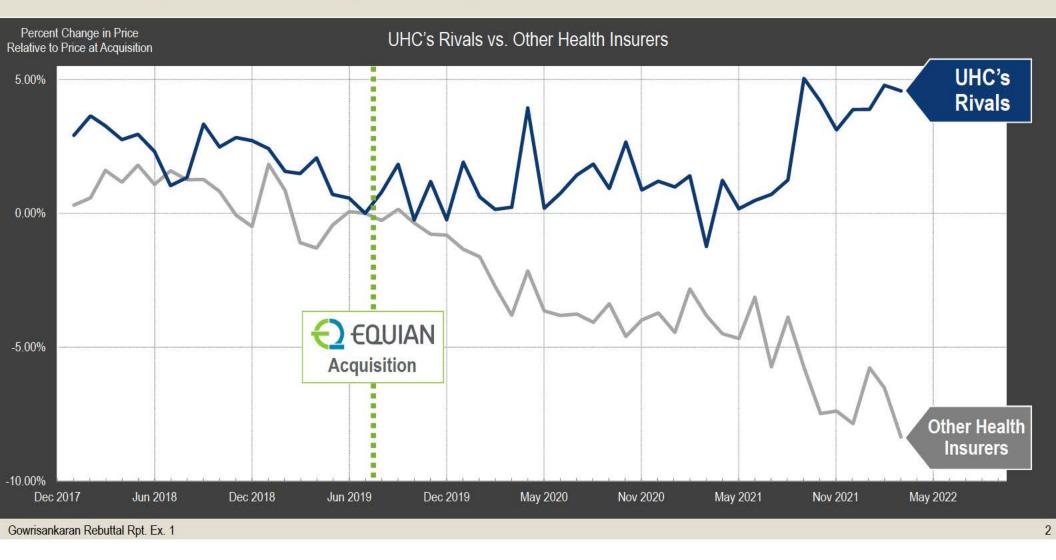
United States of America, et al. v. UnitedHealth Group Inc. & Change Healthcare Inc.

Dr. Gautam Gowrisankaran Professor of Economics, Columbia University

Average Price of Equian Payment Integrity Products Over Time



Core Building Blocks

	Revenue Cycle Management	EDI Clearinghouse	Claims Editing Solution
UNITEDHEALTH GROUP			
WAYSTAR			
Availity			
experian.			
COTIVITI			
Burgess			
Gowrisankaran Rpt. Ex. 11			

Vertical Math

Two Fundamental Pieces of Vertical Math Calculation

Foregone Upstream Profits

The total profits on foregone upstream sales to rivals

- Specify that United delays or limits sales of EDI-related innovations to its four largest rivals
- United's expected TN EBITDA (2026): \$

Profits Gained Downstream

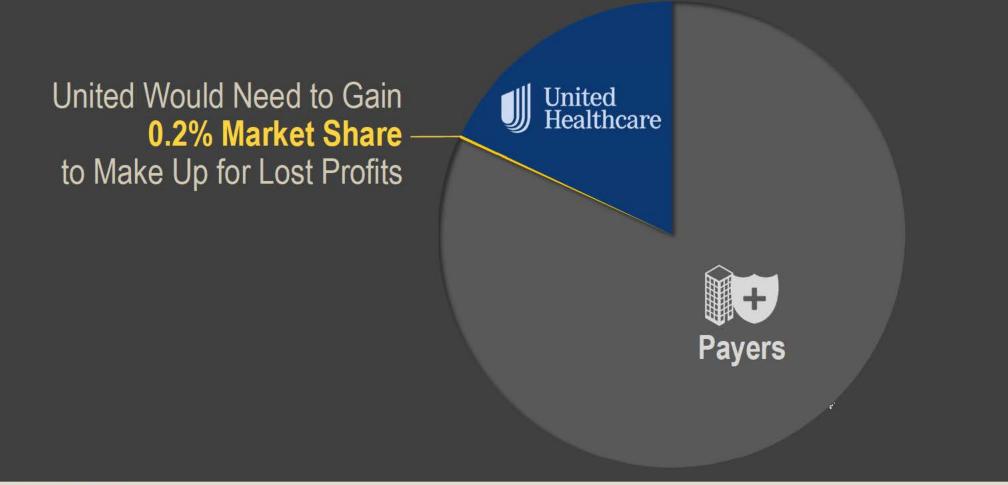
The total profits that United would gain for every member its rivals lose

- The profits United would obtain from each member it gains:
 per member per year*
- The percentage of members leaving targeted rival plans that United can expect to capture: %

* Based on margin for Key Accounts and National Accounts

Gowrisankaran Rpt., p. 130

Vertical Math: Relevant Health Insurance Markets



Non-UHC Payer Share of OptumInsight Revenue

.

OI Revenues by Customer Type Amounts (in Million Dollars) Year Outro Payers Providers Non-UHC Payers Government EDI Life Sciences Admin Total OI Product Lines Image: Customer Type

Table 5

Customer Type	Year			
Customer Type	2020	2021	2022YTD	
UHC Payers				
Providers				
Non-UHC Payers	S			
Government				
EDI				
Life Sciences				
Admin				
Total OI Product Lines				

Customer True		Year	
Customer Type —	2020	2021	2022Q1
Non-UHC Payers Amounts (in Million Dollars)			
Non-UHC Payers Revenue as Share of Total			

United Has Delayed Sales of Innovative Products

	Payer Client Segment		
Product Name	Commercial Payer	UHC	
Impact Intelligence	√	egment UHC V	
Impact Pro	*	~	
Optum Performance Analytics (OPA)	1		
Symmetry		1	
Lab Benefits Management	*	~	
Advisory Services - Payer Analytics	1	1	

Portfolio Optimization (PO)

Auto-Rale/Decision mee)		
Group Rick Applications (GRA)	4	1
Portfolio Optimization (PO)	1	4
Administrative Solutions	1	1
Consumer Sales and Services	1	1
Outcome Based Contract Enablement	1	4
CES Second Pass	1	10.00
CES Services	1	1
CES Software	1	1
Claims Cost Management	1	1
Contract and Duplicates	1	1
Coordination of Benefits	1	1

	Payer Client	Segment
Product Name	Commercial Payer	UHC
Fraud and Abuse		1
Payment Integrity Provider Education	1	1
Post-Pay Claims Validation	*	1
Pre-Pay Claims Validation	×	*
Fee Negotiation	×	1
Analyzers	4	4
APC Assistant (Payer)	×	1
EASYGroup (Payer)		*
Web.Strat (Payer)	4	1
Credit Balance	4	×
Injury Coverage Coordination	×	×
Subrogation	×	1
Medical Record Review	×	×
Quality Management Services	*	*
Risk Adjustment Services	×	×.
In Office Assessment	4	×
Member Engagement	×	*
Data Validation	4	1
Retrospective Chart Services	×	4
Submission Services	×	~
Analytics and Reporting	×	1
Provider Audit	1	1
Data Mining	1	1

United Has Delayed Sales of Innovative Products

	Payer Client Segment		
Product Name	Commercial Payer	UHC	
Impact Intelligence	1	*	
Impact Pro	*	~	
Optum Performance Analytics (OPA)	1		
Symmetry		1	
Lab Benefits Management	*	~	
Advisory Services - Payer Analytics	1	1	

Portfolio Optimization (PO)

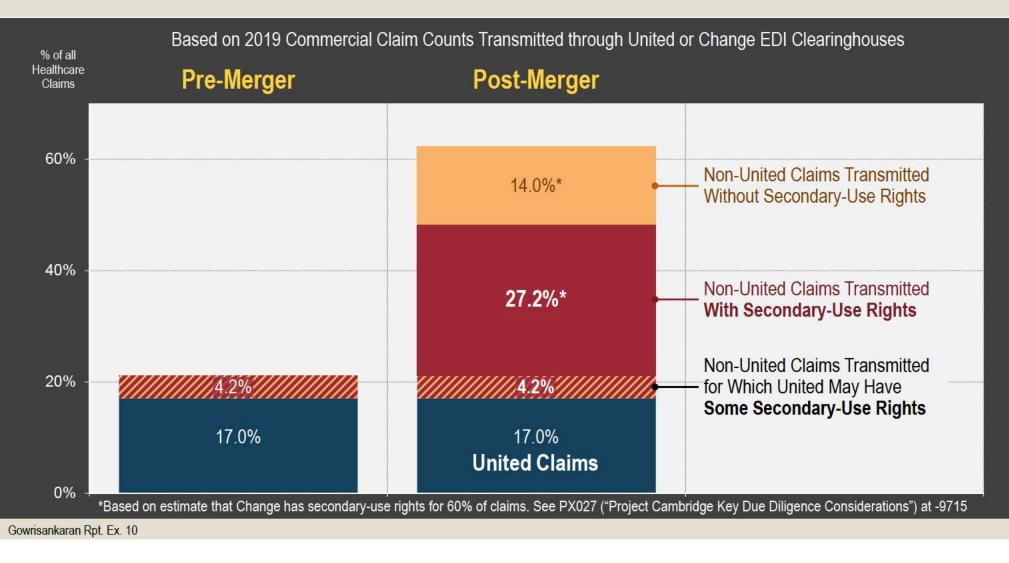
Auto-Rate/Decision mee/		
Group Rick Analytics (GRA)	4	1
Portfolio Optimization (PO)	1	4
Administrative Solutions	1	1
Consumer Sales and Services	1	1
Outcome Based Contract Enablement	1	4
CES Second Pass	1	10.1997
CES Services	1	1
CES Software	4	✓
Claims Cost Management	1	1
Contract and Duplicates	1	*
Coordination of Benefits	1	1

United Healthcare Thomas Gehlbach

- Q. And as of the time you left the company in June of 2022, UnitedHealthcare had already deployed the Portfolio Optimization tool in 48 states; correct?
- A. That is correct.
- **Q.** And as of June 2022, you were not aware of any other payers, apart from UnitedHealthcare, who are using that Portfolio Optimization tool; is that right?
- A. I'm not aware of anyone using it yet, no.

Thomas Gehlbach (8/10 pm) Tr. at 150:6-13.

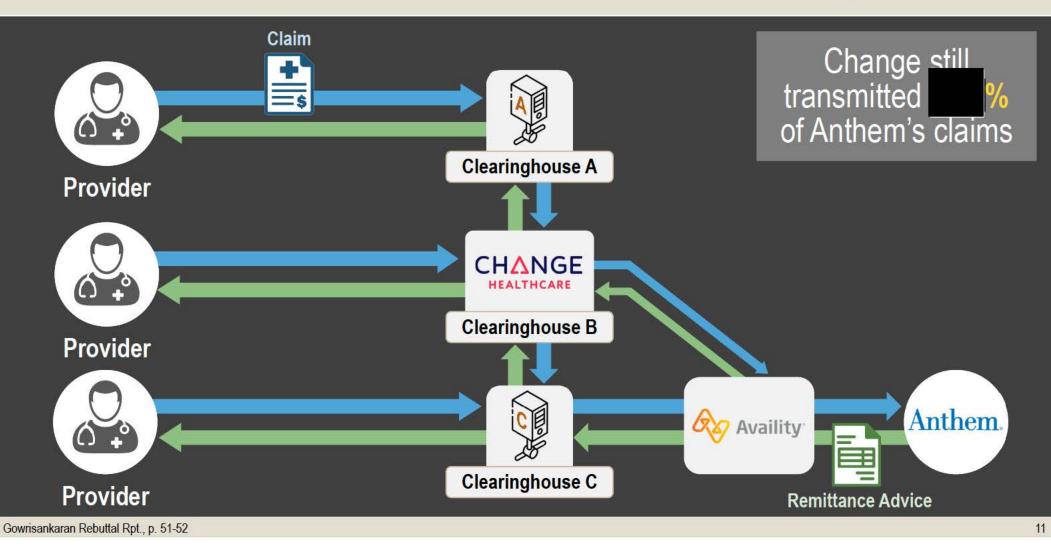
United Would Gain Substantial Secondary-Use Rights



Few Providers Stopped Using Change's EDI

	Time Frame	Number of Provider Customers ^[3]	Number of Provider Customers with Substantial Volume Decrease	Total Claims Volume ^[4]	Decrease in Claims Volume Due to Providers with Substantial Volume Decrease ^[5]	Percent of Provider Customers with Substantial Volume Decrease ^[6]	Percent of Claims Volume from Provider Customers with Substantial Volume Decrease ^[7]
	[1]	[2]	[3]	[4]	[5]	[6]	[7]
Panel A: 100% Drop in Volume							
	2018 to 2019	207,540	5,776	1,048,106,013	4,398,562	2.8%	0.4%
	2019 to 2020	215,645	9,956	1,022,290,277	4,315,093	4.6%	0.4%
	2018 to 2020	207,540	14,050	1,048,106,013	15,818,928	6.8%	1.5%
Panel B: 50% Drop in Volume							
	2018 to 2019	207,540	39,511	1,048,106,013	106.660.244	19.0%	10.2%
	2019 to 2020	215,645	45,590	1,022,290,277		21.1	
	2018 to 2020	207,540	62,592	1,048,106,013	2.8%	30.2	0.4%
					2.070		0.4%
					1		- 101
					4.6%		0.4%
					T.0 /0		0. 770
					0.00/		4 5 64
					6.8%		1.5%
					0.070		1.070

Transmission Paths of Claims: Anthem (2020)



U-Factor Leads Anthem to Demote Equian



PI Termination (Oct. 2019)

ptum

Summary of Anthem relationship

Current Situation

- Anthem relationship with Optum Payment Integrity has soured since acquisition of Equian (Anthem was a weak bidder for this asset)
 - Has terminated and replaced 2 out of 3 Equian solutions with inferior market participants in last 30 days and demoted Equian in the 3rd solution
 - * Estimated loss of \$ _____ kevenue/IOI in 2020. Remaining ______ bf Equian Legacy revenue* at risk in 2021
- Total Optum book at risk from Anthem (Quality and Network Solutions (
- Clear signals that Anthem now views Optum as a competitor rather than a partner & solutions provider

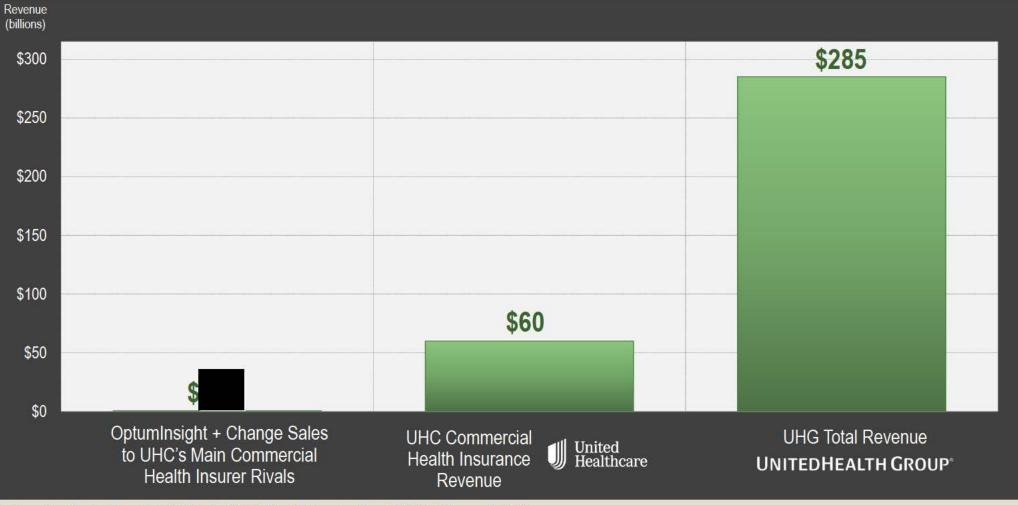


OptumInsight Revenues from United's Main Health Insurer Rivals (2020)

Revenue (millions)	Optum Insight	CH∆NGE	Total
Health, aetna			
Anthem			
Cigna			
HCSC Health Care Service Corporation			
Total			

*Data not provided in source for specific payer. For OI, see Murphy Rpt., Ex. 22. For Change, average of other three payer rivals used as estimate.

Sales to Main Rival Health Insurers Are Minimal at an Enterprise Level



Previous slide; Gowrisankaran Rebuttal Rpt. Ex. 6; UnitedHealth Group Inc. Form 10-K, filed February 15, 2022

Dr. Murphy's Exhibit 5

Exhibit 5

Commercial Insurance Market Shares by Payer Parent By Number of Enrolled Members

Rank	Payer Parent	July 2018	January 2019	July 2019	January 2020	January 2021	2018-2021 (Overall Average)
1	UHC	15.9%	16.1%	16.4%	15.6%	15.6%	15.9%
2	Anthem	13.8%	13.8%	13.7%	13.8%	14.0%	13.8%
3	Aetna	10.4%	10.5%	10.4%	10.5%	10.0%	10.3%
4	Cigna	8.4%	8.5%	8.5%	8.5%	8.3%	8.4%
5	Health Care Service Corporation	7.4%	7.7%	7.8%	7.7%	7.8%	7.7%
6	Kaiser Permanente	5.8%	5.8%	5.8%	5.9%	5.9%	5.8%
7	Florida Blue	2.3%	2.3%	2.1%	2.2%	2.3%	2.2%
8	BlueCross BlueShield Michigan	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%
9	BlueShield California	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%
10	Highmark	1.5%	1.5%	1.1%	2.1%	2.3%	1.7%
11	Blue Cross and Blue Shield of Alabama	1.7%	1.6%	1.7%	1.6%	1.7%	1.7%
12	Horizon Blue Cross Blue Shield of New Jersey	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%
13	CareFirst	1.4%	1.4%	1.4%	1.5%	1.5%	1.5%
14	BlueCross BlueShield North Carolina	1.4%	1.4%	1.4%	1.3%	1.4%	1.4%
15	Centene	1.2%	1.3%	1.3%	1.3%	1.4%	1.3%
16	BlueCross BlueShield Massachusetts	1.3%	1.2%	1.3%	1.3%	1.2%	1.2%
17	BlueCross BlueShield Minnesota	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%
18	BlueCross BlueShield Tennessee	1.1%	1.1%	1.1%	1.1%	1.0%	1.1%
19	EmblemHealth	1.0%	1.0%	0.9%	0.9%	0.9%	0.9%
20	Medical Mutual	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%
>20	Other (156 Additional Payer Parents)	18.0%	17.3%	17.5%	17.3%	17.1%	17.5%
All Pa	yer Parents (176 Total)	100%	100%	100%	100%	100%	100%
Herfin	ndahl-Hirschman Index (HHI)	749	764	770	749	746	755

Notes:

[1] Shares are based on the number of members enrolled in each Parent Payer's plan across all U.S. counties. The total number of enrollees is the sum of all Fully Insured (FI) members and Administrative-Services-Only (ASO) members. FI Members include Individual, Small Group, Large Group, and Federal Employee plans. ASO includes Level-Funded, Small Group, Large Group, and National Accounts.

[2] HealthLeaders data is typically recorded on an annual basis. In 2019, data was recorded in both January and July

Source: HealthLeaders Interstudy DRG Data



13 of the 20 purported competitors are BCBS licensees

CENTENE *Corporation* Individual plans are not a close substitute for national accounts The proposed merger is likely to substantially lessen competition in the following ways: United's acquisition of ClaimsXten is likely to substantially lessen competition due to both the horizontal consolidation of first-pass claims editing solutions and the vertical concerns of United controlling a key input for its rival health insurers

With control of Change's EDI clearinghouse, United would have the ability and incentive to raise its health insurer rivals' costs for innovations built on Change's EDI connectivity, which is likely to substantially lessen competition in the relevant health insurance markets relative to the but-for world

United will gain access and the **rights to use rival health insurers' competitively sensitive information**, which is likely to substantially reduce competition in the relevant health insurance markets relative to the but-for world