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## **Conflicts of Interest Disclosure**

- Research funding: Grants and contracts from NIH, FDA, and two non-profit **Clinical and Economic Review**
- Kaiser Permanente

organizations: Donaghue Medical Research Foundation and the Institute for

My opinions are my own and do not represent the perspectives or policies of

## The Current Pharmaceutical Market is an Act of Congress

- Drug development is risky and expensive • ~10 years and ~\$1 billion dollars to test that a drug is safe and effective
- Requires big financial reward to attract new drug development
- Congress created an artificial market for drugs
- Centerpiece is temporary monopoly rights to manufacturers



https://jamanetwork.com/journals/jama/fullarticle/2762311

#### Monopoly Rights "Reward Box"



APPROVAL

#### LOSS OF EXCLUSIVITY



Adapted with permission from Peter Bach, MD

#### TIME

## The 2 Sides of Affordability: Patient Out-of-Pocket Costs



% of total spending ---- Mean

JAMA The Journal of the American Medical Association

https://jamanetwork.com/journals/jama/fullarticle/2674671





% OF TOTAL SPENDING

https://jamanetwork.com/journals/jama/fullarticle/2674671

### The 2 Sides of Affordability: Health Plan Costs → Future Insurance Premiums

#### Average Annual Premiums for Single and Family Coverage, 2000-2021



Single Coverage Family Coverage

KFF Employer Health Benefits Survey, 2018-2021; Kaiser/HRET Survey of Employer-Sponsored Health Benefits, 2000-2017



## Insurance Premiums Eat into Worker Wages

#### Cumulative Increases in Family Premiums, Inflation, and Workers' Earnings, 1999-2021

- Workers' Earnings - Overall Inflation - Family Premiums



KFF Employer Health Benefits Survey, 2018-2021; Kaiser/HRET Survey of Employer-Sponsored Health Benefits, 2000-2017



## The 2 Sides of Affordability: Balance





## Health Plan Affordability: Addressing Drug Prices

- Counteract the monopoly power of drug manufacturers
  - Pooled purchasing: allowing other public employers, private employers, and health insurers to participate in a prescription drug purchasing pool
  - Single preferred drug list
    - Value-based drug formulary:
      - Reduced health plan drug spending by 16%
      - Increased use of highest value drugs by 19%

- What price?
  - International reference prices: other countries may have different priorities
  - U.S. Prices Value-based Price Benchmark: **36% reduction** in drug prices needed to achieve value-based prices
  - PDPT: Are there specific drugs that are pain points for patients and health plans?

![](_page_16_Picture_13.jpeg)

Yeung K, Basu A, Hansen RN, Watkins JB, Sullivan SD. Impact of a Value-based Formulary on Medication Utilization, Health Services Utilization, and Expenditures. Med Care. 2017 Feb;55(2):191-198. https://www.valueinhealthjournal.com/action/showPdf?pii=S1098-3015%2821%2900106-6

![](_page_16_Picture_15.jpeg)

## Patient Affordability: Rebates

- Health plans pooling purchasing power by contracting with pharmacy benefit managers (PBMs) to negotiate drug prices
- PBMs obtain rebates off list prices from drug manufacturers: Medicare Part D collected \$24 billion in rebates in 2018
- Manufacturers may be increasing list prices in order to offer larger rebates to PBMs
- Patient out-of-pocket costs are tied to list prices
  - Directly for uninsured patients
  - Indirectly for insured patients covered by deductibles and coinsurance

![](_page_17_Picture_8.jpeg)

https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2780950

![](_page_17_Picture_10.jpeg)

# List price, Net price and Out-of-Pocket Cost per Prescription from 2007 to 2018

![](_page_18_Figure_1.jpeg)

https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2780950

![](_page_18_Picture_4.jpeg)

## Patient Affordability: Rebates

- out-of-pocket costs
  - Medicare: \$13 per prescription
  - Commercial insurance: \$6 per prescription
  - Uninsured: \$39 per prescription
- Health equity concerns for uninsured
  - Financial burden concerns: Lowest income
  - Clinical concerns: Worst health

#### • From 2014 to 2018, increased rebate sizes were associated with increases in

• Racial equity: more likely to belong to an underrepresented group

![](_page_19_Picture_14.jpeg)

https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2780950

![](_page_19_Picture_16.jpeg)

## Patient Affordability: Copayment Coupons

- Offered by drug manufacturers to cover patient out-of-pocket costs, usually for drugs with higher value alternatives
- Can create perverse incentives for patients to use more expensive drugs and can reduce health plans' ability to negotiate lower prices with manufacturers
- distribution of copayment coupons for drugs where there are higher value alternatives (e.g., for branded drugs with generic alternatives)
- Creates \$3 billion annually in excess U.S. health care system costs Both California and Massachusetts have passed legislation to prohibit the

![](_page_20_Picture_6.jpeg)

https://www.nejm.org/doi/pdf/10.1056/NEJMp1607378?articleTools=true Dafny L, Ody C, Schmitt M. When Discounts Raise Costs: The Effect of Copay Coupons on Generic Utilization. American Economic Journal: Economic Policy. 2016.

![](_page_20_Picture_8.jpeg)

## Key Takeaways

- Framework: Legislators have key roles in shaping the pharmaceutical market Affordability: Consider both patient out-of-pocket costs and health plan
- spending/premiums
- Policies: Policies that make the most sense to me (as a researcher) Consider leveraging your drug affordability board and your transparency program to design and implement:
- - Value-based drug pricing
  - Value-based drug formularies

![](_page_21_Picture_8.jpeg)

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![](_page_22_Picture_3.jpeg)

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#### **EXTRA SLIDES**

## Patient and Health Plan Affordability: Transparency

- PDPT recommends that the legislature increase transparency across the pharmaceutical supply chain. Which elements have been shown to have the most impact on pricing?
- Health plans: Rebates (more difficult, SSR Health)
- Patients: Out-of-pocket costs (easy)
- Are there specific drugs that are pain points for patients and health plans?

![](_page_25_Picture_0.jpeg)

#### Health Policy Analysis

#### ScienceDirect

Contents lists available at sciencedirect.com Journal homepage: www.elsevier.com/locate/jval

#### Are Drugs Priced in Accordance With Value? A Comparison of Value-Based and Net Prices Using Institute for Clinical and Economic Review Reports

Lisa M. Bloudek, PharmD, MS, Victor Nguyen, PharmD, MS, MBA, Jens Grueger, PhD, Sean D. Sullivan, PhD

#### ABSTRACT

Objectives: The Institute for Clinical and Economic Review (ICER) is an independent organization that reviews drugs and devices with a focus on emerging agents. As part of their evaluation, ICER estimates value-based prices (VBP) at \$50 000 to \$150 000 per quality-adjusted life-year (QALY) gained thresholds. We compared actual estimated net prices to ICER-estimated VBPs.

Methods: We reviewed ICER final evidence reports from November 2007 to October 2020. List prices were combined with average discounts obtained from SSR Health to estimate net prices. If a drug had been evaluated more than once for the same indication, only the more recent VBP was included.

Results: A total of 34 ICER reports provided unique VBPs for 102 drugs. The net price of 81% of drugs exceeded the \$100 000 per QALY VBP and 71% exceeded the \$150 000 per QALY VBP. The median change in net price needed to reach the \$150 000 per QALY VBP was a 36% reduction. The median decrease in net price needed was highest for drugs targeting rare inherited disorders (n = 15; 62%) and lowest for cardiometabolic disorders (n = 6; 162% price increase). The reduction in net prices needed to reach ICER-estimated VBPs was higher for drugs evaluated for the first approved indication, rare diseases, less competitive markets, and if the drug approval occurred before the ICER report became available.

Conclusion: Net prices are often above VBPs estimated by ICER. Although gaining awareness among decision makers, the longterm impact of ICER evaluations on pricing and access to new drugs continues to evolve.

Keywords: cost-effectiveness, cost-utility analysis, health economics, Institute for Clinical and Economic Review, model-based economic evaluation.

VALUE HEALTH. 2021; 24(6):789-794

![](_page_25_Picture_14.jpeg)

### Patient Affordability: Out-of-Pocket Price Caps

The NEW ENGLAND JOURNAL of MEDICINE

SPECIAL ARTICLE

## Patient and Plan Spending after State Specialty-Drug Out-of-Pocket Spending Caps

Kai Yeung, Pharm.D., Ph.D., Douglas Barthold, Ph.D., Stacie B. Dusetzina, Ph.D., and Anirban Basu, Ph.D.

ABSTRACT

#### Impact of a Value-based Formulary on Medication Utilization, Health Services Utilization, and Expenditures

Kai Yeung, PharmD, PhD,\* Anirban Basu, PhD,\* † Ryan N. Hansen, PharmD, PhD,\* † John B. Watkins, PharmD, MPH, BCPS,\* ‡ and Sean D. Sullivan, PhD\* †

**Background:** Value-based benefit design has been suggested as an effective approach to managing the high cost of pharmaceuticals in health insurance markets. Premera Blue Cross, a large regional health plan, implemented a value-based formulary (VBF) for pharmaceuticals in 2010 that explicitly used cost-effectiveness analysis (CEA) to inform medication copayments.

Objective of the Study: The objective of the study was to determine the impact of the VBF. Design: Interrupted time series of employer-sponsored plans from

Design: Interrupted time series of employer-sponsored plans from 2006 to 2013.

Subjects: Intervention group: 5235 beneficiaries exposed to the VBF. Control group: 11,171 beneficiaries in plans without any changes in pharmacy benefits.

Intervention: The VBF-assigned medications with lower value (estimated by CEA) to higher copayment tiers and assigned medications with higher value to lower copayment tiers.

Measures: Primary outcome was medication expenditures from member, health plan, and member plus health plan perspectives. Secondary outcomes were medication utilization, emergency department visits, hospitalizations, office visits, and nonmedication expenditures.

**Results:** In the intervention group after VBF implementation, member medication expenditures increased by \$2 per member per month (PMPM) [95% confidence interval (CI), \$1-\$3] or 9%, whereas health plan medication expenditures decreased by \$10

PMPM (CI, \$18-\$2) or 16%, resulting in a net decrease of \$8 PMPM (CI, \$15-\$2) or 10%, which translates to a net savings of \$1.1 million. Utilization of medications moved into lower copayment tiers increased by 1.95 days' supply (CI, 1.29-2.62) or 17%. Total medication utilization, health services utilization, and nonmedication expenditures did not change.

Key Words: health insurance, pharmaceutical policy, pharmacoeconomics, pharmacy benefits, program evaluation

(Med Care 2016;00: 000-000)

**E** mployer-sponsored health plans cover about 149 million Americans and the majority of these plans use copayments for prescription drugs.<sup>1,2</sup> In the past decade, these plans have increased copayments to slow the growth of prescription expenditures.<sup>2</sup> More recently, pharmaceutical expenditures have been rapidly growing, partly due to the introduction of new high priced drugs.<sup>3</sup> Therefore, health plans may continue to increase cost-sharing to slow expenditure growth for the foreseeable future. However, increasing cost-sharing without considering clinical and economic value may incentivize utilization according to cost and not value.