The Healthcare Tech Investment Fallacy: Why VCs are Chasing Illusory Markets

APR 04, 2025 • PAID

Introduction

Venture capital firms have poured billions into healthcare technology startups o the past decade, driven by the tantalizing prospect of disrupting America's $4.5 trillion healthcare industry. The thesis is seductive in its simplicity: deploy tech to create efficiencies in a notoriously inefficient system, capture a slice of the resulting value, and generate outsized returns. Healthcare, with its administrativ waste, fragmented delivery, and technological backwardness, seems like fertile g for innovation.

But what if this entire thesis rests on a fundamental misunderstanding of health economics?

This essay advances a contrarian perspective: that venture capitalists investing i healthcare technology are systematically overestimating the size of their address markets and underestimating the structural constraints that will inevitably limit portfolio companies' growth. Far from creating "new markets" with boundless potential, healthcare technology companies are merely competing for a predeter and tightly constrained slice of healthcare spending - one that regulatory mecha market dynamics, and economic realities ensure will remain relatively fixed as a percentage of overall healthcare costs.

The consequence is stark: many of today's highly valued healthcare technology companies will fail to achieve their projected growth trajectories not because th

technology doesn't work, but because the markets they hope to serve simply can expand in the ways investors imagine. Healthcare technology companies aren't creating new markets; they're fighting over existing budgets in a zero-sum game established players.

This reality has profound implications for venture investment in healthcare technology. It suggests that returns will be constrained, exits will disappoint, an industry may be heading for a reckoning as investors gradually recognize that th portfolio companies cannot defy the fundamental economics of healthcare spenc

The Venture Capital Healthcare Technology Thesis

Before examining why the conventional investment thesis is flawed, let's first understand what that thesis is. Venture capital investment in healthcare technol broadly follows several interlocking assumptions:

First, venture capitalists operate on the inefficiency premise. They correctly obs that the U.S. healthcare system is riddled with inefficiencies, resulting in hundr billions of dollars in waste annually. By one estimate from JAMA, administrative complexity alone accounts for $265.6 billion in waste each year. This presents an apparent opportunity for technology solutions that can reduce this waste.

Second, they embrace the technology solution narrative. Modern technology - particularly AI, machine learning, cloud computing, and mobile platforms - can eliminate significant portions of this waste by automating processes, reducing redundancy, improving decision-making, and facilitating better coordination of

Third, they rely on the value capture hypothesis. Companies that develop these technologies can capture a meaningful portion of the value they create, either th efficiency gains (doing the same things cheaper) or effectiveness improvements (things better), creating sustainable, high-margin businesses.

Fourth, they make the scale assumption. Because healthcare is so large ($4.5 trill the U.S. alone) and the problems so universal, successful healthcare technology solutions can scale rapidly once proven, creating enterprises with valuations in t billions or tens of billions.

Finally, they believe in network effects. Many healthcare technology companies create network effects or data moats that entrench their market position and cre defensible businesses with substantial barriers to entry.

This narrative has fueled investment in companies across numerous healthcare technology sectors: electronic health records, telemedicine, digital therapeutics, driven diagnostics, revenue cycle management, care coordination platforms, con health apps, and many others. These companies have collectively raised tens of billions in venture funding, with many achieving unicorn status (valuations over billion) before generating significant revenue, let alone profit.

The thesis is compelling on its face. After all, who could argue against reducing healthcare's notorious inefficiencies? And given healthcare's massive scale, even modest improvements could create enormous value. However, this thesis rests on assumptions about how healthcare markets function that simply don't align with reality.

The Regulatory Reality: Administrative Cost Ratio Constraints

The first major flaw in the conventional thesis concerns how healthcare spendin regulated and constrained, particularly with respect to administrative costs. Cor to the venture capital vision of unlimited market opportunity, healthcare administrative spending is tightly bounded by regulatory mechanisms that expli cap it as a percentage of overall healthcare costs.

The Medical Loss Ratio and Its Implications

Perhaps the most direct regulatory constraint is the Medical Loss Ratio (MLR) requirement established under the Affordable Care Act. This rule requires that insurers spend at least 80-85% of premium dollars on medical care and quality improvement, leaving only 15-20% for administrative costs and profit. This is no minor regulatory detail but a fundamental market constraint that directly caps t addressable market for many healthcare technology solutions.

Consider the mathematics: If U.S. private health insurance premiums total approximately $1.2 trillion annually, and insurers can spend at most 15-20% on administration and profit, then the entire addressable market for administrative technology solutions selling to insurers cannot exceed $180-240 billion. This is r market that can be expanded through innovation or efficiency; it is a regulatory ceiling.

Moreover, within that administrative budget, insurers must fund not just techno but all non-medical aspects of their operations: marketing, customer service, act functions, regulatory compliance, executive compensation, and more. The actual budget available for technology solutions is thus considerably smaller than the headline figure.

The implications for healthcare technology companies targeting the payer space profound. They are not creating new markets but competing for a fixed administ budget. Any gains in market share must come at the expense of either existing technology vendors or other administrative functions. The pie cannot grow large than regulatory constraints allow.

Risk Adjustment and Premium Setting Government Programs

The constraints are equally binding in government healthcare programs like Me Advantage, Medicaid managed care, and Affordable Care Act marketplace plans these programs, premiums are set through complex risk adjustment mechanisms determine how much plans receive for covering specific populations.

These risk-adjusted premiums effectively cap total spending, including administ costs. Medicare Advantage plans, for example, typically operate with administra cost ratios around 15%, similar to commercial plans under MLR requirements. Medicaid managed care plans often face even tighter administrative constraints, some states requiring that 88% or more of premium dollars go to medical expens

Again, these are not soft guidelines but hard economic realities that directly lim addressable market for technology solutions. A Medicare Advantage plan canno simply decide to spend more on promising technology if doing so would push its administrative costs beyond acceptable ratios. The budget for technology is fundamentally constrained by the overall economics of the program.

The Fallacy of New Market Creation in Healthcare Technology

A central tenet of venture capital investment in technology is the idea that innov products can create entirely new markets. Think of how the iPhone created a ma for mobile applications that didn't previously exist, or how cloud computing ena entirely new business models. Venture capitalists often apply this same thinking healthcare technology, believing that innovative solutions can expand the overall market rather than merely competing for existing budget allocations.

This assumption fundamentally misunderstands the economic realities of health In healthcare, new technologies rarely create new budgets; they simply compete existing ones. This is because healthcare spending is ultimately constrained by la economic forces: premium growth limits, government program budgets, employe willingness to pay, and consumer affordability thresholds.

Consider a startup developing AI-driven utilization management software for he insurers. The venture thesis might suggest that by reducing inappropriate care, technology creates new value that can be captured by the startup. However, the r is that insurers already have utilization management processes and budgets; the startup is competing to replace existing systems within that budget, not creating new market category.

Even technologies that genuinely improve healthcare outcomes face this constra digital health platform that demonstrably reduces hospital readmissions creates value for the healthcare system, but its revenue potential is still constrained by v health plans or providers can pay while maintaining their administrative cost rat The value created flows primarily to the healthcare system in the form of reduce medical costs, not to the technology vendor in the form of expanded market opportunity.

The Reality of Successful Healthcare Investments: Insurance and Care Delivery, Not Technology

The evidence for this perspective is hiding in plain sight: the most successful ve backed "healthcare technology" companies of the past decade have predominant been insurance companies or care delivery organizations, not pure technology vendors. They succeeded precisely because they competed directly for a share of premium dollars or medical spending rather than for the constrained administra technology budget.

Oscar Health, Clover Health, Bright Health, and Alignment Healthcare all posit themselves as technology-enabled insurance companies, but their primary busin was underwriting and managing insurance risk - competing directly with establi insurers for premium dollars, not selling technology to them. Collectively, these companies raised billions in venture capital based on the promise that their technology would give them competitive advantages in the insurance market.

Similarly, venture-backed care delivery organizations like One Medical, Oak Str Health, VillageMD, and Iora Health (all of which achieved multi-billion dollar valuations or exits) fundamentally competed with traditional healthcare provide patient visits, procedures, and medical spending. Their technology was an enabl their care delivery model, not their primary product.

These companies understood a crucial truth: to capture significant value in healthcare, you must position yourself within the 80-85% of the dollar that goes medical spending, not the 15-20% allocated to administration. They were not sel technology to healthcare; they were using technology to deliver healthcare or ma risk more effectively.

The acquisition patterns further highlight this reality. One Medical was acquire Amazon for $3.9 billion. Oak Street Health was acquired by CVS Health for $10. billion. VillageMD merged with Summit Health in a deal valuing the combined company at approximately $9 billion, with significant backing from Walgreens. T were strategic acquisitions of care delivery capabilities, not technology assets.

Contrast this with the fate of many pure healthcare technology vendors, which h struggled to achieve meaningful scale or exits at comparable valuations. Compar selling revenue cycle management software, care coordination platforms, or pati engagement tools face the fundamental constraint that their potential customers limited administrative budgets governed by MLR requirements and similar constraints.

The Zero-Sum Game of Administrative Spending

The fixed nature of administrative spending in healthcare creates a zero-sum dyn for technology vendors. For a new technology solution to succeed, it must either

First, replace an existing vendor or internal process, capturing budget that was already allocated to a similar function. This is straightforward competition, not market creation.

Second, convince healthcare organizations to reallocate spending from other administrative functions to the new technology. This is extremely difficult given core administrative functions like claims processing, member services, provider network management, and compliance cannot be eliminated. It also creates organizational resistance as different departments protect their budgets.

This zero-sum reality explains why sales cycles in healthcare technology are notoriously long and difficult. It's not just healthcare's risk aversion or technolo conservatism at play; it's the fundamental reality that adopting new technology c requires difficult budget tradeoffs within a constrained administrative spending envelope.

It also explains why many healthcare technology startups eventually pivot to bec healthcare service companies. Unable to sell their technology at prices that woul justify their valuations, they instead use their technology as a competitive advan in delivering healthcare services directly, competing for medical spending rathe administrative dollars.

The Commoditization Pressure in Healthcare Technology

Healthcare's regulatory environment and structural constraints also create powe commoditization pressures for technology vendors. Because healthcare organiza face similar regulatory requirements and operational challenges, they tend to ne similar technology solutions. This leads to convergence in product features and capabilities across competitors.

Electronic health record systems, claims processing platforms, utilization management tools, and other core healthcare technologies have become increasi standardized and commoditized over time. The major differentiation often come down to price rather than functionality, putting pressure on margins and limitin value creation potential for venture-backed startups.

This commoditization is accelerated by healthcare's cautious approach to techn adoption. Healthcare organizations typically prefer proven, standard solutions o innovative but unproven ones, particularly for core functions. This preference fo standardization creates high barriers to entry for disruptive technologies and fa established vendors who can compete on price and reliability rather than innova

The Misalignment of Venture Capital a Healthcare Economics

The fundamental misalignment between venture capital expectations and health economic realities creates a troubling dynamic. Venture capital seeks exponentia growth and outsized returns, typically expecting portfolio companies to grow ra and achieve exit valuations many times their invested capital.

However, healthcare technology companies face market size constraints, commoditization pressures, long sales cycles, and complex regulatory requireme that limit both their growth potential and exit opportunities. This creates a syst mismatch between investor expectations and market realities.

Consider the typical venture growth expectation: a successful startup might rais funding at a $100 million valuation based on $5-10 million in annual revenue, w investors expecting it to reach $50-100 million in revenue and a $500 million to billion valuation within 3-5 years. This growth trajectory is exceptionally difficu achieve when selling technology to healthcare organizations bound by administr spending constraints.

The evidence of this misalignment is becoming increasingly apparent in the performance of healthcare technology companies. Many have failed to meet thei growth projections, leading to down rounds, pivots, or quiet acquisitions at disappointing valuations. Public healthcare technology companies have generall underperformed broader technology indices, reflecting the constraints on their growth and profitability.

The Path Forward: Realistic Investmen Theses in Healthcare Technology

Does this mean venture capital should abandon healthcare technology entirely? necessarily, but it does suggest the need for a fundamental recalibration of inves theses and expectations.

Sustainable investment in healthcare technology requires acknowledging several realities:

First, market sizing must account for administrative spending constraints. Inves should evaluate opportunities based on the specific administrative budget categ their portfolio companies target, not on the total healthcare market size.

Second, competitive displacement, not market creation, should be the focus. Successful healthcare technology companies typically take market share from ex vendors rather than creating new spending categories.

Third, longer time horizons are necessary. Healthcare sales cycles and adoption timelines are inherently longer than in other technology sectors, requiring patie capital and realistic growth expectations.

Fourth, strategic value may exceed financial returns. Many healthcare technolog companies create value that is captured by the healthcare system rather than by shareholders, suggesting that strategic acquisitions by healthcare incumbents m more realistic exit paths than IPOs or large independent growth.

Fifth, technology-enabled services may outperform pure technology plays. Comp that leverage technology to deliver healthcare services directly often have clearer paths to scale than those selling technology to existing healthcare organizations.

The Structural Reality That Won't Char

Venture capitalists often bet on regulatory or market changes that could expand opportunities for their portfolio companies. In healthcare, however, the fundam constraint on administrative spending is unlikely to change significantly.

The Medical Loss Ratio requirements have broad bipartisan support as a consun protection measure. Even if specific regulations were to change, market dynamic competitive pressures would likely continue to constrain administrative spendin Employers, governments, and consumers all demand that healthcare dollars go primarily to care, not administration.

Moreover, the basic economic structure of healthcare—in which payers interme between patients and providers, creating complex administrative requirements— deeply entrenched. While care models may evolve, this fundamental structure re stable, maintaining the distinction between medical and administrative spendin

Conclusion: Resetting Expectations for Healthcare Technology Investment

The venture capital thesis in healthcare technology needs a fundamental reset. R than viewing healthcare as a massive market ripe for technological disruption ar value creation, investors should recognize it as a highly constrained ecosystem w administrative spending—including technology—is capped as a percentage of ov healthcare costs.

This reset doesn't mean abandoning healthcare technology investment, but it do require more nuanced market analysis, longer time horizons, and more realistic growth expectations. It also suggests that the most successful investments may b companies that use technology to compete within the medical spending category rather than selling technology within the administrative spending category.

For entrepreneurs, this perspective offers a crucial strategic insight: the path to in healthcare typically involves directly participating in care delivery or risk management rather than selling technology to those who do. The most successfu "healthcare technology" companies are actually healthcare companies that use technology as a competitive advantage.

The healthcare system certainly needs technological innovation to address its profound inefficiencies. However, the economic value created by that innovation flow primarily to patients, payers, and providers rather than to technology vend Venture investment predicated on capturing outsized portions of that value thro pure technology plays is likely to continue disappointing.

In the end, healthcare technology investment must align with the fundamental economic realities of healthcare: budgets are set as a percentage of the total cost

care, and vendors compete for that administrative share. New markets aren't cre existing budgets are reallocated. Those who understand and operate within thes constraints will build sustainable businesses, while those who ignore them risk pursuing illusory market opportunities that will never materialize at the scale ve returns require.

The greatest healthcare technology success stories will likely be those that never sought to be technology companies at all, but rather used technology to compete effectively within the core business of healthcare itself: delivering care and mana risk. This reality may not match the narrative that venture capitalists want to he but it reflects the economic constraints that will ultimately determine which investments succeed and which fail in the complex, highly regulated, and budget constrained world of American healthcare.

← Previous

Nex

Discussion about this post

Comments Restacks

Write a comment...