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**Before the  
California Department of Insurance**

**on**

**“Proposed Merger of Aetna, Inc. into CVS Health Corporation”**

**Investigatory Hearing**

**Tuesday June 19, 2018  
San Francisco, CA**

## SUMMARY OF STATEMENT

- Several individuals are testifying in this hearing regarding the antitrust implications of the proposed merger of Aetna into CVS Health. When antitrust is a consideration, courts often consider whether there are consumer benefits that might compensate for welfare losses from the merger.
- I am here today to discuss the rationales and potential benefits for the proposed merger of Aetna into CVS Health. In particular, I focus on the companies' contention that retail clinics hosted in CVS pharmacies can effectively serve as a healthcare hub for patients and consumers.
- The proposed merger is based on the corporate strategy of vertical integration. There is no *prima facie* evidence for consumer welfare benefits flowing from this strategy. Indeed, in the healthcare industry, this strategy usually leads to higher prices, higher costs, and higher utilization. Sometimes it also results in greater market power.
- Based on the research evidence, one cannot assume consumer benefits will automatically flow from a merger such as the one considered here. Thus, one must consider the specific benefits of the merger as espoused by company executives.
- There is a disconnect between the rationales espoused by company executives and those enunciated in academic theory and research. In the past, such disconnects can portend strategic failures to deliver on promised benefits.
- The specific benefits of the merger espoused by company executives are unlikely to be achieved. The numerous benefits cited lack any documentation and are contradicted by the research evidence.
- Many of these benefits rely on retail pharmacies and in-store health clinics to "transform" healthcare and serve as a healthcare hub for consumers. For a multitude of reasons, such outcomes are unlikely. In fact, pharmacy-based retail clinics are unlikely to improve quality, improve health outcomes, or reduce cost of care.
- I conclude that there are no apparent benefits from the proposed merger that compensate for welfare losses stemming from antitrust concerns.

## STATEMENT

Chairman Jones, thank you for holding this hearing regarding the proposed merger of Aetna, Inc. into CVS Health Corporation and its potential economic consequences and consumer benefits.

### **I. Introduction**

I am the James Joo-Jin Kim Professor at the Wharton School of the University of Pennsylvania, where I am a Professor in the Department of Management and the Department of Health Care Management. I am also the Director of the Wharton Center for Health Management & Economics, and Co-Director of the Roy and Diana Vagelos Program in Life Sciences and Management at the University of Pennsylvania. In these roles, I teach courses on the U.S. healthcare system and the industrial organization of healthcare. These courses cover the entire value chain of health care, including:

- providers such as hospitals, physicians, pharmacies, retail clinics, etc.
- managed care organizations, insurers, and pharmacy benefit managers who contract with and reimburse providers for their services
- employers, individuals, and governmental bodies who ultimately pay for these services, and
- manufacturers of pharmaceutical and medical products who supply the technologies that providers utilize in patient care.

Several witnesses are here today to discuss the potential anticompetitive harms caused by the merger of Aetna into CVS Health. I have worked closely with both the Federal Trade Commission and the Department of Justice in prior antitrust cases that assess the competitive harms from mergers in the healthcare industry. In such cases, I am asked to evaluate whether the mergers provide any offsetting, compensating benefits for lowering healthcare costs and/or improving healthcare quality in the event they are found anticompetitive. I am here today to discuss whether any such benefits may exist in the proposed merger. My conclusion is that they do not exist.

### **II. The Merger: Exercise in Vertical Integration**

In December 2017, CVS Health and Aetna announced their intention to merge. CVS Health describes itself as a “integrated pharmacy health care company”. It is comprised

(as of March 2018) of several businesses: (1) a large chain of 9,847 CVS retail pharmacies; (2) a large pharmacy benefit manager (PBM), Caremark, with 90 million members; (3) a chain of 1,111 retail clinics (MinuteClinic) that reside within some of its pharmacies; and (4) a staff of 4,000 of nursing professionals working in the retail clinics and home healthcare. For its part, Aetna is a large health insurer that provides coverage to 22.2 million enrollees across several customer segments (e.g., commercial, Medicare Advantage, Medicaid) and product lines.

CVS Health executives describe their organization as the “integration” of a pharmacy benefit manager (PBM), a pharmacy, and a retail provider. With the proposed merger of Aetna, the new company will further integrate vertically to include an insurer. According to a CVS Health statement, the merger will confer several benefits, particularly by “integrating more closely the work of doctors, pharmacists, and other health care professionals and health benefits companies to create a platform that is easier to use and less expensive for consumers”.<sup>1</sup> In so doing, “the combined company [will serve] as America’s front door to quality health care”. Thus, at a general level, the merger will tackle the three thorniest problems bedeviling the U.S. healthcare system: cost, quality, and access. These three issues are often referred to as “the iron triangle of healthcare”.<sup>2</sup>

According to the announcement, the vertical merger will also serve many specific aims. These include:

- Combine CVS Health’s clinical capabilities with Aetna’s analytics
- Connect Aetna’s provider network with CVS Health’s community access model
- Remake the consumer health care experience
- Improve understanding of patients’ health goals
- Guide patients through the healthcare system
- Put the consumer at the center of healthcare delivery and empower them
- Avoid unnecessary hospital re-admissions & emergency department visits
- Help members achieve their best health
- Complement the care provided by patients’ physicians
- Help meet the health needs of members with chronic conditions

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<sup>1</sup> CVS Health. 2017. “CVS Health to Acquire Aetna,” CVS Health Press Release. December 3<sup>rd</sup>.

<sup>2</sup> William Kissick. 1994. *Medicine’s Dilemmas*. New Haven, CT: Yale University Press.

- Use analytics together with broader patient information to reduce cost of care
- Provide face-to-face counseling to patients between doctor visits
- Provide remote monitoring of patients' health status indicators

A similar set of aims were enunciated by the general counsel for both CVS Health and Aetna in testimony before the House Judiciary Committee's Subcommittee on Regulatory Reform, Commercial and Antitrust Law in late February 2018.<sup>3 4</sup>

These general and specific goals are to be achieved through the merger of two companies that offer community healthcare services and insurance coverage, respectively. The merger will result in a vertically-integrated system that combines providers (pharmacies, pharmacists, nurse practitioners), a PBM, and a health plan.<sup>5 6</sup> Executives involved in such mergers rarely, if ever, evaluate their combination in the light of academic theory or the empirical evidence base. Such is the case here, as I discuss below.

### **III. Evidence Base on Vertical Integration in the Literature**

#### **A. Corporate Literature**

The rationale for vertical integration has been described in depth.<sup>7 8 9</sup> Initially, vertical integration served to link up the stages of production for a given product (raw materials, production, distribution). More recently, vertical integration sought to combine and then apply intangible assets to the manufacture and distribution of many goods that are not necessarily linked as stages of a common production process. There are several rationales for engaging in such strategic combinations. One goal is to reduce “transactions costs” (e.g., contracting) and “agency costs” (e.g., performance monitoring) between the

<sup>3</sup> Thomas Sabatino. 2018. *Statement*. House Judiciary Committee, Subcommittee on Regulatory Reform, Commercial and Antitrust Law. February 27<sup>th</sup>.

<sup>4</sup> Thomas Moriarty. 2018. *Statement*. House Judiciary Committee, Subcommittee on Regulatory Reform, Commercial and Antitrust Law. February 27<sup>th</sup>.

<sup>5</sup> Dean Ungar, Alan Murray, Scott Robinson et al. 2018. *Vertical Integration: Short-term Credit Pain, Long-term Credit Gain*. Moody's Investors Service. April 5<sup>th</sup>.

<sup>6</sup> Leomore Dafny. 2018. “Health Care Industry Consolidation: What is Happening, Why it Matters, and What Public Agencies Might Want to Do About It,” Testimony before the House Committee on Energy and Commerce, Subcommittee on Oversight and Investigations. (February 14).

<sup>7</sup> Alfred Chandler. 1962. *Strategy and Structure*. Cambridge, MA: MIT Press.

<sup>8</sup> Alfred Chandler. 1969. “The Structure of American Industry in the Twentieth Century: A Historical Overview,” *Business History Review* 43(3): 255-298.

<sup>9</sup> Alfred Chandler, 1977. *The Visible Hand: The Managerial Revolution in American Business*. Boston, MA: Harvard University Press.

merging firms. Another goal is to pool complementary assets to achieve “economies of scope” and lower costs by using the same intangible assets in the production of multiple goods and services.

Despite the long-term interest in vertical integration, there remains no consistent evidence in the corporate literature that vertical integration reduces firm costs or improves product quality. Favorable outcomes depicted in one prior literature review<sup>10</sup> are not replicated in more recent empirical investigations.<sup>11 12</sup> This suggests there is no *prima facie* evidence for consumer welfare benefits flowing from strategies of vertical integration. Indeed, the integration decision rests on a complex calculus that few firms make accurately, let alone understand, in the face of changing technology and demand.<sup>13</sup>

## B. Healthcare Literature

Several reviews of the literature on vertical integration in healthcare have been published or presented in the last five years.<sup>14 15 16 17 18</sup> Most reviews deal with the integration of different types of providers. When reviewing the evidence, it is important to distinguish the providers involved in the vertical integration.

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<sup>10</sup> Francine Lafontaine & Margaret Slade. 2007. “Vertical Integration and Firm Boundaries: The Evidence,” *Journal of Economic Literature* XLV (September): 629-685.

<sup>11</sup> Dongli Zhang. 2013. “The Revival of Vertical Integration: Strategic Choice and Performance Influences,” *Journal of Management and Strategy* 4(1): 1-14.

<sup>12</sup> Hsiu-Ling Li & Ming-Je Tang. 2010. “Vertical Integration and Innovative Performance: The Effects of External Knowledge Sourcing Modes,” *Technovation* 30: 401-410.

<sup>13</sup> John Stuckey & David White. 1993. “When and When Not to Vertically Integrate,” *McKinsey Quarterly* (August). David Besanko, David Dranove, & Mark Shanley. 2004. *Economics of Strategy*. Third edition. Hoboken, NJ: Wiley & Sons.

<sup>14</sup> Lawton R. Burns, Jeff Goldsmith, and Aditi Sen. “Horizontal and Vertical Integration of Physicians: A Tale of Two Tails.” In *Annual Review of Health Care Management: Revisiting the Evolution of Health Systems Organization. Advances in Health Care Management*, Volume 15: 39-117. (Emerald Group Publishing). 2013.

<sup>15</sup> Jeff Goldsmith, Lawton R. Burns, Aditi Sen, and Trevor Goldsmith. *Integrated Delivery Networks: In Search of Benefits and Market Effects*. (Washington, D.C.: National Academy of Social Insurance, 2015).

<sup>16</sup> Brady Post, Tom Buchmueller, & Andrew Ryan. 2017. “Vertical Integration of Hospitals and Physicians: Economic Theory and Empirical Evidence on Spending and Quality,” *Medical Care Research & Review* (August). <http://journals.sagepub.com/doi/10.1177/1077558717727834>.

<sup>17</sup> Lawton R. Burns and Mark V. Pauly. “Transformation of the Healthcare Industry: Curb Your Enthusiasm?” *Milbank Quarterly*. (March 2018) 96(1): 57-109.

<sup>18</sup> Rachel Machta, Kristin Maurer, David Jones et al. 2018. A Systematic Review of Vertical Integration and Quality of Care, Efficiency, and Patient-Centered Outcomes, *Health Care Management Review* 45(1). doi: 10.1097/HMR.0000000000000197.

Reviews of the literature on *vertical integration of physicians with hospitals* are quite consistent in their conclusions regarding the impact on price and costs. In general, integration is associated with higher prices, higher costs, higher utilization of the hospital, and increased market power over insurers. It is also associated with lower productivity and possibly lower quality and higher hospital re-admissions. The evidence regarding quality is mixed.

Some reviews deal with the *vertical integration of multiple providers (and perhaps payers as well)* in accountable care organizations (ACOs) and coordinated care organizations (CCOs). The evidence here suggests some improvements in some quality metrics but a general failure to save money. Others deal with *hospital integration with post-acute care (PAC) sites* such as home health agencies and skilled nursing facilities. The recent evidence shows that such vertical integration increases overall Medicare spending in some settings but not in others; higher quality and lower costs are not achieved.<sup>19</sup>

Finally, some reviews deal with the *vertical integration of insurers and providers*, or providers' assumption of insurance risk in risk-based contracts. The evidence shows that adding insurance functions by a provider organization increases spending but does not improve quality, patient safety, or patient satisfaction.<sup>20</sup> It also does not lower charges per admission or length of stay and may lead to a deterioration in the provider's financial performance.<sup>21</sup> Adding provider functions to an insurer may lead to higher insurance premiums.<sup>22</sup>

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<sup>19</sup> R. Tamara Konetzka, Elizabeth Stuart, & Rachel Werner. 2018. "The Effect of Integration of Hospitals and Post-Acute Care Providers on Medicare Payment and Patient Outcomes," *Journal of Health Economics*. <https://doi.org/10.1016/j.jhealeco.2018.01.005>.

<sup>20</sup> Jeff Goldsmith, Lawton R. Burns, Aditi Sen, and Trevor Goldsmith. *Integrated Delivery Networks: In Search of Benefits and Market Effects*. (Washington, D.C.: National Academy of Social Insurance, 2015).

<sup>21</sup> Lawton Burns, Gilbert Gimm, & Sean Nicholson. 2005. "The Financial Performance of Integrated Health Organizations (IHOs)." *Journal of Healthcare Management* 50(3): 191-213.

<sup>22</sup> Austin Frakt, Steven Pizer, & Roger Feldman. 2013. "Plan-Provider Integration, Premiums, and Quality in the Medicare Advantage Market," *Health Services Research* 48(6): 1996-2013.

These results seriously question whether the integration of these different segments (physician care, hospital care, insurance) produce any consumer welfare benefits. The literature on horizontal integration of each of these segments suggests limited economies of scale in combining firms within that segment. The literature on vertical integration reviewed above suggests limited economies of scope in combining firms across these segments. That is, there appear to be few or no scope economies within physician groups, hospitals, and health plans that diversify into one another's segment. It is therefore difficult to see why there might be scope economies in health care organizations that link all of these components together.

This begs the question: can there really be synergies in linking together insurers and providers when each has achieved no synergies in their own integration efforts? Can the whole really be greater than the sum of its constituent parts? The literature suggests that physician care, hospital services, and health plan operations are very different business lines, with few assets and capabilities that can be shared across them to leverage savings and efficiencies. As a result, there may be little opportunity to reduce the average costs of each business as they become integrated with one another.

Overall, reviews of vertical integration in healthcare suggest that tighter forms of integration foster higher prices, and integration of firms with higher market share pre-merger exert more anticompetitive effects. There is also some evidence of consumer harm caused by vertical integration: patients of physicians who are employed by hospitals get referred to hospitals of higher cost and lower quality - - the opposite of "value" healthcare.<sup>23</sup>

### C. Implications for Aetna – CVS Merger

Thus, when one examines the proposed merger of CVS Health and Aetna, one cannot rely on either the research literature or historical precedents to justify the combination.

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<sup>23</sup> Erin Brown & Jaime King, 2016. "The Double-Edged Sword of Health Care Integration: Consolidation and Cost Control," *Indiana Law Journal* 92(1): Article 2.



Instead, one must examine the specific claims for the merger's benefits and the ability of the merged entity's businesses to deliver on such benefits.

Considering the theoretic rationales for vertical integration, only two are referenced in either CVS Health's or Aetna's public statements: pooling complementary assets and leveraging existing capabilities. Both are general claims without much specification of what is to be combined or how it will be leveraged. Other than the analytics capability of Aetna (discussed below), there is no real discussion or documentation that these two rationales hold. More importantly, there is no mention in their statements about production efficiencies; indeed, as researchers have noted, such efficiencies may be limited in industries that are more labor-intensive than capital-intensive.<sup>24</sup> Both industries involved in the CVS Health - Aetna merger (retail pharmacies, healthcare insurance) are labor intensive; not surprisingly, there is little evidence that scale economies exist.

The disconnect between the rationales offered by CVS/Aetna and academic theory/research, while troubling, is nothing new. Such disjunctions have long existed, stemming as far back as providers' efforts to horizontally and vertically integrate in the early 1990s.<sup>25</sup> These disjunctions are troubling not only because they diverge from academic theory but also because, as witnessed by prior integration efforts in healthcare, they may portend strategic failures by integration to deliver on promised outcomes.

#### **IV. Retail Clinics' Inability to Deliver Promised Benefits**

##### **A. Overblown Expectations of Retail Clinics**

Much of the supposed benefit of the proposed merger rests on CVS Health's network of retail clinics. CVS Health operates roughly 1,100 MinuteClinics in some of its pharmacies. Following the merger, these retail clinics will become mini-health centers or health hubs that expand access to lower-cost healthcare services and improve care convenience. Some liken them to new "community health centers". Some analysts assert

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<sup>24</sup> Alfred Chandler. 1990. *Scale and Scope: The Dynamics of Industrial Capitalism*. Cambridge, MA: Harvard University Press.

<sup>25</sup> Lawton Burns & Mark Pauly. 2002. "Integrated Delivery Networks (IDNs): A Detour on the Road to Integrated Healthcare?" *Health Affairs* 21(4): 128-143.

that much of the U.S. population lives within 10-15 minutes of a pharmacy (or within 3 miles of a CVS pharmacy).<sup>26</sup> As a result, patients will have faster access to lower-level care that can increase earlier management of illness and reduce unnecessary use of hospital emergency rooms. In this fashion, retail clinics will solve “the iron triangle” of healthcare by simultaneously improving access, improving outcomes, and lowering costs.

Retail clinics can also purportedly improve the following: (1) coordination of care by fostering partnerships between patients, their physicians, and their local pharmacists; (2) patient compliance with their treatment plans (particularly drug prescriptions) and thereby reduce complications; (3) management of the patient’s health across the care continuum; (4) wellness promotion in these new community centers by combining the efforts of the local pharmacist with a nutritionist and a nurse practitioner (in MinuteClinic); (5) the patient’s experience of care and health status; (6) consumer spend of the monies in their health savings accounts (HSAs); and (7) the appeal of healthcare to consumers. All of these efforts will promote “population health” and help to achieve the “triple aim”.<sup>27</sup>

Pronouncements like this have long fueled exaggerated expectations for retail clinics and their ability to transform the healthcare industry. Such expectations began in with Clayton Christensen et al.’s futuristic view of retail clinics as a disruptive innovation.<sup>28 29</sup> This helped to propel a rapid rise in the number of clinics that, in turn, led consultants to forecast growth in the sector to 2,225 clinics by 2017 and 2,857 clinics by 2021.<sup>30</sup> Based on such expectations, the enhanced retail clinic represented a “silver bullet” that could “cure” all U.S. healthcare ills. The sections below critically evaluate this promise.

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<sup>26</sup> David Larsen, Leerink Partners. As quoted in Zachary Tracer. 2017. “CVS’s \$68 Billion Bid to Bring One-Stop Shopping to Health Care,” *Bloomberg*. (December 7<sup>th</sup>). Available online at: <https://www.bloomberg.com/news/articles/2017-12-07/cvs-s-68-billion-bid-to-bring-one-stop-shopping-to-health-care>.

<sup>27</sup> Donald Berwick, Thomas Nolan, & John Whittington, 2008. “The Triple Aim: Care, Health and Cost,” *Health Affairs* 27(3): 759-769.

<sup>28</sup> Clayton Christensen, Richard Bohmer, & John Kenagy. 2000. “Will Disruptive Innovations Cure Health Care?” *Harvard Business Review* (September-October): 102-112.

<sup>29</sup> Clayton Christensen, Jerome Grossman, & Jason Hwang. 2009. *The Innovator’s Prescription: A Disruptive Solution for Health Care*. New York:McGraw-Hill.

<sup>30</sup> Kalorama Information. 2017. *Retail Clinics 2017*. New York: Kalorama (May).

## B. The Hype of Transformation

Company executives and analysts alike characterize the proposed merger as a “transformation” of how healthcare is delivered. This transformation encompasses several theorized benefits and advantages: coordination of care, early management of patient ailments, increased compliance with treatment plans and medication therapy management (MTM), improved management of the continuum of the patient’s health, management of chronic illness, enhanced consumer experience, improvement in people’s health status, and management of population health.

A recent analysis of the supposed transformation of the U.S. healthcare industry reveals that such claims are over-blown in two respects: transformation is neither happening quickly nor exerting the desired impacts on the iron triangle that futurists predict.<sup>31</sup> At present, transformation remains wishful thinking than reality. In particular, the hoped-for movement to value-based contracting and risk payments - - both of which may be needed to achieve the goals of the proposed merger - - has not happened. Most providers are still paid predominantly on a fee-for-service basis. Hence, getting to payments based on a “total cost of care”, which will be helpful to manage the substitution of pharmacy for medical benefits, will take a long time. Moreover, the proposed merger will be hard pressed to reengineer patient care-seeking and provider care delivery on a national scale. It is not clear to anyone that patients view their local pharmacy as a “health hub” or their local pharmacist as a substitute for a primary care physician. Researchers have recently questioned the transformative force of retail clinics.<sup>32 33</sup>

## C. The Hype of Retail Clinic Growth

The anticipated rapid expansion in the retail clinic sector is unwarranted. First, trend data over the past three years indicate that growth in the total number of retail clinics has

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<sup>31</sup> Lawton R. Burns & Mark V. Pauly. 2018. “Transformation of the Health Care Industry: Curb Your Enthusiasm?” *Milbank Quarterly* 96(1): 57-109.

<sup>32</sup> Christine Cassel. 2018. “Can Retail Clinics Transform Health Care?” *JAMA* (April 12<sup>th</sup>).

<sup>33</sup> Jon Christianson. 2017. “Retail Clinics Are Still Here. Now What?” *American Journal of Managed Care* (May 2<sup>nd</sup>). Available online at: <https://concierngemedicinetoday.org/2017/05/02/retail-clinics-are-still-here-now-what-ajmc-medica-research-institute-2/>.

stalled between 2015-2018. Retail clinics reached a plateau below 2,000 sites by 2015 with a slight decline by 2018.<sup>34</sup> The trend holds for both CVS Health, which operates roughly half of all such clinics, and Walgreens which operates roughly one-fifth. Indeed, Walgreens has shifted its strategy away from in-house clinics to partnerships with local health systems that own and operate the clinics inside Walgreens - - effectively moving away from a vertically-integrated model to a strategic alliance model. Other retail clinic chains have also stopped their expansion. Thus, retail clinics are not a booming industry, contrary to the hype generated by many consultants. Even one of the early advocates of retail clinics and colleagues of Christensen has admitted this.<sup>35</sup>

The stall in retail clinic capacity suggests that the upward trend in retail clinic visits may have likewise plateaued since 2015. At present, retail clinics may supply as little as 1-2% of all primary care in the U.S., down from an estimated 5% or less estimated a few years ago.<sup>36 37</sup>

#### D. Low Profitability of Retail Clinics

Retail clinics may have failed to spread because they are often unprofitable, losing \$41,000 annually on average.<sup>38</sup> Retail clinics are reportedly unprofitable until they reach a critical mass, after which they earn a small margin. The clinics are a high fixed-cost business using labor, space, and some technology. They can cost \$50,000 to \$250,000 to build out, can typically see 10-30 patients per day, and may generate revenues upwards of \$500,000 per year. Profits of \$200,000+ reported for “best-in-class” clinics rest on an “ambitious volume of 30 visits/day”.

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<sup>34</sup> Adam Fein. 2018. “As CVS-Aetna Looms, Retail Pharmacy Clinic Growth Stalls,” *DrugChannels*. March 6<sup>th</sup>. Available online at: <http://www.drugchannels.net/2018/03/as-cvs-aetna-looms-retail-pharmacy.html>.

<sup>35</sup> Jason Hwang & Ateev Mehrotra. 2013. “Why Retail Clinics Failed to Transform Health Care,” *Harvard Business Review* (December 25). Available online at: <https://hbr.org/2013/12/why-retail-clinics-failed-to-transform-health-care>. Accessed on June 10, 2018.

<sup>36</sup> Blue Cross & Blue Shield. 2017. *Retail Clinic Visits Increase Despite Use Lagging Among Individually Insured Americans*. Available online at: <https://www.bcbs.com/sites/default/files/file-attachments/health-of-america-report/BCBS.HealthOfAmericaReport.Retail.pdf>.

<sup>37</sup> Rand Corporation. 2016. *The Evolving Role of Retail Clinics*. Available online at: [https://www.rand.org/pubs/research\\_briefs/RB9491-2.html](https://www.rand.org/pubs/research_briefs/RB9491-2.html). Accessed on June 10, 2018.

<sup>38</sup> Jordan Stone. 2013-2014. *Profit from Convenient Primary Care*. Health Care Advisory Board. Available online at: <https://www.advisory.com/-/media/Advisory-com/Research/H CAB/Events/Webconference/2014/Profit-from-Convenient-Primary-Care-052914.pdf>.

### E. False Hopes in Cross-Selling

The low profitability of clinics may result from an inability to “cross-sell”. Retail clinics hope that they can drive business around customer health and wellness, in addition to filling prescriptions and buying consumer products. Despite the promise, senior pharmacy chain executives acknowledge limits on their ability to cross-sell the front-end and back-end of the store: “health and beauty aids” (HABA) and minor acute care services in the retail clinic. Most customers visit pharmacies for one side of the business but not the other (at least on the same visit). This threatens the business model of retail clinics, which must compete on the metric of “revenue per square foot” against the higher-margin HABA products.

Two other considerations call this CVS strategy into question. First, analysts suggest that MinuteClinic generates less than 1% of CVS retail pharmacy dispensing revenues.<sup>39</sup> Thus, there is little evidence that such cross-selling is working. Second, any genuine interest of CVS Health and its MinuteClinics in population health should temper its enthusiasm to cross-sell drugs to its clinic patients.

### F. Stalled Growth of Retail Pharmacy

Over the last three years, growth in MinuteClinics has stalled because growth in CVS Health pharmacies has stalled.<sup>40</sup> Some of this is likely internal; some is likely external. CVS undertook two mergers during 2015 - - with Omnicare and Target - - which focused its attention on internal integration issues. Externally, retail pharmacy is a mature industry with revenue growth of only 1-2% annually and more players vying for these revenues. Retail pharmacies face mounting competition from mass merchandisers (e.g. discount stores, supercenters and warehouse clubs), mail-order prescription providers, online pharmacies, convenience stores, wholesalers (e.g. Costco) and other health clinics (e.g., urgent care centers). There is some speculation that the retail pharmacy market

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<sup>39</sup> Adam Fein. 2017. “Retail Clinic Check Up: CVS Retrenches, Walgreens Outsources, Kroger Expands,” *Drug Channels*. February 16<sup>th</sup>. Available online at: <http://www.drugchannels.net/2017/02/retail-clinic-check-up-cvs-retrenches.html>.

<sup>40</sup> <https://retail-index.emarketer.com/company/data/5374f24e4d4afd2bb444662b/5374f2784d4afd824cc158f1/lfy/false/cvs-real-estate>.

suffers from excess capacity and that consolidation is likely, due to falling drug reimbursement rates, mandatory mail-order plans, the growth of generic drugs, and the growth of narrow networks. Drug volumes and general margins in retail pharmacies (including CVS Health) remain stagnant at best.<sup>41</sup>

#### G. Financial Losses at CVS Health

Compounding (or exacerbating) this stagnation in CVS stores has been CVS' financial losses. CVS suffered a near 20% drop in its stock price in 2016 and a 17% drop in net income (YOY) in the first quarter of 2017. CVS has been hampered by falling revenues from its retail pharmacy business as a percentage of total revenues from 2010-2017. Most of the decline is traced to competitive actions taken by Walgreens to win over two contracts (Prime Therapeutics in August 2016, TriCare in September 2016) that steered enrollees away from CVS pharmacies.

#### H. The Merger's Defensive Nature

The above evidence points to a major problem with the proposed CVS Health – Aetna merger: it is a defensive strategy in nature for both parties. *For CVS*, the merger comes on the heels of rumors in May 2017 that Amazon would enter the pharmacy distribution business, a move threatening both retail pharmacy and mail-order pharmacy businesses. Many suspected that CVS Health moved on this deal to counter Amazon's entry; in hindsight, this rumored entry did not occur.

The proposed merger is defensive in another sense as well. As noted above, CVS Health has been facing declining performance over the past few years, in part due to a loss of pharmacy customers to Walgreens. In 2014, Walgreens Boots Alliance formed a strategic alliance with Prime Therapeutics, the PBM serving Blue Cross / Blue Shield (BCBS) plans in several states. As a result of this alliance, BCBS members were steered away from other pharmacies (including CVS) to Walgreens as their national preferred pharmacy network. This network will expand upon Walgreens' completion of its acquisition of 1,932 Rite-Aid pharmacies in 2018.

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<sup>41</sup> David Larsen & Matt Dellelo. 2017. *HCIT & Distribution*. Leerink. (December 18).

For Aetna, as well, the merger is a defensive move to counter growth challenges. Much of the growth in managed care enrollment has occurred in three market segments: Medicare Advantage (MA), Medicaid, and (until recent years) the state health insurance exchanges. Aetna had lower market share in the more profitable MA market and sought to correct that weakness through its proposed 2016 merger with Humana. The Department of Justice successfully blocked this merger in early 2017 on grounds that it was anti-competitive. Thus, Aetna was looking for growth in all the wrong places.

Aetna also watched as the Optum Health subsidiary of its major competitor, UnitedHealthcare, successfully merged with a large provider (DaVita Medical Group). The deal added significant physician capacity to Optum's burgeoning provider network (30,000 physicians, both employed and affiliated) serving its MA plans. It also augmented its large ambulatory care business. United already operates 250 urgent care centers (MedExpress) and a chain of surgery centers; the DaVita acquisition added capacity to both. Aetna is thus looking to respond to the growing provider presence of a major competitor.

#### I. Retail Clinics' Failure to Serve the Underserved

The retail clinics failed to expand care to under-served markets (e.g., the poor, rural residents). This was deliberate. The clinics were disproportionately located in urban areas and, within those areas, in higher-income neighborhoods. Retail clinics targeted more affluent people who could pay cash for the clinic's services or who had insurance (that later covered these services). The clinics did not target the poor or those without a physician - - ironically, those who utilized a hospital emergency department (ED) as their primary source of care. This is perhaps why the entrance of a retail clinic fails to reduce ED utilization for low-acuity conditions.<sup>42</sup>

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<sup>42</sup> Grant Martsof, Kathryn Fingar, Rosanna Coffey et al. 2017. "Association Between the Opening of Retail Clinics and Low-Acuity Emergency Department Visits," *Annals of Emergency Medicine* 69(4): 397-403.

A related explanation is retail clinics' reluctance to accept Medicaid patients. Research suggests that only 60% of retail clinics accept Medicaid.<sup>43</sup> This is consistent with the disproportionate location of these clinics in more affluent neighborhoods. As a result, any impact on retail clinic volume via expanded health insurance coverage through the Affordable Care Act (half through Medicaid, half through the state exchanges) may have been blunted.

#### J. Retail Clinics' Likely Inability to Address Chronic Illness

The retail clinics' focus on the younger, healthier population means they are not well positioned to address chronic illness in the broader population. In the Medicare population, the top 20% of patients have five or more chronic conditions. This patient segment accounts for two-thirds to three-quarters of healthcare expenses in the Medicare population (those 65+ years of age, and the disabled). This segment is often labeled as "the polychronics" - i.e., those taking medications for five or more chronic illnesses.

MinuteClinics do not currently target this population. Moreover, the needs of this population may not be well addressed by the nurse practitioners (NPs) and physician assistants (PAs) who staff these clinics. In 2002, the Centers for Medicare and Medicaid Services (CMS) funded fifteen clinical trials for elderly populations under the Medicare Coordinated Care Demonstration. Evaluators concluded that care coordination alone "holds little promise of reducing total Medicare expenditures for beneficiaries with chronic illness".<sup>44</sup> Similar conclusions have been reached by health policy researchers.<sup>45</sup>

While not reducing costs, the Demonstration showed that care coordination programs can sometimes be cost-effective. A particular configuration of healthcare services and providers is needed to deliver and coordinate cost-effective care to this population.<sup>46 47</sup>

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<sup>43</sup> Martsolf et al. 2017. "Association Between the Opening of Retail Clinics and Low-Acuity Emergency Department Visits."

<sup>44</sup> Deborah Peikes, A. Chen, J. Schore, and Randall Brown. 2009. "Effects of Care Coordination on Hospitalization, Quality of Care, and Health Care Expenditures Among Medicare Beneficiaries," *JAMA* 301(6): 613-618.

<sup>45</sup> J. Michael McWilliams. 2016. "Cost Containment and the Tale of Care Coordination," *New England Journal of Medicine* 375(23): 2218-2220.

<sup>46</sup> Peikes et al. 2009. "Effects of Care Coordination on Hospitalization, Quality of Care, and Health Care



This configuration includes intensive, monthly, face-to-face communications between several pairs of individuals: physician & nurse, provider & patient, and provider & family. It also requires successful behavioral change on the part of the patient to build adherence to medication regimes and self-care behaviors. Such infrastructure may be lacking in a small retail pharmacy setting.

The challenge of care coordination is not to be taken lightly. Medicare fee-for-service beneficiaries see an average of two primary care providers and five specialists across four sites of care annually. A physician treating 257 Medicare patients would have to deal with up to 229 other physicians practicing in 117 care sites.<sup>48 49</sup> Care is thus dispersed across multiple practitioners in multiple specialties practicing in multiple sites. To paraphrase the saying popularized by Hillary Clinton, it “takes a village” to coordinate care. However, it may not be easy to coordinate such a large village. It is not clear how MinuteClinics using NPs or PAs will address, let alone, improve this situation.

#### K. Retail Clinics’ Likely Inability to Succeed in Wellness & Prevention Programs

One touted advantage of the proposed merger is a focus on wellness and disease prevention. The theory underlying such programs rests on the following assumptions:

- employers/providers who offer wellness screening will attract those at risk
- those at risk will respond to incentives offered and change their behavior
- such behavioral change will be sustained over time, when incentives are removed
- those at risk will participate in disease management programs to sustain the gains and that such programs will help to improve compliance

There are several critical flaws or hazards with such approaches. First, it is not cost-effective to screen everyone. Second, screening programs usually elicit only low participation rates. Third, those who do participate and engage in health risk assessments

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Expenditures Among Medicare Beneficiaries.”

<sup>47</sup> Randall Brown. 2013. *Lessons for ACOs and Medical Homes on Care Coordination for High-Need Beneficiaries*. Presentation at AcademyHealth Annual Research Meeting (Baltimore, MD: June).

<sup>48</sup> Hongmai Pham, D. Schrag, A.S. O’Mally, B. Wu, and P. B. Bach. 2007. “Care Patterns in Medicare and their Implications for Pay for Performance. *NEJM*, 356: 1130-1139.

<sup>49</sup> Hongmai Pham, A.S. O’Malley, P.B. Bach, C. Salontz-Martinez, and D. Schrag. 2009. “Primary Care Physicians’ Links to Other Physicians Through Medicare Patients: The Scope of Care Coordination,” *Annals of Internal Medicine* 150:236-242.

tend to be healthier than those who do not. Fourth, research on behavioral economics shows that only a small percentage of people who are exposed to the incentives change their behaviors and only do so as long as the economic incentives are provided. Moreover, there is considerable variation across patients in how responsive they are to incentives: those who care about their health do not need incentives, while those who care less about their health are not responsive to incentives. Incentives may thus be wasted on both groups. They are also usually so small that they fail to move the needle. Fifth, the chronically ill population (where the real costs are incurred) that is expensive to treat has five or more conditions that need to be jointly managed. Sixth, patients are often not engaged in their own care: patients are too busy with other matters and are not excited by wellness programs. Moreover, patient adherence to therapy may not be the major issue to target. Not surprisingly, the track record of wellness and prevention efforts is mixed at best.<sup>50 51 52</sup>

#### L. Retail Clinics' Likely Inability to Perform Medication Therapy Management

Another touted advantage of the proposed merger is its focus on “medication therapy management” (MTM). MTM and its variants can encompass generic substitution, drug interactions, drug reconciliation, medication adherence programs, annual comprehensive medication review, and targeted medication reviews. Such programs are often voluntary, however. This means that patients can opt out of these programs anytime.

Contrary to popular belief, the major problems in current drug therapy may not be patient adherence. Rather, two big problems are failure to prescribe additional prescriptions that are needed (e.g., controllers for asthmatics, beta blockers for hypertensives) and the tendency to prescribe dosages that are too low (e.g., for patients with diabetes and

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<sup>50</sup> Gautam Gowrisankaran, Karen Norberg, & Steven Kymes. 2013. “A Hospital System’s Wellness Program Linked to Health Plan Enrollment Cut Hospitalizations but Not Overall Costs,” *Health Affairs* 32(3): 477-485.

<sup>51</sup> Robin Soler, Kimberly Weeks, Sima Razi et al. 2010. “A Systematic Review of Selected Interventions for Worksite Health Promotion,” *American Journal of Preventive Medicine*. 38(2): s237-262.

<sup>52</sup> Soeren Mattke, Hangsheng Liu, John Caloyeras, et al. 2013. *Workplace Wellness Programs Study: Final Report* (Santa Monica: Rand Corporation).

hyperlipidemia).<sup>53</sup> This likely results from physicians (a) electing to use non-medication therapeutic approaches, and (b) dosing the medications they do prescribe too low to control the patient's condition. Hence, the problem may not lie in adverse drug reactions, drug-drug interactions, and compliance problems, but rather in the under-use of effective pharmaceutical therapies by physicians.<sup>54</sup>

For sophisticated MTM programs to work, pharmacists need to work closely with physicians and patients, and perhaps as an extension of the physician's practice between office visits. It is important that the patient understands, agrees with, and actively participates in the care process and treatment regimen.<sup>55</sup> This can be facilitated by frequent interactions with the pharmacist that occur between physician office visits, and involvement of the patient's family in care coaching sessions at the pharmacy. One problem for CVS Health and its retail clinics is that anywhere from one-half to two-thirds of retail clinic patients have no primary care physician (PCP). Some patients who do have a PCP and then visit a retail clinic abandon their PCP.

#### M. The Merger's Questionable Ability to Achieve Substitution Effects

One of the touted advantages of the proposed merger is the combination of CVS Health's coverage of the drug benefit (through its Caremark PBM) with Aetna's coverage of the medical benefit. In this manner, there is the opportunity to coordinate the two benefits and seek substitution of less costly pharmaceutical therapy for more costly hospital and physician care. There is some empirical evidence for such substitution effects, although not all economists are convinced.<sup>56 57 58 59 60 61</sup>

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<sup>53</sup> Djenane de Oliveira, Amanda Brummel, & David Miller. 2010. "Medication Therapy Management: 10 Years of Experience in a Large Integrated Health Care System," *Journal of Managed Care Pharmacy* 16(3): 185-195.

<sup>54</sup> P.J. O'Connor, J. Sperl-Hillen, P. Johnson et al. 2005. "Clinical Inertia and Outpatient Medical Errors," *Advances in Patient Safety* 2:293- 308.

<sup>55</sup> Brian Issets, Amanda Brunnel, Djenane de Oliveira et al. 2012. "Managing Drug-related Morbidity and Mortality in the Patient-centered Medical Home," *Medical Care* 50(11): 997-1001.

<sup>56</sup> Craig Garthwaite and Mark Duggan. 2011. "Empirical Evidence on the Value of Pharmaceuticals," Chapter 15. In Patricia Danzon and Sean Nicholson (Eds.), *Oxford Handbook of the Economics of the BioPharmaceutical Industry*. (Oxford, University Press).

<sup>57</sup> J. Michael McWilliams, Alan Zaslavsky, & Haiden Huskamp. 2011. "Implementation of Medicare Part D and Nondrug Medical Spending for Elderly Adults with Limited Prior Drug Coverage," *Journal of American Medical Association* 36(4): 402-409.

Coordination of benefits is the presumed goal of insurers who offer an in-house PBM. It is important to note, however, that roughly half of U.S. insurers insource their own PBM, while the other half outsource the PBM function. Based on a “survivorship principle”, the market has not clearly selected one model over the other. It is also not clear how far these substitution effects extend. It may be the case that patients who have high medical costs are also those that have high pharmacy costs. Moreover, it is unclear whether prior evidence will hold going forward as specialty pharmaceuticals increasingly comprise a large share of spending on drugs.

Some considerations may temper our expectations regarding these substitution effects. First, they do not automatically happen at the health plan level, but instead rely on providers’ decision-making at the point of care. Second, there may be little incentive to pursue such savings in the absence of global risk claims and payment. As recently reported, most providers are still paid predominantly fee-for-service.<sup>62</sup> Third, such programs will be difficult to implement in the face of shortages among both PCPs (and other primary care providers, covered below) and their lack of knowledge regarding the drugs prescribed by the specialist colleagues to whom they refer their patients.

#### N. Challenges of Supply and Demand for Retail Clinic Staff

The strategy to transform the retail clinics into community health hubs may fail for other reasons. The growth of retail clinics partly depends on the supply of practitioners needed

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<sup>58</sup> M. Christopher Roebuck, Joshua Liberman, Marin Gemmill-Toyama et al. 2011. “Medication Adherence Leads to Lower Health Care Use And Costs Despite Increased Drug Spending,” *Health Affairs* 30(1): 90-91.

<sup>59</sup> Martin Gaynor, Jian Li, and William Vogt. 2006. “Is Drug Coverage a Free Lunch? Cross-Price Elasticities and the Design of Prescription Drug Benefits,” NBER Working Paper Series. Working Paper 12758.

<sup>60</sup> Frank Lichtenberg. 1996. “The Effect of Pharmaceutical Use and Innovation on Hospitalization and Mortality”, Working Paper No. 5418, National Bureau of Economic Research, Cambridge, MA.

<sup>61</sup> Terry McInnis. (2012). *Pharmacist – The Most Transformative Force in Healthcare or The Demise of a Profession?* Available online at: <http://www.bluethorninc.com/Articles.html>. Accessed on June 10, 2018.

<sup>62</sup> Burns & Pauly. “Transformation of the Health Care Industry. 2018.

to staff them and state laws that allow them to practice there. Both have proved problematic.<sup>63 64</sup>

Retail clinics are typically staffed by nurse practitioners (NPs) and physician assistants (PAs). There is wide variation in NP supply across states; less than half of NPs work in primary care. Unlike the retail clinics and primary care physicians, NPs and PAs are more likely to work in rural areas. Another issue is state-level nursing scope-of-practice regulations. In some states, NPs are permitted to provide care independently; other states do not permit NPs to practice without collaborating with, or being supervised by, a physician. Many of these states require written practice protocols, and they sometimes restrict the number of NPs with whom a physician may collaborate. Still other states allow NPs to practice independently but permit them to prescribe medicines only if they are collaborating with or supervised by a physician.<sup>65</sup> Reforms in such state regulations are necessary to increase demand for NP and PA care, which might then allow retail clinics to grow further.<sup>66</sup>

#### O. Retail Clinics' Failure to Disrupt

Retail clinics were not transformative. Contrary to Clayton Christensen's theory, they were also not disruptive.<sup>67</sup> Instead of targeting those market segments that have been neglected (e.g., the poor, the rural, the uninsured, those in poor health) with a more affordable product offering, they cherry-picked patients. Not only did they target wealthier neighborhoods, they also attracted patients who were disproportionately younger adults, females, and those without any chronic conditions.<sup>68</sup> This was not “the

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<sup>63</sup> Robert Martiniano, Sherry Chorost, & Jean Moore. 2016. *Health Care Employment Projections, 2014-2024*. Rensselaer, NY: Center for Health Workforce Studies. School of Public Health.

<sup>64</sup> Julie Sochalski. 2016. “Nursing and the Health Care Workforce.” Presentation to the Wharton School. September 29.

<sup>65</sup> Joanne Spetz, Stephen Parente, Robert Town et al. 2013. “Scope of Practice Laws for Nurse Practitioners Limit Cost Savings that can be Achieved in Retail Clinics,” *Health Affairs* 32(11): 1977-1984.

<sup>66</sup> J. Margo Brooks Carthon, Therese Sammarco, Darcy Pancir et al. 2017. “Growth in Retail-based Clinics after Nurse Practitioner Scope of Practice Reform,” *Nursing Outlook* 65: 195-201.

<sup>67</sup> Christensen et al. 2000. “Will Disruptive Innovations Cure Health Care?”

<sup>68</sup> J. Scott Ashwood, Rachel Reid, Claude Setodji et al. 2011. “Trends in Retail Clinic Use Among the Commercially Insured,” *American Journal of Managed Care* 17(11): e443-e448.

low end of the market” who were “less-demanding customers”.<sup>69</sup> For such patients (many of whom are Millennials), convenience served as the strongest predictor of retail clinic use.

Moreover, disruption is not always positive.<sup>70</sup> When asked if retail clinics were helping or hurting primary care, only 22% of physicians responded favorably; by contrast, 36% felt retail clinics were hurting primary care. Overall, 79% of respondents said that market disruption fragmented the physician-patient relationship, 47% stated it fostered inaccurate medical information, 47% said it resulted in less coordinated care, and 33% felt it increased the overall cost of care.

Three recent studies buttress these physician perceptions. First, retail clinics add to patient demand rather than substitute for other types of utilization; as a result, the presence of retail clinics adds to total health spending. Much of retail clinic utilization (estimated at 58%) would not otherwise occur.<sup>71</sup> Second, analyses of primary care physicians suggest that the shift to retail clinics and other convenient care sites harms the physician-patient relationship and the benefits of such encounters (e.g., trust, empathy, information exchange, compliance, emotional bonding, reassurance and anxiety reduction).<sup>72</sup> Third, a recently completed study shows that the loss of continuity in seeing one’s primary care physician - - as often happens when patients seek care from a retail clinic and do not return - - leads to higher utilization of specialists and higher healthcare spending.<sup>73</sup>

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<sup>69</sup> Christensen et al. 2000. “Will Disruptive Innovations Cure Health Care?”

<sup>70</sup> Amy Compton-Phillips. 2016. “Care Redesign Survey: In the Push for Convenient Care, Protect the Patient-Doctor Relationship,” NEJM Catalyst (July 14<sup>th</sup>). Available online at: <https://catalyst.nejm.org/care-redesign-report-push-convenient-care-protect-patient-doctor-relationship/>.

<sup>71</sup> J. Scott Ashwood, Martin Gaynor, Claude Setodji et al. 2016. “Retail Clinic Visits for Low-Acuity Conditions Increase Utilization and Spending,” *Health Affairs* 35(3): 449-455.

<sup>72</sup> Timothy Hoff. 2018. *Next in Line: Lowered Care Expectations in the Age of Retail- and Value-Based Health*. Oxford, UK: Oxford University Press.

<sup>73</sup> Stephen Schwab. 2018. *The Effects of Disruptions to the Patient-Physician Relationship*. Doctoral Dissertation. Department of Health Care Management, The Wharton School.

#### P. Revenge of the Incumbent Providers

The expectation that incumbent providers would ignore the upstart retail clinics and let them flourish - - which was part of Christensen's theory - - was totally inaccurate. Research long ago showed that none of the innovations initially identified by Christensen as "disruptive" (retail clinics, single specialty hospitals, ambulatory surgery centers) really disrupted the healthcare industry.<sup>74</sup> Hospital chains opened their own retail clinics and partnered with others in strategic alliance; hospitals also opened their own specialty-focused centers of excellence to combat free-standing single specialty hospitals; and hospitals have increasingly acquired physician-owned ambulatory surgery centers or sponsored their own. Regulatory and reimbursement factors also played a strong role in facilitating hospital ascendance in the latter two areas. Instead of disruption, incumbent providers played strong defense against new entrants, often coopting them to become members of their systems.

#### Q. False Allure of Community Health Centers

The proposed merger relies on a re-tooling of the retail clinic into a community health center (or neighborhood hub). This will purportedly serve as a new way to access healthcare services and increase the population's access to convenient, low-cost care. Such a vision embraces the 1960s' vision of community health centers (CHCs) and community mental health clinics (CMHCs) as the basis for healthcare delivery. Unfortunately for their advocates, these centers never became mainstream delivery sites that attracted insured patients. Instead, they served as sites of care for the poor and the mentally ill. They were poorly funded by local government and never achieved their promise. The same CHC fate has been observed in countries like India and China.<sup>75 76</sup>

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<sup>74</sup> Lawton R. Burns, Guy David, & Loren Helmchen. 2011. "Strategic Responses by Providers to Specialty Hospitals, Ambulatory Surgery Centers, and Retail Clinics." *Population Health Management* 14(2): 69-77.

<sup>75</sup> Lawton R. Burns. 2014. *India's Healthcare Industry: Innovation in Delivery, Financing, and Manufacturing*. New Delhi: Cambridge University Press.

<sup>76</sup> Lawton R. Burns and Gordon G. Liu. 2017. *China's Healthcare System and Reform*. Cambridge, UK: Cambridge University Press.

#### R. Mismatch in Capacity Between CVS Health & Aetna

Historical case evidence shows that vertical integration fails when there is a mismatch in the capacity of the merging, upstream and downstream entities. There is an enormous mismatch in capacity between CVS Health's chain of pharmacies (N = 9,847) and its chain of retail clinics (N = 1,111 as of March 2018). This means that as few as 11% of CVS pharmacies have such a clinic inside the store. While 70% of the U.S. population may reportedly live within three miles of a CVS pharmacy (according to Leerink), they may not live anywhere near a MinuteClinic. Thus, to deliver on the promised merger benefits above, CVS would need to embark on a massive expansion of its retail clinics and trust that they would be utilized. Such demand may not be present, given the stalled growth in the total number of retail clinics. This capacity mismatch in the components of CVS Health (pharmacies and retail clinics) will hamper the vertical integration effort.

There may also be a mismatch in the geographical location of the merged entities' operations. Only a fraction of CVS Health pharmacies has a retail clinic, and these tend to be disproportionately located in wealthier neighborhoods. It is not clear whether these clinic locations overlap with the geographic location of Aetna's enrollees, who are expected to be directed to CVS pharmacies and hopefully use its pharmacists and MinuteClinics. A preliminary analysis of available data indicate that Aetna has high enrollment in some states (e.g., Alaska, Arizona, West Virginia) where CVS has no retail clinics; in other high enrollment states, CVS has very few such clinics. To the degree that the geographic overlap is low, there is little synergy likely between these businesses (at least in the short-term until the mismatch in capacity issues are addressed).

#### S. Retail Clinics' Limited Impact on the Iron Triangle

Academic evidence on retail clinics suggests their ability to impact the iron triangle (access, cost) is limited. With regard to access, retail clinics treat patients that are not necessarily treated by other providers. The vast majority of retail clinic patients (60%+) have no primary care physician, partly reflecting the fact they are also much younger in age than other patients. Retail clinics are almost exclusively located in urban areas; 13% of clinics are located in underserved areas (health professional shortage areas) where 21%



of the U.S. population resides. Moreover, despite the claims for convenience, retail clinics do not uniformly enjoy customer praise. An analysis of social media reveals that Walmart's retail clinics achieve higher positive evaluations than do CVS' MinuteClinics. 41% of users posted negative comments on MinuteClinics; 38% reported long wait times, suggesting the stores be relabeled as "HourClinic". Customers of both complained about the level of medical expertise, with some claiming they had been misdiagnosed.<sup>77</sup>

With regard to costs, because retail clinic patients typically lack a primary care physician, there is no substitution of retail clinics for other types of utilization. Instead, as noted above, retail clinics increase overall spending by increasing overall utilization.<sup>78</sup>

Moreover, it is not likely that the vertical integration of three businesses - - retail pharmacy & clinic, health insurer, and PBM - - can redefine the healthcare system. The latter two businesses (insurer, PBM) are intermediaries in the broader health system; the first is a bit player in the provider sector of the health system. None of them include physicians, who control (directly or indirectly) 85-90% of all healthcare spending. Physicians are not only key to controlling healthcare costs, they are also critical to payer success in Medicare Advantage contracting, quality improvement, and documentation.

#### T. Overblown Expectations of Analytics

One of Aetna's major contributions to this merger is its analytics capability. In recent testimony, Aetna Counsel Thomas Sabatino stated that his company's "analytics team can identify members who are at high-risk for developing health complications and share that information with providers to help them prevent catastrophic health events before they happen". This capability of "predictive modelling" has been under development by insurers since the early 2000s. Such efforts are subject to the same limitations as efforts to promote wellness (noted above). They rely not only on identifying the high-risk but also on their ability to (a) contact and alert them, (b) activate them to seek care, and (c) change their behavior to prevent further complications. The problem here is that those at highest risk are

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<sup>77</sup> Stace Aversa. 2013. "Comparing Social Sentiment on Convenient Care Clinics: How Convenient Are They?" Crimson Hexagon. (September 9<sup>th</sup>).

<sup>78</sup> Ateev Mehrotra. *Impact of Retail Clinics on Quality & Costs*. Available online at: <https://static1.squarespace.com/static/573a188740261dc86d93cf71/t/5888be7bebbd1af0a2f9ba63/1485356671639/Ateev+Mehrotra.pdf>.

among the least activated in their own health; they may also be least able to take corrective action. It is not clear how Aetna's linkage to a chain of pharmacies (some of which have retail clinics) will ameliorate this situation.

One should remind oneself of the previous hype surrounding the introduction of electronic medical records (EMRs) and its supposed ability to tackle quality and cost problems simultaneously. Nearly two decades after their introduction, there is no evidence for cost reduction and only scattered evidence for quality improvement.<sup>79</sup> A more recent illustration of such overblown expectations is IBM's aggressive promotion of its Watson supercomputer as a revolution in precision medicine and cancer care. Analysts suspect that IBM marketed the product to providers without any evidence base in order to bolster flagging revenues.<sup>80</sup>

## **V. Conclusion**

The proposed merger between CVS Health and Aetna is unlikely to yield the long list of benefits advanced by executives from both companies. The documentation on how these benefits are to be achieved is lacking; their evidence base in the scientific literature is questionable; and the implementation challenges are enormous. This paper suggests that any effort to achieve such benefits through the use of retail clinics and analytics is unlikely to succeed. More generally, the strategies of vertical integration and diversification that underlie the merger lack a firm evidence base for any consumer benefits.

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<sup>79</sup> Leila Agha. 2014. "The Effects of Health Information Technology on the Costs and Quality of Medical Care," *Journal of Health Economics* 34: 19-30.

<sup>80</sup> Casey Ross. 2017. "IBM Pitched its Watson Supercomputer as a Revolution in Cancer Care. It's Nowhere Close," *Stat* (September 5<sup>th</sup>).