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Disadvantaging Rivals: Vertical Integration in the Pharmaceutical Market

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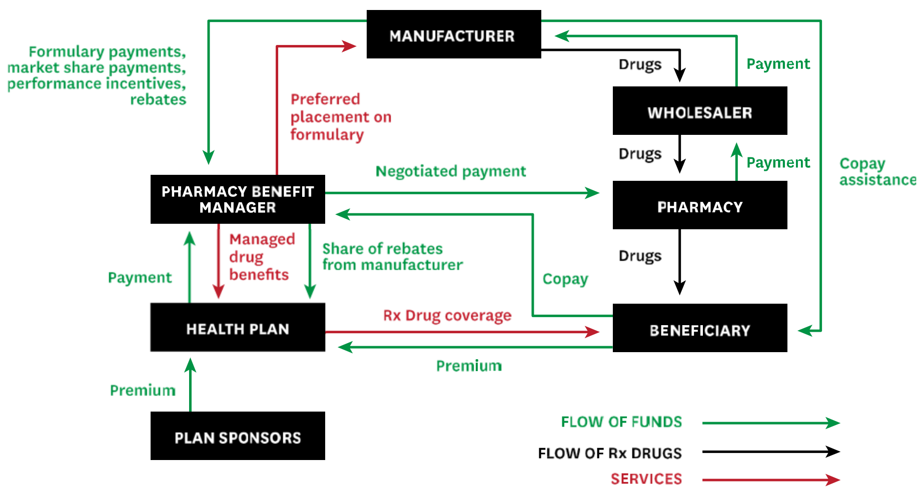
Vertical Integration in Health Care

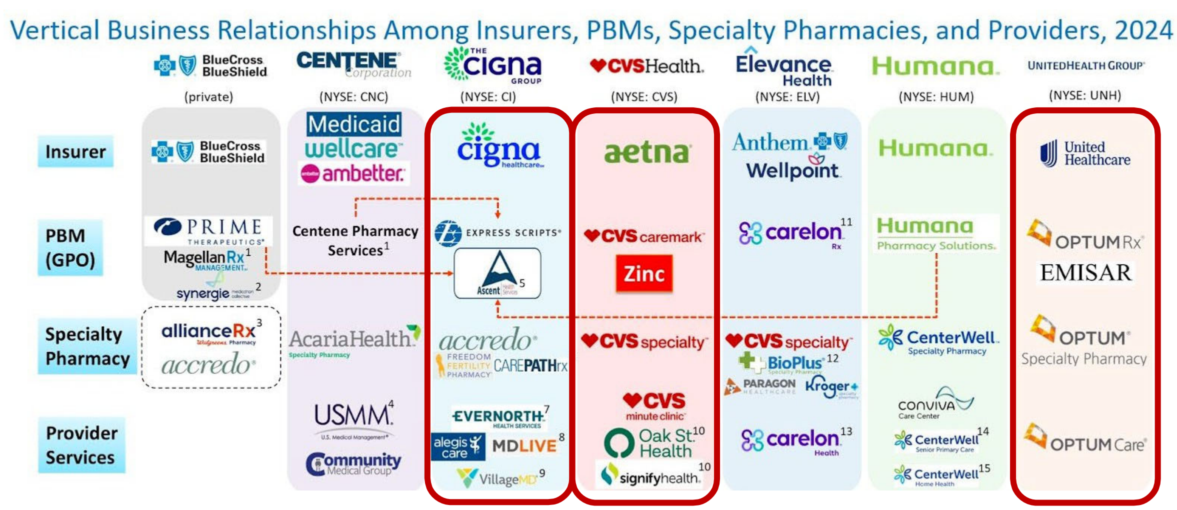
What does vertical integration in health care look like?

- Insurer-Physician
- Hospital-Physician
- Hospital-Post Acute Care
- Insurer-PBM-Pharmacy

Pharmaceutical Supply Chain



Highly Vertically Integrated Supply Chain



Source: Drug Channels Institute

Overview of Study

What are the consequences of Insurer-PBM vertical integration?

- Focus on Medicare Part D prescription drug plan (PDP) market
- Document trends in vertical integration in Medicare Part D
  - Data on insurer-PBM contracts from Clarivate Managed Markets Surveyor (MMS)

Case study of UnitedHealth-Catamaran merger in 2015

- Merger eliminated last major standalone PBM in Part D
- Has vertical integration harmed non-vertically integrated rival insurers through input foreclosure?

Why Focus on Medicare Part D PDPs?

- Vertical integration between PBMs and insurers has a long history in Part D market
- Only market with standalone prescription drug insurance
- Data on premiums and plan features available
- Serves a vulnerable population that accounts for a disproportionate share of the prescription drug market

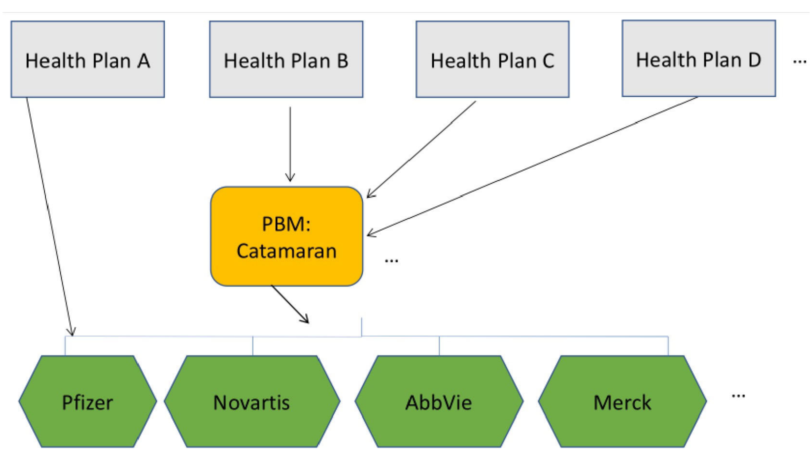
What Do PBMs Do?

PBMs contract with insurers to manage their prescription drug benefit

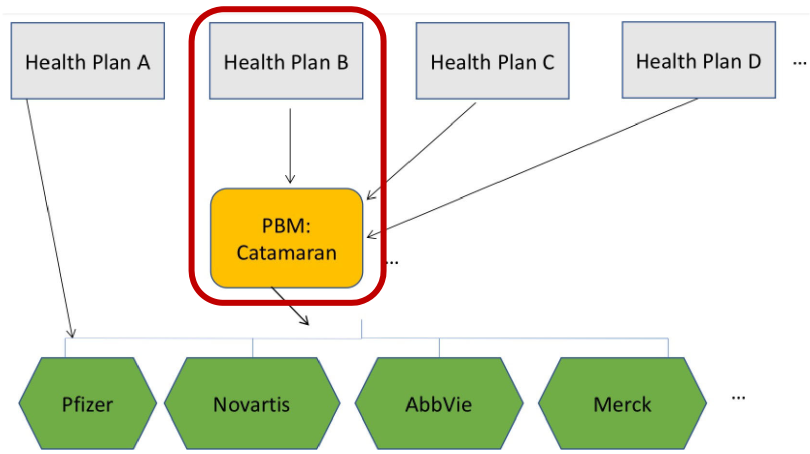
Offer a wide range of services:

- Formulary and benefit design
- Negotiation with drug companies for rebates (in exchange for formulary placement)
- Negotiation with pharmacies for discounts (in exchange for in-network status)
- Claims processing
- Pharmacy services (mail order, specialty, retail)
- Utilization management

PBMs Increase Bargaining Power by Pooling Together Enrollees of Multiple Insurers



What are Potential Harms and Gains from Vertical Integration?



- **Input Foreclosure:** Vertically integrated PBM increases costs or reduces quality of services for rival insurers
- **Customer Foreclosure:** Reduces number of potential clients for standalone PBMs

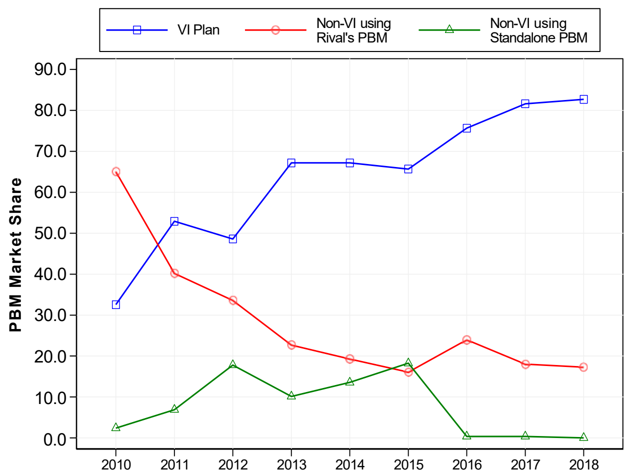
+ **Efficiency Gains:** Rebates and discounts fully passed through to insurer and incentives aligned to lower overall drug costs to insurer

Three Types of Insurer-PBM Relationships

1. **Vertically Integrated insurers**: Insurer uses its own PBM and also sells PBM services to other insurers [E.g., CVS Caremark]
2. **Non-Vertically Integrated insurers that use Rival's PBM**: Insurer uses PBM owned by rival plan [E.g., Wellcare using CVS Caremark]
3. **Non-Vertically Integrated insurers that use Standalone PBM**: Insurer uses standalone PBM that is not owned by a health plan [E.g., Wellcare using Catamaran]

- Some insurers have in-house PBMs that only provide services to their parent insurer [E.g., Humana]. These insurers are outside the PBM market.

Market Share of Vertically Integrated Plans has Increased from 30% to 80% from 2010 to 2018

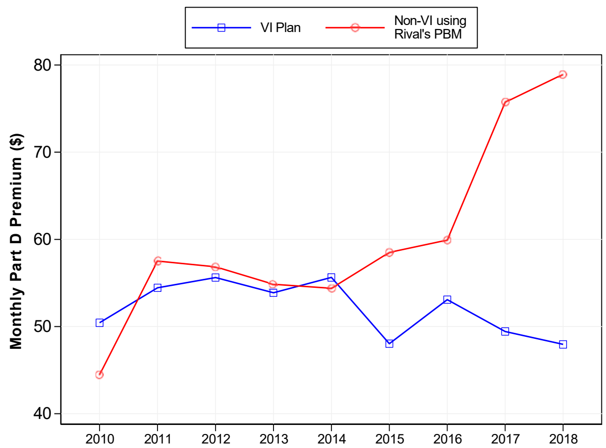


- Non-VI plans using rival's PBM market share falls to 17% by 2018
- Stand-alone PBM market share goes from 20% to close to zero after Catamaran is acquired by UnitedHealth in 2015

What are Implications of Rising Market Share of Vertically Integrated Plans?

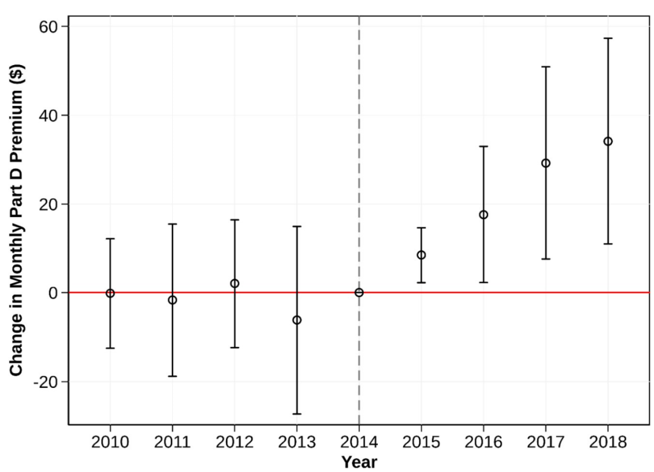
- Enrollees serviced by own PBMs are not available to other PBMs competing in the market (**customer foreclosure**)
- This leads to reduced competition in the PBM market:
  - Increasing customer foreclosure implies shrinking market for standalone PBMs leading to exit of existing PBMs and reduced incentives for entry for new PBMs
- Reduced competition in PBM market due to exit of standalone PBMs increases potential for **input foreclosure**

Premiums Increased for Non-Vertically Integrated Plans Potentially Due to Input Foreclosure



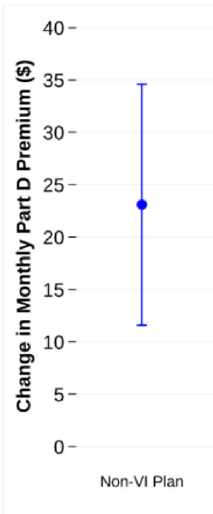
- Premiums grew by 78% for non-vertically integrated plans using rival's PBM from 2010-18
- Reduction in premiums of 5% for vertically integrated plans

Case Study: Premiums Increased for Non-VI Insurers after UnitedHealth-Catamaran Merger



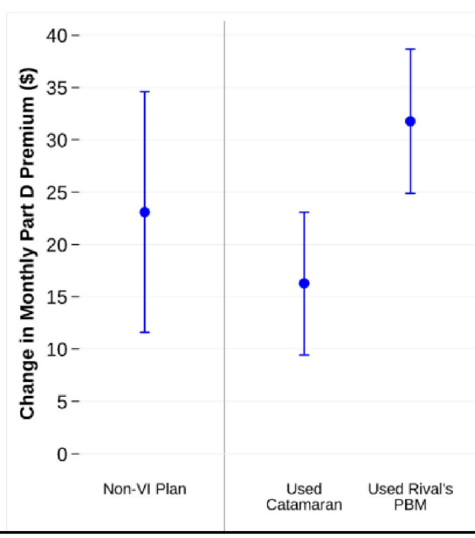
- Merger eliminated last standalone PBM in Part D (~20% market share)
- After merger, premiums increase for Non-Vertically Integrated plans relative to Vertically Integrated plans

Case Study: Premiums Increased for Non-VI Insurers after UnitedHealth-Catamaran Merger



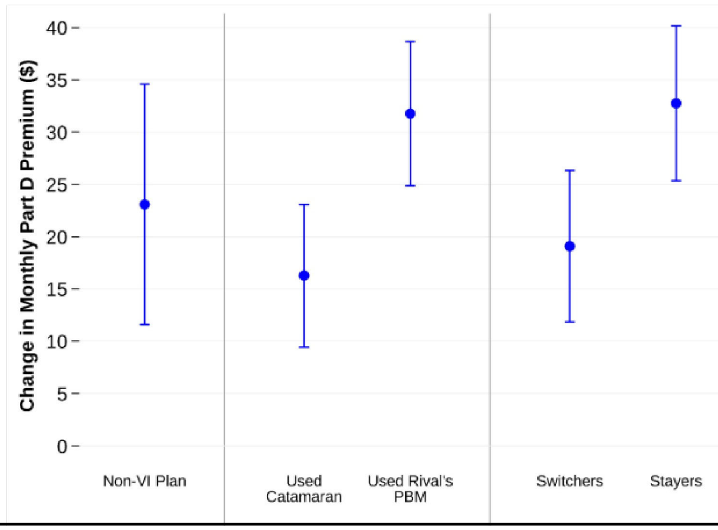
- Non-VI plans experienced premium growth of $23 per month after merger relative to VI plans which implies potential input foreclosure
- 43% increase relative to mean monthly premium of $53

Premiums Increased for Previous Clients of Catamaran and Other Non-VI insurers



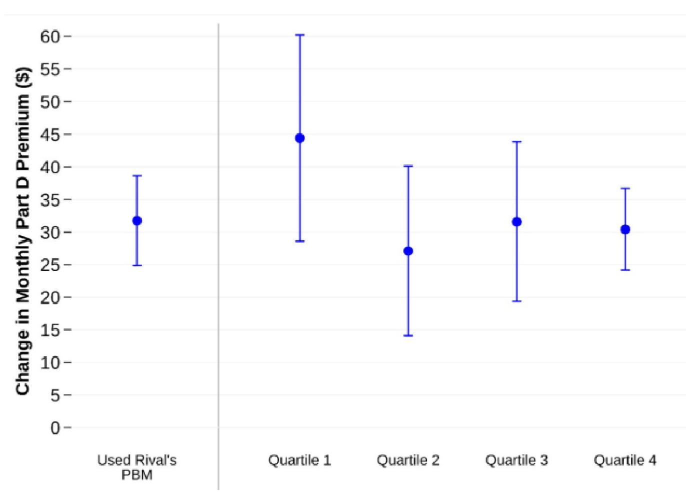
- Plans using Catamaran switched from a standalone PBM to a Rival's PBM ($16 or 30% increase in premiums)
- Other Non-VI plans using Rival's PBM lost outside option to switch to a standalone PBM ($32 or 60% increase in premiums)

Among Non-VI Insurers, Premiums Increased More for Inertial Insurers



- Insurers that switch to new PBM experience $19 increase in premiums
- Insurers that stay with same PBM experience $33 increase
- Input foreclosure more likely for inertial or inattentive insurers

Among Non-VI Insurers, Premiums Increased More for Smaller Insurers



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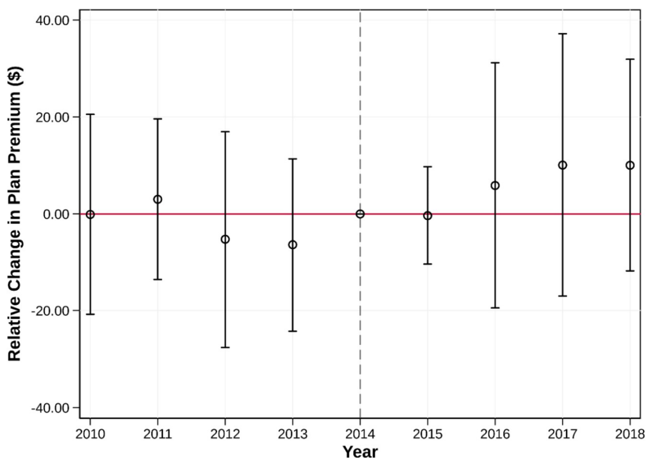
UnitedHealth's Own Plans Did Not Have Premium Changes after Merger



- Trends in premiums for UnitedHealth versus other VI plans stay the same after merger

Conclusions and Implications for Policy

- **Vertical integration** increased significantly in Medicare Part D between 2010 and 2018
- Premiums increased for **non-vertically integrated insurers** which implies increased costs for enrollees, insurers, and the federal government
- We did not find that any cost savings for the **vertically integrated insurer** were passed through to enrollees in the form of lower premiums
- Ultimately, vertical integration will **reduce competition** in the Medicare Part D market as it leads to increased concentration for vertically integrated insurers
- Exit of last standalone PBM played an important role in exacerbating **input foreclosure**
- Antitrust regulators should carefully weigh the potential harms from vertical integration due to foreclosure against the potential benefits

Further Extensions

- Vertical integration could allow insurers to circumvent **medical loss ratio (MLR)** regulation by shifting profits to the PBM (or Pharmacy)
  - Rebates could be retained by PBM rather than passed through to inflate costs, leading to higher MLRs
  - Insurer-PBM-pharmacy integrated entities could inflate costs by paying higher prices to own pharmacy
  - Data needed to identify all vertical relationships in pharmaceutical market to allow for accounting that encompasses total firm profits
- Vertical integration is more likely to lead to input foreclosure when there is a **lack of transparency** among insurers that use an integrated PBM
  - Integrated PBMs are more likely to raise costs for rival insurers when costs are not transparent
  - Modeling of price transparency polices should consider the potential benefits/harms of transparency for vertically integrated markets
- **Future research should consider:**
  - Medicare Advantage and Commercial markets
  - Insurer-PBM-Pharmacy Integration