

## INTEGRATION OF HEALTH SYSTEMS

### AUTHORS

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### INTRODUCTION

Mergers and acquisitions (M&A) in the healthcare industry increased 56% in 2021, with exceptionally high growth among physician groups and the managed care and rehabilitation sectors<sup>1</sup>. The second half of 2021 had a 50% increase in health systems M&A than the first half. Many health systems have decided to close departments or entire facilities to address financial strain amidst the COVID-19 pandemic. These decisions allow the reallocation of resources to address services of greater demand, staff shortages, and other disruptions<sup>2</sup>. As health systems struggle with the financial pressures brought by the pandemic, the trend of integrating with other health systems has increased. M&A trends in 2021 have been fueled by capital availability, regulatory pressure, increased value, and increased market power<sup>3</sup>.

Why is there an increase in mergers? What is driving these mergers beyond the pandemic uncertainties and fiscal insolvency? Is there a role for digital disruption or any other disrupting factors? These questions need more research and insight to investigate the reasons and factors for competition and integration broadly.

Mergers and Acquisitions reveal two underlying phenomena in the health care business: (1) competitive dynamics and struggle for survival, and (2) integration to solve competitive threats<sup>14</sup>. In this brief, we will discuss three factors of competition perception, namely External Environment Uncertainty, Technology Disruption, and Customer Service driven competition, and two integration plans: Vertical and Horizontal. We will further discuss why these mergers are a cause of concern and their implications on smaller healthcare organizations.

### IS INTEGRATION THE PANACEA FOR HEALTHCARE PROBLEMS?

Integrated health systems are considered better options for effective and efficient care. As the United States health system sees a shift from volume to value, integrated health

systems are thought to deliver better quality and safety by streamlining services and more effective communication in the care continuum. The drive for integration has also been influenced by the need for health systems to provide comprehensive services and standardized care, although these outcomes have not been fully released<sup>4</sup>. Plausibly, integration is designed to reduce market inequities and make a shift in enhancing the quality of value-based care. These will help satisfy the triple aim of improving the experience of care, improving the health of populations, and reducing per capita health care costs in the US. Recent M&A activities, however, have shown little added quality and monopolistic behavior, as evidenced by mega-mergers and their impact on smaller health systems.

There is no unified conceptual model for health system integration, and the diversity of approaches and models have elucidated vital principles of successful integration initiatives. Past research has identified several principles: comprehensive services across the care continuum, patient-centered care, greater accessibility, patient autonomy to choose, standardized care delivery, performance management, efficient information systems, strong leadership fostering good organizational cultures, physician integration and engagement, governance structure, and financial management<sup>5</sup>. Fierce competition and limited targets are attributed to the increasing merger activities. An earlier survey of over 300 industry executives provided insight into how COVID-19 and the ever-evolving healthcare environment influence investment decisions in the coming year<sup>6</sup>. Key findings of that survey included: expected increases in M&A in 2022, plans to increase deal activity by at least 10% in 2022, modest to severe effect of inflation and cost of capital on the ability of a company to engage in M&A activity, and significant growth in the biopharma, medical devices, pharmaceutical services, and health IT subsectors<sup>7</sup>.

The rising trend in M&A in healthcare is rapidly increasing, especially after the financial disruptions to health systems because of the COVID-19 pandemic. It gives the idea of exploring factors for integration with much broader and deeper lenses. Among many, we consider three significant factors derived from earlier research to drive competition perceptions and health M&As: competition due

<sup>1</sup> Landi, Health Services M&A Deals Surged in 2021. Here Are Key Trends That Could Impact Dealmaking next Year, PwC Reports.

<sup>2</sup> Alia Paavola, '13 Hospitals Ending Services, Closing Departments', Becker's Hospital Review, 2021 <<https://www.beckershospitalreview.com/patient-flow/13-hospitals-ending-services-closing-departments.html>>.

<sup>3</sup> Heather Landi, Health Services M&A Deals Surged in 2021. Here Are Key Trends That Could Impact Dealmaking next Year, PwC Reports, 2021 <<https://www.fiercehealthcare.com/finance/health-services-m-a-deals-surged-2021-here-are-some-trends-could-impact-deal-making-next>>.

<sup>4</sup> Esther Suter and others, 'Ten Key Principles for Successful Health Systems Integration.', *Healthcare Quarterly* (Toronto, Ont.), 2009, 16–23 <<https://doi.org/10.12927/hcq.2009.21092>>.

<sup>5</sup> Suter and others.

<sup>6</sup> KPMG, 'Amid Lasting Changes Wrought by the Pandemic, Healthcare and Life Sciences Investors Expect Fierce Competition for Limited Targets' <<https://info.kpmg.us/news-perspectives/industry-insights-research/2022-hcls-investment-outlook.html>>.

<sup>7</sup> KPMG.

to external factors that ultimately lead to financial loss, technology disruptions, and competition in customer service demands. These factors are explained in the subsequent sections. Careful analysis of these various competition perceptions is paramount for policymakers to curb monopolistic tendencies in healthcare.

### **INTEGRATION DRIVEN BY EXTERNAL COMPETITIONS**

Prior research suggests that market-based competition in healthcare is a significant factor in integration. When competition is high, there is a propensity for big fishes to eat up suffering small fishes and operate as a monopoly in the market. Studies note that mergers and acquisitions drive economies of scale to increase efficiency, recover from financial loss through reduced administrative overhead costs and concentrated facility locations, increase market power, and increase quality through innovation, collaboration, and reduce inequities. Even before the pandemic, the healthcare industry faced labor shortages, supply-chain bottlenecks, and cost inflation. The pandemic further exacerbated these external forces while presenting new challenges to health systems in the nation. Health systems across the United States activated emergency plans impacting services rendered due to canceling all non-essential activities, such as patient visits and elective procedures, to reallocate resources toward the pandemic.

Further fiscal losses have led some health care facilities to reevaluate their businesses. A multitude of policy issues was brought into focus. The growing environmental uncertainty brought by these factors has led to significant financial losses, driving the need for M&As.

### **INTEGRATION DRIVEN BY DIGITAL TECHNOLOGIES**

Technology and innovation are not new to the healthcare sector. Time and again, innovative therapies, medical devices, and healthcare management practices are adopted all the time. However, the recent disruptive technologies are uncommon and have a different flare. Disruptive innovations cause radical change and often result in new leaders in the field. They overturn the usual way of doing things to such an extent that they have a ripple effect throughout the industry.

Indeed, the pandemic has mainly focused on technology in the healthcare industry. As health systems in the U.S. used hospital facilities and resources to address the pandemic, health systems were driven to adopt virtual and remote communications to continue to deliver care to non-covid

patients. A vast majority of health systems adopted telehealth solutions mainly for delivering care while minimizing direct contact and adhering to social distancing during lockdown restrictions<sup>8</sup>.

Technology is the biggest driver of many disruptive innovations in healthcare since every aspect depends on some form of technology. Consumer devices, wearables, and apps are becoming central to managing patients' health and empowering them for their health. Physicians use the data gathered from the wearables and apps for treatment decisions. AI and machine learning help patient intake and scheduling as well as billing. Chatbots answer patient questions for patients in portals. Newer technologies such as blockchain, the internet of things, and aligned data-analytics expertise can help healthcare to drive costs and streamline different processes while improving care quality and delivery. Many disruptive technologies are helping in the consumer-centric care models and propelling healthcare to a new direction, beyond just the digitization and improvements brought in with erstwhile electronic health records and allied technologies.

While shifts to digital innovations were urgent for many health systems to address care access concerns, the utility of technology also increased growth opportunities brought by the ability to share health data. Health IT has enabled greater interoperability, allowing for excellent value in care delivery in recent years. Some businesses have recognized and capitalized on the opportunity to enter the healthcare market. Technology start-ups, such as Health Gorilla, have capitalized on this opportunity to streamline access to health data, and this market has been expected to grow from \$2.8 billion to \$5.8 billion by 2028<sup>9</sup>.

The challenge is that not all health systems and organizations have leapfrogged to take advantage of technology. Many of these are on the brink of failure. This is critical and may drive the lagged health systems to integrate with the leading ones to sail the disruptive technology boat that is leaving now from the ports of healthcare organizations.

### **INTEGRATION DRIVEN BY CUSTOMER SERVICE**

The delivery of value-based care to patients has encouraged competition among health systems. Health systems seek to increase the value of care for their patients, and this competition perception has facilitated improvements in products and services to satisfy consumer needs<sup>10</sup>. The

<sup>8</sup> Elham Monaghesh and Alireza Hajizadeh, 'The Role of Telehealth during COVID-19 Outbreak: A Systematic Review Based on Current Evidence', *BMC Public Health*, 2020 <<https://doi.org/10.1186/s12889-020-09301-4>>.

<sup>9</sup> Heather Landi, *The Top 10 Healthcare M&A Targets in 2022*, 2021 <<https://www.fiercehealthcare.com/providers/editors-corner-fierce-healthcare-gets-fierce-makeover>>.

<sup>10</sup> Patrick A Rivers and Sandra H Glover, 'Health Care Competition , Strategic Mission , and Patient Satisfaction : Research Model and

shift to value-based care has changed payments to health systems; hospitals face decreased reimbursements and declining patient utilization<sup>11</sup>. Health systems have tried to minimize costs through streamlining services and increased reach to serve a more diverse population. Customer service initiatives have increased patient satisfaction and loyalty, influencing payer reimbursements, hospital quality, and patient outcomes.

Customer service initiatives are also essential to manage mortality rates nationwide as care for chronic illnesses extends beyond hospitals. To manage chronic conditions, healthcare providers now provide several distributed care options, such as telehealth, home-based care, and long-term care. Administrators have recognized the influence of consumer demands on strategic business decisions. Patients have exercised autonomy in their care by choosing their healthcare provider. Many hospitals, in turn, have implemented customer service initiatives, such as patient surveys, as an indicator of hospital quality<sup>12</sup>. Additionally, CMS has tied HCAHPS, a quantitative assessment tool of patient satisfaction, to hospital value-based purchasing and reimbursement<sup>13</sup>. The measured indicators inform patients to select better providers and lead health systems towards customer service-based differentiation and competition.

#### RESEARCH GAPS AND STEPS TO UNDERSTAND INTEGRATION AND COMPETITION IN HEALTHCARE

The effects of types of competition on integration are not explicitly elaborated on nor are understood well enough so far. Questions arise if integration and competition are linked; is there anything new in the post-pandemic new normal that influences this increase in competition? If so, what is the competition-to-integration mechanism that is the primary reason that drives these increased mergers compared to other mechanisms? These questions need a multi-step research process with several investigation processes and empirical analyses.

The Health Administration Research Consortium (HARC) took one step to understand the integration and competition linkage by investigating how different types of competition influence vertical or horizontal integration of health systems in the post-pandemic new normal<sup>14</sup>. The

study is essential to provide insights into the competitive dynamics of healthcare as a business and the drive for health systems to integrate as a solution to competitive threats.

#### VERTICAL AND HORIZONTAL INTEGRATIONS OF HEALTH SYSTEMS

As hospitals continue to face the challenges of the pandemic, hospital profitability across the nation has been severely impacted. Hospitals received less revenue due to the cancellation of elective and non-essential procedures. In addition, operating and labor costs increased; new protocols to reduce viral spread, planning, operating facilities, supplies, and staffing have depleted hospital cash reserves. COVID-induced economic uncertainty, especially in large for-profit health systems, has turned to vertical and horizontal integration plans to diversify market participation and revenue during this financial crisis. KPMG counted 314 hospital and health system acquisitions last year, up more than 26% from 2020<sup>15</sup>.

Vertical integration is the common ownership of two or more organizations where the output of one organization is used as an input for the other. Within the health industry, vertical integration can increase profit by streamlining services and providing patients with facilities that act as a one-stop-shop. Transaction costs are minimized, and organizations increase entry barriers to new market participants by increasing bargaining power<sup>16</sup>. Horizontal integration increases the size of the organization and expands its geographic reach. Within the healthcare industry, for example, small health systems or physician groups, which align with non-physician partners such as hospitals, universities, medical schools, and health plans in health care, are touted as vertical integrations. In contrast, merging large or small health systems with similar expertise is an example of horizontal integration<sup>14</sup>. This allows health systems to capitalize on a specific service niche by acquiring hospitals with similar services, facilitating collaboration and medical advancements<sup>17</sup>.

#### ABOUT THE HARC STUDY ON LINKING INTEGRATION AND COMPETITION

This study is one product of a larger project by the HARC team at the Business School of the University of

Propositions', 22.6 (2008), 627–41  
<<https://doi.org/10.1108/1477260810916597>>.

<sup>11</sup> Robert J Henkel and Patricia Maryland, 'The Risks and Rewards of Value-Based Reimbursement', *Frontiers of Health Services Management*, 32.2 (2015), 3–16.

<sup>12</sup> Qinyu Chen and others, 'The Association Between Patient Satisfaction and Patient-Reported Health Outcomes', *Journal of Patient Experience*, 6.3 (2019), 201–9 <<https://doi.org/10.1177/2374373518795414>>.

<sup>13</sup> Centers for Medicare & Medicaid Services, 'HCAHPS: Patients' Perspectives of Care Survey' <<https://www.cms.gov/Medicare/Quality->

Initiatives-Patient-Assessment-Instruments/HospitalQualityInits/HospitalHCAHPS>.

<sup>14</sup> Jiban Khuntia, Xue Ning, and Rulon Stacey, 'Competition and Integration of Health Systems in the Post-COVID-19 New Normal: Results from a Cross-Sectional Survey in the United States', *JMIR Formative Research*, 6.3 (2022) <<https://doi.org/10.2196/32477>>.

<sup>15</sup> KPMG.

<sup>16</sup> Carey Thaldorf and Aaron Liberman, 'Integration of Health Care Organizations Using the Power Strategies of Horizontal and Vertical Integration in Public and Private Health Systems', 26.2 (2007), 116–27.

<sup>17</sup> Khuntia, Ning, and Stacey.

Colorado, Denver. It is part of HARC’s Inaugural Health Systems Climate Study that uses surveys and matched secondary data. Figure 1 shows the distribution of three types of competition perceptions and two types of integration in this study. The two objectives of the study are:

1. To examine how health system characteristics lead to competition perceptions among health systems.
2. To explore how competition perceptions influence vertical and horizontal integrations of U.S. health systems in the post-COVID-19 new normal.

These study objectives were achieved through the assessment of differences between environment (EEUC), technology (TDDC), and customer service-driven competition (CSDC) perceptions in health systems with different characteristics. Data were analyzed from health systems with varying characteristics, including size, region, ownership status, teaching status, revenue, number of physicians, and hospitals. The study found that external market-driven competition perception derived vertical and horizontal integration plans, but technology-driven competition drives vertical integration more than horizontal integration. Also, the study found that customer service-driven competition influences horizontal but not vertical integration.

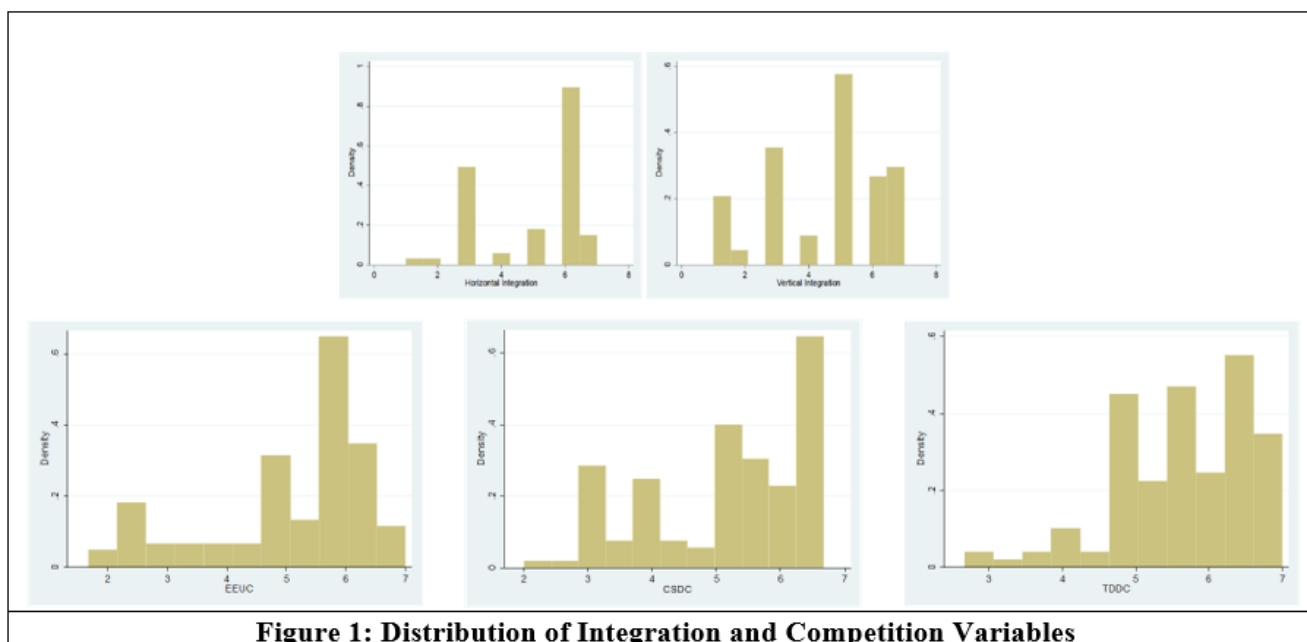
Regarding health system characteristics that drive competition and integration plans, lower perceptions of the market-driven competition were found with health systems with the following characteristics: medium size, major teaching status, high revenue, and having at least one uncompensated care burden. Health systems with a system-wide high burden of uncompensated care have a stronger sense of competition due market. Negative perceptions of

technology competition were prominent health systems with the following characteristics: medium size, system wide burden, and more hospitals within the health system. Further, data showed that health systems located in the Southern region of the U.S. with high revenues have higher negative perceptions. Perceptions of customer service-driven competition are non-significant in large-sized health systems, major teaching health systems, and medium-revenue health systems. This may be explained by a lesser reliance on the revenue from customer services in the market. For the influences of competition perceptions on integrations, the findings of this study suggest that the market is the strongest driver for integration. When the external environment is uncertain, such as the challenges seen during the pandemic, organizations tend to pool their efforts and resources to address the challenge. Technology, in contrast, has been shown to hinder integration, which may be explained by the prevalence of data, privacy, and intellectual property issues.

These issues have slowed the adoption of technology in healthcare. Findings also indicate that for customer service driven competition, health systems may not tend to pursue horizontal collaborations. Organizations may not think they can gain improve customer services by acquiring a similar organization.

### RESEARCH IMPLICATIONS

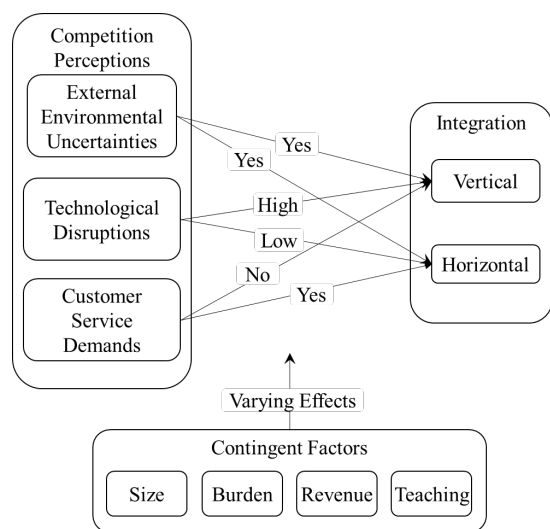
The implications of this study elucidate the influence of competition on integration. Unstable market situations have driven mergers and acquisitions in healthcare, more so validated in the post-pandemic times. This is critical to understand during the pandemic when health systems across the U.S. face significant financial disruptions. For example,



**Figure 1: Distribution of Integration and Competition Variables**



Amazon’s strategic plan on acquiring One Medical may be its foundational leap into healthcare after<sup>21</sup>. Microsoft’s acquisition of Nuance Communications, a leading provider of conversational AI and cloud-based ambient clinical intelligence for healthcare providers, accelerated its industry cloud strategy for healthcare<sup>22</sup>. These recent developments suggest that future mergers between healthcare companies and Tech giants may be more common. However, the implications of such developments must be watched closely as the true intentions behind these acquisitions are yet to be uncovered. Technology-driven competition drives fewer vertical integration plans, which was surprising when considering the drive for remote care delivery in light of the pandemic. This may be explained by health systems opting to develop in-house solutions for telemedicine delivery. While customer service has gained importance in health systems, it does not directly show a drive towards integration strategies. Certainly, each of these competitive aspects can facilitate the implementation of horizontal integration strategies, reflecting the monopolistic behavior of health systems.



**Figure 2: Research Model and Findings**

Policymakers must be mindful of larger health systems’ increased risk of opportunistic behavior to buy out smaller players. The federal government scrutinizes current hospital

merger guidelines and induces competition through an executive order issued by the government<sup>18</sup>, with steps to review and revise merger guidelines to ensure that consolidations do not limit care access and raise prices. The executive order also calls on federal agencies to work with states to import prescription drugs from other countries and create regulations that facilitate generic drug competition; this can impact biopharma services and innovations subsectors, which is another target for investors in 2022<sup>19</sup>.

These findings also need to be interpreted in the realm of the study's limitations. This research does not explore internal- and demand-driven integration plans. Also, the barriers to integration were not widely studied; only the factors that influence the implementation of vertical and horizontal integration strategies were studied. While the technology-driven competition was not a significant driver in integration plans, KPMG reports a valuation growth of 70%, so continuing to monitor this subsector may shed light on factors facilitating telehealth mergers<sup>20</sup>.

**CONCLUSION**

In the aftermath of the initial wave of the COVID-19 pandemic, health systems in the United States embraced changes in their structure to gain more significant market power. Financial and operational challenges facilitated competition-driven integration plans, leading to multi-billion-dollar mergers and acquisitions of health systems. Integrated health systems drive improvements to address both care coordination concerns while providing financial sustainability for smaller healthcare organizations. While some integrations are fueled by market competition, others have been facilitated by innovation, and following scientific developments, integrations between large hospital systems have led to the establishment of integrated cancer programs and innovative next-generation academic health systems. Technological developments have also given rise to startups, as health systems embrace telemedicine solutions and home-care delivery models.

The COVID-19 pandemic had a multi-faceted, significant influence on healthcare organizations across the U.S. Healthcare organizations have embraced integration opportunities to address financial and operational challenges.

<sup>18</sup> Robert King, ‘Executive Order Calls for DOJ, FTC to Review Hospital Merger Guidelines’, *Fierce Healthcare*, 9 July 2021 <<https://www.fiercehealthcare.com/hospitals/executive-order-calls-for-doj-ftc-to-review-hospital-merger-guidelines>>.

<sup>19</sup> King; KPMG.

<sup>20</sup> KPMG.

<sup>21</sup> Heather Landi, ‘What Amazon’s \$4B One Medical play reveals about its healthcare ambitions’, *Fierce Healthcare*, 25 July 2022

<<https://www.fiercehealthcare.com/health-tech/how-amazons-one-medical-deal-could-boost-its-healthcare-ambitions-and-heat-competition>>

<sup>22</sup> Microsoft News Center, ‘Microsoft accelerates industry cloud strategy for healthcare with the acquisition of Nuance’, 12 April 2021 <<https://news.microsoft.com/2021/04/12/microsoft-accelerates-industry-cloud-strategy-for-healthcare-with-the-acquisition-of-nuance/>>

In a highly competitive market such as healthcare, competition-driven integration has facilitated monopolistic behavior. This study elucidates competition-driven dynamics, particularly surrounding the external environment, technological influences, and demand-driven competitive forces. In theory, integrated health systems offer better care coordination and ultimately improve health outcomes. Research shows that some partnerships are associated with decreased patient experience indicators and higher care costs. Thus, these findings have critical implications for policymakers and show the importance of carefully managed, policy-level interventions to curb monopolistic behavior and focus on implementing strategies that enable better care delivery. The insights are helpful for practitioners and stakeholders as collaborations continue implementing sustainable, agile strategies to respond to current and future crises.

**ACKNOWLEDGMENT**

This research brief is a direct result of an ongoing research project in the Health Administration Research Consortium to investigate the health systems' climate in the wake of the COVID-19 pandemic. This ongoing research project is made possible by the work of faculty at the University of Colorado Business School and the participation of healthcare executives across the nation.

**CITE THIS RESEARCH BRIEF AS:**

Jana Mejia, Jiban Khuntia, Xue Ning, Rulon Stacey (2022). "Competition and Integration of Health Systems in the Post-COVID-19 New Normal." Health Administration Research Consortium Research Brief, University of Colorado Denver, Vol. 6, Issue 2, pp. 1-6.