

**AMY CHRISTENSEN, DAVE NELSON, KEITH PASSWATER**

*Session 3B: Could a Unicorn Bend the Trend?*

June 8, 2020



# SOCIETY OF ACTUARIES

## Antitrust Compliance Guidelines

Active participation in the Society of Actuaries is an important aspect of membership. While the positive contributions of professional societies and associations are well-recognized and encouraged, association activities are vulnerable to close antitrust scrutiny. By their very nature, associations bring together industry competitors and other market participants.

The United States antitrust laws aim to protect consumers by preserving the free economy and prohibiting anti-competitive business practices; they promote competition. There are both state and federal antitrust laws, although state antitrust laws closely follow federal law. The Sherman Act, is the primary U.S. antitrust law pertaining to association activities. The Sherman Act prohibits every contract, combination or conspiracy that places an unreasonable restraint on trade. There are, however, some activities that are illegal under all circumstances, such as price fixing, market allocation and collusive bidding.

There is no safe harbor under the antitrust law for professional association activities. Therefore, association meeting participants should refrain from discussing any activity that could potentially be construed as having an anti-competitive effect. Discussions relating to product or service pricing, market allocations, membership restrictions, product standardization or other conditions on trade could arguably be perceived as a restraint on trade and may expose the SOA and its members to antitrust enforcement procedures.

While participating in all SOA in person meetings, webinars, teleconferences or side discussions, you should avoid discussing competitively sensitive information with competitors and follow these guidelines:

- **Do not** discuss prices for services or products or anything else that might affect prices
- **Do not** discuss what you or other entities plan to do in a particular geographic or product markets or with particular customers.
- **Do not** speak on behalf of the SOA or any of its committees unless specifically authorized to do so.
- **Do** leave a meeting where any anticompetitive pricing or market allocation discussion occurs.
- **Do** alert SOA staff and/or legal counsel to any concerning discussions
- **Do** consult with legal counsel before raising any matter or making a statement that may involve competitively sensitive information.

Adherence to these guidelines involves not only avoidance of antitrust violations, but avoidance of behavior which might be so construed. These guidelines only provide an overview of prohibited activities. SOA legal counsel reviews meeting agenda and materials as deemed appropriate and any discussion that departs from the formal agenda should be scrutinized carefully. Antitrust compliance is everyone's responsibility; however, please seek legal counsel if you have any questions or concerns.

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## WHO'S SPEAKING?

# Amy Christensen

MBA

Partner at Vistria Group a private investment firm focused on middle-market companies in the healthcare, education, and financial services industries.

[achristensen@vistria.com](mailto:achristensen@vistria.com)



## WHO'S SPEAKING?

# Dave Nelson

FSA, MAAA

Senior Adviser at the health strategy  
and actuarial firm PascoAdvisers

dave.nelson.111@gmail.com



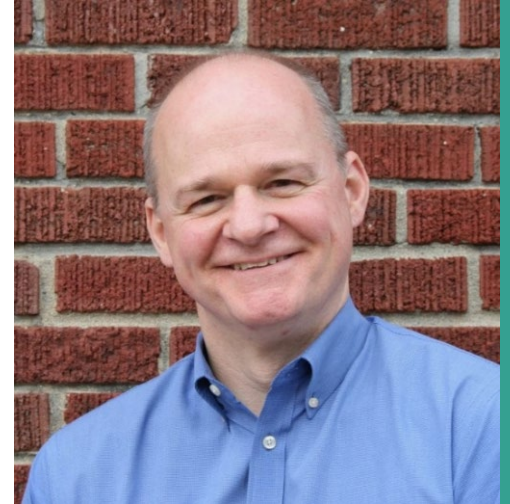
## WHO'S SPEAKING?

# Keith Passwater

FSA, MAAA

Managing Director at the health strategy  
and actuarial firm PascoAdvisers

[Keith@PascoAdvisers.com](mailto:Keith@PascoAdvisers.com)



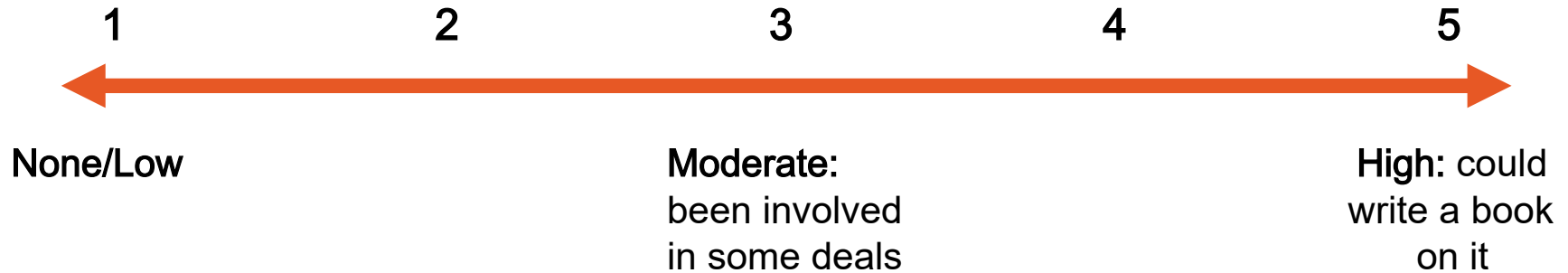
# Agenda

- VC/PE Introduction
- Healthcare Start-up ROI
- Examples



# Poll Question:

What's your level of expertise with Venture Capital/Private Equity backed healthcare companies?





# Poll Question:

**In how many Venture Capital/Private Equity backed healthcare companies have you invested company and/or personal money in the past three years?**

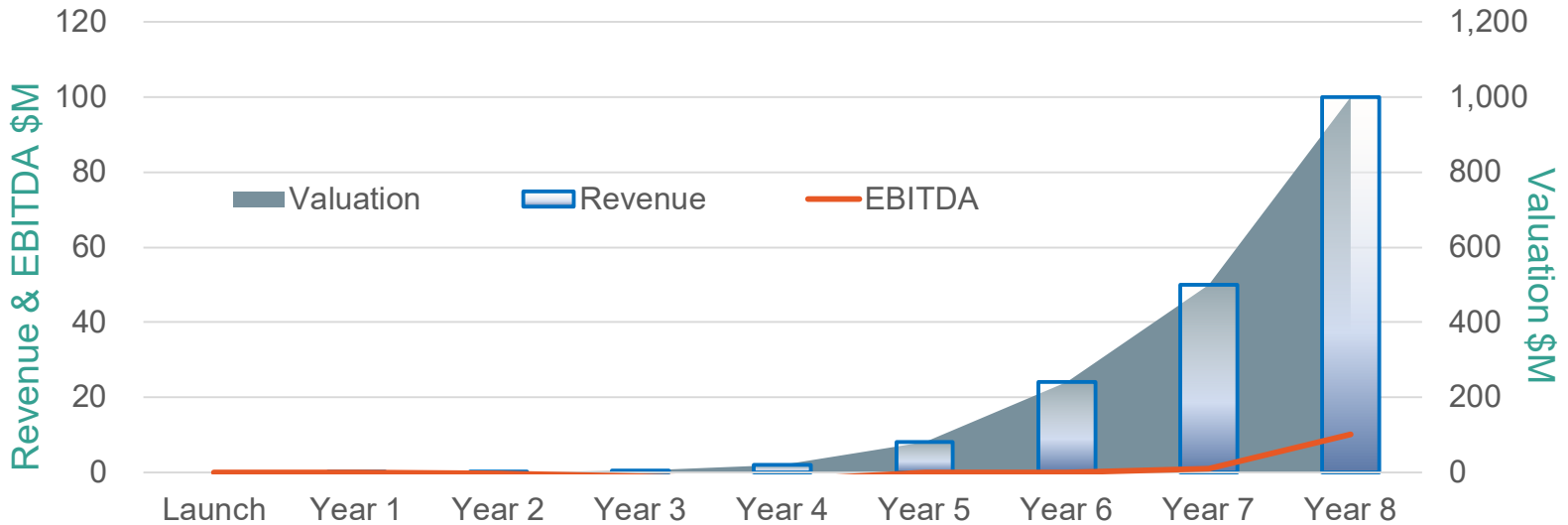
1. None
2. 1-2
3. 3-5
4. 6-20
5. 20+



# Venture Capital & Private Equity Introduction



# Stages of Investment



Angel Investing

Venture Capital

Growth Equity

Private Equity



# Characteristics by Stage of Investment

Angel/Seed  
Investing

Venture  
Capital

Growth  
Equity

Private  
Equity

<b>Ownership</b>	Small minority w/large group of individual investors	Minority with some other institutional investors	Minority/Majority with few other institutional investors	Majority
<b>Financial Profile</b>	Pre-revenue	Generates revenue, burning cash	Generates revenue, break even cash flow	Generates revenue and EBITDA
<b>Growth Expectation</b>	Exceptionally high revenue growth	Exceptionally high revenue growth	High revenue growth, single digit EBITDA	Double EBITDA
<b>Returns Expectation</b>	Varies dramatically	0-10x	4-5x	2-3x
<b>Time Horizon</b>	Varies	1-2 years	3-5 years	3-5 years
<b>Investor Involvement</b>	Low	Low-Medium	Medium-High	High



# Implications of Those Characteristics

<b>Ownership</b>	<ul style="list-style-type: none"><li>• Can have multiple chefs in the kitchen</li></ul>
<b>Financial Profile</b>	<ul style="list-style-type: none"><li>• If you're burning cash, every dollar of revenue (and every payer contract) is critical and time sensitive</li></ul>
<b>Growth Expectation</b>	<ul style="list-style-type: none"><li>• High pressure environment for management</li><li>• Depending on stage, may prioritize revenue over profit or vice versa</li></ul>
<b>Returns Expectation</b>	<ul style="list-style-type: none"><li>• For all stages, expect to exceed public market returns</li><li>• Exit valuations are measured as multiple of revenue/EBITDA</li><li>• Investors look at the blended risk/return profile of an entire portfolio of companies which affects individual company return expectations</li></ul>
<b>Time Horizon</b>	<ul style="list-style-type: none"><li>• Returns are measured relative to the investment hold period</li><li>• When the company is looking to exit (and to whom) may be important</li></ul>
<b>Investor Involvement</b>	<ul style="list-style-type: none"><li>• May have more hands-on involvement from investors (e.g., private equity's use of operating partners and board of directors)</li><li>• Investor may leverage relationships to try to help company win new business or increase revenue</li><li>• Investor may be able to leverage synergies across portfolio companies</li></ul>



# Investor Value Add

## STRATEGIC ALIGNMENT

- » Ensuring clarity of vision, common financial expectations, and aligned incentives
- » Collaboratively determining long-term strategy, identifying growth opportunities, setting cultural aspirations, and targeting operational changes and upgrades

## REGULATORY INSIGHTS

- » Relying on regulatory knowledge, experience, and relationships to advise companies on how to navigate and take advantage of complex and changing landscapes

## STRATEGIC RELATIONSHIPS

- » Facilitating partnerships that will drive transformational growth
- » Bringing Fortune 100 relationships to middle-market companies
- » "Connecting the dots" and making door opening introductions to strategic customers and partners



## HUMAN CAPITAL OPTIMIZATION

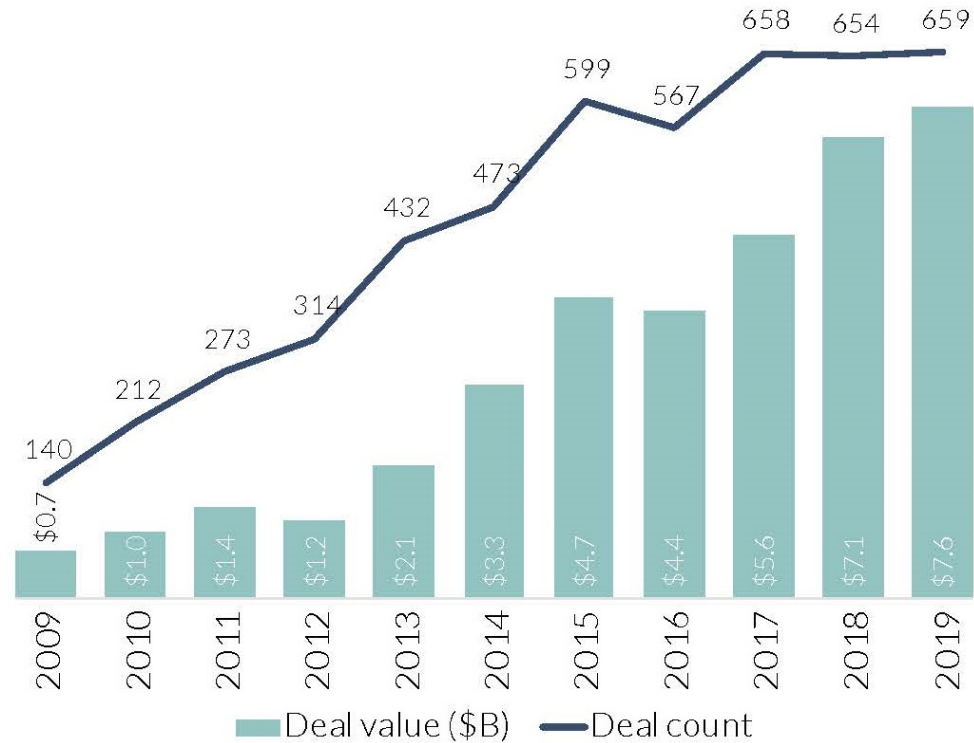
- » Ensuring "A Players" are in key roles, through rigorous assessment of management team and recruiting/onboarding to fill gaps
- » Tapping network and engaging industry "heavyweights" to Board and Advisory roles

## OPERATIONAL IMPROVEMENT

- » Bringing Operating Partner expertise to bear across all aspects of the business
- » Upgrading commercial (including sales and product marketing) and operational capabilities
- » Helping measure performance and use data to make decisions
- » Identifying opportunities to better use technology (e.g., data analytics, digital marketing)



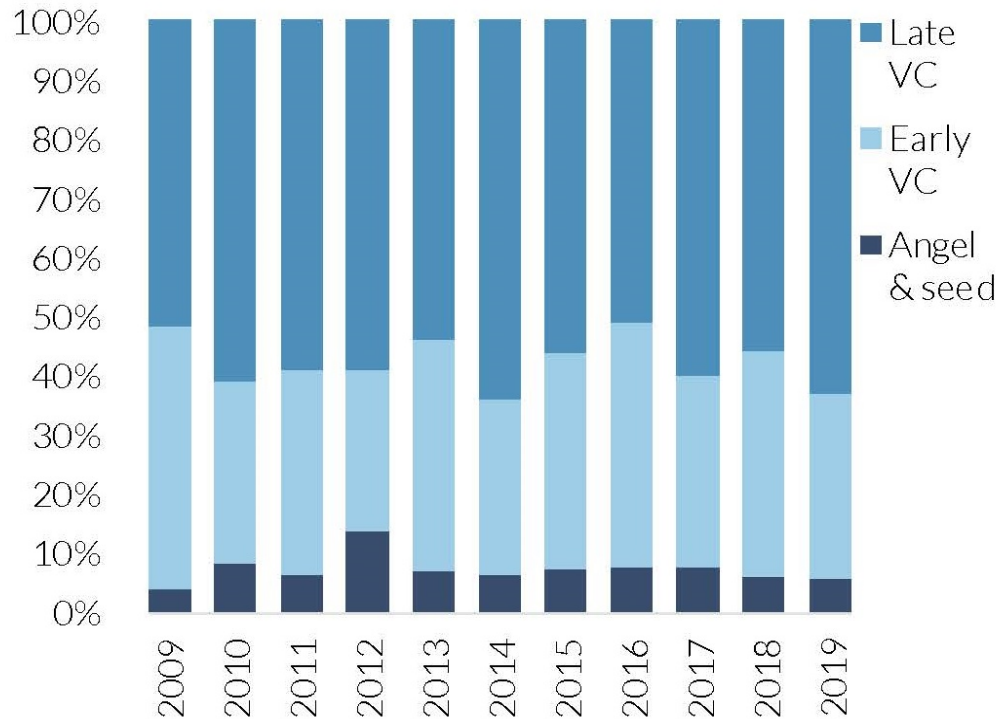
# 2019 Activity – US Healthtech



PitchBook-NVCA Venture Monitor



# 2019 Activity – US Healthtech

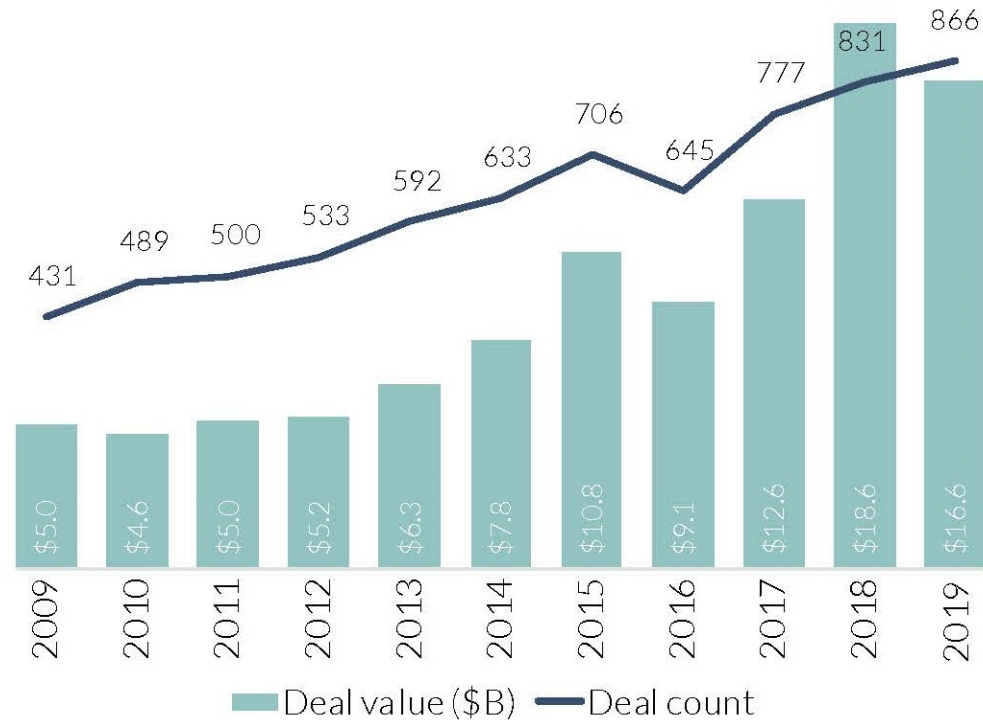


PitchBook-NVCA Venture Monitor





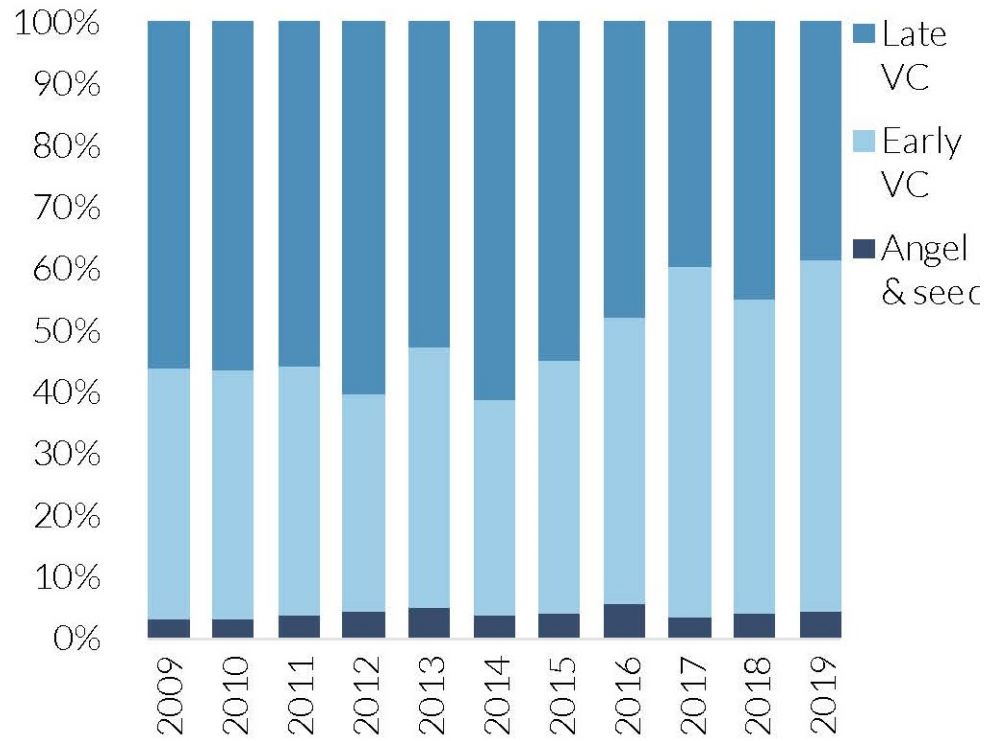
# 2019 Activity – US Biotech and Pharma



PitchBook-NVCA Venture Monitor



# 2019 Activity – US Biotech and Pharma



PitchBook-NVCA Venture Monitor



# Healthcare Start-up ROI



# Healthcare Start-up: Value to Payer

Payer ROI<sub>Rough</sub> = Incremental Value of Product/Service - Incremental Cost

Or

Incremental Value / Incremental Cost

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Complications:

- Likelihood of success
- Timing
- Incomplete demonstrations of value
- Unknown costs
- Higher risk- sticky accountability



## Payer Incremental Value

- Admin savings
- Cost of Care savings
- Revenue increases
- Strategic value

## Payer Incremental Cost

- Cash
- Time
- Resources
- Adjacent Project Acceleration
- Surprises



# Healthcare Start-up Compensation Structures



- Types
  - Fee for Service
  - Pmpm
  - Per patient engagement
  - Case rate
  - Shared savings
  
- Complexities
  - Immature business model
  - Payer system limitations
  - Med cost reimbursement segmentation
  - Shared savings madness
  - Equity decision-making



# Healthcare Start-up Likelihood of Success

## Considerations/Questions:

- Proven (or, at Least Credible) Concept
- Regulatory Hurdles
- Competitive Distinction & Advantage
- Operational Capability/ Mngmt Prior Success
- Key Relationships
- Funding Stream Adequacy
- Customers/Revenue
- Implementation Feasibility



# Healthcare Start-up: Payer Challenges

- Risk/Reward
- Prioritization
- Executive Decision-making
- Impact to Target
  - Payer rivals
  - Adjacency rivals
  - Unfriendly acquisition
- Overwhelming Volume of Opportunities





# Poll Question:

How many investor-backed healthcare companies have you evaluated for ROI in the last three years?

1. None
2. 1-2
3. 3-5
4. 6-20
5. 20+



# Poll Question:

For those of you who have evaluated some investor backed healthcare companies for ROI, what percentage had high enough ROI to proceed with a deal to implement?

1. < 10%
2. 10 to 25%
3. 26 to 50%
4. 51 to 75%
5. 76 to 100%



# How to Prioritize Opportunities

- Evaluation Process
- Materiality
- Market Demand
- Link to Other Offerings
- Executive Advocacy
- Other



# Healthcare Start-up Examples

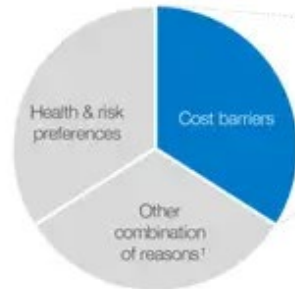


 SEMPRE  
HEALTH



# Sempre Health

1 in 3 Americans skips care because of cost.  
This nonadherence has sweeping consequences.



Reasons for Nonadherence

#### Strategies to manage costs

- Stop taking medications
- Split pills
- Delay refills
- Skip doses
- Avoid new prescriptions
- Seek best price
- Increase debt
- Cut back on basic needs

**\$300B**

Annual cost of nonadherence & suboptimal drug administration

1. Clinical side effects, polypharmacy issues, inconvenience, or urinary access to care

Breschner, S. A., Dunetz, J. H., & Soumerai, S. B. (2007). Patients at risk for cost-related medication nonadherence: A review of the literature. *Journal of General Internal Medicine*, 22(6), 664-671.  
The New England Healthcare Institute. (2008). *Thinking Outside the Pillbox: A System-wide Approach to Improving Patient Medication Adherence for Chronic Disease*. New England Healthcare Institute, (August), 1-21

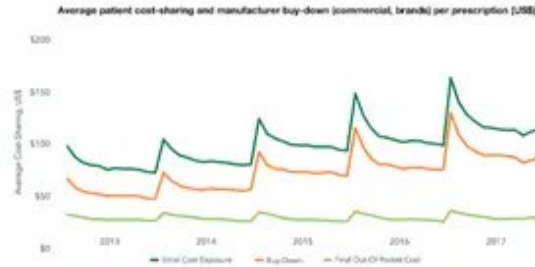


# Sempre Health

There are billions spent on pharma drug coupons each year.  
But, they're not spent well.

## \$4B

Annual spend on drug coupons



Source: IQVIA Technology Impact Analysis: Why OOP Matters, Jan 2018



Lack of payor visibility  
& control



One size fits all / little  
power to incentivize



Unsophisticated  
targeting & economics



Increasing regulatory  
scrutiny

\*Waller, November 2011, "How Copy Coupons Could Raise Prescription Drug Costs by \$22 Billion over the Next Decade."



# Sempre Health

Sempre allows payors to leverage manufacturer dollars.

We improve adherence and provide a personalized patient benefit over time, **for free**.

1

Sempre's two-sided marketplace matches the supply of brands & budget to demand from payors on the platform.



2

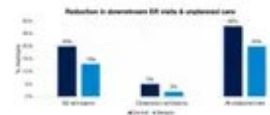
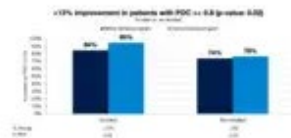
Sempre's proprietary technology ingests payor data, assigns pricing algorithms, and drives adherence with SMS + dynamic discounts at any pharmacy in the country.

Chris - your prescription is ready for pick up. Because you're on time, you'll pay just \$20! Usually it's \$30. Next month: Fill on time again & pay \$15.

Thank! I'll pick it up today.

3

Partners experience statistically significant improvements in adherence, engagement & downstream outcomes

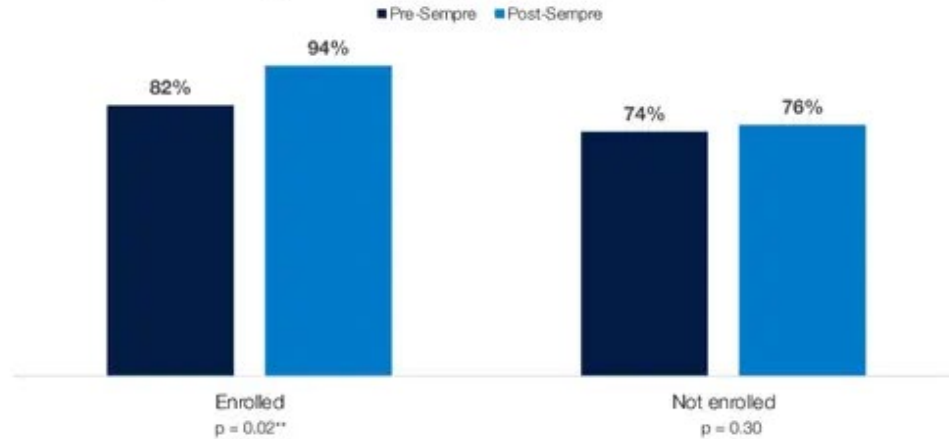




# Sempre Health

It's because our programs work.

**Avg. 15% improvement in proportion of adherent members**



\*\* Statistically significant, 95% CI



# Sempre Health

We see 8x higher enrollment than typical payor programs.

ENROLLED

**35%**

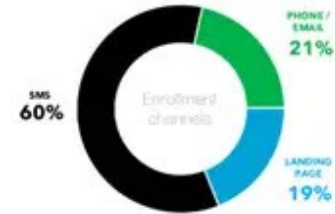
Member submitted phone number & provided explicit consent to enroll

ACTIVATED

**92%**

Member has filled at least 1 prescription with Sempre

~80% of members enroll without intervention



# Sempre Health

Our dynamic discounts change behavior.

Chris - it's time to pick up your prescription. You'll pay just \$18 if you get it by Nov 14. That's a \$7 savings! After, your copay will go up to \$23.

Thanks - I'll get it today.

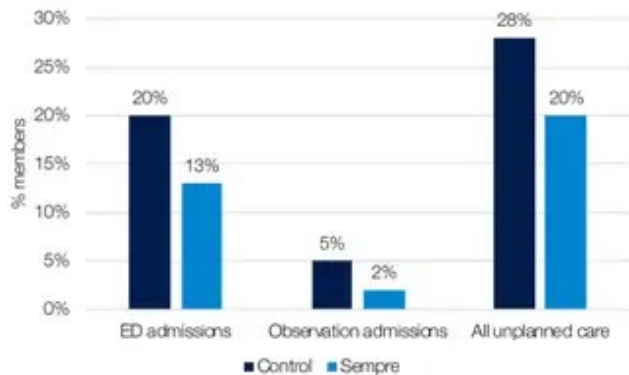


- 86% of fills are on-time (within 3 days of the expected refill date)
- 30% of enrolled members were reactivated (had stopped filling more than 30 days before enrolling)
- 36% of members text 'thanks'



# Sempre Health

This translates to healthier and happier members.



**Judy Miller**

Illinois

"I signed up because of the financial payments, but I found that I really liked knowing that somebody out there cared whether I got my medication filled each month...by the end of the study I had lost 25 pounds and my fasting blood sugar dropped from 145 to about 100. So thank you for helping me to make these changes in my health."



# Sempre Health Leadership



## Anurati Mathur

Cofounder & CEO

Anurati believes that price is the most tangible, yet untapped lever on patient behavior today. She was the founding data scientist at Propeller Health, before which she built data products at Practice Fusion and led clinical analytics & special projects for the CFO at DaVita Healthcare Partners.



## Swaraj Banerjee

Cofounder & CTO

Swaraj is building technology to predict and deliver the right price for the right patient at the right time. He was a machine learning engineering director at Expect Labs, before which he was an early engineer on Zynga's FarmVille 2 team. Swaraj holds a dual B.S., in Electrical Engineering & Computer Science from UC Berkeley.



## Dr. Mark Fendrick

Dr. Mark Fendrick researches how consumer engagement initiatives impact access to care, quality of care and healthcare costs. He is the founder of the University of Michigan Center for Value-Based Insurance Design. He also serves on the Medicare Coverage Advisory Committee and remains clinically active in the practice of general internal medicine.



## Charlene Frizzera

Charlene Frizzera serves as President and Chief Executive Officer of CF Health Advisors. She is also a Senior Advisor at Leavitt Partners. Charlene was previously Acting Administrator for the Centers for Medicare and Medicaid Services (CMS), where her responsibilities included leading the policy and operational aspects of CMS, while executing the design and implementation plan for the Affordable Care Act. As a well-deserved mark of respect, Charlene received the Presidential Rank Award in 2000 and 2008, an honor for outstanding leadership reserved for the nation's top one percent of the Senior Executive Service.



# Poll Question:

What's the likelihood this program will deliver on its promises?

1. < 10%
2. 10 to 25%
3. 26 to 50%
4. 51 to 75%
5. 76 to 100%



# Panelists' Questions/Considerations:

- Proven (or, at Least Credible) Concept
- Regulatory Hurdles
- Competitive Distinction & Advantage
- Operational Capability/ Mngmt Prior Success
- Key Relationships
- Funding Stream Adequacy
- Customers/Revenue
- Implementation Feasibility



# Cardinal Analytx







**Cardinal  
Analytx**  
Solutions

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**Better Care, Sooner**

Confidential and Proprietary, All Rights Reserved



# Cardinal Analytx



## Predict Future Risk and Rising Cost

Significant Healthcare AI Spin-out from Stanford Start-X



**4 Years**  
R&D



**21 Million**  
Lives



**2.5x**  
Accuracy



**3**  
Products



**21**  
Advisors and Board



**28**  
Employees



**2**  
Customers Paid



**8**  
Customers MSAs



**20**  
Pipeline Customers



## Predicting Future Risk and Rising Cost

6% of today's population will account for 1/3 of next year's new high cost



*Implement cost effective programs*

*Price for and manage new financial risks*

*Form the provider network for next year's risk*

*Manage capacity for today and tomorrow*

## Predict the What, Why and When of Tomorrow's Cost

### Mitigate Rising Risk

#### Solution 1: COST BLOOM INTERVENTION

- Cost Bloom, Jump, High Cost Claimant Likelihood
- Engagement Likelihood
- Clinical Impactability Score
- Case Selection Optimizer
- Action Plan Recommendation

Ave Annual Price Per Customer: **\$850k**

### Steer High Cost Events

#### Solution 2: STEERAGE PRECISION

- Clinical Event Likelihood
- Engagement Likelihood
- Event Timing Likelihood
- Case Selection Optimizer
- Case Summary

Ave Annual Price Per Customer: **\$400k**

### Predict Total Cost

#### Solution 3: RISK ASSESSMENT

- Prospective Risk Score & Cost
- Concurrent Risk Score & Cost
- Cost Bloom, Jump, High Cost Claimant Likelihood

Ave Annual Price Per Customer: **\$600k**



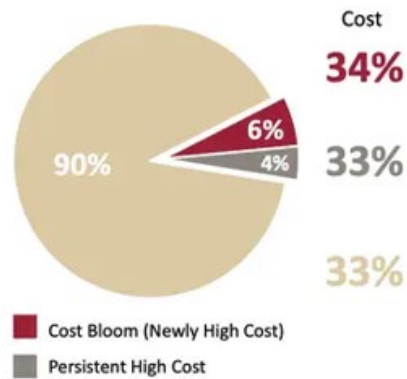
# Cardinal Analytx

## 8x ROI on Highest Impact Cost Blooms

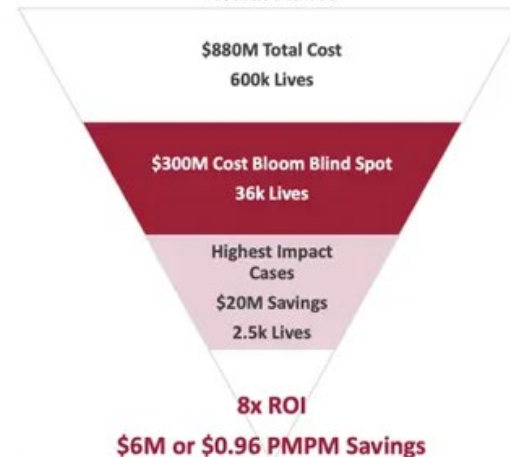
*"I felt like it was meant to be for me to reach this member, it was the perfect moment in time"*  
– Care Manager

Patient Outcome: 57 year old male with heart conditions, back pain, and opioid dependence was steered to a higher quality lower cost spinal fusion center, a savings of over \$20k.

Health Plan A Population



Health Plan A



Proprietary and Confidential

Confidential and Proprietary



## Cost Bloom Adoption at a Blues Plan



**40% engagement rate** (one call with Cost Bloom member)



**26% active engagement rate** (multiple calls with member)



**75% successful intervention rate** for actively engaged



# Cardinal Analytx

## 6x ROI on Ortho Joint Surgery Steerage



**1/3**

Of cost blooms were ortho joint surgeries



**\$3.6M savings, 6x ROI**

Projected Ortho Joint savings at Health Plan A

## Steerage Precision Addressing a Market Gap



**Over \$5M per year in Total Savings**

Even larger market beyond Ortho Joint: Bariatric, High Risk OB, Hysterectomy, etc.



**50% of Cardinal Analytx Clients Expressed Interest in Steerage**

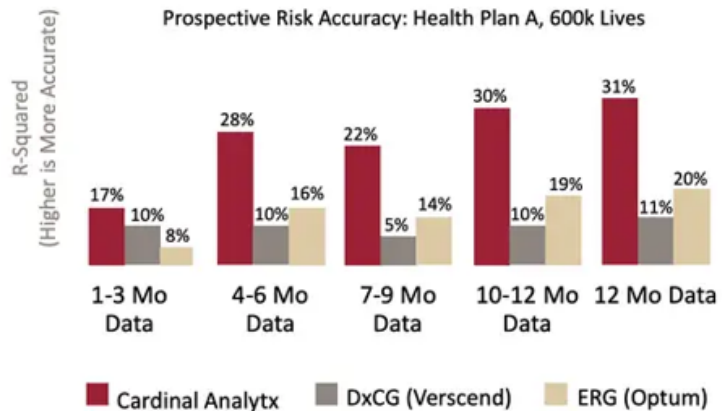
Cardinal Analytx is working with solution providers to partner (e.g., Vitals, Relay, MOBE, VIM)



# Cardinal Analytx

## \$100M Through Increased Accuracy

Our proprietary Machine Learning beats the competition



### Missed Dollars by Competitors:


**\$63M missed dollars**  
Under-pricing risk

**\$37M missed dollars**  
Over-pricing / retention risk





## Strong Competitive Position

Strategic Approaches	Competitive Landscape	
<b>1. Machine Learning Predictions with Drivers and Actions</b>	 KenSCI (Provider) Cyft (CM platform)	
<b>2. Machine Learning Predictions + Model Correlations</b>	Base Health (Med Adv. Risk Adj) Jvion (Provider) Ayasdi (Provider)	
<b>3. Machine Learning Predictions</b>	Lumiata (Risk) Cogitativo (Payment) HBI Solutions (Risk) IBM Watson (Truven)	Ark.one (Risk) NextHealth (Provider) Hindsait (Data Aggregation)
<b>4. Traditional Predictions</b>	Optum (Risk) Milliman (Risk) Cave Consulting (Risk) Verscend (Risk) Lexis Nexis (Risk) Deerwalk (Risk)	Health Catalyst (Provider) Welltok (Member Platform) Lightbeam (Provider, Risk) HCC (Risk) ACG (Risk)



# Cardinal Analytix

## Professional Team



**Linda Hand**  
CEO

- 35 years in organizational leadership, product development, solutions delivery and go-to-market strategies
- Successful exit of DecisionView to IMS Health, Clinical Tech core of IQVIA / Quintiles merger
- BA in Computer Science, UC Berkeley, Haas School of Business Executive Program



**Niall O'Cathasaigh**  
Chief Financial Officer

- 20 years of startup experience across 15 venture backed startups, 4 Healthcare companies. 7 years as founder and fund manager. 3 years at Apple.
- CIMA Qualified. DBS from University College Dublin. BA in History from University College Galway and Universite De Poitiers.



**Brian Maples**  
VP of Data Science

- 15 years in biomedical R&D and machine learning
- Invented and patented molecular diagnostic tech at Ionian, acquired by Alere to develop CLIA waived rapid flu test; Led Nuna's data science development of a Network Solutions product; at Stanford, created now leading ancestry inference methodologies
- PhD in Biomedical Informatics from Stanford University, MS in Statistics from Stanford University, BA in Science and Management from Claremont McKenna College



**Lu Lu**  
Head of Product

- 12 years healthcare experience in strategic and clinical transformation initiatives focused on transition to value with over 19 Health Systems, 45 clinical departments, and 450 design participants.
- MPH from Harvard School of Public Health, BA in Psychology from UCLA.



**Chris DeRienzo**  
Chief Medical Officer

- 11 years clinical experience, double-boarded MD
- While serving as Mission Health Chief Quality Officer gained >\$65M through continuous improvement, pay for value and population health initiatives.
- Spearheaded integration of analytics and data science while reducing harm and scaling clinical pathway development.
- MD/MPP from Duke University, BS in Biology, Biochemistry, and Psychology from Brandeis University



# Cardinal Analytix

## Engaged Founders, Investors & Board

### Founders



**Nigam Shah**  
Associate Professor of Medicine,  
Stanford

- Associate Professor of Medicine, Funded by 5 NIH institutes, FDA and 7 companies; Asst Director of Center for Biomedical Informatics Research.
- Fellow, American College of Medical Informatics and American Society for Clinical Investigation.
- MS and MD Baroda College (Baroda, India), PhD, Penn State, Postdoctoral, Medical Informatics, Stanford.



**Arnold Milstein**  
Professor of Medicine,  
Stanford

- Professor of Medicine and Director, Stanford Clinical Excellence Research Center; Elected Member Institute of Medicine Section of National Academy of Sciences; Medical Director at Pacific Business Group on Health; Board Trustee Intermountain Healthcare.
- Founder national health care performance improvement firm and Leapfrog Group; former Congressional MedPac Commissioner.
- BA, Harvard; MD, Tufts; MPH, U.C. Berkeley.

### Investors



**John Doerr  
Family Fund**



### Board



**Thomas McKinley**  
Chairman of Cardinal Analytix,  
Partner at Cardinal Partners



**Linda Hand**  
CEO of Cardinal Analytix



**John Doerr**  
Chairman, Kleiner Perkins



**Mark Smith**  
California HealthCare Foundation,  
Co-leads a CMS effort to  
accelerate value-based payment



**Nigam Shah**  
Associate Professor of Medicine,  
Stanford



**Elizabeth Spaulding**  
Partner at Bain & Company,  
Global Head of Bain Digital



**Kent Marquardt**  
Former EVP and CFO at Premera  
Blue Cross



# Cardinal Analytix

## Industry Leading Advisors

### Science



**Susan Athey, PhD**  
Economics of Technology  
Professor, Stanford  
Graduate School of Business



**Trevor Hastie**  
The John A. Overdeck  
Professor of Mathematical  
Sciences, Stanford University



**Colt Courtright, MPA**  
Director, Corporate Data  
& Analytics

### Industry



**Virginia McFerran, MBA**  
Formerly, Partner, Optum  
Ventures, President and  
CEO, Optum Analytics



**Ray Bradford, MBA**  
Founder and CEO,  
Spruce Health

### Health Plan



**Jeffrey Ballet, MD, MSPH**  
Executive VP of Health Care  
Quality and Affordability  
Blue Shield of California



**David Fields**  
President  
Dean Health Plan



**John Espinola, MD,  
MPH, MBA**  
Executive VP of Healthcare  
Services, Premiera Blue Cross



**Juan Chaluja**  
VP Commercial Markets  
Analytics and Business  
Performance, Florida Blue

### Clinical



**Kevin A. Schulman, MD, MBA**  
Professor of Medicine,  
Assoc Chair, Bus Dev & Strategy,  
Stanford School of Medicine



**Ken Paulus, MA**  
Past President and CEO,  
Allina and Atrius Health Systems



**Ronald A. Paulus, MD**  
President and CEO,  
Mission Health



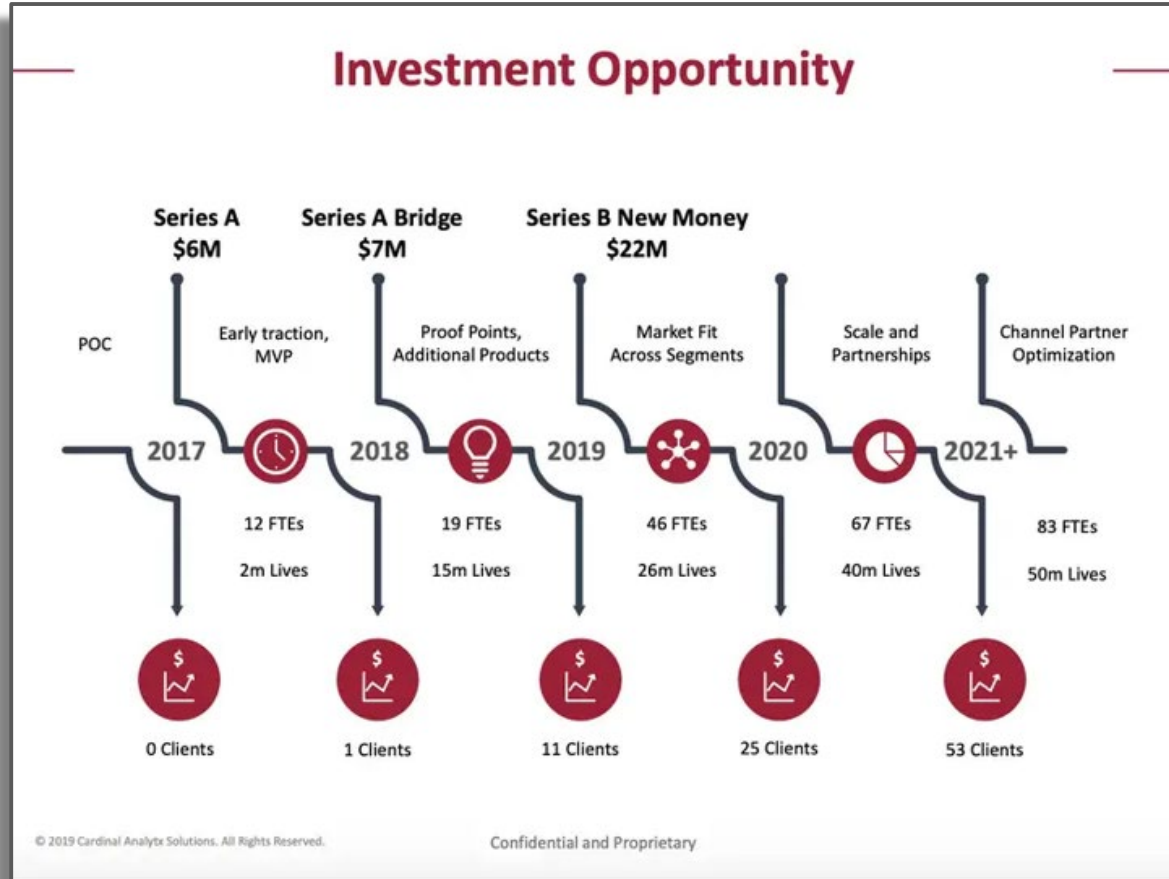
**Lee Sacks, MD**  
Former CMO, Advocate  
Aurora Health



**Alan Glaseroff, MD**  
Faculty, Stanford  
University's Clinical  
Excellence Research Center



# Cardinal Analytix



# Poll Question:

What's the likelihood this program will deliver on its promises?

1. < 10%
2. 10 to 25%
3. 26 to 50%
4. 51 to 75%
5. 76 to 100%



# Panelists' Questions/Considerations:

- Proven (or, at Least Credible) Concept
- Regulatory Hurdles
- Competitive Distinction & Advantage
- Operational Capability/ Mngmt Prior Success
- Key Relationships
- Funding Stream Adequacy
- Customers/Revenue
- Implementation Feasibility



# Everything Starts Small

Charter Med



Extendicare





# Thank you for joining!



# Troy Medicare





Troy Medicare removes the fat  
in the Medicare healthcare program.





## Medicare Market

- Medicare is a government program that covers the healthcare of 50 million seniors and continues to expand each year to cover more residents of all ages
- Medicare Advantage represents the private companies which the US government contracts to administer the Medicare program for 21 million Americans
- Medicare Advantage is growing at an increasing rate, and will surpass **40 million seniors by 2025 (that's a **\$800 Billion market size**)**

<https://www.lek.com/sites/default/files/insights/pdf-attachments/2135-Medicare-Advantage-Penetration.pdf>





## Independent Pharmacies

- **21,767** community pharmacies (36% of all pharmacies in the US) are independently owned small businesses, often located in underserved areas where access to care is a challenge
- Services include: Immunizations, Medication Reconciliation, Home Delivery/Home Visits, Tobacco Cessation Programs, Nutrition Counseling, and Point of Care Testing
- The average senior visits their community pharmacy 3 times per month (**36 times per year**) and trust their pharmacist more than their primary care doctor



# Troy Medicare



## Direct Competitors

- **United Healthcare Group** – \$240 Billion market cap – closely partnered with Walgreens
- **Humana** – \$40 Billion market cap – closely partnered with Walmart
- **Aetna** – purchased by the CVS pharmacy chain for \$69 Billion
- **Cigna** – merged with Express Scripts in a deal valued at \$67 Billion
- **WellCare** – purchased by Centene for \$15 Billion





## The Fat

- **Advertising/Marketing** accounts for 45% of non-medical expenses each year
- **Insurance Brokers** account for 25% of non-medical expenses each year
- **Pharmacy Benefit Managers (PBMs)** - 5% of non-medical expenses
  - Bloated transactional system with 0 drug pricing transparency
  - Ineffective at managing drug costs and disconnected from the health costs
- **Third Party Administrator (TPA) functions** - 20% of non-medical expenses
  - Outdated technology standards make care management impossible
  - Data delays lead to provider and patient dissatisfaction
- **Care Management Vendors** - 4% of non-medical expenses
  - Many duplicate vendors with no incentives to integrate and share data



# Troy Medicare



## Enter Troy Medicare

- Troy Medicare is the only Medicare company that combines modern **data science techniques** with the patient **accessibility** and **trust** of local community pharmacies.
- **Unfair competitive advantage:**
  - Customer Acquisition Cost is **20 times lower** than the competition
  - Close relationships with **21,000+** local community pharmacies in all 50 states
    - Unique care management that is more effective than current models
  - Founded by software engineers with a history of disrupting Medicare
    - Data-driven benefit design proven to attract members





# Troy Medicare

## Troy Medicare is Live and Proven



- APR 2019 – Received license from the North Carolina Department of Insurance
- JUL 2019 – Received approval from the Center for Medicare and Medicaid Services
- SEP 2019 – Completed **\$10.2 million** financing round
- SEP 2019 – Contracted a large network of providers (including **Duke Health**, CHS, South Eastern, and Cape Fear Valley Hospital Systems)
- OCT 2019 – Proved model by enrolling **250 members** in Troy Medicare at \$0 CAC
- JAN 2020 – surpassed **\$3 million in Annual Recurring Revenue (ARR)**



# Troy Medicare

## Actuarial Financials



	2019	2020	2021	2022	2023	2024	2025	2026
<b>Capital Contribution</b>	10.2M US\$	25M US\$	0 US\$	0 US\$	0 US\$	0 US\$	0 US\$	0 US\$
<b>Members Enrolled</b>	0	400	2,085	8,030	10,070	13,690	16,640	24,790
<b>Total Revenues</b>	0	4,500,600 US\$	31,571,286 US\$	135,208,457 US\$	181,958,868 US\$	255,441,356 US\$	322,692,780 US\$	497,371,236 US\$
<b>EBITDA</b>	-3,267,488 US\$	-5,797,274 US\$	284,368 US\$	3,061,158 US\$	7,732,212 US\$	14,644,130 US\$	20,134,241 US\$	33,400,259 US\$
<b>Capital Reserves</b>	4.6M US\$	23.8M US\$	24M US\$	27.1 US\$	34.1M US\$	43.6M US\$	56.7M US\$	78.4M US\$





## Unfair Distribution

- Troy Medicare has an unfair advantage: a customer acquisition cost that is 1/20th compared to United, Humana, and Aetna.

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- By leveraging a free pharmacy distribution channel, Troy Medicare is acquiring customers without being beholden to insurance broker commissions

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- Due to word-of-mouth, Troy Medicare has acquired all members while spending \$0 on advertising and marketing.

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- Unlike the relationship with an insurance broker, seniors have a trusted, long-term relationship with their pharmacy.
  - This leads to a much higher retention and long-term value (LTV) of each member





## Unique Care Management

- Troy Medicare has a network of trusted, local pharmacies that patients see 36 times per year on average (compared to the 3 times they see their PCP)

---

- Every Troy Medicare member has a **local pharmacy care manager** assigned to them

---

- Each month, the care manager **meets in-person** to review health goals, social determinants, complete a care plan, review medications and create an action plan

---

- Troy Medicare provides the **data and technology tools** to each care manager to have complete visibility into each member across their health spectrum





## Data-driven Benefit Design

- A decade of proprietary Medicare data and insights:
  - Transparent drug pricing
    - Troy Medicare is the first Medicare Plan to have 100% transparency for the patient and pharmacy on the cost of each medication
  - \$0 Durable Medical Equipment up to \$90 in value
  - Key medications covered that are low cost but high value
  - \$0 premium
  - \$0 deductible
  - \$0 primary care visits



## Geographic Expansion



- Enabled by signed contracts with 3800+ providers, including Duke Health, Cape Fear Valley, and South Eastern, Troy Medicare will expand to 13 more counties in NC in 2020
- 
- Detailed expansion plans can be viewed in the Series B data room
- 
- In early 2020, Troy Medicare leadership is holding meetings with the departments of insurance in South Carolina, Virginia, and Tennessee to discuss expansion plans
- 
- To better serve our Medicaid population, Troy Medicare will be adding a Dual Eligible Special Needs Plan (D-SNP) in 2021



# Troy Medicare

## Troy Medicare Leadership



**Flaviu Simihaian**  
Chief Executive Officer

- Previously CEO of iMedicare, a SaaS platform 6,000+ pharmacies use to help seniors pick Medicare plans
- Facilitated the enrollment of over 1 million seniors in Medicare Advantage plans



**Michael Cutroni**  
Chief Financial Officer

- CFO @ MDWise
- CFO @ Consumers Mutual Insurance of Michigan
- VP of Financial Planning @ Universal American



**Elyse Eisenberg**  
Chief Operating Officer

- Executive Director @ Vantage Cancer Care Network
- Director, Corporate Contracting @ Bravo Health
- Director, Corporate Development @ AmeriHealth



**Jeff Scribner**  
Chief Compliance Officer

- Former Deputy US Marshal and Special Agent
- Chief Compliance Officer and Privacy Officer for publicly traded companies, HMOs, large complex healthcare systems



# Troy Medicare

## Troy Medicare Leadership



**Josh Young, Pharm D**  
Pharmacy Officer

Josh is a co-founder of Troy Medicare, as well as a pharmacy owner and works with hundreds of independent pharmacies to build the Troy Medicare playbook for Medicare Advantage.



**Lateef Jackson**  
Chief Information Officer

Lateef has 20+ years of machine learning, data science, and has managed large tech teams, exited 2 startups, and been a leading architect at New Relic.



**Amina Abubakar**  
Clinical Director

Amina owns RxClinic pharmacy in NC, was awarded national pharmacist of the year, and is considered one of the most innovative clinical pharmacists in the US



**Dr. Bader Almosheli**  
Medical Director

Dr. Almosheli is a leader in value-based post-acute care delivery, with a focus on psychiatry. He has been in practice for over 10 years.





# Troy Medicare

## Troy Medicare Leadership



**Susan Esparza, NP**  
VP Medical Management

Previously with Optum, Susan brings over 20 years experience in health care. She is a Board Certified Nurse Practitioner.



**Kim Ryals**  
Director of Operations

Kim has worked with both national Medicare plans to deliver the highest quality of service within all aspects of Medicare Advantage.



**Steve Kaczmarek**  
Actuary

Steve Kaczmarek is a leading Medicare actuary for Milliman, the firm a majority of health plans use to submit their CMS bids.



**Jeff Spight**  
Chairman of the Board

Jeff Spight was previously President of the ACO business @Universal American and VP of Development @ Bravo Health.





## Fundraising and Timeline

- **Funds raised so far:** \$10.2 million from pharmacy owners and providers
- 
- Given our capital efficiency, we are currently raising \$25m which will enable Troy Medicare to **reach \$113m in ARR within 18 months**



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# Bind



bind

[COVID-19 FAQs](#)

[How It Works](#)

[Results](#)

[Benefit Support](#)

[Careers](#)

[Member Login](#) ↗

OUR MISSION

**Make health care affordable.  
Empower people to define  
their own health.**



# Bind

If you plan cities for cars and traffic – you get cars and traffic.



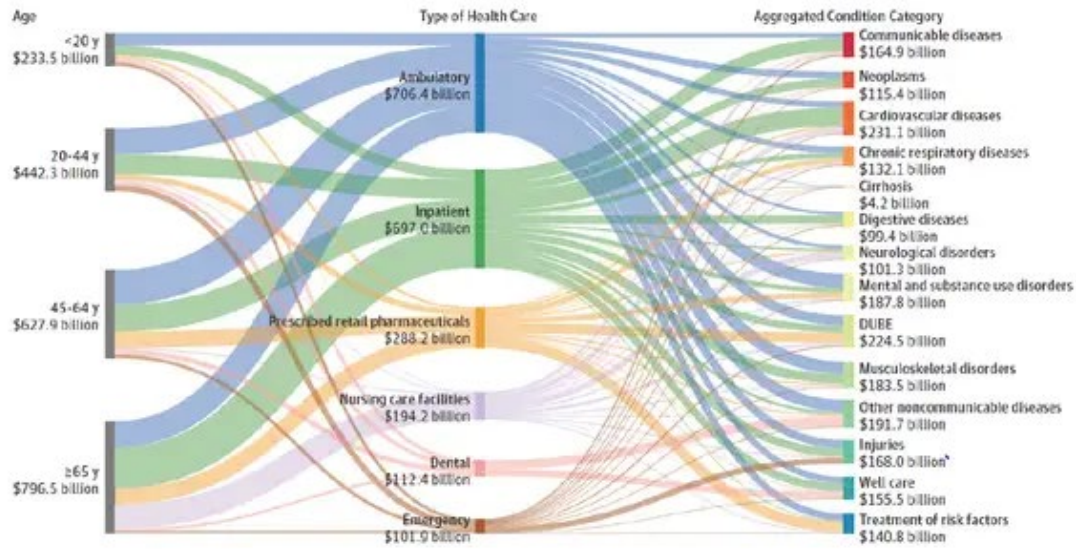
If you plan cities for **people** and **places** – you get **people** and **places**.

Fred Kent



# Bind

If you plan health care for **annual plan decisions, doctors, hospitals and drugs** – you get health care for **annual plans, doctors, hospitals, and drugs**.

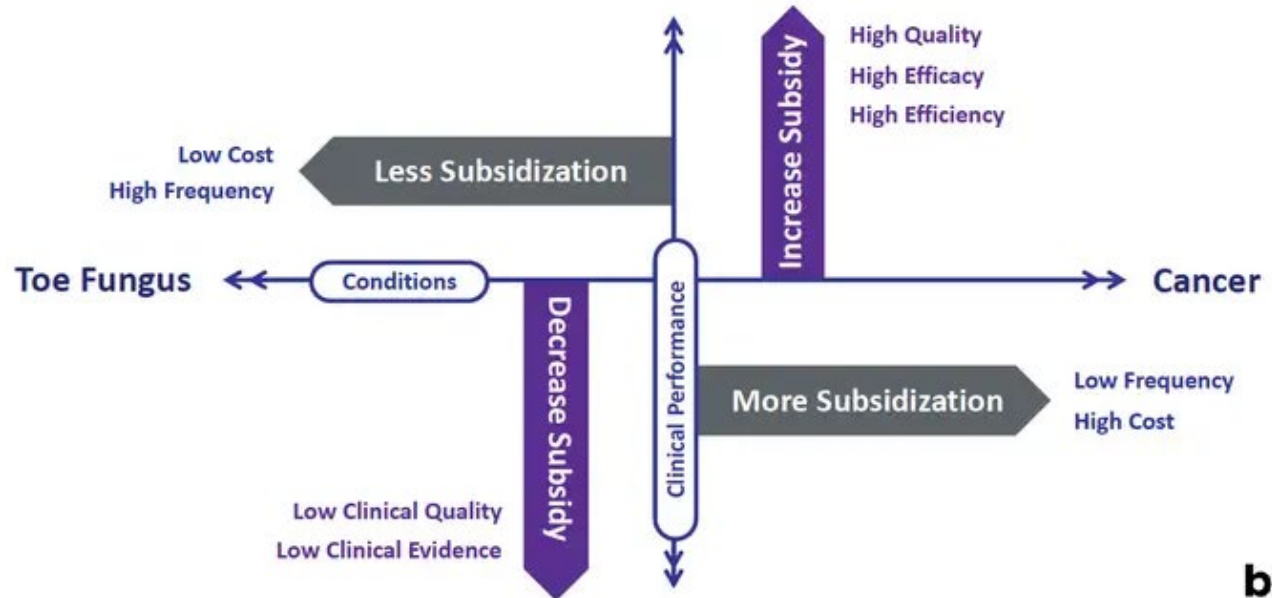


Source: US Spending on Personal Health Care and Public Health, 1996-2013. JAMA 2016;316(24):2627-2646. doi:10.1001/jama.2016.16885



# Bind

## Bind changes the design of health insurance



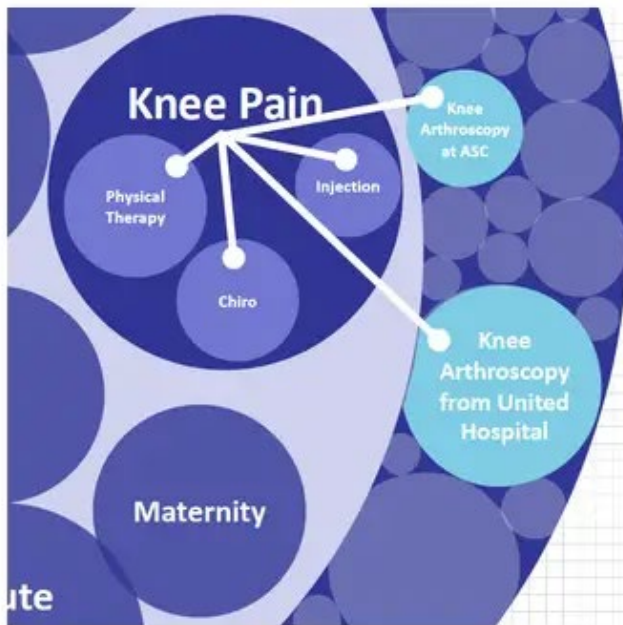
bind





# Bind

## Designing a health plan from scratch



### Core

- + Designed to meet ACA requirements
- + Copays only – no deductibles or co-insurance
- + Bind's copays are smart!
- + Elected during annual enrollment

### Add-Ins

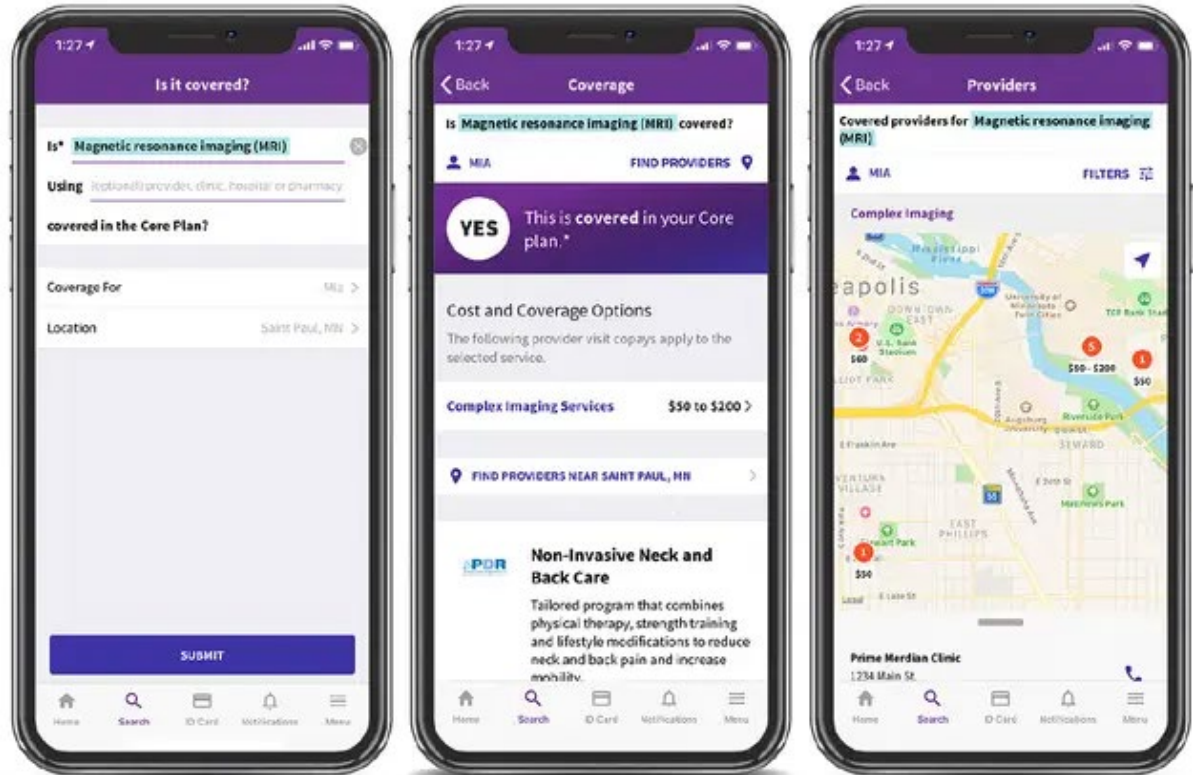
- + Time to plan for care
- + Range of treatment options, providers and settings
- + Copays and additional paycheck contributions
- + Purchased on-demand at any time throughout the year

- + Employers save 10%-15%
- + Rich Core benefit



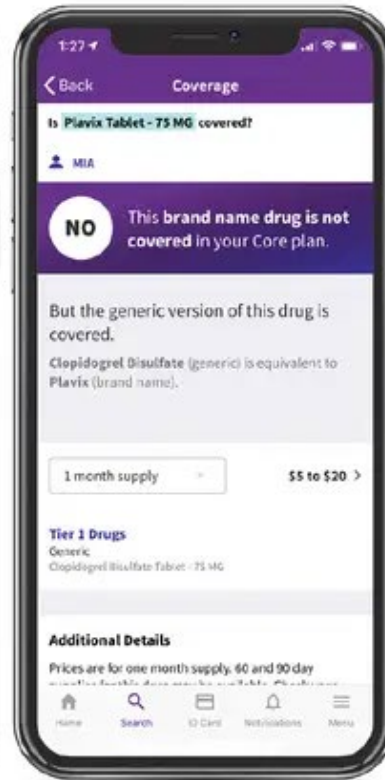
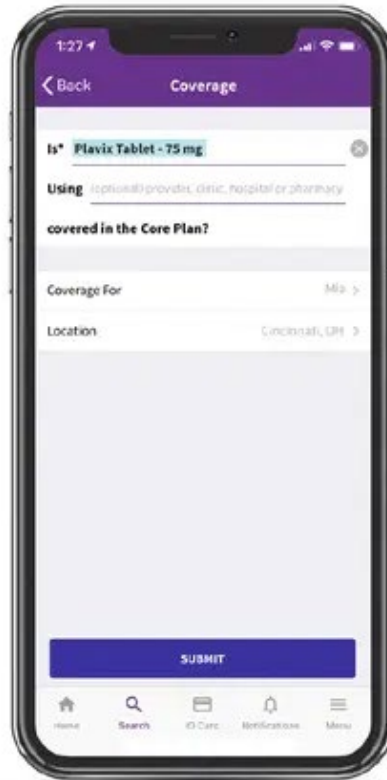
# Bind

Everything  
has a price  
tag!



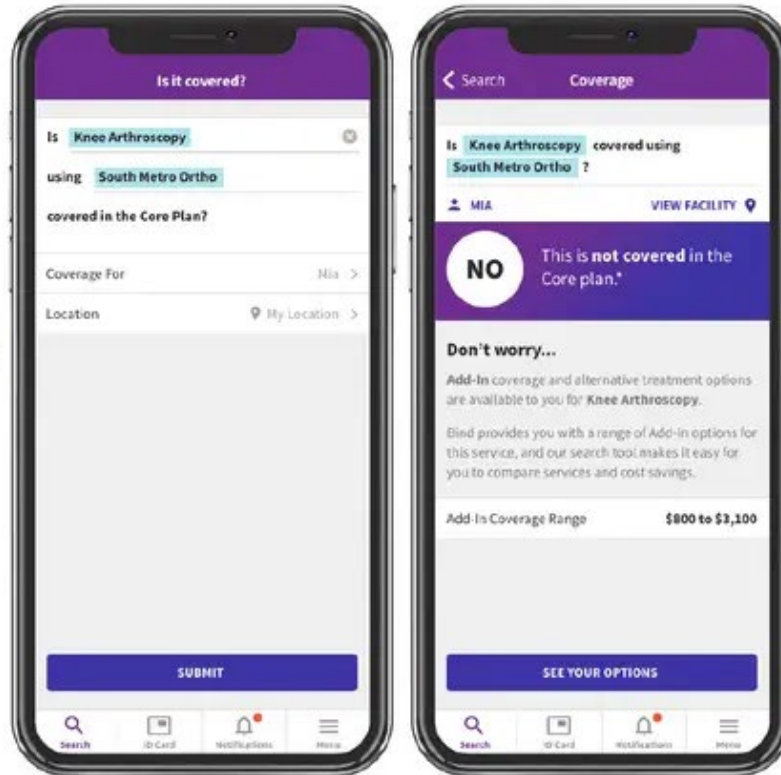
# Bind

Same member experience for the pharmacy benefit



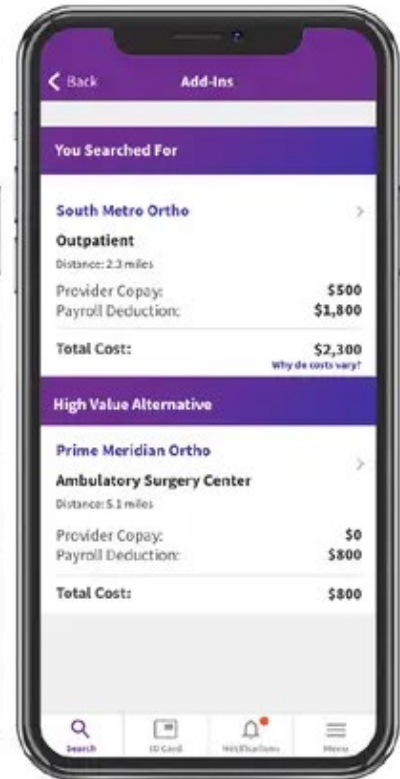
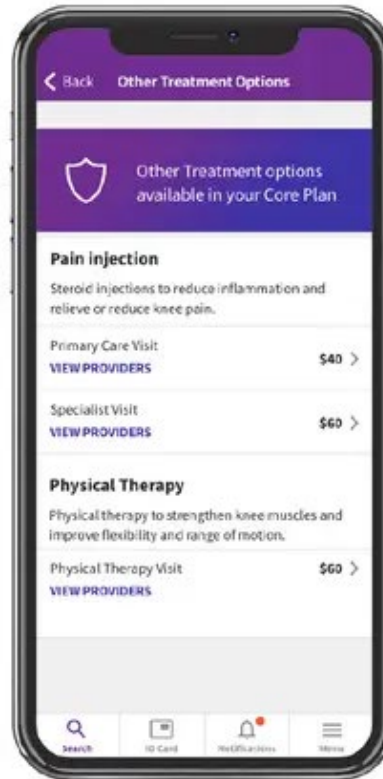
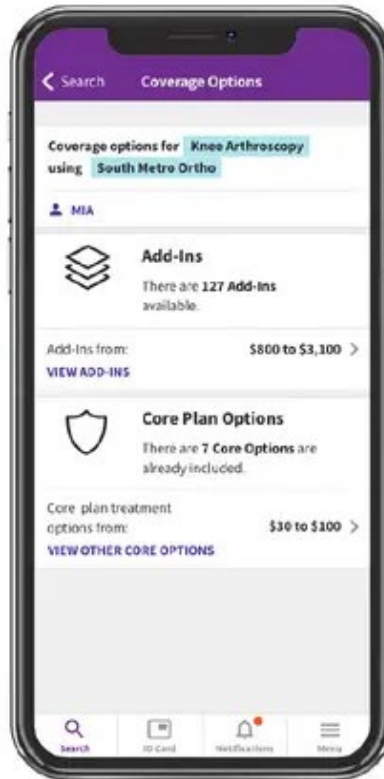
# Bind

When you design around conditions, you can impact all points of the patient journey.



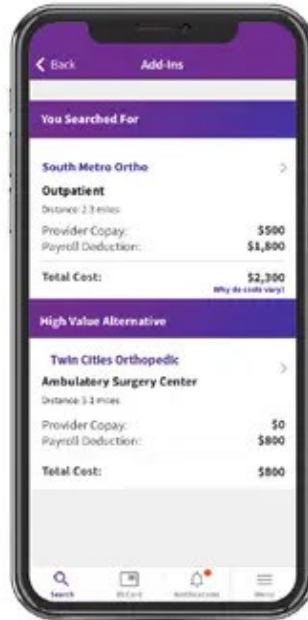
# Bind

For the first time, coverage and care decisions are combined.

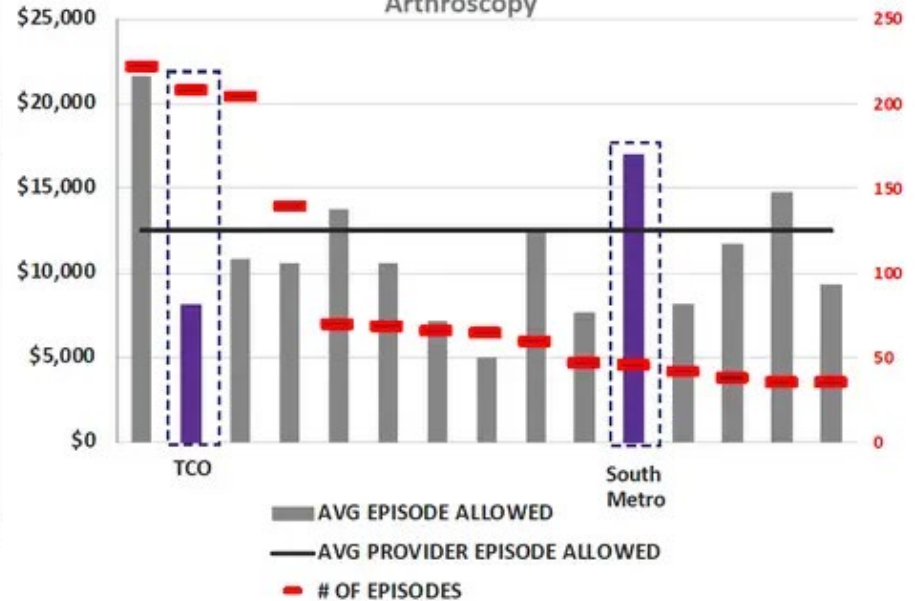


# Bind

The value of bundled pricing leveraging FFS.



Average Risk Adjusted Episode Allowed Cost - Knee Arthroscopy

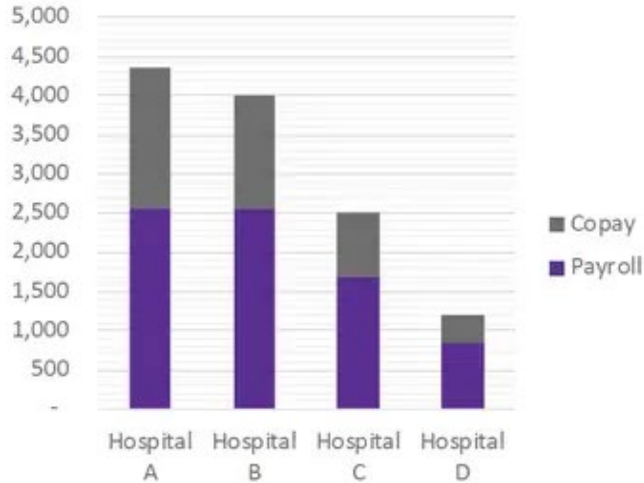


Source: Optum 2015-2016 Commercial Claims Data

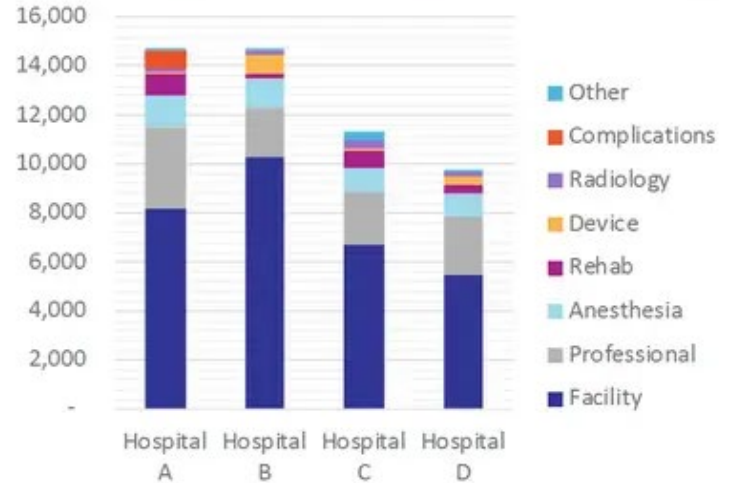


## Average Knee Arthroscopy Cost Breakout by Location

Example Member Cost Share by Location



Cost Breakout of Knee Arthroscopy Episodes by Location



# Bind

**Results to date**



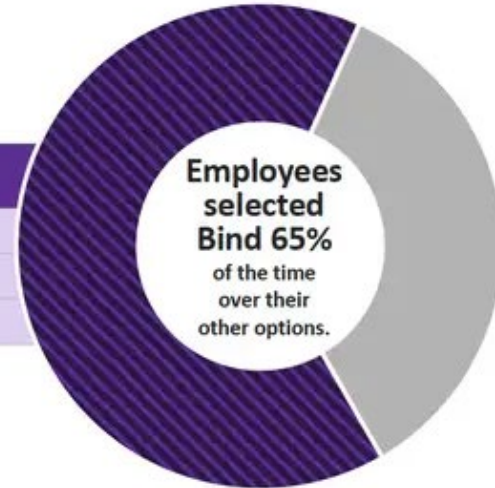


# Bind

## Case study: Employees prefer Bind.

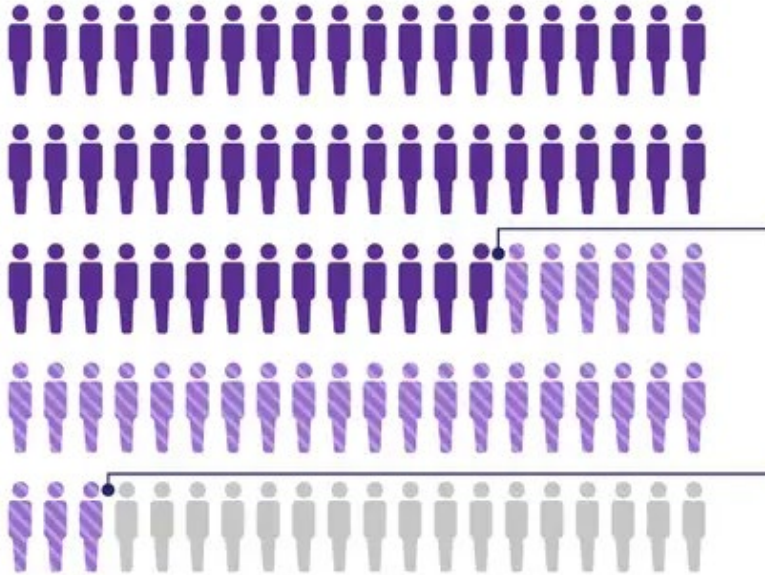
Active enrollment – effective date 1/1/19

	PPO	ACO 1	ACO 2	bind
Employee	\$143.00	\$77.00	\$77.00	\$82.00
Employee + 1	\$304.00	\$161.00	\$161.00	\$161.00
Family	\$481.00	\$250.00	\$250.00	\$244.00



# Bind

People register and engage.



**54%**

of the overall population activate their Bind account within the first three months.

**83%**

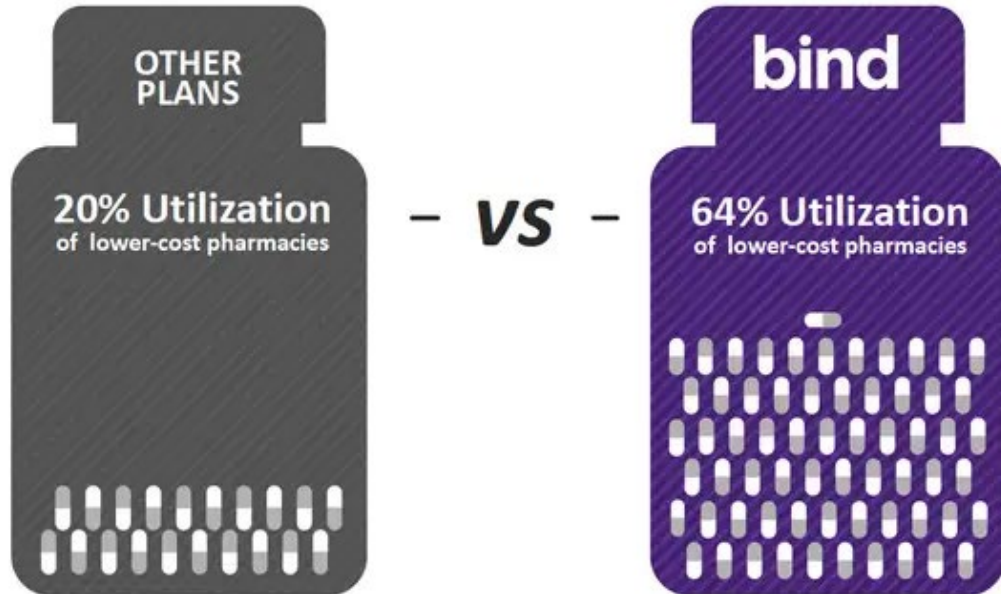
use the Bind app or website (within our most active client population).

**bind**



# Bind

Bind members make better Rx choices.



**bind**



# Bind

People make better use of their pharmacy benefit.

Even with a higher utilization rate, the pharmacy benefit PMPM cost was 46% lower than industry.

Bind Q119 actual data.

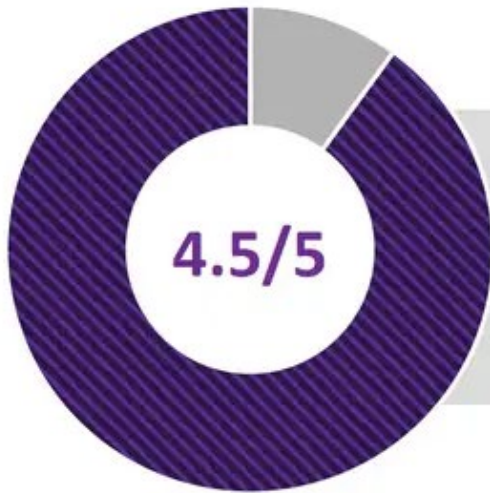


bind



# Bind

Bind members are more satisfied.

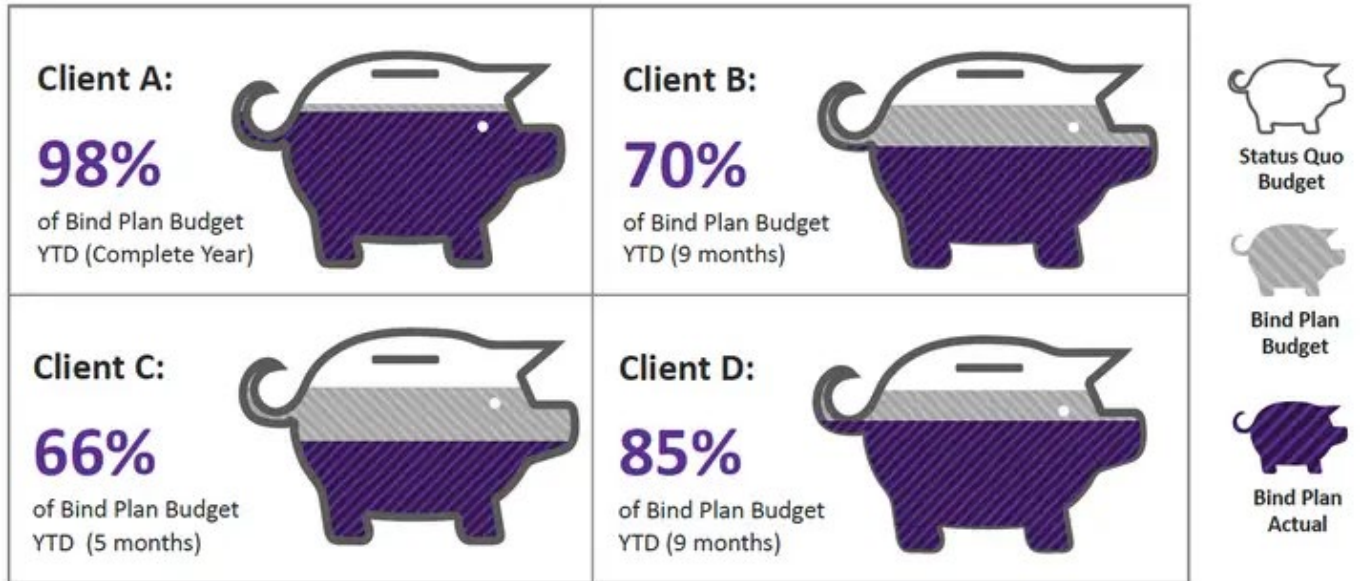


Rating on a 1-5 scale  
where 5 is excellent.



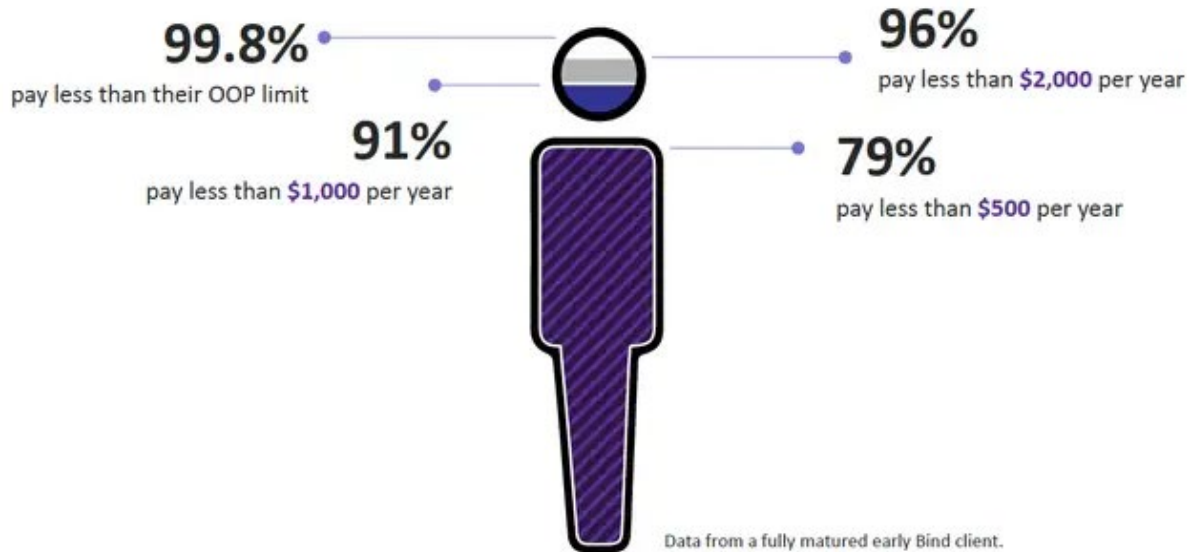
# Bind

## Bind keeps our clients UNDER budget.



# Bind

## Bind members pay less out of pocket

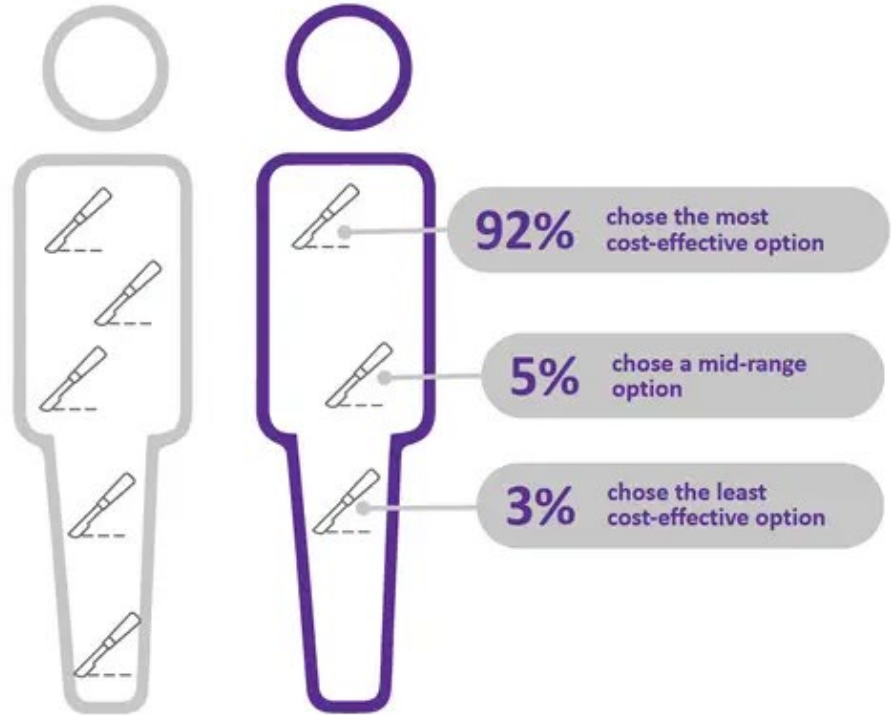


# Bind

People make informed treatment choices.

**40%**  
**more often**

they select **more cost-effective** treatments (vs. treatment selection within other plans).





# Bind Leadership



Jodi Hubler is President & Board Director of Bind On-Demand Health Insurance. Jodi previously served on the boards of Lemhi portfolio companies: DNA Direct, Liazon, Carol, DestinationRx, OneHealth Solutions, Shareable Ink, RetraceHealth, PokitDok, PlanSource and Recondo Technology. Over her career, she has held executive positions in a variety of public and private companies, including re-engineering efforts for Cargill; driving systems to support lean manufacturing and process change for a \$2B division of Alcoa; and start-up experience with venture-backed Definity Health, where she served as chief people officer. Definity Health was ultimately acquired by United Health Group for more than \$300M.



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