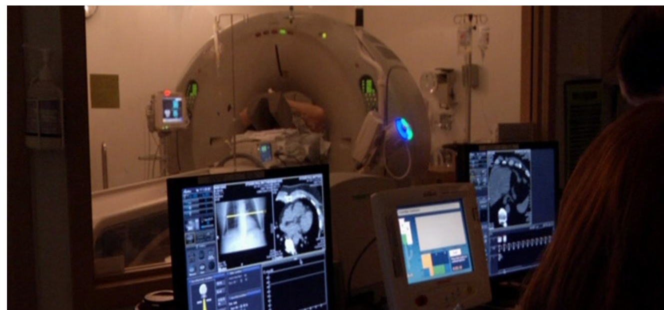
Health Grades
http://www.healthgrades.com/
Here you can research doctors based on your geographic location. Important factors like specialty, board certification, common conditions treated, malpractice, sanctions, and board actions among other information can be found on this website.

Hospital Ratings and Comparisons:

Comparing Health Care Quality: A National Directory
http://www.rwjf.org/qualityequality/product.jsp?id=71857
Comparing Health Care Quality is a resource created by the Robert Wood Johnson Foundation that provides access to public records and information about health care across the nation. The directory includes information on actual outcomes, patient experiences, and cost for various physicians and hospitals.

Hospital Compare
http://www.hospitalcompare.hhs.gov
Hospital Compare, a tool created by the U.S. government's Department of Health and Human Services, allows consumers to compare up to three hospitals at a time, looking at measures such as outcome of care, patient experiences, and safety measures.

The Leapfrong Group
http://www.leapfroggroup.org
The Leapfrog Group aims to improve the quality, safety, and affordability of health care by helping patients make informed medical decisions. The group's website allows consumers to view their hospital's safety record and compare hospitals using safety as a central measure.



Quality Check
http://qualitycheck.org
Launched in 1996 by the Joint Commission, Quality Check aims to provide "meaningful information about the comparative performance of accredited organizations to the public." The site allows consumers to search for accredited health care organizations and view the performance measures and quality reports of each.

Medicare
data.medicare.gov
This website, part of the government's official site for Medicare, quantifies outcomes and scores hospitals, nursing homes, and home care providers on a wide range of health and safety measures.

LEARN MORE

Consumer Reports
http://www.consumerreports.org/health/doctors-hospitals/doctors-and-hospitals.htm
This independent, nonprofit group allows subscribers to compare up to five hospitals using measures such as safety scores, infection rates, and the availability of electronic records.

Health Care News:

Kaiser Health News
http://www.kaiserhealthnews.org/
Kaiser Health News is a non-profit news organization dedicated to covering health care policy and politics. Their website includes in-depth articles as well as daily summaries of major health care news stories from across the country.

Health News Review.org
http://www.healthnewsreview.org/
HealthNewsReview.org is a website that aims to improve the quality of news stories about medical care and help readers evaluate evidence for and against new ideas in health care. The objective of the site is to promote informed medical decision-making among readers by framing news information about medical care in an unbiased way.

U.S. Preventive Services Task Force
http://www.uspreventiveservicestaskforce.org/
The USPSTF is an independent panel of experts in prevention and evidence-based medicine and is composed of primary care providers (such as internists, pediatricians, family physicians, gynecologists/obstetricians, nurses, and health behavior specialists). Browse this site to learn about their process for research and decision-making as well as for up-to-date recommendations about cancer screenings and treatments.

Hospice, Palliative Care, and Living Wills:

The National Hospice and Palliative Care Organization
www.nhpco.org
The National Hospice and Palliative Care Organization (NHPCO) is the largest nonprofit membership organization representing hospice health care programs and professionals in the United States. Based in Alexandria, Virginia, the NHPCO advocates on behalf of the terminally ill and their families. It also develops public and professional educational programs and materials to enhance the understanding and availability of hospice and palliative care.

Caring Connections
www.caringinfo.org
Caring Connections is an engagement initiative of the National Hospice and Palliative Care Organization that aims to improve care at the end of life by helping individuals formulate advance care directives, often referred to as “living wills.” The Caring Connections website explains and makes freely available all of the state-specific forms needed to establish an advance care directive.

Hospitals in the Film:

Intermountain Medical Center
http://intermountainhealth care.org/hospitals/imed/Pages/home.aspx
Intermountain Health care is a nonprofit health care system based in Salt Lake City, Utah, with 23 hospitals, over 800 physicians in the Intermountain Medical Group, a broad range of clinics and services, and health insurance plans from SelectHealth.

UCLA Health System
http://www.uclahealth.org/
UCLA Health System is comprised of Ronald Reagan UCLA Medical Center, Santa Monica-UCLA Medical Center and Orthopaedic Hospital, Resnick Neuropsychiatric Hospital at UCLA, Mattel Children’s Hospital UCLA, and the UCLA Medical Group with its wide-reaching system of primary-care and specialty-care offices throughout the region.

Health Care Blogs:

The Healthbeat Blog
http://www.healthbeatblog.org/
A blog written by Maggie Mahar. a fellow at The Century Foundation and the author of Money-Driven Medicine: The Real Reason Health Care Costs So Much (Harper/Collins 2006).

LEARN MORE

The KevinMD Blog
http://www.kevinmd.com/blog/
The KevinMD Blog is written by physician Kevin Pho MD, a primary care physician from New Hampshire. The blog has been named a must-read by Forbes and one of CNN's top five recommended health care Twitter feeds.

The Health care Blog
http://thehealth careblog.com/
The Health Care Blog is written by Matthew Holt, a health care researcher, generalist forecaster and strategist.

The Wall Street Journal Health Blog
http://blogs.wsj.com/health/
Health Blog offers news and analysis on health and the business of health. The blog is written by Katherine Hobson and includes contributions from staffers at The Wall Street Journal, WSJ.com and Dow Jones Newswires.

The iHealthBeat
http://www.ihealthbeat.org/
iHealthBeat is a free, daily news digest reporting on technology's impact on health care. iHealthBeat is part of the California Health care Foundation's commitment to important issues affecting health care policy, delivery, and financing.

The Health Affairs Blogs
http://healthaffairs.org/blog/
The Health Affairs Blog is the blog of the Health Affairs journal. The blog offers daily commentary on important issues in health policy, and publishes input from experts delivering a variety of perspectives. Health Affairs Blog has been named a "must read" resource by the New York Times the Wall Street Journal, the Huffington Post, and many other media outlets.

Wonkblog
http://www.washingtonpost.com/blogs/ezra-klein/
Journalist Ezra Klein's Wonkblog, part of the Washington Post, features contributions from Klein, Suzy Khimm, Sarah Kliff, and Brad Plumer on health care, the economy, the environment, and the 2012 presidential election.

Books:

Aaron, Dr. Henry J., Dr. William B.Schwartz and Dr. Melissa Cox. *Can We Say No? The Challenge of Rationing Health Care*. Washington, DC: Brookings Institution Press, 2005.

Mahar, Maggie. *Money-Driven Medicine: The Real Reason Health Care Costs So Much*. New York: HarperCollins, 2006.

Welch, Dr. H. Gilbert, Dr. Lisa Schwartz and Dr. Steven Woloshin. *Over-diagnosed: Making People Sick in the Pursuit of Health.* Boston: Beacon Press, 2011.

Brownlee, Shannon. *Overtreated: Why Too Much Medicine is Making Us Sicker and Poorer*. New York: Bloomsbury, 2007.

Welch, Dr. H. Gilbert. *Should I Be Tested for Cancer? Maybe Not and Here's Why.* Berkeley: University of California Press, 2004.

Calahan, Dr. Daniel. *Taming the Beloved Beast: How Medical Technology Costs are Destroying Our Health care System.* Princeton Township: Princeton University Press, 2009.

Richmond, Dr. Julius and Dr. Rashi Fein. *The Health Care Mess: How We Got into It and What It Will Take to Get Out.* Cambridge, Mass: Harvard University Press, 2005.

Wennberg, Dr. John. *Tracking Medicine: A Researcher's Quest to Understand Health Care*. Oxford: Oxford University Press, 2010.

Delaune, Dr. Jules and Dr. Wendy Everett. *Waste and Inefficiency in the U.S. Health Care System: Clinical Care: A Comprehensive Analysis in Support of System-Wide Improvements.* Cambridge, Mass: New England Health care Institute, 2008.

Hadler, Dr. Nortin. *Worried Sick: A Prescription for Health in an Overtreated America.* Chapel Hill: University of North Carolina Press, 2008.

Films:

Escape Fire. Directed by Matthew Heineman and Susan Froemke. Our Time Projects, 2012. DVD. http://www.escapefiremovie.com

LEARN MORE

Facing Death. Directed by Miri Navasky and Karen O'Connor. PBS Frontline, 2010. DVD. http://www.pbs.org/wgbh/pages/frontline/facing-death/

Money-Driven Medicine. Directed by Andrew Fredericks. California Newsreel, 2009. DVD. http://www.moneydrivenmedicine.org/

On Our Own Terms: Moyers on Dying. Directed by Elena Mannes. Public Affairs Television, 2000. DVD. http://www.pbs.org/wnet/onourownterms/

U.S. Health Care: The Good News. DVD. Produced by Lisa Hartman. PBS, 2012. http://www.pbs.org/programs/us-health-care-good-news/

Sick Around The World. DVD. Directed by Jon Palfreman. PBS Frontline, 2008. http://www.pbs.org/wgbh/pages/frontline/sickaroundtheworld/

Articles:

Sirovich, Dr. Brenda E., Dr. Steven Woloshin, and Dr. Lisa M. Schwartz. "Too Little? Too Much? Primary Care Physicians' Views on US Health Care," *Archives of Internal Medicine* 171, no. 17 (2011): 1582-1585.

Goldhill, David. "How American Health Care Killed My Father," *The Atlantic*, September 2009.

Grady, Dr. Deborah and Dr.Rita Redberg. "Less is More: How Less Health Care Can Result in Better Health," *Archives of Internal Medicine* 170, no. 9 (2010): 749-750.

Shaffer, Ellen. "US Health Care Myths and Facts," Equal Health Network, http://www.centerforpolicyanalysis.org/index.php/2010/07/us-health-care-myths-and-facts-equal (accessed October 31, 2011).

Kimbuende, Eric, Usha Ranji, Janet Lundy, and Dr. Alina Salganicoff. "Background Brief - U.S. Health Care Costs," Kaiser Family Foundation, http://www.kaiseredu.org/Issue-Modules/US-Health-Care-Costs/Background-Brief.aspx#footnote5 (accessed April 11, 2012).

James, Dr. Brent and Dr. Lucy A. Savitz. "How Intermountain Trimmed Health Care Costs Through Robust Quality Improvement Efforts," *Health Affairs* 30, no. 6 (2011): 1185-1191.

The Association of Washington Health care Plans. "Rising Health Care Costs: What Factors are Driving Increases?" The Association of Washington Health care Plans, http://www.awhp-online.com/CurrentIssues.aspx (accessed April 11, 2012).

Skinner, Jonathan. "Is More Care Better Care?" *New York Times*, June 13, 2009.

Gawande, Dr. Atul. "The Cost Conundrum: What a Texas town can teach us about health care," *The New Yorker*, June 1, 2009.
"Hot Spotters", The New Yorker
http://www.newyorker.com/reporting/2011/01/24/110124fa_fact_gawande

Korda, Dr. Holly. "Bundled Payment, Transparency, and Market Competition: What's Under Wraps?" HealthPolicyForum.org, http://healthpolicyforum.org/post/bundled-payment-transparency-and-market-competition-whats-under-wraps (accessed April 11, 2012).

Massachusetts Medical Society Department of Health Policy and Health Systems. "Overview of Alternative Payment Models," Massachusetts Medical Society, www.massmed.org (accessed April 11, 2012).

Lischko, Dr. Amy M. "Physician Payment Reform: Review and Update of the Models," Massachusetts Medical Society, http://www.massmed.org/AM/Template.cfm?Section=Home6&TEMPLATE=/CM/ContentDisplay.cfm&CONTENTID=22167 (accessed April 11, 2012).

Leonhardt, David "Making Health Care Better", The New York Times http://www.nytimes.com/2009/11/08/magazine/08Health care-t.html?pagewanted=all

Sackett, Dr. David L., Dr. William M. C. Rosenberg, Dr. J. A. Muir Gray, R. Brian Haynes, and Dr. W. Scott Richardson. "Evidence based medicine: what it is and what it isn't," *BMJ* 312, no. 7023 (1996): 71.

Mendelson, Dan and Dr. Tanisha V. Carino. "Evidence-Based Medicine in the United States - De Riguer or Dream Deferred?" *Health Affairs* 24, no. 1 (2005): 133-136.

Brody, Jane E. "A Watch-and-Wait Prostate Treatment," *New York Times*, November 14, 2011.

Parker-Pope, Tara. "Answering Questions About the P.S.A. Test," *New York Times*, October 6, 2011.

Kolata, Gina. "'Cancer' or 'Weird Cells': Which Sounds Deadlier?" *New York Times*, November 21, 2011.

LEARN MORE

Mulcahy, Nick. "Stop 'Selling' Cancer screening, says Critic: Publicize Harms and Benefits," *Medscape Medical News*, http://www.medscape.com/viewarticle/754031 (accessed November 11, 2011).

Welch, Dr. Gilbert. "You Have to Gamble on Your Health," *New York Times*, October 10, 2011.

Hobson, Katherine. "Cost of Medicine: Are High-Tech Medical Devices and Treatments Always Worth It?" *US News & World Report*, July 10, 2009.

Reports:

Davis, Karen. "Mirror, Mirror on the Wall: How the Performance of the US. Health Care System Compares Internationally," The Commonwealth Fund, http://www.commonwealthfund.org/Publications/Fund-Reports/2010/Jun/Mirror-Mirror-Update.aspx?page=all (accessed April 11, 2012).

The Commonwealth Fund Commission on a High Performance Health System. "Why Not the Best: Results form the National Scorecard on U.S. Health System Performance, 2011," The Commonwealth Fund, http://www.commonwealthfund.org/News/News-Releases/2011/Oct/Oct-18-Briefing-Why-Not-the-Best.aspx (accessed April 11, 2012).

Institute of Medicine of the National Academies, *To Err is Human: Building a Safer Health Care System*. Washington, DC: National Academies Press, 2000.

Robert Wood Johnson Foundation, "High and Rising Health Care Costs: Demystifying U.S. Health Care Spending," *The Synthesis Project*, no. 16 (2008).

Brownlee, Shannon and Vanessa Hurley. "Patient Decision Aids and Shared Decision-Making ," New America Foundation, http://health.newamerica.net/publications/policy/patient_decision_aids_and_shared_decision_making (accessed April 11, 2012).

Social Security Advisory Board. "The Unsustainable Cost of Health Care," Social Security Advisory Board, www.ssab.gov/PublicationViewOptions.aspx?ssab_pub=42(accessed on April 4, 2012).

Congressional Budget Office. "Technological Change and the Growth of Health Care Spending," The Congressional Budget Office, cbo.gov/sites/default/files/cbofiles/ftpdocs/89xx/doc8947/01-31-techhealth.pdf (accessed April 11, 2012).

Radio:

NPR
Shots: Health Blog
http://www.npr.org/blogs/health/

Agency for Health care Research and Quality
Health care 411: Podcast
http://www.health care411.org/

Robert Wood Johnson
Video and Podcasts on health care news
http://www.rwjf.org/newsroom/search.jsp?catid=11

Kaiser Health News
Podcast: http://itunes.apple.com/us/podcast/health-on-the-hill/id205420589
Video: http://www.kaiserhealthnews.org/Multimedia.

Johns Hopkins University School of Medicine
Johns Hopkins Medicine Podcasts
http://www.hopkinsmedicine.org/news/audio/podcasts/Podcastsinstructions.html

HOW TO BUY THE DVD
CREDITS, ACKNOWLEDGEMENTS

How To Buy The DVD

To order a DVD of the 56-minute broadcast version of *Money & Medicine* for home use, Contact:

Money and Medicine
P.O. Box 2284
South Burlington, VT 05495
Or Call
1-800-336-1917

To order a DVD of the original 85-minute feature version of *Money & Medicine* for home use, contact:
Public Policy Productions
845-398-2119
pppinfo@pppdocs.com
www.pppdocs.com

For educational and institutional use, contact:
Bullfrog Films
PO Box 149
Oley, PA 19547
p. 610-779-8226
800-543-3764
f. 610-370-1978
info@bullfrogfilms.com
http://www.bullfrogfilms.com
http://www.bullfrogfilms.com/catalog/monmed.html

For foreign television inquiries, contact:
Ocule Films
1223 Wilshire Blvd., Ste. 820
Santa Monica, CA 90403
p. 310-399-7937
f. 310-492-5017
http://www.oculefilms.com

Credits, Acknowledgements

Writers:
Roger Weisberg
Michael Brick

Editorial Assistants:
Christine Tampakis
Catherine Donovan

Photos Courtesy of Public Policy Productions

Graphic Designer:
Bill Bergeron-Mirsky

For WNET:
Stephen Segaller, V.P., Programming

Julie Anderson, Executive Producer, Documentaries and Development

Elisabeth Pensot, Associate Web Produer for *Need to Know*

Christiane Wartell, Director of Production, Interactive Engagement Group