

Cornell University

Pharmaceutical and Biotech Policy Issues, Part 2

PUBPOL 2350

November 2, 2023

COFFEE & CONVERSATIONS: PUBLIC HEALTH AT CORNELL

**NOV 8
2023**

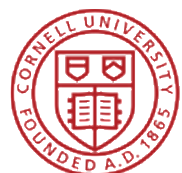
5:00PM - 6:00PM
Warren Hall B51

Join Cornell Public Health faculty and students for coffee and snacks, and dive into the dynamic world of public health!

Register and you'll automatically enter a raffle to win exclusive Cornell Public Health merch!

**DON'T MISS OUT
ON THIS EXCITING
OPPORTUNITY TO
CONNECT, LEARN,
AND WIN!**

REGISTER:



Cornell University

BLOOD DRIVES FOR *NOVEMBER*

Scan here to sign
up to donate!



 Cornell
Red Cross Club
@cornellredcross

Biotech G10 1-6 PM

THURSDAY

2

SUNDAY

29

MONDAY

30

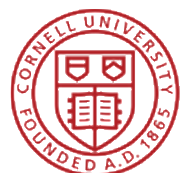
RPCC 218 1-6 PM

THURSDAY

9

FRIDAY

10



JOIN THE CORNELL DEMOCRATS FOR

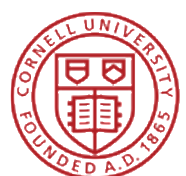
A CONVERSATION WITH CORNELL ALUM JENNY YANG

Deputy Director of the
Domestic Policy
Council for Racial
Justice & Equity

November 3, 2023
Goldwin Smith Hall 142
5:30PM-6:30PM

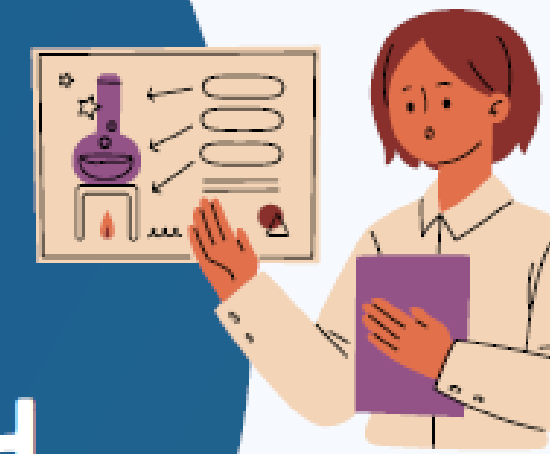


REGISTER HERE:



THE COLLEGE OF HUMAN ECOLOGY'S DEAN UNDERGRADUATE
ADVISORY COUNCIL PRESENTS...

CORNELL HUMAN ECOLOGY UNDERGRADUATE RESEARCH CAREER FAIR



**JOIN US FOR A SHOWCASE OF HUMAN
ECOLOGY-FOCUSED RESEARCH.**

**TALK TO LAB REPRESENTATIVES +
LEARN ABOUT AVAILABLE RESEARCH
POSITIONS WITHIN HUMAN ECOLOGY.**

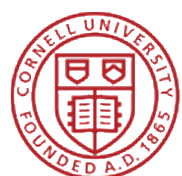
**WHEN :
NOVEMBER 7, 2023
TUESDAY**

**WHERE:
MVR COMMONS**

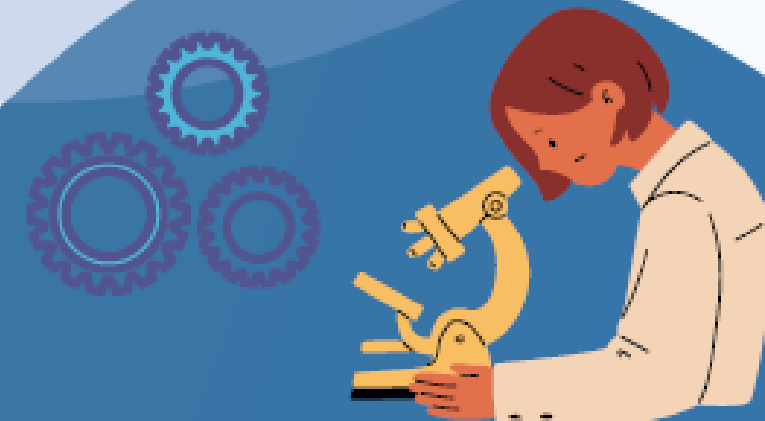
**PERFECT TO DEVELOP A FOUNDATION FOR
YOUR RESEARCH CAREER.**



**PLEASE RVSP USING THE QR CODE
PROVIDED. LIMITED SPOTS AVAILABLE**



Cornell Univers



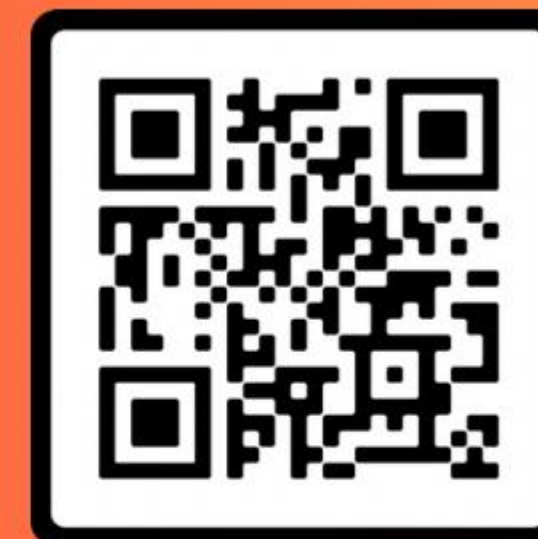


BIG RED THON DANCE MARATHON

Big Red Thon is Cornell's largest student-run non-profit organization!

We raise funds for Children's Miracle Network Hospitals, specifically Upstate Golisano (right here in New York!) to help provide kids with lifesaving treatments and the best quality care.

Every year, we host an annual **DANCE MARATHON** at Barton Hall as our main fundraising event, with games, prizes, food, and more! Your participations and contributions go directly to Upstate Golisano, so sign up now to show your support and save your spot at the event!

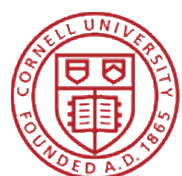


REGISTER FOR THE EVENT!

**WHEN: SATURDAY, NOVEMBER
11TH, 2-7PM**

**WHERE: BARTON HALL (CENTRAL
CORNELL CAMPUS)**

**EMAIL US AT
BIGREDTHON@GMAIL.COM**



Cornell Univ



SCAN
BELOW TO
REGISTER!



Global Health EXPERIENTIAL LEARNING SYMPOSIUM



FRIDAY, NOV 3RD



Physical sciences
Building

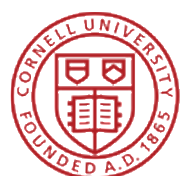


4:30 PM – 6:00 PM

At the Experiential Learning
Symposium you'll:

- ✓ Learn about students' ELOs
- ✓ Participate in the Health Humanities Contest

Hosted by the
GHSAB and DNS



Cornell University

THE GLOBAL HEALTH STUDENT ADVISORY BOARD PRESENTS:
THE THIRD ANNUAL

HEALTH HUMANITIES CONTEST

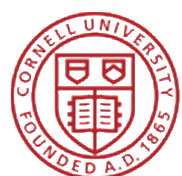
2023 THEME: TOPICS IN GLOBAL AND PUBLIC HEALTH

HELD AT THE 2023 EXPERIENTIAL LEARNING SYMPOSIUM

NOVEMBER 3, 2023 FROM 4:30 - 6:00 PM AT THE PHYSICAL SCIENCES
BUILDING (PSB) SOUTH PASSAGEWAY AND CLARK ATRIUM

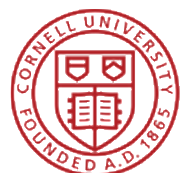
DEADLINE: OCTOBER 30TH AT 11:59 PM

Application and
guidelines here:



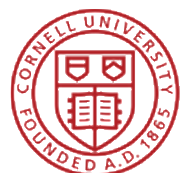
Any Current Events?

All Prelim #1 regrades have been completed



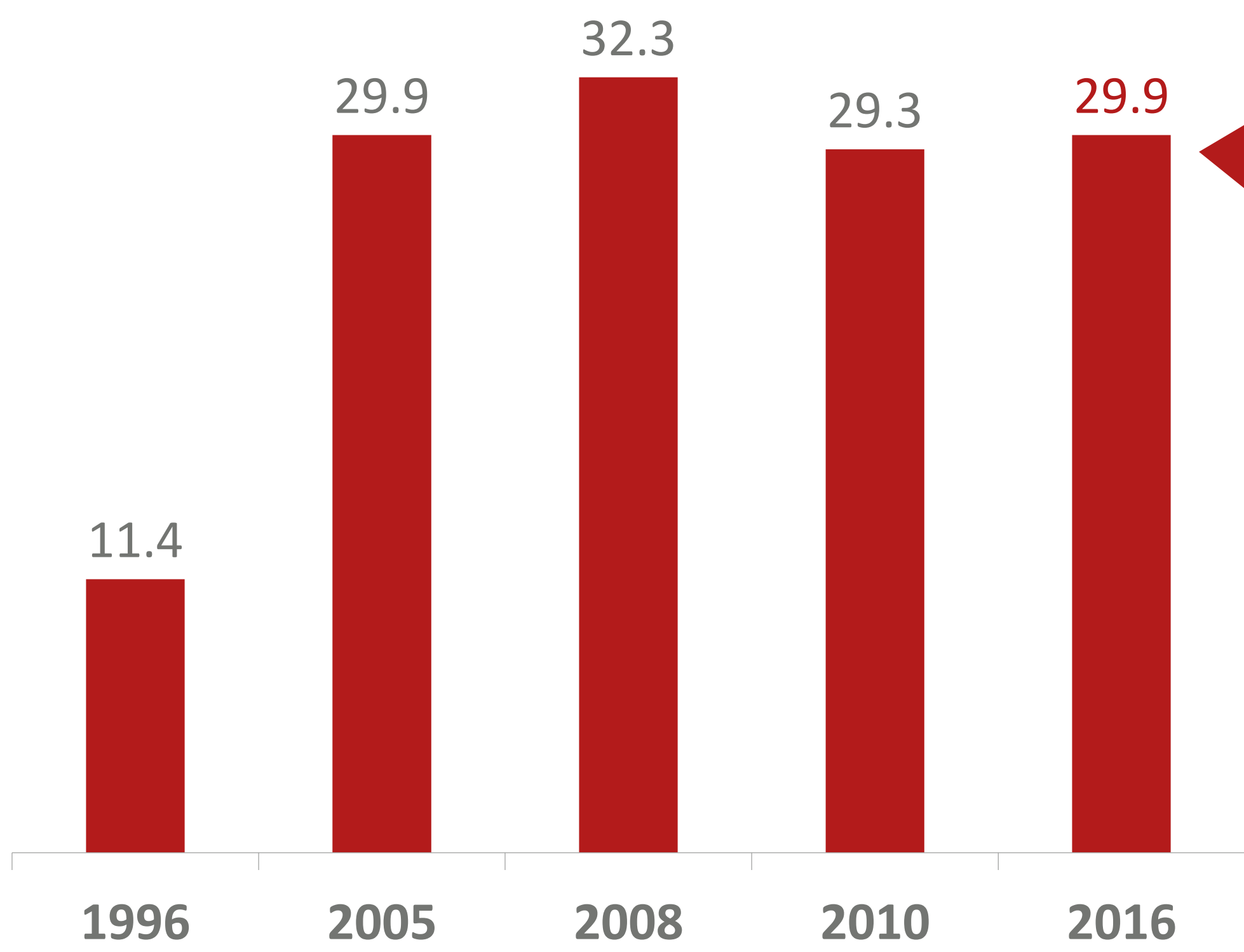
Today's Topics

- 1. Marketing:** Why do biotech and pharmaceutical firms spend so much money marketing drugs?
- 2. Drug Prices:** Why are prescription drug prices so much lower in other high-income countries than in the U.S.?
- 3. Policies to Reduce U.S. Drug Prices:** discuss the impact of allowing the U.S. government (i.e., Medicare) to negotiate drug prices with biopharmaceutical firms, beginning in 2026.



Marketing Spending Has Declined in Past Decade But Is Still Focused on Physicians, Not Patients

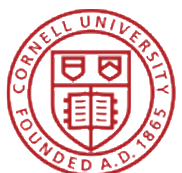
Industry Spending, \$ Billions



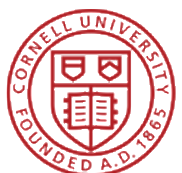
	\$ Billions
Detailing	\$5.6
Samples	\$13.5
MD Meetings	\$1.0
Direct-to-consumer advertising	\$9.6
Other	<u>\$0.2</u>
Total	\$29.9



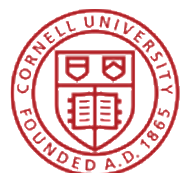
What is Detailing?



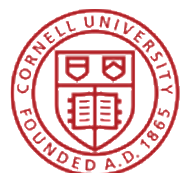
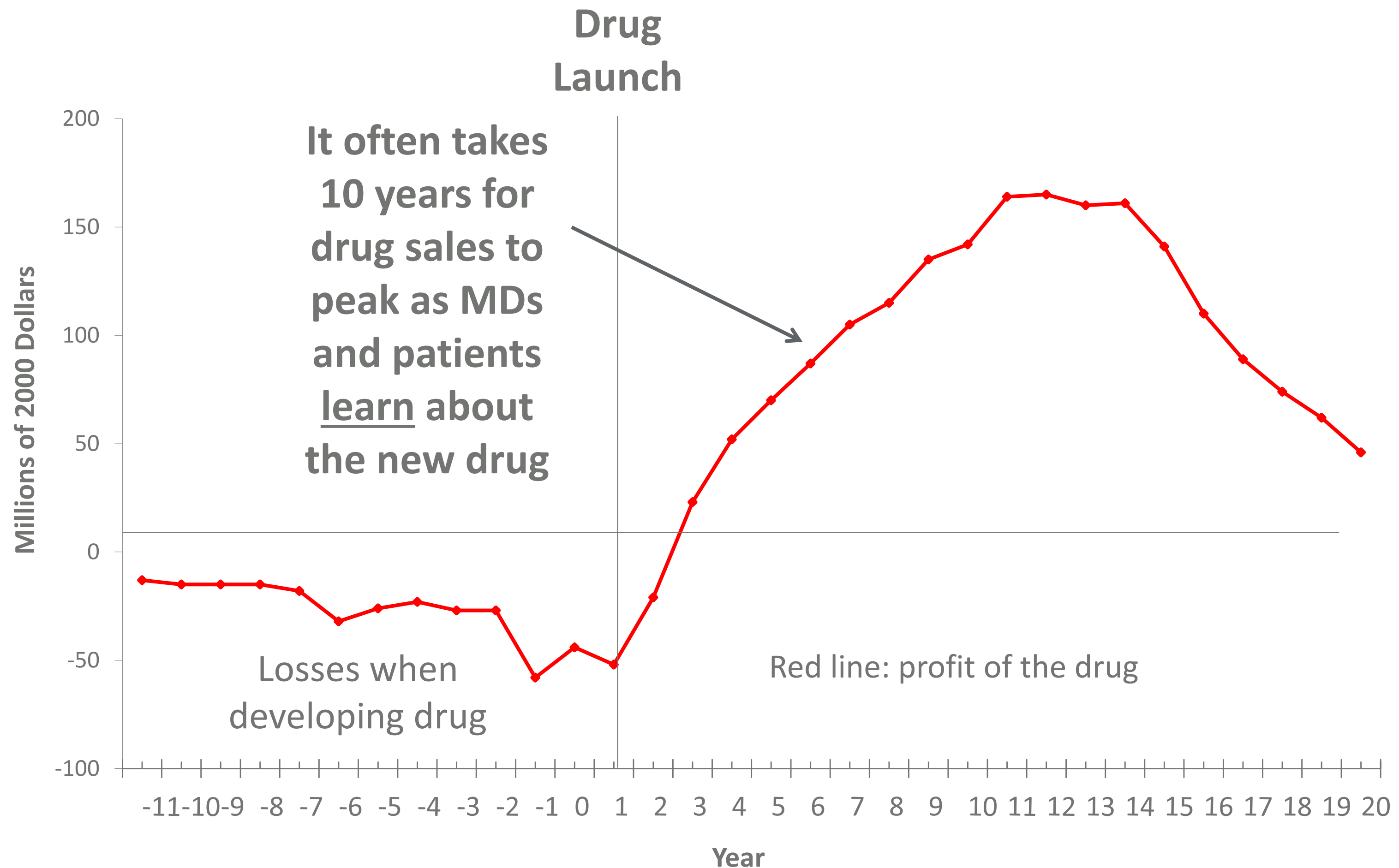
John Oliver's Take



**Why Do Pharmaceutical
Firms Spend
\$30 Billion Per Year on
Marketing/Advertising?**



Product Life Cycle: Revenue Usually Grows Steadily Over an Extended Time, Then Falls Sharply When the Patents Expire

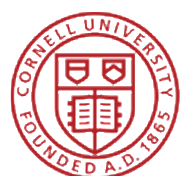


The Slow Uptake

Experience Goods: Pharmaceutical drugs are experience goods; physicians and patients need to try the product in order to determine whether it's valuable to them.

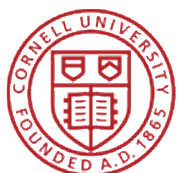


Companies that make experience goods tend to market heavily in order to provide information about the value of their product. (But does marketing also persuade people to buy/try something they should not?)



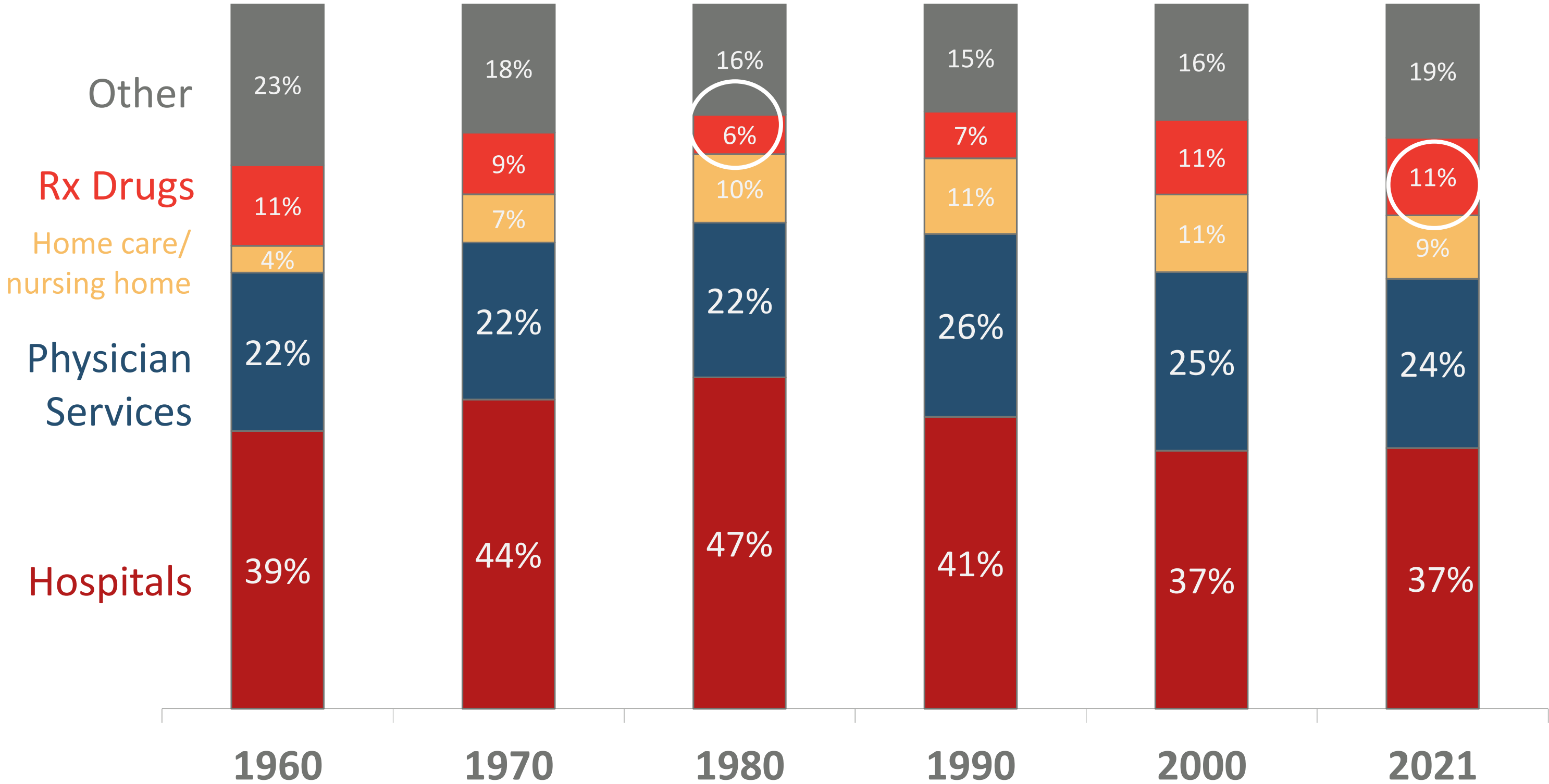
Conclusions, Part 1 of Pharma

- Developing a drug takes a long time, is expensive, and is not guaranteed to work.
- Patents allow pharmaceutical firms that successfully launch a new drug to make \$ on it, thus providing incentives for them to incur the uncertainty and large expenditures involved.
- Generic drugs, which have relatively low prices, now account for 91% of all prescriptions.
- Firms market to physicians and patients to convey information about the drugs, so they will try them (i.e., experience goods).
- Marketing is especially important because once the patent expires, almost all patients shift to a generic version.
- The government closely regulates the drug development, manufacturing, and marketing processes.



Pharmaceutical Expenditure Share Has Almost Doubled Over the Past 40 Years

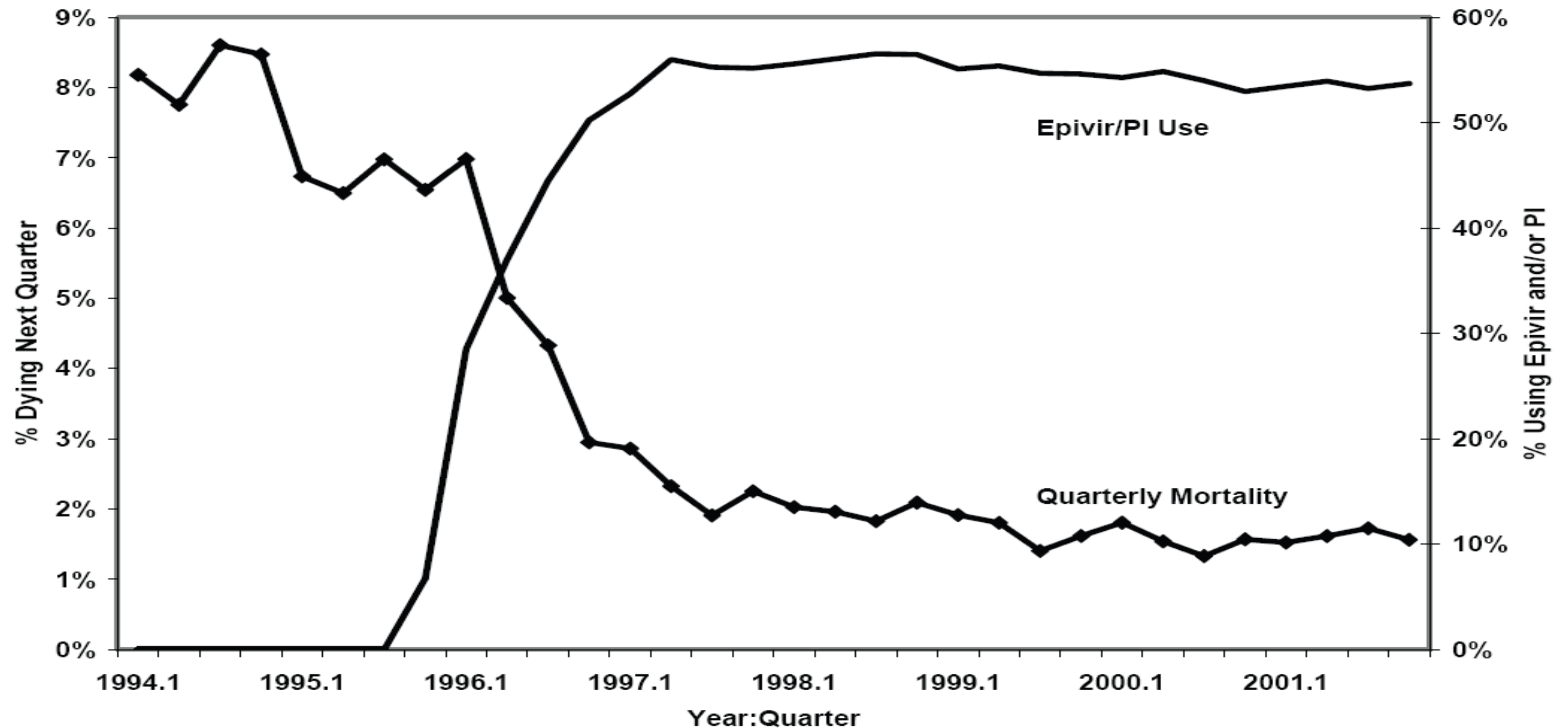
Percentage of Personal Health Care Spending by Type of Service



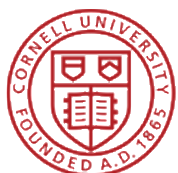
Some of the Increased Use of Prescription Drugs Has Clearly Improved Health

Protease Inhibitor Cocktails Reduced HIV Mortality Sharply

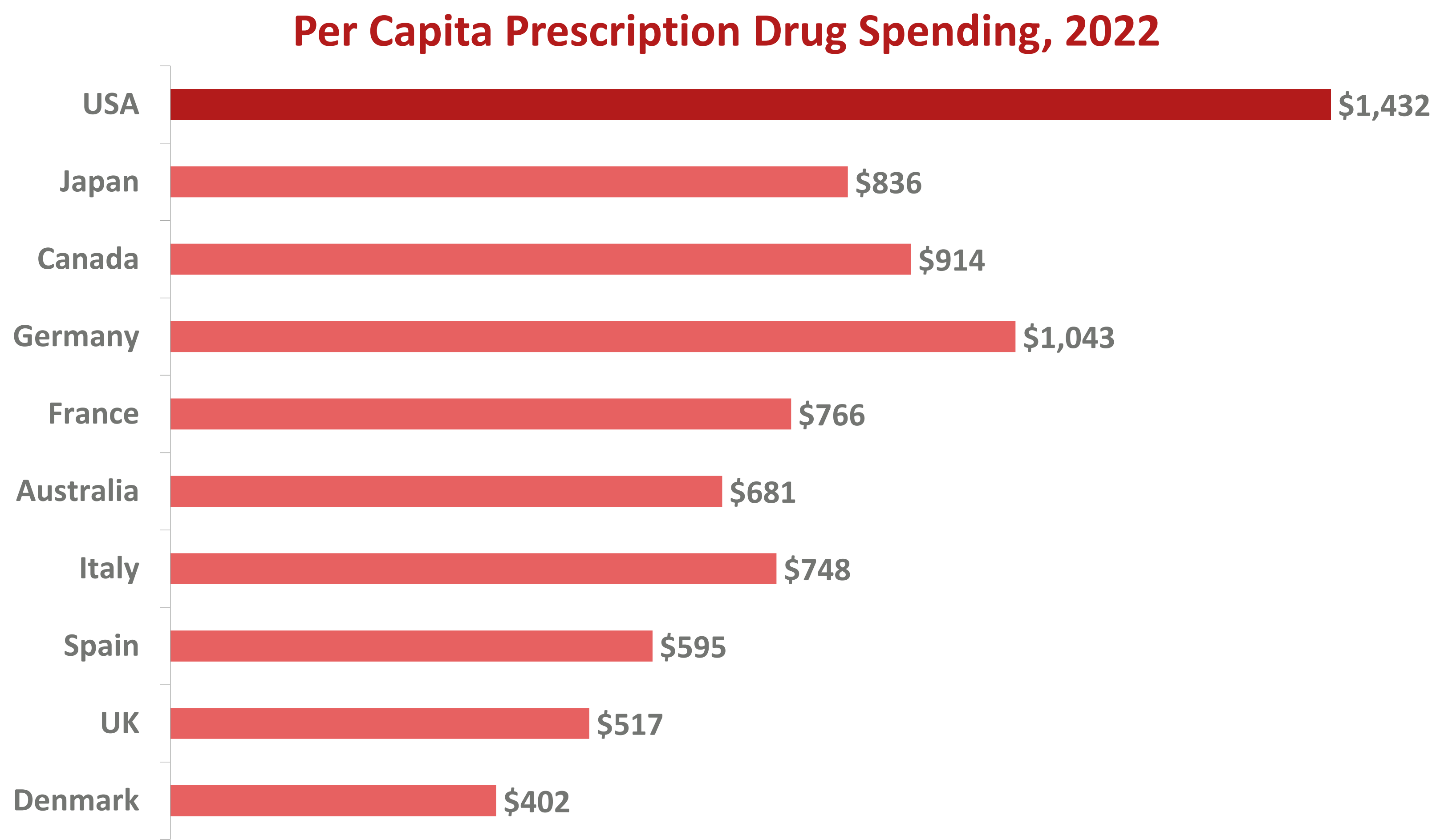
Figure 5: Quarterly Mortality Rate and Use of PI/Epivir



Covid vaccines are another good example



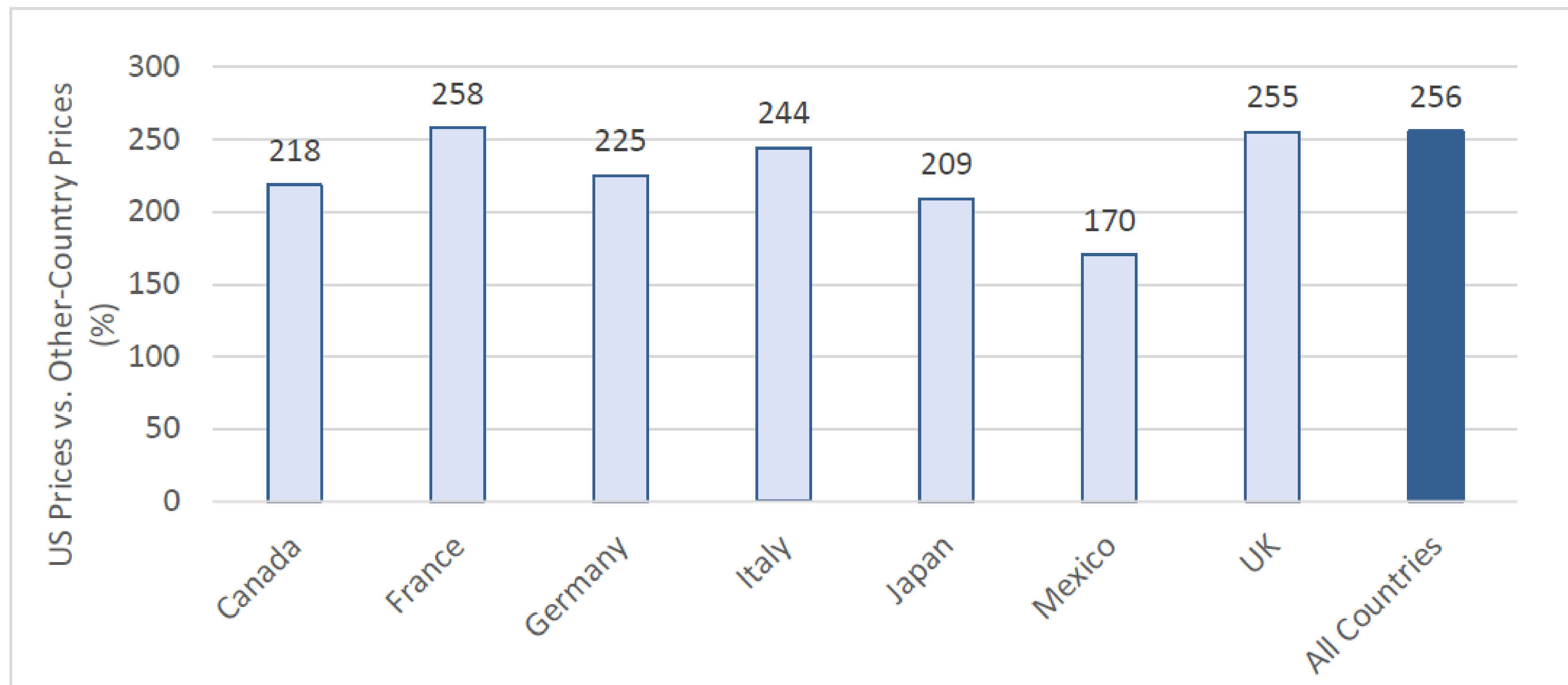
Other High-Income Countries Spend Much Less Than the U.S. on Prescription Drugs, Largely Due to Lower Prices



Source: Organization for Economic Cooperation and Development, OECD, 2023.

U.S. Pays Much Higher Prices for Drugs Than Other Countries

Figure S.1. U.S. Prescription Drug Prices as a Percentage of Prices in Selected Other Countries, All Drugs, 2018



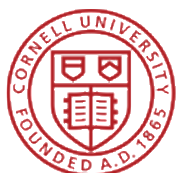
SOURCE: Author analysis of IQVIA MIDAS sales and volume data for calendar year 2018 (run date October 28, 2019).

Drug prices in the U.S. are much higher than in peer countries, 2018.



Why are drug prices so much lower in Europe, Japan, and Canada than the United States?

What would happen if the U.S. government regulated prices like Europe and Japan do, or if we had a single payer system?



Higher U.S. Drug Spending Driven by Higher Prices and Greater Use of New/Expensive Drugs but Not a Greater Quantity of Prescriptions



Prices Set in Market

U.S. drug prices are set in the market by pharmaceutical firms, who negotiate with hundreds of private health insurers (but not the U.S. government, by law, until 2026).



Internationally, Firms Negotiate with One Entity

A major reason prescription drug prices are about 60% lower in other developed countries is that pharma firms negotiate with one entity (the government), which gives the government negotiating power via a take-it-or-leave-it threat.

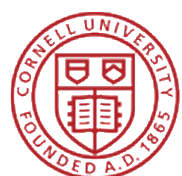


Japan and EU Policies

EU and Japan also have policies that favor the use of older less expensive drugs, which creates additional negotiating power for a single payer/insurer.

Inflation Reduction Act (2022) Health Components

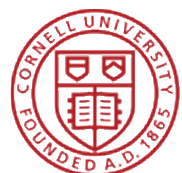
- For first time, Medicare (federal government) can negotiate prices of prescription drugs for 10 small-molecule drugs beginning in 2026, and 70 eventually. 35 biologics starting in 2028.
- Reduced prices can occur 9 years after a small-molecule drug is launched, or 13 years after a biologic is launched.
- First 10 drugs just announced. They account for 20% of Medicare Part D spending.
- Very strong penalties if the 2 parties cannot agree on a price.
- Medicare is supposed to consider whether a drug addresses an unmet need, represents a therapeutic advance, its R&D costs, and prior federal funding received.
- Estimated to save taxpayers \$25 billion per year.
- Several biopharmaceutical firms are suing, arguing the IRA is unconstitutional.



More on the Inflation Reduction Act (IRA)

- There are some drug types that cannot be subject to price negotiation (e.g., drugs approved for only a single rare disease).
- Pharmaceutical firms must offer additional discounts if they raise their drug prices faster than inflation.
- Beginning in 2025, Medicare beneficiaries cannot pay more than \$2,000 per year out-of-pocket on prescription drugs.
- Main concern regards possible dis-incentives to innovate for an already-approved drug (such that the “clock has started ticking”) where the firm is considering spending R&D money to develop a follow-on indication to the first indication.

Source: Hwang et al., *JAMA*, August 19, 2022.



Discussion

What Impact is Medicare Price Negotiation Likely to Have on:

- 1. R&D spending generally, drug approvals, and investment in follow-on/second indications?**
- 2. Prescription drug prices paid by:**
 - a) Private insurers in the U.S.?**
 - b) Other high-income countries?**

Regulating the Prices of Prescription Drugs in the U.S. Involves a Tradeoff

Set Prices Below Market Value

The U.S. government will save substantial money today on prescription drugs by setting Medicare prices below today's "free market" prices.

Pharmaceutical Firms Response

Drug firms may respond by investing less in research and development of new drugs, and further indications of already-approved drugs, because the expected profit of a drug/indication will be lower.

Result

5-10 years from now, fewer new drugs might be launched as a result, and/or fewer follow-on indications. CBO is estimating a modest effect on innovation.

Key Policy Questions

When prices to Medicare are cut, what is the value of tomorrow's "lost" drugs/indications compared to today's savings?

Will other high-income countries raise their prices to compensate for the diminished incentive to develop new drugs?

Pharma Conclusions, Part 2

- Prescription drug spending has increased substantially over the past 35 years.
- Health has improved because of (some of) the new drugs.
- Pharmaceutical prices in most high-income countries are lower than the U.S. due to government negotiation and regulation.
- Controlling/regulating prices in the U.S. will involve a tradeoff between saving money now and having less innovation (and presumably worse health) in the future.

