

**USC**Schaeffer

Leonard D. Schaeffer Center  
for Health Policy & Economics

**USC**Price

Sol Price School of Public Policy

---

# PBM Economics

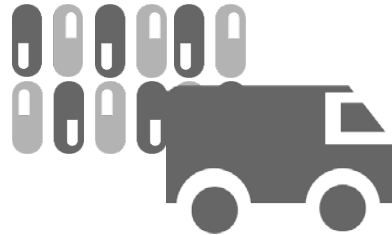
**Neeraj Sood, PhD**

*Professor and Vice Dean for Faculty Affairs & Research,  
USC Price School of Public Policy & USC Schaeffer Center*

## PBM Economics

- **What is the role of PBMs in the pharmaceutical supply chain?**
- **How well is the PBM market functioning?**
- **Potential policy solutions for increasing transparency**

# Flow of prescription drugs



**Manufacturer**

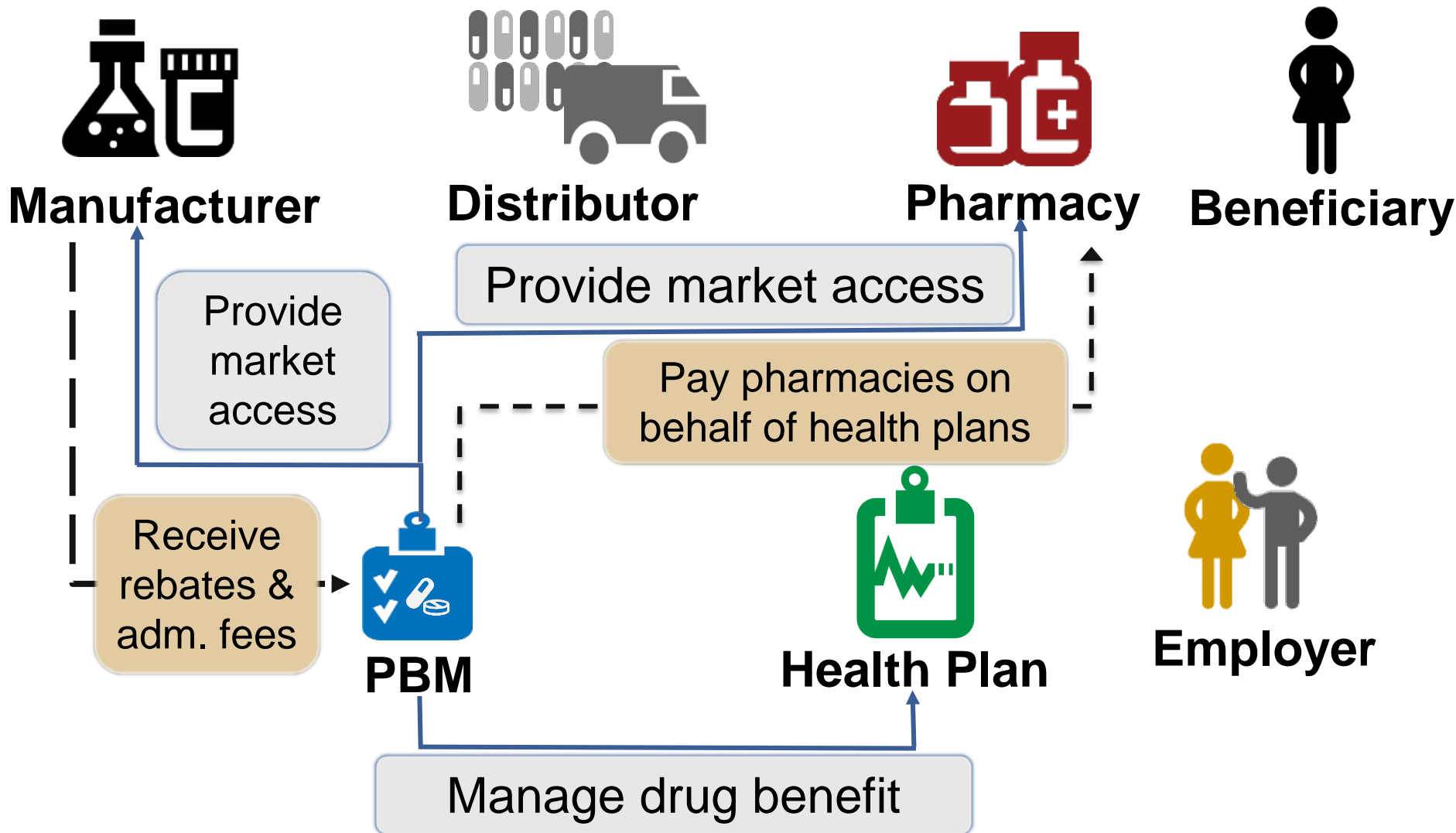
**Distributor**

**Pharmacy**

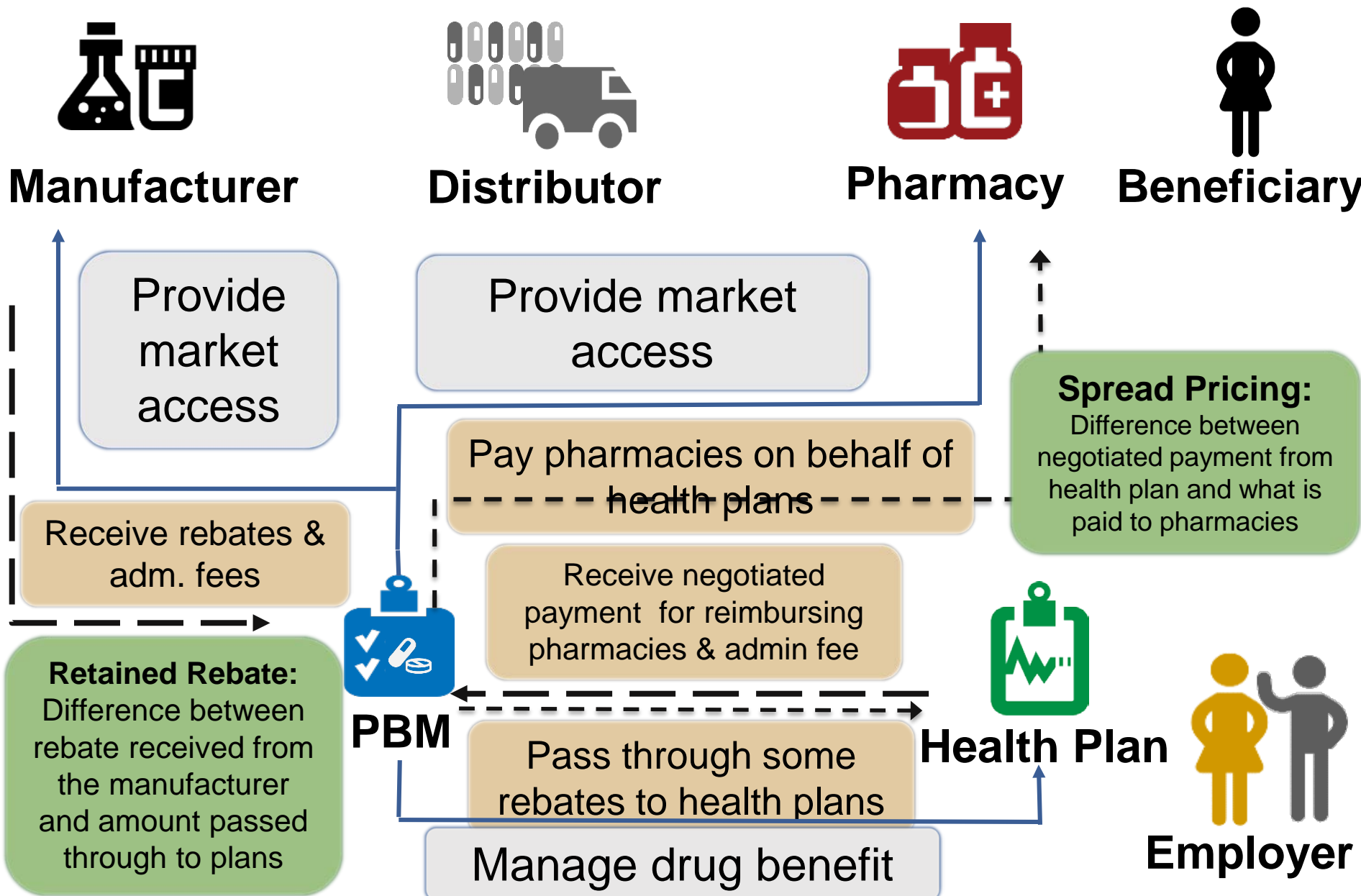
**Beneficiary**

PBMs play no role in the physical distribution of prescription drugs to consumers

# PBM relationship with other supply chain



# How do PBMs make money?



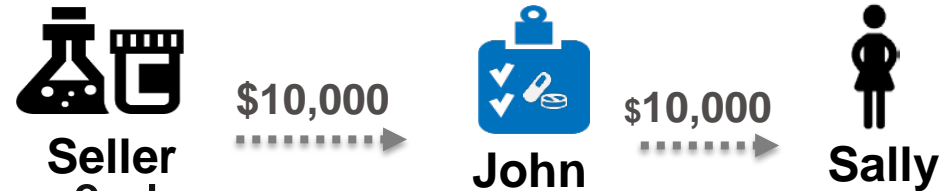
## PBM Economics

- What is the role of PBMs in the pharmaceutical supply chain
- **How well is the PBM market functioning?**
- Potential policy solutions for increasing transparency

# Trickle down rebates...

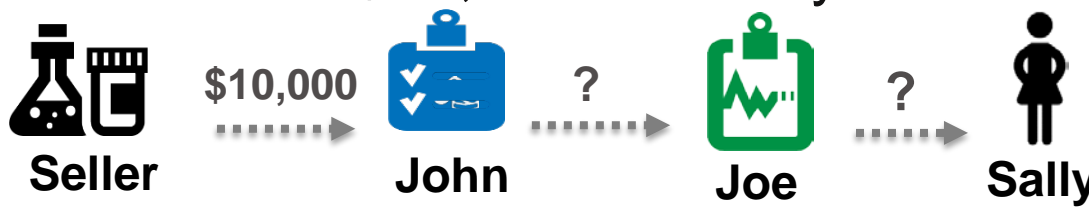
## Buying a house:

- Sally is considering buying a house.
- Her real estate agent is John.
- John negotiates with the seller a \$10,000 reduction in the price of the house.
- Sally pays \$10,000 less for the house.



## Scenario:

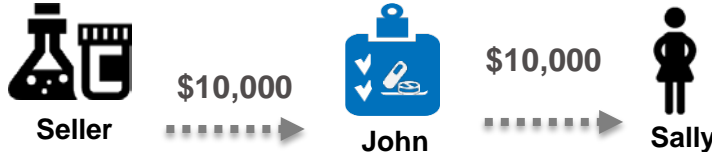
- She now has two agents: John & Joe
- John negotiates a \$10,000 discount from the seller. The amount is **secret and not disclosed**. He keeps some of the money and passes the rest to Joe.
- Joe keeps some of the **undisclosed** money received from John and passes the rest to Sally.
- How much of the \$10,000 did Sally receive?



# Lack of transparency means consumers might not benefit from higher rebates

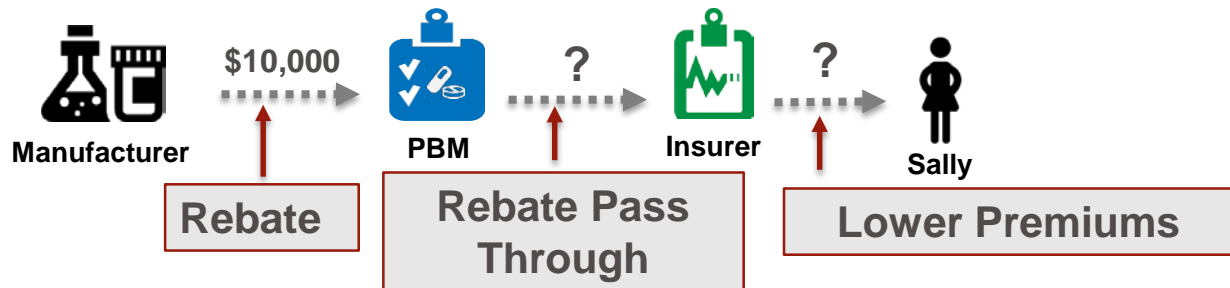
## Buying a house:

- Sally is considering buying a house.
- Her real estate agent is John.
- John negotiates with the seller a \$10,000 reduction in the price of the house.
- Sally pays \$10,000 less for the house.



## Scenario:

- She now has two agents: John & Joe
- John negotiates a \$10,000 discount from the seller. The amount is **secret and not disclosed**. He keeps some of the money and passes the rest to Joe.
- Joe keeps some of the **undisclosed** money received from John and passes the rest to Sally.
- How much of the \$10,000 did Sally receive?





# Rebates misalign incentives: Not choosing cheaper drugs



**Drug A**

Retail Price: \$200  
 • rebate of \$50



PBM's keeps

\$5



Cost to health plans  
 \$155



Cost to consumers?



**Drug B**

Retail Price: \$100  
 • rebate of \$30

\$3

\$73

- Uninsured** might pay list price
- Insured consumers below deductible** might pay list price
- Insured** may pay higher premiums

*Assume retail and wholesale mark-up is 10%; PBM keeps 10% of rebate*

## Highly concentrated supply chain

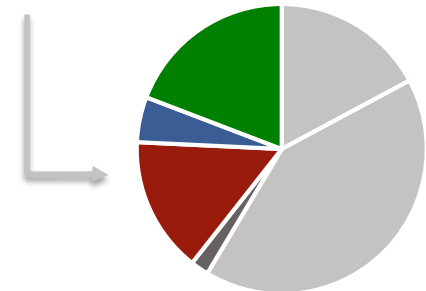
- Highly concentrated supply chain with few key players controlling large market shares

♥ **CVS**Health

 **EXPRESS SCRIPTS**®

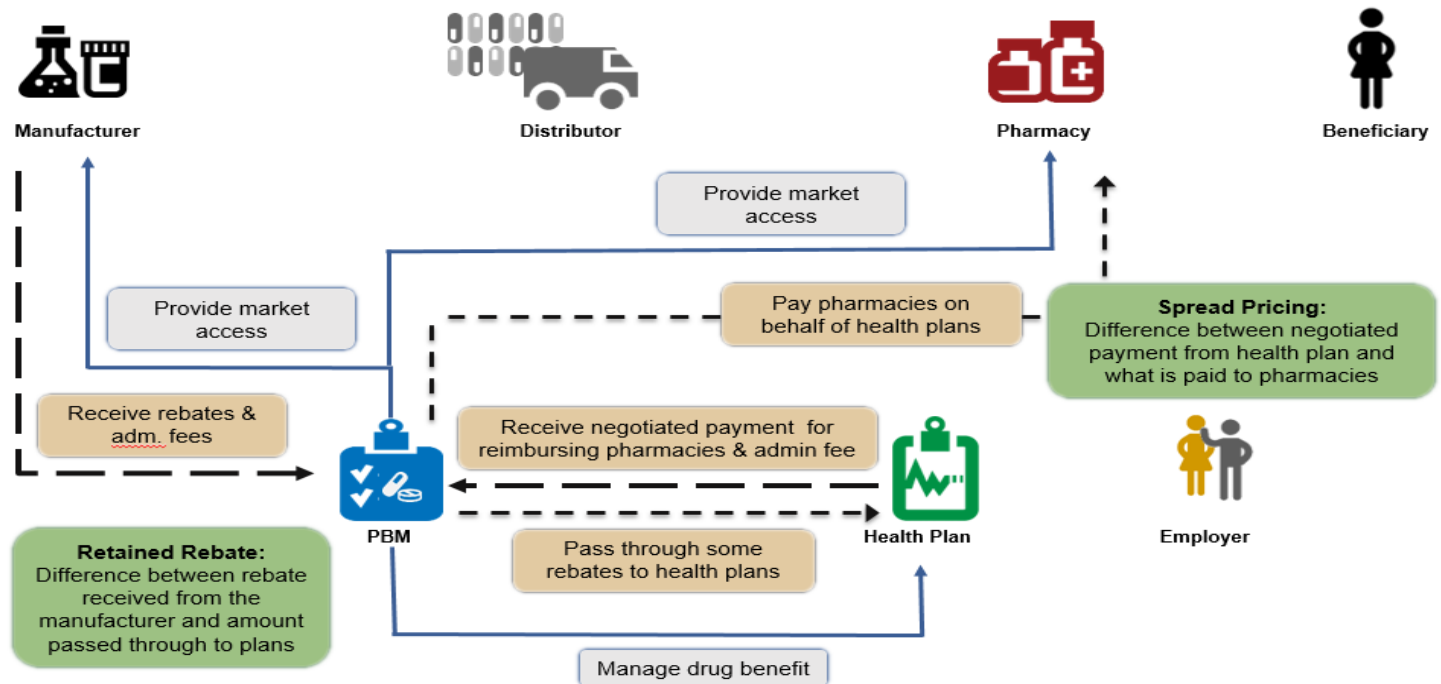
 **OPTUMRx**®

- Top 3 PBMs account for roughly 75% of covered lives
- Wholesale, pharmacy and insurer markets are also highly concentrated
- Of \$100 spent on drugs, \$42 goes to PBMs, wholesalers, pharmacies, and insurers.



# Consolidated PBM markets may mean higher costs for consumers

- Dominant PBMs might negotiate higher rebates but not pass rebates to health plans
- Dominant PBMs might engage in excessive



# New wave of vertical consolidation in pharma supply chain might further curtail competition

- Misaligned incentives
  - A PBM that owns a pharmacy might favor its own pharmacy even if rival pharmacies have lower costs
  - A PBM that owns a health plan might try to increase drug costs of rival health plans
- Barriers to entry
  - Need to entry several distinct supply chain markets to effectively compete in the market

 **CVS**Health

  
**CVS**  
pharmacy

 **aetna**

 **EXPRESS SCRIPTS**

  
 **Cigna**

 **OPTUMRx**

  
 **UnitedHealthcare**

## PBM Economics

- What is the role of PBMs in the pharmaceutical supply chain
- How well is the PBM market functioning?
- **Potential policy solutions for increasing transparency**

## Why do we need increased transparency?

**With information currently available, we cannot answer basic and important questions:**

- What are the major sources of profits for PBMs?
- Who is benefiting from the rise in drug prices?
- Is the PBM market competitive?
- Are vertically integrated PBMs limiting competition by helping their own pharmacies?
- Are PBMs good agents of health plans and consumers?

- What are the major sources of profits for PBMs?
- Is the PBM market competitive?
- Are PBMs good agents of health plans?

## **Recommendation one:**

### **Improve transparency on PBM revenue sources**

- **Revenues by line of business:**
  - PBM
  - Specialty pharmacy
  - Mail order pharmacy
  - Retail pharmacy
  - Other
- **For PBM line of business:**
  - Revenues from manufacturers (rebates, admin fees, other)
  - Revenue from health plans (reimbursement to pharmacies, claims processing fees, special programs fee, admin fees, other)
  - Revenue from pharmacies (clawbacks from pharmacies, other)
  - Other

- What are the major sources of profits for PBMs?
- Is the PBM market competitive?
- Are PBMs good agents of health plans?

## **Recommendation two:**

### **Improve transparency on PBM expenditure sources**

- **Expenses by line of business:**
  - PBM
  - Specialty pharmacy
  - Mail order pharmacy
  - Retail pharmacy
  - Other
- **For PBM line of business:**
  - Payments to pharmacies
  - Claims processing expenses
  - Rebate pass through to health plans
  - Expenses on special programs (adherence, medical management, etc.)
  - Admin expenses
  - Other



- Who is benefiting from the rise in drug prices?

---

## Recommendation three:

### Improve transparency on revenues at the drug level

- **For top 25 drugs in terms of PBM revenues and/or list price inflation:**
  - Total Rebates per unit
  - Retained rebates per unit
  - Spread pricing per unit
  - Other revenues per unit

- Are vertically integrated PBMs limiting competition by helping their own pharmacies?
- 

## **Recommendation four:**

### **Improve transparency on dealings with own pharmacies**

- **For top 25 drugs in terms of expenditures:**
  - Reimbursement to Own Pharmacy, Competing Chain Pharmacy, Independents
- **For top 25 drugs sold by own pharmacy:**
  - Market share of own PBM, and other PBMs

- Are PBMs good agents of health plans?

## **Recommendation five:**

### **Improve transparency on formulary decisions**

- **For top 25 drug classes in terms of expenditures:**
  - Net cost of drug to health plans (pharmacy reimbursement less rebate pass through)
  - Net revenue of drug to PBM (retained rebate + spread pricing)
  - Formulary placement of drug (Tier, Average Cost sharing)

- Is the PBM market competitive?
- Are PBMs good agents of health plans?

## **Recommendation six:**

### **Improve transparency on PBM health plan customers**

- **PBMs should report:**
  - Health plans they support and number of members supported
  - Include data from past 5 years so that one see the churn in customers

## Recommendation seven:

### Improve transparency by asking the same information from health plans and PBMs

- **Health Plans**
  - Amount sent to PBM for reimbursing pharmacies
  - Amount of rebate received from PBM
- **PBMs**
  - Amount reimbursed to pharmacies on behalf of health plans
  - Amount of rebate passed on to health plans

# Why do we need increased transparency?

Key Questions	Recommendations					
	1	2	3	4	5	6
What are the major sources of profits for PBMs?	x	x				
Who is benefiting from the rise in drug prices?			x			
Is the PBM market competitive?	x	x				x
Are vertically integrated PBMs limiting competition by helping their own pharmacies?				x		
Are PBMs good agents of health plans?	x	x			x	x

# DHMC needs additional resources to answer these questions

Key Questions	Recommendations					
	1	2	3	4	5	6
What are the major sources of profits for PBMs?	x	x				
Who is benefiting from the rise in drug prices?			x			
Is the PBM market competitive?	x	x				x
Are vertically integrated PBMs limiting competition by helping their own pharmacies?				x		
Are PBMs good agents of health plans?	x	x			x	x

# USC Schaeffer

Leonard D. Schaeffer Center  
for Health Policy & Economics

---

[healthpolicy.usc.edu](http://healthpolicy.usc.edu)

 [facebook.com/SchaefferCenter](https://facebook.com/SchaefferCenter)

 [@SchaefferCenter](https://twitter.com/SchaefferCenter)