Impacts of Health Care Industry Consolidation in Pittsburgh, Pennsylvania: A Qualitative Study

INQUIRY: The Journal of Health Care Organization, Provision, and Financing
Volume 57: 1–10

DOI: 10.1177/0046958020976246
journals.sagepub.com/home/inq
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Abstract

While most studies of health care industry consolidation focus on impacts on prices or quality, these are not its only potential impacts. This exploratory qualitative study describes industry and community stakeholder perceptions of the impacts of cumulative hospital, practice, and insurance mergers, acquisitions, and affiliations in Pittsburgh, Pennsylvania. Since the 1980s, Pittsburgh's health care landscape has been transformed and is now dominated by competition between 2 integrated payer-provider networks, health care system UPMC (and its insurance arm UPMC Health Plan) and insurer Highmark (and its health care system Allegheny Health Network). Semi-structured interviews with 20 boundary-spanning stakeholders revealed a mix of perceived impacts of consolidation: some positive, some neutral or ambiguous, and some negative. Stakeholders perceived consolidation's positive impacts on long-term viability of health care facilities and their ability to adopt new care models, enhanced competition in health insurance, creation of foundations, and pioneering medical research and innovation. Stakeholders also believed that consolidation changed geographic access to care, physician referral behaviors, how educated patients were about their health care, the health care advertising environment, and economies of surrounding neighborhoods. Interviewees noted that consolidation raised questions about what the responsibilities of nonprofit organizations are to their communities. However, stakeholders also reported their perceptions of negative outcomes, including ways in which consolidation had potentially reduced patient access to care, accountability and transparency, systems' willingness to collaborate, and physician autonomy. As trends toward consolidation are not slowing, there will be many opportunities to experiment with policy levers to mitigate its potentially negative consequences.

Keywords

Pittsburgh, Pennsylvania, qualitative research, health facility merger, health care sector, hospital restructuring, insurance, health services accessibility, health care economics and organizations, economic competition, interview

Highlights

What do we already know about this topic?

Health care industry consolidation generally raises prices and costs of health care, but quality of health care generally does not increase accordingly.

How does your research contribute to the field?

This work explores other long-term impacts of health care industry consolidation by interviewing community stakeholders in Pittsburgh, Pennsylvania about their perceptions and experience of health care consolidation.

What are your research's implications towards theory, practice, or policy?

Health care consolidation may have impacts beyond the prices and costs of health care and some of these impacts, especially related to reduced access to some kinds of care for vulnerable populations, merit additional research.

Introduction

The U.S. health care industry in the 21st century has been characterized by consolidation. This consolidation has been

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Received 30 August 2019; revised 6 October 2020; revised manuscript accepted 2 November 2020

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both horizontal (similar types of entities combining) and vertical (different types of entities, like hospitals and insurers, combining). Cumulatively, these individual mergers and acquisitions have changed the structure of health care markets over time. Most significantly, mergers of hospitals, insurers, and physician practices have enabled the formation of large integrated health systems.[1,2] Typical regions in the U.S. have 3 to 5 consolidated health systems and a small set of providers outside of those systems.[3] Health care consolidation concerns policymakers and regulators because market concentration can harm patients by increasing prices and premiums without accompanying improvements in care quality.[4]

While the bulk of the literature on health care consolidation has focused on prices and premiums, these are not the only potential impacts of consolidation. Deep dives into individual communities have been useful for understanding other important impacts. A study in Minneapolis-St. Paul found that physicians whose practices were acquired by integrated delivery systems were expected to refer within the system whenever possible.[5] A study of consolidations and closures of obstetric units in Philadelphia explored the impacts of these changes, including a fracturing of prenatal care continuity.[6]

Studies of consolidation usually analyze outcomes at the institutional (eg, hospital price changes when hospitals merge) or the market level (eg, local health care cost changes when hospital concentration increases).[7,8] The insights generated by existing large-scale and individual community case studies are largely drawn from health care industry insiders and institutional-level data,[5,6,9] which means that the findings are largely applicable within those health care systems (eg, patients, administrators, clinicians), and ignore the effects on outsiders (eg, community members, governments.). Still, within these systems, there are likely many impacts that have not been fully explored, including how consolidation could affect distribution and structure of health care services or how it might change working conditions of employees. As political and economic players within a region, non-profit providers of community benefits, and flagship institutions of their surrounding communities, large consolidated health systems may have important impacts on people outside those health systems as well. Boundary-spanning areas that could be impacted by health care consolidation include how health care systems are overseen and held accountable, their contributions to public health and charity, and the impact of consolidation on the local economy.

This exploratory study aims to describe stakeholder perceptions of the impacts of 3 decades of health care consolidation in a single community: Pittsburgh, Pennsylvania. Pittsburgh experienced a long and intense period of health care consolidation resulting in the emergence of 2 major payer-provider competitors: health system UPMC (and associated insurer UPMC Health Plan) and health insurer Highmark (and associated health system Allegheny Health Network). Although Pittsburgh's health systems have been held up alternatively great successes[10,11] and failures,[12] health care consolidation in Pittsburgh has had some strange effects. These effects have sometimes been positive, such as contributions to urban renewal,[13,14] but also generated conflict, especially over tax revenue.[15] Most notably, consolidation resulted in the exclusion of members of the largest insurance plan in the region (Highmark) from the largest provider system in the region (UPMC) for the first time in 2014. This led one expert to declare: "the Pittsburgh situation is a beacon of what can go wrong."[16]

Methods

Site Selection

Pittsburgh, Pennsylvania, a mid-size metropolis with a geographically well-defined health care market,[16] was selected as the subject of this study. Pittsburgh has been cited in the consolidation literature as a place where a series of mergers and acquisitions resulted in the dominance of a powerful health care system.[4]

Study Design

A qualitative case study design was selected to explore the breadth of outcomes that could result from health care industry consolidation.[17] For complex phenomena like consolidation, there are more "variables" than there are community "data points" to study them, and context plays a huge role in how impacts manifest. While Pittsburgh's experience might represent an extreme case, extreme cases are useful for understanding breadth of potential impacts.[17]

Interview Sample

Interviews were conducted with a purposive/snowball stakeholder sample[18] between March and September 2017. The sample aimed to focus on "boundary spanning" stakeholders bridging large, integrated health care systems and the general public[19] rather than representatives of those systems. Interviewees included patient, labor and community advocates; health care sector leaders; professional, business, and civic association leaders; government officials; and media members. Thirty-two people were contacted; 12 declined or did not respond (Table 1). The initial sample of interview targets was generated from background reading and suggestions from academic researchers familiar with Pittsburgh's health care environment. Each interviewee was also asked to suggest other interviewees, and new leads were followed up.

Data Collection

Twenty interviews lasting 30 to 60 min were conducted, 19 in person, and 1 by phone. Interviews followed a semi-structured protocol (see Supplemental Material in Appendix). Briefly, participants were asked about their experiences and roles related to health care, perceptions of what has changed

Table 1. Pittsburgh Health Care Consolidation Stakeholders Contacted and Interviewed by Category.

Stakeholder Category	Contacted (Interviewed)
Patient, labor, community advocates	11 (6)
Health care sector leaders	9 (6)
Professional, business, or civic association leaders	4 (4)
Government officials	6 (3)
Media members	2 (1)
TOTAL	32 (20)

due to health care consolidation in Pittsburgh, impacts they perceived to be related to consolidation, and perceptions of positive and negative outcomes related to consolidation. Participants were not compensated and provided oral consent for participation and for audio recording on condition of confidentiality. Interviews were professionally transcribed verbatim; the author reviewed transcripts for accuracy.

Data Analysis

The data set for this analysis included segments of text coded as perceived "outcomes" of consolidation by the author in Atlas.TI. The author and a research assistant sorted segments into similar groups and wrote short descriptions of each group. The author and research assistant identified 31 and 32 outcome-related groups, respectively. Individually generated groups were mostly analogous between the author and research assistant, with each identifying 2 non-analogous groups apiece. All groups, including the non-analogous groups, were further refined into 17 thematic groups in discussion with qualitative methods experts with knowledge of health care consolidation. Thematic groups are presented at the tiered "levels" at which they are experienced: the overall health care environment (4 thematic groups), individual consolidated health care systems (5 thematic groups), health care system (internal) stakeholders (4 thematic groups), and community (external) stakeholders (4 thematic groups) (Table 2; quotations supporting thematic statements in Supplemental Appendix Table).

Results

Background on UPMC and Highmark

In 1965, the University of Pittsburgh's medical school created an alliance between hospitals and a psychiatric clinic[20] which became the University of Pittsburgh Medical Center (now UPMC). In the late 1980s, another hospital alliance emerged at Allegheny General Hospital (AGH)[21] and its Allegheny Health, Education, and Research Foundation (AHERF).[12] AHERF expanded rapidly[22] but was mismanaged, going bankrupt in 1998; AHERF's Pittsburgh hospitals joined with others to form the West Penn Allegheny Health System (WPAHS). Meanwhile, UPMC was rapidly acquiring other hospitals (Figure 1), starting with Montefiore Hospital in 1989,[20] one of the earliest mergers of non-profit hospitals in the U.S. On the insurance side, Blue Cross of Western Pennsylvania and Pennsylvania Blue Shield merged to create insurer Highmark in 1996, the same year UPMC began to offer its own insurance product, UPMC Health Plan. Prior to this, Highmark was by far the largest provider of insurance in the region, but the relationship between Highmark and UPMC declined as they began to view each other as competitors.

In the 2000s, health system acquisitions continued, and systems generated controversy by closing or converting acute care facilities, especially WPAHS's closure (and subsequent reopening) of West Penn Hospital, and UPMC's closure of Braddock Hospital. WPAHS was struggling financially in the wake of AHERF's mismanagement combined with increasing competitive pressure from UPMC. WPAHS's failure would leave UPMC as the region's dominant health system; according to Highmark's chief executive, "the community knew what was at stake if [WPAHS] did not survive."[23] Highmark acquired WPAHS in 2013, re-branding it as the Allegheny Health Network (AHN) integrated delivery system. Seeing no need to cooperate with Highmark if they were going to be direct competitors, UPMC notified Highmark members that they would no longer have in-network access at UPMC after their contract expired in 2014.[23]

This contract expiration began what many Pittsburgh stakeholders refer to as the "battle" or "divorce." Excluding Highmark members at UPMC facilities was a blow to Highmark's market share; from 2014 to 2018, UPMC Health Plan increased market share in Western Pennsylvania from 21% to 31%, while Highmark dropped from 36% to 23%.[24] When UPMC and Highmark contract negotiations failed, the state enacted a consent decree guaranteeing in-network access for Highmark members under certain conditions and at certain facilities, which was to expire in 2019. Although UPMC maintained that Highmark members should prepare for the health systems to divorce completely, after significant outcry, UPMC and Highmark announced a deal in June 2019 that would maintain in-network access for Highmark members at UPMC facilities for another decade. However, when these interviews were conducted in 2017, worry about the upcoming divorce was in full swing, and few would have anticipated this outcome.

Impacts of Consolidation on the Overall Health Care Environment

Profits and costs. Interviewees expressed concerns that consolidation had replaced mission-driven patient care with an environment where "margin becomes your mission." Stakeholders acknowledged that without positive margins hospitals could not fulfill their missions, but characterized institutional behavior as profit-maximizing, rather than seeking value for patients.

Table 2. Summary of Themes of the Potential Impacts of Health Care Consolidation in Pittsburgh According to Interviewed Stakeholders.

Level	Theme	Thematic Statements
Overall health care environment	Profits and costs	• Interviewees expressed concerns that consolidation had replaced mission-driven patient care with an environment where "the margin becomes your mission." • Stakeholders perceptions of consolidation's effects on health care prices and insurance premium levels and growth varied.
	Long-term viability	• Interviewees identified consolidation as mostly beneficial for the long-term viability of Pittsburgh's health care institutions.
	Changing care models and geographic access	• Interviewees identified implementation of new care models, especially more outpatient-based care, as a benefit of consolidation. • Stakeholders identified the "divorce" as negatively impacting geographic access to other types of care, as patients' closest hospital may be newly affiliated with a system, closed, or become a subacute care facility.
	Increased competition	• The rise of consolidated health systems in Pittsburgh and the "divorce" between Highmark and UPMC forced systems to invest in their offerings to compete. • The emergence of consolidated health systems also encouraged and enhanced competition in health insurance markets.
Individual health care systems	Accountability and governance	• Interviewees perceived that consolidation had made the large systems less transparent and accountable to outsiders. • Interviewees also noted that consolidation changes the structure and composition of governing boards.
	Advertising and confusion	• Interviewees noted the "deluge" of billboard, print, radio, and television advertising for the consolidated health systems in Pittsburgh had created confusion where Pittsburghers could access high-quality care.
	Provider power, decreased collaboration	• Interviewees discussed how Pittsburgh's consolidation had tipped the balance of power away from insurers and toward health care providers. • Some interviewees noted that consolidation can reduce systems' willingness to collaborate with other players, such as for political aims and quality improvement initiatives.
	Loss of mission, public perceptions	• Stakeholders claimed that hospitals acquired by systems are less mission-driven, especially in terms of providing care regardless of ability to pay. • Multiple interviewees discussed how the consolidated health systems have employed large legal teams to achieve their aims. • Interviewees noted ways in which the consolidated health systems have reacted to negative public perceptions and criticism.
	Data, research, and quality	• Interviewees noted that a positive outcome of consolidated health systems is the accumulation of data to conduct research. • Stakeholders identified an increasing focus on research as one reason that quality might suffer.
Internal health care stakeholders	Referrals and patient experience	• Interviewees remarked on how consolidation changed physician referral incentives. • The "divorce" between systems created confusion, but ultimately made patients more educated about their care.
	Access to medical care and interpretation	• Interviewees noted that employed physicians have less latitude to discount care, which has made it more difficult to access care for uninsured patients. • One interviewee noted that access to interpretation has been a challenge.
	Clinician employment and autonomy	• Direct employment of physicians by the consolidated health systems has reduced the autonomy of physicians.
	Wages and unionization	• Interviewees noted how consolidated entities have "dictated wages" for physicians and became targets of service worker unionization efforts.

(continued)

Table 2. (continued)

Level	Theme	Thematic Statements
External community stakeholders	Foundation formation and non-profit support	• Several interviewees noted that acquisition of non-profit hospitals created new entities that support community health.
	Innovation and private sector growth	• Interviewees remarked on the contribution of the consolidated health systems to the city's economic revitalization and "pioneering" work in medical care.
	Local economic effects	• Interviewees described how consolidation had negatively impacted local neighborhood economies and small businesses.
	Non-profit status and community benefits	• Interviewees questioned whether consolidated health care entities deserved non-profit status if they excluded patients from their facilities. • As consolidated health care entities are revenue-generating, large employers and property owners, stakeholders discussed whether they have an obligation to provide compensation to the community beyond health services.

Stakeholders' perceptions of consolidation's effects on health care costs, prices, and insurance premium levels and growth varied. Interviewees acknowledged that consolidation could raise prices and costs, but Pittsburgh's health care costs are still lower than many other places. Recent reports indicate Pittsburgh's health care costs are below the national average, with slower growth than most major metropolitan areas,[25] as well as below average insurance premiums.[26] A recent report found that payments to both UPMC and AHN system-affiliated hospitals are also below national averages.[27]

Long-term viability. Interviewees believed that consolidation was mostly beneficial for the long-term viability of Pittsburgh's health care institutions. Stakeholders identified the perceived benefits of system affiliation including helping practices, hospitals, health systems to take advantage of economies of scale, build cash reserves, obtain access to capital, and exert pricing leverage over insurers. Interviewees acknowledged that even non-profit health care is a business, but some questioned whether benefits of consolidation accrued to anyone other than consolidated health systems, or whether there was a point when increasing scale no longer provided benefits.

Changing care models and geographic access. Interviewees identified implementation of new care models, especially more outpatient-based care, as a benefit of consolidation. This has been partially enabled through conversion of existing inpatient facilities into outpatient or long-term care facilities. Opening of new facilities and conversion of old ones has improved geographic access for some, as outpatient care has become more distributed.

Stakeholders identified the "divorce" as negatively impacting geographic access to other types of care, as patients' closest hospital may be newly affiliated with a system, closed, or become a subacute care facility. Stakeholders observed that systems sometimes acquired hospitals only to close them or convert them to subacute care facilities, even as they opened new ones near competitors.

Increased competition. The rise of consolidated health systems in Pittsburgh and "divorce" between Highmark and UPMC forced systems to invest in service lines, technology, and customer service to compete. Some perceived competition between systems as positive, but others worried that intense competition might eventually result in a UPMC monopoly if AHN fails. Stakeholders noted that other industry players, like small regional systems and independent hospitals, are looking for ways to affiliate or share services with each other or national players to remain competitive.

The emergence of consolidated health systems also encouraged and enhanced competition in health insurance markets. For many years, many employers purchased Blue Cross Blue Shield for their employees and agreed to not offer other plans in exchange for favorable rates. Stakeholders believed that the "divorce" had provided an opportunity for national insurers to enter the market.

Impacts of Consolidation on Individual Health Care Systems

Accountability and governance. Interviewees perceived that consolidation had made health care providers less navigable, accountable, and transparent to outsiders. One mechanism was reducing duplicative roles, resulting in losses of institutional knowledge and personal relationships that stakeholders noted were important. Others reported difficulty finding the right person within a system or receiving a response regarding grievances from large consolidated systems.

Interviewees also noted that consolidation changes structure and composition of governing boards. While individual hospitals of UPMC once had their own boards, they are now governed by a single "super-board." Stakeholders

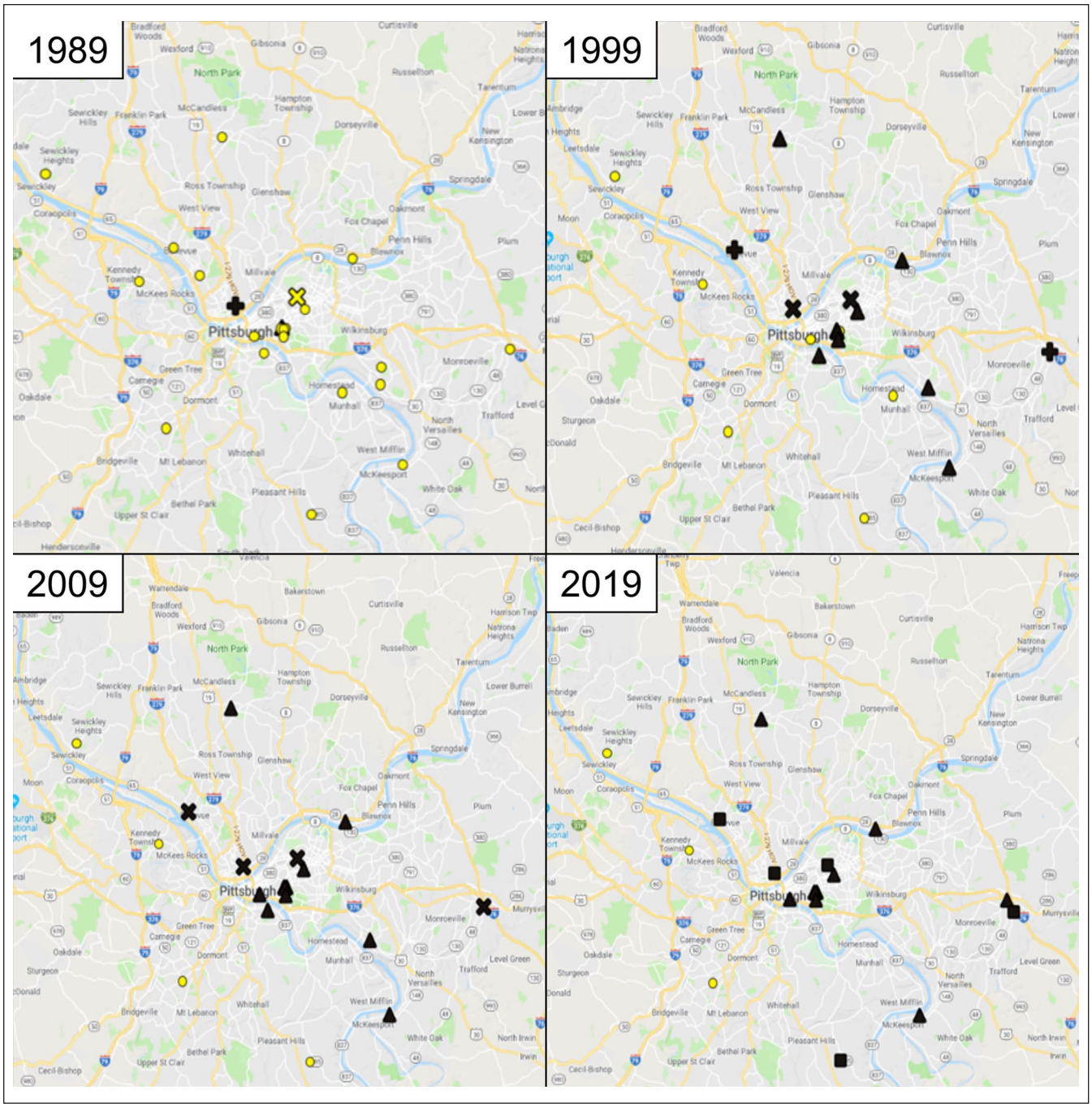

Figure 1. Locations and ownership status of Pittsburgh non-government acute care hospitals: 1989, 1999, 2009, and 2019.
Notes. Hospitals not affiliated with UPMC or Allegheny Health Network (AHN) or its predecessors, the Allegheny Health Education and Research Foundation (AHERF) or West Penn Allegheny Health System (WPAHS) are light circles. Hospitals acquired by UPMC are dark triangles. Hospitals acquired by AHERF are dark pluses, WPAHS are dark crosses, and AHN are dark squares. If hospitals have changed locations over time, they are represented by their current location. Government, psychiatric, and long-term acute care hospitals (and conversions of acute care hospitals to subacute care hospitals) are excluded.

questioned selection of board members and how much they could or would provide a check on management.

Advertising and confusion. Interviewees noted the "deluge" of billboard, print, radio, and television advertising for health systems in Pittsburgh had created confusion where Pittsburghers could access high-quality care. Pittsburgh has the third-highest per capita hospital advertisement spending of U.S. metropolitan areas.[28] Some stakeholders believed that advertising masked quality of care provided. Further, ads

reinforced information about hospital system affiliations, which made consumers confused about where they could access care after the "divorce."

Provider power, decreased collaboration. Interviewees discussed how Pittsburgh's consolidation had tipped the balance of power away from insurers and toward health care providers. For example, must-have health care providers could dictate contract terms, disallowing "steering and tiering" provisions to incentivize patients to use lower cost or higher quality facilities within the same system.

Some interviewees noted that consolidation can reduce systems' willingness to collaborate with other players, such as for political aims and quality improvement initiatives. Industry groups feared that consolidated systems will choose to address their advocacy and lobbying needs alone, which could negatively affect remaining independent players. They are also less likely to collaborate on quality.[29] Stakeholders noted how Pittsburgh's Regional Health Initiative made some quality gains[30] but ultimately failed due to refusals to share quality data.

Loss of mission, public perceptions. Stakeholders claimed that hospitals acquired by systems are less mission-driven, especially in terms of providing care regardless of ability to pay. Some brought up UPMC's acquisition of the only remaining independent faith-based health care provider, Mercy Hospital. Even though the acquisition was sanctioned by the Pittsburgh Catholic Diocese and is now overseen by it, stakeholders claimed that they perceived less charity care provided at Mercy than before.

Multiple interviewees discussed how consolidated health systems have employed large legal teams to achieve their aims. After recounting a story in which UPMC had shut down one of its own practices for claiming that they would still work with Highmark and AHN members, one stakeholder remarked "that's not the kind of thing you can do in a community hospital. You don't have the resources for that [expletive], right?"

Interviewees noted ways in which consolidated health systems have reacted to negative public perceptions and criticism. Stakeholders singled out UPMC for being litigious and especially "sensitive to anything they consider negative coverage," at one point ending hospital gift shop sales of the *Pittsburgh Post-Gazette* due to "unfair" press. Interviewees reported that few people in the business or health care sectors were willing to say anything publicly critical of UPMC.

Data, research, and quality. Interviewees noted that a positive outcome of consolidated health systems is accumulation of data to conduct research. These data can be used to understand care quality, processes, and reimbursement, as data from medical records can be easily combined with claims. As systems expand geographically, these data represent a larger and more generalizable population.

Stakeholders identified an increasing focus on research as one reason that quality might suffer. Stakeholders widely differed in their perceptions of how consolidation had impacted Pittsburgh's health care quality overall; hospitals in Western Pennsylvania have higher risk-adjusted rates of mortality and readmissions for many conditions than might be otherwise expected, but these rates are improving.[31]

Impacts of Consolidation on Internal Health Care Stakeholders

Referrals and patient experience. Interviewees remarked on how consolidation changed physician referral incentives. Multiple stakeholders reported ways systems pressure physicians to refer patients, such as scoring referral "leakage" or following up about why patients were referred outside the system.

The "divorce" between systems created confusion, but ultimately made patients more educated about their care. The "divorce" generated confusion about which facilities and doctors were in-network, a substantial change after years of warm relationships between insurers and providers, but others believed this eventually made for "more savvy" and educated patients.

Access to medical care and interpretation. Interviewees noted that employed physicians have less latitude to discount care, which has made it more difficult to access certain kinds of care for uninsured patients. According to a care navigator, specialty services and non-emergency care like screening colonoscopies and orthopedic surgeries have become more difficult to obtain for discounted rates due to consolidation. While one stakeholder said that people were not being turned away, others claimed that more charity care was available when there were more independent health care entities and physicians.

One interviewee noted that access to medical interpreters for patients who are served best in a language other than English has been a challenge. This stakeholder noted that in large systems it is more difficult to advocate for patients around issues like access to interpretation:

> *On a daily basis, basically, we're told that our patients can't be seen because they don't speak English. . .a lot of what my team has to do is fight through the layers: is it the person answering the phone who's saying this? Then we move onto the office manager, move on to whoever's above them, if they're still saying no. We still don't really have any system here that allows non-English speaking patients to access care on their own without someone really fighting for them.*

Clinician employment and autonomy. Direct employment of physicians by consolidated health systems has reduced autonomy of physicians. Physician employment benefits physicians by reducing risks and costs of practice ownership,

but in exchange, physicians become subject to the health system's hierarchy and rules. Some interviewees questioned the ability of employed clinicians to challenge administrators when decisions negatively impact patient care. Physicians also lack control over scheduling, which limits involvement in professional societies or volunteering. Interviewees also noted the extent to which consolidated health systems can dictate employment terms, including use of "very draconian non-compete [agreement]s" that make it impossible to switch employers without leaving either Pittsburgh or the health care sector.

Wages and unionization. Interviewees noted how consolidated entities have "dictated wages" for physicians and became targets of service worker unionization efforts. Interviewees noted how consolidated systems have limited physician employment choices in Pittsburgh. At the same time, having a small number of employers has made consolidated systems important targets of service worker unionization efforts, which resulted in UPMC instating a $15/h minimum wage by 2021, even though unionization has been unsuccessful so far.

Impacts of Consolidation on External Community Stakeholders

Foundation formation and non-profit support. Several interviewees noted that acquisition of non-profit hospitals created new entities that support community health. For example, the sale of Montefiore Hospital created the Jewish Healthcare Foundation, and McAuley Ministries was formed from the sale of Mercy Hospital. However, 1 stakeholder was skeptical of these benefits' sustainability: "That's a wonderful, wonderful side effect, but money is limited, that's going to exhaust."

Innovation and private sector growth. Interviewees remarked on the contribution of consolidated health systems to Pittsburgh's economic revitalization and "pioneering" work in medical care. One stakeholder observed patients "flying here all the time from all over the world for treatment." Although Pittsburgh could better commercialize local scientific advancements,[32] the research enterprise supported by the health systems helped create a local biomedical and health technology industry. Stakeholders expressed hope that this would fuel more health industry and job growth.

Local economic effects. Interviewees described how consolidation had negatively impacted local neighborhood economies and small businesses. Health system facilities, as major employers, bring economic benefits to their local communities. System acquisition and subsequent closure or conversion of hospitals "really wreaks havoc and has a big impact on the community" in terms of local business districts, employment, and the loss of the "heart of their community." Another stakeholder observed how health care industry consolidation can promote consolidation in other sectors as well, since large systems do not want to contract with individual small vendors.

Non-profit status and community benefits. Interviewees questioned whether consolidated health care entities deserved non-profit status if they excluded patients from their facilities. The comprehensive cancer center, inpatient psychiatric hospital, and pediatric hospital had been created by civic and government groups and were subsequently acquired by UPMC. A full divorce between Highmark and UPMC would have excluded Highmark members from these facilities if not for the 2014 consent decree. While stakeholders acknowledged that UPMC's ownership of these facilities that were "built for the community" could "help them stay viable," stakeholders did not believe that encouraging competition by creating duplicative facilities outside of UPMC made sense because "we don't have the volume." Advocates noted that they would "continue to fight" for access to these facilities moving forward.

As consolidated health care entities are revenue-generating, large employers and property owners, stakeholders discussed whether they have an obligation to provide compensation to the community beyond health services. Stakeholders discussed the idea that "exceptional" non-profits (health systems and universities) differ from other non-profits in important ways and use disproportional amounts of city services without contributing to property and payroll taxes. Suggested compensation included Payments in Lieu of Taxes (PILOTs) and contributions to other programs, such as the Pittsburgh Promise scholarship fund, though opinions of these solutions were mixed. These solutions were also worrying to smaller non-profit groups, who feared they would become collateral damage in the effort to extract money from health systems and universities.

Discussion

This exploratory study of the impacts of health care consolidation in a single community demonstrates a wide breadth of potential outcomes of cumulative health care mergers and acquisitions. While debates about health care consolidation are often framed around the impact on prices and quality of health care, these are not the only potential effects. In Pittsburgh, perceptions of outcomes have been mixed: some positive, some neutral or ambiguous, and some negative. Stakeholders perceived consolidation's positive impacts on long-term viability of health care facilities and their ability to adopt new care models, enhanced competition in health insurance, creation of foundations, and pioneering medical research and innovation. Stakeholders also believed that consolidation changed geographic access to care, how physicians make referrals, how educated patients were about their health care, the health care advertising environment, and

economies of surrounding neighborhoods. Interviewees noted that consolidation raised questions about what the responsibilities of non-profit organizations are to their communities. However, stakeholders also reported their perceptions of negative outcomes, including ways in which consolidation had potentially reduced patient access to care, accountability and transparency, systems' willingness to collaborate, and physician autonomy.

As a qualitative, exploratory study of a single region with a small sample of interviewees, this study has limited generalizability. The observed outcomes of consolidation might be very different in cities with different contextual factors. Pittsburgh's context has distinctive features including historically high levels of insurance coverage, relatively low for-profit health care provider market penetration, and the lack of a public acute care hospital. Infrastructure and housing were built to accommodate a much larger population; today, Pittsburgh has a much smaller but stable population that is aging and has relatively low transience. Pittsburgh is also divided geographically into lots of small units—neighborhoods, municipalities, school districts, and parishes used to local governance and amenities. Pittsburgh also has a large charitable and foundation presence that is valued by the public. Beyond the limitations of the focus on a single community, this is a study about perceptions of effects. The perceived impacts may in fact not be causally related to consolidation at all. Instead, they might be due to co-occurring trends in health care more broadly. Because this study does not and was not designed to confirm the causality or prevalence of the outcomes the interviewed stakeholders perceived, future research should determine whether there is systematic evidence for the most concerning negative potential impacts of consolidation and how to address them.

Many impacts that stakeholders attributed to consolidation can be thought of as originating from 3 roots. First, large consolidated health care systems may reduce autonomy by exerting more leverage over other players than independent hospitals could. Consolidated systems might better control terms of employment (non-compete agreements or physician scheduling) and reduce patient access to care by making it difficult for physicians to discount services. Second, consolidated health systems can accumulate information and resources. This is the pathway by which many touted benefits of consolidation, such as improved quality, may occur. However, accumulation of data could create incentives not to share it, and accumulation of resources may have led many to question the non-profit status of these institutions. Lastly, community members seem to hold consolidated health systems to a higher standard. As major employers and local sources of pride, health systems might be held to the same standards as other regional flagship employers, and perhaps even more so, since their product is the public good of community health. These expectations could include good wages and working conditions for employees, financial contributions to the community, and public access to these institutions. Thinking through how these 3 root causes—autonomy, accumulation, and expectations—might manifest in different contexts may help communities in which health care systems are consolidating anticipate and prepare for its consequences.

Policymakers and regulators in Pennsylvania have proposed creative policy levers related to non-profit status and allowable contractual language to address barriers to access created by "the divorce."[33] After more than 5 years of lawsuits, public outcry, and uncertainty, an agreement between UPMC and Highmark was reached in June 2019. While the deal has preserved access to UPMC facilities for Highmark members, this study indicates that there are likely access barriers related to health care consolidation that remain, among other issues related to the community benefits provided by non-profit health care systems. As consolidation transforms health care across the U.S, policymakers and regulators should consider how they can ensure that their communities' health care needs are being supported. As trends toward consolidation are not slowing, many opportunities to experiment with policy levers to mitigate its negative consequences remain.

Acknowledgments

This work was presented in part at the Association for Public Policy Analysis and Management Fall Research Conference in 2017 and the AcademyHealth Annual Research Meeting in 2019. Thanks to Deborah Freund, Steve Shortell, Peter Mendel, Jeffrey Wasserman, Gery Ryan, Joann Elmore, Erin Duffy, Eric Apaydin, Michelle Wong, and Michele Abbott for their help during the development of this manuscript.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: The author was supported by the VA Office of Academic Affiliations through the VA Advanced Fellowship in Health Services Research. This research was supported by the Pardee RAND Graduate School James Q. Wilson Dissertation Award and RAND Health.

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Supplemental Material

Supplemental material for this article is available online.

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