2018 Health Care & Life Sciences Investment Outlook
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Introduction

KPMG & Leavitt Partners (LP) are pleased to present the 2018 Health Care & Life Sciences Annual Investment Summary. As 2017 came to a close, a flurry of multibillion dollar mergers was announced that could certainly impact the health care marketplace for years to come, reinforcing the notion that the health care & life sciences sector is in the middle of a significant transition. The promise of U.S. tax reform could also open the door to repatriation of cash from overseas, providing an additional catalyst for global companies to put their cash to work. Building on last year’s KPMG/LP partnership, this year’s report captures finance professionals’ reactions to disruptors and their perceptions of specific health care sectors. This survey looked at technological, economic and regulatory disruptors affecting the industry, many of which continue to reshape the health care landscape.

Our teams surveyed 265 finance professionals involved in the health care & life sciences sector about trends and expectations for the industry, including an analysis of twelve separate subsectors selected by the teams based on relevance and activity. Respondents were asked about investment activity, valuation, and key expectations regarding capital formation over the next year.

Key Findings – Outlook

— There is still significant appeal for M&A and investment in health care & life sciences. After survey results were tabulated, proposed deals announced late in 2017 – CVS and Aetna, Ascension and Providence St. Joseph Health, Dignity Health and Catholic Health Initiatives and most recently Humana and Kindred – further indicate a rapidly evolving marketplace in health care.

— While several sectors are expected to show significant growth, there is a growing sense that the market generally is over-valuated, creating potential risk should some market shock hit the space. (Chart 1 on opposite page)

— Key drivers for M&A activity include looking for accretive acquisitions, cost consolidation, and changing payment models. (Table 1)

— The top factors that investors said keep them up at night are changing reimbursement models, regulatory risk, health care reform, and political instability. Generally, health information technology and outpatient services are expected to grow, as the market adapts to reimbursement challenges and the desire to move to a more efficient delivery system. (Chart 2).

1 Methodology: KPMG and Leavitt Partners conducted an online survey from mid-September through Oct. 31, 2017, gathering results from finance professionals at corporations, investment banks and private equity firms. The questions were related to growth expectations, valuations and anticipated deal activity for 2018. After some general questions, each respondent was able to comment about three or fewer specific sectors within health care & life sciences; note that 3 subsectors (PBM, Medicaid plans and Biotech) fell under the sample size required to report valid response data. The respondent breakdown was 32 percent C-Suite (CFO, Chief Accounting Officer, Chief Strategist), 30 percent Principal, Partner or Managing Director, 32 percent Vice President or Director, and 5 percent other. Though the survey respondents were blinded and answers confidential, respondents were recruited by LP and KPMG principals, so the results do not derive from probability sampling.
What’s the current state of the health care & life sciences market? (Chart 1)

- Strong Fundamentals
- Moderate Fundamentals
- Neutral
- Moderate Bubble
- Bubble likely to burst

4% Strong Fundamentals
20% Moderate Fundamentals
18% Neutral
36% Moderate Bubble
22% Bubble likely to burst

How much investment activity will occur in the US health care and life sciences market in 2018-2019 for each sector below? (Chart 2)

<table>
<thead>
<tr>
<th>Sector</th>
<th>None</th>
<th>A little</th>
<th>A moderate amount</th>
<th>A lot</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health IT and data</td>
<td>11%</td>
<td>44%</td>
<td>52%</td>
<td>0%</td>
</tr>
<tr>
<td>Outpatient services</td>
<td>11%</td>
<td>44%</td>
<td>44%</td>
<td>0%</td>
</tr>
<tr>
<td>Pharma and biotech</td>
<td>22%</td>
<td>44%</td>
<td>33%</td>
<td>11%</td>
</tr>
<tr>
<td>Post-acute care services</td>
<td>21%</td>
<td>45%</td>
<td>33%</td>
<td>11%</td>
</tr>
<tr>
<td>Health system operations</td>
<td>24%</td>
<td>47%</td>
<td>28%</td>
<td>11%</td>
</tr>
<tr>
<td>Payer service providers</td>
<td>32%</td>
<td>45%</td>
<td>21%</td>
<td>11%</td>
</tr>
<tr>
<td>Delivery systems</td>
<td>32%</td>
<td>45%</td>
<td>21%</td>
<td>11%</td>
</tr>
<tr>
<td>Managed public programs</td>
<td>39%</td>
<td>39%</td>
<td>18%</td>
<td>11%</td>
</tr>
<tr>
<td>Pharma service providers</td>
<td>30%</td>
<td>52%</td>
<td>17%</td>
<td>11%</td>
</tr>
<tr>
<td>Medical device and diagnostics and medical equipment</td>
<td>37%</td>
<td>47%</td>
<td>14%</td>
<td>11%</td>
</tr>
<tr>
<td>Commercial insurance products</td>
<td>49%</td>
<td>42%</td>
<td>6%</td>
<td>11%</td>
</tr>
</tbody>
</table>
What keeps you up at night?

Keywords:
- reimbursement
- change
- risk
- uncertainty
- cost
- quality
- payment
- services
- providers
- outcomes
- delivery
- federal
- impact
- sustainability
- hospital
- consolidation
- consolidation
- future
- rates
- single
- multiples
- ability
- replace
- legislative
- managed
- Medicare
- high
- competition
- technology
- people
- pricing
- pace
- rising
- insurance
- access
- FDA
- payer
- patients
- innovation
- Medicaid
- revenue
- trends
- Declining
- Increasing
- state
- medical
- administration
- affordability
- business
- provider
- value
- patient
- Trump
- legislation
- state
- medical
- administration
- affordability
- Declining
- Increasing
- state
- medical
- administration
- affordability
Disruptors

Change is a maxim of American health care. The profound fluidity and dynamism of the political and market landscape in 2017 have created uncertainty regarding the future of health reforms, potential administration of government programs, and advancing systemic alignment for value-based services and care. Political uncertainty has been the “meta” disruptor during 2017, threading itself through other policy and market events and amplifying the impact of federal policy change on highly regulated industries. Although efforts to wholesale repeal and replace the Affordable Care Act (ACA) were unsuccessful, elements of repeal and defunding have appeared and will continue to appear in other legislation, budget and appropriations bills, and of course, through actions taken by the White House and the leadership of the U.S. Department of Health & Human Services (HHS). Such changes manifest how Americans pay for health care – and access health care (health systems, clinics, drugs and devices, and technology).

In addition to the political and regulatory changes that affect reimbursement stability, the industry faces several significant market disruptors that weigh heavily on decision-makers.

Health care advisors from KPMG and Leavitt Partners identified six key disruptors anticipated to continue re-shaping the landscape in 2018; each disruptor can be viewed as either a risk or opportunity, but all promise to continue re-shaping profitability, valuations, and capital formation.

Health Care & Life Sciences disruptors (Chart 3)
Higher opportunity disruptors

Shifting care to lower cost sites
As macro-economic forces heighten the need to control health care costs, public and private payers will increasingly develop clinical “pathways” to lower cost settings that drive higher quality care. Several gradations of lower cost settings abound, urgent care clinics are a prime example. Many private plans encourage use of clinics and outpatient surgery centers through tiered copays or coinsurance. CMS encouraged the shift to lower cost settings through a site-neutral pricing initiative on orthopedic surgery projected to save CMS $500 million per year. Hospitals expect to bear this cost reduction as a decline in revenue for their off-campus outpatient facilities, which will now be reimbursed on par with physician offices. The ultimate low-cost site is care delivered at home, via caregiver visits, telemedicine, or interfacing through mobile apps. The alignment of assets between health insurers and lower-cost settings like retail clinics have significant potential for disruption. Providers with higher cost structures will find challenges to substantiate disproportionately high fee schedules and will need to find more cost-effective ways to deliver care or create alternative value.

We believe the federal government and states will drive greater flexibility through managed care organizations and providers bearing risk to shift and reimburse for care delivered at lower cost sites.

Rise in clinical service outsourcing/automation
Technological innovation continues to create opportunities for clinical automation and the outsourcing of services. Utilization of artificial intelligence for medical imaging, the use of robotic process automation (RPA) for assorted tasks, such as collecting small outstanding balances, mobile apps and enhancements to patient-facing web portals that connect to medical devices, and contracting of hospitalist groups for rural hospitals are just a few examples. The promise is significantly reduced cost through application of technology and an ability to push work to lower cost venues of care, as well as enhanced quality and efficiency through utilization of contracted experts and reliable technology. The regulatory risks are there too, most particularly as FDA and other agencies work to protect patient health and safety. In a more compartmentalized world of health care, the challenge is to find and leverage the most efficient ways to accomplish particular tasks – whether performed by people or machines - that can be integrated into the workflow without risking quality of care or outcomes.

We believe there will continue to be a rapid proliferation of clinical service solutions as providers and payers continue to manage compressing margins; however, not all solutions will ultimately improve care or reduce costs.

Consumer engagement and expectations
Health care represents an economy decidedly more complex than other American industries. Notably, information asymmetry is pervasive and traditional mechanisms that reconcile supply and demand are absent. Nevertheless, consumer expectations from health care providers continue to increase, driven by better informed patients and the ability to procure second opinions. Further, consumers are bearing a higher share of their health care costs, in large part due to high deductible health insurance and increased cost sharing requirements. These dynamics will give rise to increased price and quality transparency and a general scrutiny of care providers, devices, drugs, and other therapies. On the care delivery side, as providers are increasingly expected to manage patients through the continuum of care and are reimbursed accordingly, the capacity to influence changes in patient behavior and engagement becomes vital. An engaged and empowered patient is much more likely to participate in their care and have a more favorable outcome, but will require more information at the point of service to evaluate the cost/benefit of treatment – and it assumes consumers are able to make informed, rational choices about health care even with access to information on cost and outcomes. This shift is inviting technology giants (i.e. Apple, Google, and Amazon), who are known for great consumer engagement, to apply these principles to new health care solutions.

We believe that consumer engagement remains an important emergent dynamic that will continue to shape innovation, investment, and the general energy of providers, payers, and ancillary health care entities.
Integrated and interoperable care delivery
Electronic health records are being used by 83 percent of doctors. While EHR systems are still being adjusted to meet provider needs, the focus is now shifting toward integrating information and optimizing workflow. The 21st Century Cures Act and interoperability guidelines are forcing vendors to move beyond closed systems to enable a patient’s information to be accessible regardless of the facility to give a foundation for more efficient, higher-quality care. The challenge will be in execution and the ability and willingness of key players to make interoperability a reality, especially since many of these players have enjoyed significant value from their exclusive access to a patient’s records. Increasing pressure from federal regulators – enhanced by demand from consumers and apps that provide them access to their medical information – will continue to push an interoperable reality. On optimization, CMS is reinforcing health information technology (HIT) necessity through the Medicare Access and CHIP Reauthorization Act (MACRA) and the Merit-based Incentive Payment System (MIPS), which incentivizes providers to use EHRs and requires quality reporting on metrics captured through them. Such requirements place a higher resource burden on physicians, necessitating solutions that are more appropriate for different types of practice settings.

We believe clinical information will become increasingly commoditized and key value will be determined in the analytics and workflow tools associated with deploying data for specific purposes.

What are the biggest drivers of M&A activity in the health care & life sciences sector? (Table 1)

<table>
<thead>
<tr>
<th>Percent</th>
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</thead>
<tbody>
<tr>
<td>Accretive Acquisition Strategies</td>
</tr>
<tr>
<td>Cost consolidation</td>
</tr>
<tr>
<td>Changing payment models</td>
</tr>
<tr>
<td>Geographic expansion/contraction</td>
</tr>
<tr>
<td>Expansion/divestiture of service areas</td>
</tr>
<tr>
<td>Revenue synergies</td>
</tr>
<tr>
<td>Regulations/legislation</td>
</tr>
<tr>
<td>Need to deploy cash on balance sheet</td>
</tr>
<tr>
<td>Other</td>
</tr>
</tbody>
</table>
Higher risk disruptors

Access constraints
Patient access to health insurance through the individual market exchanges has been disrupted, due to instability with cost sharing subsidies, increasing premiums, mandate confusion, significantly reduced investment in marketing and navigators, and a shortened enrollment period. CMS reported that 8.8 million people enrolled in the health insurance exchanges, from states using healthcare.gov to enroll participants, for 2018, a dip from 9.2 million in 2017. Health care industry observers anticipate a marginally higher uninsured rate due to a combination of confusion, increasing prices, and negative public dialogue. Some states are using waivers to alter their health care financial obligations, whether by changes to their Medicaid programs and/or changes to essential benefits coverage and individual market rules. While the individual market is dynamic, the reality is the majority of American adults still receive coverage through their employer. In the private market, payers are trying to control costs and offer high-deductible health plans, narrow provider networks, expansion of wellness programs, and higher cost sharing to drive patient behavior.

We believe there will be no substantive coverage gains made in 2018 and that benefit structures for employer-sponsored plans, individual market participants, and some states under Medicaid will shift a greater financial onus to the patient.

Pricing pressure
Price pressure is affecting everyone in health care. Providers are experiencing it through CMS implementation of MACRA, bundled payments, site neutral pricing, actual and proposed further cuts to the 340B Drug Discount Program, deep cuts in lab fees. They face continued pressure as well as continued pressure from private payers to assume more financial risk, and from patients as high-deductible plans make them more aware of the true cost of care. Payers are experiencing pressure through floors on medical-loss ratios, pressure on premium increases in every market, uncertainty about federal risk adjustment funds, and pressure from employers, who are struggling to afford employee health coverage. Drug and device companies are experiencing it through heightened scrutiny on pricing, particularly with some therapies priced at hundreds of thousands of dollars, and the risks they face from a costly and burdensome approval process. The “system” is increasingly under a microscope, as regulators struggle to understand the costs and benefits throughout supply chains and across the continuum of care. The organizations that will win are those who can effectively manage and mitigate risk, and contribute the highest quality of care at the most reasonable cost.

We believe pricing pressure will continue pervading health care, driving new economics models in public and private markets that rely on demonstrating value through lower cost, lower utilization, and improved outcomes.
Subsector Analysis

Twelve subsectors were chosen by the KPMG & Leavitt Partners teams based on a collective evaluation of business activity in 2017 and expectations for 2018. The intent was to explore how each subsector would be influenced by the previously defined disruptors and the investment community’s general expectations regarding valuation, profitability, and growth. Investors answered a few questions for up to three subsectors where they had experience. PBM, Biotech, and Medicaid Plans received fewer than 50 responses, and thus, their results should not be statistically significant, but rather seen as directional findings.

Key findings
— The survey indicates that subsectors where growth is most likely to happen in 2018-19, including health care information technology/telemedicine, behavioral health and Medicare Advantage representing ongoing areas of interest to investors, most likely to outpace the broader health care market. (Chart 4)
— Reimbursement stability – which as stated is a key concern of finance professionals in health care – is most acutely impacting health systems, home health and biotech/PBMs (note small sample on the last area).
— About one-third of respondents expect decreasing valuations for health systems (31 percent), pharmacy benefit managers (31 percent), and Medicaid plans (28 percent).

How do you think the subsector will grow relative to the overall health care and life sciences market? (Chart 4)
How would you classify reimbursement stability in the subsector? (Chart 5)

<table>
<thead>
<tr>
<th>Subsector</th>
<th>Very Stable</th>
<th>Stable</th>
<th>Unstable</th>
<th>Very Unstable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicare Advantage Plans</td>
<td>20%</td>
<td>68%</td>
<td>11%</td>
<td>1%</td>
</tr>
<tr>
<td>Specialty Physician Practice Management</td>
<td>9%</td>
<td>69%</td>
<td>28%</td>
<td>1%</td>
</tr>
<tr>
<td>Health Care IT</td>
<td>9%</td>
<td>60%</td>
<td>28%</td>
<td>2%</td>
</tr>
<tr>
<td>Surgical Hospitals and ASCs</td>
<td>6%</td>
<td>58%</td>
<td>36%</td>
<td></td>
</tr>
<tr>
<td>Telemedicine</td>
<td>7%</td>
<td>53%</td>
<td>40%</td>
<td></td>
</tr>
<tr>
<td>Behavioral Health</td>
<td>4%</td>
<td>51%</td>
<td>36%</td>
<td>9%</td>
</tr>
<tr>
<td>Population Health Management/Primary Care</td>
<td>4%</td>
<td>50%</td>
<td>43%</td>
<td>4%</td>
</tr>
<tr>
<td>PBMs</td>
<td>6%</td>
<td>44%</td>
<td>50%</td>
<td>12%</td>
</tr>
<tr>
<td>Home Health</td>
<td>6%</td>
<td>36%</td>
<td>50%</td>
<td>10%</td>
</tr>
<tr>
<td>Biotech</td>
<td>38%</td>
<td>52%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medicaid Plans</td>
<td>32%</td>
<td>40%</td>
<td>28%</td>
<td></td>
</tr>
<tr>
<td>Health Systems</td>
<td>16%</td>
<td>72%</td>
<td></td>
<td>13%</td>
</tr>
</tbody>
</table>

The balance of this report goes into greater detail on each of the subsectors and their regulatory and investment environment. Chapters are ranked in order of expected growth, as identified by our survey respondents.

Disruptors’ impact on subsectors (Chart 6)

- Integrated And Interoperable Care delivery
- Shifting Care To Lower Cost Sites
- Consumer Engagement And Expectations
- Rise In Clinical Service Outsourcing/Automation
- Access Constraints
- Pricing Pressure

* Small sample size of survey respondents in this sector
Health Care Information Technology

Synopsis: Across its many subsets, health care information technology (HIT) generally will see strong growth, risking oversaturation in certain areas. The value transformation will come when industry shifts from information (data entry by clinicians) to integration - analytics and workflow management.

Policy/Business environment:
EHR and digital health data products have boomed, largely as a result of regulatory drivers, such as the Health Information Technology for Economic and Clinical Health (HITECH) Act and Medicare Access & CHIP Reauthorization Act (MACRA), inducing demand for services. However, value payment models, such as shared savings, have struggled to demonstrate sustained returns associated with digital health and health care information technology solutions, in part, because of a general lack of interoperability and a deficit of workflow and workforce efficiencies. The changing priorities of the Center for Medicare & Medicaid Innovation, slow adoption of population health models, and MACRAs relegation digital solutions to Part-B may slow technology demand in core EHR systems.

In 2018, the biggest action in health care information technology policy will be focused on implementing MACRA and drafting regulations related to 21st Century Cures Act – both of which affect requirements for providers and EHR vendors. Implementation will have a perpetual impact on what the government believes is “information blocking,” individual rights about access to their information, and how providers and health care information technology policy application manufacturers monetize data and the associated analytics. Because these two statutes carry so much weight, Congress has been somewhat reticent to push new legislation in this area until that implementation is complete.

Health care information technology policy innovation will be driven by personal health management (digital health solutions), as well as personalized medical solutions. In the short term, the most pressing need is getting the patient data aggregated and integrated to provide developers the proof points necessary to make their solutions scalable. In the longer term, open access to patient data will enable new disruptors, provided innovators can properly balance patients’ rights and their ability to determine what information gets shared. However, to accomplish either of those objectives, health care information technology systems must improve user experience and productivity concerns to engage clinicians and patients.

Financial outlook:
Market valuation of health IT is comparable to the broader technology or early stage life sciences sectors. Health care technology tends to receive a great deal of venture capital funding with the hopes that the hugely successful investments will recover losses from the sector’s also-rans. Funding for health care services & systems has remained strong and steady since 2014, though some of the biggest technology firms are seemingly positioned to increase activity.

While barriers to entry for EHRs remain higher, other HIT categories are far more competitive. The survey indicates that many investors believe competition will continue to increase for this subsector and see growth and increasing valuations. However, the obstacles are about reimbursement and integrating technology into key workflows; solutions that focus here will create more value by improving data integration.

Solutions that focus on integrating technology into key workflows will create more value by improving data integration.

A competitive barrier for smaller companies entails procuring business from health systems. Vendor consolidation is significant, since health systems increasingly prefer to work with a smaller number of vendors. Larger vendors may face the challenges of price pressure from contracting and procurement, but smaller vendors struggle to get into the health system at all.
Federal Policy Dynamics

- MACRA (Physician Fee Schedule)
- 21st Century Cures implementation: drafting rules on information blocking, individual’s right to longitudinal health record, cybersecurity improvement
- Interoperability Standards Measurement Framework
- HIPAA/Privacy and security considerations for manufacturers

State Policy Dynamics

- Medicaid Modularity (Acquisition of technology)
- Sale of programmatic technology to state Medicaid agencies

Health care IT

<table>
<thead>
<tr>
<th>M&amp;A close date</th>
<th># of closed transactions</th>
<th>% of transactions with value announced</th>
<th>Avg. deal value of announced transactions ($ millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>178</td>
<td>19.7%</td>
<td>114</td>
</tr>
<tr>
<td>2016</td>
<td>164</td>
<td>23.8%</td>
<td>701</td>
</tr>
<tr>
<td>YTD Sep-17</td>
<td>123</td>
<td>14.6%</td>
<td>299</td>
</tr>
<tr>
<td>LTM Sep-17</td>
<td>112</td>
<td>19.6%</td>
<td>873</td>
</tr>
</tbody>
</table>

Source: Capital IQ, Industry Classifications (Target/Issuer): Health Care Technology (Primary)
Synopsis: The increasing demand for behavioral health services (e.g., mental health and substance use) continues to drive investment in the space, with significant upside opportunity associated with system integration and the related financial risk of poorly coordinated care.

Policy/Business environment:
Behavioral health encompasses many things, but mental health and substance abuse are the two most prevalent service categories to this subsector. Inclusion under the Essential Health Benefits (EHB) of the ACA and mental health parity requirements have expanded access to services, though challenges remain. Bipartisan support for behavioral health generally has protected this benefit in the repeal and replace debates. In general, recognition of the physical effects associated with mental health has created demand for stronger institutional continuity. Substance use disorder (SUD) treatment programs and budgets have received significant focus as the issue of opioid use disorders (OUD) have garnered increased political and social attention. However, as Congress shifts more power to states to determine essential benefit coverage, the protected status of behavioral health could be threatened as states face budgetary pressure particularly in Medicaid programs and lower cost exchange plans.

Commercial payers are determining that these services are more critical as they think about whole person care. However, behavioral health today has significant supply constraints both on providers (psychiatrists in particular) and their physical capacity to see patients, which is seen as a catalyst for telehealth. The mental health services infrastructure remains highly fragmented and diffuse, rendering integration challenges as substantial. Out-of-network behavioral health and SUD treatment facilities are receiving greater scrutiny for practices that don’t promote long-term recovery and generally fail to produce long-term clinical and economic results. In short, the lack of core systemic integration will dilute the value behavioral health can create throughout the system.

Financial outlook:
Although numbers vary, some estimates indicate nearly 1 in 6 adults have a mental illness. Survey investors see this sector as overpriced, yet expect high growth and increasing competition. This industry is in the early stages of aggregation (particularly as investors “roll-up” facilities), and we can likely expect similar patterns of consolidation that have transpired for hospitals and ambulatory surgery centers. The only constraint to this is the significant state policy variation that a larger aggregator will need to navigate. Finally, providers are increasingly being subjected to fraud and abuse investigations that may limit access to revenue sources that once helped them grow.

The ongoing push toward integration of physical and behavioral health will gather momentum as payers structure financial arrangements to transfer risk to providers.
Behavioral Health

Federal Policy Dynamics
— Mental health parity laws vs policies to loosen essential health benefits
— Funding & resources/declaration of opioid crisis as "national emergency"
— Community Health Center (CHC) funding
— Innovations (CMMI and others) to improve programs for dual-eligibles, focus on social determinants of health

State Policy Dynamics
— Initiatives to integrate physical health and behavioral health
— Medicaid waivers to close formularies, expand services
— Increased focus on opioid epidemic/SUD issues

<table>
<thead>
<tr>
<th>M&amp;A close date</th>
<th># of closed transactions</th>
<th>% of transactions with value announced</th>
<th>Avg. deal value of announced transactions ($ millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>35</td>
<td>31.4%</td>
<td>117</td>
</tr>
<tr>
<td>2016</td>
<td>40</td>
<td>12.5%</td>
<td>103</td>
</tr>
<tr>
<td>YTD Sep-17</td>
<td>26</td>
<td>15.4%</td>
<td>204</td>
</tr>
<tr>
<td>LTM Sep-17</td>
<td>35</td>
<td>11.4%</td>
<td>204</td>
</tr>
</tbody>
</table>

Source: Capital IQ, Industry Classifications (Target/Issuer): Healthcare (primary) - Keywords: behavioral health, behavioral therapy, substance abuse, mental illness, psychiatric hospital services, substance abuse hospitals and facilities, mental care facilities, or outpatient mental health facilities.
Medicare Advantage (MA)

Synopsis: Demographic trends and bipartisan outlook are positive for MA generally, though growth may yield relatively limited rewards. Our survey had a small number of respondents in this sector.

Policy/Business environment:
Medicare Advantage is on the rise in all respects: supply, demand, quality, and profitability. Medicare Advantage enrollment has grown to 19.0 million in 2017 from 11.1 million in 2010. Generally favorable demographics and consumer demand have led to bipartisan political support. All of this has created a predictable operating environment and strong competition. Investors anticipate stable reimbursement, strong competition and expanded enrollee growth.

Furthermore, STAR ratings have seemingly contributed to improved quality in MA offerings, and CMS has made the expansion of new plan applications and market entry less onerous, particularly as it pertains to network adequacy. The profitability of top insurers has been linked to MA quality ratings. CMS Medicare Plan Finder has made a concerted effort to improve information available to prospective enrollees on benefits associated with different plans — constituting a “tailwind” for demand.

Competition is also seen to be high, mostly from provider sponsored plans interested in moving closer to the Medicare premium dollar and the associated risk. Traditional MA players are reducing other assets (for example their Exchange business) to focus on this line of business that has been more profitable.

Financial outlook:
As noted, MA plans are providing a service worthy of their current government support in part because of ongoing confidence in the commercial market’s ability to reduce costs through care management tools. Consumers also generally favor MA plans given their predictability, added benefits, and reduced estimated costs. Investors participating in the survey agree and believe MA plan valuations will either stay the same or increase in 2018. Consequently, we do not foresee a slowdown in growth for MA plans in the near future. Most investors suggest MA asset prices are generally fairly priced. We believe M&A transactions in 2018 will mostly be low-to-mid-market, with a focus on aggregating care management assets. Despite efforts to increase competition, high barriers to entry still protect current large players.
Federal Policy Dynamics

- Continued MA benchmark cap
- Better than expected MA pay bump
- Star ratings under fire for not including more outcomes measures
- MedPAC advising CMS to report star ratings by market area

CMS proposing to eliminate “meaningful difference” requirement starting in 2019
Greater scrutiny for inflated risk scores

Impact of Disrupters

Shifting Care to Lower Cost Sites
Consumer Engagement and Expectations
Rise in Clinical Service Outsourcing/Automation
Integrated and Interoperable Care Delivery
Pricing Pressure
Access Constraints

Medicare Advantage Plans

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<tr>
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<th>% of transactions with value announced</th>
<th>Avg. deal value of announced transactions ($ millions)</th>
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<tbody>
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<td>10</td>
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<tr>
<td>2016</td>
<td>8</td>
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<tr>
<td>YTD Sep-17</td>
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<tr>
<td>LTM Sep-17</td>
<td>10</td>
<td>50.0%</td>
<td>358</td>
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</tbody>
</table>

Source: Capital IQ, Industry Classifications (Target/Issuer): Healthcare (Primary) – Keyword: Medicare advantage plan, Medicare, Managed Healthcare (Primary)
Note: Many Targets include Medicare advantage and Medicaid plans, therefore these two populations of deals are not mutually exclusive
Telemedicine

Synopsis:
Telemedicine’s moment has yet to happen, but will inch ever closer in 2018.

Policy/Business environment:
Telemedicine has long been the “next frontier” of health care, often seen as a universal solution for access and workforce issues that affect urban and rural communities alike. Notwithstanding the promise of a technologically enabled delivery system, reimbursement models and state scope of practice laws have limited the traditional development and deployment of telemedicine solutions. However, new payment parity across states, as well as an increasing focus in Congress may change these norms and rules. Obstacles include some reticence at CMS to promote telemedicine beyond risk programs and pilots, as well as the high cost attributed by the Congressional Budget Office (CBO) in the scoring of legislation expanding the use of telemedicine.

There are over 220 companies across 30 subsector platforms that comprise the telemedicine space. The range of discrete use cases includes clinical solutions (triage, behavioral health, hospital-based solutions, etc.), home-based and post-acute solutions (monitoring, lab, caregiver interfaces, etc.), chronic disease management (cardiac, diabetes, respiratory, etc.), and care delivery productivity.

Clinical telemedicine platforms, enhanced access to patient health information (PHI), and wearables and other digital health media will drive innovation in health IT, even despite a lack of data showing overall health improvements. Consumers are ardent adopters of telemedicine, where some surveys show a rate of one in two consumers selecting a tele-platform over an in-person visit when given the option. The obvious benefits related to the cost of administering the solution and compensating for workforce challenges will sustain these tailwinds. Further, more states are passing parity laws, which can encourage greater use of telemedicine.

Financial outlook:
Telemedicine is advancing solutions at a fast pace, but some of the biggest operators are still unprofitable. Strategies vary between solutions that expand patient access within existing provider networks, as well as new tech-enabled networks that are disrupting traditional providers. Once we better understand telemedicine’s ROI and solve for workflow integration challenges, we can expect more rapid adoption, given the convenience to patients and push to deliver care in lower cost settings.

The survey revealed that most investors believed reimbursement in telemedicine was either stable or very stable.

The survey revealed that most investors believed reimbursement in telemedicine was either stable or very stable. One potential reason for this response lies within the various methods of payment used today, such as monthly licensing fees or “paying per click” transactional fees that are not dependent on payers. Medicare reimbursement has been elusive, but prospects of sustained solutions look increasingly positive. Solving these challenges will open significant volume and encourage more providers to establish or expand capacity.
### Federal Policy Dynamics
- Home Health Prospective Payment System
- OPPS – limited expansion of covered services
- Chronic Care Act, FAST (telediagnosis), Hallways to Health (school-based telemedicine)
- VETS Act: Telemedicine for veterans
- Expansion of Consumer Directed Exchange of medical records (APIS)

### State Policy Dynamics
- Longstanding dispute between TX state board and Teladoc (recently resolved in favor of Teladoc)
- State licensure issues, limits to inter-state telemedicine consults
- Payment parity legislation

### Telemedicine

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<th>M&amp;A close date</th>
<th># of closed transactions</th>
<th>% of transactions with value announced</th>
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</table>

**Source:** Capital IQ, Industry Classifications (Target/Issuer): Healthcare (Primary) – Keyword: Telemedicine, telehealth, eHealth
Biotechnology

Synopsis: Innovation is outpacing outdated reimbursement models. (Our survey had a small number of respondents in this sector.)

Policy/Business environment:
Under the Trump administration, the FDA has assumed an active posture in advancing policy designed to expedite approval of biotechnology and creating a better regulatory structure to theoretically reduce barriers to innovation and encourage value contracting. Early initiatives are pushing to remove regulatory burdens and encouraging price competition through biosimilars, although proposed tax changes may have some negative effects in removing incentives for certain types of innovation. Another initiative to encourage competition includes the use of real world evidence to quickly bring more drugs to market, though data aggregation is difficult in the current information exchange environment, which complicates the use of this information in performance, pricing and value contracting. However, the promise of some of the cutting-edge, curative treatments occurring in this space is not easily compatible with our payer infrastructure designed to manage chronic conditions. Significant biological innovation and precision medicine, such as cell and gene editing therapies like CRISPR-Cas9, will face difficulty along ethical, regulatory, and reimbursement lines as our health system struggles with how to pay for these kinds of therapies.

At the same time, the Administration continues to beat the drum of drug pricing reform. HHS Secretary nominee Alex Azar made it clear in his early hearings that drug pricing would be a priority, stating clearly that Part B price negotiation as used in Medicare Part D should be in play, as well as ending the gaming of patent terms and use of risk evaluation and mitigation (REMS) programs to hamper competition. There is both opportunity and challenge for biopharmaceutical manufacturers in having an HHS Secretary with intimate knowledge of the biopharmaceutical industry, given his role guiding the largest purchaser in the country (CMS).

Financial outlook:
While there is more global upside for biotech, the short-term regulatory and policy hurdles in the U.S. impose constraints. Also, the expanded introduction of biosimilars is likely to create some downward pricing pressure. For example, biosimilar versions of biologic medicines are starting to reach the market to compete against leading treatments for autoimmune disorders and cancer adjuvant therapies. On the other hand, new immunotherapies therapies for select cancers recently gained approvals and cost hundreds of thousands of dollars. Corporations and PE firms have become more significant players in biotech funding alongside venture capitalists, as start-ups are developing and incubating molecules that larger players pick to commercialize. It is not yet clear if that model has any impact on costs, which are a pressing concern. The survey’s small number of respondents preclude much insight about the industry’s expectations, but respondents indicate a belief that the biotech sector is overpriced, with pricing pressure and access constraints presenting a significantly negative impact.

The promise of some of the cutting-edge curative treatments is not easily compatible with our payer infrastructure.
Asset Prices
- Undervalued
- Fairly priced
- Overvalued

4%  25%  71%

Valuations Outlook
- Increase
- Stay same
- Decrease

36%  45%  18%

Reimbursement Stability
- Very stable
- Stable
- Unstable
- Very unstable

38%  52%  10%

Likely Growth
- Higher growth
- Mimic market
- Slower growth
- Negative growth

95%  5%

Impact of Disrupters
- Consumer Engagement and Expectations
- Integrated and Interoperable Care Delivery
- Rise in Clinical Service Outsourcing/Automation
- Shifting Care to Lower Cost Sites
- Pricing Pressure
- Access Constraints

Federal Policy Dynamics
- "User Fee" Implementation
- Drug Pricing/Value-based purchasing/New coverage and pricing models
- Real World Evidence
- Biosimilars Reference Pricing/Orphan Drug Reform
- Diagnostic Accuracy and Innovation Act/Right to Try

State Policy Dynamics
- Pricing and Transparency initiatives
- Copay card and assistance restrictions
- Non-medical switching

Biotechnology

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<tr>
<th>M&amp;A close date</th>
<th># of closed transactions</th>
<th>% of transactions with value announced</th>
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<td>89</td>
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<td>34,378</td>
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Source: Capital IQ, Industry Classifications (Target/Issuer): Biotechnology (Primary)
Population Health/Primary Care

Synopsis: Positive outlook create compelling opportunities, though basic business model questions linger.

Policy/Business environment:
Population health solutions are flourishing, with a stable slate of businesses advancing new solutions, particularly for outpatient and preventive care. The key has been to develop greater precision around what is actually driving value. Success seems to correlate with those assuming a greater share of risk and those who have diversified risk across lines of business (i.e., not only risk in Medicare populations). Those tinkering around the edges of pay for performance may not see a compelling enough value proposition to tackle these challenges. Data sharing, transparency, and integration are critical to improving patient engagement, which is an overarching aim under the 21st Century Cures Act.

Access to consumer data is especially critical to enable population health solutions. Data exchange between systems will become more seamless as federal regulation associated with the 21st Century Cures Act gets finalized in 2018. Advancing Care Information under MIPS mandates information be sent via APIs from the EHRs to any application of the consumer’s choice. This should increase the availability of consumer health data via population health applications, opening the door for innovative approaches to managing health outside the walls of a health system.

Financial outlook:
There are a large variety of models for compensation and incentives in this space. Investors are more positive than expected, with the majority expecting stable or increasing valuations with a majority anticipating a positive impact from industry disrupters. Still, competition from innovators will be fierce and questions remain about the longer-term model for success. Today this space is highly correlated with government initiatives, which brings headwind in a current cost cutting environment even in the face of great need to improve total health. Approximately half of all investors (49 percent) expect modest growth for these organizations. When it comes to valuations, 47 percent described this category as “overvalued” and 36 percent found the category “fairly priced.”

Approximately half of all investors (49 percent) expect modest growth for these organizations. When it comes to valuations, 47 percent described this category as “overvalued” and 36 percent found the category “fairly priced.”
Federal Policy Dynamics

- ONC's Volunteer Trust Framework and Common Agreement
- 21st Century Cures Act
- MACRA/MIPS Advancing Care Information (ACI)

Impact of Disrupters

- Shifting Care to Lower Cost Sites
- Consumer Engagement and Expectations
- Pricing Pressure
- Integrated and Interoperable Care Delivery
- Rise in Clinical Service Outsourcing/Automation
- Access Constraints

Asset Prices

- Undervalued
- Fairly priced
- Overvalued

<table>
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<tr>
<th></th>
<th>Undervalued</th>
<th>Fairly priced</th>
<th>Overvalued</th>
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<tr>
<td>17%</td>
<td>36%</td>
<td>47%</td>
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Valuations Outlook

- Increase
- Stay same
- Decrease

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<tr>
<th></th>
<th>Increase</th>
<th>Stay same</th>
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<tr>
<td>46%</td>
<td>44%</td>
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Reimbursement Stability

- Very stable
- Stable
- Unstable
- Very unstable

<table>
<thead>
<tr>
<th></th>
<th>Very stable</th>
<th>Stable</th>
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<tr>
<td>4%</td>
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<td>4%</td>
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Likely Growth

- Higher growth
- Mimic market
- Slower growth
- Negative growth

<table>
<thead>
<tr>
<th></th>
<th>Higher growth</th>
<th>Mimic market</th>
<th>Slower growth</th>
<th>Negative growth</th>
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<tbody>
<tr>
<td>78%</td>
<td>19%</td>
<td>4%</td>
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</table>

Opportunities vs. Challenges

- Increasing Competition: 69% Challenge, 31% Opportunity
- High Barriers to Entry: 37% Challenge, 63% Opportunity
- High Number of Investment Targets: 31% Challenge, 69% Opportunity

Source: Capital IQ, Industry Classifications (Target/Issuer): Healthcare (Primary) Keyword population health, Managed Healthcare (Primary); Medical Practice Organizations (Primary); Physician Practice Management Companies (Primary), Managed Healthcare (Primary); Medical Practice Organizations (Primary); Primary Care Practitioner Services (Primary), Managed Healthcare (Primary); Primary Care Practitioner Services (Primary)

Population health management/primary care

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<tr>
<td>YTD Sep-17</td>
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<tr>
<td>LTM Sep-17</td>
<td>10</td>
<td>50.0%</td>
<td>1,764</td>
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Source: Capital IQ, Industry Classifications (Target/Issuer): Healthcare (Primary) Keyword population health, Managed Healthcare (Primary); Medical Practice Organizations (Primary); Physician Practice Management Companies (Primary), Managed Healthcare (Primary); Medical Practice Organizations (Primary); Primary Care Practitioner Services (Primary), Managed Healthcare (Primary); Primary Care Practitioner Services (Primary)
Home Health

Synopsis: Home health continues to hold significant potential for its lower cost benefits and changing perceptions regarding care in the home, but significant reimbursement and integration challenges will continue to dampen the pace at which this subsector’s potential is unlocked.

Financial outlook:
Despite the instability of reimbursement, investors believe assets are fairly priced and expect continued growth of home health into 2018, largely driven by an aging population and efforts to shift care to lower-cost settings. Similar to behavioral health, home health is in the early consolidation stages, where no single entity owns more than 3 percent of the market. We anticipate further consolidation, with a moderate number of eligible targets, which may increase due to moderate barriers of entry.

Policy/Market environment:
Home health generally has seen growth with the disruptive force of shifting to lower cost sites of care, as well as demographic trends that favor less interventional care. The industry has been profitable, which has caught the attention of MedPAC that has recommended reducing rates, including a 5 percent reduction in payments for 2018. This past fall the proposed Home Health Groupings Model, a value-based care approach, received immediate and strong push back from the industry, and was ultimately dropped by CMS for 2018. Regardless, there will continue to be significant regulatory pressure as policymakers attempt to limit fraud and abuse in this sector.

The industry continues to experience the same challenges that have plagued other non-institutional care settings, namely gaps in care and a system that rewards fee-for-service. Further, home health is not frequently part of key clinical pathways in post-acute, chronic, or palliative services, rendering greater difficulty for these organizations to drive sufficient scale - in part because the industry today is made up of small businesses that employ low wage workers with a high degree of turnover. Home health standards are lacking and value purchasing is in its infancy, given the lack of information regarding quality and cost.

We anticipate further consolidation, with a moderate number of eligible targets, which may increase due to moderate barriers of entry.
Federal Policy Dynamics

- CMMI requiring home health agencies in select states to participate in a home health Value Based Purchasing (VBP) Program.
- Medicare facilitates 5-Star ratings system through Home Health Compare
- CMS started a Pre-Claim Demonstration of Home Health model
- Uptick in fraudulent billing review

State Policy Dynamics

- Home health providers being subject to more managed care

Impact of Disrupters

- Shifting Care to Lower Cost Sites
- Integrated and Interoperable Care Delivery
- Consumer Engagement and Expectations
- Rise in Clinical Service Outsourcing/Automation
- Access Constraints
- Pricing Pressure

Asset Prices

- Undervalued: 9%
- Fairly priced: 68%
- Overvalued: 23%

Valuations Outlook

- Increase: 26%
- Stay same: 62%
- Decrease: 12%

Reimbursement Stability

- Very stable: 36%
- Stable: 50%
- Unstable: 12%

Likely Growth

- Higher growth: 69%
- Mimic market: 26%
- Slower growth: 5%

Increasing Competition: 68%
High Barriers to Entry: 31%
High Number of Investment Targets: 41%

Home Health & hospice

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<th>M&amp;A close date</th>
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<th>% of transactions with value announced</th>
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<td>2016</td>
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<td>YTD Sep-17</td>
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<tr>
<td>LTM Sep-17</td>
<td>29</td>
<td>10.3%</td>
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Source: Capital IQ, Industry Classifications (Target/Issuer): Home Healthcare Services (Primary), Hospice Services and Centers (Primary)

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Ambulatory Surgery Centers

Synopsis: ASCs haven’t quite hit the top of the valuation curve yet. We expect sustained patient volume growth.

Policy/Market environment:
There are many opportunities for growth in the ASC market. The transition from fee-for-service payments to value-based reimbursement should increase the activity and investment interest in ASCs as there is more demand for low cost sites that can deliver quality care. As patients and payers shift toward lower-cost settings, constrained growth of ASCs has been a net-positive because higher demand and relatively fixed supply create pricing leverage and security for ASCs. ASCs are in prime position to capture more surgical volume as the number of facilities increased by 1 percent a year from 2010-15 in the face of state licensing and certificate of need requirements. Also, advancements in medical technologies and surgical techniques continue to drive surgical volumes to the outpatient setting. Thus, ASC acquisition and development activities should remain high for the next several years, as reflected in the survey findings of modest to high growth and stable reimbursement.

Site-neutral pricing will also expand volume quickly, but at lower reimbursement rates. As such, reimbursement is a leading area of focus, with bundled payment and value initiatives putting downward pressure on total procedure costs. CMS is increasing outpatient prospective payment system rates at ASCs by 1.35 percent for 2018, largely based upon the 2.7 percent hospital basket increase.

While unlikely in the short-to-medium term, a MedPAC recommendation to collect cost data from ASCs would likely cause a step-up in annual rate updates as CPI inflation underestimates actual increases in ASC operating costs, which are more closely aligned to the market basket composition used for hospitals. However, despite the increasing gap between ASC and outpatient hospital rates, there is slight downside risk for reimbursement cuts if it were determined through cost data that ASCs had outsized Medicare margins.

Financial outlook:
Ambulatory surgery centers are likely to see increasing competitive and acquisition activity as the sector’s conditions remain attractive, seeking market leverage with health systems and payers. While the number of deals has declined, the value of deals has markedly increased. This is likely due to historic consolidation activity decreasing the number of targets that would provide the broad scale needed to further volume increases and economies of scale. The majority of investors indicate the assets in this sector are fairly priced, yet nearly half believe valuations will increase next year. Respondents also indicated optimism on stable reimbursement, at least in the short-term. Barriers to entry are medium-to-high, given the investment required in facilities, equipment, and personnel and a consolidating market.

Survey results corroborate other reports that predict an uptick in valuation multiples.

Survey results corroborate other reports that predict an uptick in valuation multiples, according to the Investment Summary survey only 4 percent of respondents expected a drop in valuations in the sector through 2019.
**Federal Policy Dynamics**
- Regulatory posture related to ACA-imposed specialty hospital construction moratorium is likely to remain in effect
- CMS reviews and revisions of physician fee schedules, MACRA updates and MIPS/APMs performance adjustments
- Federal anti-kickback statutes, Stark laws around physician owned entities

**State Policy Dynamics**
- Licenses issued by State Health Department, Certificate of Need processes
- Provider tax laws—i.e., taxing hospitals or ASCs to support Medicaid
- Self-referral laws—prohibition of self-referrals

**Impact of Disrupters**
- Shifting Care to Lower Cost Sites
- Consumer Engagement and Expectations
- Pricing Pressure
- Access Constraints
- Integrated and Interoperable Care Delivery
- Rise in Clinical Service Outsourcing/Automation

**Valuations Outlook**
- Undervalued: 8%
- Fairly priced: 58%
- Overvalued: 35%

**Reimbursement Stability**
- Very stable: 6%
- Stable: 58%
- Unstable: 36%

**Likely Growth**
- Higher growth: 66%
- Mimic market: 24%
- Slower growth: 10%

**Surgical hospitals & ASCs**

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<th>M&amp;A close date</th>
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<td>YTD Sep-17</td>
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<td>7</td>
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<td>1,870</td>
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Source: Capital IQ, Industry Classifications (Target/Issuer): Surgical and Emergency Centers (Primary), Hospitals and Healthcare Centers (Primary)
Medicaid Plans

Synopsis: Volume growth continues due to policy changes, with high pressure on plans to develop higher value products and models to improve health and coordination. (Note our survey had small number of respondents in this sector.)

Policy/Business environment:
Pressure will remain high to address the cost of Medicaid at both the federal and state levels. Many states see managed Medicaid plans as a vehicle to manage these costs. According to the Kaiser Family Foundation, 43 percent of Medicaid payments were made to managed care organizations (MCO), an increase from 28 percent in fiscal 2013. Plans are working with health systems and clinics to create clinically integrated networks to better manage primary care in Medicaid, incorporating medical home models to address both health and non-health determinants that surround the patient, and advancing technology and analytics in the spectrum of care delivery. States will be looking more and more to drive cost-reduction solutions.

As enrollment continues to increase and the federal government and states move to constrain expenditure growth and funding, the trend towards Medicaid managed care is expected to continue as states look for ready partners to improve program efficiency. The long-term, systemic value will come from these plans’ ability to integrate and coordinate beyond basic medical care into dental, behavioral and post-acute care, as well as social services needs that can improve health outcomes. Further, we anticipate growth in value-based arrangements that involve providers either through direct state arrangements or in conjunction with MCOs.

Success in managed Medicaid requires a business model change, as today’s success is associated with managing utilization. Thus, states are looking to shift more risk to managed Medicaid plans and place more focus on value. In this era, value is derived from drawing on plan expertise, analytics, technology, and execution to optimize care in the most appropriate setting and lower costs across network management, clinical management and care coordination. Competition comes from federally qualified health centers that often already effectively manage these populations and integrate across services.

Financial outlook:
Volume growth in Medicaid provides some opportunity, but competition is increasing from lower-priced plans. A handful of larger, national players are successful and profitable, but there are significant barriers to entry and downward pressure on rates that make the sector less attractive for new entrants. Additionally, scaling has proven difficult as plans are regionalized and the current move toward state innovation will increase variability. State funding concerns increase pricing exposure but create incentives for value-based models.

Although this survey produced a small number of respondents, results indicate this segment is fairly valued, with many believing valuations in this category will increase.

Survey results indicate this segment is fairly valued with many believing valuations will increase.
Asset Prices
- Undervalued: 23%
- Fairly priced: 54%
- Overvalued: 23%

Valuations Outlook
- Increase: 40%
- Stay same: 32%
- Decrease: 28%

Reimbursement Stability
- Very stable: 32%
- Stable: 40%
- Unstable: 28%

Impact of Disrupters
- Shifting Care to Lower Cost Sites
- Rise in Clinical Service Outsourcing/Automation
- Consumer Engagement and Expectations
- Integrated and Interoperable Care Delivery
- Pricing Pressure
- Access Constraints

Likely Growth
- Higher growth: 60%
- Mimic market: 16%
- Slower growth: 20%
- Negative growth: 4%

Federal Policy Dynamics
- Implementation of 2016 Medicaid managed care regulations
- CHIP reauthorization
- Pressure to cut or change federal Medicaid funding

State Policy Dynamics
- Initiatives related to physical health and behavioral health integration, expansion of managed care to more geographies, populations, etc.
- State budget shortfalls
- New initiatives to require employment, restrict access
- New initiatives to control high-cost drugs, restrict formulary

Medicaid Plans

<table>
<thead>
<tr>
<th>M&amp;A close date</th>
<th># of closed transactions</th>
<th>% of transactions with value announced</th>
<th>Avg. deal value of announced transactions ($ millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>15</td>
<td>33.3%</td>
<td>41</td>
</tr>
<tr>
<td>2016</td>
<td>17</td>
<td>47.1%</td>
<td>852</td>
</tr>
<tr>
<td>YTD Sep-17</td>
<td>9</td>
<td>33.3%</td>
<td>386</td>
</tr>
<tr>
<td>LTM Sep-17</td>
<td>11</td>
<td>27.3%</td>
<td>386</td>
</tr>
</tbody>
</table>

Source: Capital IQ, Industry Classifications (Target/Issuer): Healthcare (Primary) - Keyword: Medicaid plans, Managed Healthcare (Primary).
Note - Many Targets include Medicare Advantage and Medicaid Plans, therefore these two populations of deals are not mutually exclusive.
Synopsis: In health care, size is becoming necessary to survival. Insurance price pressures, alternative payment models, and new regulations are causing physician practices to rethink the value of physician practice management.

Policy/Business environment:
The 1980s witnessed the emergence of physician practice management entities, but the movement failed to materialize given physicians were employed without business justification, the deals often lacked financial rationale, and they failed to align incentives between companies and the physicians.

Current market determinants related to physician shortages, physician lifestyle, regulatory requirements, hospital needs and expectations, and patient service expectations are causing physicians to reconsider the model’s value. Payment and delivery reforms are occurring so quickly that physicians often do not have the time or ability on their own to keep up with the pace of reforms, improve business practices, and negotiate innovative contracts. The variance and number of federal, state, and commercial initiatives are driving the reemergence of physician practice management companies as a tool to enhance efficiency, track and report quality and costs, and help physicians focus on the practice of medicine. Furthermore, health care reform has materially affected physician economics in the form of Medicare cuts, higher practice costs, and a shift toward alternative payments such as bundled, capitated, and shared savings arrangements. Our survey findings predict an increasingly competitive environment and modest growth in this space due to these considerations.

Financial outlook:
Survey responses reflect a belief in a substantial number of viable investment targets and investment appetite for physician practice management companies. Despite the belief among 67 percent of respondents that assets within this subsector are overvalued, 87 percent of respondents suggested that valuations will either stay the same or increase in 2018. We believe the evolving business models and uncertainty associated with payment reforms and federal quality initiatives explain the optimistic valuation forecasts. In 2018, there will likely be continued acquisitions and competitive private equity investments.

Evolving business models and uncertainty associated with payment reforms and federal quality initiatives explain the optimistic valuation forecasts.
**Asset Prices**
- Undervalued: 4%
- Fairly priced: 29%
- Overvalued: 67%

**Valuations Outlook**
- Increase: 31%
- Stay same: 56%
- Decrease: 14%

**Reimbursement Stability**
- Very stable: 69%
- Stable: 28%
- Unstable: 3%

**Likely Growth**
- Higher growth: 61%
- Mimic market: 26%
- Slower growth: 11%

**Impact of Disrupters**
- Shifting Care to Lower Cost Sites
- Consumer Engagement and Expectations
- Integrated and Interoperable Care Delivery
- Rise in Clinical Service Outsourcing/Automation
- Access Constraints
- Pricing Pressure

**Federal Policy Dynamics**
- Mandatory vs. voluntary Medicare bundles
- MACRA’s timing and reach
- Looming possibility of full ACA repeal in the coming years

**State Policy Dynamics**
- Medicaid ACO and bundling initiatives
- Reporting requirements

**Physician Practice Management**

<table>
<thead>
<tr>
<th>M&amp;A close date</th>
<th># of closed transactions</th>
<th>% of transactions with value announced</th>
<th>Avg. deal value of announced transactions ($ millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>55</td>
<td>9.1%</td>
<td>118</td>
</tr>
<tr>
<td>2016</td>
<td>95</td>
<td>1.1%</td>
<td>24</td>
</tr>
<tr>
<td>YTD Sep-17</td>
<td>59</td>
<td>3.4%</td>
<td>727</td>
</tr>
<tr>
<td>LTM Sep-17</td>
<td>77</td>
<td>2.6%</td>
<td>727</td>
</tr>
</tbody>
</table>

**Source:** Capital IQ, Industry Classifications (Target/Issuer): Healthcare (Primary) – Keyword: Physician practice management, Healthcare Providers Specialist Services (Primary), Dental Services (Primary), Optometry, Gynecologic and Obstetric Services (Primary); Medical Doctor Specialist Services (Primary), Dermatology, Cardiology, Chiropractic services, Orthopedic, Radiology
Health Systems

Synopsis: Health Systems are struggling to right-size and evolve core business models as revenues decline, revenue cycles are strained, and payment models are shifting.

Policy/Business environment:
The market is still working its way through a system-wide care delivery transformation and will likely continue this transformation for years to come, despite many years of incremental steps seeking to improve alignment between payers and hospitals. Health care systems are evolving their business models, adjusting acute, ambulatory, and sub-acute care capacity, developing high-quality and low-cost outpatient partnerships, and integrating or acquiring (or divesting) assets. Health systems are coming off several very positive years and heading into significant policy headwinds around reimbursement and potential increases of the uninsured. Simultaneously, health systems are struggling with the changing dynamics of alternate payment model (APM) adoption, and transitioning away from their traditional economic models of fee-for-service transactions. MACRA, CMS bundled payment programs and other APMs could continue to push health systems into value-based-care contracts, and the uncertainty renders contract management and operations more challenging for health system leadership.

The short-term regulatory and legislative outlook are not friendly to health systems. Insurance market instability challenges have strained predictability in the payer mix, with a looming threat of increases in uncompensated care due to anticipated reductions in insurance coverage. Additionally, Medicare spending to inpatient hospitals will increase slightly for fiscal 2018, while long-term care hospital payments are planned to decrease. Policy makers are contemplating reversing cuts to Disproportionate Share Hospital funding, expanding cuts to 340B programs for discounted drugs for hospitals, and basic insurance coverage to address huge financial obstacles. Policies and payment models that move more care to outpatient sites and limit non-essential ER visits may be good for health care generally but threaten the business model of many health systems today.

Despite such pressure, hospitals are key community pillars and are often large employers, with a ready base of businesses and stakeholders that rely on their success. Confronting cost pressures means delicate discussions and requires careful management and diversification to address revenue and asset challenges.

Financial outlook:
The financial future of health systems is full of challenges. Investors see an unstable reimbursement environment, shrinking growth, increased competition from non-traditional actors, and industry consolidation. Some for-profit systems have significant debt with tepid growth.

Health systems are coming off several very positive years and heading into significant policy headwinds around reimbursement and potential increases of the uninsured.

Not-for-profit systems are growing their footprint with co-located, non-acute services and post-acute care, but growing via acquisition comes with its own leadership and technology challenges. Other non-profit mergers of late have focused on expanding the clinical/geographic footprint.

Hospital transactions have slowed relative to past years, and future transactions will likely be the opportunistic acquisition of competitors or sales of struggling assets. But even in the weeks spent writing this paper, several new deals have been announced, indicating a willingness to merge. About half of all investors say health system valuations will remain relatively unchanged and about 35 percent expected declining valuations, while 37 percent of investors expected health systems’ growth rates to trail the market. Safety net and rural hospitals have been propped up through other streams to keep assets in their community, even if they are challenged to meet lower acuity, primary health needs.
### Asset Prices
- Undervalued: 8%
- Fairly priced: 54%
- Overvalued: 39%

### Valuations Outlook
- Increase: 15%
- Stay same: 50%
- Decrease: 35%

### Reimbursement Stability
- Very stable: 16%
- Stable: 72%
- Unstable: 13%

### Likely Growth
- Higher growth: 34%
- Mimic market: 27%
- Slower growth: 37%
- Negative growth: 3%

### Impact of Disrupters
- Integrated and Interoperable Care Delivery
- Rise in Clinical Service Outsourcing/Automation
- Consumer Engagement and Expectations
- Pricing Pressure
- Shifting Care to Lower Cost Sites
- Access Constraints

### Federal Policy Dynamics
- MACRA and the pace of shifting providers into advanced APM’s
- Mandatory vs voluntary bundled payments
- Impact of ACA changes that impact total insurance rates
- Medicaid reimbursement changes

### State Policy Dynamics
- Regulatory/legal response to consolidation
- Licensing/certificate of need
- Impact of Medicaid waivers

### Hospitals/Health Systems

<table>
<thead>
<tr>
<th>M&amp;A close date</th>
<th># of closed transactions</th>
<th>% of transactions with value announced</th>
<th>Avg. deal value of announced transactions ($ millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>45</td>
<td>46.7%</td>
<td>189</td>
</tr>
<tr>
<td>2016</td>
<td>55</td>
<td>49.1%</td>
<td>134</td>
</tr>
<tr>
<td>YTD Sep-17</td>
<td>26</td>
<td>16.0%</td>
<td>130</td>
</tr>
<tr>
<td>LTM Sep-17</td>
<td>36</td>
<td>19.4%</td>
<td>97</td>
</tr>
</tbody>
</table>

**Source:** Capital IQ, Industry Classifications (Target/Issuer): Hospitals and Healthcare Centers (Primary)

**Note:** Excludes surgical, rehab hospitals and includes specialty hospitals (i.e. heart, women’s)
Pharmacy Benefit Managers

Synopsis: The value proposition for PBMs is under threat and facing significant competition from both current purchasers as well as new actors. (Note our survey had small number of respondents in this sector).

Policy/Business environment:
PBMs are facing increasing pressure from state and federal regulators over price transparency, as they play a middle-man role in the pharmaceutical value chain. Drug makers and PBMs blame one another for escalating drug prices, which are a key concern among all health care stakeholders. At the same time, PBMs clients (both health insurance plans and employers) are seeking greater transparency of rebates, costs, and earnings. One of the areas of focus is the rebates paid to clients by drug makers looking for a preferred spot on formularies.

The value proposition for PBMs is at best changing, and perhaps even declining, as patients and payers face higher costs as prescription plans gain concessions from drug makers for formulary access. PBM services are a natural extension of what payers can offer clients. As such, some payers are looking to acquire PBM assets as a way to increase their margin by removing the “middle man.”

Financial outlook:
PBMs have market share concentrated in three major players that make up over 75 percent of the market - CVS Caremark, Express Scripts, and UnitedHealth Group. The idea of new market entrants, reflected in Amazon reportedly exploring options to obtain a license to run a pharmacy, are also driving discussions about consolidation and competition. Some cite CVS Health’s move to buy Aetna, one of the largest health insurers in the United States, as a response to potential new entrants in the pharmacy benefit business. Others see it as a new business model that is aggregating assets to provide more value to consumers and to payers and to go deeper into provider markets. This strategic move highlights the challenges for the PBM business model as the industry increasingly rewards value. Although the sample of survey respondents is too small to yield much insight, directionally the results indicate respondents are divided in their assessment of asset value.
Pharmacy Benefit Managers

### Asset Prices
- Undervalued: 47%
- Fairly priced: 53%

### Valuations Outlook
- Increase: 25%
- Stay same: 44%
- Decrease: 31%

### Reimbursement Stability
- Very stable: 6%
- Stable: 44%
- Unstable: 50%

### Likely Growth
- Higher growth: 37%
- Mimic market: 44%
- Slower growth: 19%

### Federal Policy Dynamics
- Major hearings on drug pricing and intermediaries
- Role of PBMs in value payment models
- Importation
- Opioid prescribing concerns
- DIR fee proposals
- Executive Order/Administration pressure on transparency

### State Policy Dynamics
- Transparency and licensing of PBMs at the state level
- Stability of insurance markets/Rx coverage

### Impact of Disrupters
- Rise in Clinical Service Outsourcing/Automation
- Shifting Care to Lower Cost Sites
- Consumer Engagement and Expectations
- Integrated and Interoperable Care Delivery
- Access Constraints
- Pricing Pressure

### Valuations Outlook
- Increase: 44%
- Stay same: 37%
- Decrease: 31%

### Likely Growth
- Higher growth: 37%
- Mimic market: 44%
- Slower growth: 19%

### Increasing Competition
- M&A close date
  - 2015: 7 transactions, 57.1% of transactions with value announced, Avg. deal value of announced transactions: $4,316 million
  - 2016: 2 transactions
  - YTD Sep-17: 3 transactions
  - LTM Sep-17: 5 transactions

**Source:** Capital IQ, Industry Classifications (Target/Issuer): Keyword: Pharmacy Benefit Manager OR Pharmacy Benefit Management OR PBM

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