

# The economics of pharmaceuticals: Why do drugs cost so much?

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Understanding the Pharmaceutical Supply Chain:

What is Driving Up the Cost of Drugs?

October 31, 2016

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## Key Questions:

- *Why do costly drugs cost so much?*
- *What are some strategies that are used?*

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## Our focus



- Market
- Monopoly
- Methods

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"I want to learn about Economics,"  
said no one,  
ever!




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## Main IDEAS from economics

- 1) Scarcity
- 2) Incentives
- 3) Spend with 1) and 2) in mind

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## Example

- “Climbing drug prices are taking a toll on West Virginia's budget, some state legislators say. Expensive drugs fuel an increase in Medicaid spending, which leaves less money for schools and roads.”
- Kara Lofton, West Virginia Public Broadcasting, 10/20

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But, we should do it all...



Maybe, if we had all of the resources we need...

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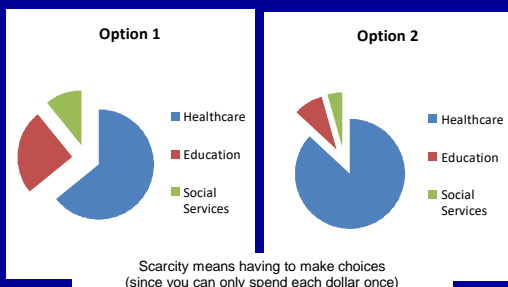
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## Scarcity = 1 pie



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## Main IDEAS from economics

### 1) Scarcity

◇ \$ spent one way cannot be spent another way

### 2) Incentives

◇ Things rewarded are more likely to be done

### 3) Spend with 1) and 2) in mind

◇ Spending wisely and aligning incentives helps

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## Our focus



### • Market

### • Monopoly

### • Methods

"The drug industry has higher profit margins and higher R&D intensity than any other industry.

Matthew Herper in Forbes, 2015

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## Market in a nutshell

1) If it were cheap/easy, everyone would bring drugs to market

2) How to interest companies in doing this?

3) How to protect the incentives to do this?

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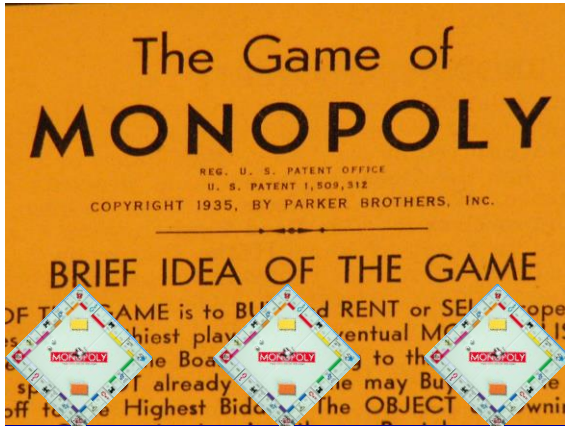
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## Our focus



- Market
- **Monopoly**
- Methods

"Drugs do not become cheap to buy just because they are cheap to manufacture."

Matthew Herper in Forbes, 2015

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## The power of one

- "Most new drugs are launched with patent protection that gives the inventor the option to keep other peoples' copies off the market for 12 or so years.
- "Many drugs then extend their monopoly status for several years beyond the original patent term.

Matthew Herper in Forbes, 2015

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## Monopoly in a nutshell

- 1) If you are the only one selling, you choose  $p$
- 2) If the demand is strong, you choose a high  $p$
- 3) Price will be higher with
  - ◇ fewer drugs,
  - ◇ fewer drug companies, and
  - ◇ greater clinical/political need

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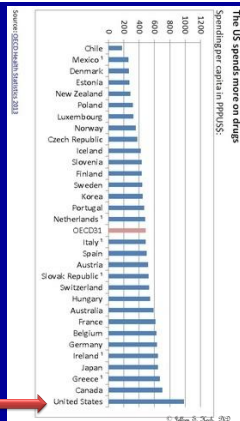
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## Incentives at work

"The US spends ~\$1,000 per person per year on pharmaceuticals. That's ~40% > the next highest spender, Canada, and more than 2x as much as than countries like France and Germany spend."

<http://nyuof.com/paycom>

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## Methods in a nutshell

- 1) No: No, we won't pay
- 2) Slow: Yes, but you must first do \_\_\_\_\_.
- 3) Whoa: Yes, and "Whoa, that's a lot of \$"

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### Why do Americans spend so much on pharmaceuticals?

BY VALERIE PARIS, OECD February 5, 2014 at 12:28 PM EDT



"Prices in the U.S. for brand-name patented drugs are... 2x as high as in the UK or Australia.

"That's because in many countries, government agencies... set limits to the amount they will reimburse; they may only agree to pay for a drug if they feel that the price is justified by the therapeutic benefits.

How do they do this?

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## Drugs for thought



- "Overall, the Committee acknowledged the clinical benefit of the Drug but noted the high cost...
  - Not good value for money so "Don't Fund"
- RESULT = Drug company negotiates a lower price and drug is covered

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## Methods in a nutshell

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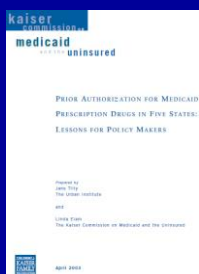
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## Prior authorization

- "California also requires prior authorization for most drugs that do not appear on its Preferred Drug List.
- "Manufacturers' products generally appear on the List when they agree to give the state rebates above those required by the federal government (i.e., supplemental state rebates).



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## Methods in a nutshell

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## Getting to Whoa

- “They imagine that prices will fall if they can somehow prove that the industry is lying about the cost of producing new drugs. They are mistaken because prices depend on market power, and not on R&D costs.

“Of course, neither the FDA’s streamlining nor its expediting nor any itemized R&D expenditures had ever been factored into any pricing decisions. Neither [the drug company] nor anyone else actually applies cost-based pricing.

Matthew Harper in Forbes, 2015

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## Whither Whoa *on its own*

- “Pricing power is high, and investors seem to be making a big bet that, despite noisy complaints, US health systems’ inability to say “no” to expensive cancer drugs will last another decade at least.

Matthew Harper in Forbes, 2015

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## When could Whoa work?

- 1) If you could say NO
- 2) If you could cause delay
- 3) If you could damage their brand enough
  - to make up for all of the lost profit based on lower prices for your group, the rest of the US purchasers and every other purchaser throughout the world.

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## Main messages

- Drugs don't bring themselves to market
  - We offer incentives to get for-profits to do this.
- Lower competition means higher prices
  - Monopoly and a captive market  $\uparrow p$
- Other countries use economic evidence
  - Smart shopping means spending money wisely.

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## Additional Resources



June 2016, Ginsburg M, Durbin S, Perez S, Ritley D,  
Hoch J. Funded by the CA Health Care Foundation

February 2005, Legislative Analyst's Office Report:  
**Lowering the State's Costs For Prescription Drugs**

## Key Questions:

- Q: Why do costly drugs cost so much?  
A: because of incentives
- Q: What are some strategies that are used?  
A: link price to value

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## Contact information



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[www.rd.com/funny-stuff/work-cartoons](http://www.rd.com/funny-stuff/work-cartoons)

## Mylan to Settle EpiPen Overpricing Case for \$465 Million

Whether a drug is classified as a brand-name or a generic makes a big difference. The makers of generic drugs pay rebates to the government of 13 percent of the average manufacturers' price. But manufacturers of brand-name drugs must offer discounts of about 23 percent off that average price, or the difference between the average price and the best price they have negotiated with any other American payer, whichever gives the bigger discount.

In addition, brand-name manufacturers must pay more in rebates if their products' prices rise faster than inflation, as EpiPen's did.

EpiPen's designation as a generic dates back decades, to before Mylan bought the product. EpiPen contains epinephrine, a drug that is available as a cheap generic, but Mylan has the exclusive right to sell the drug as part of a patented auto-injector.

The federal government issued a rule this year requiring all companies with drugs that have been approved under what the Food and Drug Administration calls a new drug application to either reclassify them as brand-name drugs or seek a waiver. Mylan had previously said it would seek such a waiver, but on Friday it said it agreed that the EpiPen would be classified as a branded drug beginning in April of next year.

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### → Unequal Purchasing Power Among Purchasers

