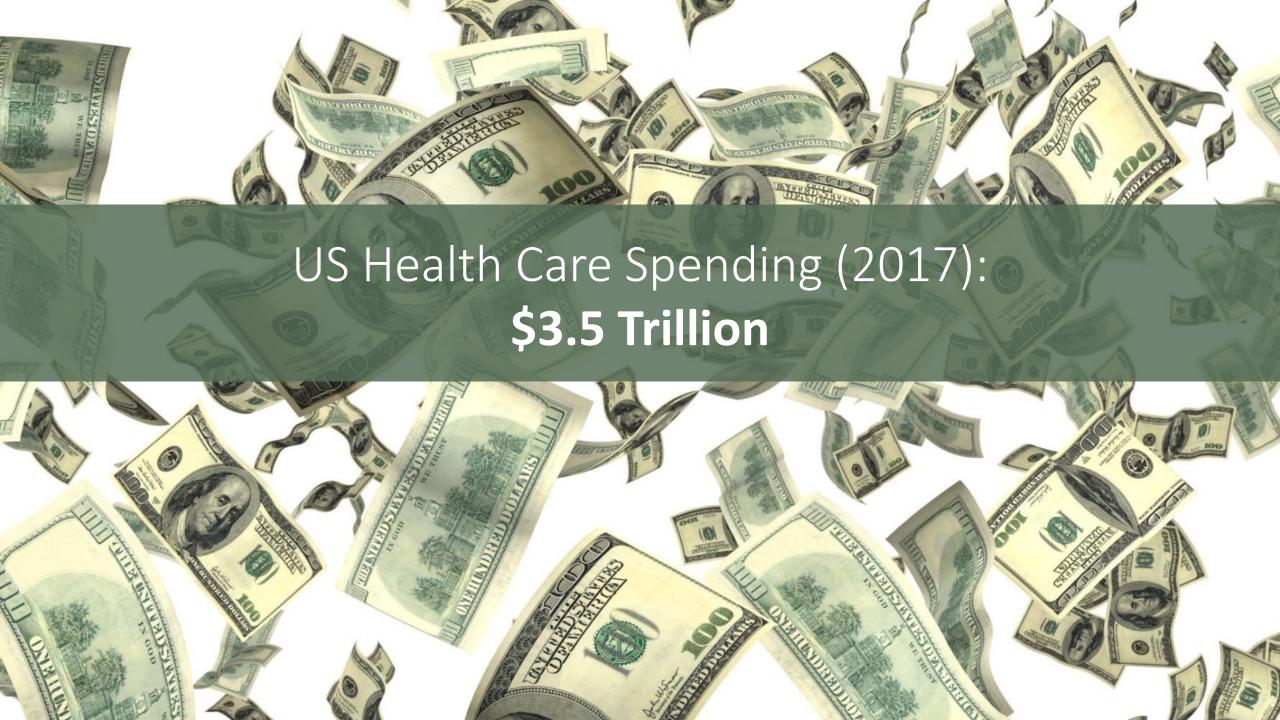
Getting to Affordability

Ezekiel J. Emanuel, M.D., Ph.D.

University of Pennsylvania

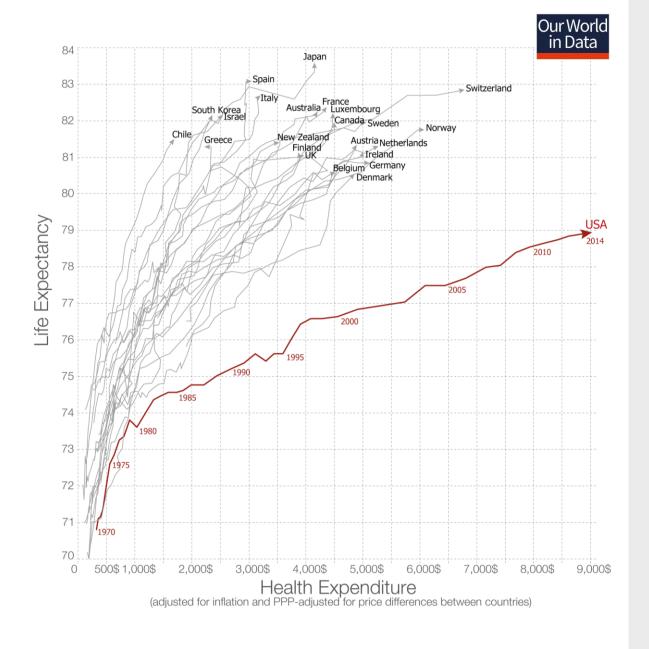




US Health Care Rank

	GDP in 2017	Rank
USA	\$19.39 trillion	#1
CHINA	\$12.23 trillion	#2
JAPAN	\$4.87 trillion	#3
GERMANY	\$3.67 trillion	#4
UK	\$2.62 trillion	#5
INDIA	\$2.59 trillion	#6
FRANCE	\$2.58 trillion	#7





Life Expectancy vs. Health Spending (1970-2014)

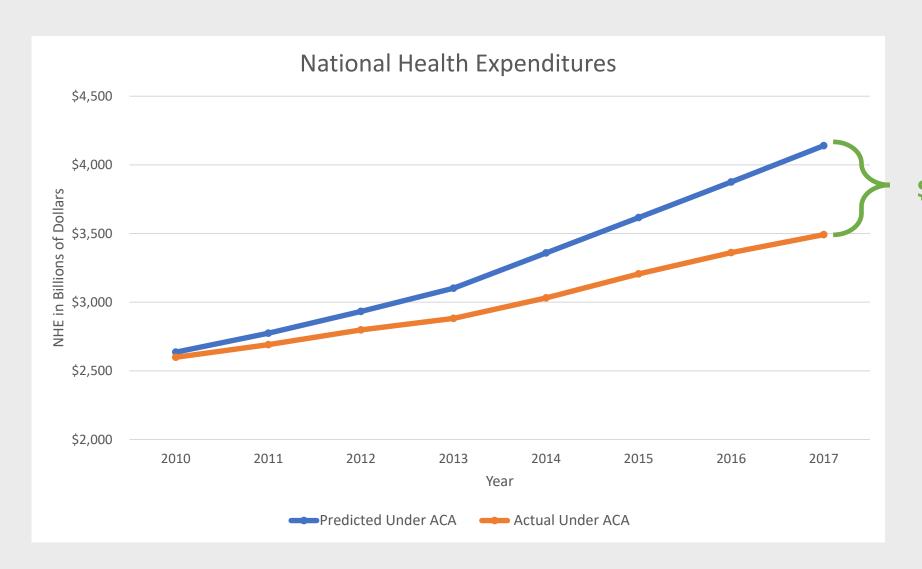
Enactment of Health Care Reform



Patient Protection and Affordable Care Act March 23, 2010



The ACA Contained Costs More Than Expected

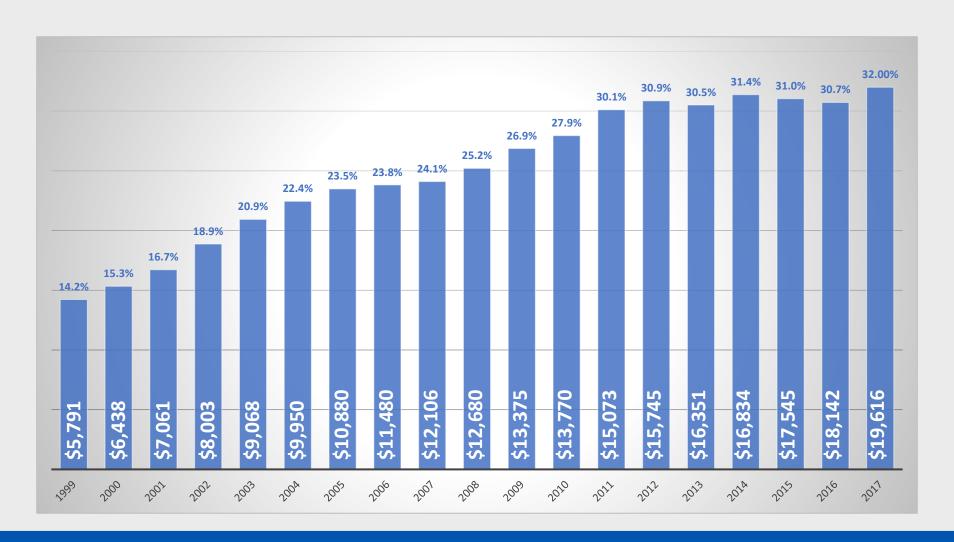


\$650 billion



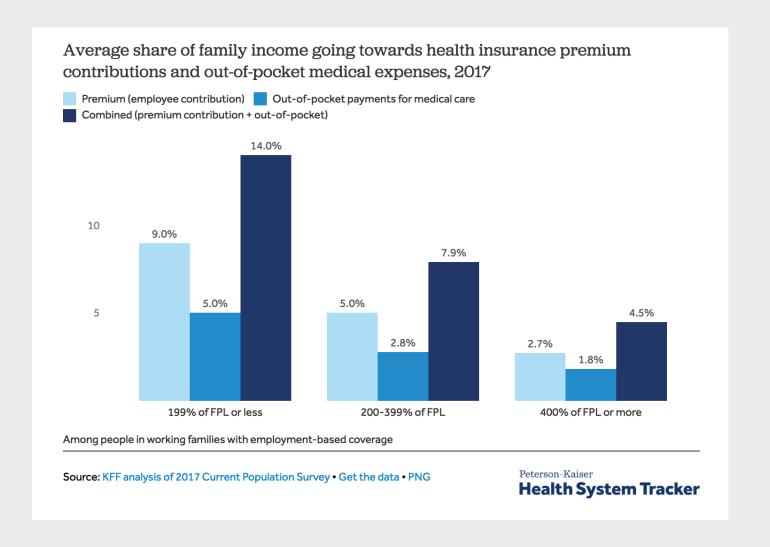
Affordability Index

Family Health Insurance Premiums as Percentage of Median Income (2001 – 2017)





Affordability for Families





What will the future of American health care look like?



Future Trends of High-Value Care

- 1. Private-sector driven changes.
- 2. Shift towards value-based payment.
- 3. The **deinstitutionalization** of care.
- 4. Greater use of non-physician providers.
- 5. VIP care for **chronic conditions**.
- 6. The **performance measurement** of physicians and other providers.
- 7. The **incorporation of behavioral health** in regular care.
- 8. Excessively high drug prices.
- 9. Increasing attention to social determinants of health.
- 10. More patients on Medicaid.



Four Key Ways to Address Affordability

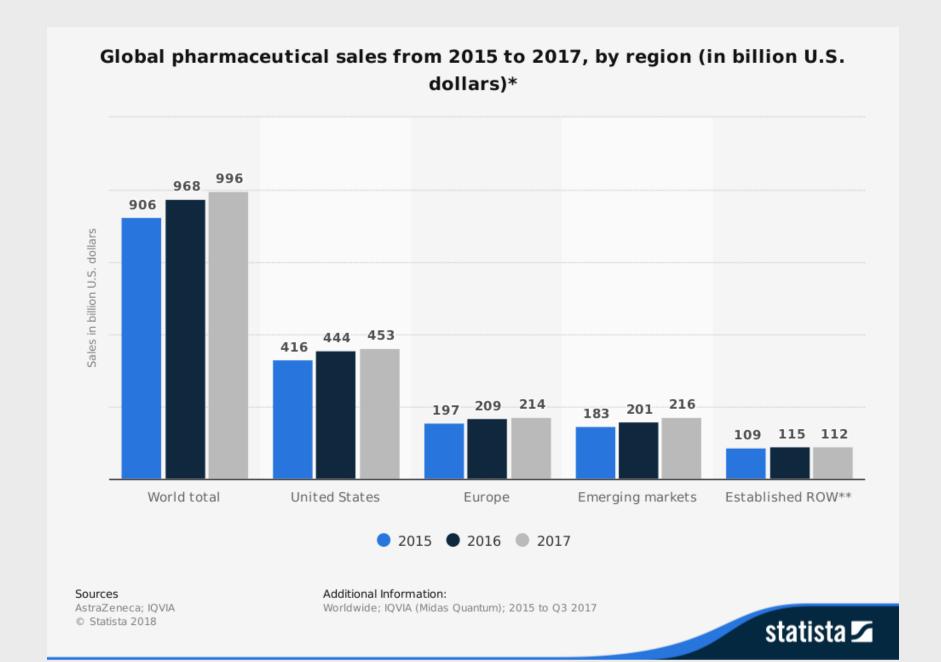
1. Drug prices

2. Hospital inefficiency

3. Administrative Costs

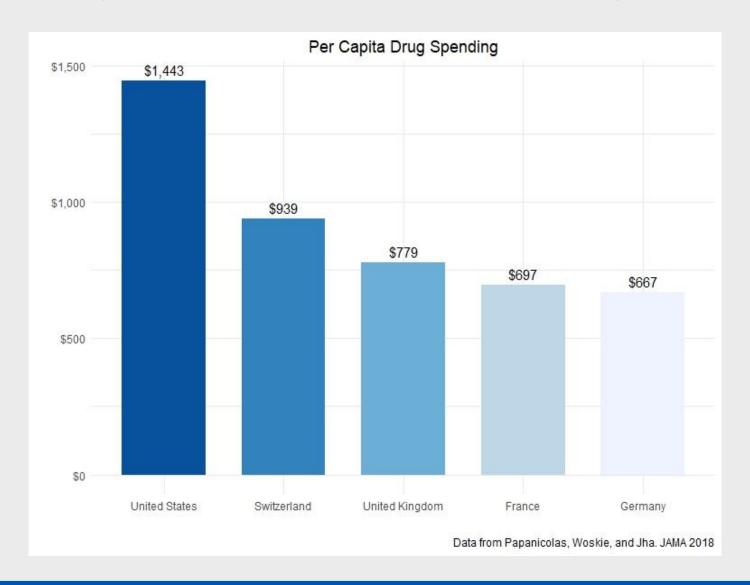
4. Physician Payment and Practice Changes







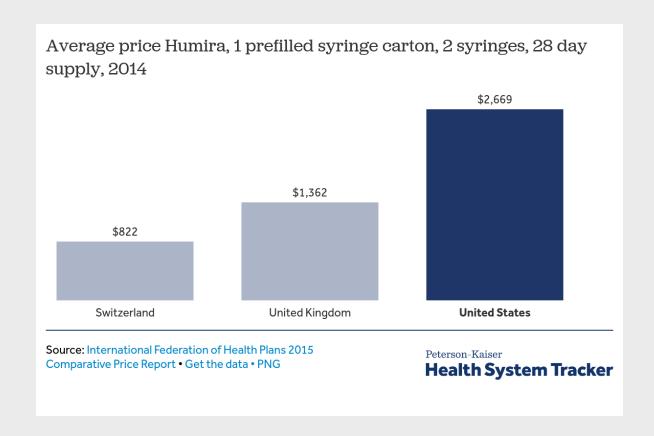
Per Capita Pharmaceutical Spending





High Drug Prices: Humira

- Humira, the best-selling prescription drug in the world.
 - 2012 \$19,000/year
 - 2014 \$32,000/year
 - 2018 \$38,000/year





Drug Prices

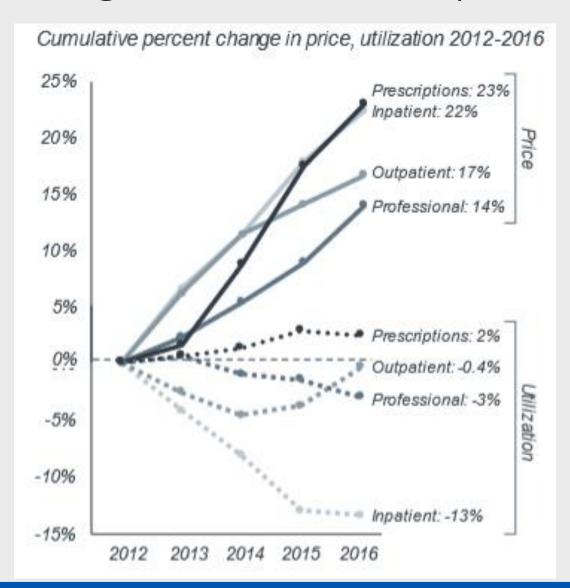
• Bringing US drug spending down to Swiss levels—from \$1443 to \$939—is a savings of \$504 per American.

• Drug price negotiation based on CEA or international reference pricing can save \$163 billion.

Hospital Inefficiency



Cost growth is due to prices

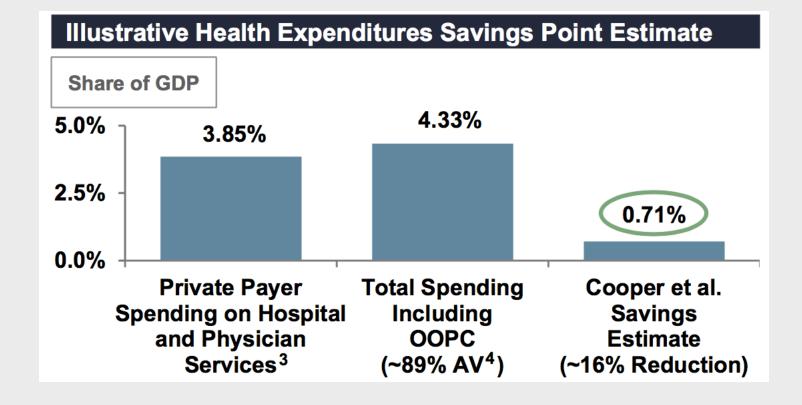




Price Caps on Hospitals

 There are many proposals to cap hospital prices for private insurance to 140% or 125% of Medicare.

• Savings:





Price Caps on Hospitals

• Capping hospital prices at 125% of Medicare means:

• Savings of 16% of private inpatient hospital spending, or \$73 billion.

 That amounts a savings to Americans in private insurance of \$405 per privately insured Americans



Increasing Hospital Efficiency

1. Time-motion studies

2. Performance measurement and feedback

Time-Driven Activity-Based Costing (TDABC)

Determine the Care Process

- What activities are performed over the care cycle for a medical condition?
- Who is performing each activity?
- How long does each activity take?
- 2 Calculate Cost Rates
- What is the cost per unit of time for each type of personnel?
- Account for Consumables
- What materials, supplies, and drugs are consumed during the care cycle?
- Allocate Indirect Costs
- What are the drivers that determine the workload for each indirect department/area?

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Determining the care processes over complete cycles of care Level 1: Overall care cycle Source: Tim Ferris at Partners Healthcare Schedule Assess Patient Procedure Recovery appropriateness risk problem Shared decision Tier 1.2 Tier 3 Possible need procedure making outcome outcome for procedure encounter testing measures measures Level 2: Study care cycle Map 3: Day Map 5: Post-Map 2: Map 8: Map 1: Map 6: Map 7: of surgery Map 4: Pre-operative Surgical Follow-up anesthesia Discharge Rehabilitation pre-operative Operation testing visit consultation care unit prep Level 3: Process maps Map 2 HARVARD BUSINESS SCHOOL Copyright @ Harvard Business School, 2013



HOI CARE CYCLES Pre-op Visit 3 Pre-op Pre-op Discharge 1. PAS call Discharge Inpatient Pre-op Pre-op Visit 4 Prep for follow-up Discharge → follow-up 2.Lab work PACU Surgery Stav Visit 1 Visit 2 Day of Joint Visit 2 Disposition Visit 1 3. Pre-op (LOS 2.5 day) Class Surgery paperwork 1. Registration 1. Check pt in 1. Check in 1. Check in 1. Schedule 1. Pt Assessment (not complete 1. OR Call 1. Check in 1. Check in 2. Escort pt 2. Class Intro 1.Home Surgery 2. Intake-2. Intake-2. Prep pt chart list of patient 2. Assign Pt. 3. Prep pt 3. Periop 2. Intake-2. Intake-2. Case Review Health order order 3. Registration * care) 3. Chart 4. Interview pt Overview 3. Prep Room 3. X-ray 2. SNF 3. X-ray 1. Hand off imaging imaging (10 min 80%, Review 5. Assess/ 4. Med/Surg 4. Anesth Block 4. Asses/ 4. Asses/ 3. Acute 2. Transfer to 3. X-ray 3. X-ray 30 min 20%) 4. Set up bay Educate/ Overview 5. To OR/pt Eval Eval Rehab floor 4. MD Eval 4. Eval 5. Transport 4. Escort pt to 5. Pre-op Consent position and 5. PT order 5. PT order 3. Prep room 5. Schedule from OR/ 5. Info/PT Exercise next service Exercise prep/Anesth 4. Assess 6. Check 6. Check post op visit 5. Update pt's 6. Handoff 6. Hand off 7. Surgery 6. Adaptive 6. Time out 5. Vitals out out 7.Assessment report/ Doc cheduled 6. Check Equipment Cost: 7. Perform profile prior to 6. Document 8.Med admin 7. Discharge 7. Clean Bay 8. Check out Surgery \$2,158 surgery day 7. PT 9. Anesth sign Expectation 8. Closure \$4,919 out 8. Meals out 8. Q&A 9. Document Ranges: Total Total 9. Rounding Total 10. Document 10. Count \$1,200 -Minutes: 10. Pain Minutes: Total 11. Pt Report/ Minutes: Total Total 11. To PACU \$17,500 27 **Total Minutes:** Mngmt 30-45 transfer to 45 Minutes: Minutes: 12. Turnover Minutes: Cost: Sign in = 4011. Med floor Cost: 61-81 134 Cost: Room 60-110 Admin \$47-\$82 Class = 120 \$46-124 \$35 -\$95 Cost: Cost: Cost: 12. Ice Avg. \$58 Q&A = 30Avg. \$76 Avg. \$66 \$52 \$210 Total \$272therapy Cost: Total Minutes: 13. Sleep Aid \$280 \$8 Minutes: 89 14. Education Avg. Divided by # 317 Costs: \$277 pt attending (125 +\$268-Surgery) Inpatient Stay Cost: \$279 **Total Minutes:** \$2,345 -Avg. \$273 Day 1= 789 Total minutes are \$2,603 Day 2= 816 minutes that are spent Hoag Orthopedic Institute Avg. Cost: during the process to \$2,427 \$2,007-\$2,042 complete the task and Avg. \$2,029 includes all personnel involved. Minutes



Home Health Assumption

- Total of 10 visits.
 9 visits, in addition to initial assessment
- Cost is \$135/visit
- Average Cost \$1,350

Skilled Nursing Facility Assumption

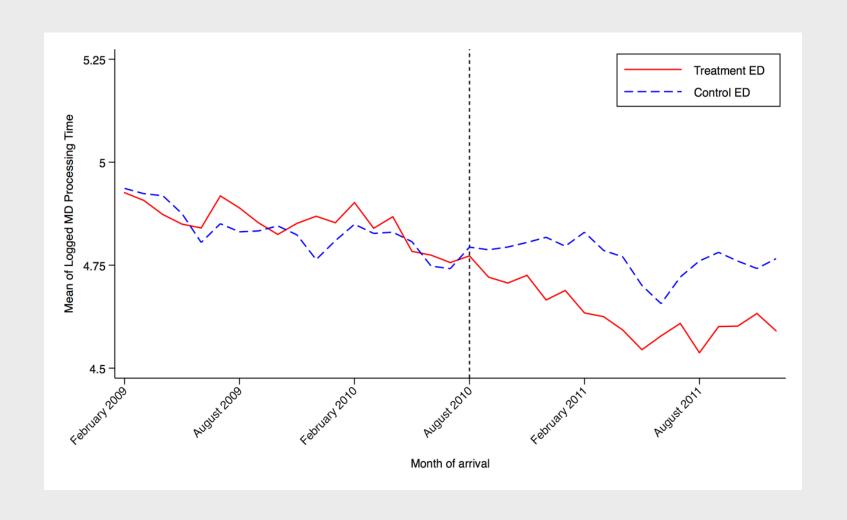
- Average LOS is 7 days
- Cost is \$650/day
- Average Cost \$4,550

Acute Rehab Assumption

- Average LOS is 8.7 days
- Cost varies/day, median cost \$1,653/day
- Average Cost \$14,381

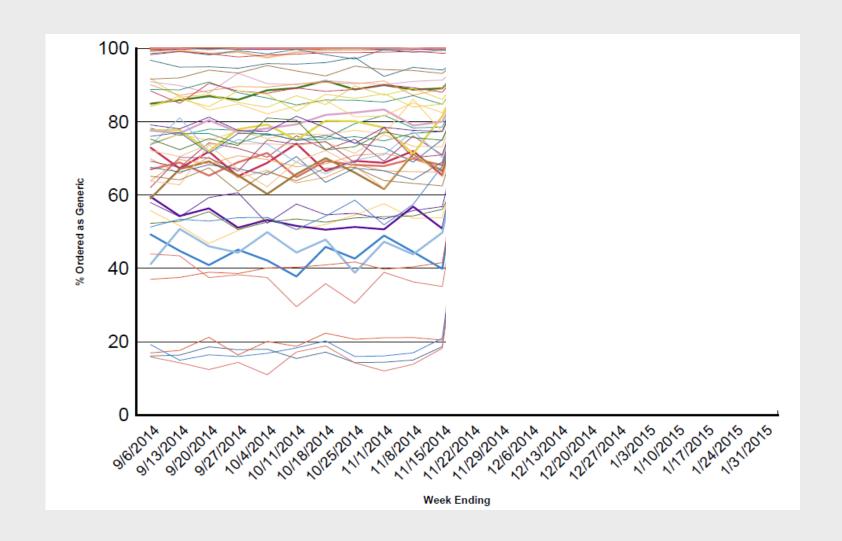


Performance Measurement





Performance Measurement



Performance Measurement

"We are using physicians' names. The opportunity is here for physicians to go down the hallway to their colleague, who is showing up better than they are, and have that conversation...you start to see changes in performance because of these conversations."

> ~ Dr. Bernadette Loftus Kaiser Mid-Atlantic



Administrative Savings

Billing and Insurance Related Costs estimated by National Academy

Category	Total Spending	Total Excess Costs	33% Savings of Excess Costs
Total spending on billing and insurance related cost	\$496 billion	\$248 billion	\$82 billion
Spending by private insurance companies	\$158 billion	\$104 billion	\$34 billion
Spending by Medicare and Medicaid	\$56 billion		
Spending by physicians, hospitals and others	\$282 billion	\$141 billion	\$46 billion



Physician Payment and Practice Changes

- Ultimately, physicians order tests and treatments
- Physicians need to practice better to reduce:
 - Unnecessary services—PET/CT for early stage breast cancer
 - Inefficiently delivered services—using clinically equivalent but more expensive care

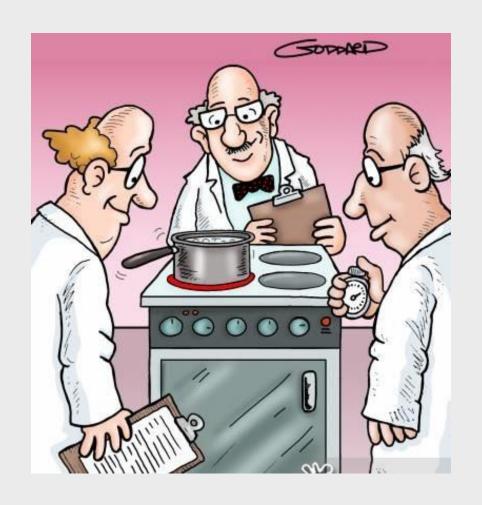


Payment and Practice Changes

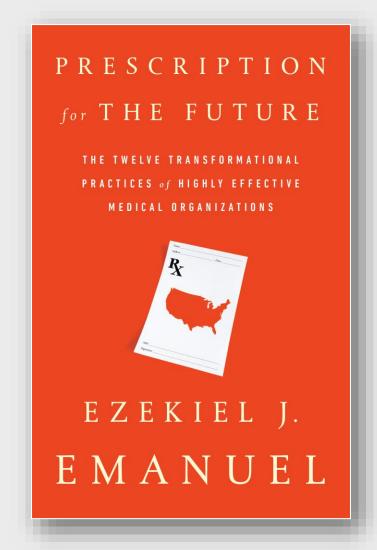
- Capitation for oncologists: Remove any financial incentives for oncologists to prescribe chemotherapy.
- New bundles for orthopedists: Incentivize pain management instead of joint replacement
- Capitation with bonus: Incentivize PCPs to do hospital at home instead of hospital admission.
- New Bonuses for Limited Quality Measures: Bonus PCPs for hemoglobin A1c and BP control and provide care coordinators.



Timeline of Transformation



Conclusion







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