

Industry Update

Healthcare Services Industry

June 2018



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* This publication is also available in soft copy on the MPI website: <http://www.mpival.com/resources.html>.

Industry Overview

This publication focuses on major events, developments, and trends within the following segments of the Healthcare Services industry:¹

- Acute Care Hospitals
- Care Management/Cost Containment
- Diagnostic Imaging
- Healthcare Staffing
- Long-Term Care
- Pharmacy Management
- Assisted Living
- Clinical Laboratories
- Healthcare Information Technology
- Home Care/Hospice
- Managed Care
- Surgicenters/Rehabilitation

Try to conceptualize all the medical knowledge in the world. How many books would it fill? How many topics would it cover? How many years would it take to learn in its entirety? Now, imagine that medical knowledge doubling. In 1950, researchers predicted it would take about 50 years for all available medical knowledge to double. But in 2020, estimates peg it at just 73 days. Enter artificial intelligence (AI). It's not humanly possible for medical professionals to keep up with the influx of constant new information about health conditions, treatments and medical technology. That's why the healthcare industry is a real growth opportunity for AI and machine learning (and the companies creating smart tools). Healthcare's artificial intelligence market is expected to reach \$6.6 billion by 2021.

First, a quick detour to define AI and machine learning. Remember your elementary school teacher telling you that all squares are rectangles, but not all rectangles are squares? AI and machine learning have a similar relationship: Machine learning is one application of AI, and it operates on the premise that machines can use extensive amounts of data to learn for themselves and eventually recognize more of the unknown. AI, the advancement of computer systems to perform tasks usually limited to humans, is a broader concept that can be used for other applications besides machine learning. This has constantly developing implications for both consumer health and the healthcare industry as a whole.

Machine learning easily integrates with aspects of the healthcare industry that have extensive data sets and past examples are readily available. Software can learn patterns to help detect tumors, recommend diagnoses, and even predict details of a patient's hospital stay. For example, Google recently introduced a new algorithm for a certain type of software called a neural network. The company's new algorithm aims to predict hospital patient outcomes such as length of stay, chances of readmission, and odds of death.

But it's not all about poring over data sets: AI tools can also serve as consultants for medical professionals. Take IBM's Watson supercomputer, for example. Introduced in 2010, it combines AI with analytical software to answer questions, and the company says it has processed more than 115,000 patients and consumers. Researchers are constantly publishing new information and breakthroughs on certain conditions, so many doctors use Watson to stay up to date on the latest findings, says Alan Smeaton,

¹ Brief descriptions of each segment of the Healthcare Services industry can be found on pages 15 through 17 of this report.

professor of computing at Dublin City University. The software is in use in hospitals around the country to help doctors gauge the impact of certain symptoms, come to a diagnosis, and make decisions.

A company called 20/20 GeneSystems is using vast amounts of cancer biomarker data from medical testing laboratories. This data is then used to build machine learning algorithms to improve cancer diagnostic accuracy over biomarker testing alone.

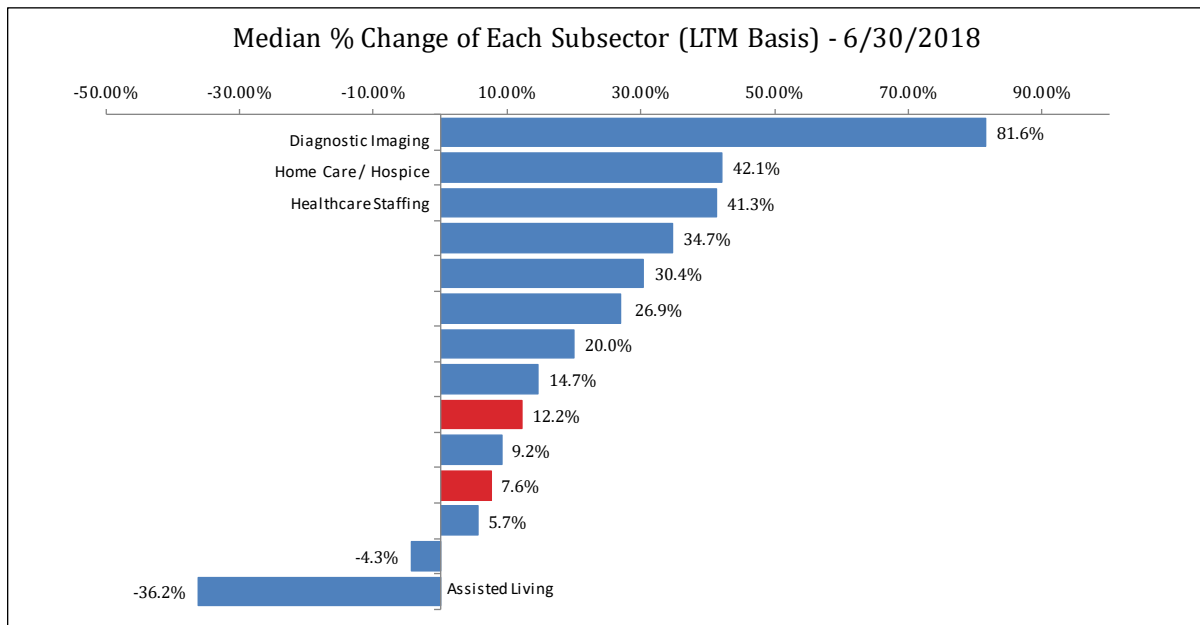
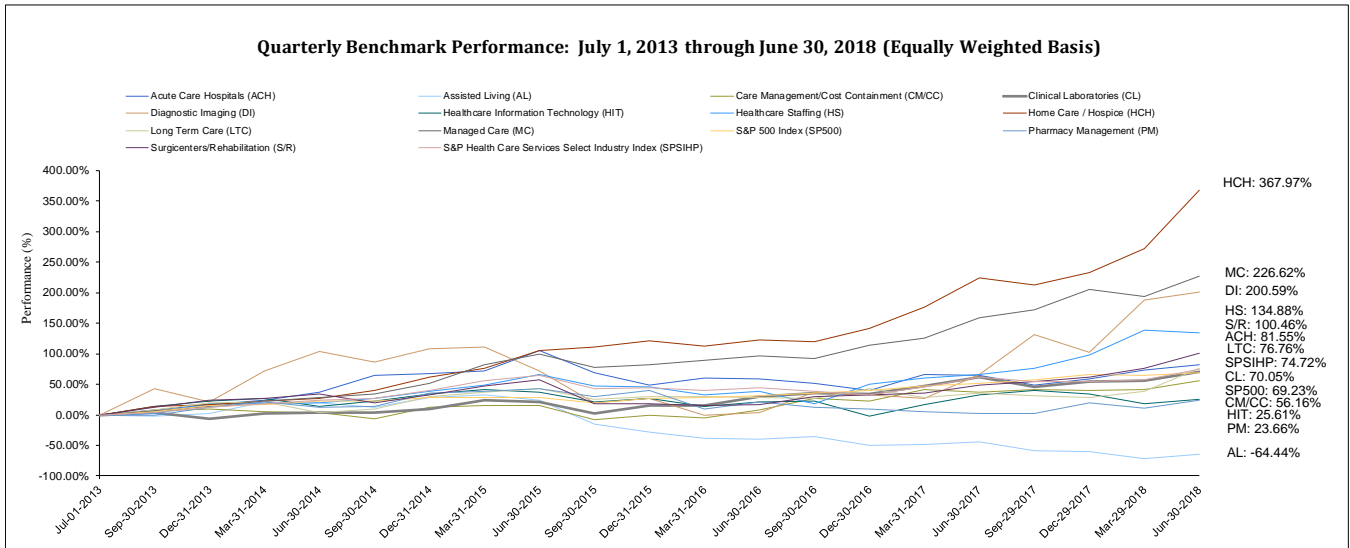
As for how doctors feel about the new tools available? It all depends on whether something improves their work with respect to their ultimate authority, says Robert Kaul, CEO of Cloud DX, a medical device technology company. As long as medical professionals have the final say on a diagnosis, “we found clinicians are actually excited about the concept,” he says. But AI and machine learning tools in healthcare have a high bar to meet. Although human error is one of the principal reasons AI is being introduced to healthcare in the first place, one wrong turn with an AI tool could mean setbacks in the public eye and the industry itself, especially when it comes to potential bias associated with certain demographics and ethnicities.

Over the past decade, the healthcare industry has focused on digitizing medical records. Now, the problem is managing those massive data sets. Any infrastructure that can make that possible should be in high demand over the coming years.

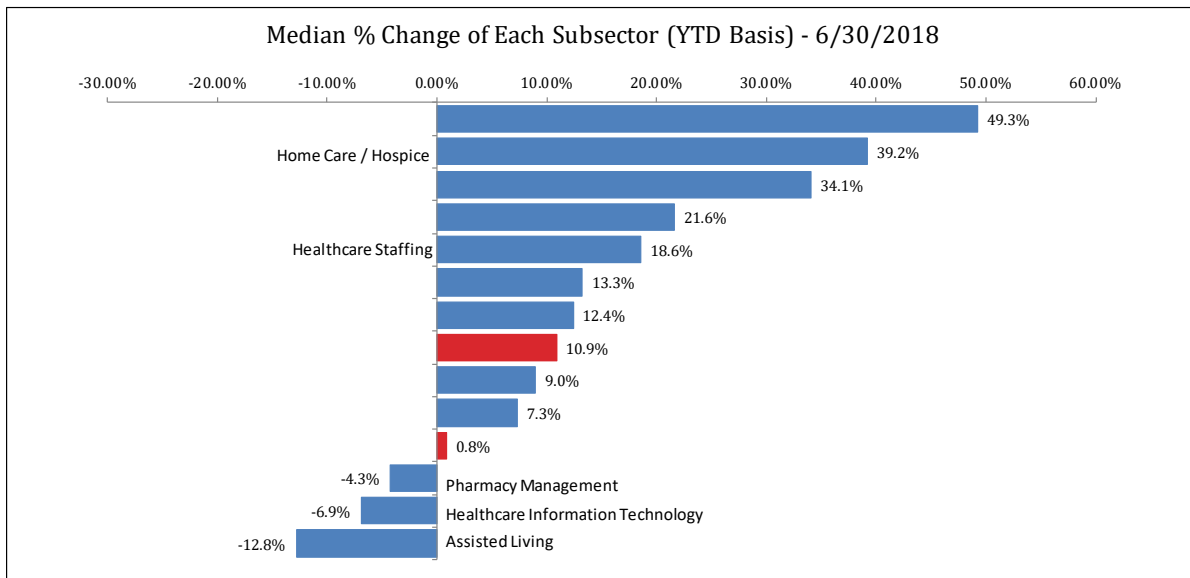
“[Using AI], we can take a run at solving some of the hard and some of the previously impossible-to-solve problems in healthcare and in life sciences in general,” says Zachary Bogue, co-founder and co-managing partner of DCVC, a deep tech and AI venture fund. He says he believes the value of the field will “increase materially, and likely increase exponentially” over the next five years.

Bogue says he sees entrepreneurs in his company’s office every week claiming to have the world’s best AI algorithms, but he asks them, “How long will that lead last?” It’s important to have something to carry you past the initial idea. Bogue’s fund invests in entrepreneurs with three elements, he says: world-class AI algorithms, deep industry experience, and a proprietary data set (or access to one). He says it’s a “huge opportunity right now” because the healthcare industry has many proprietary or semi-proprietary data sets that entrepreneurs can access through partnering with different organizations. (Source: *Entrepreneur.com*)

Industry Overview (cont.)



- The S&P Healthcare Services Index increased 7.6% in the latest twelve months (“LTM”) ended June 30, 2018. The Diagnostic Imaging segment exhibited the strongest performance of the group, increasing 81.6% in the LTM period. The worst performing segment was Assisted Living, down 36.2% in the LTM period.



- The S&P Healthcare Services Index increased 10.9% in the year to date (“YTD”) period ended June 30, 2018. The Diagnostic Imaging segment exhibited the strongest performance of the group, increasing 49.3% in the YTD period ended June 30, 2018.² The worst performing segment was Assisted Living, down 12.8% in the YTD period ended June 30, 2018.

² Diagnostic Imaging segment consists of one company, RadNet, Inc.

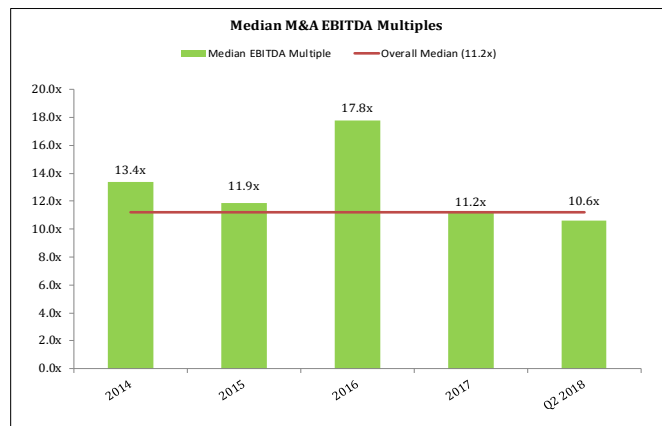
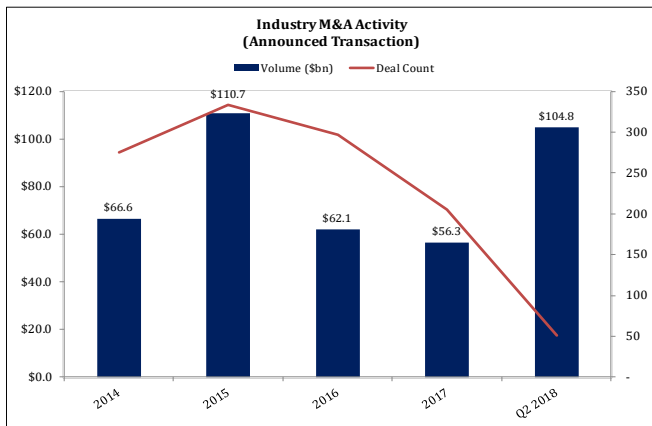
In The News...

- **Amazon, Berkshire Hathaway and JPMorgan Name C.E.O for Health Initiative:** Amazon, Berkshire Hathaway and JPMorgan Chase, the powerful triumvirate that earlier announced its hope to overhaul the health care of its employees and set an example for the nation, said on Wednesday that it had picked one of the country's most famous doctors to lead the new operation. Dr. Atul Gawande, a Harvard surgeon and staff writer for The New Yorker magazine, will become chief executive of the new company, which will be based in Boston, on July 9. The choice of Dr. Gawande, a highly respected doctor and writer on health care, was met with surprise because he has little hands-on experience running a large health care organization, unlike some of the boldface names that have been floated as possible candidates. By moving into health care, the three corporations had signaled a widespread frustration, shared by many American businesses, with the country's convoluted, high-cost medical infrastructure. "Tapping Atul Gawande to head the new venture is a very positive sign," said Brian Marcotte, the chief executive of the National Business Group on Health, which represents large employers. "He is a thought leader, thinks outside the box, and is passionate about fixing what ails our health care system." (NY Times, 6/20)
- **It's the Great Health-Care Buyout Shuffle:** Envision Healthcare Corp. on Monday (June 11) agreed to sell itself to KKR & Co. for \$46 a share, or \$9.9 billion including debt. The deal caps a more than six-month strategic review and comes just 18 months after Envision combined with AmSurg Corp. KKR's bid of \$46 a share is well below where Envision was trading even last year, but selling seems like the right move amid billing controversies and a major merger integration. Reuters had reported HCA Healthcare was interested in acquiring the AmSurg ambulatory-surgery unit, with KKR taking the rest of Envision, effectively dismantling the merger. That KKR instead decided to go it alone suggests Envision had the right idea by consolidating the physician-outsourcing industry, but that it's a strategy best executed away from the glare of the public markets, especially given the billing controversies. The end game here may be to merge AmSurg/Envision with Team Health Holdings Inc., which was acquired by Blackstone Group in 2017 for \$6.1 billion. (Bloomberg, 6/11)
- **New Trump Rule Rolls Back Protections of the Affordable Care Act:** A sweeping new rule issued Tuesday (June 19) by the Trump administration will make it easier for small businesses to join forces and set up health insurance plans that circumvent many requirements of the Affordable Care Act, cutting costs but also reducing benefits. Alexander Acosta, the labor secretary, said the rule would give small businesses access to insurance options like those available to large companies, starting as soon as Sept. 1. Millions of people could benefit, he said. The new health plans would be exempt from many consumer-protection mandates in the Affordable Care Act. They may not have to provide certain "essential health benefits" like mental health care, emergency services, maternity and newborn care, and prescription drugs. Labor Department officials said association health plans would not be able to deny coverage or charge higher rates to individual employees with pre-existing medical conditions. The new rule will allow small-business owners, their employees, sole proprietors and other self-employed people to join together to buy or provide insurance in the large-group market through association health plans. (NY Times, 6/19)

M&A Overview

Industry Trends

As shown below, there has been a megadeal in the first quarter of 2018, with Cigna Corporation acquiring Express Scripts Holdings Company for \$68.6 billion. As a result, volume is up while deal count is down from the same YTD period ended June 30, 2017. Through the second quarter of 2018, we observed 51 deals in the Healthcare Services industry, totaling \$104.7 billion. (Source: S&P Capital IQ)



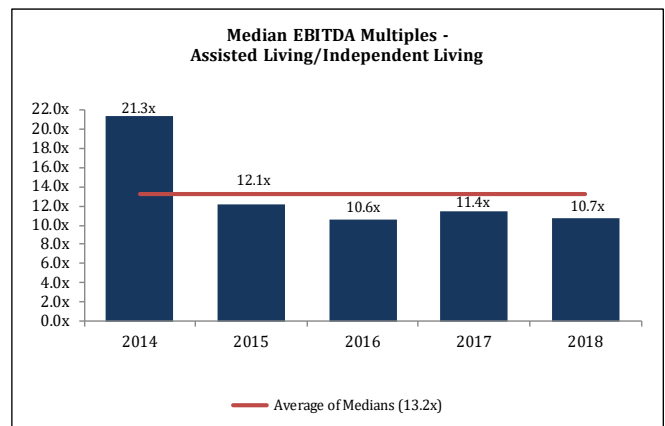
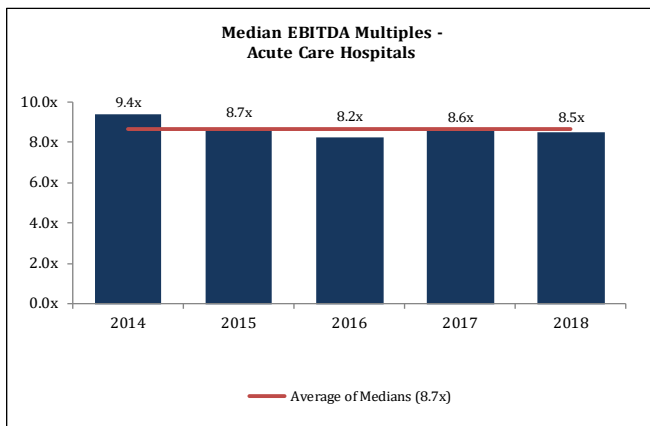
Top Ten Largest Announced Transactions Year to Date – June 30, 2018

Announced	Buyer	Target	Target Description	Implied Enterprise Value (\$ mm)
3/8/2018	Cigna Corporation	Express Scripts Holding Company	Express Scripts Holding Company operates as a pharmacy benefit management (PBM) company in the United States and Canada.	\$ 68,576.14
6/10/2018	KKR & Co. L.P. (nka:KKR & Co. Inc.); KKR Americas Fund XII LP	Envision Healthcare Corporation	Envision Healthcare Corporation, through its subsidiaries, provides various healthcare services in the United States.	\$ 10,418.63
6/19/2018	Verscend Technologies, Inc.	Cotiviti Holdings, Inc.	Cotiviti Holdings, Inc., through its subsidiaries, provides analytics-driven payment accuracy and spend management solutions primarily for the healthcare sector in the United States, Canada, the United Kingdom, and India.	\$ 4,928.79
5/28/2018	The WellCare Management Group, Inc.	Caidan Holding Company, Inc./Caidan Management Company, LLC/MeridianRx, LLC	Meridian Health Plan, Inc./Meridian Health Plan Of Illinois, Inc./MeridianRx represents the combined operations of Meridian Health Plan, Inc., Meridian Health Plan of Illinois, Inc., and MeridianRx, LLC in their sale to Caidan Enterprises, Inc. Meridian Health Plan, Inc., provides medicare, medicaid and health insurance services to members in Michigan, Illinois, Iowa, Indiana, Kentucky, and Ohio.	\$ 2,500.00
2/15/2018	Roche Holding AG	Flatiron Health, Inc.	Flatiron Health, Inc., a healthcare technology company, develops software that connects community oncologists, academics, hospitals, life science researchers, and regulators on a shared technology platform.	\$ 2,173.91
5/15/2018	Zoetis Inc.	Abaxis, Inc.	Abaxis, Inc. develops, manufactures, markets, and sells portable blood analysis systems for use in human or veterinary patient care to provide rapid blood constituent measurements for clinicians worldwide.	\$ 1,827.84
4/23/2018	TPG Capital, L.P.; Welsh, Carson, Anderson & Stowe; Humana Inc.	Curo Health Services, LLC	Curo Health Services, LLC owns and operates hospice centers in Georgia, North Carolina, Utah, Arizona, Texas, Alabama, Northwest Florida, and South Carolina.	\$ 1,400.00
3/6/2018	Inovalon Holdings, Inc.	ABILITY Network Inc.	ABILITY Network Inc., a healthcare technology company, develops and delivers a suite of Web-based solutions for healthcare providers in ambulatory, acute, and post-acute settings in the United States.	\$ 1,200.00
4/25/2018	McKesson Corporation	Medical Specialties Distributors, LLC	Medical Specialties Distributors, LLC distributes healthcare products to home infusion, specialty pharmacy, and oncology markets.	\$ 800.00
6/14/2018	GI Partners, LLC; GI Partners Fund V LP	CBR Acquisition Holdings Corp.	CBR Acquisition Holdings Corp., together with its subsidiary, provides services for the collection, processing, and long-term cryopreservation of umbilical cord blood and cord tissue stem cells for family use.	\$ 530.00

Public Market Data

Company	6/30/2018 Close ⁽²⁾	52-Week		Enterprise Value (EV) ⁽³⁾	EV/EBITDA		EBITDA Margin		Market Cap/Earnings	
		High	Low		LTM	NFY	LTM	NFY	LTM	NFY
Acute Care Hospitals										
Community Health Systems, Inc.	3.32	10.09	3.28	14,444	17.9x	9.0x	5.8%	11.5%	NM	NM
HCA Healthcare, Inc.	102.60	108.85	71.18	69,809	NA	8.0x	18.7%	19.0%	12.5x	10.5x
LifePoint Health, Inc.	48.80	67.65	41.45	4,842	7.3x	6.5x	10.6%	11.8%	43.4x	13.8x
Quorum Health Corporation	5.00	10.00	2.91	1,365	16.4x	9.1x	4.2%	7.9%	NM	NM
Tenet Healthcare Corporation	33.57	38.81	12.25	19,964	7.9x	7.7x	13.4%	14.3%	NM	20.5x
Universal Health Services, Inc.	111.44	128.15	95.26	14,438	8.5x	8.2x	16.1%	16.3%	13.0x	11.9x
Median					8.5x	8.1x	12.0%	13.1%	13.0x	12.9x

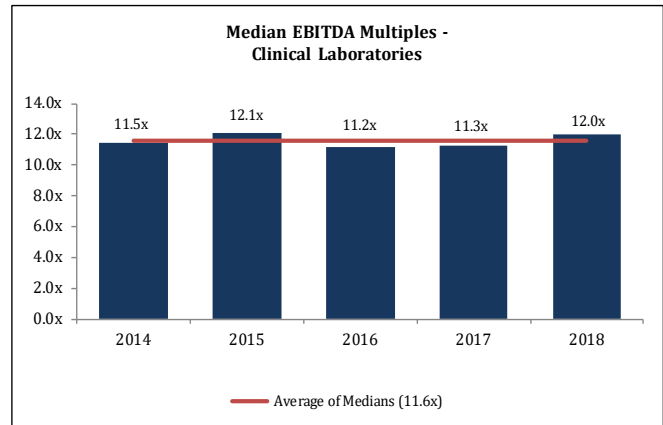
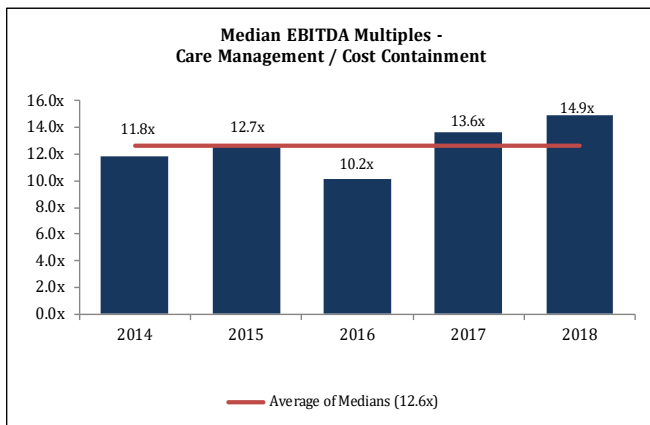
Assisted Living/Independent Living										
Brookdale Senior Living Inc.	9.09	14.92	6.28	6,330	10.7x	11.8x	15.9%	11.9%	NM	NM
Capital Senior Living Corporation	10.67	16.72	9.15	1,326	16.8x	14.2x	17.1%	20.3%	NM	NM
Five Star Senior Living Inc.	1.50	1.80	1.05	38	-2.9x	NM	(1.2%)	NM	NM	NM
Median					10.7x	13.0x	15.9%	16.1%	NM	NM



Public Market Data (cont.)

Company	6/30/2018 Close ⁽²⁾	52-Week		Enterprise Value (EV) ⁽³⁾	EV/EBITDA		EBITDA Margin		Market Cap/Earnings	
		High	Low		LTM	NFY	LTM	NFY	LTM	NFY
Care Management/Cost Containment										
R1 RCM Inc.	8.68	9.40	3.05	957	NM	17.8x	0.7%	6.2%	NM	NA
CorVel Corporation	54.00	61.20	45.01	967	13.6x	NA	12.5%	NM	26.4x	NA
HMS Holdings Corp.	21.62	23.62	11.01	1,955	16.9x	13.3x	20.6%	25.3%	51.2x	72.7x
MAXIMUS, Inc.	62.11	72.71	58.58	3,803	10.4x	10.5x	14.9%	15.0%	17.8x	18.3x
Cotiviti Holdings, Inc.	44.13	45.97	30.84	4,690	16.2x	15.6x	38.6%	40.5%	25.6x	30.9x
Median					14.9x	14.5x	14.9%	20.1%	26.0x	30.9x

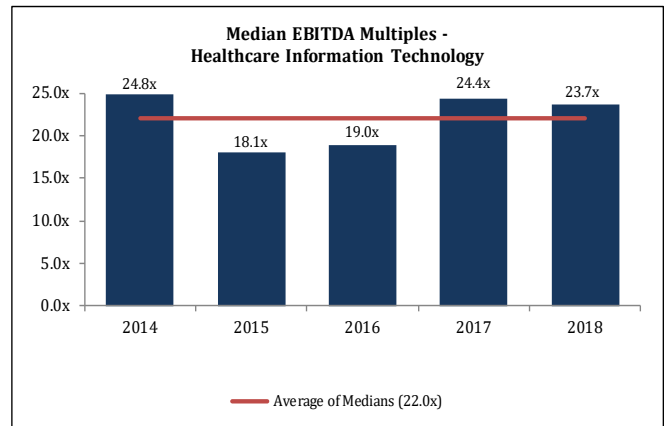
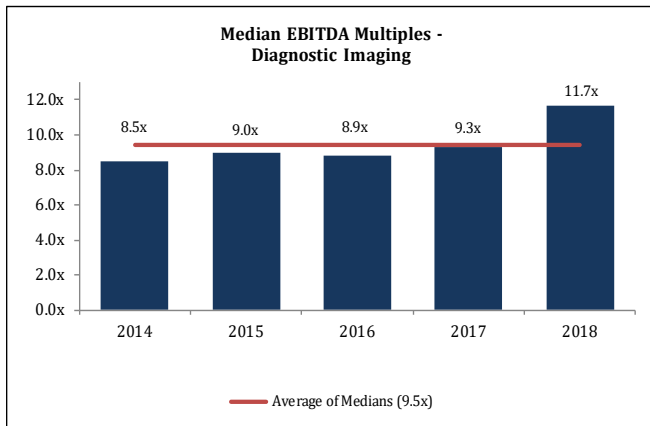
Clinical Laboratories										
Laboratory Corporation of America Holc	179.53	190.36	146.68	24,801	11.9x	11.8x	18.9%	18.5%	14.0x	20.2x
Psychemedics Corporation	19.24	27.99	15.99	101	9.4x	NA	25.6%	NA	17.2x	NA
Quest Diagnostics Incorporated	109.94	116.49	90.10	18,894	12.0x	12.0x	20.1%	20.5%	18.4x	19.0x
Sonic Healthcare Limited	35.36	37.29	28.95	39,279	15.5x	14.5x	18.8%	20.1%	26.3x	28.2x
Median					12.0x	12.0x	19.5%	20.1%	17.8x	20.2x



Public Market Data (cont.)

Company	6/30/2018 Close ⁽²⁾	52-Week		Enterprise Value (EV) ⁽³⁾	EV/EBITDA		EBITDA Margin		Market Cap/Earnings	
		High	Low		LTM	NFY	LTM	NFY	LTM	NFY
Diagnostic Imaging										
RadNet, Inc.	15.00	15.40	7.45	1,329	11.7x	9.1x	12.1%	15.2%	NM	45.0x
Median					11.7x	9.1x	12.1%	15.2%	NM	45.0x

Healthcare Information Technology										
Allscripts Healthcare Solutions, Inc.	12.00	16.13	10.78	4,212	40.1x	10.0x	5.2%	19.5%	NM	NM
athenahealth, Inc.	159.14	163.94	111.61	6,558	27.0x	17.5x	18.8%	27.8%	NM	51.4x
Cerner Corporation	59.79	73.86	52.05	19,363	15.0x	12.1x	25.1%	29.6%	23.5x	27.8x
Computer Programs and Systems, Inc.	32.90	34.25	27.60	585	16.8x	13.3x	12.3%	15.4%	NM	39.4x
Quality Systems, Inc.	19.50	20.60	12.24	1,253	29.1x	14.7x	8.1%	15.7%	NM	76.1x
Press Ganey Holdings, Inc.	50.70	92.68	44.65	244	16.2x	9.4x	10.0%	14.5%	NM	35.3x
Omnicell, Inc.	52.45	55.40	39.75	2,204	30.7x	17.8x	9.5%	15.7%	NA	54.9x
HealthStream, Inc.	27.31	29.16	21.15	687	23.7x	17.1x	11.4%	17.5%	NM	NM
Inovalon Holdings, Inc.	9.93	17.80	8.90	1,303	16.6x	7.7x	16.5%	29.8%	NM	NM
Median					23.7x	13.3x	11.4%	17.5%	23.5x	45.4x



Public Market Data (cont.)

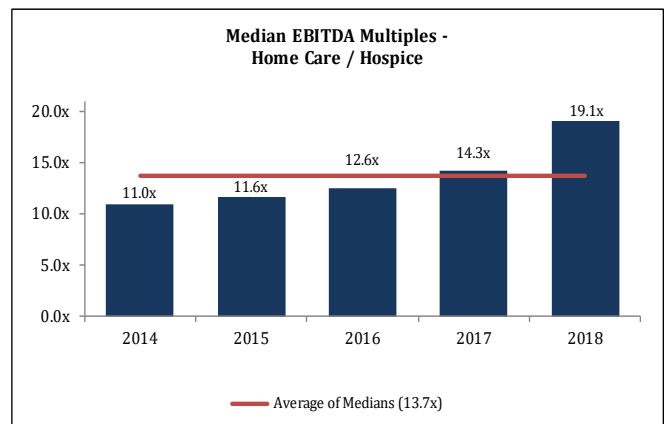
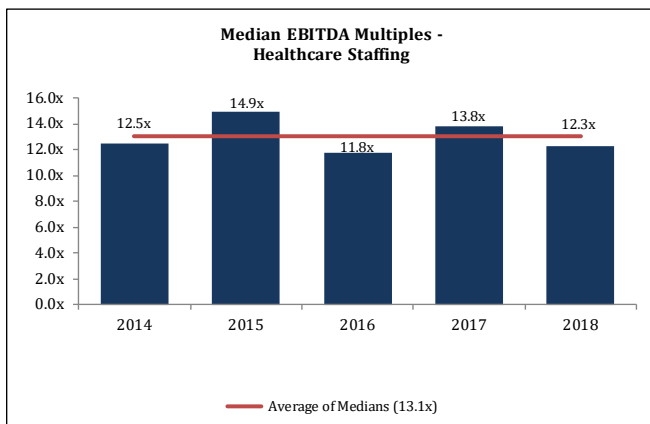
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		High	Low		LTM	NFY	LTM	NFY	LTM	NFY
Healthcare Staffing										
AMN Healthcare Services, Inc.	58.60	68.20	34.85	3,070	12.3x	11.3x	12.0%	12.6%	19.0x	19.4x
Cross Country Healthcare, Inc.	11.25	14.65	9.07	475	12.0x	13.4x	4.6%	4.3%	10.8x	59.7x
ASGN Incorporated	78.19	86.13	44.66	4,578	14.4x	11.6x	10.9%	11.7%	24.8x	28.6x

Median	12.3x	11.6x	10.9%	11.7%	19.0x	28.6x
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Home Care / Hospice

Addus HomeCare Corporation	57.25	61.25	30.95	640	17.7x	15.0x	7.9%	8.2%	41.8x	33.4x
Amedisys, Inc.	85.46	88.60	45.60	2,672	17.7x	15.6x	9.5%	10.4%	38.0x	24.1x
Chemed Corporation	321.81	335.99	186.09	5,258	20.4x	17.3x	14.9%	17.0%	27.0x	26.2x
LHC Group, Inc.	85.59	87.42	56.76	3,005	29.1x	17.7x	7.6%	9.3%	55.0x	33.6x

Median	19.1x	16.4x	8.7%	9.8%	39.9x	29.8x
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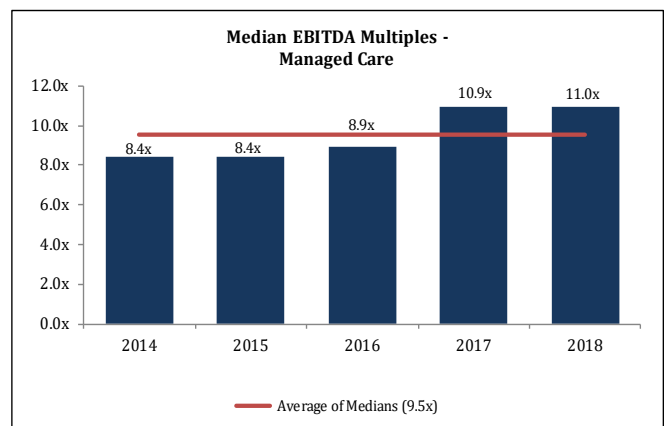
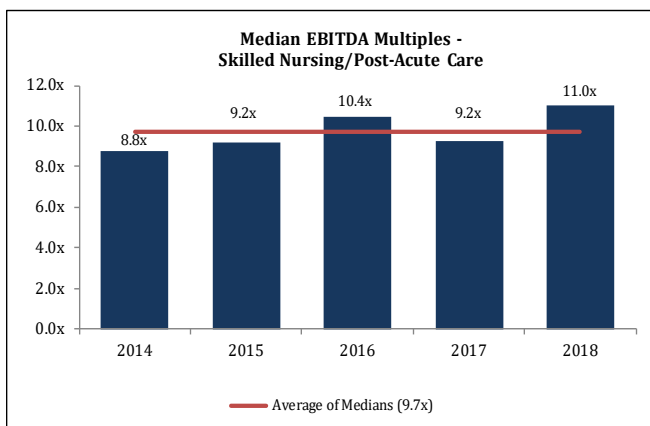


Public Market Data (cont.)

Company	6/30/2018 Close ⁽²⁾	52-Week		Enterprise Value (EV) ⁽³⁾	EV/EBITDA		EBITDA Margin		Market Cap/Earnings	
		High	Low		LTM	NFY	LTM	NFY	LTM	NFY
Skilled Nursing/Post-Acute Care										
Diversicare Healthcare Services, Inc.	6.80	12.25	6.45	126	4.7x	NA	4.6%	NA	NM	NA
Genesis Healthcare, Inc.	2.29	2.86	0.60	4,575	12.1x	7.6x	7.4%	11.9%	NM	NM
National HealthCare Corporation	70.38	73.25	57.00	1,019	10.0x	NA	10.5%	NA	20.4x	NA
The Ensign Group, Inc.	35.82	40.09	18.75	2,117	13.2x	10.9x	8.3%	9.7%	26.5x	19.7x
Median					11.0x	9.3x	7.8%	10.8%	23.4x	19.7x

Managed Care

Aetna Inc.	183.50	194.40	149.69	61,574	10.1x	10.3x	10.0%	9.7%	17.1x	15.5x
Centene Corporation	123.21	126.30	79.06	24,993	11.1x	9.1x	4.6%	4.6%	23.5x	23.6x
Cigna Corporation	169.95	227.13	163.02	43,922	8.8x	8.5x	11.4%	11.3%	16.2x	13.0x
Humana Inc.	297.63	309.19	229.84	37,417	10.9x	10.5x	6.2%	6.3%	30.0x	25.2x
Magellan Health, Inc.	95.95	112.25	71.50	2,832	12.0x	8.6x	3.5%	4.5%	20.7x	22.9x
Molina Healthcare, Inc.	97.94	103.27	56.68	4,394	5.0x	4.5x	4.7%	5.2%	NM	12.2x
Triple-S Management Corporation	39.06	44.01	15.05	730	21.4x	NA	1.1%	NA	80.8x	-62.4x
UnitedHealth Group Incorporated	245.34	256.73	183.86	257,482	14.2x	13.0x	8.5%	8.8%	19.9x	19.9x
WellCare Health Plans, Inc.	246.24	247.94	162.25	7,379	9.3x	8.3x	4.4%	4.7%	22.7x	24.1x
Anthem, Inc.	238.03	267.95	179.40	76,612	12.6x	11.4x	6.7%	7.4%	14.0x	16.1x
Median					11.0x	9.1x	5.5%	6.3%	20.7x	18.0x



Public Market Data (cont.)

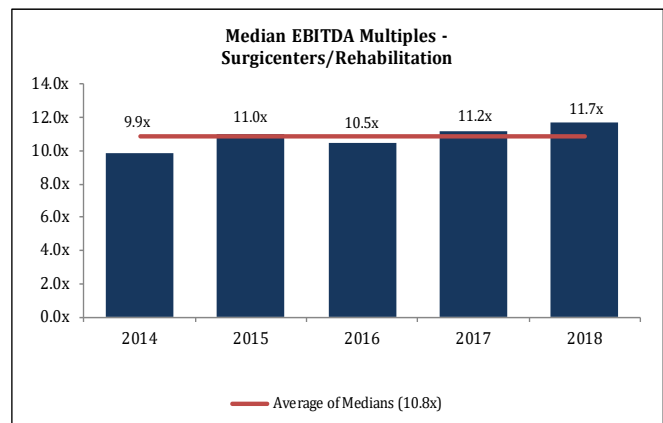
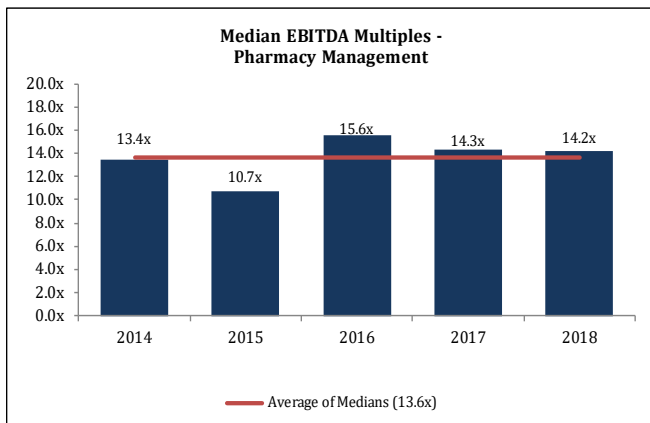
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		High	Low		LTM	NFY	LTM	NFY	LTM	NFY

Pharmacy Management

BioScrip, Inc.	2.93	3.39	1.80	911	20.7x	16.3x	6.1%	8.0%	NM	NM
Express Scripts Holding Company	77.21	85.07	55.80	56,045	7.8x	7.3x	7.2%	7.6%	9.3x	11.5x
Median					14.2x	11.8x	6.6%	7.8%	9.3x	11.5x

Surgicenters/Rehabilitation

Hanger, Inc.	16.96	19.50	10.87	1,104	12.7x	9.2x	8.3%	11.4%	NM	NM
Encompass Health Corporation	67.72	69.60	42.21	9,625	11.1x	10.9x	21.1%	20.8%	22.2x	19.9x
Select Medical Holdings Corporation	18.15	19.78	14.80	6,556	11.7x	10.2x	11.9%	12.6%	12.2x	17.9x
U.S. Physical Therapy, Inc.	96.00	101.75	56.50	1,354	20.1x	21.6x	15.6%	13.8%	42.1x	39.5x
Nobilis Health Corp.	1.20	1.95	1.15	271	7.3x	4.7x	13.1%	17.8%	57.1x	7.0x
Median					11.7x	8.3x	15.2%	14.1%	14.4x	15.8x



Definitions:
 Enterprise Value – defined by S&P Capital IQ as “market cap. + total debt + preferred equity + total minority interest – cash and equivalents”
 LTM – the latest twelve months.
 EBITDA – *adjusted* earnings before interest, taxes, depreciation and amortization.
 NFY – next fiscal year.
 EPS – earnings per share.
 NA – not available, NM – not meaningful.

Notes:
 (1) Source: As reported by S&P Capital IQ.
 (2) Reported in local currency.
 (3) In millions of local currency.

Segments of the Healthcare Services Industry Defined

- **Acute Care Hospitals:** This industry segment includes hospitals and other healthcare providers that focus on short-term treatment for severe injuries or illnesses. Healthcare reform, reimbursement trends, electronic records, and nursing shortages are the top concerns faced by operators in the Acute Care Hospital industry. Healthcare reform will likely increase the number of insured patients, which will boost revenue. Other factors, such as aging population, will contribute to revenue growth over the next five years. Profitability will remain pressured as labor costs rise; however, the industry's profit margin will get a boost from the increasing number of people who have health insurance.
- **Assisted Living:** The Assisted Living industry segment is made up of a variety of senior care services, including assisted living facilities, continuing care retirement communities, and elderly and disabled services. The number of elderly Americans is anticipated to continue to expand in the coming years, which will stimulate demand within the industry. However, Medicare and Medicaid reimbursement cuts are expected to severely limit the growth of the industry.
- **Care Management/Cost Containment:** Companies in this industry segment reduce the overall cost of medical treatment by establishing controls across many providers of healthcare services for the use of expensive procedures, in-patient admission criteria, the lengths of stay, and other factors affecting the cost of care. Importantly, a company in this industry may represent a number of physician practices, laboratories and/or other service providers. This gives them much more leverage than a single physician practice would have in negotiating reimbursement prices with insurance companies or government medical programs. The cost of providing healthcare services has risen as a result of new technologies, malpractice insurance rates, and labor costs. However, insurance companies and the government continue to lower their reimbursement rates. The demand for companies in this industry is expected to increase as healthcare service providers utilize industry companies to operate more efficiently and to avoid severe margin pressure from reduced reimbursement fees from large insurance entities.
- **Clinical Laboratories:** This industry segment consists of companies that conduct analytic services to provide healthcare practitioners with information concerning the onset, severity and cause of patients' physical ailments. While the industry has long been an essential component of healthcare, the aging population and ongoing progress toward preventive care has further boosted revenue over the past five years. During the next five years, the Clinical Laboratories industry is expected to benefit from healthcare reform and the aging U.S. population. As many laboratories consolidate, operators will increasingly compete on the basis of price with hospitals that provide industry services in-house. In particular, large laboratories are acquiring smaller labs that provide either routine or specialized services, such as biomarkers. Also, as more patients seek an individually tailored healthcare plan, demand for high-margin molecular testing, such as with regard to genetics, will cause industry profit to increase.

Segments of the Healthcare Services Industry (cont.)

- **Diagnostic Imaging:** Diagnostic imaging involves the use of non-invasive procedures to generate representations of internal anatomy and function that can be recorded on film or digitized for display on a video monitor. Diagnostic imaging procedures facilitate the early diagnosis and treatment of diseases and disorders and may reduce unnecessary invasive procedures, often minimizing the cost and amount of care for patients. The industry is forecast to increase 2.6% per year on average over the next five years. This growth will be driven by the aging of the U.S. population, wider physician and payor acceptance for imaging technologies, and greater consumer and physician awareness of diagnostic screening capabilities. However, as third-party payers expand access to health insurance, they will also continue their attempts to reduce system-wide waste and fraud to keep costs low. Even as funding for Medicare and Medicaid is expected to increase over the next five years, the Centers for Medicare and Medicaid Services (CMS) will continue to implement reimbursement cuts aimed at reducing industry volumes by discouraging reduplicative services.
- **Healthcare Information Technology:** This industry provides technology solutions to optimize processes and help eliminate errors, variance, and waste for healthcare organizations. Companies in this industry provide computer software-based solutions that help hospitals and physician groups improve efficiencies and business processes across the enterprise to enhance and protect revenues. This industry is poised for further growth going forward. Ongoing contributors to growth in this industry include: incentives in the American Recovery and Reinvestment Act; a shift away from fee-for-service or volume-based reimbursement towards value-based or outcomes-based reimbursement; and a shift in the U.S. marketplace towards a preference for a single platform across inpatient and ambulatory settings.
- **Healthcare Staffing:** The healthcare staffing industry is faced with the challenge of orchestrating care in an increasingly complex and converging healthcare labor market. Moving forward, the industry will benefit from the evolving needs of the continuously aging Baby Boomer generation, in which the number of adults aged 65 and older will increase at an annualized rate of 3.2% to 56.0 million people in the five years to 2020. This will provide impetus for healthcare providers to hire extra staff to compensate for the influx of patients, raising demand for industry services.
- **Home Care/Hospice:** The Home Care/Hospice industry is becoming one of the fastest-growing healthcare industries in the U.S. The industry saves patients billions of dollars every year by treating them in their homes instead of in hospitals. An aging population, the prevalence of chronic disease, growing physician acceptance of home care, medical advancements, and a movement toward cost-efficient treatment options from public and private payers continue to foster industry growth.
- **Long-Term Care:** The Long-Term Care industry provides long-term care, skilled nursing care, and social services in residential facilities. The profitability of the long-term care facilities depends on efficient operations, as revenue per patient is largely controlled by Medicare and Medicaid. Over the next five years, the continued aging of the population will stimulate demand.

Segments of the Healthcare Services Industry (cont.)

- **Managed Care:** The term managed care is used in the U.S. to describe a variety of techniques intended to reduce the cost of providing health benefits and improve the quality of care. Moreover, the median age of the population is anticipated to continue its ascent over the five-year period, rising from 37.9 years in 2016 to 38.7 in 2021. Demand for health services and coverage tends to rise as the population ages, largely because these individuals typically require more procedures than their younger counterparts
- **Pharmacy Management:** This industry includes firms that provide pharmacy benefit management services. Industry firms are third-party administrators of government and employer-sponsored prescription drug programs. They are primarily responsible for processing and paying prescription drug claims. Though it felt the recession's effects, the Pharmacy Benefit Management industry has recovered quickly and is poised to grow on the back of rising insurance coverage and increased physician visits, which will yield a higher number of prescriptions filled. As the median age of the U.S. population continues to rise, more Americans will rely on medications, increasing demand for the industry's services from insurers and employer-sponsored coverage plans.
- **Surgicenters/Rehabilitation:** The Surgicenters and Rehabilitation industry focuses on orthopedics. Surgicenters are establishments that provide surgical and emergency care services on an outpatient basis. This includes the provision of services such as orthoscopic, cataract surgery and setting broken bones. Rehabilitation centers provide follow-up physical therapy and other treatment and activities to help patients regain or improve mental or physical functionality following an injury or illness. Looking ahead, industry growth is expected to accelerate because of legislation and improving economic conditions. The introduction of the Patient Protection and Affordable Care Act will extend healthcare to a number of Americans, which will hasten increasing demand for the industry.

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For More Information, Contact:

Bjørn A. Midtlyng, CFA

Partner

(609) 955-5745

bmidtlyng@mpival.com

Daniel M. Kerrigan, CFA, ASA

President

(212) 390-8319

dkerrigan@mpival.com

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