



Life Sciences & Health Care Quarterly update

Q3 2018

Challenges facing drug development⁽¹⁾

Biopharma companies are evolving to face a growing number of challenges with respect to drug development. More specifically, the current model involves testing one drug on one target at a time, which results in a long, sequential cycle of drug development, millions of dollars in sunk costs, and delays in achieving the most effective treatments to patients. Patients also struggle in navigating the complex trial landscape to find the trial most suited for them. A new process called Master Protocol offers a potential solution.

Master Protocol is the process that allows for the simultaneous evaluation of multiple treatments for individuals with specific diseases within the same trial structure. This framework is being rapidly adopted by pharmaceutical companies with the goal of answering multiple questions within the drug development phase in a shorter amount of time. This collaborative approach to drug development could help biopharma companies de-risk research programs, improve the quality of evidence, and enhance research and development (R&D) productivity by cutting down cost and time.

Potential benefits of Master Protocols⁽²⁾

The Deloitte Center for Health Solutions (DCHS) interviewed 12 individuals who participated in master protocols from academia, nonprofits, and biopharmaceutical companies to better understand master protocol's benefits and tradeoffs. One result of the survey found that the cycle time impact on a phase two oncology trial could be:

- Cost reduction of 12 percent to 15 percent (about \$9.0 million to \$11.0 million).
- Study time reduction of 13 percent to 18 percent (about 15 to 21 weeks).

This result highlights the potential of master protocols in accelerating successful treatments to market. It also speaks to the strength of master protocols in optimizing complex and expensive drug development. DCHS found three main potential benefits of master protocols as a result of the interviews:

Streamlines logistics

Multiple stakeholders can come together to collect, synthesize, and analyze various treatment combinations and effects of competing drugs.

Reduces cost and cycle time

Reduces pharma companies' time to activation, which helps alleviate the cost barrier facing the current model of drug development.

Continuous learning

Successful collaborative groups can work together to share knowledge about effectiveness of a certain therapy, or certain group of therapies, on a specific disease.

Recent relevant M&A activity

Allergan plc acquires Bonti, Inc.:

On September 14, 2018, Dublin-based Allergan plc (Allergan), a global diversified pharmaceutical company, acquired Bonti, Inc. (Bonti), an Orange County, CA-based clinical-stage biotechnology company focused on the development and commercialization of therapeutic neurotoxin solutions, for \$195 million. This deal connects Allergan's drug development and research capabilities with Bonti's niche clinical trial capabilities.⁽³⁾

Sanofi acquires Bioverativ, Inc.:

On March 8, 2018, France-based Sanofi, a global biopharmaceutical company, acquired Bioverativ, Inc. (Bioverativ), a Massachusetts-based biotechnology company focused on research, discovery, development, and commercialization of therapies of hemophilia and other rare blood disorders for \$11.5 billion. Sanofi hopes to leverage Bioverativ's strong position in the large and complex hemophilia and rare blood disorders market.⁽⁴⁾

In this update

- Master protocols offer a collaborative and cost-efficient solution to current drug development methods.

Also:

- Selected Recent Life Sciences & Health Care (LSHC) M&A Transactions
- LSHC Sector Breakdown and Analysis
- Selected Macroeconomic and Sector Data

Who we are

Deloitte Corporate Finance LLC (DCF) is a leading global middle market M&A advisor. DCF's professionals have extensive knowledge of and experience in the Life Sciences & Health Care space.

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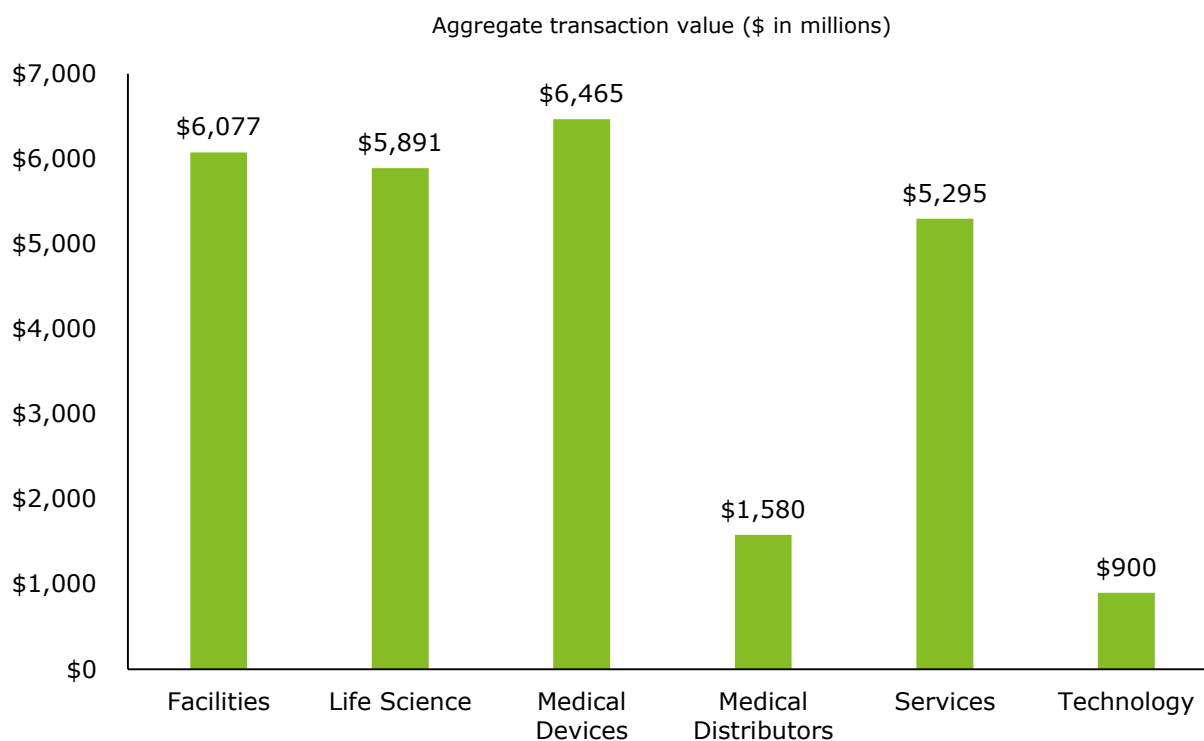
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Q3 2018 US LSHC M&A aggregate transaction value and EBITDA multiples⁽¹⁾⁽ⁱ⁾⁽ⁱⁱ⁾



Median LTM EBITDA multiple ⁽ⁱⁱ⁾	Facilities	Life Science	Medical Devices	Medical Distributors	Services	Technology
	8.2x	10.5x	13.9x	12.0x	17.2	15.0x

Q3 2018 US LSHC M&A activity deal list ⁽²⁾⁽ⁱ⁾

Date announced	Status	Sub-sector	Target	Buyer	Size (\$MM) transaction
28-Sep-18	Announced	Services	Genoa Healthcare	UnitedHealth Group	\$2,500.0
26-Sep-18	Announced	Life Science	GENEWIZ, Inc.	Brooks Automation, Inc.	450.0
26-Sep-18	Announced	Life Science	Syntimmune, Inc.	Alexion Pharmaceuticals, Inc.	1,200.0
26-Sep-18	Closed	Life Science	Focal Therapeutics, Inc.	Hologic, Inc.	125.0
25-Sep-18	Closed	Life Science	Ichorion Therapeutics, Inc.	Cerecor, Inc.	41.7
25-Sep-18	Announced	Services	Oxford Immunotec Global	Quest Diagnostics Incorporated	170.0
25-Sep-18	Announced	Life Science	ACEA Biosciences, Inc	Agilent Technologies, Inc.	250.0
21-Sep-18	Announced	Medical Devices	Ethicon, Inc.	Fortive, Inc.	2,700.0
20-Sep-18	Closed	Life Science	Celenex, Inc.	Amicus Therapeutics, Inc.	452.0
17-Sep-18	Announced	Services	Healthcare Technologies Aramark	TriMedx, LLC	300.0
17-Sep-18	Announced	Life Science	NeuMoDx Molecular, Inc.	QIAGEN N.V.	234.0

Notes:

- i) Only US deals with reported transaction size greater than \$30MM listed.
- ii) Represents the median LTM EBITDA multiple by sector for listed deals and for available multiples.

Q3 2018 US LSHC M&A activity deal list ⁽¹⁾ (i)

Date announced	Status	Sub-sector	Target	Buyer	Size (\$MM) transaction
14-Sep-18	Announced	Life Science	Bonti, Inc.	Allergan plc	195.0
11-Sep-18	Closed	Services	Valley Healthcare Group, LLC	Great Elm Capital Group, Inc.	66.0
11-Sep-18	Announced	Medical Devices	Invuity, Inc.	Stryker Corporation	224.2
11-Sep-18	Announced	Technology	Apex Revenue Technologies, LLC	RevSpring, Inc.	200.0
6-Sep-18	Announced	Services	Dermatology Businesses of Sandoz, Inc.	Aurobindo Pharma USA, Inc.	1,000.0
6-Sep-18	Announced	Medical Devices	Augmenix, Inc.	Boston Scientific Corporation	600.0
6-Sep-18	Announced	Life Science	Medac Pharma, Inc.	Pediapharm, Inc.	50.0
4-Sep-18	Closed	Facilities	Two Communities in Ohio	Bridge Investment Group, LLC	31.0
1-Sep-18	Closed	Services	North Cypress Medical Center	C-HCA, Inc.	148.0
30-Aug-18	Announced	Medical Devices	K2M Group Holdings, Inc.	Stryker Corporation	1,406.2
27-Aug-18	Closed	Medical Devices	Cartiva, Inc.	Wright Medical Group, Inc.	435.0
22-Aug-18	Closed	Services	1Life Healthcare, Inc.	The Carlyle Group L.P.	130.0
20-Aug-18	Announced	Facilities	Seniors Housing Community	Ventas, Inc.	194.0
16-Aug-18	Closed	Life Science	NuGEN Technologies, Inc.	Tecan Group Ltd.	54.5
15-Aug-18	Announced	Services	GreatCall, Inc.	Best Buy Co., Inc.	800.0
13-Aug-18	Announced	Medical Distributors	UHS Holdco, Inc.	Federal Street Acquisition Corp.	1,580.0
10-Aug-18	Announced	Life Science	Aralez Pharmaceuticals Canada, Inc.	Nuvo Pharmaceuticals, Inc.	62.5
8-Aug-18	Announced	Medical Devices	VENITI, Inc.	Boston Scientific Corporation	160.0
3-Aug-18	Closed	Life Science	Dermatology Portfolio of Allergan	Aqua Pharmaceuticals, LLC	650.0
2-Aug-18	Closed	Technology	AdvancedMD, Inc.	Global Payments, Inc.	700.0
2-Aug-18	Announced	Facilities	Watermark Retirement Communities, Inc.	Keppel Capital Holdings Pte. Ltd.	77.3
31-Jul-18	Closed	Medical Devices	Faxitron Bioptics, LLC	Hologic, Inc.	85.0
31-Jul-18	Closed	Medical Devices	Biotest US Corporation	Grifols Shared Services North America, Inc.	286.0
24-Jul-18	Closed	Life Science	Zavante Therapeutics, Inc.	Nabriva Therapeutics plc	183.0
23-Jul-18	Closed	Life Science	Halo Pharma, Inc..	Cambrex Corporation	425.0
23-Jul-18	Announced	Facilities	LifePoint Health, Inc.	RCCH HealthCare Partners	5,741.9
20-Jul-18	Effective	Medical Devices	Claret Medical, Inc.	Boston Scientific Corporation	270.0
19-Jul-18	Closed	Services	National Health Finance, DM, LLC	LawFinance Limited	50.4
19-Jul-18	Closed	Life Science	Agilis Biotherapeutics, LLC	PTC Therapeutics, Inc.	945.0
17-Jul-18	Closed	Services	Giant Creative/Strategy, LLC	Huntsworth plc	72.2
11-Jul-18	Closed	Life Science	Visterra, Inc.	Otsuka America, Inc.	430.0
9-Jul-18	Closed	Medical Devices	Cauteries Business and Bovie®	Specialty Surgical Instrumentation, Inc.	97.0
5-Jul-18	Effective	Medical Devices	Cryterion Medical, Inc.	Boston Scientific Corporation	202.0
3-Jul-18	Closed	Services	Create Group NYC, LLC	Ashfield Healthcare, Ltd.	58.4
3-Jul-18	Closed	Life Science	Juniper Pharmaceuticals, Inc.	Catalent Pharma Solutions, Inc.	143.1
2-Jul-18	Closed	Facilities	PAMC, Ltd.	Apollo Medical Holdings, Inc.	33.0

Note:

i) Only US deals with reported transaction size greater than \$30MM listed.

LSHC sector breakdown: financial detail⁽¹⁾

	Enterprise value (\$MM)	Three-year revenue CAGR	LTM			EV / LTM	
			Revenue (\$MM)	EBITDA (\$MM)	EBITDA margin	Revenue	EBITDA
Assisted Living / Long-Term Care (4)							
Brookdale Senior Living Inc. (NYSE:BKD)	\$6,448.7	(3.7) %	\$3,704.6	\$589.5	15.9 %	1.7 x	10.9 x
The Ensign Group, Inc. (NasdaqGS:ENSG)	2,176.7	19.0	1,947.8	160.8	8.3	1.1	13.5
Capital Senior Living Corporation (NYSE:CSU)	1,273.8	5.1	461.8	79.1	17.1	2.8	16.1
National HealthCare Corporation (AMEX:NHC)	1,045.2	3.0	974.9	101.9	10.5	1.1	10.3
Median		4.0 %			13.2 %	1.4 x	12.2 x
Hospitals (5)							
HCA Healthcare, Inc. (NYSE:HCA)	\$80,459.0	5.6 %	\$45,210.0	\$8,443.0	18.7 %	1.8 x	9.5 x
Tenet Healthcare Corporation (NYSE:THC)	17,314.7	2.3	18,769.0	2,512.0	13.4	0.9	6.9
Universal Health Services, Inc. (NYSE:UHS)	15,681.1	6.6	10,553.5	1,701.0	16.1	1.5	9.2
Community Health Systems, Inc. (NYSE:CYH)	13,848.9	(10.5)	13,975.0	806.0	5.8	1.0	17.2
LifePoint Health, Inc. (NasdaqGS:LPNT)	5,273.4	7.9	6,239.0	660.7	10.6	0.8	8.0
Median		5.6 %			13.4 %	1.0 x	9.2 x
Psychiatric and Behavioral Health (3)							
Acadia Healthcare Company, Inc. (NasdaqGS:ACHC)	\$6,204.7	27.9 %	\$2,949.2	\$593.8	20.1 %	2.1 x	10.4 x
Civitas Solutions, Inc. (NYSE:CIVI)	1,252.6	5.4	1,573.1	157.6	10.0	0.8	7.9
AAC Holdings, Inc. (NYSE:AAC)	488.7	25.3	310.6	\$41.8	13.5	1.6	11.7
Median		25.3 %			13.5 %	1.6 x	10.4 x
Rehabilitation Facilities (3)							
Encompass Health Corporation (NYSE:EHC)	\$10,280.5	15.3 %	\$4,109.2	\$865.3	21.1 %	2.5 x	11.9 x
Select Medical Holdings Corporation (NYSE:SEM)	5,756.8	14.2	4,719.3	561.0	11.9	1.2	10.3
U.S. Physical Therapy, Inc. (NYSE:USPH)	1,493.9	11.2	431.6	67.3	15.6	3.5	22.2
Median		14.2 %			15.6 %	2.5 x	11.9 x
Surgery Centers (1)							
Surgery Partners, Inc. (NasdaqGS:SGRY)	\$2,966.1	31.9 %	\$1,597.3	\$258.6	16.2 %	1.9 x	11.5 x
Median		31.9 %			16.2 %	1.9 x	11.5 x
Clinical Laboratories (3)							
Laboratory Corporation of America Holdings (NYSE:LH)	\$23,947.5	15.9 %	\$10,978.6	\$2,079.1	18.9 %	2.2 x	11.5 x
Quest Diagnostics Incorporated (NYSE:DGX)	18,410.1	1.2	7,831.0	1,571.0	20.1	2.4	11.7
Chemed Corporation (NYSE:CHE)	5,232.1	4.9	1,726.8	257.7	14.9	3.0	20.3
Median		3.1 %			17.5 %	2.7 x	16.0 x
Diagnostic Imaging (1)							
RadNet, Inc. (NasdaqGM:RDNT)	\$1,279.3	7.5 %	\$938.9	\$113.7	12.1 %	1.4 x	11.3 x
Median		7.5 %			12.1 %	1.4 x	11.3 x
Dialysis Services (3)							
Fresenius SE & Co. KGaA (DB:FRE)	\$63,982.4	8.9 %	\$39,079.5	\$6,625.8	17.0 %	1.6 x	9.7 x
DaVita Inc. (NYSE:DVA)	21,737.3	(5.3)	11,298.8	2,343.9	20.7	1.9	9.3
American Renal Associates Holdings, Inc. (NYSE:ARA)	1,204.8	9.6	793.9	178.8	22.5	1.5	6.7
Median		8.9 %			20.7 %	1.6 x	9.3 x
Disease Management (1)							
Tivity Health, Inc. (NasdaqGS:TVTY)	\$1,386.6	(1.7) %	\$578.9	\$133.2	23.0 %	2.4 x	10.4 x
Median		(1.7) %			23.0 %	2.4 x	10.4 x
Home Care / Hospice (4)							
Amedisys, Inc. (NasdaqGS:AMED)	\$3,911.7	9.5 %	\$1,579.9	\$150.8	9.5 %	2.5 x	25.9 x
LHC Group, Inc. (NasdaqGS:LHCG)	3,334.3	21.4	1,353.9	103.3	7.6	2.5	32.3
Addus HomeCare Corporation (NasdaqGS:ADUS)	864.0	11.2	456.9	36.1	7.9	1.9	24.0
BioScrip, Inc. (NasdaqGS:BIOS)	882.2	(9.0)	725.6	44.1	6.1	1.2	20.0
Median		10.4 %			7.8 %	2.2 x	25.0 x

LSHC sector breakdown: financial detail (cont.)⁽¹⁾

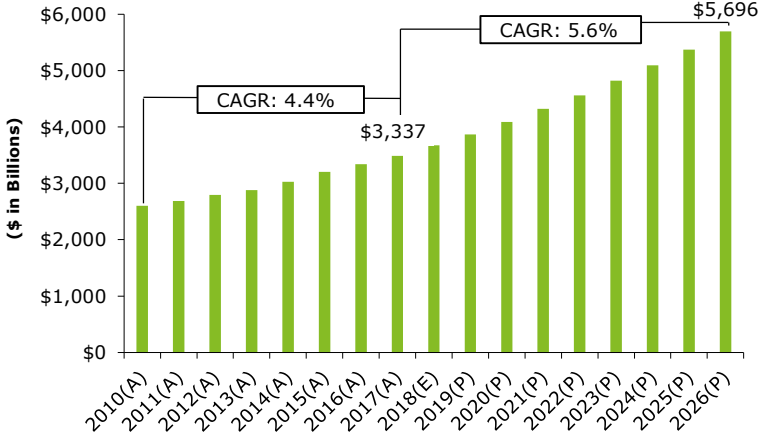
	Enterprise value (\$MM)	Three-year revenue CAGR	LTM			EV / LTM	
			Revenue (\$MM)	EBITDA (\$MM)	EBITDA margin	Revenue	EBITDA
Data/Analytics (3)							
Inovalon Holdings, Inc. (NasdaqGS:INOV)	\$2,416.9	7.1 %	\$476.0	\$78.5	16.5 %	5.1 x	30.8 x
National Research Corporation (NasdaqGS:NRC)	974.8	5.8	117.9	37.4	31.8	8.3	26.0
Castlight Health, Inc. (NYSE:CSLT)	298.9	33.5	145.4	(52.5)	NA	2.1	NA
Median		7.1 %			24.1 %	5.1 x	28.4 x
Tech-Enabled Services (10)							
Cerner Corporation (NasdaqGS:CERN)	\$20,746.8	10.5 %	\$5,148.9	\$1,291.5	25.1 %	4.0 x	16.1 x
Veeva Systems Inc. (NYSE:VEEV)	14,164.5	28.6	763.2	185.0	24.2	18.6	76.6
HealthEquity, Inc. (NasdaqGS:HQY)	5,457.5	34.1	258.2	81.8	31.7	21.1	66.7
athenahealth, Inc. (NasdaqGS:ATHN)	5,197.5	15.5	1,286.5	242.5	18.8	4.0	21.4
Allscripts Healthcare Solutions, Inc. (NasdaqGS:MDRX)	3,907.1	13.5	2,006.3	105.0	5.2	1.9	37.2
Omnicell, Inc. (NasdaqGS:OMCL)	2,915.4	17.8	757.9	71.7	9.5	3.8	40.7
HMS Holdings Corp. (NasdaqGS:HMSY)	2,796.0	7.5	562.4	115.9	20.6	5.0	24.1
Premier, Inc. (NasdaqGS:PINC)	2,389.9	18.2	1,661.3	695.8	41.9	1.4	3.4
NextGen Healthcare, Inc. (NasdaqGS:NXGN)	1,231.3	2.6	533.3	43.0	8.1	2.3	28.6
Computer Programs and Systems, Inc. (NasdaqGS:CPSI)	496.9	13.8	284.0	34.9	12.3	1.7	14.2
Median		14.6 %			19.7 %	3.9 x	26.4 x
Biotechnology (7)							
AbbVie Inc. (NYSE:ABBV)	\$176,079.1	13.8 %	\$30,946.0	\$12,954.0	41.9 %	5.7 x	13.6 x
Amgen Inc. (NasdaqGS:AMGN)	139,637.5	3.7	23,188.0	12,510.0	54.0	6.0	11.2
Gilead Sciences, Inc. (NasdaqGS:GILD)	103,700.3	(7.4)	23,197.0	12,229.0	52.7	4.5	8.5
Celgene Corporation (NasdaqGS:CELG)	82,079.9	18.8	14,122.0	5,061.0	35.8	5.8	16.2
Biogen Inc. (NasdaqGS:BIIB)	72,550.5	7.7	12,872.4	6,875.3	53.4	5.6	10.6
Regeneron Pharmaceuticals, Inc. (NasdaqGS:REGN)	42,580.4	22.2	6,202.6	2,430.4	39.2	6.9	17.5
Alexion Pharmaceuticals, Inc. (NasdaqGS:ALXN)	32,127.0	16.1	3,744.7	1,707.6	45.6	8.6	18.8
Median		13.8 %			45.6 %	5.8 x	13.6 x
Contract Research and Manufacturing (8)							
IQVIA Holdings Inc. (NYSE:IQV)	\$36,156.5	26.1 %	\$8,475.0	\$1,786.0	21.1 %	4.3 x	20.2 x
West Pharmaceutical Services, Inc. (NYSE:WST)	8,944.8	6.2	1,677.0	346.5	20.7	5.3	25.8
PRA Health Sciences, Inc. (NasdaqGS:PRAH)	8,275.0	21.5	2,351.6	383.2	16.3	3.5	21.6
ICON Public Limited Company (NasdaqGS:ICLR)	8,183.4	11.5	2,157.2	430.7	20.0	3.8	19.0
Charles River Laboratories International, Inc. (NYSE:CRL)	8,047.9	15.4	2,022.0	469.5	23.2	4.0	17.1
Syneos Health, Inc. (NasdaqGS:SYNH)	7,897.5	59.2	3,472.4	441.8	12.7	2.3	17.9
Medpace Holdings, Inc. (NasdaqGS:MEDP)	2,441.3	NA	531.4	118.8	22.3	4.6	20.6
Cambrex Corporation (NYSE:CBM)	2,004.1	14.1	586.9	186.4	31.8	3.4	10.8
Median		15.4 %			20.9 %	3.9 x	19.6 x
Pharmaceuticals (4)							
Pfizer Inc. (NYSE:PFE)	\$287,173.8	3.4 %	\$53,244.0	\$21,473.0	40.3 %	5.4 x	13.4 x
Merck & Co., Inc. (NYSE:MRK)	207,601.2	0.8	41,259.0	11,872.0	28.8	5.0	17.5
Eli Lilly and Company (NYSE:LLY)	112,959.7	6.8	23,873.9	7,377.0	30.9	4.7	15.3
Bristol-Myers Squibb Company (NYSE:BMJ)	103,141.1	9.7	21,600.0	5,971.0	27.6	4.8	17.3
Median		5.1 %			29.8 %	4.9 x	16.3 x
Tools and Services (8)							
Abbott Laboratories (NYSE:ABT)	\$147,192.5	13.0 %	\$29,575.0	\$6,840.0	23.1 %	5.0 x	21.5 x
Thermo Fisher Scientific Inc. (NYSE:TMO)	118,717.6	11.1	23,094.0	5,781.0	25.0	5.1	20.5
Becton, Dickinson and Company (NYSE:BDX)	91,514.5	16.2	14,747.0	4,269.0	28.9	6.2	21.4
Illumina, Inc. (NasdaqGS:ILMN)	52,526.3	14.4	3,103.0	1,019.0	32.8	16.9	51.5
Agilent Technologies, Inc. (NYSE:A)	22,421.8	5.9	4,809.0	1,169.0	24.3	4.7	19.2
Waters Corporation (NYSE:WAT)	13,834.8	5.4	2,379.7	823.7	34.6	5.8	16.8
PerkinElmer, Inc. (NYSE:PKI)	12,582.4	4.3	2,543.2	507.5	20.0	4.9	24.8
Bio-Rad Laboratories, Inc. (NYSE:BIO)	8,702.5	2.7	2,282.9	356.5	15.6	3.8	24.4
Median		8.5 %			24.7 %	5.1 x	21.5 x
Commercial Plans (6)							
UnitedHealth Group Incorporated (NYSE:UNH)	\$277,632.8	15.6 %	\$213,657.0	\$18,108.0	8.5 %	1.3 x	15.3 x
Anthem, Inc. (NYSE:ANTM)	87,441.2	5.7	90,580.8	6,082.8	6.7	1.0	14.4
Aetna Inc. (NYSE:AET)	67,280.1	0.6	60,743.0	6,096.0	10.0	1.1	11.0
Cigna Corporation (NYSE:CI)	52,985.9	5.9	43,574.0	4,967.0	11.4	1.2	10.7
Humana Inc. (NYSE:HUM)	43,685.5	1.8	55,009.0	3,435.0	6.2	0.8	12.7
Magellan Health, Inc. (NasdaqGS:MGLN)	2,334.8	18.5	6,729.8	236.9	3.5	0.3	9.9
Median		5.8 %			7.6 %	1.0 x	11.9 x
Government Plans (3)							
Centene Corporation (NYSE:CNC)	\$29,652.9	37.9 %	\$48,652.0	\$2,259.0	4.6 %	0.6 x	13.1 x
WellCare Health Plans, Inc. (NYSE:WCG)	11,947.6	9.4	18,033.2	789.9	4.4	0.7	15.1
Molina Healthcare, Inc. (NYSE:MOH)	7,435.8	17.6	18,921.0	886.0	4.7	0.4	8.4
Median		17.6 %			4.6 %	0.6 x	13.1 x
Payor Services (1)							
CorVel Corporation (NasdaqGS:CRVL)	\$1,042.5	4.9 %	\$571.1	\$71.3	12.5 %	1.8 x	14.6 x
Median		4.9 %			12.5 %	1.8 x	14.6 x

LSHC Sector breakdown: financial detail (cont.)⁽¹⁾

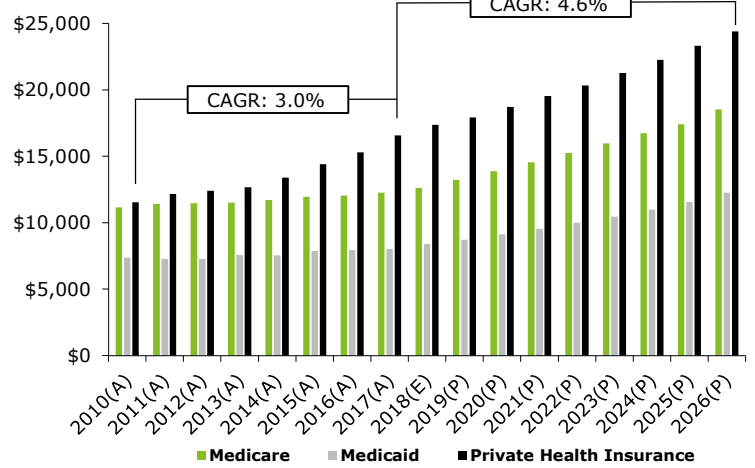
	Enterprise value (\$MM)	Three-year revenue CAGR	LTM			EV / LTM		
			Revenue (\$MM)	EBITDA (\$MM)	EBITDA margin	Revenue	EBITDA	
Pharmacy	Retail Pharmacy (3)							
	CVS Health Corporation (NYSE:CVS)	\$102,144.3	8.7 %	\$186,967.0	\$12,748.0	6.8 %	0.5 x	8.0 x
	Walgreens Boots Alliance, Inc. (NasdaqGS:WBA)	86,238.7	10.9	128,244.0	8,324.0	6.5	0.7	10.4
	Rite Aid Corporation (NYSE:RAD)	4,632.0	(8.2)	21,557.3	504.9	2.3	0.2	9.2
	Median		8.7 %			6.5 %	0.5 x	9.2 x
Pharmacy	Specialty Pharmacy (2)							
	Express Scripts Holding Company (NasdaqGS:ESRX)	\$65,832.1	(0.6) %	\$100,473.4	\$7,229.1	7.2 %	0.7 x	9.1 x
	Diplomat Pharmacy, Inc. (NYSE:DPLO)	2,004.8	24.0	5,038.6	94.1	1.9	0.4	21.3
	Median		11.7 %			4.5 %	0.5 x	15.2 x
Physicians / Staffing	Healthcare Staffing (3)							
	ASGN Incorporated (NYSE:ASGN)	\$5,218.4	17.4 %	\$2,909.8	\$317.9	10.9 %	1.8 x	16.4 x
	AMN Healthcare Services, Inc. (NYSE:AMN)	2,960.0	19.5	2,084.1	249.2	12.0	1.4	11.9
	Cross Country Healthcare, Inc. (NasdaqGS:CCRN)	369.4	4.5	863.0	39.7	4.6	0.4	9.3
	Median		17.4 %			10.9 %	1.4 x	11.9 x
Physicians / Staffing	Physician Practice Management (2)							
	Envision Healthcare Corporation (NYSE:EVHC)	\$9,541.3	52.5 %	\$8,143.5	\$1,044.6	12.8 %	1.2 x	9.1 x
	MEDNAX, Inc. (NYSE:MD)	5,948.9	11.5	3,597.5	589.5	16.4	1.7	10.1
	Median		32.0 %			14.6 %	1.4 x	9.6 x
Medical Devices and Products	Medical Devices and Products (16)							
	Johnson & Johnson (NYSE:JNJ)	\$390,884.6	3.9 %	\$80,684.0	\$26,760.0	33.2 %	4.8 x	14.6 x
	Medtronic plc (NYSE:MDT)	147,489.8	9.0	29,947.0	9,514.0	31.8	4.9	15.5
	Danaher Corporation (NYSE:DHR)	86,860.6	5.3	19,290.3	4,782.0	24.8	4.5	18.2
	Stryker Corporation (NYSE:SYK)	71,684.0	9.9	13,040.0	3,564.0	27.3	5.5	20.1
	Boston Scientific Corporation (NYSE:BSX)	60,495.7	9.3	9,500.0	2,571.0	27.1	6.4	23.5
	Baxter International Inc. (NYSE:BAX)	41,995.9	2.0	11,000.0	2,351.0	21.4	3.8	17.9
	Zimmer Biomet Holdings, Inc. (NYSE:ZBH)	35,434.8	19.6	7,927.4	2,705.2	34.1	4.5	13.1
	Edwards Lifesciences Corporation (NYSE:EW)	34,020.6	13.4	3,548.5	1,073.0	30.2	9.6	31.7
	ResMed Inc. (NYSE:RMD)	16,342.8	11.7	2,340.2	680.2	29.1	7.0	24.0
	Teleflex Incorporated (NYSE:TFX)	13,993.5	8.8	2,326.9	643.9	27.7	6.0	21.7
	Hologic, Inc. (NasdaqGS:HOLX)	13,780.1	6.7	3,207.4	1,037.5	32.3	4.3	13.3
	STERIS plc (NYSE:STE)	10,678.7	12.3	2,650.8	610.3	23.0	4.0	17.5
	DENTSPLY SIRONA Inc. (NasdaqGS:XRAY)	9,902.5	13.8	4,098.4	822.9	20.1	2.4	12.0
	Varian Medical Systems, Inc. (NYSE:VAR)	9,847.3	(2.3)	2,888.2	597.6	20.7	3.4	16.5
	Hill-Rom Holdings, Inc. (NYSE:HRC)	8,186.4	14.3	2,827.1	555.9	19.7	2.9	14.7
Integer Holdings Corporation (NYSE:ITGR)	4,125.9	30.9	1,521.2	287.1	18.9	2.7	14.4	
	Median		9.6 %			27.2 %	4.5 x	17.0 x
Medical Supplies Distribution	Medical Supplies Distribution (7)							
	McKesson Corporation (NYSE:MCK)	\$34,265.5	4.7 %	\$209,913.0	\$3,930.0	1.9 %	0.2 x	8.7 x
	Cardinal Health, Inc. (NYSE:CAH)	23,565.7	10.1	136,809.0	3,017.0	2.2	0.2	7.8
	AmerisourceBergen Corporation (NYSE:ABC)	22,396.1	7.4	163,762.5	2,384.6	1.5	0.1	9.4
	Henry Schein, Inc. (NasdaqGS:HSIC)	15,305.4	7.7	13,026.3	1,101.7	8.5	1.2	13.9
	Patterson Companies, Inc. (NasdaqGS:PDCO)	2,999.9	10.1	5,497.9	251.1	4.6	0.5	11.9
	Owens & Minor, Inc. (NYSE:OMI)	2,553.4	(0.5)	9,554.6	228.9	2.4	0.3	11.2
	Aceto Corporation (NasdaqGS:ACET)	285.5	9.4	711.4	15.6	2.2	0.4	18.3
	Median		7.7 %			2.2 %	0.3 x	11.2 x

LSHC sector data

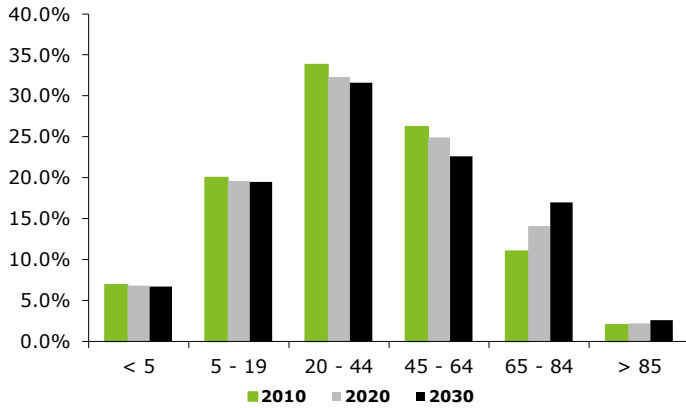
US health care spend⁽¹⁾



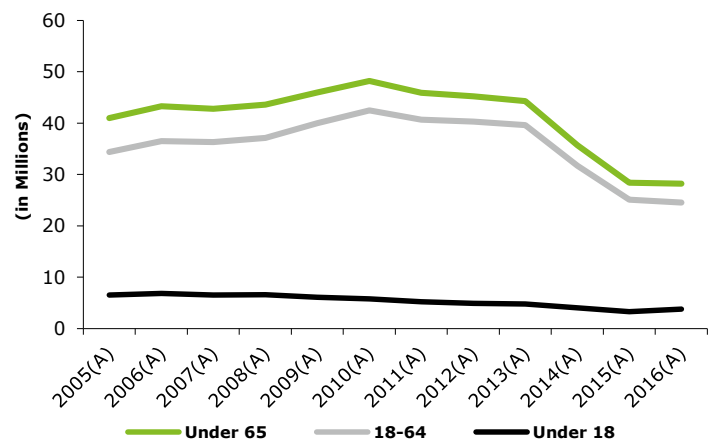
US health care spend by payor per capita⁽²⁾ (i)



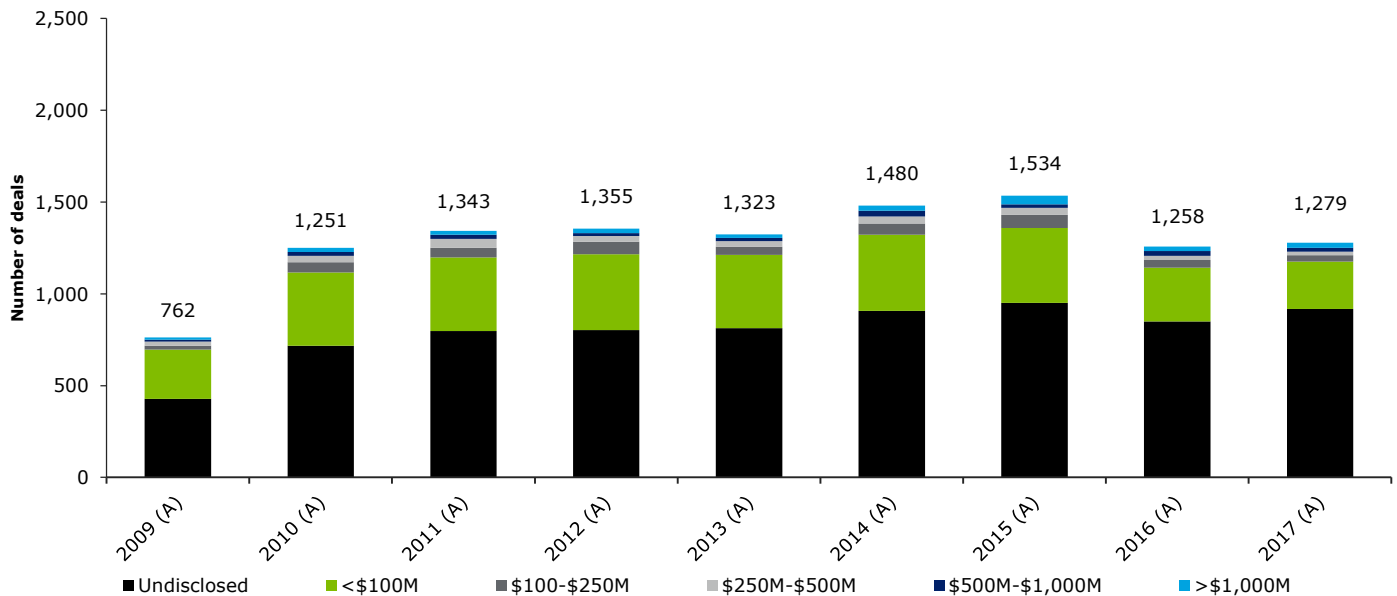
US population by age group⁽³⁾



Number of US uninsured by age group⁽⁴⁾



Annual LSHC M&A transactions by transaction size⁽⁵⁾



Note:

i) CAGR listed represents total Medicare, Medicaid and Private Health Insurance.

Sources cited

Page 2:

1. Deloitte Center for Health Solutions (DCHS). *Master Protocol Clinical Trial Drug Development Process*. October 2018.
2. Ibid.
3. Jack Cox, "Sanofi Completes Acquisition of Bioverativ Inc.," *Sanofi*, March 8, 2018, <https://www.cbinsights.com/research/flatiron-health-cancer-data-acquisitions-expert-intelligence/>, accessed October 10, 2018.
4. Daphne Karydas, "Allergan to Acquire Bonti Adding New Neurotoxin Programs to Medical Aesthetics Pipeline," *Allergan Investors*, June 12, 2018, <https://www.allergan.com/news/news/thomson-reuters/allergan-to-acquire-bonti-adding-new-neurotoxin-pr.aspx>, accessed October 10, 2018.

Page 3:

1. CapitalIQ. October 10, 2018. Data as of October 10, 2018.
2. Ibid.

Page 4:

1. CapitalIQ. October 10, 2018. Data as of October 10, 2018.

Page 5:

1. CapitalIQ. October 10, 2018. Data as of October 10, 2018.

Page 6:

1. CapitalIQ. October 10, 2018. Data as of October 10, 2018.

Page 7:

1. CapitalIQ. October 10, 2018. Data as of October 10, 2018.

Page 8:

1. "National Health Expenditures and Selected Economic Indicators," *Centers for Medicare & Medicaid, Office of the Actuary*. 2017.
2. Ibid.
3. "Population by Age and Sex," *U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplement*. December 2013.
4. "Early Release of Selected Estimates Based on Data From the 2016 National Health Interview Survey," *U.S. Department of Health and Human Services*. May 2018.
5. CapitalIQ. October 10, 2018. Data as of October 10, 2018.

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